



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

April 21, 2021

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

**Re: Private Well Sampling Results Letters – March 1 through April 15, 2021
La Crosse Airport PFAS Investigation
2850 Airport Dr, French Island, La Crosse, WI
WDNR BRRTS Activity # 02-32-587347**

Dear Mr. Rozeboom:

Please find attached 108 letters 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 March 1 and April 15, 2021. The attached table presents private well sampling points. It provides 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. The Expanded Sampling Area # column describes whether the well is in the original sampling area (0), the area immediately west (1), the area south of I-90 (2), the area west of the airport (3), or an area outside a targeted sampling area (OUT). 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 or otherwise anomalous. In some cases, a second sample was collected post-treatment of systems installed by the homeowners.

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

Sincerely,

A handwritten signature in blue ink that reads "John C. Storlie".

John C. Storlie, PG
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)
Randy Turtenwald (w/ table only)



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

March 27, 2021

[Redacted]

615 Plainview Road
La Crosse, WI 54603

Subject: Private Well Sampling Results – [Redacted]
615 Plainview Road, La Crosse, WI 54603
Tax parcel # 4-13-1
Sampling Point # 13-1-A and B
Sampling Date: March 2, 2021

Dear [Redacted]:

We have received and reviewed the test results for the sample collected at the above address. 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 Department of Natural Resources (DNR) is offering temporary bottled water to residents of French Island. It may be available to LCHA residents. You should consult with the DNR. Please go to this link to request bottled water from the DNR: <https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>. Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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 – Sample 13-1-A

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	22 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	26 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	11 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.8 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	61 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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	0.98 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

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

Sample Results – Sample 13-1-B

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	0.92 ppt	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	26 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	28 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	11 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	5.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	75 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

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoroundecanoic acid (PFUDA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.1 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>	<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
DNR Agreement for Requesting Temporary Emergency Water

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number

PFAS by LC/MS/MS

Client: **Pace Analytical Services, LLC**

Laboratory ID: **WC05113-001**

Description: **13-1-A**

Matrix: **Aqueous**

Date Sampled: **03/02/2021 1444**

Project Name: **LACROSSE WELLS 23 & 24**

Date Received: **03/05/2021**

Project Number: **40222881**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/10/2021 2058	JJG	03/08/2021 1129	84916

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.4	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	11		3.4	0.85	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	0.98	J	3.4	0.85	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.8		3.4	0.85	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	61		3.4	0.85	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	22		3.4	0.85	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	26		3.4	0.85	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		103	25-150
13C2_6:2FTS		92	25-150
13C2_8:2FTS		99	25-150
13C2_PFDaA		96	25-150
13C2_PFHxDA		90	25-150
13C2_PFTeDA		99	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-001
Description: 13-1-A	Matrix: Aqueous
Date Sampled: 03/02/2021 1444	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBS		95	25-150
13C3_PFHxS		105	25-150
13C3-HFPO-DA		100	25-150
13C4_PFBA		103	25-150
13C4_PFHpA		105	25-150
13C5_PFHxA		101	25-150
13C5_PFPeA		97	25-150
13C6_PFDA		100	25-150
13C7_PFUdA		93	25-150
13C8_PFOA		101	25-150
13C8_PFOS		102	25-150
13C8_PFOSA		98	10-150
13C9_PFNA		94	25-150
d-EtFOSA		77	10-150
d5-EtFOSAA		102	25-150
d9-EtFOSE		84	10-150
d-MeFOSA		74	10-150
d3-MeFOSAA		100	25-150
d7-MeFOSE		93	10-150

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis			S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-002
Description: 13-1-B	Matrix: Aqueous
Date Sampled: 03/02/2021 1448	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 2247	JJG	03/08/2021 1129	84916

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	11		3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	0.92	J	3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.1	J	3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	5.0		3.7	0.92	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	75		3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	26		3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUDA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	28		3.7	0.92	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		98	25-150
13C2_6:2FTS		92	25-150
13C2_8:2FTS		105	25-150
13C2_PFDa		88	25-150
13C2_PFHxDA		81	25-150
13C2_PFTeDA		88	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-002
Description: 13-1-B	Matrix: Aqueous
Date Sampled: 03/02/2021 1448	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		96	25-150
13C3_PFHxS		94	25-150
13C3-HFPO-DA		99	25-150
13C4_PFBa		106	25-150
13C4_PFHpA		99	25-150
13C5_PFHxA		96	25-150
13C5_PFPeA		105	25-150
13C6_PFDa		95	25-150
13C7_PFUdA		95	25-150
13C8_PFOA		101	25-150
13C8_PFOS		91	25-150
13C8_PFOsA		94	10-150
13C9_PFNa		91	25-150
d-EtFOsA		71	10-150
d5-EtFOsAA		91	25-150
d9-EtFOsE		82	10-150
d-MeFOsA		76	10-150
d3-MeFOsAA		94	25-150
d7-MeFOsE		94	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

██████████
500 Sanborn Street
La Crosse, WI 54603

Subject: Private Well Sampling Results
500 Sanborn Street, La Crosse, WI 54603
Tax parcel # 4-30-0
Sampling Point # 30-0
Sampling Date: March 3, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	3.0 ppt	20 ppt^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	45 ppt	20 ppt^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	10 ppt	20 ppt^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	4.7 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.1 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	80 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	6.5 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.6 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.7 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	9.8 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

BOTTLED WATER ACKNOWLEDGEMENT

500 Sanborn Street, 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@TheOSgrp.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: WC05113-014
Description: 30-0	Matrix: Aqueous
Date Sampled: 03/03/2021 1341	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/10/2021 0220	JJG	03/08/2021 1216	84931
2	SOP SPE	PFAS by ID SOP	1	03/13/2021 1704	JJG	03/12/2021 1044	85520

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	2
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.8	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	4.7		3.8	0.95	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	3.0	J	3.8	0.95	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.6	J	3.8	0.95	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.1		3.8	0.95	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	80		3.8	0.95	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.7	J	3.8	0.95	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	6.5		3.8	0.95	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	45		3.8	0.95	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	9.8		3.8	0.95	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	10		3.8	0.95	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
13C2_4:2FTS		92	25-150		106	25-150
13C2_6:2FTS		89	25-150		105	25-150
13C2_8:2FTS		107	25-150		110	25-150
13C2_PFDaA		99	25-150		98	25-150
13C2_PFHxDA		86	25-150		95	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-014
Description: 30-0	Matrix: Aqueous
Date Sampled: 03/03/2021 1341	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Run 1			Run 2		
	Q	% Recovery	Acceptance Limits	Q	% Recovery	Acceptance Limits
13C2_PFTeDA		93	25-150		99	25-150
13C3_PFBs		98	25-150		90	25-150
13C3_PFHxS		95	25-150		106	25-150
13C3-HFPO-DA		101	25-150		109	25-150
13C4_PFBa		104	25-150		108	25-150
13C4_PFHpA		106	25-150		115	25-150
13C5_PFHxA		96	25-150		113	25-150
13C5_PFPeA		103	25-150		105	25-150
13C6_PFDA		100	25-150		104	25-150
13C7_PFUdA		93	25-150		104	25-150
13C8_PFOA		102	25-150		111	25-150
13C8_PFOS		100	25-150		99	25-150
13C8_PFOsA		93	10-150		106	10-150
13C9_PFNAA		101	25-150		109	25-150
d-EtFOSA		57	10-150		64	10-150
d5-EtFOSAA		98	25-150		102	25-150
d9-EtFOSE		79	10-150		88	10-150
d-MeFOSA		81	10-150		78	10-150
d3-MeFOSAA		94	25-150		98	25-150
d7-MeFOSE		86	10-150		94	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

██████████
 2822 Lakeshore Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2822 Lakeshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-31-0
 Sampling Point # 31-0
 Sample Date: March 3, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	6.2 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	8.9 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2822 Lakeshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-31-0
 Sampling Point # 31-0
 March 27, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	12 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	Not Detected	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	32 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	3.1 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.7 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	4.4 ppt	None Established ^c
1H, 1H, 2H, 2H-perflurooctane sulfonic acid (6:2 FTS) CAS #: 27619-97-2	11 ppt ^{BL}	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
2822 Lakeshore Drive, La Crosse, WI 54603
Tax Parcel # 4-31-0
Sampling Point # 31-0
March 27, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-013
Description: 31-0	Matrix: Aqueous
Date Sampled: 03/03/2021 1301	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/10/2021 0158	JJG	03/08/2021 1216	84931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		8.1	2.0	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		8.1	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		8.1	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	11	B	8.1	2.0	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		8.1	2.0	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		8.1	2.0	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		8.1	2.0	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		8.1	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		8.1	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		8.1	2.0	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		8.1	2.0	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		16	4.1	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		8.1	2.0	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		8.1	2.0	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	12		4.1	1.0	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		8.1	2.0	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	32		4.1	1.0	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.7	J	4.1	1.0	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		8.1	2.0	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	3.1	J	4.1	1.0	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		8.1	2.0	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	6.2		4.1	1.0	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	4.4		4.1	1.0	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	8.9		4.1	1.0	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		99	25-150
13C2_6:2FTS		93	25-150
13C2_8:2FTS		101	25-150
13C2_PFDaA		100	25-150
13C2_PFHxDA		91	25-150
13C2_PFTeDA		94	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-013
Description: 31-0	Matrix: Aqueous
Date Sampled: 03/03/2021 1301	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		104	25-150
13C3_PFHxS		98	25-150
13C3-HFPO-DA		103	25-150
13C4_PFBa		105	25-150
13C4_PFHpA		108	25-150
13C5_PFHxA		104	25-150
13C5_PFPeA		106	25-150
13C6_PFDA		96	25-150
13C7_PFUdA		94	25-150
13C8_PFOA		108	25-150
13C8_PFOS		97	25-150
13C8_PFOSA		97	10-150
13C9_PFNA		108	25-150
d-EtFOSA		67	10-150
d5-EtFOSAA		99	25-150
d9-EtFOSE		81	10-150
d-MeFOSA		83	10-150
d3-MeFOSAA		100	25-150
d7-MeFOSE		98	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

██████████
2735 Grand Avenue
La Crosse, WI 54603

Subject: Private Well Sampling Results
2735 Grand Avenue, La Crosse, WI 54603
Tax parcel # 4-47-0
Sampling Point # 47-0
Sampling Date: March 2, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	22 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	10 ppt	20 ppt ^{a,b}
The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6		
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	6.6 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	6.1 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	48 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	4.0 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.3 ppt	None Established ^c

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	2.8 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	5.3 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-007
Description: 47-0	Matrix: Aqueous
Date Sampled: 03/02/2021 1434	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 2340	JJG	03/08/2021 1129	84916

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.4	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	6.6		3.4	0.86	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.3	J	3.4	0.86	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	6.1		3.4	0.86	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	48		3.4	0.86	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	2.8	J	3.4	0.86	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	4.0		3.4	0.86	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	22		3.4	0.86	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	5.3		3.4	0.86	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	10		3.4	0.86	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		98	25-150
13C2_6:2FTS		94	25-150
13C2_8:2FTS		97	25-150
13C2_PFDa		91	25-150
13C2_PFHxDA		83	25-150
13C2_PFTeDA		91	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-007
Description: 47-0	Matrix: Aqueous
Date Sampled: 03/02/2021 1434	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		99	25-150
13C3_PFHxS		95	25-150
13C3-HFPO-DA		99	25-150
13C4_PFBa		104	25-150
13C4_PFHpA		96	25-150
13C5_PFHxA		103	25-150
13C5_PFPeA		105	25-150
13C6_PFDa		91	25-150
13C7_PFUdA		97	25-150
13C8_PFOa		97	25-150
13C8_PFOs		100	25-150
13C8_PFOsA		96	10-150
13C9_PFNa		98	25-150
d-EtFOsA		64	10-150
d5-EtFOsAA		88	25-150
d9-EtFOsE		73	10-150
d-MeFOsA		66	10-150
d3-MeFOsAA		100	25-150
d7-MeFOsE		81	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

March 19, 2021

[REDACTED]
2725 Grand Avenue
La Crosse, WI 54603

Subject: Private Well Sampling Results
2725 Grand Avenue, La Crosse, WI 54603
Tax parcel # 4-49-0
Sampling Point # 49-0
Sampling Date: February 24, 2021

Dear [REDACTED]:

We have received and reviewed the test results for the sample collected at the above address. 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 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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	20 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	5.8 ppt	20 ppt ^{a,b}
The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6		
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.5 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.6 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	25 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	3.3 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	3.4 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	4.0 ppt	None Established ^c

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

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

March 19, 2021

Steve Osesek
The OS Group, LLC
N6746 McCurdy Road
Holmen, WI 54636

RE: Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40222546


Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on February 26, 2021. 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:

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

Sincerely,



Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC



REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: LACROSSE WELLS 23 & 24

Pace Project No.: 40222546

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40222546001	49-0	Water	02/24/21 13:22	02/26/21 00:00

REPORT OF LABORATORY ANALYSIS

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

(Please Print Clearly)

UPPER MIDWEST REGION

Page 1 of

MN: 612-607-1700 WI: 920-469-2436

40222546



Company Name: The OS Group
 Branch/Location: LaCrosse, WI
 Project Contact: Steven Oseseck
 Phone: 608-433-9386
 Project Number:
 Project Name: LaCrosse Wells 23+24
 Project State: WI
 Sampled By (Print): Kristie L Tweed
 Sampled By (Sign): Kristie L Tweed
 PO #:
 Regulatory Program:

CHAIN OF CUSTODY

***Preservation Codes**
 A=None B=HCL C=H2SO4 D=HNO3 E=DJ Water F=Methanol G=NaOH
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED? (YES/NO)

PRESERVATION (CODE)*

Y/N	PIG Label	Analysis/Request
		WI PFAS 36
		X

Data Package Options (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Air W = Water
 B = Biota DW = Drinking Water
 C = Charcoal GW = Ground Water
 O = Oil SW = Surface Water
 S = Soil WW = Waste Water
 Sl = Sludge WP = Wipe

PACE LAB#	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
001	49-0	02/24	1:22	DW

Quote #:
 Mail To Contact: Steven Oseseck
 Mail To Company: The OS Group
 Mail To Address: 444 21st St S
LaCrosse, WI 54601
 Invoice To Contact: Steven Oseseck
 Invoice To Company: The OS Group
 Invoice To Address: 444 21st St S
LaCrosse, WI 54601
 Invoice To Phone: 608-433-9386
 CLIENT COMMENTS
 LAB COMMENTS (Lab Use Only)
 Profile #



WB26011

KLC2

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)
 Date Needed:

Relinquished By: Kristie L Tweed Date/Time: 02/25/21 3:10
 Received By: Date/Time:
 Relinquished By: Date/Time:
 Received By: Date/Time:
 Relinquished By: Date/Time:
 Received By: Date/Time:
 Relinquished By: Date/Time:
 Received By: Date/Time:
 Relinquished By: UPS Date/Time: 2/26/21 09:15
 Received By: M. Hemeny Date/Time: 2/26/21 09:45

Transmit Prelim Rush Results by (complete what you want):
 Email #1:
 Email #2:
 Telephone:
 Fax:

Samples on HOLD are subject to special pricing and release of liability

PACE Project No. 40222546
 Receipt Temp = 27 °C
 Sample Receipt pH
 OK / Adjusted
 Cooler Custody Seal
 Present / Not Present
 Intact / Not Intact

Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: WI

Cert. Needed: Yes No

Owner Received Date: 2/26/2021 Results Requested By: 3/22/2021

Workorder: 40222546 Workorder Name: LACROSSE WELLS 23 & 24

Report To		Subcontract To				Requested Analysis																	
Christopher Hyska Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436		Pace Analytical West Columbia 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-9700																					
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers						WI 36 PFAS by ID	LAB USE ONLY										
						Unpreserved																	
1	49-0	PS	2/24/2021 13:22	40222546001	Water	2						X											
2																							
3																							
4																							
5																							
Transfers												Comments											
Transfers	Released By	Date/Time	Received By	Date/Time	IR77 - MDL reporting - Quote 23492																		
1					Direct ship - WB26011																		
2																							
3																							
Cooler Temperature on Receipt		°C	Custody Seal Y or N			Received on Ice Y or N			Samples Intact Y 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.



Samples Receipt Checklist (SRC) (ME001
Issuing Authority: Pace ENV - WCO

Sample Receipt Checklist (SRC)

Client: PACE

Cooler Inspected by/date: MEH / 02/26/2021

Lot #: WB26011

Means of receipt:		<input type="checkbox"/> Pace	<input type="checkbox"/> Client	<input checked="" type="checkbox"/> UPS	<input type="checkbox"/> FedEx	<input type="checkbox"/> Other: _____
<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?				
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?			
pH Strip ID: NA		Chlorine Strip ID: NA		Tested by: NA		
Original temperature upon receipt / Derived (Corrected) temperature upon receipt		%Solid Snap-Cup ID: NA				
2.7	/2.7	°C	NA	/NA	°C	NA /NA °C /NA °C
Method:		<input type="checkbox"/> Temperature Blank	<input checked="" type="checkbox"/> Against Bottles	IR Gun ID: 6 IR Gun Correction Factor: 0 °C		
Method of coolant:		<input checked="" type="checkbox"/> Wet Ice	<input type="checkbox"/> Ice Packs	<input type="checkbox"/> Dry Ice	<input type="checkbox"/> None	
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		5. Were proper custody procedures (relinquished/received) followed?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		6. Were sample IDs listed on the COC?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		7. Were sample IDs listed on all sample containers?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		8. Was collection date & time listed on the COC?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		9. Was collection date & time listed on all sample containers?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		10. Did all container label information (ID, date, time) agree with the COC?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		11. Were tests to be performed listed on the COC?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		13. Was adequate sample volume available?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?			
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any of the VOA vials?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/pheno/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?			
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		21. Was the quote number listed on the container label? If yes, Quote # NA			
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)						
Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.						
Time of preservation NA. If more than one preservative is needed, please note in the comments below.						
Sample(s) NA were received with bubbles >6 mm in diameter.						
Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: NA.						
SR barcode labels applied by: MEH Date: 02/26/2021						

Comments:



Report of Analysis

Pace Analytical Services, LLC
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222546

Lot Number: **WB26011**

Date Completed: 03/15/2021

Karen Coonan

03/16/2021 10:26 PM

Approved and released by:
Project Manager II: **Karen L. Coonan**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WB26011

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

The method blank had PFOA detected at a concentration that was above the MDL but below ½ the PQL. All samples associated with this method blank that have detections for PFOA have been flagged with a "B".

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Pace Analytical Services, LLC

Lot Number: WB26011

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222546

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	49-0	Aqueous	02/24/2021 1322	02/26/2021

(1 sample)

PACE ANALYTICAL SERVICES, LLC

Detection Summary
Pace Analytical Services, LLC
Lot Number: WB26011
Project Name: LACROSSE WELLS 23 & 24
Project Number: 40222546

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	49-0	Aqueous	PFBS	PFAS by ID	3.5	J	ng/L	5
001	49-0	Aqueous	PFHxS	PFAS by ID	4.6		ng/L	5
001	49-0	Aqueous	PFBA	PFAS by ID	25		ng/L	5
001	49-0	Aqueous	PFHpA	PFAS by ID	3.4	J	ng/L	6
001	49-0	Aqueous	PFHxA	PFAS by ID	3.3	J	ng/L	6
001	49-0	Aqueous	PFOA	PFAS by ID	20	B	ng/L	6
001	49-0	Aqueous	PFPeA	PFAS by ID	4.0		ng/L	6
001	49-0	Aqueous	PFOS	PFAS by ID	5.8		ng/L	6

(8 detections)

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB26011-001
Description: 49-0	Matrix: Aqueous
Date Sampled: 02/24/2021 1322	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/26/2021	Project Number: 40222546

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/02/2021 1632	MMM	03/01/2021 1010	84236

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.8	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.5	J	3.8	0.94	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.6		3.8	0.94	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	25		3.8	0.94	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	3.4	J	3.8	0.94	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	3.3	J	3.8	0.94	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	20	B	3.8	0.94	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	4.0		3.8	0.94	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	5.8		3.8	0.94	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		107	25-150
13C2_6:2FTS		109	25-150
13C2_8:2FTS		110	25-150
13C2_PFDaA		103	25-150
13C2_PFHxDA		98	25-150
13C2_PFTeDA		101	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB26011-001
Description: 49-0	Matrix: Aqueous
Date Sampled: 02/24/2021 1322	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/26/2021	Project Number: 40222546

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		115	25-150
13C3_PFHxS		101	25-150
13C3-HFPO-DA		101	25-150
13C4_PFBa		105	25-150
13C4_PFHpA		113	25-150
13C5_PFHxA		104	25-150
13C5_PFPeA		126	25-150
13C6_PFDA		97	25-150
13C7_PFUdA		114	25-150
13C8_PFOA		107	25-150
13C8_PFOS		106	25-150
13C8_PFOSA		79	10-150
13C9_PFNA		109	25-150
d-EtFOSA		117	10-150
d5-EtFOSAA		90	25-150
d9-EtFOSE		76	10-150
d-MeFOSA		85	10-150
d3-MeFOSAA		104	25-150
d7-MeFOSE		86	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: WQ84236-001

Matrix: Aqueous

Batch: 84236

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/01/2021 1010

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
11CI-PF3OUdS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
8:2 FTS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
6:2 FTS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
10:2 FTS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
4:2 FTS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
GenX	ND		1	8.0	2.0	ng/L	03/02/2021 1611
ADONA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
EtFOSA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
EtFOSAA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
EtFOSE	ND		1	8.0	2.0	ng/L	03/02/2021 1611
MeFOSA	ND		1	16	4.0	ng/L	03/02/2021 1611
MeFOSAA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
MeFOSE	ND		1	8.0	2.0	ng/L	03/02/2021 1611
PFBS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFDS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFHpS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFNS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFOSA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFPeS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFDOS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
PFHxS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFBA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFDA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFDoA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFHpA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFHxDA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
PFHxA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFNA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFODA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
PFOA	1.3	J	1	4.0	1.0	ng/L	03/02/2021 1611
PFPeA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFTeDA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFTTrDA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFUdA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFOS	ND		1	4.0	1.0	ng/L	03/02/2021 1611

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		101	25-150
13C2_6:2FTS		102	25-150
13C2_8:2FTS		115	25-150
13C2_PFDoA		101	25-150
13C2_PFHxDA		94	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MB

Sample ID: WQ84236-001

Matrix: Aqueous

Batch: 84236

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/01/2021 1010

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		100	25-150
13C3_PFBs		107	25-150
13C3_PFHxS		98	25-150
13C3-HFPO-DA		92	25-150
13C4_PFBa		104	25-150
13C4_PFHpA		104	25-150
13C5_PFHxA		102	25-150
13C5_PFPeA		114	25-150
13C6_PFDa		92	25-150
13C7_PFUdA		79	25-150
13C8_PFOA		93	25-150
13C8_PFOs		98	25-150
13C8_PFOsA		85	10-150
13C9_PFNa		103	25-150
d-EtFOsA		80	10-150
d5-EtFOsAA		94	25-150
d9-EtFOsE		89	10-150
d-MeFOsA		75	10-150
d3-MeFOsAA		98	25-150
d7-MeFOsE		75	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ84236-002

Matrix: Aqueous

Batch: 84236

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/01/2021 1010

Parameter	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	15	14		1	91	50-150	03/02/2021 1621
11CI-PF3OUdS	15	14		1	94	50-150	03/02/2021 1621
8:2 FTS	15	18		1	117	50-150	03/02/2021 1621
6:2 FTS	15	16		1	104	50-150	03/02/2021 1621
10:2 FTS	15	13		1	83	50-150	03/02/2021 1621
4:2 FTS	15	15		1	99	50-150	03/02/2021 1621
GenX	32	35		1	110	50-150	03/02/2021 1621
ADONA	15	15		1	102	50-150	03/02/2021 1621
EtFOSA	16	17		1	108	50-150	03/02/2021 1621
EtFOSAA	16	18		1	115	50-150	03/02/2021 1621
EtFOSE	16	16		1	99	50-150	03/02/2021 1621
MeFOSA	16	16		1	98	50-150	03/02/2021 1621
MeFOSAA	16	16		1	98	50-150	03/02/2021 1621
MeFOSE	16	13		1	82	50-150	03/02/2021 1621
PFBS	14	14		1	98	50-150	03/02/2021 1621
PFDS	15	14		1	92	50-150	03/02/2021 1621
PFHpS	15	16		1	103	50-150	03/02/2021 1621
PFNS	15	14		1	93	50-150	03/02/2021 1621
PFOSA	16	16		1	98	50-150	03/02/2021 1621
PFPeS	15	14		1	90	50-150	03/02/2021 1621
PFDOS	15	15		1	97	50-150	03/02/2021 1621
PFHxS	15	13		1	92	50-150	03/02/2021 1621
PFBA	16	16		1	98	50-150	03/02/2021 1621
PFDA	16	14		1	86	50-150	03/02/2021 1621
PFDoA	16	17		1	104	50-150	03/02/2021 1621
PFHpA	16	14		1	89	50-150	03/02/2021 1621
PFHxDA	16	16		1	103	50-150	03/02/2021 1621
PFHxA	16	18		1	111	50-150	03/02/2021 1621
PFNA	16	16		1	97	50-150	03/02/2021 1621
PFODA	16	18		1	114	50-150	03/02/2021 1621
PFOA	16	15		1	94	50-150	03/02/2021 1621
PFPeA	16	15		1	95	50-150	03/02/2021 1621
PFTeDA	16	17		1	104	50-150	03/02/2021 1621
PFTTrDA	16	16		1	101	50-150	03/02/2021 1621
PFUdA	16	15		1	96	50-150	03/02/2021 1621
PFOS	15	16		1	105	50-150	03/02/2021 1621
Surrogate	Q	% Rec	Acceptance Limit				
13C2_4:2FTS		94	25-150				
13C2_6:2FTS		104	25-150				
13C2_8:2FTS		94	25-150				
13C2_PFDoA		87	25-150				
13C2_PFHxDA		86	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ84236-002

Matrix: Aqueous

Batch: 84236

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/01/2021 1010

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		90	25-150
13C3_PFBs		96	25-150
13C3_PFHxS		96	25-150
13C3-HFPO-DA		93	25-150
13C4_PFBa		100	25-150
13C4_PFHpA		106	25-150
13C5_PFHxA		86	25-150
13C5_PFPeA		113	25-150
13C6_PFDa		95	25-150
13C7_PFUdA		94	25-150
13C8_PFOA		100	25-150
13C8_PFOs		89	25-150
13C8_PFOsA		76	10-150
13C9_PFNa		95	25-150
d-EtFOsA		76	10-150
d5-EtFOsAA		84	25-150
d9-EtFOsE		90	10-150
d-MeFOsA		62	10-150
d3-MeFOsAA		80	25-150
d7-MeFOsE		79	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MS

Sample ID: WB26011-001MS

Matrix: Aqueous

Batch: 84236

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/01/2021 1010

Parameter	Sample Amount (ng/L)	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	ND	15	12		1	84	50-150	03/02/2021 1643
11CI-PF3OUdS	ND	15	14		1	96	50-150	03/02/2021 1643
8:2 FTS	ND	15	14		1	94	50-150	03/02/2021 1643
6:2 FTS	ND	15	13		1	89	50-150	03/02/2021 1643
10:2 FTS	ND	15	16		1	104	50-150	03/02/2021 1643
4:2 FTS	ND	15	16		1	110	50-150	03/02/2021 1643
GenX	ND	31	28		1	91	50-150	03/02/2021 1643
ADONA	ND	15	14		1	98	50-150	03/02/2021 1643
EtFOSA	ND	16	17		1	107	50-150	03/02/2021 1643
EtFOSAA	ND	16	14		1	92	50-150	03/02/2021 1643
EtFOSE	ND	16	16		1	104	50-150	03/02/2021 1643
MeFOSA	ND	16	18		1	117	50-150	03/02/2021 1643
MeFOSAA	ND	16	12		1	80	50-150	03/02/2021 1643
MeFOSE	ND	16	15		1	98	50-150	03/02/2021 1643
PFBS	3.5	14	18		1	108	50-150	03/02/2021 1643
PFDS	ND	15	14		1	90	50-150	03/02/2021 1643
PFHpS	ND	15	14		1	96	50-150	03/02/2021 1643
PFNS	ND	15	14		1	90	50-150	03/02/2021 1643
PFOSA	ND	16	16		1	104	50-150	03/02/2021 1643
PFPeS	ND	15	15		1	101	50-150	03/02/2021 1643
PFDOS	ND	15	13		1	89	50-150	03/02/2021 1643
PFHxS	4.6	14	18		1	93	50-150	03/02/2021 1643
PFBA	25	16	41		1	104	50-150	03/02/2021 1643
PFDA	ND	16	11		1	72	50-150	03/02/2021 1643
PFDoA	ND	16	14		1	89	50-150	03/02/2021 1643
PFHpA	3.4	16	16		1	79	50-150	03/02/2021 1643
PFHxDA	ND	16	16		1	100	50-150	03/02/2021 1643
PFHxA	3.3	16	17		1	86	50-150	03/02/2021 1643
PFNA	ND	16	17		1	112	50-150	03/02/2021 1643
PFODA	ND	16	16		1	100	50-150	03/02/2021 1643
PFOA	20	16	38		1	117	50-150	03/02/2021 1643
PFPeA	4.0	16	18		1	87	50-150	03/02/2021 1643
PFTeDA	ND	16	15		1	93	50-150	03/02/2021 1643
PFTrDA	ND	16	14		1	91	50-150	03/02/2021 1643
PFUdA	ND	16	13		1	81	50-150	03/02/2021 1643
PFOS	5.8	15	20		1	96	50-150	03/02/2021 1643

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		99	25-150
13C2_6:2FTS		113	25-150
13C2_8:2FTS		90	25-150
13C2_PFDoA		97	25-150
13C2_PFHxDA		98	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MS

Sample ID: WB26011-001MS

Batch: 84236

Analytical Method: PFAS by ID SOP

Matrix: Aqueous

Prep Method: SOP SPE

Prep Date: 03/01/2021 1010

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		103	25-150
13C3_PFBs		105	25-150
13C3_PFHxS		104	25-150
13C3-HFPO-DA		99	25-150
13C4_PFBa		104	25-150
13C4_PFHpA		101	25-150
13C5_PFHxA		107	25-150
13C5_PFPeA		117	25-150
13C6_PFDa		94	25-150
13C7_PFUdA		112	25-150
13C8_PFOA		100	25-150
13C8_PFOs		96	25-150
13C8_PFOsA		80	10-150
13C9_PFNa		93	25-150
d-EtFOsA		91	10-150
d5-EtFOsAA		92	25-150
d9-EtFOsE		93	10-150
d-MeFOsA		82	10-150
d3-MeFOsAA		86	25-150
d7-MeFOsE		87	10-150

LOQ = Limit of Quantitation

DL = Detection Limit

ND = Not detected at or above the DL

J = Estimated result < LOQ and ≥ DL

* = RSD is out of criteria

N = Recovery is out of criteria

P = The RPD between two GC columns exceeds 40%

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents

(Please Print Clearly)

Company Name: The OS Group
 Branch/Location: LaCrosse, WI
 Project Contact: Steven Oseseck
 Phone: 608-433-9386
 Project Number:
 Project Name: LaCrosse Wells 23+24
 Project State: WI
 Sampled By (Print): Kristie L Tweed
 Sampled By (Sign): Kristie L Tweed
 PO #:
 Regulatory Program:



UPPER MIDWEST REGION
 MN: 612 607 1700 WI: 620-469-2436

Page 1 of 1

CHAIN OF CUSTODY

Preservation Codes			
A=None	B=HCL	C=H2SO4	D=HNO3
E=DI Water	F=Methanol	G=NaOH	
H=Sodium Borofluoride Solution	I=Sodium Thiosulfate	J=Other	

FILTERED? (YES/NO)	Y/N	PKT Label	Analysis Requested	Matrix
			WI PFAS 36	DW

Quote #:
 Mail To Contact: Steven Oseseck
 Mail To Company: The OS Group
 Mail To Address: 444 21st St S
LaCrosse, WI 54601
 Invoice To Contact: Steven Oseseck
 Invoice To Company: The OS Group
 Invoice To Address: 444 21st St S
LaCrosse, WI 54601
 Invoice To Phone: 608-433-9386

CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #

Data Package Options (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Pb W = Water
 B = Dioxin LW = Drinking Water
 C = Cholesterol GW = Ground Water
 D = Oil SW = Surface Water
 E = Sediment WW = Waste Water
 F = Sulfide WP = Waste

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
	<u>49-0</u>	<u>07/24</u>	<u>1:22</u>	<u>DW</u>



WB26011

KLC2

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed:	Relinquished By: <u>Kristie L Tweed</u> Date/Time: <u>07/25/21 3:10</u>	Received By:	Date/Time:	PACE Project No.	
	Relinquished By:	Date/Time:	Received By:		Date/Time:
	Relinquished By:	Date/Time:	Received By:		Date/Time:
Transmit Prelim Rush Results by (complete what you want):	Relinquished By:	Date/Time:	Received By:	Date/Time:	Receipt Temp: <u>27 °C</u>
Email #1:	Relinquished By:	Date/Time:	Received By:	Date/Time:	Sample Receipt pH OK / Adjusted
Email #2:	Relinquished By:	Date/Time:	Received By:	Date/Time:	Cooler Custody Seal Present / Not Present
Telephone:	Relinquished By:	Date/Time:	Received By:	Date/Time:	Intact / Not Intact
Fax:	Relinquished By: <u>UPS</u> Date/Time: <u>2/26/21 09:15</u>	Received By: <u>M. Henry</u> Date/Time: <u>7/26/21</u>			

C019a(27.Ju.2006)

Version 3.0 06/14/08
 ORIGINAL

PACE ANALYTICAL SERVICES, LLC

PACE ANALYTICAL SERVICES, LLC



Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: PACE Cooler Inspected by/date: MEH / 02/26/2021 Lot #: WB26011

Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other:	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: <u>NA</u> Chlorine Strip ID: <u>NA</u> Tested by: <u>NA</u>	
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: <u>NA</u> <u>2.7 / 2.7</u> °C <u>NA / NA</u> °C <u>NA / NA</u> °C <u>NA / NA</u> °C	
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: <u>5</u> IR Gun Correction Factor: <u>0</u> °C	
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/8" or 6mm in diameter) in any of the VOA vials?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TRN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote # <u>NA</u>
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)	
Sample(s) <u>NA</u> were received incorrectly preserved and were adjusted accordingly in sample receiving with <u>NA</u> mL. of circle one: H ₂ SO ₄ , HNO ₃ , HCl, NaOH using SR # <u>NA</u>	
Time of preservation <u>NA</u> . If more than one preservative is needed, please note in the comments below.	
Sample(s) <u>NA</u> were received with bubbles >6 mm in diameter.	
Samples(s) <u>NA</u> were received with TRC > 0.5 mg/L (If #19 is <i>no</i>) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: <u>NA</u>	
SR barcode labels applied by: <u>MEH</u> Date: <u>02/26/2021</u>	

Comments:

Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: WI

Cert. Needed: Yes No

Owner Received Date: 2/26/2021 Results Requested By: 3/22/2021

Workorder: 40222546 Workorder Name: LACROSSE WELLS 23 & 24

Report To		Subcontract To		Requested Analysis																		
Christopher Hyska Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)489-2438		Pace Analytical West Columbia 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-8700		<div style="text-align: right;">WB26011</div>																		
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers				WT 36 PENS by ID	LAB USE ONLY											
						1	2	3	4													
1	49 J	PS	2/24/2021 13:22	40222546001	Water	2				X												
2																						
3																						
4																						
5																						

Transfers					Comments					
Released By	Date/Time	Received By	Date/Time							
					IR77 - MDL reporting - Quote 23492					
					Direct ship - WB26011					
UPS	2/26/21 09:15	<i>Ang Hopewell</i>	2/26/21 9:15		T = 2.7°C					
Cooler Temperature on Receipt	°C	Custody Seal	Y or N	Received on Ice	Y or N	Samples Intact				Y 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.



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

April 13, 2021

██████████
2724 Grand Avenue
La Crosse, WI 54603

Subject: Private Well Sampling Results
2724 Grand Avenue, La Crosse, WI 54603
Tax parcel # 4-56-0
Sampling Point # 56-0
Sampling Date: March 23, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.1 ppt	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	14 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	5.8 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.7 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.9 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	15 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	2.4 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.1 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	3.1 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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) ^f Detected in the method blank. Possible lab contaminant.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: **Pace Analytical Services, LLC**

Laboratory ID: **WC26011-002**

Description: **56-0**

Matrix: **Aqueous**

Date Sampled: **03/23/2021 1122**

Project Name: **LACROSSE WELLS 23 & 24**

Date Received: **03/26/2021**

Project Number: **40223969**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	04/01/2021 0111	MMM	03/30/2021 1055	87283

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	2.7	J	3.5	0.87	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.1	J	3.5	0.87	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.9	J	3.5	0.87	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	15		3.5	0.87	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.1	J	3.5	0.87	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.4	J	3.5	0.87	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	14		3.5	0.87	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	3.1	J	3.5	0.87	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-undecanoic acid (PFUDA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	5.8		3.5	0.87	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		116	25-150
13C2_6:2FTS		123	25-150
13C2_8:2FTS		103	25-150
13C2_PFDa		112	25-150
13C2_PFHxDA		100	25-150
13C2_PFTeDA		96	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC26011-002
Description: 56-0	Matrix: Aqueous
Date Sampled: 03/23/2021 1122	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/26/2021	Project Number: 40223969

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		89	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		107	25-150
13C4_PFBa		113	25-150
13C4_PFHpA		123	25-150
13C5_PFHxA		109	25-150
13C5_PFPeA		105	25-150
13C6_PFDA		106	25-150
13C7_PFUdA		109	25-150
13C8_PFOA		119	25-150
13C8_PFOS		95	25-150
13C8_PFOsA		104	10-150
13C9_PFNAs		111	25-150
d-EtFOsA		75	10-150
d5-EtFOsAA		104	25-150
d9-EtFOsE		90	10-150
d-MeFOsA		92	10-150
d3-MeFOsAA		115	25-150
d7-MeFOsE		98	10-150

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis			S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

March 30, 2021

██████████
2613 Del Ray Avenue
La Crosse, WI 54603

Subject: Private Well Sampling Results
2613 Del Ray Avenue, La Crosse, WI 54603
Tax parcel # 4-79-0
Sampling Point # 79-0
Sampling Date: March 9, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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). **Please note, in addition to the PFAS samples, we also collected two total lead samples from your residence; one prior to the pressure tank and one from the kitchen faucet. Results indicated 120 ug/L in the “pre-pressure tank” sample and <0.24 ug/L in the sample collected from the kitchen faucet. The NR140 Public Health Enforcement Standard for lead is 15 ug/L of which the kitchen faucet sample was well below.**

PFAS Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	37 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	17 ppt	20 ppt ^{a,b}
The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6		
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	5.0 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	5.3 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	88 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	4.9 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.5 ppt	None Established ^c

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.0 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	8.1 ppt	None Established ^c
1H, 1H, 2H, 2H-perflurooctane sulfonic acid (6:2 FTS) CAS # 27619-97-2	2.4 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-018
Description: 79-0	Matrix: Aqueous
Date Sampled: 03/09/2021 1503	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/17/2021 1914	JJG	03/16/2021 1147	85809

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	2.4	J	7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	5.0		3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.5	J	3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	5.3		3.6	0.90	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	88		3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.0	J	3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	4.9		3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	37		3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	8.1		3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	17		3.6	0.90	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		101	25-150
13C2_6:2FTS		88	25-150
13C2_8:2FTS		94	25-150
13C2_PFDaA		96	25-150
13C2_PFHxDA		104	25-150
13C2_PFTeDA		96	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-018
Description: 79-0	Matrix: Aqueous
Date Sampled: 03/09/2021 1503	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		84	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		100	25-150
13C4_PFBa		103	25-150
13C4_PFHpA		107	25-150
13C5_PFHxA		103	25-150
13C5_PFPeA		101	25-150
13C6_PFDA		96	25-150
13C7_PFUdA		96	25-150
13C8_PFOA		103	25-150
13C8_PFOS		91	25-150
13C8_PFOSA		112	10-150
13C9_PFNA		102	25-150
d-EtFOSA		95	10-150
d5-EtFOSAA		98	25-150
d9-EtFOSE		88	10-150
d-MeFOSA		85	10-150
d3-MeFOSAA		104	25-150
d7-MeFOSE		94	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

ANALYTICAL RESULTS

Project: LACROSSE WELLS 23 & 24

Pace Project No.: 40223221

Sample: 79-0 **Lab ID: 40223221018** Collected: 03/09/21 15:03 Received: 03/11/21 11:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS									
Analytical Method: EPA 6020 Preparation Method: EPA 3010 Pace Analytical Services - Green Bay									
Lead	<0.24	ug/L	1.0	0.24	1	03/17/21 05:51	03/18/21 18:52	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LACROSSE WELLS 23 & 24

Pace Project No.: 40223221

Sample: 79-0 PRE-PRESSURE TANK **Lab ID: 40223221019** Collected: 03/09/21 15:04 Received: 03/11/21 11:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS									
Analytical Method: EPA 6020 Preparation Method: EPA 3010 Pace Analytical Services - Green Bay									
Lead	120	ug/L	1.0	0.24	1	03/17/21 05:51	03/18/21 18:59	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks**.

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

March 23, 2021

██████████
519 Plainview Road
La Crosse, WI 54603

Subject: Private Well Sampling Results
519 Plainview Road, La Crosse, WI 54603
Tax parcel # 4-83-0
Sampling Point # 83-0
Sampling Date: March 9, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	38 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	14 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	6.1 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	5.5 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	96 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	5.1 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.8 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.4 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	7.7 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

March 23, 2021

Steve Osesek
The OS Group, LLC
N6746 McCurdy Road
Holmen, WI 54636

RE: Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40223218

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on March 11, 2021. 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:

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

Sincerely,



Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC



REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: LACROSSE WELLS 23 & 24

Pace Project No.: 40223218

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40223218001	83-0	Water	03/09/21 15:18	03/11/21 11:00

REPORT OF LABORATORY ANALYSIS

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

-(Please Print Clearly)-

Company Name:	The OS Group LLC
Branch/Location:	LaCrosse WI
Project Contact:	Steven Osesek
Phone:	608-433-9388
Project Number:	-
Project Name:	LACROSSE WELLS 23 & 24
Project State:	WI
Sampled By (Print):	<i>STEVEN OSESEK</i>
Sampled By (Sign):	<i>Steven Osesek</i>
PO #:	-



UPPER MIDWEST REGION
 MN: 612-607-1700 WI: 920-469-2436

COC No.

CHAIN OF CUSTODY

<small>*Preservation Codes</small>					
A=None	B=HCL	C=H2SO4	D=HNO3	E=DI Water	F=Methanol
G=NaOH					
<small>H=Sodium Bisulfate Solution</small>			<small>I=Sodium Thiosulfate J=Other</small>		

FILTERED?
(YES/NO)
 PRESERVATION
(CODE)*

Y/N	N														
Pick Letter	A														
Analyses Requested	WI 36 PFAS by ID														

Quote #:	-	
Mail To Contact:	Steven Osesek	
Mail To Company:	The OS Group LLC	
Mail To Address:	444 21st St S LaCrosse, WI 54601	
Invoice To Contact:	Steven Osesek	
Invoice To Company:	The OS Group LLC	
Invoice To Address:	444 21st St S LaCrosse, WI 54601	
Invoice To Phone:	608-433-9388	
CLIENT COMMENTS	LAB COMMENTS	Profile #
	(Lab Use Only)	4532

Data Package Options (billable)	MS/MSD	Matrix Codes	
<input type="checkbox"/> EPA Level III	<input type="checkbox"/> On your sample (billable)	A = Air	W = Water
<input type="checkbox"/> EPA Level IV	<input type="checkbox"/> NOT needed on your sample	B = Biota	DW = Drinking Water
		C = Charcoal	GW = Ground Water
		O = Oil	SW = Surface Water
		S = Soil	WW = Waste Water
		SI = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX	An	I	D	E	F	G	H	I	J	K	L
		DATE	TIME												
<i>001</i>	<i>83-0</i>	<i>3-9-21</i>	<i>3:18</i>	<i>OW</i>											

10 Day Rush

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed:	Relinquished By: <i>Steven Osesek</i> Date/Time: <i>3/10/21 3:56</i>	Received By:	Date/Time:	PACE Project No. Y0223218 Receipt Temp = <i>ROT</i> °C Sample Receipt pH OK / Adjusted Cooler Custody Seal Present / Not Present Intact / Not Intact
Transmit Prelim Rush Results by (complete what you want):	Relinquished By: <i>EldExGround</i> Date/Time: <i>3-11-21 1100</i>	Received By: <i>Michelle J...</i> Date/Time: <i>3-11-21 1100</i>	Date/Time:	
Email #1:	Relinquished By:	Received By:	Date/Time:	
Email #2:	Relinquished By:	Received By:	Date/Time:	
Telephono:	Relinquished By:	Received By:	Date/Time:	
Fax:	Relinquished By:	Received By:	Date/Time:	
Samples on HOLD are subject to special pricing and release of liability	Relinquished By:	Received By:	Date/Time:	

Sample Preservation Receipt Form

Project # 40223218

Client Name: The OS Group, LLC

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:

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	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU								SP5T	ZPLC	GN	
001																																		2.5 / 5 / 10
002																																		2.5 / 5 / 10
003																																		2.5 / 5 / 10
004																																		2.5 / 5 / 10
005																																		2.5 / 5 / 10
006																																		2.5 / 5 / 10
007																																		2.5 / 5 / 10
008																																		2.5 / 5 / 10
009																																		2.5 / 5 / 10
010																																		2.5 / 5 / 10
011																																		2.5 / 5 / 10
012																																		2.5 / 5 / 10
013																																		2.5 / 5 / 10
014																																		2.5 / 5 / 10
015																																		2.5 / 5 / 10
016																																		2.5 / 5 / 10
017																																		2.5 / 5 / 10
018																																		2.5 / 5 / 10
019																																		2.5 / 5 / 10
020																																		2.5 / 5 / 10

Handwritten notes:
 MR
 3/11/21

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	VG9A	40 mL clear ascorbic	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
AG4U	120 mL amber glass unpres	BP3S	250 mL plastic H2SO4	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG5U	100 mL amber glass unpres			VG9D	40 mL clear vial DI	ZPLC	ziploc bag
AG2S	500 mL amber glass H2SO4					GN	
BG3U	250 mL clear glass unpres						

Sample Condition Upon Receipt Form (SCUR)

Client Name: The OS Group LLC

Project #:

WO#: 40223218



40223218

Courier: CS Logistics Fed Ex Speedee UPS Walto
 Client Pace Other: _____

Tracking #: 7846 0280 3219

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 - N/A Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature Uncorr: RO2 / Corr: _____

Temp Blank Present: yes no

Biological Tissue is Frozen: yes no

Person examining contents:

Date: 3-11-21 / Initials: MUR

Labeled By Initials: [Signature]

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

If checked, see attached form for additional comments

Client Notification/ Resolution:

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



Report of Analysis

Pace Analytical Services, LLC
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40223218

Lot Number: **WC12012**

Date Completed: 03/23/2021

Karen Coonan

03/23/2021 4:11 PM

Approved and released by:
Project Manager II: **Karen L. Coonan**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WC12012

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Pace Analytical Services, LLC

Lot Number: WC12012

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40223218

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	83-0	Aqueous	03/09/2021 1518	03/12/2021

(1 sample)

PACE ANALYTICAL SERVICES, LLC

Detection Summary
Pace Analytical Services, LLC
Lot Number: WC12012
Project Name: LACROSSE WELLS 23 & 24
Project Number: 40223218

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	83-0	Aqueous	PFBS	PFAS by ID	6.1		ng/L	5
001	83-0	Aqueous	PFPeS	PFAS by ID	1.8	J	ng/L	5
001	83-0	Aqueous	PFHxS	PFAS by ID	5.5		ng/L	5
001	83-0	Aqueous	PFBA	PFAS by ID	96		ng/L	5
001	83-0	Aqueous	PFHpA	PFAS by ID	1.4	J	ng/L	6
001	83-0	Aqueous	PFHxA	PFAS by ID	5.1		ng/L	6
001	83-0	Aqueous	PFOA	PFAS by ID	38		ng/L	6
001	83-0	Aqueous	PFPeA	PFAS by ID	7.7		ng/L	6
001	83-0	Aqueous	PFOS	PFAS by ID	14		ng/L	6

(9 detections)

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12012-001
Description: 83-0	Matrix: Aqueous
Date Sampled: 03/09/2021 1518	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223218

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/16/2021 1828	SES	03/15/2021 1045	85709

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	6.1		3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.8	J	3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	5.5		3.5	0.88	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	96		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.4	J	3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	5.1		3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	38		3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	7.7		3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	14		3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		98	25-150
13C2_6:2FTS		102	25-150
13C2_8:2FTS		109	25-150
13C2_PFDaA		96	25-150
13C2_PFHxDA		114	25-150
13C2_PFTeDA		112	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12012-001
Description: 83-0	Matrix: Aqueous
Date Sampled: 03/09/2021 15:18	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223218

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		91	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		103	25-150
13C4_PFBa		114	25-150
13C4_PFHpA		108	25-150
13C5_PFHxA		111	25-150
13C5_PFPeA		111	25-150
13C6_PFDa		111	25-150
13C7_PFUdA		113	25-150
13C8_PFOA		105	25-150
13C8_PFOS		108	25-150
13C8_PFOsA		107	10-150
13C9_PFNa		112	25-150
d-EtFOSA		91	10-150
d5-EtFOSAA		105	25-150
d9-EtFOSE		102	10-150
d-MeFOSA		82	10-150
d3-MeFOSAA		107	25-150
d7-MeFOSE		98	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: WQ85709-001

Matrix: Aqueous

Batch: 85709

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/15/2021 1045

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND		1	8.0	2.0	ng/L	03/16/2021 1653
11CI-PF3OUdS	ND		1	8.0	2.0	ng/L	03/16/2021 1653
8:2 FTS	ND		1	8.0	2.0	ng/L	03/16/2021 1653
6:2 FTS	ND		1	8.0	2.0	ng/L	03/16/2021 1653
10:2 FTS	ND		1	8.0	2.0	ng/L	03/16/2021 1653
4:2 FTS	ND		1	8.0	2.0	ng/L	03/16/2021 1653
GenX	ND		1	8.0	2.0	ng/L	03/16/2021 1653
ADONA	ND		1	8.0	2.0	ng/L	03/16/2021 1653
EtFOSA	ND		1	8.0	2.0	ng/L	03/16/2021 1653
EtFOSAA	ND		1	8.0	2.0	ng/L	03/16/2021 1653
EtFOSE	ND		1	8.0	2.0	ng/L	03/16/2021 1653
MeFOSA	ND		1	16	4.0	ng/L	03/16/2021 1653
MeFOSAA	ND		1	8.0	2.0	ng/L	03/16/2021 1653
MeFOSE	ND		1	8.0	2.0	ng/L	03/16/2021 1653
PFBS	ND		1	4.0	1.0	ng/L	03/16/2021 1653
PFDS	ND		1	4.0	1.0	ng/L	03/16/2021 1653
PFHpS	ND		1	4.0	1.0	ng/L	03/16/2021 1653
PFNS	ND		1	4.0	1.0	ng/L	03/16/2021 1653
PFOSA	ND		1	4.0	1.0	ng/L	03/16/2021 1653
PFPeS	ND		1	4.0	1.0	ng/L	03/16/2021 1653
PFDOS	ND		1	8.0	2.0	ng/L	03/16/2021 1653
PFHxS	ND		1	4.0	1.0	ng/L	03/16/2021 1653
PFBA	ND		1	4.0	1.0	ng/L	03/16/2021 1653
PFDA	ND		1	4.0	1.0	ng/L	03/16/2021 1653
PFDoA	ND		1	4.0	1.0	ng/L	03/16/2021 1653
PFHpA	ND		1	4.0	1.0	ng/L	03/16/2021 1653
PFHxDA	ND		1	8.0	2.0	ng/L	03/16/2021 1653
PFHxA	ND		1	4.0	1.0	ng/L	03/16/2021 1653
PFNA	ND		1	4.0	1.0	ng/L	03/16/2021 1653
PFODA	ND		1	8.0	2.0	ng/L	03/16/2021 1653
PFOA	ND		1	4.0	1.0	ng/L	03/16/2021 1653
PFPeA	ND		1	4.0	1.0	ng/L	03/16/2021 1653
PFTeDA	ND		1	4.0	1.0	ng/L	03/16/2021 1653
PFTTrDA	ND		1	4.0	1.0	ng/L	03/16/2021 1653
PFUdA	ND		1	4.0	1.0	ng/L	03/16/2021 1653
PFOS	ND		1	4.0	1.0	ng/L	03/16/2021 1653

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		100	25-150
13C2_6:2FTS		96	25-150
13C2_8:2FTS		110	25-150
13C2_PFDoA		104	25-150
13C2_PFHxDA		118	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MB

Sample ID: WQ85709-001

Matrix: Aqueous

Batch: 85709

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/15/2021 1045

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		107	25-150
13C3_PFBs		96	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		110	25-150
13C4_PFBa		111	25-150
13C4_PFHpA		107	25-150
13C5_PFHxA		106	25-150
13C5_PFPeA		111	25-150
13C6_PFDa		100	25-150
13C7_PFUdA		109	25-150
13C8_PFOA		105	25-150
13C8_PFOs		105	25-150
13C8_PFOsA		105	10-150
13C9_PFNa		111	25-150
d-EtFOsA		92	10-150
d5-EtFOsAA		106	25-150
d9-EtFOsE		106	10-150
d-MeFOsA		74	10-150
d3-MeFOsAA		104	25-150
d7-MeFOsE		92	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ85709-002

Matrix: Aqueous

Batch: 85709

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/15/2021 1045

Parameter	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	15	14		1	96	50-150	03/16/2021 1703
11CI-PF3OUdS	15	15		1	98	50-150	03/16/2021 1703
8:2 FTS	15	16		1	106	50-150	03/16/2021 1703
6:2 FTS	15	15		1	97	50-150	03/16/2021 1703
10:2 FTS	15	19		1	120	50-150	03/16/2021 1703
4:2 FTS	15	16		1	107	50-150	03/16/2021 1703
GenX	32	36		1	111	50-150	03/16/2021 1703
ADONA	15	16		1	104	50-150	03/16/2021 1703
EtFOSA	16	21		1	130	50-150	03/16/2021 1703
EtFOSAA	16	16		1	103	50-150	03/16/2021 1703
EtFOSE	16	19		1	118	50-150	03/16/2021 1703
MeFOSA	16	19		1	120	50-150	03/16/2021 1703
MeFOSAA	16	19		1	116	50-150	03/16/2021 1703
MeFOSE	16	19		1	119	50-150	03/16/2021 1703
PFBS	14	16		1	113	50-150	03/16/2021 1703
PFDS	15	14		1	89	50-150	03/16/2021 1703
PFHpS	15	16		1	105	50-150	03/16/2021 1703
PFNS	15	16		1	104	50-150	03/16/2021 1703
PFOSA	16	18		1	114	50-150	03/16/2021 1703
PFPeS	15	17		1	115	50-150	03/16/2021 1703
PFDOS	15	17		1	107	50-150	03/16/2021 1703
PFHxS	15	15		1	100	50-150	03/16/2021 1703
PFBA	16	17		1	107	50-150	03/16/2021 1703
PFDA	16	17		1	109	50-150	03/16/2021 1703
PFDoA	16	17		1	107	50-150	03/16/2021 1703
PFHpA	16	16		1	98	50-150	03/16/2021 1703
PFHxDA	16	18		1	110	50-150	03/16/2021 1703
PFHxA	16	16		1	101	50-150	03/16/2021 1703
PFNA	16	15		1	92	50-150	03/16/2021 1703
PFODA	16	18		1	115	50-150	03/16/2021 1703
PFOA	16	16		1	102	50-150	03/16/2021 1703
PFPeA	16	17		1	105	50-150	03/16/2021 1703
PFTeDA	16	16		1	102	50-150	03/16/2021 1703
PFTTrDA	16	18		1	115	50-150	03/16/2021 1703
PFUdA	16	15		1	97	50-150	03/16/2021 1703
PFOS	15	16		1	105	50-150	03/16/2021 1703
Surrogate	Q	% Rec	Acceptance Limit				
13C2_4:2FTS		92	25-150				
13C2_6:2FTS		100	25-150				
13C2_8:2FTS		91	25-150				
13C2_PFDoA		92	25-150				
13C2_PFHxDA		108	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ85709-002

Matrix: Aqueous

Batch: 85709

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/15/2021 1045

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		98	25-150
13C3_PFBs		91	25-150
13C3_PFHxS		98	25-150
13C3-HFPO-DA		101	25-150
13C4_PFBa		102	25-150
13C4_PFHpA		100	25-150
13C5_PFHxA		102	25-150
13C5_PFPeA		103	25-150
13C6_PFDa		91	25-150
13C7_PFUdA		98	25-150
13C8_PFOA		102	25-150
13C8_PFOs		98	25-150
13C8_PFOsA		97	10-150
13C9_PFNa		105	25-150
d-EtFOsA		90	10-150
d5-EtFOsAA		98	25-150
d9-EtFOsE		103	10-150
d-MeFOsA		74	10-150
d3-MeFOsAA		100	25-150
d7-MeFOsE		85	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents



Internal Transfer Chain of Custody

Samples Pre-Logged into eCOC.

State Of Origin: WI
 Cert. Needed: Yes No
 Owner Received Date: 3/11/2021

Results Requested By: 3/25/2021



Workorder: 40223218

Workorder Name: LACROSSE WELLS 23 & 24

Christopher Hyska
 Pace Analytical Green Bay
 241 Bellevue Street
 Suite B
 Green Bay, WI 54302
 Phone (920)468-2436

Pace Analytical West Columbia
 106 Vantage Point Drive
 West Columbia, SC 29172
 Phone (803)791-9700



WC12012

RLC2

LAB USE ONLY

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Unpreserved	Preserved Containers	WT
1	03-0	PS	3/9/2021 15:18	40223218001	Water	2		X
2								
3								
4								
5								

Comments

IR77 - MDL reporting - Quote 23492
 Rush TAT!

Transfers	Released By	Date/Time	Received By	Date/Time
1	<i>[Signature]</i>	3/11/21 1600		
2		3/12/21 926	<i>[Signature]</i>	3/12/21 915
3	UPS			

Samples Intact or N

Received on Ice or N

Cooler Temperature on Receipt 4.8 °C

Custody Seal 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.



Sample Receipt Checklist (SRC)

Client: PACE

Cooler Inspected by/date: JRG2 / 3/12/2021

Lot #: WC12012

Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Other:	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1. Were custody seals present on the cooler?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA	
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA	
4.8 / 4.8 °C NA / NA °C NA / NA °C	
Method: <input checked="" type="checkbox"/> Temperature Blank <input type="checkbox"/> Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C	
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one)
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any of the VOA vials?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote #
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)	
Sample(s) NA were received incorrectly preserved and were adjusted accordingly	
in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA	
Time of preservation NA, if more than one preservative is needed, please note in the comments below.	
Sample(s) NA were received with bubbles >6 mm in diameter.	
Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: NA	
SR barcode labels applied by: JRG2 Date: 3/12/2021	

Comments:



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

March 19, 2021

██████████
2712 Del Ray Avenue
La Crosse, WI 54603

Subject: Private Well Sampling Results
2712 Del Ray Avenue, La Crosse, WI 54603
Tax parcel # 4-89-0
Sampling Point # 89-0
Sampling Date: February 24, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	53 ppt^{BL}	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	16 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.7 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.7 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	72 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	7.5 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.5 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.4 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	8.5 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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 may contribute to levels detected.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

BOTTLED WATER ACKNOWLEDGEMENT

2712 Del Ray Avenue, 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@TheOSgrp.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: WB26026-001
Description: 89-0	Matrix: Aqueous
Date Sampled: 02/24/2021 1437	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/26/2021	Project Number: 40222543

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/02/2021 1911	MMM	03/01/2021 1010	84236

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	2.7	J	3.6	0.89	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.5	J	3.6	0.89	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.7		3.6	0.89	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	72		3.6	0.89	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.4	J	3.6	0.89	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	7.5		3.6	0.89	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	53	B	3.6	0.89	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	8.5		3.6	0.89	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	16		3.6	0.89	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		116	25-150
13C2_6:2FTS		106	25-150
13C2_8:2FTS		100	25-150
13C2_PFDaA		109	25-150
13C2_PFHxDA		113	25-150
13C2_PFTeDA		98	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB26026-001
Description: 89-0	Matrix: Aqueous
Date Sampled: 02/24/2021 1437	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/26/2021	Project Number: 40222543

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		118	25-150
13C3_PFHxS		105	25-150
13C3-HFPO-DA		100	25-150
13C4_PFBa		112	25-150
13C4_PFHpA		118	25-150
13C5_PFHxA		104	25-150
13C5_PFPeA		131	25-150
13C6_PFDA		102	25-150
13C7_PFUdA		95	25-150
13C8_PFOA		95	25-150
13C8_PFOS		104	25-150
13C8_PFOSA		88	10-150
13C9_PFNA		115	25-150
d-EtFOSA		104	10-150
d5-EtFOSAA		96	25-150
d9-EtFOSE		97	10-150
d-MeFOSA		86	10-150
d3-MeFOSAA		97	25-150
d7-MeFOSE		95	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

████████████████████
 2736 Del Ray Avenue
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2736 Del Ray Avenue, La Crosse, WI 54603
 Tax Parcel # 4-92-0
 Sampling Point # 92-0
 Sample Date: March 4, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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. This is the second sample collected from your well, and the results in the second sample were somewhat lower than the first but overall similar.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.4 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	6.9 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.0 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2736 Del Ray Avenue, La Crosse, WI 54603
 Tax Parcel # 4-92-0
 Sampling Point # 92-0
 March 27, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.5 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	18 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	3.5 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.2 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	3.9 ppt	None Established ^c

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

Private Well Sampling Results for
2736 Del Ray Avenue, La Crosse, WI 54603
Tax Parcel # 4-92-0
Sampling Point # 92-0
March 27, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC10015-004
Description: 92-0	Matrix: Aqueous
Date Sampled: 03/04/2021 1423	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/10/2021	Project Number: 40222997

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/13/2021 0000	JJG	03/11/2021 1045	85377

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	2.5	J	3.5	0.89	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.4	J	3.5	0.89	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.0	J	3.5	0.89	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	18		3.5	0.89	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.2	J	3.5	0.89	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	3.5		3.5	0.89	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	6.9		3.5	0.89	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	3.9		3.5	0.89	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.0	J	3.5	0.89	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		90	25-150
13C2_6:2FTS		97	25-150
13C2_8:2FTS		98	25-150
13C2_PFDaA		90	25-150
13C2_PFHxDA		83	25-150
13C2_PFTeDA		95	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC10015-004
Description: 92-0	Matrix: Aqueous
Date Sampled: 03/04/2021 1423	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/10/2021	Project Number: 40222997

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		93	25-150
13C3_PFHxS		95	25-150
13C3-HFPO-DA		95	25-150
13C4_PFBa		100	25-150
13C4_PFHpA		95	25-150
13C5_PFHxA		97	25-150
13C5_PFPeA		100	25-150
13C6_PFDa		98	25-150
13C7_PFUdA		90	25-150
13C8_PFOA		95	25-150
13C8_PFOS		89	25-150
13C8_PFOsA		103	10-150
13C9_PFNA		94	25-150
d-EtFOSA		63	10-150
d5-EtFOSAA		97	25-150
d9-EtFOSE		79	10-150
d-MeFOSA		73	10-150
d3-MeFOSAA		86	25-150
d7-MeFOSE		86	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 25, 2021

██████████
 2226 Bainbridge Street
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2226 Bainbridge Street, La Crosse, WI 54603
 Tax Parcel # 4-142-0
 Sampling Point # 142-0
 Sample Date: March 1, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.8 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	6.6 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.0 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2226 Bainbridge Street, La Crosse, WI 54603
 Tax Parcel # 4-142-0
 Sampling Point # 142-0
 March 25, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.6 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.1 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	3.9 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	2.4 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	2.1 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.9 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

Private Well Sampling Results for
2226 Bainbridge Street, La Crosse, WI 54603
Tax Parcel # 4-142-0
Sampling Point # 142-0
March 25, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-006
Description: 142-0	Matrix: Aqueous
Date Sampled: 03/01/2021 1517	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 1551	MMM	03/03/2021 1117	84514

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.6		3.6	0.89	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.8	J	3.6	0.89	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.1		3.6	0.89	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	3.9		3.6	0.89	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	2.1	J	3.6	0.89	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.4	J	3.6	0.89	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	6.6		3.6	0.89	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.9	J	3.6	0.89	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.0	J	3.6	0.89	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		88	25-150
13C2_6:2FTS		93	25-150
13C2_8:2FTS		95	25-150
13C2_PFDa		92	25-150
13C2_PFHxDA		98	25-150
13C2_PFTeDA		103	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-006
Description: 142-0	Matrix: Aqueous
Date Sampled: 03/01/2021 1517	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		99	25-150
13C3_PFHxS		98	25-150
13C3-HFPO-DA		107	25-150
13C4_PFBa		104	25-150
13C4_PFHpA		102	25-150
13C5_PFHxA		114	25-150
13C5_PFPeA		108	25-150
13C6_PFDa		105	25-150
13C7_PFUdA		96	25-150
13C8_PFOa		108	25-150
13C8_PFOs		104	25-150
13C8_PFOsA		97	10-150
13C9_PFNa		100	25-150
d-EtFOsA		84	10-150
d5-EtFOsAA		89	25-150
d9-EtFOsE		101	10-150
d-MeFOsA		91	10-150
d3-MeFOsAA		108	25-150
d7-MeFOsE		99	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 25, 2021

██████████
 2226 Bainbridge Street
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2226 Bainbridge Street, La Crosse, WI 54603
 Tax Parcel # 4-142-0
 Sampling Point # 142-0
 Sample Date: March 1, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.8 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	6.6 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.0 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2226 Bainbridge Street, La Crosse, WI 54603
 Tax Parcel # 4-142-0
 Sampling Point # 142-0
 March 25, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.6 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.1 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	3.9 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	2.4 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	2.1 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.9 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

Private Well Sampling Results for
2226 Bainbridge Street, La Crosse, WI 54603
Tax Parcel # 4-142-0
Sampling Point # 142-0
March 25, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-006
Description: 142-0	Matrix: Aqueous
Date Sampled: 03/01/2021 1517	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 1551	MMM	03/03/2021 1117	84514

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.6		3.6	0.89	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.8	J	3.6	0.89	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.1		3.6	0.89	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	3.9		3.6	0.89	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	2.1	J	3.6	0.89	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.4	J	3.6	0.89	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	6.6		3.6	0.89	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.9	J	3.6	0.89	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.0	J	3.6	0.89	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		88	25-150
13C2_6:2FTS		93	25-150
13C2_8:2FTS		95	25-150
13C2_PFDaA		92	25-150
13C2_PFHxDA		98	25-150
13C2_PFTeDA		103	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-006
Description: 142-0	Matrix: Aqueous
Date Sampled: 03/01/2021 1517	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		99	25-150
13C3_PFHxS		98	25-150
13C3-HFPO-DA		107	25-150
13C4_PFBa		104	25-150
13C4_PFHpA		102	25-150
13C5_PFHxA		114	25-150
13C5_PFPeA		108	25-150
13C6_PFDa		105	25-150
13C7_PFUdA		96	25-150
13C8_PFOA		108	25-150
13C8_PFOS		104	25-150
13C8_PFOSA		97	10-150
13C9_PFNA		100	25-150
d-EtFOSA		84	10-150
d5-EtFOSAA		89	25-150
d9-EtFOSE		101	10-150
d-MeFOSA		91	10-150
d3-MeFOSAA		108	25-150
d7-MeFOSE		99	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

██████████
 2100 Dawson Avenue
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2100 Dawson Avenue, La Crosse, WI 54603
 Tax Parcel # 4-151-5
 Sampling Point # 151-5
 Sample Date: March 3, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.8 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.3 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	2.1 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2100 Dawson Avenue, La Crosse, WI 54603
 Tax Parcel # 4-151-5
 Sampling Point # 151-5
 March 27, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.1 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	5.1 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	0.93 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
2100 Dawson Avenue, La Crosse, WI 54603
Tax Parcel # 4-151-5
Sampling Point # 151-5
March 27, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-020
Description: 151-5	Matrix: Aqueous
Date Sampled: 03/03/2021 1533	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/10/2021 2203	SES	03/09/2021 1151	85089
2	SOP SPE	PFAS by ID SOP	1	03/13/2021 1758	JJG	03/12/2021 1044	85520

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	2
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	1.1	J	3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.8	J	3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	0.93	J	3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.0	J	3.5	0.88	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	5.1		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.3	J	3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.1	J	3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
13C2_4:2FTS		92	25-150		95	25-150
13C2_6:2FTS		110	25-150		96	25-150
13C2_8:2FTS		88	25-150		97	25-150
13C2_PFDa		86	25-150		86	25-150
13C2_PFHxDA		89	25-150		77	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-020
Description: 151-5	Matrix: Aqueous
Date Sampled: 03/03/2021 1533	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
13C2_PFTeDA		90	25-150		85	25-150
13C3_PFBS		98	25-150		83	25-150
13C3_PFHxS		96	25-150		95	25-150
13C3-HFPO-DA		98	25-150		95	25-150
13C4_PFBA		106	25-150		97	25-150
13C4_PFHpA		110	25-150		99	25-150
13C5_PFHxA		97	25-150		98	25-150
13C5_PFPeA		106	25-150		95	25-150
13C6_PFDA		101	25-150		98	25-150
13C7_PFUdA		100	25-150		90	25-150
13C8_PFOA		113	25-150		99	25-150
13C8_PFOS		116	25-150		88	25-150
13C8_PFOSA		94	10-150		92	10-150
13C9_PFNA		107	25-150		99	25-150
d-EtFOSA		73	10-150		57	10-150
d5-EtFOSAA		98	25-150		81	25-150
d9-EtFOSE		81	10-150		78	10-150
d-MeFOSA		64	10-150		66	10-150
d3-MeFOSAA		93	25-150		83	25-150
d7-MeFOSE		88	10-150		86	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

[REDACTED]
2508 1st Avenue East
La Crosse, WI 54603

Subject: Private Well Sampling Results
2508 1st Avenue East, La Crosse, WI 54603
Tax Parcel # 4-206-0
Sampling Point # 206-0
Sample Date: March 4, 2021

Dear [REDACTED]:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

PLEASE NOTE: During this sampling at your property we took a second “duplicate” sample for quality control / quality assurance purposes. The two sample tests confirmed each other, and there were only minor differences. The results in the table below are based on the highest concentration of contaminants observed in either of the two samples.

Also, this was the second sample we collected from you well. We took the second sample because the results from the first sample were much higher than your next-door neighbors’ on all sides. This second sample was much lower than the first and similar to you neighbors’ results. Until we can confirm this lower finding, you should continue to use the bottled water for drinking, cooking and brushing teeth.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	2.2 ppt	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.4 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.0 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.3 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	8.5 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	6.0 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

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

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.

<u>Questions about...</u>	<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC10015-007
Description: 206-0	Matrix: Aqueous
Date Sampled: 03/04/2021 1517	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/10/2021	Project Number: 40222997

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/13/2021 0031	JJG	03/11/2021 1045	85377

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	2.0	J	3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	7.5		3.6	0.90	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	5.5		3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.1	J	3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.6	J	3.6	0.90	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		89	25-150
13C2_6:2FTS		87	25-150
13C2_8:2FTS		102	25-150
13C2_PFDaA		95	25-150
13C2_PFHxDA		87	25-150
13C2_PFTeDA		94	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC10015-007
Description: 206-0	Matrix: Aqueous
Date Sampled: 03/04/2021 15:17	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/10/2021	Project Number: 40222997

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		91	25-150
13C3_PFHxS		96	25-150
13C3-HFPO-DA		99	25-150
13C4_PFBa		98	25-150
13C4_PFHpA		99	25-150
13C5_PFHxA		101	25-150
13C5_PFPeA		99	25-150
13C6_PFDa		98	25-150
13C7_PFUdA		88	25-150
13C8_PFOA		97	25-150
13C8_PFOS		93	25-150
13C8_PFOSA		98	10-150
13C9_PFNA		95	25-150
d-EtFOSA		66	10-150
d5-EtFOSAA		100	25-150
d9-EtFOSE		84	10-150
d-MeFOSA		75	10-150
d3-MeFOSAA		91	25-150
d7-MeFOSE		92	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC10015-009
Description: DUP#15	Matrix: Aqueous
Date Sampled: 03/04/2021	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/10/2021	Project Number: 40222997

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/13/2021 1808	JJG	03/12/2021 1044	85520

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	2.3	J	3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	2.2	J	3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	8.5		3.5	0.88	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	6.0		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.4	J	3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.0	J	3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		92	25-150
13C2_6:2FTS		94	25-150
13C2_8:2FTS		87	25-150
13C2_PFDa		85	25-150
13C2_PFHxDA		86	25-150
13C2_PFTeDA		89	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC10015-009
Description: DUP#15	Matrix: Aqueous
Date Sampled: 03/04/2021	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/10/2021	Project Number: 40222997

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		83	25-150
13C3_PFHxS		92	25-150
13C3-HFPO-DA		97	25-150
13C4_PFBa		94	25-150
13C4_PFHpA		97	25-150
13C5_PFHxA		98	25-150
13C5_PFPeA		95	25-150
13C6_PFDa		91	25-150
13C7_PFUdA		90	25-150
13C8_PFOA		100	25-150
13C8_PFOS		85	25-150
13C8_PFOsA		94	10-150
13C9_PFNA		96	25-150
d-EtFOSA		65	10-150
d5-EtFOSAA		86	25-150
d9-EtFOSE		81	10-150
d-MeFOSA		76	10-150
d3-MeFOSAA		90	25-150
d7-MeFOSE		89	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 25, 2021

██████████
 2513 2nd Avenue East.
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2513 2nd Avenue East., La Crosse, WI 54603
 Tax Parcel # 4-213-0
 Sampling Point # 213-0
 Sample Date: March 1, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	2.7 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2513 2nd Avenue East., La Crosse, WI 54603
 Tax Parcel # 4-213-0
 Sampling Point # 213-0
 March 25, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	8.3 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	17 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	13 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	2.3 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	8.0 ppt	None Established ^c

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

Private Well Sampling Results for
2513 2nd Avenue East., La Crosse, WI 54603
Tax Parcel # 4-213-0
Sampling Point # 213-0
March 25, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-007
Description: 213-0	Matrix: Aqueous
Date Sampled: 03/01/2021 1540	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 1612	MMM	03/03/2021 1117	84514

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		16	4.0	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	8.3		4.0	1.0	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	8.0		4.0	1.0	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	17		4.0	1.0	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	13		4.0	1.0	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.3	J	4.0	1.0	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.7	J	4.0	1.0	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		91	25-150
13C2_6:2FTS		89	25-150
13C2_8:2FTS		100	25-150
13C2_PFDaA		102	25-150
13C2_PFHxDA		106	25-150
13C2_PFTeDA		103	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-007
Description: 213-0	Matrix: Aqueous
Date Sampled: 03/01/2021 1540	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		110	25-150
13C3_PFHxS		120	25-150
13C3-HFPO-DA		107	25-150
13C4_PFBa		99	25-150
13C4_PFHpA		103	25-150
13C5_PFHxA		108	25-150
13C5_PFPeA		102	25-150
13C6_PFDa		104	25-150
13C7_PFUdA		99	25-150
13C8_PFOA		125	25-150
13C8_PFOS		114	25-150
13C8_PFOSA		87	10-150
13C9_PFNA		106	25-150
d-EtFOSA		83	10-150
d5-EtFOSAA		90	25-150
d9-EtFOSE		90	10-150
d-MeFOSA		88	10-150
d3-MeFOSAA		94	25-150
d7-MeFOSE		91	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 25, 2021

██████████
 2513 2nd Avenue East.
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2513 2nd Avenue East., La Crosse, WI 54603
 Tax Parcel # 4-213-0
 Sampling Point # 213-0
 Sample Date: March 1, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	2.7 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2513 2nd Avenue East., La Crosse, WI 54603
 Tax Parcel # 4-213-0
 Sampling Point # 213-0
 March 25, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	8.3 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	17 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	13 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	2.3 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	8.0 ppt	None Established ^c

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

Private Well Sampling Results for
2513 2nd Avenue East., La Crosse, WI 54603
Tax Parcel # 4-213-0
Sampling Point # 213-0
March 25, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-007
Description: 213-0	Matrix: Aqueous
Date Sampled: 03/01/2021 1540	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 1612	MMM	03/03/2021 1117	84514

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		16	4.0	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	8.3		4.0	1.0	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	8.0		4.0	1.0	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	17		4.0	1.0	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	13		4.0	1.0	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.3	J	4.0	1.0	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		8.0	2.0	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		4.0	1.0	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.7	J	4.0	1.0	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		91	25-150
13C2_6:2FTS		89	25-150
13C2_8:2FTS		100	25-150
13C2_PFDaA		102	25-150
13C2_PFHxDA		106	25-150
13C2_PFTeDA		103	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-007
Description: 213-0	Matrix: Aqueous
Date Sampled: 03/01/2021 1540	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		110	25-150
13C3_PFHxS		120	25-150
13C3-HFPO-DA		107	25-150
13C4_PFBa		99	25-150
13C4_PFHpA		103	25-150
13C5_PFHxA		108	25-150
13C5_PFPeA		102	25-150
13C6_PFDa		104	25-150
13C7_PFUdA		99	25-150
13C8_PFOA		125	25-150
13C8_PFOS		114	25-150
13C8_PFOSA		87	10-150
13C9_PFNA		106	25-150
d-EtFOSA		83	10-150
d5-EtFOSAA		90	25-150
d9-EtFOSE		90	10-150
d-MeFOSA		88	10-150
d3-MeFOSAA		94	25-150
d7-MeFOSE		91	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

██████████
2517 2nd Avenue East
La Crosse, WI 54603

Subject: Private Well Sampling Results
2517 2nd Avenue East, La Crosse, WI 54603
Tax parcel # 4-214-0
Sampling Point # 214-0
Sampling Date: March 18, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	34 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	200 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	120 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	730 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	12 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	40 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-heptanesulfonic acid (PFHpS) CAS # 375-92-8	24 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	120 ppt	None Established ^c
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	5.8 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	11 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

BOTTLED WATER ACKNOWLEDGEMENT

2517 2nd Avenue East, 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@TheOSgrp.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: WC24099-009
Description: 214-0	Matrix: Aqueous
Date Sampled: 03/18/2021 1431	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/30/2021 2233	JJG	03/29/2021 1125	87152
2	SOP SPE	PFAS by ID SOP	5	03/31/2021 1618	JJG	03/29/2021 1125	87152

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	120		3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	24		3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	120		3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	730		18	4.5	ng/L	2
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	12		3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	5.8		3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	40		3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	34		3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	11		3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	200		3.6	0.90	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
13C2_4:2FTS		110	25-150		105	25-150
13C2_6:2FTS		109	25-150		100	25-150
13C2_8:2FTS		103	25-150		109	25-150
13C2_PFDaA		104	25-150		103	25-150
13C2_PFHxDA		97	25-150		112	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC24099-009
Description: 214-0	Matrix: Aqueous
Date Sampled: 03/18/2021 1431	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
13C2_PFTeDA		96	25-150		103	25-150
13C3_PFBs		91	25-150		104	25-150
13C3_PFHxS		102	25-150		113	25-150
13C3-HFPO-DA		102	25-150		111	25-150
13C4_PFBa		114	25-150		106	25-150
13C4_PFHpA		109	25-150		106	25-150
13C5_PFHxA		107	25-150		109	25-150
13C5_PFPeA		108	25-150		112	25-150
13C6_PFDa		109	25-150		110	25-150
13C7_PFUdA		98	25-150		109	25-150
13C8_PFOA		111	25-150		111	25-150
13C8_PFOs		100	25-150		116	25-150
13C8_PFOsA		113	10-150		107	10-150
13C9_PFNa		105	25-150		110	25-150
d-EtFOSA		93	10-150		103	10-150
d5-EtFOSAA		91	25-150		111	25-150
d9-EtFOSE		93	10-150		122	10-150
d-MeFOSA		103	10-150		102	10-150
d3-MeFOSAA		108	25-150		112	25-150
d7-MeFOSE		89	10-150		113	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

[REDACTED]
304 Bohemia Mill Pond Drive
Middleton, DE 19709

Subject: Private Well Sampling Results
2517 2nd Avenue East, La Crosse, WI 54603
Tax parcel # 4-214-0
Sampling Point # 214-0
Sampling Date: March 18, 2021

Dear [REDACTED]:

We have received and reviewed the test results for the sample collected at the above address. 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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	34 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	200 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	120 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	730 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	12 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	40 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-heptanesulfonic acid (PFHpS) CAS # 375-92-8	24 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	120 ppt	None Established ^c
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	5.8 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	11 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

BOTTLED WATER ACKNOWLEDGEMENT

2517 2nd Avenue East, 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@TheOSgrp.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: WC24099-009
Description: 214-0	Matrix: Aqueous
Date Sampled: 03/18/2021 1431	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/30/2021 2233	JJG	03/29/2021 1125	87152
2	SOP SPE	PFAS by ID SOP	5	03/31/2021 1618	JJG	03/29/2021 1125	87152

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	120		3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	24		3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	120		3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	730		18	4.5	ng/L	2
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	12		3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	5.8		3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	40		3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	34		3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	11		3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	200		3.6	0.90	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
13C2_4:2FTS		110	25-150		105	25-150
13C2_6:2FTS		109	25-150		100	25-150
13C2_8:2FTS		103	25-150		109	25-150
13C2_PFDa		104	25-150		103	25-150
13C2_PFHxDA		97	25-150		112	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC24099-009
Description: 214-0	Matrix: Aqueous
Date Sampled: 03/18/2021 1431	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Surrogate	Run 1			Run 2		
	Q	% Recovery	Acceptance Limits	Q	% Recovery	Acceptance Limits
13C2_PFTeDA		96	25-150		103	25-150
13C3_PFBs		91	25-150		104	25-150
13C3_PFHxS		102	25-150		113	25-150
13C3-HFPO-DA		102	25-150		111	25-150
13C4_PFBa		114	25-150		106	25-150
13C4_PFHpA		109	25-150		106	25-150
13C5_PFHxA		107	25-150		109	25-150
13C5_PFPeA		108	25-150		112	25-150
13C6_PFDa		109	25-150		110	25-150
13C7_PFUdA		98	25-150		109	25-150
13C8_PFOA		111	25-150		111	25-150
13C8_PFOs		100	25-150		116	25-150
13C8_PFOsA		113	10-150		107	10-150
13C9_PFNa		105	25-150		110	25-150
d-EtFOSA		93	10-150		103	10-150
d5-EtFOSAA		91	25-150		111	25-150
d9-EtFOSE		93	10-150		122	10-150
d-MeFOSA		103	10-150		102	10-150
d3-MeFOSAA		108	25-150		112	25-150
d7-MeFOSE		89	10-150		113	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 19, 2021

[Redacted]

2515 Bainbridge Street
La Crosse, WI 54603

Subject: Private Well Sampling Results
2515 Bainbridge Street, La Crosse, WI 54603
Tax Parcel # 4-348-0
Sampling Point # 348-0
Sample Date: February 24, 2021

Dear [Redacted]:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	7.5 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2515 Bainbridge Street, La Crosse, WI 54603
 Tax Parcel # 4-348-0
 Sampling Point # 348-0
 March 19, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.6 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	6.2 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	18 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	2.8 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
2515 Bainbridge Street, La Crosse, WI 54603
Tax Parcel # 4-348-0
Sampling Point # 348-0
March 19, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB26026-002
Description: 348-0	Matrix: Aqueous
Date Sampled: 02/24/2021 1453	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/26/2021	Project Number: 40222543

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/02/2021 1932	MMM	03/01/2021 1010	84236

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	2.6	J	3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	2.8	J	3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	6.2		3.7	0.92	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	18		3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	7.5		3.7	0.92	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		112	25-150
13C2_6:2FTS		106	25-150
13C2_8:2FTS		90	25-150
13C2_PFDaA		98	25-150
13C2_PFHxDA		95	25-150
13C2_PFTeDA		102	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB26026-002
Description: 348-0	Matrix: Aqueous
Date Sampled: 02/24/2021 1453	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/26/2021	Project Number: 40222543

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		115	25-150
13C3_PFHxS		98	25-150
13C3-HFPO-DA		92	25-150
13C4_PFBa		111	25-150
13C4_PFHpA		106	25-150
13C5_PFHxA		105	25-150
13C5_PFPeA		119	25-150
13C6_PFDA		96	25-150
13C7_PFUdA		96	25-150
13C8_PFOA		112	25-150
13C8_PFOS		96	25-150
13C8_PFOSA		81	10-150
13C9_PFNA		102	25-150
d-EtFOSA		94	10-150
d5-EtFOSAA		88	25-150
d9-EtFOSE		86	10-150
d-MeFOSA		78	10-150
d3-MeFOSAA		95	25-150
d7-MeFOSE		88	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 10, 2021

██████████
 2525 Bainbridge Street
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2525 Bainbridge Street, La Crosse, WI 54603
 Tax Parcel # 4-353-0
 Sampling Point # 353-0
 Sample Date: February 21, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	7.3 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	7.1 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2525 Bainbridge Street, La Crosse, WI 54603
 Tax Parcel # 4-353-0
 Sampling Point # 353-0
 March 10, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	11 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	16 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	40 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-heptanesulfonic acid (PFHpS) CAS # 375-92-8	1.2 ppt	None Established ^c
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	9.8 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

Private Well Sampling Results for
2525 Bainbridge Street, La Crosse, WI 54603
Tax Parcel # 4-353-0
Sampling Point # 353-0
March 10, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

March 10, 2021

Steve Osesek
The OS Group, LLC
N6746 McCurdy Road
Holmen, WI 54636

RE: Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40222429

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on February 24, 2021. 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:

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

Sincerely,



Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC



REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: LACROSSE WELLS 23 & 24

Pace Project No.: 40222429

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40222429001	353-0	Water	02/22/21 14:36	02/24/21 09:20

REPORT OF LABORATORY ANALYSIS

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

(Please Print Clearly)

UPPER MIDWEST REGION

Page 1 of

MN: 612-607-1700 WI: 920-469-2436

40222429

Page 3 of 20



CHAIN OF CUSTODY

***Preservation Codes**
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Company Name: The OS Group LLC
 Branch/Location: LaCrosse, WI
 Project Contact: Steven OseseK
 Phone: _____
 Project Number: 608-433-9388
 Project Name: LaCrosse Wells 2024
 Project State: WI
 Sampled By (Print): Kristie L Tweed
 Sampled By (Sign): Kristie L Tweed
 PO #: _____ Regulatory Program: _____

FILTERED? (YES/NO)
 PRESERVATION (CODE)*

Y/N	Filter	Code	Analysis Requested
			WI PFAS 36
			X

Data Package Options (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Air B = Biota C = Charcoal O = Oil S = Soil SI = Sludge
 W = Water DW = Drinking Water GW = Ground Water SW = Surface Water WW = Waste Water WP = Wipe


PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
	353-0	02/22	2:36	DW

Quote #: _____
 Mail To Contact: Steven OseseK
 Mail To Company: The OS Group LLC
 Mail To Address: 444 21st St
LaCrosse, WI 54601
 Invoice To Contact: Steven OseseK
 Invoice To Company: The OS Group LLC
 Invoice To Address: 444 21st St
LaCrosse, WI 54601
 Invoice To Phone: _____

CLIENT COMMENTS

LAB COMMENTS (Lab Use Only)

Profile #


WB24003
 KLC2

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)
 Date Needed: _____

Transmit Prelim Rush Results by (complete what you want):

Email #1: _____
 Email #2: _____
 Telephone: _____
 Fax: _____

Samples on HOLD are subject to special pricing and release of liability

Relinquished By: Kristie L Tweed Date/Time: 02-23-21 4:20pm
 Relinquished By: _____ Date/Time: _____
 Relinquished By: _____ Date/Time: _____
 Relinquished By: UPS Date/Time: 2/24/21 0920
 Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____
 Received By: M. Haney Date/Time: 2/24/21 0920
 Received By: _____ Date/Time: _____

PACE Project No. 40222429
 Receipt Temp = 3.9 °C
 Sample Receipt pH OK / Adjusted
 Cooler Custody Seal Present / Not Present
 Intact / Not Intact

Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: WI

Cert. Needed: Yes No

Owner Received Date: 2/24/2021 Results Requested By: 3/15/2021

Workorder: 40222429 Workorder Name: LACROSSE WELLS 23 & 24

Report To		Subcontract To				Requested Analysis																		
Christopher Hyska Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436		Pace Analytical West Columbia 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-9700																						
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers						WT.36 PFAS by ID	LAB USE ONLY											
						Unpreserved																		
1	353-0	PS	2/22/2021 14:36	40222429001	Water	2						X												
2																								
3																								
4																								
5																								

					Comments											
Transfers	Released By	Date/Time	Received By	Date/Time												
1					IR77 - MDL reporting - Quote 23492											
2					Direct Ship - Pace SC, WB24003											
3																

Cooler Temperature on Receipt	°C	Custody Seal	Y or N	Received on Ice	Y or N	Samples Intact	Y 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.



WO#: 40222429



Samples Receipt Checklist (SRC) (ME0018C-15) Issuing Authority: Pace ENV - WCOL

Sample Receipt Checklist (SRC)

Client: PACE

Cooler Inspected by/date: MEH / 02/24/2021

Lot #: WB24003

Means of receipt: Pace Client UPS FedEx Other: _____

Yes No 1. Were custody seals present on the cooler?

Yes No NA 2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA
 3.9 / 3.9 °C NA / NA °C NA / NA °C NA / NA °C

Method: Temperature Blank Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: Wet Ice Ice Packs Dry Ice None

Yes No NA 3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified?
 PM was Notified by: phone / email / face-to-face (circle one).

Yes No NA 4. Is the commercial courier's packing slip attached to this form?

Yes No 5. Were proper custody procedures (relinquished/received) followed?

Yes No 6. Were sample IDs listed on the COC?

Yes No 7. Were sample IDs listed on all sample containers?

Yes No 8. Was collection date & time listed on the COC?

Yes No 9. Was collection date & time listed on all sample containers?

Yes No 10. Did all container label information (ID, date, time) agree with the COC?

Yes No 11. Were tests to be performed listed on the COC?

Yes No 12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____

Yes No 13. Was adequate sample volume available?

Yes No 14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?

Yes No 15. Were any samples containers missing/excess (circle one) samples Not listed on COC?

Yes No NA 16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any of the VOA vials?

Yes No NA 17. Were all DRO/metals/nutrient samples received at a pH of < 2?

Yes No NA 18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?

Yes No NA 19. Were all applicable NH₃/TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?

Yes No NA 20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?

Yes No 21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA

Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na₂S₂O₃) with Shealy ID: NA

SR barcode labels applied by: MEH Date: 02/24/2021

Comments:



Report of Analysis

Pace Analytical Services, LLC
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222429

Lot Number: **WB24003**

Date Completed: 03/08/2021

Karen Coonan

03/09/2021 4:37 PM

Approved and released by:
Project Manager II: **Karen L. Coonan**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WB24003

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Pace Analytical Services, LLC

Lot Number: WB24003

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222429

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	353-0	Aqueous	02/22/2021 1436	02/24/2021

(1 sample)

PACE ANALYTICAL SERVICES, LLC

Detection Summary
Pace Analytical Services, LLC
Lot Number: WB24003
Project Name: LACROSSE WELLS 23 & 24
Project Number: 40222429

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	353-0	Aqueous	PFBS	PFAS by ID	11		ng/L	5
001	353-0	Aqueous	PFHpS	PFAS by ID	1.2	J	ng/L	5
001	353-0	Aqueous	PFPeS	PFAS by ID	9.8		ng/L	5
001	353-0	Aqueous	PFHxS	PFAS by ID	16		ng/L	5
001	353-0	Aqueous	PFBA	PFAS by ID	40		ng/L	5
001	353-0	Aqueous	PFOA	PFAS by ID	7.3		ng/L	6
001	353-0	Aqueous	PFOS	PFAS by ID	7.1		ng/L	6

(7 detections)

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB24003-001
Description: 353-0	Matrix: Aqueous
Date Sampled: 02/22/2021 1436	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/24/2021	Project Number: 40222429

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	02/26/2021 1940	JJG	02/25/2021 1105	83922

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	11		3.6	0.91	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	1.2	J	3.6	0.91	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	9.8		3.6	0.91	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	16		3.6	0.91	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	40		3.6	0.91	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	7.3		3.6	0.91	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	7.1		3.6	0.91	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		115	25-150
13C2_6:2FTS		116	25-150
13C2_8:2FTS		106	25-150
13C2_PFDaA		97	25-150
13C2_PFHxDA		114	25-150
13C2_PFTeDA		97	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB24003-001
Description: 353-0	Matrix: Aqueous
Date Sampled: 02/22/2021 1436	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/24/2021	Project Number: 40222429

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		105	25-150
13C3_PFHxS		104	25-150
13C3-HFPO-DA		111	25-150
13C4_PFBa		106	25-150
13C4_PFHpA		102	25-150
13C5_PFHxA		106	25-150
13C5_PFPeA		100	25-150
13C6_PFDa		103	25-150
13C7_PFUdA		106	25-150
13C8_PFOA		97	25-150
13C8_PFOS		97	25-150
13C8_PFOSA		107	10-150
13C9_PFNA		104	25-150
d-EtFOSA		102	10-150
d5-EtFOSAA		115	25-150
d9-EtFOSE		106	10-150
d-MeFOSA		111	10-150
d3-MeFOSAA		114	25-150
d7-MeFOSE		110	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: WQ83922-001

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
11CI-PF3OUdS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
8:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
6:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
10:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
4:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
GenX	ND		1	8.0	2.0	ng/L	02/26/2021 1815
ADONA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
EtFOSA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
EtFOSAA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
EtFOSE	ND		1	8.0	2.0	ng/L	02/26/2021 1815
MeFOSA	ND		1	16	4.0	ng/L	02/26/2021 1815
MeFOSAA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
MeFOSE	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFBS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFHpS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFNS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFOSA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFPeS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDOS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFHxS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFBA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDoA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFHpA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFHxDA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFHxA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFNA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFODA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFOA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFPeA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFTeDA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFTTrDA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFUdA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFOS	ND		1	4.0	1.0	ng/L	02/26/2021 1815

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		122	25-150
13C2_6:2FTS		118	25-150
13C2_8:2FTS		118	25-150
13C2_PFDoA		104	25-150
13C2_PFHxDA		129	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MB

Sample ID: WQ83922-001

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		106	25-150
13C3_PFBs		109	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		122	25-150
13C4_PFBa		112	25-150
13C4_PFHpA		113	25-150
13C5_PFHxA		108	25-150
13C5_PFPeA		104	25-150
13C6_PFDa		109	25-150
13C7_PFUdA		110	25-150
13C8_PFOA		105	25-150
13C8_PFOs		114	25-150
13C8_PFOsA		114	10-150
13C9_PFNa		114	25-150
d-EtFOsA		94	10-150
d5-EtFOsAA		117	25-150
d9-EtFOsE		119	10-150
d-MeFOsA		99	10-150
d3-MeFOsAA		124	25-150
d7-MeFOsE		119	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ83922-002

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Parameter	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	15	17		1	111	50-150	02/26/2021 1825
11CI-PF3OUdS	15	17		1	113	50-150	02/26/2021 1825
8:2 FTS	15	15		1	101	50-150	02/26/2021 1825
6:2 FTS	15	15		1	99	50-150	02/26/2021 1825
10:2 FTS	15	13		1	87	50-150	02/26/2021 1825
4:2 FTS	15	14		1	96	50-150	02/26/2021 1825
GenX	32	31		1	98	50-150	02/26/2021 1825
ADONA	15	17		1	115	50-150	02/26/2021 1825
EtFOSA	16	18		1	112	50-150	02/26/2021 1825
EtFOSAA	16	15		1	93	50-150	02/26/2021 1825
EtFOSE	16	17		1	107	50-150	02/26/2021 1825
MeFOSA	16	16		1	103	50-150	02/26/2021 1825
MeFOSAA	16	15		1	95	50-150	02/26/2021 1825
MeFOSE	16	15		1	93	50-150	02/26/2021 1825
PFBS	14	16		1	110	50-150	02/26/2021 1825
PFDS	15	18		1	117	50-150	02/26/2021 1825
PFHpS	15	17		1	113	50-150	02/26/2021 1825
PFNS	15	16		1	105	50-150	02/26/2021 1825
PFOSA	16	15		1	94	50-150	02/26/2021 1825
PFPeS	15	16		1	109	50-150	02/26/2021 1825
PFDOS	15	17		1	112	50-150	02/26/2021 1825
PFHxS	15	17		1	116	50-150	02/26/2021 1825
PFBA	16	17		1	105	50-150	02/26/2021 1825
PFDA	16	17		1	107	50-150	02/26/2021 1825
PFDoA	16	16		1	100	50-150	02/26/2021 1825
PFHpA	16	18		1	111	50-150	02/26/2021 1825
PFHxDA	16	16		1	102	50-150	02/26/2021 1825
PFHxA	16	17		1	107	50-150	02/26/2021 1825
PFNA	16	16		1	101	50-150	02/26/2021 1825
PFODA	16	17		1	105	50-150	02/26/2021 1825
PFOA	16	18		1	114	50-150	02/26/2021 1825
PFPeA	16	17		1	106	50-150	02/26/2021 1825
PFTeDA	16	18		1	113	50-150	02/26/2021 1825
PFTTrDA	16	16		1	99	50-150	02/26/2021 1825
PFUdA	16	16		1	100	50-150	02/26/2021 1825
PFOS	15	18		1	123	50-150	02/26/2021 1825
Surrogate	Q	% Rec	Acceptance Limit				
13C2_4:2FTS		113	25-150				
13C2_6:2FTS		119	25-150				
13C2_8:2FTS		113	25-150				
13C2_PFDoA		100	25-150				
13C2_PFHxDA		117	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ83922-002

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		101	25-150
13C3_PFBs		104	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		118	25-150
13C4_PFBa		107	25-150
13C4_PFHpA		105	25-150
13C5_PFHxA		104	25-150
13C5_PFPeA		103	25-150
13C6_PFDa		111	25-150
13C7_PFUdA		105	25-150
13C8_PFOA		102	25-150
13C8_PFOs		95	25-150
13C8_PFOsA		106	10-150
13C9_PFNa		114	25-150
d-EtFOsA		111	10-150
d5-EtFOsAA		117	25-150
d9-EtFOsE		112	10-150
d-MeFOsA		106	10-150
d3-MeFOsAA		125	25-150
d7-MeFOsE		121	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents

(Please Print Clearly)

Company Name: The OS Group LLC
 Branch/Location: LaCrosse, WI
 Project Contact: Steven Osesek
 Phone:
 Project Number: 608-433-9388
 Project Name: LaCrosse Wells 2024
 Project State: WI
 Sampled By (Print): Kristie L Tweed
 Sampled By (Sign): Kristie L Tweed



UPPER MIDWEST REGION
 MN: 612-607-1700 WI: 820-468-2436

CHAIN OF CUSTODY

Preservation Codes

A-None	B-HCL	C-H2SO4	D-HNO3	E-DI Water	F-Methanol	G-NaOH
H-Sodium Bisulfate Solution			I-Sodium Thiosulfate			J-Other

FILTERED?
(Y/N/ND)
 PRESERVATION
(CODE)

Y/N	Pick Letter	Analytes Requested	COLLECTION			MATRIX	DATE	TIME
			DATE	TIME	MATRIX			
		WI 05-26	02/22	2:36	DW			X

Data Package Options (billable)
 EPA Level III
 EPA Level IV

MS/MSD (billable)
 On your sample
 NOT needed on your sample

Matrix Codes

A - Air	W - Water
B - Inlets	DW - Drinking Water
C - Ground	GW - Ground Water
D - Oil	SW - Surface Water
E - Soil	WW - Wastewater
SI - Sludge	WP - Wipe

PACE LAB #	CLIENT FIELD ID	DATE	TIME	MATRIX
	353-0	02/22	2:36	DW

Quote #:

Mail To Contact: Steven Osesek

Mail To Company: The OS Group LLC

Mail To Address: 444 21st St S
LaCrosse, WI 54601

Invoice To Contact: Steven Osesek

Invoice To Company: The OS Group LLC

Invoice To Address: 444 21st St S
LaCrosse, WI 54601

Invoice To Phone:

CLIENT COMMENTS

LAB COMMENTS (Lab Use Only)

Profile #

WB24003

KLC2

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed:	Relinquished By: <u>Kristie L Tweed</u> Date/Time: <u>02-23-21 4:20pm</u>	Received By:	Date/Time:	PACE Project No.
Transmit Prelim Rush Results by (complete what you want):	Relinquished By:	Received By:	Date/Time:	Receipt Temp = <u>3.9</u> °C
Email #1:	Relinquished By:	Received By:	Date/Time:	Sample Receipt pH OK / Adjusted
Email #2:	Relinquished By:	Received By:	Date/Time:	Cooler Custody Seal Present / Not Present
Telephone:	Relinquished By: <u>UPS</u> Date/Time: <u>2/24/21 0920</u>	Received By: <u>M-Hamary</u> Date/Time: <u>2/24/21 0920</u>	Date/Time:	Intact / Not Intact
Fax:	Relinquished By:	Received By:	Date/Time:	

C01B(27,Jun2005)

Version 3.0 06/10/06
 ORIGINAL

PACE ANALYTICAL SERVICES, LLC



Samples Receipt Checklist (SRC) (ME0018C-15)
 Issuing Authority: Pace ENV - WCCL

Revised: 9/29/2020
 Page 1 of 1

Sample Receipt Checklist (SRC)

Client: PACU Cooler Inspected by/date: MEH / 02/24/2021 Lot #: WB24003

Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other:	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA	
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA	
3.9 / 3.9 °C NA / NA °C NA / NA °C NA / NA °C	
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C	
Method of coolant: <input type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input checked="" type="checkbox"/> None	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/l.) samples free of residual chlorine?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote # NA
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)	
Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA	
Time of preservation NA. If more than one preservative is needed, please note in the comments below.	
Sample(s) NA were received with bubbles >6 mm in diameter.	
Samples(s) NA were received with TRC > 0.5 mg/L (if #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: NA	
SR barcode labels applied by: MEH Date: 02/24/2021	

Comments:



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

March 27, 2021

██████████
 306 Callaway Boulevard
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 306 Callaway Boulevard, La Crosse, WI 54603
 Tax Parcel # 4-355-0
 Sampling Point # 355-0
 Sample Date: March 3, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.8 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	

Private Well Sampling Results for
 306 Callaway Boulevard, La Crosse, WI 54603
 Tax Parcel # 4-355-0
 Sampling Point # 355-0
 March 27, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	0.87 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.6 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	1.2 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
306 Callaway Boulevard, La Crosse, WI 54603
Tax Parcel # 4-355-0
Sampling Point # 355-0
March 27, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-017
Description: 355-0	Matrix: Aqueous
Date Sampled: 03/03/2021 1454	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/10/2021 0251	JJG	03/08/2021 1216	84931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	0.87	J	3.5	0.87	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.6		3.5	0.87	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	1.2	J	3.5	0.87	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.8	J	3.5	0.87	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		104	25-150
13C2_6:2FTS		94	25-150
13C2_8:2FTS		100	25-150
13C2_PFDaA		99	25-150
13C2_PFHxDA		85	25-150
13C2_PFTeDA		94	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-017
Description: 355-0	Matrix: Aqueous
Date Sampled: 03/03/2021 1454	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBS		103	25-150
13C3_PFHxS		97	25-150
13C3-HFPO-DA		102	25-150
13C4_PFBA		105	25-150
13C4_PFHpA		107	25-150
13C5_PFHxA		101	25-150
13C5_PFPeA		108	25-150
13C6_PFDA		100	25-150
13C7_PFUdA		95	25-150
13C8_PFOA		104	25-150
13C8_PFOS		92	25-150
13C8_PFOSA		96	10-150
13C9_PFNA		106	25-150
d-EtFOSA		72	10-150
d5-EtFOSAA		100	25-150
d9-EtFOSE		74	10-150
d-MeFOSA		73	10-150
d3-MeFOSAA		98	25-150
d7-MeFOSE		73	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

██████████
212 Callaway Boulevard
La Crosse, WI 54603

Subject: Private Well Sampling Results
212 Callaway Boulevard, La Crosse, WI 54603
Tax parcel # 4-359-0
Sampling Point # 359-0
Sampling Date: March 4, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. This is the second sample take from your well. We collected this second sample because the results were higher than surrounding results.

The results of this second sample were lower than the first, but one PFAS compound was still found at a level above the Wisconsin Department of Health Services (DHS) level 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. It is recommended that you continue to use bottled water for drinking, cooking and brushing teeth.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	3.4 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.4 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	47 ppt	40 ppt^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	7.6 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	1.3 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	3.4 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.1 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	1.5 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC10015-006
Description: 359-0	Matrix: Aqueous
Date Sampled: 03/04/2021 1441	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/10/2021	Project Number: 40222997

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/13/2021 0021	JJG	03/11/2021 1045	85377

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.4	J	3.6	0.89	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	3.4	J	3.6	0.89	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	47		3.6	0.89	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	7.6		3.6	0.89	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.1	J	3.6	0.89	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.3	J	3.6	0.89	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	3.4	J	3.6	0.89	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.5	J	3.6	0.89	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		81	25-150
13C2_6:2FTS		82	25-150
13C2_8:2FTS		90	25-150
13C2_PFDaA		88	25-150
13C2_PFHxDA		80	25-150
13C2_PFTeDA		91	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC10015-006
Description: 359-0	Matrix: Aqueous
Date Sampled: 03/04/2021 1441	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/10/2021	Project Number: 40222997

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		89	25-150
13C3_PFHxS		94	25-150
13C3-HFPO-DA		93	25-150
13C4_PFBa		95	25-150
13C4_PFHpA		94	25-150
13C5_PFHxA		93	25-150
13C5_PFPeA		91	25-150
13C6_PFDa		92	25-150
13C7_PFUdA		87	25-150
13C8_PFOA		93	25-150
13C8_PFOS		85	25-150
13C8_PFOsA		101	10-150
13C9_PFNA		90	25-150
d-EtFOSA		64	10-150
d5-EtFOSAA		85	25-150
d9-EtFOSE		81	10-150
d-MeFOSA		56	10-150
d3-MeFOSAA		85	25-150
d7-MeFOSE		86	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

[REDACTED]
208 Callaway Boulevard
La Crosse, WI 54603

Subject: Private Well Sampling Results
208 Callaway Boulevard, La Crosse, WI 54603
Tax Parcel # 4-360-0
Sampling Point # 360-0
Sample Date: March 3, 2021

Dear [REDACTED]:

We have received and reviewed the test results for the sample collected at the above address. This is the second sample take from your well. We collected this second sample because the results were higher than surrounding results.

In this second sample, some PFAS compounds were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the “Recommended Public Health Standard” in the table below.

Although this sample is lower than the proposed standards, until they are confirmed it is recommend you continue using bottle water for drinking, cooking and brushing teeth.

The levels found in *your* well are called the “Sample Result” in the table below.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	4.2 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	5.3 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.7 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	6.7 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	37 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Private Well Sampling Results for
 208 Callaway Boulevard, La Crosse, WI 54603
 Tax Parcel # 4-360-0
 Sampling Point # 360-0
 March 27, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	2.9 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>	<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-016
Description: 360-0	Matrix: Aqueous
Date Sampled: 03/03/2021 1432	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/10/2021 0241	JJG	03/08/2021 1216	84931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.7		3.6	0.89	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	2.9	J	3.6	0.89	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	6.7		3.6	0.89	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	37		3.6	0.89	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	4.2		3.6	0.89	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	5.3		3.6	0.89	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		99	25-150
13C2_6:2FTS		100	25-150
13C2_8:2FTS		93	25-150
13C2_PFDaA		94	25-150
13C2_PFHxDA		87	25-150
13C2_PFTeDA		91	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-016
Description: 360-0	Matrix: Aqueous
Date Sampled: 03/03/2021 1432	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		100	25-150
13C3_PFHxS		98	25-150
13C3-HFPO-DA		102	25-150
13C4_PFBa		101	25-150
13C4_PFHpA		103	25-150
13C5_PFHxA		100	25-150
13C5_PFPeA		102	25-150
13C6_PFDA		97	25-150
13C7_PFUdA		94	25-150
13C8_PFOA		102	25-150
13C8_PFOS		94	25-150
13C8_PFOSA		98	10-150
13C9_PFNA		103	25-150
d-EtFOSA		68	10-150
d5-EtFOSAA		100	25-150
d9-EtFOSE		83	10-150
d-MeFOSA		82	10-150
d3-MeFOSAA		96	25-150
d7-MeFOSE		87	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 1, 2021

██████████
 2510 2nd Avenue West
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2510 2nd Avenue West, La Crosse, WI 54603
 Tax Parcel # 4-368-0
 Sampling Point # 368-0
 Sample Date: February 15, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	6.1 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.9 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2510 2nd Avenue West, La Crosse, WI 54603
 Tax Parcel # 4-368-0
 Sampling Point # 368-0
 March 1, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.1 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	4.2 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	2.0 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.7 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.3 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

Private Well Sampling Results for
2510 2nd Avenue West, La Crosse, WI 54603
Tax Parcel # 4-368-0
Sampling Point # 368-0
March 1, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB23027-002
Description: 368-0	Matrix: Aqueous
Date Sampled: 02/15/2021 1352	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/23/2021	Project Number: 40222417

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	02/25/2021 1444	JJG	02/24/2021 1052	83799

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		16	3.9	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	1.1	J	3.9	0.98	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.0	J	3.9	0.98	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	4.2		3.9	0.98	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.7	J	3.9	0.98	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.0	J	3.9	0.98	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	6.1		3.9	0.98	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.3	J	3.9	0.98	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.9		3.9	0.98	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		120	25-150
13C2_6:2FTS		110	25-150
13C2_8:2FTS		106	25-150
13C2_PFDaA		97	25-150
13C2_PFHxDA		103	25-150
13C2_PFTeDA		96	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB23027-002
Description: 368-0	Matrix: Aqueous
Date Sampled: 02/15/2021 1352	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/23/2021	Project Number: 40222417

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		99	25-150
13C3_PFHxS		92	25-150
13C3-HFPO-DA		113	25-150
13C4_PFBa		105	25-150
13C4_PFHpA		100	25-150
13C5_PFHxA		100	25-150
13C5_PFPeA		99	25-150
13C6_PFDa		100	25-150
13C7_PFUdA		96	25-150
13C8_PFOA		98	25-150
13C8_PFOS		94	25-150
13C8_PFOSA		104	10-150
13C9_PFNA		94	25-150
d-EtFOSA		72	10-150
d5-EtFOSAA		103	25-150
d9-EtFOSE		101	10-150
d-MeFOSA		69	10-150
d3-MeFOSAA		106	25-150
d7-MeFOSE		103	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

[REDACTED]
2503 2nd Avenue West
La Crosse, WI 54603

Subject: Private Well Sampling Results
2503 2nd Avenue West, La Crosse, WI 54603
Tax Parcel # 4-376-0
Sampling Point # 376-0
Sample Date: March 2, 2021

Dear [REDACTED]:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

PLEASE NOTE: During this sampling at your property, we took a second "duplicate" sample for quality control / quality assurance purposes. The two sample tests confirmed each other, and there were only minor differences. The results in the table below are based on the highest concentration of contaminants observed in either of the two samples.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.0 ppt	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.8 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	4.7 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	4.6 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	5.8 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	37 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Private Well Sampling Results for
 2503 2nd Avenue West, La Crosse, WI 54603
 Tax Parcel # 4-376-0
 Sampling Point # 376-0
 March 27, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	3.1 ppt	None Established ^c
1H, 1H, 2H, 2H-perflurooctane sulfonic acid (6:2 FTS) CAS #27619-97-2	1.7 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>	<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-003
Description: 376-0	Matrix: Aqueous
Date Sampled: 03/02/2021 1307	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 2257	JJG	03/08/2021 1129	84916

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	4.4		3.7	0.93	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.0	J	3.7	0.93	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	3.0	J	3.7	0.93	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	5.6		3.7	0.93	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	36		3.7	0.93	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.8	J	3.7	0.93	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	4.7		3.7	0.93	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		106	25-150
13C2_6:2FTS		102	25-150
13C2_8:2FTS		95	25-150
13C2_PFDaA		96	25-150
13C2_PFHxDA		89	25-150
13C2_PFTeDA		94	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-003
Description: 376-0	Matrix: Aqueous
Date Sampled: 03/02/2021 1307	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		103	25-150
13C3_PFHxS		106	25-150
13C3-HFPO-DA		104	25-150
13C4_PFBa		107	25-150
13C4_PFHpA		103	25-150
13C5_PFHxA		108	25-150
13C5_PFPeA		106	25-150
13C6_PFDa		101	25-150
13C7_PFUdA		97	25-150
13C8_PFOA		106	25-150
13C8_PFOS		104	25-150
13C8_PFOsA		95	10-150
13C9_PFNa		102	25-150
d-EtFOSA		71	10-150
d5-EtFOSAA		87	25-150
d9-EtFOSE		85	10-150
d-MeFOSA		88	10-150
d3-MeFOSAA		107	25-150
d7-MeFOSE		99	10-150

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis			S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-010
Description: DUP#14	Matrix: Aqueous
Date Sampled: 03/02/2021	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/10/2021 0012	JJG	03/08/2021 1129	84916

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	1.7	J	6.8	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.4	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	4.6		3.4	0.85	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	3.1	J	3.4	0.85	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	5.8		3.4	0.85	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	37		3.4	0.85	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.7	J	3.4	0.85	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	4.2		3.4	0.85	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		93	25-150
13C2_6:2FTS		93	25-150
13C2_8:2FTS		94	25-150
13C2_PFDaA		86	25-150
13C2_PFHxDA		82	25-150
13C2_PFTeDA		89	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-010
Description: DUP#14	Matrix: Aqueous
Date Sampled: 03/02/2021	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		97	25-150
13C3_PFHxS		97	25-150
13C3-HFPO-DA		102	25-150
13C4_PFBa		104	25-150
13C4_PFHpA		97	25-150
13C5_PFHxA		95	25-150
13C5_PFPeA		105	25-150
13C6_PFDa		97	25-150
13C7_PFUdA		94	25-150
13C8_PFOA		99	25-150
13C8_PFOS		90	25-150
13C8_PFOsA		91	10-150
13C9_PFNA		95	25-150
d-EtFOSA		60	10-150
d5-EtFOSAA		90	25-150
d9-EtFOSE		74	10-150
d-MeFOSA		76	10-150
d3-MeFOSAA		99	25-150
d7-MeFOSE		85	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 30, 2021

██████████
 2507 2nd Avenue West
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2507 2nd Avenue West, La Crosse, WI 54603
 Tax Parcel # 4-377-0
 Sampling Point # 377-0
 Sample Date: March 9, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	5.8 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	

Private Well Sampling Results for
 2507 2nd Avenue West, La Crosse, WI 54603
 Tax Parcel # 4-377-0
 Sampling Point # 377-0
 March 30, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
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	9.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	60 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	4.9 ppt	None Established ^c
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) CAS # 27619-97-2	4.9 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

Private Well Sampling Results for
2507 2nd Avenue West, La Crosse, WI 54603
Tax Parcel # 4-377-0
Sampling Point # 377-0
March 30, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-019
Description: 377-0	Matrix: Aqueous
Date Sampled: 03/09/2021 1543	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/17/2021 1925	JJG	03/16/2021 1147	85809

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	4.9	J	7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	6.0		3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	4.9		3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	9.0		3.5	0.88	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	60		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	5.8		3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND	S	3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		103	25-150
13C2_6:2FTS		95	25-150
13C2_8:2FTS		100	25-150
13C2_PFDaA		97	25-150
13C2_PFHxDA		105	25-150
13C2_PFTeDA		101	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-019
Description: 377-0	Matrix: Aqueous
Date Sampled: 03/09/2021 1543	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		90	25-150
13C3_PFHxS		108	25-150
13C3-HFPO-DA		105	25-150
13C4_PFBa		110	25-150
13C4_PFHpA		118	25-150
13C5_PFHxA		108	25-150
13C5_PFPeA		111	25-150
13C6_PFDa		105	25-150
13C7_PFUdA		99	25-150
13C8_PFOA		99	25-150
13C8_PFOS		107	25-150
13C8_PFOSA		112	10-150
13C9_PFNA		104	25-150
d-EtFOSA		97	10-150
d5-EtFOSAA		103	25-150
d9-EtFOSE		88	10-150
d-MeFOSA		91	10-150
d3-MeFOSAA		99	25-150
d7-MeFOSE		97	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

██████████
2525 2nd Avenue West
La Crosse, WI 54603

Subject: Private Well Sampling Results
2525 2nd Avenue West, La Crosse, WI 54603
Tax Parcel # 4-380-0
Sampling Point # 380-0
Sample Date: March 3, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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. We plan to resample your well because the results in your well were greater than 75% of the Recommended Public Health Standard.

The DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	11 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	8.8 ppt	20 ppt ^{a,b}
<i>The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6</i>		
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	6.8 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	11 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	140 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	5.4 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>	<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR form – Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-019
Description: 380-0	Matrix: Aqueous
Date Sampled: 03/03/2021 1518	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/10/2021 0313	JJG	03/08/2021 1216	84931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	6.8		3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	5.4		3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	11		3.7	0.92	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	140		3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	11		3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	8.8		3.7	0.92	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		87	25-150
13C2_6:2FTS		94	25-150
13C2_8:2FTS		100	25-150
13C2_PFDaA		96	25-150
13C2_PFHxDA		87	25-150
13C2_PFTeDA		86	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-019
Description: 380-0	Matrix: Aqueous
Date Sampled: 03/03/2021 15:18	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		91	25-150
13C3_PFHxS		93	25-150
13C3-HFPO-DA		96	25-150
13C4_PFBa		102	25-150
13C4_PFHpA		99	25-150
13C5_PFHxA		94	25-150
13C5_PFPeA		98	25-150
13C6_PFDa		93	25-150
13C7_PFUdA		94	25-150
13C8_PFOA		97	25-150
13C8_PFOS		93	25-150
13C8_PFOsA		98	10-150
13C9_PFNa		93	25-150
d-EtFOSA		59	10-150
d5-EtFOSAA		96	25-150
d9-EtFOSE		75	10-150
d-MeFOSA		69	10-150
d3-MeFOSAA		93	25-150
d7-MeFOSE		80	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 30, 2021

██████████
2618 Lakeshore Drive
La Crosse, WI 54603

Subject: Private Well Sampling Results
2618 Lakeshore Drive, La Crosse, WI 54603
Tax parcel # 4-415-0
Sampling Point # 415-0
Sampling Date: March 8, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.2 ppt	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	29 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	17 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	12 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.6 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	52 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	1.4 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.5 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

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

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-005
Description: 415-0	Matrix: Aqueous
Date Sampled: 03/08/2021 1449	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/16/2021 1953	SES	03/15/2021 1045	85709

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	12		3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.2	J	3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.5	J	3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.6		3.5	0.88	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	52		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.4	J	3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	29		3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	17		3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		96	25-150
13C2_6:2FTS		102	25-150
13C2_8:2FTS		109	25-150
13C2_PFDaA		105	25-150
13C2_PFHxDA		112	25-150
13C2_PFTeDA		110	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-005
Description: 415-0	Matrix: Aqueous
Date Sampled: 03/08/2021 1449	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		94	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		102	25-150
13C4_PFBa		111	25-150
13C4_PFHpA		106	25-150
13C5_PFHxA		108	25-150
13C5_PFPeA		113	25-150
13C6_PFDA		107	25-150
13C7_PFUdA		110	25-150
13C8_PFOA		107	25-150
13C8_PFOS		104	25-150
13C8_PFOSA		101	10-150
13C9_PFNA		109	25-150
d-EtFOSA		80	10-150
d5-EtFOSAA		104	25-150
d9-EtFOSE		99	10-150
d-MeFOSA		81	10-150
d3-MeFOSAA		105	25-150
d7-MeFOSE		92	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks**.

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

March 30, 2021

██████████
 2607 Hibbard Court
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2607 Hibbard Court, La Crosse, WI 54603
 Tax Parcel # 4-425-0
 Sampling Point # 425-0
 Sample Date: March 9, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	6.8 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	4.5 ppt	20 ppt ^{a,b}	

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.8 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.3 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	35 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	2.6 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	2.1 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
2607 Hibbard Court, La Crosse, WI 54603
Tax Parcel # 4-425-0
Sampling Point # 425-0
March 30, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-014
Description: 425-0	Matrix: Aqueous
Date Sampled: 03/09/2021 1353	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/16/2021 2129	SES	03/15/2021 1045	85709

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.8		3.5	0.87	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.3	J	3.5	0.87	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	35		3.5	0.87	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.6	J	3.5	0.87	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	6.8		3.5	0.87	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	2.1	J	3.5	0.87	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	4.5		3.5	0.87	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		101	25-150
13C2_6:2FTS		98	25-150
13C2_8:2FTS		108	25-150
13C2_PFDaA		98	25-150
13C2_PFHxDA		107	25-150
13C2_PFTeDA		103	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-014
Description: 425-0	Matrix: Aqueous
Date Sampled: 03/09/2021 1353	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		93	25-150
13C3_PFHxS		106	25-150
13C3-HFPO-DA		104	25-150
13C4_PFBa		109	25-150
13C4_PFHpA		104	25-150
13C5_PFHxA		106	25-150
13C5_PFPeA		111	25-150
13C6_PFDa		103	25-150
13C7_PFUdA		102	25-150
13C8_PFOA		107	25-150
13C8_PFOS		103	25-150
13C8_PFOsA		102	10-150
13C9_PFNA		108	25-150
d-EtFOSA		63	10-150
d5-EtFOSAA		100	25-150
d9-EtFOSE		87	10-150
d-MeFOSA		76	10-150
d3-MeFOSAA		105	25-150
d7-MeFOSE		88	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

██████████
 2609 Hibbard Court
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2609 Hibbard Court, La Crosse, WI 54603
 Tax Parcel # 4-427-0
 Sampling Point # 427-0
 Sample Date: March 3, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	12 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	

Private Well Sampling Results for
 2609 Hibbard Court, La Crosse, WI 54603
 Tax Parcel # 4-427-0
 Sampling Point # 427-0
 March 27, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.7 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	25 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	2.0 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	0.95 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.8 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
2609 Hibbard Court, La Crosse, WI 54603
Tax Parcel # 4-427-0
Sampling Point # 427-0
March 27, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-011
Description: 427-0	Matrix: Aqueous
Date Sampled: 03/03/2021 1236	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/10/2021 0023	JJG	03/08/2021 1129	84916

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.7		3.6	0.91	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.0	J	3.6	0.91	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	25		3.6	0.91	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	0.95	J	3.6	0.91	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.0	J	3.6	0.91	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	12		3.6	0.91	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.8	J	3.6	0.91	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		88	25-150
13C2_6:2FTS		102	25-150
13C2_8:2FTS		96	25-150
13C2_PFDaA		89	25-150
13C2_PFHxDA		88	25-150
13C2_PFTeDA		93	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-011
Description: 427-0	Matrix: Aqueous
Date Sampled: 03/03/2021 1236	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		97	25-150
13C3_PFHxS		94	25-150
13C3-HFPO-DA		100	25-150
13C4_PFBa		106	25-150
13C4_PFHpA		101	25-150
13C5_PFHxA		101	25-150
13C5_PFPeA		105	25-150
13C6_PFDA		92	25-150
13C7_PFUdA		93	25-150
13C8_PFOA		102	25-150
13C8_PFOS		98	25-150
13C8_PFOSA		94	10-150
13C9_PFNA		99	25-150
d-EtFOSA		63	10-150
d5-EtFOSAA		87	25-150
d9-EtFOSE		78	10-150
d-MeFOSA		78	10-150
d3-MeFOSAA		107	25-150
d7-MeFOSE		84	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 30, 2021

████████████████████
701 Dauphin Street
La Crosse, WI 54603

Subject: Private Well Sampling Results
701 Dauphin Street, La Crosse, WI 54603
Tax parcel # 4-431-0
Sampling Point # 431-0
Sampling Date: March 8, 2021

Dear ████████████████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.4 ppt	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	22 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	4.9 ppt	20 ppt ^{a,b}
The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6		
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	11 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	13 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	21 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	8.9 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.2 ppt	None Established ^c

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	5.1 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	8.4 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-007
Description: 431-0	Matrix: Aqueous
Date Sampled: 03/08/2021 1509	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/16/2021 2014	SES	03/15/2021 1045	85709

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	11		3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.4	J	3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.2	J	3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	13		3.5	0.88	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	21		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	5.1		3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	8.9		3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	22		3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	8.4		3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	4.9		3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		96	25-150
13C2_6:2FTS		98	25-150
13C2_8:2FTS		106	25-150
13C2_PFDaA		103	25-150
13C2_PFHxDA		99	25-150
13C2_PFTeDA		106	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-007
Description: 431-0	Matrix: Aqueous
Date Sampled: 03/08/2021 1509	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		96	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		104	25-150
13C4_PFBa		112	25-150
13C4_PFHpA		109	25-150
13C5_PFHxA		110	25-150
13C5_PFPeA		110	25-150
13C6_PFDa		108	25-150
13C7_PFUdA		101	25-150
13C8_PFOA		109	25-150
13C8_PFOS		105	25-150
13C8_PFOsA		105	10-150
13C9_PFNA		105	25-150
d-EtFOSA		79	10-150
d5-EtFOSAA		103	25-150
d9-EtFOSE		92	10-150
d-MeFOSA		77	10-150
d3-MeFOSAA		106	25-150
d7-MeFOSE		83	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

March 30, 2021

██████████
2608 Hibbard Court
La Crosse, WI 54603

Subject: Private Well Sampling Results
2608 Hibbard Court, La Crosse, WI 54603
Tax parcel # 4-437-0
Sampling Point # 437-0
Sampling Date: March 9, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	24 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	8.7 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.7 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	5.7 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	59 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	6.4 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.4 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	3.5 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	7.6 ppt	None Established ^c
1H, 1H, 2H, 2H-perflurooctane sulfonic acid (6:2 FTS) CAS # 27619-97-2	25 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-015
Description: 437-0	Matrix: Aqueous
Date Sampled: 03/09/2021 1405	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/17/2021 1832	JJG	03/16/2021 1147	85809

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	25		7.0	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.7		3.5	0.87	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.4	J	3.5	0.87	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	5.7		3.5	0.87	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	59		3.5	0.87	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	3.5		3.5	0.87	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	6.4		3.5	0.87	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	24		3.5	0.87	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	7.6		3.5	0.87	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	8.7		3.5	0.87	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		100	25-150
13C2_6:2FTS		94	25-150
13C2_8:2FTS		97	25-150
13C2_PFDaA		96	25-150
13C2_PFHxDA		101	25-150
13C2_PFTeDA		103	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-015
Description: 437-0	Matrix: Aqueous
Date Sampled: 03/09/2021 1405	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		90	25-150
13C3_PFHxS		102	25-150
13C3-HFPO-DA		105	25-150
13C4_PFBa		106	25-150
13C4_PFHpA		112	25-150
13C5_PFHxA		104	25-150
13C5_PFPeA		109	25-150
13C6_PFDa		97	25-150
13C7_PFUdA		96	25-150
13C8_PFOA		102	25-150
13C8_PFOS		105	25-150
13C8_PFOsA		103	10-150
13C9_PFNA		103	25-150
d-EtFOSA		101	10-150
d5-EtFOSAA		103	25-150
d9-EtFOSE		98	10-150
d-MeFOSA		95	10-150
d3-MeFOSAA		102	25-150
d7-MeFOSE		93	10-150

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis			S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks**.

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

March 8, 2021

[REDACTED]
2602 Hibbard Court
La Crosse, WI 54603

Subject: Private Well Sampling Results
2602 Hibbard Court, La Crosse, WI 54603
Tax parcel # 4-439-1
Sampling Point # 439-1
Sampling Date: February 23, 2021

Dear [REDACTED]:

We have received and reviewed the test results for the sample collected at the above address. 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 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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.0	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	50 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	5.3 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	4.2 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	6.5 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	140 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	3.4 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	2.6 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	5.2 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

^a Public health enforcement standard (ES) recommended by DHS.
^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.
^c 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)
^{B^L} Detected in the method blank. Possible lab contaminant.

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

cc Lionel Cabanit (via email: lionel.cabanit@yahoo.com)

Attachment: Lab report for your well

March 08, 2021

Steve Osesek
The OS Group, LLC
N6746 McCurdy Road
Holmen, WI 54636

RE: Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40222428

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on February 24, 2021. 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:

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

Sincerely,



Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC



REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40222428

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40222428001	439-1	Water	02/23/21 09:35	02/24/21 09:20

REPORT OF LABORATORY ANALYSIS

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

(Please Print Clearly)

Company Name: The OS Group LLC
 Branch/Location: LaCrosse, WI
 Project Contact: Steven Osesek
 Phone: 608-433-9388
 Project Number:
 Project Name: LaCrosse Wells 23+24
 Project State: WI
 Sampled By (Print): Kristie L Tweed
 Sampled By (Sign): *Kristie L Tweed*



UPPER MIDWEST REGION
 MN: 612-607-1700 WI: 920-469-2436

40222428

CHAIN OF CUSTODY

***Preservation Codes**
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

PO #: Regulatory Program:

Data Package Options (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Air W = Water
 B = Blots DW = Drinking Water
 C = Charcoal GW = Ground Water
 O = Oil SW = Surface Water
 S = Soil WP = Waste Water
 ST = Skudge WP = Wipe

FILTERED? (YES/NO)	PRESERVATION (CODE)*	V/N	PK#	Labs	Analyze Requested	Lab	COLLECTION			
							DATE	TIME	MATRIX	
		N	A		WI PFAS 36		02/23	9:35	DW	X

PACE LAB #	CLIENT FIELD ID	COLLECTION			Analyze Requested	Lab
		DATE	TIME	MATRIX		
	439-1	02/23	9:35	DW	WI PFAS 36	X

Quote #: 40222428

Mail To Contact: Steven Osesek
 Mail To Company: The OS Group LLC
 Mail To Address: 444 21st St S
 LaCrosse, WI 54601

Invoice To Contact: Steven Osesek
 Invoice To Company: The OS Group LLC
 Invoice To Address: 444 21st St S
 LaCrosse, WI 54601

Invoice To Phone: 608-433-9388

CLIENT COMMENTS: LAB COMMENTS (Lab Use Only)

Profile #

WB24002
KLC2

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)
 Date Needed: 7-10 days

Transmit Prelim Rush Results by (complete what you want):

Email #1:
 Email #2:
 Telephone:
 Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By: <i>Kristie L Tweed</i>	Date/Time: 02-23-21 4:30pm	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By: <i>UPS</i>	Date/Time: 2/24/21 0920	Received By: <i>M Honey</i>	Date/Time: 2/24/21 0920
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No. 40222428

Receipt Temp = 3.9 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present Intact / Not Intact

Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: WI

Cert. Needed: Yes No

Owner Received Date: 2/24/2021

Results Requested By: 3/8/2021

Workorder: 40222428 Workorder Name: LACROSSE WELLS 23 & 24

Report To		Subcontract To				Requested Analysis																																																																																																													
Christopher Hyska Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436		Pace Analytical West Columbia 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-9700				<div style="display: flex; justify-content: space-between;"> WT 36 PFAS by ID <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="15">Preserved Containers</th> </tr> <tr> <th>Unpreserved</th> <th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th> <th>LAB USE ONLY</th> </tr> <tr> <td style="text-align: center;">2</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td></td> </tr> </table> </div>															Preserved Containers															Unpreserved															LAB USE ONLY	2																																																															
Preserved Containers																																																																																																																			
Unpreserved																														LAB USE ONLY																																																																																					
2																																																																																																																			
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Unpreserved																																																																																																													
1	439-1	PS	2/23/2021 09:35	40222428001	Water	2																																																																																																													
2																																																																																																																			
3																																																																																																																			
4																																																																																																																			
5																																																																																																																			
Transfers					Released By		Date/Time		Received By		Date/Time		Comments																																																																																																						
1													IR77 - MDL reporting - Quote 23492 Rush TAT! Direct Ship - Pace SC, WB24002																																																																																																						
2																																																																																																																			
3																																																																																																																			
Cooler Temperature on Receipt		°C	Custody Seal		Y or N	Received on Ice		Y or N	Samples Intact		Y 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.



Samples Receipt Checklist (SRC) (ME0018C-15)

Issuing Authority: Pace ENV - WCOL

Sample Receipt Checklist (SRC)

WO#: 40222428



Client: PACE

Cooler Inspected by/date: MEH / 02/24/2021

Lot #: WB24002

Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other: _____		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		1. Were custody seals present on the cooler?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA		2. If custody seals were present, were they intact and unbroken?
pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA		
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA		
3.9 / 3.9 °C NA / NA °C NA / NA °C NA / NA °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C		
Method of coolant: <input type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input checked="" type="checkbox"/> None		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA		3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		4. Is the commercial courier's packing slip attached to this form?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		5. Were proper custody procedures (relinquished/received) followed?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		6. Were sample IDs listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		7. Were sample IDs listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		8. Was collection date & time listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		9. Was collection date & time listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		10. Did all container label information (ID, date, time) agree with the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		11. Were tests to be performed listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		13. Was adequate sample volume available?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA		16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any of the VOA vials?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA		17. Were all DRO/metals/nutrient samples received at a pH of < 2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA		18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA		19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA		20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		21. Was the quote number listed on the container label? If yes, Quote # NA
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA		
Time of preservation NA. If more than one preservative is needed, please note in the comments below.		
Sample(s) NA were received with bubbles >6 mm in diameter.		
Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: NA		
SR barcode labels applied by: MEH Date: 02/24/2021		

Comments:



Report of Analysis

Pace Analytical Services, LLC
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222428

Lot Number: **WB24002**

Date Completed: 03/08/2021

Karen Coonan

03/08/2021 5:16 PM

Approved and released by:
Project Manager II: **Karen L. Coonan**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WB24002

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Pace Analytical Services, LLC

Lot Number: WB24002

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222428

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	439-1	Aqueous	02/23/2021 0935	02/24/2021

(1 sample)

PACE ANALYTICAL SERVICES, LLC

Detection Summary
Pace Analytical Services, LLC
Lot Number: WB24002
Project Name: LACROSSE WELLS 23 & 24
Project Number: 40222428

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	439-1	Aqueous	PFBS	PFAS by ID	4.2		ng/L	5
001	439-1	Aqueous	PFOSA	PFAS by ID	1.0	J	ng/L	5
001	439-1	Aqueous	PFPeS	PFAS by ID	2.6	J	ng/L	5
001	439-1	Aqueous	PFHxS	PFAS by ID	6.5		ng/L	5
001	439-1	Aqueous	PFBA	PFAS by ID	140		ng/L	5
001	439-1	Aqueous	PFHxA	PFAS by ID	3.4	J	ng/L	6
001	439-1	Aqueous	PFOA	PFAS by ID	50		ng/L	6
001	439-1	Aqueous	PFPeA	PFAS by ID	5.2		ng/L	6
001	439-1	Aqueous	PFOS	PFAS by ID	5.3		ng/L	6

(9 detections)

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB24002-001
Description: 439-1	Matrix: Aqueous
Date Sampled: 02/23/2021 0935	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/24/2021	Project Number: 40222428

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	02/26/2021 1919	JJG	02/25/2021 1105	83922

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	4.2		3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.0	J	3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	2.6	J	3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	6.5		3.6	0.90	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	140		3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	3.4	J	3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	50		3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	5.2		3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	5.3		3.6	0.90	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		114	25-150
13C2_6:2FTS		111	25-150
13C2_8:2FTS		105	25-150
13C2_PFDaA		98	25-150
13C2_PFHxDA		112	25-150
13C2_PFTeDA		97	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB24002-001
Description: 439-1	Matrix: Aqueous
Date Sampled: 02/23/2021 0935	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/24/2021	Project Number: 40222428

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		106	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		113	25-150
13C4_PFBa		106	25-150
13C4_PFHpA		103	25-150
13C5_PFHxA		102	25-150
13C5_PFPeA		98	25-150
13C6_PFDa		102	25-150
13C7_PFUdA		104	25-150
13C8_PFOA		98	25-150
13C8_PFOS		102	25-150
13C8_PFOSA		105	10-150
13C9_PFNA		104	25-150
d-EtFOSA		102	10-150
d5-EtFOSAA		109	25-150
d9-EtFOSE		111	10-150
d-MeFOSA		106	10-150
d3-MeFOSAA		114	25-150
d7-MeFOSE		108	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: WQ83922-001

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
11CI-PF3OUdS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
8:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
6:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
10:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
4:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
GenX	ND		1	8.0	2.0	ng/L	02/26/2021 1815
ADONA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
EtFOSA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
EtFOSAA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
EtFOSE	ND		1	8.0	2.0	ng/L	02/26/2021 1815
MeFOSA	ND		1	16	4.0	ng/L	02/26/2021 1815
MeFOSAA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
MeFOSE	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFBS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFHpS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFNS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFOSA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFPeS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDOS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFHxS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFBA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDoA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFHpA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFHxDA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFHxA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFNA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFODA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFOA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFPeA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFTeDA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFTTrDA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFUdA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFOS	ND		1	4.0	1.0	ng/L	02/26/2021 1815

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		122	25-150
13C2_6:2FTS		118	25-150
13C2_8:2FTS		118	25-150
13C2_PFDoA		104	25-150
13C2_PFHxDA		129	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MB

Sample ID: WQ83922-001

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		106	25-150
13C3_PFBs		109	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		122	25-150
13C4_PFBa		112	25-150
13C4_PFHpA		113	25-150
13C5_PFHxA		108	25-150
13C5_PFPeA		104	25-150
13C6_PFDa		109	25-150
13C7_PFUdA		110	25-150
13C8_PFOA		105	25-150
13C8_PFOs		114	25-150
13C8_PFOsA		114	10-150
13C9_PFNa		114	25-150
d-EtFOsA		94	10-150
d5-EtFOsAA		117	25-150
d9-EtFOsE		119	10-150
d-MeFOsA		99	10-150
d3-MeFOsAA		124	25-150
d7-MeFOsE		119	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ83922-002

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Parameter	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	15	17		1	111	50-150	02/26/2021 1825
11CI-PF3OUdS	15	17		1	113	50-150	02/26/2021 1825
8:2 FTS	15	15		1	101	50-150	02/26/2021 1825
6:2 FTS	15	15		1	99	50-150	02/26/2021 1825
10:2 FTS	15	13		1	87	50-150	02/26/2021 1825
4:2 FTS	15	14		1	96	50-150	02/26/2021 1825
GenX	32	31		1	98	50-150	02/26/2021 1825
ADONA	15	17		1	115	50-150	02/26/2021 1825
EtFOSA	16	18		1	112	50-150	02/26/2021 1825
EtFOSAA	16	15		1	93	50-150	02/26/2021 1825
EtFOSE	16	17		1	107	50-150	02/26/2021 1825
MeFOSA	16	16		1	103	50-150	02/26/2021 1825
MeFOSAA	16	15		1	95	50-150	02/26/2021 1825
MeFOSE	16	15		1	93	50-150	02/26/2021 1825
PFBS	14	16		1	110	50-150	02/26/2021 1825
PFDS	15	18		1	117	50-150	02/26/2021 1825
PFHpS	15	17		1	113	50-150	02/26/2021 1825
PFNS	15	16		1	105	50-150	02/26/2021 1825
PFOSA	16	15		1	94	50-150	02/26/2021 1825
PFPeS	15	16		1	109	50-150	02/26/2021 1825
PFDOS	15	17		1	112	50-150	02/26/2021 1825
PFHxS	15	17		1	116	50-150	02/26/2021 1825
PFBA	16	17		1	105	50-150	02/26/2021 1825
PFDA	16	17		1	107	50-150	02/26/2021 1825
PFDoA	16	16		1	100	50-150	02/26/2021 1825
PFHpA	16	18		1	111	50-150	02/26/2021 1825
PFHxDA	16	16		1	102	50-150	02/26/2021 1825
PFHxA	16	17		1	107	50-150	02/26/2021 1825
PFNA	16	16		1	101	50-150	02/26/2021 1825
PFODA	16	17		1	105	50-150	02/26/2021 1825
PFOA	16	18		1	114	50-150	02/26/2021 1825
PFPeA	16	17		1	106	50-150	02/26/2021 1825
PFTeDA	16	18		1	113	50-150	02/26/2021 1825
PFTTrDA	16	16		1	99	50-150	02/26/2021 1825
PFUdA	16	16		1	100	50-150	02/26/2021 1825
PFOS	15	18		1	123	50-150	02/26/2021 1825

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		113	25-150
13C2_6:2FTS		119	25-150
13C2_8:2FTS		113	25-150
13C2_PFDoA		100	25-150
13C2_PFHxDA		117	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ83922-002

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		101	25-150
13C3_PFBs		104	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		118	25-150
13C4_PFBa		107	25-150
13C4_PFHpA		105	25-150
13C5_PFHxA		104	25-150
13C5_PFPeA		103	25-150
13C6_PFDa		111	25-150
13C7_PFUdA		105	25-150
13C8_PFOA		102	25-150
13C8_PFOs		95	25-150
13C8_PFOsA		106	10-150
13C9_PFNa		114	25-150
d-EtFOsA		111	10-150
d5-EtFOsAA		117	25-150
d9-EtFOsE		112	10-150
d-MeFOsA		106	10-150
d3-MeFOsAA		125	25-150
d7-MeFOsE		121	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - Duplicate

Sample ID: WB24002-001DU

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Parameter	Sample Amount (ng/L)	Result (ng/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
9CI-PF3ONS	ND	ND		1	0.00	20	02/26/2021 1929
11CI-PF3OUdS	ND	ND		1	0.00	20	02/26/2021 1929
8:2 FTS	ND	ND		1	0.00	20	02/26/2021 1929
6:2 FTS	ND	2.4	+	1	96	20	02/26/2021 1929
10:2 FTS	ND	ND		1	0.00	20	02/26/2021 1929
4:2 FTS	ND	ND		1	0.00	20	02/26/2021 1929
GenX	ND	ND		1	0.00	20	02/26/2021 1929
ADONA	ND	ND		1	0.00	20	02/26/2021 1929
EtFOSA	ND	ND		1	0.00	20	02/26/2021 1929
EtFOSAA	ND	ND		1	0.00	20	02/26/2021 1929
EtFOSE	ND	ND		1	0.00	20	02/26/2021 1929
MeFOSA	ND	ND		1	0.00	20	02/26/2021 1929
MeFOSAA	ND	ND		1	0.00	20	02/26/2021 1929
MeFOSE	ND	ND		1	0.00	20	02/26/2021 1929
PFBS	4.2	4.8		1	13	20	02/26/2021 1929
PFDS	ND	ND		1	0.00	20	02/26/2021 1929
PFHpS	ND	ND		1	0.00	20	02/26/2021 1929
PFNS	ND	ND		1	0.00	20	02/26/2021 1929
PFOSA	1.0	0.93	J	1	8.7	20	02/26/2021 1929
PFPeS	2.6	3.3	+	1	25	20	02/26/2021 1929
PFDOS	ND	ND		1	0.00	20	02/26/2021 1929
PFHxS	6.5	6.6		1	2.2	20	02/26/2021 1929
PFBA	140	140		1	0.060	20	02/26/2021 1929
PFDA	ND	ND		1	0.00	20	02/26/2021 1929
PFDoA	ND	ND		1	0.00	20	02/26/2021 1929
PFHpA	ND	ND		1	0.00	20	02/26/2021 1929
PFHxDA	ND	ND		1	0.00	20	02/26/2021 1929
PFHxA	3.4	3.3	J	1	2.2	20	02/26/2021 1929
PFNA	ND	ND		1	0.00	20	02/26/2021 1929
PFODA	ND	ND		1	0.00	20	02/26/2021 1929
PFOA	50	49		1	2.5	20	02/26/2021 1929
PFPeA	5.2	5.2		1	0.44	20	02/26/2021 1929
PFTeDA	ND	ND		1	0.00	20	02/26/2021 1929
PFTTrDA	ND	ND		1	0.00	20	02/26/2021 1929
PFUdA	ND	ND		1	0.00	20	02/26/2021 1929
PFOS	5.3	18	+	1	110	20	02/26/2021 1929
Surrogate	Q	% Rec	Acceptance Limit				
13C2_4:2FTS		124	25-150				
13C2_6:2FTS		110	25-150				
13C2_8:2FTS		109	25-150				
13C2_PFDoA		100	25-150				
13C2_PFHxDA		117	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - Duplicate

Sample ID: WB24002-001DU

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		97	25-150
13C3_PFBs		102	25-150
13C3_PFHxS		106	25-150
13C3-HFPO-DA		115	25-150
13C4_PFBa		110	25-150
13C4_PFHpA		105	25-150
13C5_PFHxA		105	25-150
13C5_PFPeA		102	25-150
13C6_PFDa		112	25-150
13C7_PFUdA		100	25-150
13C8_PFOA		105	25-150
13C8_PFOs		95	25-150
13C8_PFOsA		109	10-150
13C9_PFNa		107	25-150
d-EtFOsA		105	10-150
d5-EtFOsAA		116	25-150
d9-EtFOsE		112	10-150
d-MeFOsA		93	10-150
d3-MeFOsAA		117	25-150
d7-MeFOsE		105	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents



CHAIN OF CUSTODY

Preservation Codes
 A=None B-HCL C=H2SO4 D=HNO3 E-CI Water F=Wateral G=NaOH
 H-Sodium Bisulfate Solution I-Sodium Thiosulfate J=Other

(Please Print Clearly)

Company Name: The OS Group LLC
 Branch/Location: LaCrosse, WI
 Project Contact: Steven Osesek
 Phone: 608-433-9388
 Project Number:
 Project Name: LaCrosse Wells 23+24
 Project State: WI
 Sampled By (Print): Kristie L Tweedy
 Sampled By (Sign): Kristie L Tweedy
 PO #:
 Regulatory Program:

Quote #:
 Mail To Contact: Steven Osesek
 Mail To Company: The OS Group LLC
 Mail To Address: 444 21st St S
LaCrosse, WI 54601
 Invoice To Contact: Steven Osesek
 Invoice To Company: The OS Group LLC
 Invoice To Address: 444 21st St S
LaCrosse, WI 54601
 Invoice To Phone: 608-433-9388

Data Package Options
 EPA Level II
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Air W = Water
 B = Soils DW = Drinking Water
 C = Crude Oil GW = Ground Water
 D = Oil SW = Surface Water
 S = Sediment WW = Wastewater
 Sl = Sludge WP = Wipes

Y/N	PICK Letter	Analysis Requested
N	A	WI PFAS 36
		X

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
	439-1	02/23	9:35	DW

CLIENT COMMENTS

LAB COMMENTS (Lab Use Only)

Profile #

WB24002

KLC2

Rush Turnaround Time Requested - Prelims
 (Rush TAT subject to approval/surcharge)
 Date Needed: 7-10 days

Transmit Prelim Rush Results by (complete what you want):

Requisitioned By: <u>Kristie L Tweedy</u>	Date/Time: <u>02-23-21 4:30pm</u>	Received By:	Date/Time:
Requisitioned By:	Date/Time:	Received By:	Date/Time:
Requisitioned By:	Date/Time:	Received By:	Date/Time:
Requisitioned By: <u>UPS</u>	Date/Time: <u>2/24/21 0920</u>	Received By: <u>M Honey</u>	Date/Time: <u>2/24/21 0920</u>
Requisitioned By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
 Receipt Temp = 3.9 °C
 Sample Receipt pH
 OK / Adjusted
Cooler Custody Seal
 Present / Not Present
 Intact / Not Intact

Pace Analytical Services, LLC (formerly Sheehy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com
 Page 15 of 17
 Page 20 of 22

PACE ANALYTICAL SERVICES, LLC

PACE ANALYTICAL SERVICES, LLC



Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: PACE Cooler Inspected by/date: MEH / 02/24/2021 Lot #: WB24002

Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other: _____	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: <u>NA</u> Chlorine Strip ID: <u>NA</u> Tested by: <u>NA</u>	
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: <u>NA</u> 3.9 / 3.9 °C NA / NA °C NA / NA °C NA / NA °C	
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: <u>6</u> IR Gun Correction Factor: <u>0</u> °C	
Method of coolant: <input type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input checked="" type="checkbox"/> None	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any of the VOA vials?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote # <u>NA</u>

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na₂S₂O₃) with Shealy ID: NA.

SR barcode labels applied by: MEH Date: 02/24/2021

Comments:

Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: WI

Cert. Needed: Yes No

Owner Received Date: 2/24/2021 Results Requested By: 3/8/2021



Workorder: 40222428 Workorder Name: LACROSSE WELLS 23 & 24

Report To		Subcontract To					Requested Analysis											
Christopher Hyska Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436		Pace Analytical West Columbia 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-9700					 WB24002 KLC2 LAB USE ONLY											
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Unpreserved	Preserved Containers				WT 96 PFAS 3v ID							
1	439-1	PS	2/23/2021 09:35	40222428001	Water	2						X						
2																		
3																		
4																		
5																		

Transfers					Comments				
Released By	Date/Time	Received By	Date/Time						
					IR77 - MDL reporting - Quote 23492 Rush TAT! Direct Ship - Pace SC, WB24002				
UPS	2/24/21 09:20	M. Hyska	2/24/21 09:20						
Cooler Temperature on Receipt 3.9 °C		Custody Seal Y or N		Received on Ice Y or N		Samples Intact Y 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.



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

April 15, 2021

[Redacted]

2602 Hibbard Court
La Crosse, WI 54603

Subject: Private Well Sampling Results
2602 Hibbard Court, La Crosse, WI 54603
Tax Parcel # 4-439-1
Sampling Point # 439-1 Post-Treatment
Sample Date: March 29, 2021

Dear [Redacted]:

We have received and reviewed the test results for the sample collected at the above address. At the request of the installing plumber, the sample was collected from downstream of the whole-house treatment from the bathroom tap. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.1 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.4 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	

Private Well Sampling Results for
 2602 Hibbard Court, La Crosse, WI 54603
 Tax Parcel # 4-439-1
 Sampling Point # 439-1 Post-Treatment
 April 15, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	Not Detected	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	Not Detected	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	11 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) CAS # 27619-97-2	440 ppt	None Established ^c

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

Private Well Sampling Results for
2602 Hibbard Court, La Crosse, WI 54603
Tax Parcel # 4-439-1
Sampling Point # 439-1 Post-Treatment
April 15, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

cc: Bob Kellog, Advanced Plumbing System

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WD02062-001
Description: 439-1	Matrix: Aqueous
Date Sampled: 03/29/2021 0905	Project Name: LACROSSE WELLS 23 & 24
Date Received: 04/02/2021	Project Number: 40224248

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	04/07/2021 1927	JJG	04/06/2021 1155	88075

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	440		7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.8	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.1	J	3.8	0.94	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	11		3.8	0.94	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.4	J	3.8	0.94	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		3.8	0.94	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		125	25-150
13C2_6:2FTS		106	25-150
13C2_8:2FTS		98	25-150
13C2_PFDaA		97	25-150
13C2_PFHxDA		85	25-150
13C2_PFTeDA		95	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WD02062-001
Description: 439-1	Matrix: Aqueous
Date Sampled: 03/29/2021 0905	Project Name: LACROSSE WELLS 23 & 24
Date Received: 04/02/2021	Project Number: 40224248

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		89	25-150
13C3_PFHxS		102	25-150
13C3-HFPO-DA		97	25-150
13C4_PFBa		111	25-150
13C4_PFHpA		111	25-150
13C5_PFHxA		104	25-150
13C5_PFPeA		108	25-150
13C6_PFDa		99	25-150
13C7_PFUdA		87	25-150
13C8_PFOa		112	25-150
13C8_PFOs		100	25-150
13C8_PFOsA		95	10-150
13C9_PFNa		103	25-150
d-EtFOsA		80	10-150
d5-EtFOsAA		103	25-150
d9-EtFOsE		87	10-150
d-MeFOsA		81	10-150
d3-MeFOsAA		98	25-150
d7-MeFOsE		85	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

██████████
 601 Dauphin Street
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 601 Dauphin Street, La Crosse, WI 54603
 Tax Parcel # 4-440-0
 Sampling Point # 440-0
 Sample Date: March 18, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	3.0 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.7 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 601 Dauphin Street, La Crosse, WI 54603
 Tax Parcel # 4-440-0
 Sampling Point # 440-0
 April 9, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.3 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.8 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	8.8 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	1.8 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.5 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
601 Dauphin Street, La Crosse, WI 54603
Tax Parcel # 4-440-0
Sampling Point # 440-0
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC24099-006
Description: 440-0	Matrix: Aqueous
Date Sampled: 03/18/2021 1353	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/30/2021 2129	JJG	03/29/2021 1125	87152

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	2.3	J	3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.8	J	3.7	0.92	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	8.8		3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.8	J	3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	3.0	J	3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.5	J	3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.7		3.7	0.92	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		104	25-150
13C2_6:2FTS		103	25-150
13C2_8:2FTS		101	25-150
13C2_PFDaA		91	25-150
13C2_PFHxDA		93	25-150
13C2_PFTeDA		92	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC24099-006
Description: 440-0	Matrix: Aqueous
Date Sampled: 03/18/2021 1353	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		91	25-150
13C3_PFHxS		102	25-150
13C3-HFPO-DA		96	25-150
13C4_PFBa		105	25-150
13C4_PFHpA		107	25-150
13C5_PFHxA		102	25-150
13C5_PFPeA		100	25-150
13C6_PFDA		98	25-150
13C7_PFUdA		93	25-150
13C8_PFOA		107	25-150
13C8_PFOS		102	25-150
13C8_PFOsA		102	10-150
13C9_PFNA		97	25-150
d-EtFOSA		93	10-150
d5-EtFOSAA		94	25-150
d9-EtFOSE		88	10-150
d-MeFOSA		97	10-150
d3-MeFOSAA		102	25-150
d7-MeFOSE		92	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 1, 2021

[Redacted]

2500 3rd Avenue West
La Crosse, WI 54603

Subject: Private Well Sampling Results
2500 3rd Avenue West, La Crosse, WI 54603
Tax Parcel # 4-468-0
Sampling Point # 468-0
Sample Date: February 15, 2021

Dear [Redacted]:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.1 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	1.4 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2500 3rd Avenue West, La Crosse, WI 54603
 Tax Parcel # 4-468-0
 Sampling Point # 468-0
 March 1, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	Not Detected	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.2 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	1.6 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
2500 3rd Avenue West, La Crosse, WI 54603
Tax Parcel # 4-468-0
Sampling Point # 468-0
March 1, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB23027-001
Description: 468-0	Matrix: Aqueous
Date Sampled: 02/15/2021 1341	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/23/2021	Project Number: 40222417

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	02/25/2021 1423	JJG	02/24/2021 1052	83799

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.2	J	3.7	0.93	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	1.6	J	3.7	0.93	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.1	J	3.7	0.93	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	1.4	J	3.7	0.93	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		112	25-150
13C2_6:2FTS		103	25-150
13C2_8:2FTS		98	25-150
13C2_PFDaA		94	25-150
13C2_PFHxDA		101	25-150
13C2_PFTeDA		93	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB23027-001
Description: 468-0	Matrix: Aqueous
Date Sampled: 02/15/2021 1341	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/23/2021	Project Number: 40222417

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		99	25-150
13C3_PFHxS		93	25-150
13C3-HFPO-DA		114	25-150
13C4_PFBa		102	25-150
13C4_PFHpA		104	25-150
13C5_PFHxA		98	25-150
13C5_PFPeA		97	25-150
13C6_PFDa		98	25-150
13C7_PFUdA		97	25-150
13C8_PFOa		102	25-150
13C8_PFOs		91	25-150
13C8_PFOsA		105	10-150
13C9_PFNa		103	25-150
d-EtFOsA		73	10-150
d5-EtFOsAA		98	25-150
d9-EtFOsE		87	10-150
d-MeFOsA		84	10-150
d3-MeFOsAA		94	25-150
d7-MeFOsE		99	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 30, 2021

████████████████████
2503 3rd Avenue West
La Crosse, WI 54603

Subject: Private Well Sampling Results
2503 3rd Avenue West, La Crosse, WI 54603
Tax Parcel # 4-472-0
Sampling Point # 472-0
Sample Date: March 8, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were ***below*** the 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. **PLEASE NOTE: During this sampling at your property, we took a second “duplicate” sample for quality control / quality assurance purposes. The two sample tests confirmed each other, and there were only minor differences. The results in the table below are based on the highest concentration of contaminants observed in either of the two samples.**

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.4 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.0 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.1 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	18 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
1H, 1H, 2H, 2H-perflurooctane sulfonic acid (6:2 FTS) CAS # 27619-972	4.9 ppt	None Established ^c
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.1 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>	<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-010
Description: 472-0	Matrix: Aqueous
Date Sampled: 03/08/2021 1550	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/16/2021 2046	SES	03/15/2021 1045	85709

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.8	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-1-butanefluoride (PFBS)	375-73-5	PFAS by ID SOP	1.3	J	3.8	0.94	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.5	J	3.8	0.94	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	18		3.8	0.94	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	1.3	J	3.8	0.94	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		99	25-150
13C2_6:2FTS		100	25-150
13C2_8:2FTS		100	25-150
13C2_PFDaA		106	25-150
13C2_PFHxDA		111	25-150
13C2_PFTeDA		107	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-010
Description: 472-0	Matrix: Aqueous
Date Sampled: 03/08/2021 1550	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		96	25-150
13C3_PFHxS		104	25-150
13C3-HFPO-DA		104	25-150
13C4_PFBa		109	25-150
13C4_PFHpA		104	25-150
13C5_PFHxA		106	25-150
13C5_PFPeA		112	25-150
13C6_PFDa		104	25-150
13C7_PFUdA		109	25-150
13C8_PFOa		108	25-150
13C8_PFOs		104	25-150
13C8_PFOsA		101	10-150
13C9_PFNa		109	25-150
d-EtFOsA		94	10-150
d5-EtFOsAA		103	25-150
d9-EtFOsE		95	10-150
d-MeFOsA		72	10-150
d3-MeFOsAA		104	25-150
d7-MeFOsE		95	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-021
Description: DUP #16	Matrix: Aqueous
Date Sampled: 03/08/2021	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/17/2021 1957	JJG	03/16/2021 1147	85809

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	4.9	J	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	2.0	J	3.6	0.91	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.1	J	3.6	0.91	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.1	J	3.6	0.91	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	18		3.6	0.91	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.4	J	3.6	0.91	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		101	25-150
13C2_6:2FTS		93	25-150
13C2_8:2FTS		94	25-150
13C2_PFDaA		94	25-150
13C2_PFHxDA		98	25-150
13C2_PFTeDA		99	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-021
Description: DUP #16	Matrix: Aqueous
Date Sampled: 03/08/2021	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		82	25-150
13C3_PFHxS		98	25-150
13C3-HFPO-DA		99	25-150
13C4_PFBa		103	25-150
13C4_PFHpA		104	25-150
13C5_PFHxA		98	25-150
13C5_PFPeA		103	25-150
13C6_PFDa		96	25-150
13C7_PFUdA		94	25-150
13C8_PFOA		100	25-150
13C8_PFOS		106	25-150
13C8_PFOSA		102	10-150
13C9_PFNA		101	25-150
d-EtFOSA		98	10-150
d5-EtFOSAA		102	25-150
d9-EtFOSE		83	10-150
d-MeFOSA		89	10-150
d3-MeFOSAA		96	25-150
d7-MeFOSE		90	10-150

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis			S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

[Redacted]

W3909 Sunrise Place
La Crosse, WI 54601

Subject: Private Well Sampling Results
403 – 405 Callaway Boulevard, La Crosse, WI 54603
Tax Parcel # 4-492-0
Sampling Point # 492-0
Sample Date: March 10, 2021

Dear [Redacted]:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	3.5 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	6.9 ppt	20 ppt ^{a,b}	

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	5.6 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	7.8 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	86 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	1.1 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	4.0 ppt	None Established ^c
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.1 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.1 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
403 – 405 Callaway Boulevard, La Crosse, WI 54603
Tax Parcel # 4-492-0
Sampling Point # 492-0
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-006
Description: 492-0	Matrix: Aqueous
Date Sampled: 03/10/2021 1511	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/24/2021 2323	JJG	03/23/2021 1200	86528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.8	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	5.6		3.8	0.95	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	4.0		3.8	0.95	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	7.8		3.8	0.95	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	86		3.8	0.95	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.1	J	3.8	0.95	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.1	J	3.8	0.95	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	3.5	J	3.8	0.95	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.1	J	3.8	0.95	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	6.9		3.8	0.95	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		100	25-150
13C2_6:2FTS		98	25-150
13C2_8:2FTS		98	25-150
13C2_PFDaA		90	25-150
13C2_PFHxDA		86	25-150
13C2_PFTeDA		82	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-006
Description: 492-0	Matrix: Aqueous
Date Sampled: 03/10/2021 1511	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		85	25-150
13C3_PFHxS		86	25-150
13C3-HFPO-DA		97	25-150
13C4_PFBa		99	25-150
13C4_PFHpA		91	25-150
13C5_PFHxA		92	25-150
13C5_PFPeA		98	25-150
13C6_PFDa		91	25-150
13C7_PFUdA		89	25-150
13C8_PFOA		93	25-150
13C8_PFOS		95	25-150
13C8_PFOSA		95	10-150
13C9_PFNA		97	25-150
d-EtFOSA		68	10-150
d5-EtFOSAA		88	25-150
d9-EtFOSE		92	10-150
d-MeFOSA		73	10-150
d3-MeFOSAA		91	25-150
d7-MeFOSE		93	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

██████████
 403 – 405 Callaway Boulevard
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 403 – 405 Callaway Boulevard, La Crosse, WI 54603
 Tax Parcel # 4-492-0
 Sampling Point # 492-0
 Sample Date: March 10, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	3.5 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	6.9 ppt	20 ppt ^{a,b}	

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	5.6 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	7.8 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	86 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	1.1 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	4.0 ppt	None Established ^c
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.1 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.1 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
403 – 405 Callaway Boulevard, La Crosse, WI 54603
Tax Parcel # 4-492-0
Sampling Point # 492-0
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-006
Description: 492-0	Matrix: Aqueous
Date Sampled: 03/10/2021 1511	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/24/2021 2323	JJG	03/23/2021 1200	86528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.8	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	5.6		3.8	0.95	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	4.0		3.8	0.95	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	7.8		3.8	0.95	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	86		3.8	0.95	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.1	J	3.8	0.95	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.1	J	3.8	0.95	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	3.5	J	3.8	0.95	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.1	J	3.8	0.95	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	6.9		3.8	0.95	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		100	25-150
13C2_6:2FTS		98	25-150
13C2_8:2FTS		98	25-150
13C2_PFDaA		90	25-150
13C2_PFHxDA		86	25-150
13C2_PFTeDA		82	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-006
Description: 492-0	Matrix: Aqueous
Date Sampled: 03/10/2021 1511	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		85	25-150
13C3_PFHxS		86	25-150
13C3-HFPO-DA		97	25-150
13C4_PFBa		99	25-150
13C4_PFHpA		91	25-150
13C5_PFHxA		92	25-150
13C5_PFPeA		98	25-150
13C6_PFDa		91	25-150
13C7_PFUdA		89	25-150
13C8_PFOA		93	25-150
13C8_PFOS		95	25-150
13C8_PFOsA		95	10-150
13C9_PFNa		97	25-150
d-EtFOsA		68	10-150
d5-EtFOsAA		88	25-150
d9-EtFOSE		92	10-150
d-MeFOsA		73	10-150
d3-MeFOsAA		91	25-150
d7-MeFOSE		93	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

[Redacted]

312 Callaway Boulevard
La Crosse, WI 54603

Subject: Private Well Sampling Results
312 Callaway Boulevard, La Crosse, WI 54603
Tax Parcel # 4-493-2
Sampling Point # 493-0
Sample Date: March 3, 2021

Dear [Redacted]:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	1.6 ppt	20 ppt ^{a,b}	

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.8 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	10 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.4 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
312 Callaway Boulevard, La Crosse, WI 54603
Tax Parcel # 4-493-2
Sampling Point # 493-0
March 27, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-018
Description: 493-0	Matrix: Aqueous
Date Sampled: 03/03/2021 1504	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/10/2021 0302	JJG	03/08/2021 1216	84931
2	SOP SPE	PFAS by ID SOP	1	03/13/2021 1747	JJG	03/12/2021 1044	85520

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	2
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	1.8	J	3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.4	J	3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.0	J	3.5	0.88	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	10		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	1.6	J	3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
13C2_4:2FTS		94	25-150		96	25-150
13C2_6:2FTS		99	25-150		100	25-150
13C2_8:2FTS		101	25-150		104	25-150
13C2_PFDa		98	25-150		94	25-150
13C2_PFHxDA		90	25-150		85	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-018
Description: 493-0	Matrix: Aqueous
Date Sampled: 03/03/2021 1504	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
13C2_PFTeDA		93	25-150		93	25-150
13C3_PFBS		98	25-150		88	25-150
13C3_PFHxS		93	25-150		93	25-150
13C3-HFPO-DA		99	25-150		101	25-150
13C4_PFBA		102	25-150		99	25-150
13C4_PFHpA		108	25-150		103	25-150
13C5_PFHxA		100	25-150		102	25-150
13C5_PFPeA		102	25-150		96	25-150
13C6_PFDA		97	25-150		99	25-150
13C7_PFUdA		100	25-150		95	25-150
13C8_PFOA		102	25-150		104	25-150
13C8_PFOS		100	25-150		89	25-150
13C8_PFOSA		97	10-150		99	10-150
13C9_PFNA		106	25-150		101	25-150
d-EtFOSA		71	10-150		63	10-150
d5-EtFOSAA		93	25-150		86	25-150
d9-EtFOSE		86	10-150		88	10-150
d-MeFOSA		71	10-150		67	10-150
d3-MeFOSAA		95	25-150		81	25-150
d7-MeFOSE		92	10-150		93	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

██████████
2512 Island Park Road
La Crosse, WI 54603

Subject: Private Well Sampling Results
2512 Island Park Road, La Crosse, WI 54603
Tax Parcel # 4-512-0
Sampling Point # 512-0
Sample Date: March 2, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

The DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	8.4 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	9.5 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	4.2 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.4 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	43 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	7.8 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Private Well Sampling Results for
 2512 Island Park Road, La Crosse, WI 54603
 Tax Parcel # 4-512-0
 Sampling Point # 512-0
 March 27, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	0.92 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	20 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>	<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-008
Description: 512-0	Matrix: Aqueous
Date Sampled: 03/02/2021 1445	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 2351	JJG	03/08/2021 1129	84916

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	4.2		3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	0.92	J	3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.4	J	3.5	0.88	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	43		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	7.8		3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	8.4		3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	20		3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	9.5		3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		98	25-150
13C2_6:2FTS		97	25-150
13C2_8:2FTS		94	25-150
13C2_PFDaA		95	25-150
13C2_PFHxDA		90	25-150
13C2_PFTeDA		95	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-008
Description: 512-0	Matrix: Aqueous
Date Sampled: 03/02/2021 1445	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		101	25-150
13C3_PFHxS		100	25-150
13C3-HFPO-DA		105	25-150
13C4_PFBa		109	25-150
13C4_PFHpA		105	25-150
13C5_PFHxA		101	25-150
13C5_PFPeA		111	25-150
13C6_PFDA		99	25-150
13C7_PFUdA		95	25-150
13C8_PFOA		102	25-150
13C8_PFOS		100	25-150
13C8_PFOSA		98	10-150
13C9_PFNA		103	25-150
d-EtFOSA		69	10-150
d5-EtFOSAA		95	25-150
d9-EtFOSE		81	10-150
d-MeFOSA		87	10-150
d3-MeFOSAA		99	25-150
d7-MeFOSE		94	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

██████████
 2540 Island Park Road
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2540 Island Park Road, La Crosse, WI 54603
 Tax Parcel # 4-519-0
 Sampling Point # 519-0
 Sample Date: March 11, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	3.9 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.9 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2540 Island Park Road, La Crosse, WI 54603
 Tax Parcel # 4-519-0
 Sampling Point # 519-0
 April 9, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.4 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.8 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	6.2 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

^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.

^c 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.

Private Well Sampling Results for
2540 Island Park Road, La Crosse, WI 54603
Tax Parcel # 4-519-0
Sampling Point # 519-0
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-015
Description: 519-0	Matrix: Aqueous
Date Sampled: 03/11/2021 1543	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/25/2021 0131	JJG	03/23/2021 1200	86528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	2.4	J	3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.8	J	3.5	0.88	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	6.2		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	3.9		3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.9		3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		96	25-150
13C2_6:2FTS		93	25-150
13C2_8:2FTS		92	25-150
13C2_PFDoA		91	25-150
13C2_PFHxDA		82	25-150
13C2_PFTeDA		81	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-015
Description: 519-0	Matrix: Aqueous
Date Sampled: 03/11/2021 1543	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		85	25-150
13C3_PFHxS		85	25-150
13C3-HFPO-DA		96	25-150
13C4_PFBa		98	25-150
13C4_PFHpA		94	25-150
13C5_PFHxA		90	25-150
13C5_PFPeA		100	25-150
13C6_PFDa		96	25-150
13C7_PFUdA		88	25-150
13C8_PFOA		94	25-150
13C8_PFOS		95	25-150
13C8_PFOsA		100	10-150
13C9_PFNa		101	25-150
d-EtFOsA		64	10-150
d5-EtFOsAA		83	25-150
d9-EtFOSE		89	10-150
d-MeFOsA		78	10-150
d3-MeFOsAA		92	25-150
d7-MeFOSE		85	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 30, 2021

██████████
2552 Island Park Road
La Crosse, WI 54603

Subject: Private Well Sampling Results
2552 Island Park Road, La Crosse, WI 54603
Tax parcel # 4-522-0
Sampling Point # 522-0
Sampling Date: March 8, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DRN form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	21 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	5.5 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.9 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	6.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	46 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	4.0 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.1 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.5 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	5.4 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-001
Description: 522-0	Matrix: Aqueous
Date Sampled: 03/08/2021 1335	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/16/2021 1839	SES	03/15/2021 1045	85709

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.9		3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.1	J	3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	6.0		3.7	0.92	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	46		3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.5	J	3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	4.0		3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	21		3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	5.4		3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	5.5		3.7	0.92	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		93	25-150
13C2_6:2FTS		107	25-150
13C2_8:2FTS		98	25-150
13C2_PFDaA		94	25-150
13C2_PFHxDA		105	25-150
13C2_PFTeDA		104	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-001
Description: 522-0	Matrix: Aqueous
Date Sampled: 03/08/2021 1335	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBS		89	25-150
13C3_PFHxS		96	25-150
13C3-HFPO-DA		103	25-150
13C4_PFBA		107	25-150
13C4_PFHpA		106	25-150
13C5_PFHxA		105	25-150
13C5_PFPeA		106	25-150
13C6_PFDA		100	25-150
13C7_PFUdA		104	25-150
13C8_PFOA		109	25-150
13C8_PFOS		97	25-150
13C8_PFOSA		101	10-150
13C9_PFNA		101	25-150
d-EtFOSA		95	10-150
d5-EtFOSAA		98	25-150
d9-EtFOSE		96	10-150
d-MeFOSA		73	10-150
d3-MeFOSAA		100	25-150
d7-MeFOSE		90	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks**.

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or call 1-866-220-4841.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

Please check the box if you are currently paying for your own bottled-water delivery service and indicate with which company you have existing service: _____

HOUSEHOLD INFORMATION:

Household Contact Name (Print)

Number of Household Members

Signature of Occupant Authorized to Enter into Agreement

Date

Address (for water service)

Email Address

Phone Number where you can be reached during the day

PROPERTY OWNER INFORMATION (if different than the occupant):

Name of Property Owner

Email Address

Phone Number



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

March 30, 2021

██████████
2556 Island Park Road
La Crosse, WI 54603

Subject: Private Well Sampling Results
2556 Island Park Road, La Crosse, WI 54603
Tax parcel # 4-523-0
Sampling Point # 523-0
Sampling Date: March 8, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	30 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	10 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	6.8 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	7.4 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	99 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	4.0 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	2.5 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	5.2 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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) ^f Detected in the method blank. Possible lab contaminant.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-006
Description: 523-0	Matrix: Aqueous
Date Sampled: 03/08/2021 1500	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/16/2021 2004	SES	03/15/2021 1045	85709

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.4	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	6.8		3.4	0.85	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	2.5	J	3.4	0.85	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	7.4		3.4	0.85	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	99		3.4	0.85	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	4.0		3.4	0.85	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	30		3.4	0.85	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	5.2		3.4	0.85	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	10		3.4	0.85	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		102	25-150
13C2_6:2FTS		99	25-150
13C2_8:2FTS		119	25-150
13C2_PFDa		103	25-150
13C2_PFHxDA		114	25-150
13C2_PFTeDA		107	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-006
Description: 523-0	Matrix: Aqueous
Date Sampled: 03/08/2021 1500	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		97	25-150
13C3_PFHxS		104	25-150
13C3-HFPO-DA		106	25-150
13C4_PFBa		114	25-150
13C4_PFHpA		113	25-150
13C5_PFHxA		106	25-150
13C5_PFPeA		116	25-150
13C6_PFDa		107	25-150
13C7_PFUdA		106	25-150
13C8_PFOA		110	25-150
13C8_PFOS		106	25-150
13C8_PFOsA		105	10-150
13C9_PFNa		107	25-150
d-EtFOsA		94	10-150
d5-EtFOsAA		105	25-150
d9-EtFOSE		105	10-150
d-MeFOsA		91	10-150
d3-MeFOsAA		102	25-150
d7-MeFOSE		91	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

March 16, 2021

██████████
 2539 Island Park Road
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2539 Island Park Road, La Crosse, WI 54603
 Tax Parcel # 4-531-0
 Sampling Point # 531-0
 Sample Date: February 24, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	6.0 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.5 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2539 Island Park Road, La Crosse, WI 54603
 Tax Parcel # 4-531-0
 Sampling Point # 531-0
 March 16, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.4 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.5 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	11 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	2.5 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.2 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	2.2 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
2539 Island Park Road, La Crosse, WI 54603
Tax Parcel # 4-531-0
Sampling Point # 531-0
March 16, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

March 16, 2021

Steve Osesek
The OS Group, LLC
N6746 McCurdy Road
Holmen, WI 54636

RE: Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40222545

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on February 26, 2021. 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:

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

Sincerely,



Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC



REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: LACROSSE WELLS 23 & 24

Pace Project No.: 40222545

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40222545001	531-0	Water	02/24/21 13:45	02/26/21 00:00

REPORT OF LABORATORY ANALYSIS

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

(Please Print Clearly)

Company Name:	The OS Group
Branch/Location:	LaCrosse WI
Project Contact:	Steven Ossek
Phone:	608-433-9386
Project Number:	
Project Name:	LaCrosse Wells 23rd
Project Site:	WI
Sampled By (Print):	Kristie L Tweed
Sampled By (Sign):	<i>Kristie L Tweed</i>
PO #:	
Regulatory Program:	

Data Package Options <small>(billable)</small>		MS/MSD	Matrix Codes
<input type="checkbox"/> EPA Level III	<input type="checkbox"/> EPA Level IV	<input type="checkbox"/> On your sample <small>(billable)</small>	<input type="checkbox"/> NOT needed on your sample

Matrix Codes	
A = Ar	V = Van
B = Ba	DW = Drinking Water
C = Cd	GW = Ground Water
D = Cr	SW = Surface Water
E = Cu	VW = Wastewater
F = Pb	WP = WPI
G = Se	
H = Si	

PAGE LAB #	CLIENT FIELD ID	COLLECTION		
001	531-0	DATE	TIME	MATRIX
		03/14	1:45	DW



UPPER MIDWEST REGION
MN: 612-807-1700 WI: 920-469-2436

4022545

CHAIN OF CUSTODY

PRESERVATION CODES						
A-NH4	B-HCL	C-H2SO4	D-HNO3	E-DI Water	F-Methanol	G-MNHG
H-Sodium Bisulfate Solution	I-Sulfate Titration	J-Other				

FILTERED? (Y/N)
PRESERVATION (CODE)

Y/N	
WV1994536	

Quote #:	
Mail To Contact:	Steven Ossek
Mail To Company:	The OS Group
Mail To Address:	444 21st St S LaCrosse, WI 54601
Invoice To Contact:	Steven Ossek
Invoice To Company:	The OS Group
Invoice To Address:	444 21st St S LaCrosse, WI 54601
Invoice To Phone:	608-433-9386
CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)
	WB26029
	KLC2

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed:	Requested By: <i>Kristie L Tweed</i> Date/Time: 03/21/14 3:30	Received By:	Date/Time:	PAGE Project No. 4022545
Transmit Prelim Rush Results by (complete what you want):	Requested By:	Date/Time:	Received By:	Receipt Temp = 2.7 °C
Email #1:	Requested By:	Date/Time:	Received By:	Sample Receipt pH
Email #2:	Requested By:	Date/Time:	Received By:	OK / Adjusted
Telephone:	Requested By:	Date/Time:	Received By:	Cooler Custody Seal
Fax:	Requested By:	Date/Time:	Received By:	Present / Not Present
Samples on HOLD are subject to special pricing and release of liability	Requested By: <i>AA IPS</i> MEK 2/26/14	Date/Time: 2/26/14	Requested By: <i>M. Lamoy</i> 2/26/14	Date/Time: 2/26/14

Version 6.0 05/05/13
ORIGINAL

Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: WI

Cert. Needed: Yes No

Owner Received Date: 2/26/2021 Results Requested By: 3/22/2021

Workorder: 40222545 Workorder Name: LACROSSE WELLS 23 & 24

Report To		Subcontract To				Requested Analysis																										
Christopher Hyska Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436		Pace Analytical West Columbia 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-9700				WI 36 PFAS by ID																										
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix													Preserved Containers					LAB USE ONLY									
1	531-0	PS	2/24/2021 13:45	40222545001	Water													Unpreserved														
2																																
3																																
4																																
5																																
Transfers		Released By	Date/Time	Received By		Date/Time	Comments																									
1							IR77 - MDL reporting - Quote 23492 Direct Ship - WB26029																									
2																																
3																																
Cooler Temperature on Receipt		°C	Custody Seal		Y or N	Received on Ice		Y or N	Samples Intact					Y 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.

WO#: 40222545



40222545



Samples Receipt Checklist (SRC) (ME0018C-...)

Issuing Authority: Pace ENV - WCOL

1/29/2020

Page 1 of 1

Sample Receipt Checklist (SRC)



WB26029

Client: PACE

Cooler Inspected by/date: JRG2 / 2/26/2021 Lot #

Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Other:		KLDZ
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?	
pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA		
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA 2.7 / 2.7 °C NA / NA °C NA / NA °C NA / NA °C		
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any of the VOA vials?	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/pheno/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote #	
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)		
Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA		
Time of preservation NA. If more than one preservative is needed, please note in the comments below.		
Sample(s) NA were received with bubbles >6 mm in diameter.		
Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₅) with Shealy ID: NA		
SR barcode labels applied by: JRG2 Date: 2/26/2021		

Comments:



Report of Analysis

Pace Analytical Services, LLC
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222545

Lot Number: **WB26029**

Date Completed: 03/12/2021

Karen Coonan

03/14/2021 4:17 PM

Approved and released by:
Project Manager II: **Karen L. Coonan**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WB26029

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

The method blank had PFOA detected at a concentration that was above the MDL but below ½ the PQL. All samples associated with this method blank that have detections for PFOA have been flagged with a "B".

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Pace Analytical Services, LLC

Lot Number: WB26029

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222545

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	531-0	Aqueous	02/24/2021 1345	02/26/2021

(1 sample)

PACE ANALYTICAL SERVICES, LLC

Detection Summary
Pace Analytical Services, LLC
Lot Number: WB26029
Project Name: LACROSSE WELLS 23 & 24
Project Number: 40222545

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	531-0	Aqueous	PFBS	PFAS by ID	1.4	J	ng/L	5
001	531-0	Aqueous	PFHxS	PFAS by ID	1.5	J	ng/L	5
001	531-0	Aqueous	PFBA	PFAS by ID	11		ng/L	5
001	531-0	Aqueous	PFHpA	PFAS by ID	1.2	J	ng/L	6
001	531-0	Aqueous	PFHxA	PFAS by ID	2.5	J	ng/L	6
001	531-0	Aqueous	PFOA	PFAS by ID	6.0	B	ng/L	6
001	531-0	Aqueous	PFPeA	PFAS by ID	2.2	J	ng/L	6
001	531-0	Aqueous	PFOS	PFAS by ID	3.5		ng/L	6

(8 detections)

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB26029-001
Description: 531-0	Matrix: Aqueous
Date Sampled: 02/24/2021 1345	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/26/2021	Project Number: 40222545

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/02/2021 1849	MMM	03/01/2021 1010	84236

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	1.4	J	3.5	0.89	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.5	J	3.5	0.89	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	11		3.5	0.89	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.2	J	3.5	0.89	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.5	J	3.5	0.89	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	6.0	B	3.5	0.89	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	2.2	J	3.5	0.89	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.5		3.5	0.89	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		100	25-150
13C2_6:2FTS		109	25-150
13C2_8:2FTS		96	25-150
13C2_PFDaA		92	25-150
13C2_PFHxDA		101	25-150
13C2_PFTeDA		98	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB26029-001
Description: 531-0	Matrix: Aqueous
Date Sampled: 02/24/2021 1345	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/26/2021	Project Number: 40222545

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		117	25-150
13C3_PFHxS		97	25-150
13C3-HFPO-DA		103	25-150
13C4_PFBa		109	25-150
13C4_PFHpA		104	25-150
13C5_PFHxA		105	25-150
13C5_PFPeA		126	25-150
13C6_PFDA		96	25-150
13C7_PFUdA		96	25-150
13C8_PFOA		105	25-150
13C8_PFOS		101	25-150
13C8_PFOSA		77	10-150
13C9_PFNA		107	25-150
d-EtFOSA		82	10-150
d5-EtFOSAA		91	25-150
d9-EtFOSE		86	10-150
d-MeFOSA		73	10-150
d3-MeFOSAA		91	25-150
d7-MeFOSE		88	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: WQ84236-001

Matrix: Aqueous

Batch: 84236

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/01/2021 1010

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
11CI-PF3OUdS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
8:2 FTS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
6:2 FTS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
10:2 FTS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
4:2 FTS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
GenX	ND		1	8.0	2.0	ng/L	03/02/2021 1611
ADONA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
EtFOSA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
EtFOSAA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
EtFOSE	ND		1	8.0	2.0	ng/L	03/02/2021 1611
MeFOSA	ND		1	16	4.0	ng/L	03/02/2021 1611
MeFOSAA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
MeFOSE	ND		1	8.0	2.0	ng/L	03/02/2021 1611
PFBS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFDS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFHpS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFNS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFOSA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFPeS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFDOS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
PFHxS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFBA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFDA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFDoA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFHpA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFHxDA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
PFHxA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFNA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFODA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
PFOA	1.3	J	1	4.0	1.0	ng/L	03/02/2021 1611
PFPeA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFTeDA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFTTrDA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFUdA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFOS	ND		1	4.0	1.0	ng/L	03/02/2021 1611

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		101	25-150
13C2_6:2FTS		102	25-150
13C2_8:2FTS		115	25-150
13C2_PFDoA		101	25-150
13C2_PFHxDA		94	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MB

Sample ID: WQ84236-001

Matrix: Aqueous

Batch: 84236

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/01/2021 1010

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		100	25-150
13C3_PFBs		107	25-150
13C3_PFHxS		98	25-150
13C3-HFPO-DA		92	25-150
13C4_PFBa		104	25-150
13C4_PFHpA		104	25-150
13C5_PFHxA		102	25-150
13C5_PFPeA		114	25-150
13C6_PFDa		92	25-150
13C7_PFUdA		79	25-150
13C8_PFOA		93	25-150
13C8_PFOs		98	25-150
13C8_PFOsA		85	10-150
13C9_PFNa		103	25-150
d-EtFOsA		80	10-150
d5-EtFOsAA		94	25-150
d9-EtFOsE		89	10-150
d-MeFOsA		75	10-150
d3-MeFOsAA		98	25-150
d7-MeFOsE		75	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ84236-002

Matrix: Aqueous

Batch: 84236

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/01/2021 1010

Parameter	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	15	14		1	91	50-150	03/02/2021 1621
11CI-PF3OUdS	15	14		1	94	50-150	03/02/2021 1621
8:2 FTS	15	18		1	117	50-150	03/02/2021 1621
6:2 FTS	15	16		1	104	50-150	03/02/2021 1621
10:2 FTS	15	13		1	83	50-150	03/02/2021 1621
4:2 FTS	15	15		1	99	50-150	03/02/2021 1621
GenX	32	35		1	110	50-150	03/02/2021 1621
ADONA	15	15		1	102	50-150	03/02/2021 1621
EtFOSA	16	17		1	108	50-150	03/02/2021 1621
EtFOSAA	16	18		1	115	50-150	03/02/2021 1621
EtFOSE	16	16		1	99	50-150	03/02/2021 1621
MeFOSA	16	16		1	98	50-150	03/02/2021 1621
MeFOSAA	16	16		1	98	50-150	03/02/2021 1621
MeFOSE	16	13		1	82	50-150	03/02/2021 1621
PFBS	14	14		1	98	50-150	03/02/2021 1621
PFDS	15	14		1	92	50-150	03/02/2021 1621
PFHpS	15	16		1	103	50-150	03/02/2021 1621
PFNS	15	14		1	93	50-150	03/02/2021 1621
PFOSA	16	16		1	98	50-150	03/02/2021 1621
PFPeS	15	14		1	90	50-150	03/02/2021 1621
PFDOS	15	15		1	97	50-150	03/02/2021 1621
PFHxS	15	13		1	92	50-150	03/02/2021 1621
PFBA	16	16		1	98	50-150	03/02/2021 1621
PFDA	16	14		1	86	50-150	03/02/2021 1621
PFDoA	16	17		1	104	50-150	03/02/2021 1621
PFHpA	16	14		1	89	50-150	03/02/2021 1621
PFHxDA	16	16		1	103	50-150	03/02/2021 1621
PFHxA	16	18		1	111	50-150	03/02/2021 1621
PFNA	16	16		1	97	50-150	03/02/2021 1621
PFODA	16	18		1	114	50-150	03/02/2021 1621
PFOA	16	15		1	94	50-150	03/02/2021 1621
PFPeA	16	15		1	95	50-150	03/02/2021 1621
PFTeDA	16	17		1	104	50-150	03/02/2021 1621
PFTTrDA	16	16		1	101	50-150	03/02/2021 1621
PFUdA	16	15		1	96	50-150	03/02/2021 1621
PFOS	15	16		1	105	50-150	03/02/2021 1621

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		94	25-150
13C2_6:2FTS		104	25-150
13C2_8:2FTS		94	25-150
13C2_PFDoA		87	25-150
13C2_PFHxDA		86	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ84236-002

Matrix: Aqueous

Batch: 84236

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/01/2021 1010

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		90	25-150
13C3_PFBs		96	25-150
13C3_PFHxS		96	25-150
13C3-HFPO-DA		93	25-150
13C4_PFBa		100	25-150
13C4_PFHpA		106	25-150
13C5_PFHxA		86	25-150
13C5_PFPeA		113	25-150
13C6_PFDa		95	25-150
13C7_PFUdA		94	25-150
13C8_PFOA		100	25-150
13C8_PFOs		89	25-150
13C8_PFOsA		76	10-150
13C9_PFNa		95	25-150
d-EtFOsA		76	10-150
d5-EtFOsAA		84	25-150
d9-EtFOsE		90	10-150
d-MeFOsA		62	10-150
d3-MeFOsAA		80	25-150
d7-MeFOsE		79	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents

(Please Print Clearly)

Company Name: The OS Group
 Branch/Location: LaCrosse, WI
 Project Contact: Steven Oseseck
 Phone: 608-433-9386
 Project Number:
 Project Name: LaCrosse Wells 23rd
 Project State: WI
 Sampled By (Print): Kristie L Tweed
 Sampled By (Sign): Kristie L Tweed
 PO #: _____ Regulatory Program: _____



UPPER MIDWEST REGION

MN: 612-607-1700 WI: 920-469-2436

Page 1 of

CHAIN OF CUSTODY

Preservation Codes
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
 H=Sodium Bisulfite Solution I=Sulfur Trioxide J=Other

FILTERED? (YES/NO)	PRESERVATION (CODE)	Y/N	Pick Critic	Analysis Requested
				X

Quote #: _____
 Mail To Contact: Steven Oseseck
 Mail To Company: The OS Group
 Mail To Address: 444 21st St S
LaCrosse, WI 54601
 Invoice To Contact: Steven Oseseck
 Invoice To Company: The OS Group
 Invoice To Address: 444 21st St S
LaCrosse, WI 54601
 Invoice To Phone: 608-433-9386
 CLIENT COMMENTS: _____
 LAB COMMENTS: _____
 Profile #: _____

Data Package Options (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Air W = Water
 B = Blood DW = Drinking Water
 C = Charcoal GW = Ground Water
 O = Oil SW = Surface Water
 S = Soil WW = Wastewater
 SI = Sludge WP = Waste

PAGE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
	<u>531-0</u>	<u>03/24</u>	<u>1:45</u>	<u>DW</u>



Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)
 Date Needed: _____
 Transmit Prelim Rush Results by (complete what you want):
 Email #1: _____
 Email #2: _____
 Telephone: _____
 Fax: _____

Relinquished By: Kristie L Tweed Date/Time: 03/25/24 3:30
 Relinquished By: _____ Date/Time: _____
 Relinquished By: _____ Date/Time: _____
 Relinquished By: _____ Date/Time: _____
 Relinquished By: AA UPS Date/Time: 2/26/21 0915
meil 2/26/21

Received By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____
 Received By: Tom Hamoy Date/Time: 2/26/21 0915

PAGE Project No. _____
 Receipt Temp - 2.7 °C
 Sample Receipt pH OK / Adjusted
 Cooler Custody Seal Present / Not Present
 Intact / Not Intact _____

0019e(27 Jun 2006)

ORIGINAL



Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised 9/29/2020
gc 1 of 1
WB26029
KLG2

Sample Receipt Checklist (SRC)

Client: PACE Cooler Inspected by/date: JRG2 / 2/26/2021 Lot #

Means of receipt:		<input type="checkbox"/> Pace	<input type="checkbox"/> Client	<input type="checkbox"/> UPS	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> Other:
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?				
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?			
pH Strip ID: NA		Chlorine Strip ID: NA		Tested by: NA		
Original temperature upon receipt / Derived (Corrected) temperature upon receipt		%Solid Snap-Cup ID: NA				
2.7 / 2.7 °C NA / NA °C NA / NA °C NA / NA °C						
Method:		<input type="checkbox"/> Temperature Blank	<input checked="" type="checkbox"/> Against Bottles	IR Gun ID: 6 IR Gun Correction Factor: 0 °C		
Method of coolant:		<input checked="" type="checkbox"/> Wet Ice	<input type="checkbox"/> Ice Packs	<input type="checkbox"/> Dry Ice	<input type="checkbox"/> None	
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		5. Were proper custody procedures (relinquished/received) followed?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		6. Were sample IDs listed on the COC?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		7. Were sample IDs listed on all sample containers?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		8. Was collection date & time listed on the COC?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		9. Was collection date & time listed on all sample containers?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		10. Did all container label information (ID, date, time) agree with the COC?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		11. Were tests to be performed listed on the COC?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		13. Was adequate sample volume available?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?			
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?			
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		21. Was the quote number listed on the container label? If yes, Quote #			

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCL, NaOH using SR # NA
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na₂S₂O₃) with Shealy ID: NA

SR barcode labels applied by: JRG2 Date: 2/26/2021

Comments:

Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: WI

Cert. Needed: Yes No

Owner Received Date: 2/26/2021 Results Requested By: 3/22/2021

Workorder: 40222545 Workorder Name: LACROSSE WELLS 23 & 24

Report To: Christopher Hyska Subcontract To: Pace Analytical West Columbia Requested Analysis:

Christopher Hyska
Pace Analytical Green Bay
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Phone (920)469-2436

Pace Analytical West Columbia
106 Vantage Point Drive
West Columbia, SC 29172
Phone (803)791-9700

WB 26029

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers				WT 55 PTAS by ID	LAB USE ONLY
						1	2	3	4		
1	521-0	PS	2/24/2021 13:45	40222545001	Water	2				X	
2											
3											
4											
5											

Transfers					Comments	
Released By	Date/Time	Received By	Date/Time			
					IR77 - MDL reporting - Quote 23492	
					Direct Ship - WB26029	
UPS	2/26/21 09:15	[Signature]	2/26/21 09:15			

Cooler Temperature on Receipt 2.9 °C Custody Seal Y or N Received on Ice Y or N Samples Intact Y 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.

Pace Analytical Services, LLC (formerly Sheehy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com
 Page 15 of 15
 Page 20 of 20

PACE ANALYTICAL SERVICES, LLC



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

April 9, 2021

██████████
 2500 Lakeshore Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2500 Lakeshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-534-0
 Sampling Point # 534-0
 Sample Date: March 10, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	1.8 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2500 Lakeshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-534-0
 Sampling Point # 534-0
 April 9, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	7.6 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	6.9 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
2500 Lakeshore Drive, La Crosse, WI 54603
Tax Parcel # 4-534-0
Sampling Point # 534-0
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-003
Description: 534-0	Matrix: Aqueous
Date Sampled: 03/10/2021 1347	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/24/2021 2252	JJG	03/23/2021 1200	86528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	7.6		3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.0	J	3.7	0.92	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	6.9		3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	1.8	J	3.7	0.92	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		99	25-150
13C2_6:2FTS		104	25-150
13C2_8:2FTS		87	25-150
13C2_PFDaA		88	25-150
13C2_PFHxDA		83	25-150
13C2_PFTeDA		84	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-003
Description: 534-0	Matrix: Aqueous
Date Sampled: 03/10/2021 1347	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		87	25-150
13C3_PFHxS		89	25-150
13C3-HFPO-DA		99	25-150
13C4_PFBa		100	25-150
13C4_PFHpA		93	25-150
13C5_PFHxA		91	25-150
13C5_PFPeA		96	25-150
13C6_PFDa		94	25-150
13C7_PFUdA		95	25-150
13C8_PFOa		94	25-150
13C8_PFOs		94	25-150
13C8_PFOsA		94	10-150
13C9_PFNa		98	25-150
d-EtFOsA		75	10-150
d5-EtFOsAA		86	25-150
d9-EtFOsE		86	10-150
d-MeFOsA		86	10-150
d3-MeFOsAA		91	25-150
d7-MeFOsE		87	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 25, 2021

[REDACTED]
2529 Western Avenue
La Crosse, WI 54603

Subject: Private Well Sampling Results
2529 Western Avenue, La Crosse, WI 54603
Tax parcel # 4-547-0
Sampling Point # 547-0
Sampling Date: March 1, 2021

Dear [REDACTED]:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – *Agreement for Requesting Temporary Emergency Water*.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.0 ppt	20 ppt^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	14 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	13 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.5 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.6 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	45 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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	1.1 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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) ^f Detected in the method blank. Possible lab contaminant.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-002
Description: 547-0	Matrix: Aqueous
Date Sampled: 03/01/2021 1337	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 1508	MMM	03/03/2021 1117	84514

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	1.5	J	3.7	0.93	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.0	J	3.7	0.93	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.6	J	3.7	0.93	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	45		3.7	0.93	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	14		3.7	0.93	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.1	J	3.7	0.93	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	13		3.7	0.93	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		88	25-150
13C2_6:2FTS		88	25-150
13C2_8:2FTS		90	25-150
13C2_PFDaA		95	25-150
13C2_PFHxDA		106	25-150
13C2_PFTeDA		102	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-002
Description: 547-0	Matrix: Aqueous
Date Sampled: 03/01/2021 1337	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		95	25-150
13C3_PFHxS		99	25-150
13C3-HFPO-DA		104	25-150
13C4_PFBa		96	25-150
13C4_PFHpA		101	25-150
13C5_PFHxA		97	25-150
13C5_PFPeA		103	25-150
13C6_PFDa		96	25-150
13C7_PFUdA		82	25-150
13C8_PFOA		119	25-150
13C8_PFOS		102	25-150
13C8_PFOsA		99	10-150
13C9_PFNa		112	25-150
d-EtFOsA		75	10-150
d5-EtFOsAA		91	25-150
d9-EtFOsE		96	10-150
d-MeFOsA		68	10-150
d3-MeFOsAA		92	25-150
d7-MeFOsE		102	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

March 25, 2021

██████████
2529 Western Avenue
La Crosse, WI 54603

Subject: Private Well Sampling Results
2529 Western Avenue, La Crosse, WI 54603
Tax parcel # 4-547-0
Sampling Point # 547-0
Sampling Date: March 1, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:
<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – *Agreement for Requesting Temporary Emergency Water*.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.0 ppt	20 ppt^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	14 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	13 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.5 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.6 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	45 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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	1.1 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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) ^f Detected in the method blank. Possible lab contaminant.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-002
Description: 547-0	Matrix: Aqueous
Date Sampled: 03/01/2021 1337	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 1508	MMM	03/03/2021 1117	84514

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	1.5	J	3.7	0.93	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.0	J	3.7	0.93	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.6	J	3.7	0.93	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	45		3.7	0.93	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	14		3.7	0.93	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.1	J	3.7	0.93	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	13		3.7	0.93	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		88	25-150
13C2_6:2FTS		88	25-150
13C2_8:2FTS		90	25-150
13C2_PFDaA		95	25-150
13C2_PFHxDA		106	25-150
13C2_PFTeDA		102	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-002
Description: 547-0	Matrix: Aqueous
Date Sampled: 03/01/2021 1337	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		95	25-150
13C3_PFHxS		99	25-150
13C3-HFPO-DA		104	25-150
13C4_PFBa		96	25-150
13C4_PFHpA		101	25-150
13C5_PFHxA		97	25-150
13C5_PFPeA		103	25-150
13C6_PFDa		96	25-150
13C7_PFUdA		82	25-150
13C8_PFOA		119	25-150
13C8_PFOS		102	25-150
13C8_PFOsA		99	10-150
13C9_PFNa		112	25-150
d-EtFOsA		75	10-150
d5-EtFOsAA		91	25-150
d9-EtFOsE		96	10-150
d-MeFOsA		68	10-150
d3-MeFOsAA		92	25-150
d7-MeFOsE		102	10-150

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis			S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

March 16, 2021

██████████
 2536 Lakeshore Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2536 Lakeshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-552-0
 Sampling Point # 552-0
 Sample Date: February 24, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.8 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	7.5 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	4.5 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2536 Lakeshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-552-0
 Sampling Point # 552-0
 March 16, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.8 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.2 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	36 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	1.8 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	3.4 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
2536 Lakeshore Drive, La Crosse, WI 54603
Tax Parcel # 4-552-0
Sampling Point # 552-0
March 16, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

March 16, 2021

Steve Osesek
The OS Group, LLC
N6746 McCurdy Road
Holmen, WI 54636

RE: Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40222544

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on February 26, 2021. 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:

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

Sincerely,



Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC



REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40222544

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40222544001	552-0	Water	02/24/21 14:17	02/26/21 00:00

REPORT OF LABORATORY ANALYSIS

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

(Please Print Clearly)

Company Name: *The OS Group*

Branch/Location: *LaCrosse WI*

Project Contact: *Steven Osesek*

Phone: *608-433-9386*

Project Number:

Project Name: *LaCrosse Well 23+24*

Project State: *WI*

Sampled By (Print): *Kristie L Tweed*

Sampled By (Sign): *Kristie L Tweed*

PO #:

Regulatory Program:



UPPER MIDWEST REGION
MN: 612-807-1700 WI: 608-469-2136

Page 1 of

4022544

CHAIN OF CUSTODY

Preservation Codes
A=None B=HCL C=H2SO4 D=HN03 E=GI Water F=Methanol G=NaOH
H=Sodium Eluate Solution I=Sodium Trifluoroacetate J=Other

ANALYSIS REQUESTED	DATE	TIME	MATRIX	INITIALS
<i>WI PFAS 36</i>	<i>2/24</i>	<i>2:12</i>	<i>DW</i>	<i>X</i>

Quote #: _____

Mail To Contact: *Steven Osesek*

Mail To Company: *The OS Group*

Mail To Address: *444 2nd St S
LaCrosse, WI 54601*

Invoice To Contact: *Steven Osesek*

Invoice To Company: *The OS Group*

Invoice To Address: *444 2nd St S
LaCrosse, WI 54601*

Invoice To Phone: *608-433-9386*

CLIENT COMMENTS

LAB COMMENTS (Lab Use Only)

Profile #

Data Package Options (Disable)

EPA Level III

EPA Level IV

MS/MSD

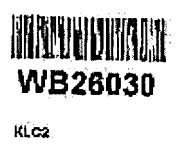
On your sample (billable)

NOT needed on your sample

Matrix Codes

A = Air W = Water
B = Bulk DW = Drinking Water
C = Churned GW = Ground Water
O = Oil SW = Surface Water
S = Sol WW = Waste Water
St = Sludge WP = Wipe

PAGE LAB #	CLIENT FIELD ID	DATE	TIME	MATRIX
<i>001</i>	<i>552-D</i>	<i>2/24</i>	<i>2:12</i>	<i>DW</i>



Rush Turnaround Time Requested - Premiums (Rush TAT subject to approval/surcharge) Date Needed:

Transmit Premium Rush Results by (complete what you want):

Email #1:

Email #2:

Telephone:

Fax:

Relinquished By: <i>Kristie L Tweed</i>	Date/Time: <i>2/25/21 3:30</i>	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By: <i>CDS</i>	Date/Time: <i>2/26/21 0915</i>	Received By: <i>M. Lowery</i>	Date/Time: <i>2/26/21 0915</i>

PAGE Project No. *4022544*

Receipt Temp = *2.7* °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present Intact / Not Intact

C019a[27Jun2006]

ORIGINAL

Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: WI

Cert. Needed: Yes No

Owner Received Date: 2/26/2021 Results Requested By: 3/22/2021



Workorder: 40222544 Workorder Name: LACROSSE WELL 23 & 24

Report To		Subcontract To					Requested Analysis																	
Christopher Hyska Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436		Pace Analytical West Columbia 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-9700																						
							WT 36 PFAS by ID																	
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers					LAB USE ONLY													
						Unpreserved																		
1	552-0	PS	2/24/2021 14:17	40222544001	Water	2																		
2																								
3																								
4																								
5																								
															Comments									
Transfers	Released By	Date/Time	Received By	Date/Time	IR77 - MDL reporting - Quote 23492																			
1					Direct Ship - WB26030																			
2																								
3																								
Cooler Temperature on Receipt		°C	Custody Seal Y or N		Received on Ice Y or N		Samples Intact Y 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.

WO#: 40222544



40222544



Samples Receipt Checklist (SRC) (MED018C-15)
Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

WB26030

Client: PACE

Confer Inspected by/date: JRG2 / 2/26/2021

Lot

Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Other:		Lot	WB26030
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?		KLC2
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?		
pH Strip ID: NA		Chlorine Strip ID: NA	Tested by: NA
Original temperature upon receipt / Derived (Corrected) temperature upon receipt		%Solid Snap-Cup ID: NA	
2.7 / 2.7 °C NA / NA °C NA / NA °C NA / NA °C			
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles		IR Gun ID: 6	IR Gun Correction Factor: 0 °C
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None			
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any of the VOA vials?		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/pheno/625.1/608.3 (<0.5mg/L) samples free of residual chlorine?		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote #		
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)			
Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA			
Time of preservation NA. If more than one preservative is needed, please note in the comments below.			
Sample(s) NA were received with bubbles >6 mm in diameter.			
Sample(s) NA were received with TRC > 0.5 mg/L (if #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: NA			
SR barcode labels applied by: JRG2 Date: 2/26/2021			

Comments:



Report of Analysis

Pace Analytical Services, LLC
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222544

Lot Number: **WB26030**

Date Completed: 03/14/2021

Karen Coonan

03/14/2021 4:19 PM

Approved and released by:
Project Manager II: **Karen L. Coonan**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WB26030

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

The method blank had PFOA detected at a concentration that was above the MDL but below ½ the PQL. All samples associated with this method blank that have detections for PFOA have been flagged with a "B".

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Pace Analytical Services, LLC

Lot Number: WB26030

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222544

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	552-0	Aqueous	02/24/2021 1417	02/26/2021

(1 sample)

PACE ANALYTICAL SERVICES, LLC

Detection Summary
Pace Analytical Services, LLC
Lot Number: WB26030
Project Name: LACROSSE WELLS 23 & 24
Project Number: 40222544

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	552-0	Aqueous	PFBS	PFAS by ID	2.8	J	ng/L	5
001	552-0	Aqueous	PFOSA	PFAS by ID	1.8	J	ng/L	5
001	552-0	Aqueous	PFHxS	PFAS by ID	4.2		ng/L	5
001	552-0	Aqueous	PFBA	PFAS by ID	36		ng/L	5
001	552-0	Aqueous	PFHxA	PFAS by ID	1.8	J	ng/L	6
001	552-0	Aqueous	PFOA	PFAS by ID	7.5	B	ng/L	6
001	552-0	Aqueous	PFPeA	PFAS by ID	3.4	J	ng/L	6
001	552-0	Aqueous	PFOS	PFAS by ID	4.5		ng/L	6

(8 detections)

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB26030-001
Description: 552-0	Matrix: Aqueous
Date Sampled: 02/24/2021 1417	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/26/2021	Project Number: 40222544

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/02/2021 1900	MMM	03/01/2021 1010	84236

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	2.8	J	3.6	0.91	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.8	J	3.6	0.91	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.2		3.6	0.91	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	36		3.6	0.91	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.8	J	3.6	0.91	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	7.5	B	3.6	0.91	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	3.4	J	3.6	0.91	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	4.5		3.6	0.91	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		105	25-150
13C2_6:2FTS		104	25-150
13C2_8:2FTS		96	25-150
13C2_PFDaA		104	25-150
13C2_PFHxDA		110	25-150
13C2_PFTeDA		108	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB26030-001
Description: 552-0	Matrix: Aqueous
Date Sampled: 02/24/2021 1417	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/26/2021	Project Number: 40222544

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		114	25-150
13C3_PFHxS		99	25-150
13C3-HFPO-DA		102	25-150
13C4_PFBa		113	25-150
13C4_PFHpA		129	25-150
13C5_PFHxA		112	25-150
13C5_PFPeA		127	25-150
13C6_PFDA		91	25-150
13C7_PFUdA		103	25-150
13C8_PFOA		115	25-150
13C8_PFOS		112	25-150
13C8_PFOSA		78	10-150
13C9_PFNA		114	25-150
d-EtFOSA		72	10-150
d5-EtFOSAA		97	25-150
d9-EtFOSE		89	10-150
d-MeFOSA		77	10-150
d3-MeFOSAA		103	25-150
d7-MeFOSE		82	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: WQ84236-001

Matrix: Aqueous

Batch: 84236

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/01/2021 1010

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
11CI-PF3OUdS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
8:2 FTS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
6:2 FTS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
10:2 FTS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
4:2 FTS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
GenX	ND		1	8.0	2.0	ng/L	03/02/2021 1611
ADONA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
EtFOSA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
EtFOSAA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
EtFOSE	ND		1	8.0	2.0	ng/L	03/02/2021 1611
MeFOSA	ND		1	16	4.0	ng/L	03/02/2021 1611
MeFOSAA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
MeFOSE	ND		1	8.0	2.0	ng/L	03/02/2021 1611
PFBS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFDS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFHpS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFNS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFOSA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFPeS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFDOS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
PFHxS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFBA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFDA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFDoA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFHpA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFHxDA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
PFHxA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFNA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFODA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
PFOA	1.3	J	1	4.0	1.0	ng/L	03/02/2021 1611
PFPeA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFTeDA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFTTrDA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFUdA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFOS	ND		1	4.0	1.0	ng/L	03/02/2021 1611

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		101	25-150
13C2_6:2FTS		102	25-150
13C2_8:2FTS		115	25-150
13C2_PFDoA		101	25-150
13C2_PFHxDA		94	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MB

Sample ID: WQ84236-001

Matrix: Aqueous

Batch: 84236

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/01/2021 1010

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		100	25-150
13C3_PFBs		107	25-150
13C3_PFHxS		98	25-150
13C3-HFPO-DA		92	25-150
13C4_PFBa		104	25-150
13C4_PFHpA		104	25-150
13C5_PFHxA		102	25-150
13C5_PFPeA		114	25-150
13C6_PFDa		92	25-150
13C7_PFUdA		79	25-150
13C8_PFOA		93	25-150
13C8_PFOs		98	25-150
13C8_PFOsA		85	10-150
13C9_PFNa		103	25-150
d-EtFOsA		80	10-150
d5-EtFOsAA		94	25-150
d9-EtFOsE		89	10-150
d-MeFOsA		75	10-150
d3-MeFOsAA		98	25-150
d7-MeFOsE		75	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ84236-002

Matrix: Aqueous

Batch: 84236

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/01/2021 1010

Parameter	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	15	14		1	91	50-150	03/02/2021 1621
11CI-PF3OUdS	15	14		1	94	50-150	03/02/2021 1621
8:2 FTS	15	18		1	117	50-150	03/02/2021 1621
6:2 FTS	15	16		1	104	50-150	03/02/2021 1621
10:2 FTS	15	13		1	83	50-150	03/02/2021 1621
4:2 FTS	15	15		1	99	50-150	03/02/2021 1621
GenX	32	35		1	110	50-150	03/02/2021 1621
ADONA	15	15		1	102	50-150	03/02/2021 1621
EtFOSA	16	17		1	108	50-150	03/02/2021 1621
EtFOSAA	16	18		1	115	50-150	03/02/2021 1621
EtFOSE	16	16		1	99	50-150	03/02/2021 1621
MeFOSA	16	16		1	98	50-150	03/02/2021 1621
MeFOSAA	16	16		1	98	50-150	03/02/2021 1621
MeFOSE	16	13		1	82	50-150	03/02/2021 1621
PFBS	14	14		1	98	50-150	03/02/2021 1621
PFDS	15	14		1	92	50-150	03/02/2021 1621
PFHpS	15	16		1	103	50-150	03/02/2021 1621
PFNS	15	14		1	93	50-150	03/02/2021 1621
PFOSA	16	16		1	98	50-150	03/02/2021 1621
PFPeS	15	14		1	90	50-150	03/02/2021 1621
PFDOS	15	15		1	97	50-150	03/02/2021 1621
PFHxS	15	13		1	92	50-150	03/02/2021 1621
PFBA	16	16		1	98	50-150	03/02/2021 1621
PFDA	16	14		1	86	50-150	03/02/2021 1621
PFDoA	16	17		1	104	50-150	03/02/2021 1621
PFHpA	16	14		1	89	50-150	03/02/2021 1621
PFHxDA	16	16		1	103	50-150	03/02/2021 1621
PFHxA	16	18		1	111	50-150	03/02/2021 1621
PFNA	16	16		1	97	50-150	03/02/2021 1621
PFODA	16	18		1	114	50-150	03/02/2021 1621
PFOA	16	15		1	94	50-150	03/02/2021 1621
PFPeA	16	15		1	95	50-150	03/02/2021 1621
PFTeDA	16	17		1	104	50-150	03/02/2021 1621
PFTTrDA	16	16		1	101	50-150	03/02/2021 1621
PFUdA	16	15		1	96	50-150	03/02/2021 1621
PFOS	15	16		1	105	50-150	03/02/2021 1621
Surrogate	Q	% Rec	Acceptance Limit				
13C2_4:2FTS		94	25-150				
13C2_6:2FTS		104	25-150				
13C2_8:2FTS		94	25-150				
13C2_PFDoA		87	25-150				
13C2_PFHxDA		86	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ84236-002

Matrix: Aqueous

Batch: 84236

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/01/2021 1010

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		90	25-150
13C3_PFBs		96	25-150
13C3_PFHxS		96	25-150
13C3-HFPO-DA		93	25-150
13C4_PFBa		100	25-150
13C4_PFHpA		106	25-150
13C5_PFHxA		86	25-150
13C5_PFPeA		113	25-150
13C6_PFDa		95	25-150
13C7_PFUdA		94	25-150
13C8_PFOA		100	25-150
13C8_PFOs		89	25-150
13C8_PFOsA		76	10-150
13C9_PFNa		95	25-150
d-EtFOsA		76	10-150
d5-EtFOsAA		84	25-150
d9-EtFOsE		90	10-150
d-MeFOsA		62	10-150
d3-MeFOsAA		80	25-150
d7-MeFOsE		79	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents

(Please Print Clearly)

Company Name: The OS Group
 Branch/Location: LaCrosse WI
 Project Contact: Steven Osesek
 Phone: 608-433-9386
 Project Number:
 Project Name: LaCrosse Well 23+24
 Project State: WI
 Sampled By (Print): Kristie L Tweed
 Sampled By (Sign): Kristie L Tweed
 PO #:
 Regulatory Program:



UPPER MIDWEST REGION
 MN: 612-607-1700 WI: 920-469-2438

CHAIN OF CUSTODY

***Preservation Codes**
 A=None B-HCL C-H2SO4 D-HNO3 E-DI Water F-May/anal G=NaOH
 H-Sodium Eluate Solution I-Sodium Thiosulfate J-Other

FILTERED? (YES/NO)
 PRESERVATION (CODE)

Y/N	Pink Labels	Analysis Requested	MATRIX
N	A	WI PFAS 36	DW
X			

Quote #:

Mail To Contact: Steven Osesek
 Mail To Company: The OS Group
 Mail To Address: 444 2nd St S, LaCrosse, WI 54601
 Invoice To Contact: Steven Osesek
 Invoice To Company: The OS Group
 Invoice To Address: 444 2nd St S, LaCrosse, WI 54601
 Invoice To Phone: 608-433-9386

CLIENT COMMENTS
LAB COMMENTS (Lab Use Only)
 Profile #



Data Package Options: (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Air W = Water
 B = Efflu. CW = Drinking Water
 C = Charcoal CW = Ground Water
 G = Gas SW = Surface Water
 S = Soil YW = Wastewater
 SI = Sludge WP = Waste

PACELAB #	CLIENT FIELD ID	COLLECTION		MATRIX	Analysis Requested
		DATE	TIME		
	552-D	02/24	2:17	DW	X

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)
 Date Needed: [blank]

Relinquished By: Kristie L Tweed Date/Time: 02/25/24 3:30	Received By: [blank] Date/Time:	PACK Project No: Receipt Temp = 2.7 °C Sample Receipt pH OK / Adjusted Cooler Custody Seal Present / Not Present Intact / Not Intact
Relinquished By: [blank] Date/Time:	Received By: [blank] Date/Time:	
Relinquished By: [blank] Date/Time:	Received By: [blank] Date/Time:	
Relinquished By: [blank] Date/Time:	Received By: [blank] Date/Time:	
Relinquished By: [blank] Date/Time:	Received By: [blank] Date/Time:	
Relinquished By: [blank] Date/Time:	Received By: [blank] Date/Time:	

Relinquished By: [blank] Date/Time: 2/24/21 0415
 Received By: [blank] Date/Time: 2/24/21 0915

Samples on HOLD are subject to special pricing and release of liability

PACE ANALYTICAL SERVICES, LLC



Samples Receipt Checklist (SRC) (ME0018C-15)

Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020

Page 1 of 1

Sample Receipt Checklist (SRC)



WB26030

Client: PACE

Cooler Inspected by/date: JRG2 / 2/26/2021

Lot

Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Other: _____		Lot	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?		
pH Strip ID: NA Chlorine Strip ID: NA		Tested by: NA	
Original temperature upon receipt / Derived (Corrected) temperature upon receipt		%Solid Snap-Cup ID: NA	
2.7 / 2.7 °C NA / NA °C NA / NA °C NA / NA °C			
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles		IR Gun ID: 6 IR Gun Correction Factor: 6 °C	
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None			
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any of the VOA vials?		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote #		
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)			
Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA			
Time of preservation NA. If more than one preservative is needed, please note in the comments below.			
Sample(s) NA were received with bubbles >6 mm in diameter.			
Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: NA			
SR barcode labels applied by: JRG2		Date: 2/26/2021	

Comments:

Internal Transfer Chain of Custody



Pace Analytical Services, LLC (formerly Sheehy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



Samples Pre-Logged into eCOC.

State Of Origin: WI
 Cert. Needed: Yes No
 Owner Received Date: 2/26/2021 Results Requested By: 3/22/2021

Workorder: 40222544 Workorder Name: LACROSSE WELL 23 & 24

Report To		Subcontract To						Requested Analysis									
Christopher Hyska Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436		Pace Analytical West Columbia 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-9700						<i>WB 26030</i>									

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers				WT: 316 PFAS by 111	LAB USE ONLY									
						Increase														
1	552-0	PS	2/24/2021 14:17	40222544001	Water	2				X										
2																				
3																				
4																				
5																				

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1					IR77 - MDL reporting - Quote 23192
2					Direct Ship - WB26030
3	<i>UPS</i>	<i>2/24/21 0915</i>	<i>[Signature]</i>	<i>2/24/21 0915</i>	

Cooler Temperature on Receipt *2.7 °C*
 Custody Seal *Y or N*
 Received on Ice *Y or N*
 Samples Intact *Y 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.



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

April 9, 2021

██████████
 700 3rd Street North, Suite 105
 La Crosse, WI 54601

Subject: Private Well Sampling Results
 201 Sky Harbour Drive, La Crosse, WI 54603
 Tax Parcel # 4-596-0
 Sampling Point # 596-0
 Sample Date: March 18, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.2 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.7 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.3 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	4.8 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

^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.

^c 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.

Private Well Sampling Results for
201 Sky Harbour Drive, La Crosse, WI 54603
Tax Parcel # 4-596-0
Sampling Point # 596-0
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC24099-004
Description: 596-0	Matrix: Aqueous
Date Sampled: 03/18/2021 1312	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/30/2021 2108	JJG	03/29/2021 1125	87152

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.7		3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.2	J	3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.3	J	3.5	0.88	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	4.8		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		104	25-150
13C2_6:2FTS		108	25-150
13C2_8:2FTS		99	25-150
13C2_PFDa		98	25-150
13C2_PFHxDA		91	25-150
13C2_PFTeDA		92	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC24099-004
Description: 596-0	Matrix: Aqueous
Date Sampled: 03/18/2021 1312	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		92	25-150
13C3_PFHxS		112	25-150
13C3-HFPO-DA		96	25-150
13C4_PFBa		109	25-150
13C4_PFHpA		104	25-150
13C5_PFHxA		101	25-150
13C5_PFPeA		105	25-150
13C6_PFDA		107	25-150
13C7_PFUdA		97	25-150
13C8_PFOA		109	25-150
13C8_PFOS		100	25-150
13C8_PFOSA		105	10-150
13C9_PFNA		98	25-150
d-EtFOSA		82	10-150
d5-EtFOSAA		95	25-150
d9-EtFOSE		90	10-150
d-MeFOSA		98	10-150
d3-MeFOSAA		103	25-150
d7-MeFOSE		92	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 30, 2021

██████████
 1907 Maryline Court
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 1907 Maryline Court, La Crosse, WI 54603
 Tax Parcel # 4-600-8
 Sampling Point # 600-8
 Sample Date: March 9, 2021

Dear ██████████ :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.8 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	

Private Well Sampling Results for
 1907 Maryline Court, La Crosse, WI 54603
 Tax Parcel # 4-600-8
 Sampling Point # 600-8
 March 30, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.2 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	2.4 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	2.0 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	0.95 ppt	None Established ^c

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

Private Well Sampling Results for
1907 Maryline Court, La Crosse, WI 54603
Tax Parcel # 4-600-8
Sampling Point # 600-8
March 30, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-013
Description: 600-8	Matrix: Aqueous
Date Sampled: 03/09/2021 1331	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/16/2021 2118	SES	03/15/2021 1045	85709

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	1.2	J	3.5	0.87	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.0	J	3.5	0.87	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	2.4	J	3.5	0.87	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.0	J	3.5	0.87	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.8	J	3.5	0.87	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	0.95	J	3.5	0.87	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		100	25-150
13C2_6:2FTS		99	25-150
13C2_8:2FTS		103	25-150
13C2_PFDaA		95	25-150
13C2_PFHxDA		106	25-150
13C2_PFTeDA		104	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-013
Description: 600-8	Matrix: Aqueous
Date Sampled: 03/09/2021 1331	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		93	25-150
13C3_PFHxS		106	25-150
13C3-HFPO-DA		101	25-150
13C4_PFBa		109	25-150
13C4_PFHpA		109	25-150
13C5_PFHxA		104	25-150
13C5_PFPeA		107	25-150
13C6_PFDA		100	25-150
13C7_PFUdA		103	25-150
13C8_PFOA		101	25-150
13C8_PFOS		102	25-150
13C8_PFOSA		101	10-150
13C9_PFNA		107	25-150
d-EtFOSA		88	10-150
d5-EtFOSAA		102	25-150
d9-EtFOSE		91	10-150
d-MeFOSA		71	10-150
d3-MeFOSAA		97	25-150
d7-MeFOSE		81	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 30, 2021

████████████████████
 101 Sky Harbour Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 101 Sky Harbour Drive, La Crosse, WI 54603
 Tax Parcel # 4-600-32
 Sampling Point # 600-32
 Sample Date: March 9, 2021

Dear ████████████████████ :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	2.9 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	1.7 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 101 Sky Harbour Drive, La Crosse, WI 54603
 Tax Parcel # 4-600-32
 Sampling Point # 600-32
 March 30, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.0 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.6 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	8.5 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	1.4 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.1 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.5 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

Private Well Sampling Results for
101 Sky Harbour Drive, La Crosse, WI 54603
Tax Parcel # 4-600-32
Sampling Point # 600-32
March 30, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-011
Description: 600-32	Matrix: Aqueous
Date Sampled: 03/09/2021 0832	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/16/2021 2057	SES	03/15/2021 1045	85709

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	2.0	J	3.5	0.87	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.6	J	3.5	0.87	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	8.5		3.5	0.87	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.1	J	3.5	0.87	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.4	J	3.5	0.87	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	2.9	J	3.5	0.87	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.5	J	3.5	0.87	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	1.7	J	3.5	0.87	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		102	25-150
13C2_6:2FTS		103	25-150
13C2_8:2FTS		101	25-150
13C2_PFDaA		101	25-150
13C2_PFHxDA		105	25-150
13C2_PFTeDA		106	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-011
Description: 600-32	Matrix: Aqueous
Date Sampled: 03/09/2021 0832	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		94	25-150
13C3_PFHxS		101	25-150
13C3-HFPO-DA		102	25-150
13C4_PFBa		108	25-150
13C4_PFHpA		103	25-150
13C5_PFHxA		107	25-150
13C5_PFPeA		107	25-150
13C6_PFDA		100	25-150
13C7_PFUdA		104	25-150
13C8_PFOA		105	25-150
13C8_PFOS		97	25-150
13C8_PFOSA		100	10-150
13C9_PFNA		102	25-150
d-EtFOSA		96	10-150
d5-EtFOSAA		99	25-150
d9-EtFOSE		99	10-150
d-MeFOSA		89	10-150
d3-MeFOSAA		100	25-150
d7-MeFOSE		80	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

██████████
 1741 Bainbridge Street
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 1741 Bainbridge Street, La Crosse, WI 54603
 Tax Parcel # 4-653-0
 Sampling Point # 653-0
 Sample Date: March 11, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	2.7 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.1 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	1.5 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 1741 Bainbridge Street, La Crosse, WI 54603
 Tax Parcel # 4-653-0
 Sampling Point # 653-0
 April 9, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.2 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	Not Detected	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	2.0 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

^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.

^c 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.

Private Well Sampling Results for
1741 Bainbridge Street, La Crosse, WI 54603
Tax Parcel # 4-653-0
Sampling Point # 653-0
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-016
Description: 653-0	Matrix: Aqueous
Date Sampled: 03/11/2021 1602	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/25/2021 1843	JJG	03/24/2021 1224	86689

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	1.2	J	3.5	0.87	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	2.7	J	3.5	0.87	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	2.0	J	3.5	0.87	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.1	J	3.5	0.87	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	1.5	J	3.5	0.87	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		103	25-150
13C2_6:2FTS		111	25-150
13C2_8:2FTS		111	25-150
13C2_PFDaA		107	25-150
13C2_PFHxDA		109	25-150
13C2_PFTeDA		108	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-016
Description: 653-0	Matrix: Aqueous
Date Sampled: 03/11/2021 1602	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		84	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		118	25-150
13C4_PFBa		103	25-150
13C4_PFHpA		115	25-150
13C5_PFHxA		106	25-150
13C5_PFPeA		113	25-150
13C6_PFDA		117	25-150
13C7_PFUdA		112	25-150
13C8_PFOA		109	25-150
13C8_PFOS		115	25-150
13C8_PFOSA		101	10-150
13C9_PFNA		115	25-150
d-EtFOSA		74	10-150
d5-EtFOSAA		110	25-150
d9-EtFOSE		89	10-150
d-MeFOSA		82	10-150
d3-MeFOSAA		106	25-150
d7-MeFOSE		93	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 10, 2021

[Redacted]

1652 Lakeshore Drive
La Crosse, WI 54603

Subject: Private Well Sampling Results
1652 Lakeshore Drive, La Crosse, WI 54603
Tax Parcel # 4-712-1
Sampling Point # 712-1
Sample Date: February 21, 2021

Dear [Redacted] .:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	2.0 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 1652 Lakeshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-712-1
 Sampling Point # 712-1
 March 10, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	4.0 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.4 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	3.8 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) CAS # 27619-97-2	3.5 ppt	None Established ^c

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

Private Well Sampling Results for
1652 Lakeshore Drive, La Crosse, WI 54603
Tax Parcel # 4-712-1
Sampling Point # 712-1
March 10, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

March 10, 2021

Steve Osesek
The OS Group, LLC
N6746 McCurdy Road
Holmen, WI 54636

RE: Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40222432

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on February 24, 2021. 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:

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

Sincerely,



Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC



REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: LACROSSE WELLS 23 & 24

Pace Project No.: 40222432

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40222432001	712-1	Water	02/22/21 14:55	02/24/21 09:20

REPORT OF LABORATORY ANALYSIS

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

(Please Print Clearly)

UPPER MIDWEST REGION

MN: 612-607-1700 WI: 920-469-2436



40222432

Company Name: The OS Group LLC
 Branch/Location: La Crosse WI
 Project Contact: Steven Osesek
 Phone: 608-433-9388
 Project Number:
 Project Name: LaCrosse Wells 23+24
 Project State: WI
 Sampled By (Print): Kristie L Tweed
 Sampled By (Sign): Kristie L Tweed
 PO #:
 Regulatory Program:

CHAIN OF CUSTODY

*Preservation Codes

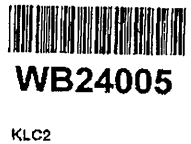
A=None	B=HCL	C=H2SO4	D=HNO3	E=D1 Water	F=Methanol	G=NaOH
H=Sodium Bisulfate Solution	I=Sodium Thiosulfate	J=Other				

Y/N	PREP	ANALYSIS REQUESTED	DATE	TIME	MATRIX
N	A	WI PFAS 36	02/22	2:55	DW

Data Package Options (billable) <input type="checkbox"/> EPA Level III <input type="checkbox"/> EPA Level IV	MS/MSD <input type="checkbox"/> On your sample (billable) <input type="checkbox"/> NOT needed on your sample	Matrix Codes A = Air W = Water B = Biota DW = Drinking Water C = Charcoal GW = Ground Water O = Oil SW = Surface Water S = Soil WW = Waste Water Sl = Sludge WP = Wipe
--	---	--

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
	712-1	02/22	2:55	DW

Quote #:	
Mail To Contact:	Steven Osesek
Mail To Company:	The OS Group LLC
Mail To Address:	444 21st St S LaCrosse, WI 54601
Invoice To Contact:	Steven Osesek
Invoice To Company:	The OS Group
Invoice To Address:	444 21st St S. LaCrosse, WI 54601
Invoice To Phone:	
CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)
	Profile #



Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)
 Date Needed:
 Transmit Prelim Rush Results by (complete what you want):
 Email #1:
 Email #2:
 Telephone:
 Fax:
 Samples on HOLD are subject to special pricing and release of liability

Relinquished By: Kristie L Tweed	Date/Time: 02-23-21 4:30pm	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By: UPS	Date/Time: 2/24/21 0920	Received By: Mottamney	Date/Time: 2/24/21 0920
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No. 40222432
 Receipt Temp = 3.9 °C
 Sample Receipt pH OK / Adjusted
 Cooler Custody Seal Present / Not Present Intact / Not Intact

Internal Transfer Chain of Custody


 Samples Pre-Logged into eCOC.

State Of Origin: WI

 Cert. Needed: Yes No

Owner Received Date: 2/24/2021 Results Requested By: 3/15/2021



Workorder: 40222432 Workorder Name: LACROSSE WELLS 23 & 24

Report To		Subcontract To					Requested Analysis															
Christopher Hyska Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436		Pace Analytical West Columbia 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-9700																				
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Unpreserved	Preserved Containers								WT 36 PFAS by ID	LAB USE ONLY						
1	712-1	PS	2/22/2021 14:55	40222432001	Water	2																
2																						
3																						
4																						
5																						
												Comments										
Transfers	Released By	Date/Time	Received By			Date/Time	IR77 - MDL reporting - Quote 23492 Direct Ship - Pace SC, WB24005															
1																						
2																						
3																						
Cooler Temperature on Receipt		°C	Custody Seal Y or N		Received on Ice Y or N		Samples Intact Y 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.



Samples Receipt Checklist (SRC) (ME0018C-:
Issuing Authority: Pace ENV - WCOL

Sample Receipt Checklist (SRC)

Client: PACE Cooler Inspected by/date: MEH / 02/24/2021 Lot #: WB24005

Means of receipt:		<input type="checkbox"/> Pace	<input type="checkbox"/> Client	<input checked="" type="checkbox"/> UPS	<input type="checkbox"/> FedEx	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?				
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?			
pH Strip ID: NA		Chlorine Strip ID: NA		Tested by: NA		
Original temperature upon receipt / Derived (Corrected) temperature upon receipt		%Solid Snap-Cup ID: NA		3.9 / 3.9 °C NA / NA °C NA / NA °C NA / NA °C		
Method:		<input type="checkbox"/> Temperature Blank	<input checked="" type="checkbox"/> Against Bottles	IR Gun ID: 6	IR Gun Correction Factor: 0 °C	
Method of coolant:		<input checked="" type="checkbox"/> Wet Ice	<input type="checkbox"/> Ice Packs	<input type="checkbox"/> Dry Ice	<input type="checkbox"/> None	
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?				
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	6. Were sample IDs listed on the COC?				
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?				
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	8. Was collection date & time listed on the COC?				
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?				
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?				
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	11. Were tests to be performed listed on the COC?				
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____				
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	13. Was adequate sample volume available?				
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?				
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?				
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?			
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote # NA				
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)						
Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA						
Time of preservation NA. If more than one preservative is needed, please note in the comments below.						
Sample(s) NA were received with bubbles >6 mm in diameter.						
Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: NA						
SR barcode labels applied by: MEH Date: 02/24/2021						

Comments:



Report of Analysis

Pace Analytical Services, LLC
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222432

Lot Number: **WB24005**

Date Completed: 03/08/2021

Karen Coonan

03/09/2021 4:39 PM

Approved and released by:
Project Manager II: **Karen L. Coonan**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WB24005

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Pace Analytical Services, LLC

Lot Number: WB24005

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222432

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	712-1	Aqueous	02/22/2021 1455	02/24/2021

(1 sample)

PACE ANALYTICAL SERVICES, LLC

Detection Summary
Pace Analytical Services, LLC
Lot Number: WB24005
Project Name: LACROSSE WELLS 23 & 24
Project Number: 40222432

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	712-1	Aqueous	6:2 FTS	PFAS by ID	3.5	J	ng/L	5
001	712-1	Aqueous	PFBS	PFAS by ID	4.0		ng/L	5
001	712-1	Aqueous	PFHxS	PFAS by ID	1.4	J	ng/L	5
001	712-1	Aqueous	PFBA	PFAS by ID	3.8		ng/L	5
001	712-1	Aqueous	PFOS	PFAS by ID	2.0	J	ng/L	6

(5 detections)

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB24005-001
Description: 712-1	Matrix: Aqueous
Date Sampled: 02/22/2021 1455	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/24/2021	Project Number: 40222432

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	02/26/2021 2001	JJG	02/25/2021 1105	83922

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	3.5	J	7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	4.0		3.7	0.93	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.4	J	3.7	0.93	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	3.8		3.7	0.93	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.0	J	3.7	0.93	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		110	25-150
13C2_6:2FTS		107	25-150
13C2_8:2FTS		106	25-150
13C2_PFDaA		100	25-150
13C2_PFHxDA		114	25-150
13C2_PFTeDA		99	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB24005-001
Description: 712-1	Matrix: Aqueous
Date Sampled: 02/22/2021 1455	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/24/2021	Project Number: 40222432

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		102	25-150
13C3_PFHxS		105	25-150
13C3-HFPO-DA		111	25-150
13C4_PFBa		107	25-150
13C4_PFHpA		100	25-150
13C5_PFHxA		101	25-150
13C5_PFPeA		98	25-150
13C6_PFDa		106	25-150
13C7_PFUdA		100	25-150
13C8_PFOA		102	25-150
13C8_PFOS		98	25-150
13C8_PFOsA		108	10-150
13C9_PFNa		107	25-150
d-EtFOSA		106	10-150
d5-EtFOSAA		119	25-150
d9-EtFOSE		109	10-150
d-MeFOSA		94	10-150
d3-MeFOSAA		116	25-150
d7-MeFOSE		111	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: WQ83922-001

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
11CI-PF3OUdS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
8:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
6:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
10:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
4:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
GenX	ND		1	8.0	2.0	ng/L	02/26/2021 1815
ADONA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
EtFOSA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
EtFOSAA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
EtFOSE	ND		1	8.0	2.0	ng/L	02/26/2021 1815
MeFOSA	ND		1	16	4.0	ng/L	02/26/2021 1815
MeFOSAA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
MeFOSE	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFBS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFHpS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFNS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFOSA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFPeS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDOS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFHxS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFBA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDoA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFHpA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFHxDA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFHxA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFNA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFODA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFOA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFPeA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFTeDA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFTTrDA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFUdA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFOS	ND		1	4.0	1.0	ng/L	02/26/2021 1815

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		122	25-150
13C2_6:2FTS		118	25-150
13C2_8:2FTS		118	25-150
13C2_PFDoA		104	25-150
13C2_PFHxDA		129	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MB

Sample ID: WQ83922-001

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		106	25-150
13C3_PFBs		109	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		122	25-150
13C4_PFBa		112	25-150
13C4_PFHpA		113	25-150
13C5_PFHxA		108	25-150
13C5_PFPeA		104	25-150
13C6_PFDa		109	25-150
13C7_PFUdA		110	25-150
13C8_PFOA		105	25-150
13C8_PFOs		114	25-150
13C8_PFOsA		114	10-150
13C9_PFNa		114	25-150
d-EtFOsA		94	10-150
d5-EtFOsAA		117	25-150
d9-EtFOsE		119	10-150
d-MeFOsA		99	10-150
d3-MeFOsAA		124	25-150
d7-MeFOsE		119	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ83922-002

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Parameter	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	15	17		1	111	50-150	02/26/2021 1825
11CI-PF3OUdS	15	17		1	113	50-150	02/26/2021 1825
8:2 FTS	15	15		1	101	50-150	02/26/2021 1825
6:2 FTS	15	15		1	99	50-150	02/26/2021 1825
10:2 FTS	15	13		1	87	50-150	02/26/2021 1825
4:2 FTS	15	14		1	96	50-150	02/26/2021 1825
GenX	32	31		1	98	50-150	02/26/2021 1825
ADONA	15	17		1	115	50-150	02/26/2021 1825
EtFOSA	16	18		1	112	50-150	02/26/2021 1825
EtFOSAA	16	15		1	93	50-150	02/26/2021 1825
EtFOSE	16	17		1	107	50-150	02/26/2021 1825
MeFOSA	16	16		1	103	50-150	02/26/2021 1825
MeFOSAA	16	15		1	95	50-150	02/26/2021 1825
MeFOSE	16	15		1	93	50-150	02/26/2021 1825
PFBS	14	16		1	110	50-150	02/26/2021 1825
PFDS	15	18		1	117	50-150	02/26/2021 1825
PFHpS	15	17		1	113	50-150	02/26/2021 1825
PFNS	15	16		1	105	50-150	02/26/2021 1825
PFOSA	16	15		1	94	50-150	02/26/2021 1825
PFPeS	15	16		1	109	50-150	02/26/2021 1825
PFDOS	15	17		1	112	50-150	02/26/2021 1825
PFHxS	15	17		1	116	50-150	02/26/2021 1825
PFBA	16	17		1	105	50-150	02/26/2021 1825
PFDA	16	17		1	107	50-150	02/26/2021 1825
PFDoA	16	16		1	100	50-150	02/26/2021 1825
PFHpA	16	18		1	111	50-150	02/26/2021 1825
PFHxDA	16	16		1	102	50-150	02/26/2021 1825
PFHxA	16	17		1	107	50-150	02/26/2021 1825
PFNA	16	16		1	101	50-150	02/26/2021 1825
PFODA	16	17		1	105	50-150	02/26/2021 1825
PFOA	16	18		1	114	50-150	02/26/2021 1825
PFPeA	16	17		1	106	50-150	02/26/2021 1825
PFTeDA	16	18		1	113	50-150	02/26/2021 1825
PFTTrDA	16	16		1	99	50-150	02/26/2021 1825
PFUdA	16	16		1	100	50-150	02/26/2021 1825
PFOS	15	18		1	123	50-150	02/26/2021 1825
Surrogate	Q	% Rec	Acceptance Limit				
13C2_4:2FTS		113	25-150				
13C2_6:2FTS		119	25-150				
13C2_8:2FTS		113	25-150				
13C2_PFDoA		100	25-150				
13C2_PFHxDA		117	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ83922-002

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		101	25-150
13C3_PFBs		104	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		118	25-150
13C4_PFBa		107	25-150
13C4_PFHpA		105	25-150
13C5_PFHxA		104	25-150
13C5_PFPeA		103	25-150
13C6_PFDa		111	25-150
13C7_PFUdA		105	25-150
13C8_PFOA		102	25-150
13C8_PFOs		95	25-150
13C8_PFOsA		106	10-150
13C9_PFNa		114	25-150
d-EtFOsA		111	10-150
d5-EtFOsAA		117	25-150
d9-EtFOsE		112	10-150
d-MeFOsA		106	10-150
d3-MeFOsAA		125	25-150
d7-MeFOsE		121	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents

(Please Print Clearly)

Company Name:	The OS Group LLC		
Branch/Location:	La Crosse WI		
Project Contact:	Steven Oseseck		
Phone:	608-433-9388		
Project Number:			
Project Name:	LaCrosse Wells 23464		
Project State:	WI		
Sampled By (Print):	Kristie L Tweed		
Sampled By (Sign):	<i>Kristie L Tweed</i>		
PO #:	Regulatory Program:		



UPPER MIDWEST REGION

MN: 812-607-1700 WI: 920-469-2436

CHAIN OF CUSTODY

Preservation Codes
 A=More B=HCL C=H2SO4 D=HNO3 E=Dist. Water F=Methanol G=NaOH
 H=Soil/Gum Solution I=Soil/m. Thru/Tab J=Other

Data Package Options (billable)	MS/MSD	Matrix Codes
<input type="checkbox"/> EPA Level III	<input type="checkbox"/> On your sample (billable)	A = Air W = Water
<input type="checkbox"/> EPA Level IV	<input type="checkbox"/> NOT needed on your sample	B = Nitro DW = Drinking Water
		C = Chloroal GW = Ground Water
		D = Oil SW = Surface Water
		E = Soil MW = Wash Water
		F = Sludge WP = Waste

FILTERED? (Y/N/C)
 PRESERVATION (CODE) P

Y/N	Pick Letter	Analysis Requested	DATE	TIME	MATRIX
N	A	WI PFA S 36	02/22	2:55	DW

PAGE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
	712-1	02/22	2:55	DW

Quote #:	
Mail To Contact:	Steven Oseseck
Mail To Company:	The OS Group LLC
Mail To Address:	444 21st St S LaCrosse, WI 54601
Invoice To Contact:	Steven Oseseck
Invoice To Company:	The OS Group
Invoice To Address:	444 21st St S LaCrosse, WI 54601
Invoice To Phone:	
CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)
	 WB24005 <small>KLCP</small>
	Profile #

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed:	Relinquished By: <i>Kristie L Tweed</i> Date/Time: <i>02-23-21 4:30pm</i>	Received By: _____ Date/Time: _____	PACE Project No.
Transmit Prelim Rush Results by (complete what you want):	Relinquished By: _____ Date/Time: _____	Received By: _____ Date/Time: _____	Receipt Temp = 3.9 °C
Email #1:	Relinquished By: _____	Received By: _____	Sample Receipt pH OK / Adjusted
Email #2:	Relinquished By: _____	Received By: _____	Cooler Custody Seal Present / Not Present
Telephone:	Relinquished By: <i>UPS</i> Date/Time: <i>2/24/21 0920</i>	Received By: <i>Watterson</i> Date/Time: <i>2/24/21 0920</i>	Intact / Not Intact
Fax:	Relinquished By: _____	Received By: _____	



Samples Receipt Checklist (SRC) (ME0018C-15)
 Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020
 Page 1 of 1

Sample Receipt Checklist (SRC)

Client: PACE

Cooler Inspected by/date: MEH / 02/24/2021

Lot #: WB24005

Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other:	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA	
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA	
1.9 / 3.9 °C NA / NA °C NA / NA °C NA / NA °C	
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C	
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any of the VOA vials?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/pheno/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote # NA
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)	
Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA	
Time of preservation NA. If more than one preservative is needed, please note in the comments below.	
Sample(s) NA were received with bubbles >6 mm in diameter.	
Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: NA	
SR barcode labels applied by: MEH Date: 02/24/2021	
Comments:	

Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: WI
 Cert. Needed: Yes No
 Owner Received Date: 2/24/2021 Results Requested By: 3/15/2021



Workorder: 40222432 Workorder Name: LACROSSE WELLS 23 & 24

Report To: Christopher Hyska
 Subcontract To: Pace Analytical West Columbia

Pace Analytical Green Bay
 1241 Bellevue Street
 Suite 9
 Green Bay, WI 54302
 Phone (920)469-2436

108 Vantage Point Drive
 West Columbia, SC 29172
 Phone (803)791-9700

Requested Analysis



WB24005

KLCZ

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers				WB 36 PPS by EIC	LAB USE ONLY
						Unpreserved					
1	712-1	PS	2/22/2021 14:55	40222432001	Water	2				X	
2											
3											
4											
5											

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1					IR77 - MDL reporting - Quote 23492
2					Direct Ship - Pace SC, WB24005
3	UPS	2/24/21 09:20	M. Haney	2/24/21 09:20	

Cooler Temperature on Receipt 3.9 °C Custody Seal Y or N Received on Ice Y or N Samples Intact Y 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.



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

March 27, 2021

██████████
 1905 Cherokee Avenue
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 1905 Cherokee Avenue, La Crosse, WI 54603
 Tax Parcel # 4-1223-0
 Sampling Point # 1223-0
 Sample Date: March 4, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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. *In fact, only one compound was detected at an estimated value below the limit of detection. In everyday language, we could call this “a barely detectable level.”*

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	1.3 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 1905 Cherokee Avenue, La Crosse, WI 54603
 Tax Parcel # 4-1223-0
 Sampling Point # 1223-0
 March 27, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	Not Detected	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	Not Detected	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	Not Detected	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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
1905 Cherokee Avenue, La Crosse, WI 54603
Tax Parcel # 4-1223-0
Sampling Point # 1223-0
March 27, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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



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

March 27, 2021

██████████
 1905 Cherokee Avenue
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 1905 Cherokee Avenue, La Crosse, WI 54603
 Tax Parcel # 4-1223-0
 Sampling Point # 1223-0
 Sample Date: March 4, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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. *In fact, only one compound was detected at an estimated value below the limit of detection. In everyday language, we could call this “a barely detectable level.”*

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	1.3 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 1905 Cherokee Avenue, La Crosse, WI 54603
 Tax Parcel # 4-1223-0
 Sampling Point # 1223-0
 March 27, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	Not Detected	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	Not Detected	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	Not Detected	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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
1905 Cherokee Avenue, La Crosse, WI 54603
Tax Parcel # 4-1223-0
Sampling Point # 1223-0
March 27, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC10015-008
Description: 1223-0	Matrix: Aqueous
Date Sampled: 03/04/2021 1542	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/10/2021	Project Number: 40222997

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/13/2021 0042	JJG	03/11/2021 1045	85377

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-butanefluoronic acid (PFBA)	375-22-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	1.3	J	3.7	0.92	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		92	25-150
13C2_6:2FTS		98	25-150
13C2_8:2FTS		93	25-150
13C2_PFDaA		98	25-150
13C2_PFHxDA		85	25-150
13C2_PFTeDA		96	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC10015-008
Description: 1223-0	Matrix: Aqueous
Date Sampled: 03/04/2021 1542	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/10/2021	Project Number: 40222997

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		94	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		104	25-150
13C4_PFBa		104	25-150
13C4_PFHpA		101	25-150
13C5_PFHxA		104	25-150
13C5_PFPeA		107	25-150
13C6_PFDA		102	25-150
13C7_PFUdA		88	25-150
13C8_PFOA		103	25-150
13C8_PFOS		95	25-150
13C8_PFOSA		108	10-150
13C9_PFNA		100	25-150
d-EtFOSA		70	10-150
d5-EtFOSAA		98	25-150
d9-EtFOSE		80	10-150
d-MeFOSA		71	10-150
d3-MeFOSAA		95	25-150
d7-MeFOSE		92	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 13, 2021

██████████
 3549 Lakeshore Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 3549 Lakeshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-1422-3549
 Sampling Point # 1422-3549
 Sample Date: March 23, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	5.9 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	2.5 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 3549 Lakeshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-1422-3549
 Sampling Point # 1422-3549
 April 13, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.4 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.6 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	43 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	0.91 ppt	None Established ^c

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

Private Well Sampling Results for
3549 Lakeshore Drive, La Crosse, WI 54603
Tax Parcel # 4-1422-3549
Sampling Point # 1422-3549
April 13, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC26011-005
Description: 1422-3549	Matrix: Aqueous
Date Sampled: 03/23/2021 1234	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/26/2021	Project Number: 40223969

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	04/01/2021 1418	MMM	03/31/2021 1049	87430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	L	7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	1.4	J	3.6	0.91	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.6	J	3.6	0.91	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	43		3.6	0.91	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	5.9	B	3.6	0.91	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	0.91	J	3.6	0.91	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.5	BJ	3.6	0.91	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		143	25-150
13C2_6:2FTS		112	25-150
13C2_8:2FTS		96	25-150
13C2_PFDa		92	25-150
13C2_PFHxDA		99	25-150
13C2_PFTeDA		91	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC26011-005
Description: 1422-3549	Matrix: Aqueous
Date Sampled: 03/23/2021 1234	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/26/2021	Project Number: 40223969

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		86	25-150
13C3_PFHxS		93	25-150
13C3-HFPO-DA		100	25-150
13C4_PFBa		91	25-150
13C4_PFHpA		107	25-150
13C5_PFHxA		101	25-150
13C5_PFPeA		106	25-150
13C6_PFDa		98	25-150
13C7_PFUdA		108	25-150
13C8_PFOa		100	25-150
13C8_PFOs		92	25-150
13C8_PFOsA		95	10-150
13C9_PFNa		97	25-150
d-EtFOsA		65	10-150
d5-EtFOsAA		94	25-150
d9-EtFOsE		88	10-150
d-MeFOsA		84	10-150
d3-MeFOsAA		87	25-150
d7-MeFOsE		84	10-150

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis			S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 30, 2021

██████████
3545 Lakeshore Drive
La Crosse, WI 54603

Subject: Private Well Sampling Results
3545 Lakeshore Drive, La Crosse, WI 54603
Tax parcel # 4-1425-0
Sampling Point # 1425-0
Sampling Date: March 8, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.9 ppt	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	12 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	8.1 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	9.8 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.4 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	59 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	1.3 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.3 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	2.1 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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) ^f Detected in the method blank. Possible lab contaminant.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water.

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-003
Description: 1425-0	Matrix: Aqueous
Date Sampled: 03/08/2021 1411	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/16/2021 1921	SES	03/15/2021 1045	85709

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	9.8		3.5	0.87	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.9	J	3.5	0.87	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.3	J	3.5	0.87	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.4	J	3.5	0.87	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	59		3.5	0.87	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.3	J	3.5	0.87	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	12		3.5	0.87	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	2.1	J	3.5	0.87	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	8.1		3.5	0.87	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		105	25-150
13C2_6:2FTS		108	25-150
13C2_8:2FTS		108	25-150
13C2_PFDaA		104	25-150
13C2_PFHxDA		105	25-150
13C2_PFTeDA		111	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-003
Description: 1425-0	Matrix: Aqueous
Date Sampled: 03/08/2021 1411	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBS		102	25-150
13C3_PFHxS		107	25-150
13C3-HFPO-DA		107	25-150
13C4_PFBA		114	25-150
13C4_PFHpA		112	25-150
13C5_PFHxA		110	25-150
13C5_PFPeA		112	25-150
13C6_PFDA		110	25-150
13C7_PFUdA		110	25-150
13C8_PFOA		114	25-150
13C8_PFOS		106	25-150
13C8_PFOSA		106	10-150
13C9_PFNA		113	25-150
d-EtFOSA		90	10-150
d5-EtFOSAA		105	25-150
d9-EtFOSE		99	10-150
d-MeFOSA		88	10-150
d3-MeFOSAA		114	25-150
d7-MeFOSE		95	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks**.

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

March 25, 2021

[REDACTED]
3521 Lakeshore Drive
La Crosse, WI 54603

Subject: Private Well Sampling Results
3521 Lakeshore Drive, La Crosse, WI 54603
Tax parcel # 4-1433-0
Sampling Point # 1433-0
Sampling Date: March 1, 2021

Dear [REDACTED]:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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). **PLEASE NOTE: During this sampling at your property we took a second “duplicate” sample for quality control / quality assurance purposes. The two sample tests confirmed each other, and there were only minor differences. The results in the table below are based on the highest concentration of contaminants observed in either of the two samples.**

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.2 ppt	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	42 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	20 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	8.9 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	8.2 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	160 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	4.3 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	2.7 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	2.3 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	3.9 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-003
Description: 1433-0	Matrix: Aqueous
Date Sampled: 03/01/2021 1412	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 1519	MMM	03/03/2021 1117	84514

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	8.4		3.6	0.89	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.2	J	3.6	0.89	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	2.7	J	3.6	0.89	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	8.1		3.6	0.89	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	160		3.6	0.89	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	2.3	J	3.6	0.89	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	4.3		3.6	0.89	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	42		3.6	0.89	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	3.3	J	3.6	0.89	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	20		3.6	0.89	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		93	25-150
13C2_6:2FTS		92	25-150
13C2_8:2FTS		73	25-150
13C2_PFDaA		86	25-150
13C2_PFHxDA		95	25-150
13C2_PFTeDA		101	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-003
Description: 1433-0	Matrix: Aqueous
Date Sampled: 03/01/2021 1412	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		104	25-150
13C3_PFHxS		105	25-150
13C3-HFPO-DA		105	25-150
13C4_PFBa		95	25-150
13C4_PFHpA		97	25-150
13C5_PFHxA		103	25-150
13C5_PFPeA		103	25-150
13C6_PFDA		99	25-150
13C7_PFUdA		99	25-150
13C8_PFOA		105	25-150
13C8_PFOS		101	25-150
13C8_PFOsA		90	10-150
13C9_PFNA		107	25-150
d-EtFOSA		78	10-150
d5-EtFOSAA		90	25-150
d9-EtFOSE		87	10-150
d-MeFOSA		83	10-150
d3-MeFOSAA		93	25-150
d7-MeFOSE		94	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-005
Description: Dup 13	Matrix: Aqueous
Date Sampled: 03/01/2021	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 1540	MMM	03/03/2021 1117	84514

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	8.9		3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.2	J	3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	2.7	J	3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	8.2		3.5	0.88	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	160		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	2.2	J	3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	3.8		3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	40		3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	3.9		3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	17		3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		100	25-150
13C2_6:2FTS		97	25-150
13C2_8:2FTS		89	25-150
13C2_PFDa		98	25-150
13C2_PFHxDA		101	25-150
13C2_PFTeDA		101	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-005
Description: Dup 13	Matrix: Aqueous
Date Sampled: 03/01/2021	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		100	25-150
13C3_PFHxS		101	25-150
13C3-HFPO-DA		114	25-150
13C4_PFBa		99	25-150
13C4_PFHpA		104	25-150
13C5_PFHxA		109	25-150
13C5_PFPeA		99	25-150
13C6_PFDa		99	25-150
13C7_PFUdA		90	25-150
13C8_PFOA		108	25-150
13C8_PFOS		102	25-150
13C8_PFOSA		98	10-150
13C9_PFNA		108	25-150
d-EtFOSA		80	10-150
d5-EtFOSAA		91	25-150
d9-EtFOSE		88	10-150
d-MeFOSA		90	10-150
d3-MeFOSAA		96	25-150
d7-MeFOSE		111	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

March 25, 2021

██████████
3521 Lakeshore Drive
La Crosse, WI 54603

Subject: Private Well Sampling Results
3521 Lakeshore Drive, La Crosse, WI 54603
Tax parcel # 4-1433-0
Sampling Point # 1433-0
Sampling Date: March 1, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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). **PLEASE NOTE: During this sampling at your property we took a second “duplicate” sample for quality control / quality assurance purposes. The two sample tests confirmed each other, and there were only minor differences. The results in the table below are based on the highest concentration of contaminants observed in either of the two samples.**

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.2 ppt	20 ppt^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	42 ppt	20 ppt^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	20 ppt	20 ppt^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	8.9 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	8.2 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	160 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	4.3 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	2.7 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	2.3 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	3.9 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-003
Description: 1433-0	Matrix: Aqueous
Date Sampled: 03/01/2021 1412	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 1519	MMM	03/03/2021 1117	84514

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	8.4		3.6	0.89	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.2	J	3.6	0.89	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	2.7	J	3.6	0.89	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	8.1		3.6	0.89	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	160		3.6	0.89	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	2.3	J	3.6	0.89	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	4.3		3.6	0.89	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	42		3.6	0.89	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	3.3	J	3.6	0.89	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	20		3.6	0.89	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		93	25-150
13C2_6:2FTS		92	25-150
13C2_8:2FTS		73	25-150
13C2_PFDaA		86	25-150
13C2_PFHxDA		95	25-150
13C2_PFTeDA		101	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-003
Description: 1433-0	Matrix: Aqueous
Date Sampled: 03/01/2021 1412	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		104	25-150
13C3_PFHxS		105	25-150
13C3-HFPO-DA		105	25-150
13C4_PFBa		95	25-150
13C4_PFHpA		97	25-150
13C5_PFHxA		103	25-150
13C5_PFPeA		103	25-150
13C6_PFDA		99	25-150
13C7_PFUdA		99	25-150
13C8_PFOA		105	25-150
13C8_PFOS		101	25-150
13C8_PFOsA		90	10-150
13C9_PFNA		107	25-150
d-EtFOSA		78	10-150
d5-EtFOSAA		90	25-150
d9-EtFOSE		87	10-150
d-MeFOSA		83	10-150
d3-MeFOSAA		93	25-150
d7-MeFOSE		94	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-005
Description: Dup 13	Matrix: Aqueous
Date Sampled: 03/01/2021	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 1540	MMM	03/03/2021 1117	84514

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	8.9		3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.2	J	3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	2.7	J	3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	8.2		3.5	0.88	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	160		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	2.2	J	3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	3.8		3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	40		3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	3.9		3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	17		3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		100	25-150
13C2_6:2FTS		97	25-150
13C2_8:2FTS		89	25-150
13C2_PFDaA		98	25-150
13C2_PFHxDA		101	25-150
13C2_PFTeDA		101	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-005
Description: Dup 13	Matrix: Aqueous
Date Sampled: 03/01/2021	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		100	25-150
13C3_PFHxS		101	25-150
13C3-HFPO-DA		114	25-150
13C4_PFBa		99	25-150
13C4_PFHpA		104	25-150
13C5_PFHxA		109	25-150
13C5_PFPeA		99	25-150
13C6_PFDa		99	25-150
13C7_PFUdA		90	25-150
13C8_PFOa		108	25-150
13C8_PFOs		102	25-150
13C8_PFOsA		98	10-150
13C9_PFNa		108	25-150
d-EtFOsA		80	10-150
d5-EtFOsAA		91	25-150
d9-EtFOsE		88	10-150
d-MeFOsA		90	10-150
d3-MeFOsAA		96	25-150
d7-MeFOsE		111	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

April 13, 2021

██████████
 3515 Lakeshore Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 3515 Lakeshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-1434-1
 Sampling Point # 1434-1
 Sample Date: March 25, 2021

Dear ██████████ :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	7.6 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	4.1 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 3515 Lakeshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-1434-1
 Sampling Point # 1434-1
 April 13, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	17 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	13 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	35 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	6.6 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	3.5 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	7.9 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

Private Well Sampling Results for
3515 Lakeshore Drive, La Crosse, WI 54603
Tax Parcel # 4-1434-1
Sampling Point # 1434-1
April 13, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC26046-001
Description: 1434-1	Matrix: Aqueous
Date Sampled: 03/25/2021 1402	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/26/2021	Project Number: 40224155

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	04/01/2021 1429	MMM	03/31/2021 1049	87430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	L	7.8	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		16	3.9	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	17		3.9	0.97	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	13		3.9	0.97	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	35		3.9	0.97	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	3.5	J	3.9	0.97	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	6.6		3.9	0.97	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	7.6	B	3.9	0.97	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	7.9		3.9	0.97	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	4.1	B	3.9	0.97	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		100	25-150
13C2_6:2FTS		104	25-150
13C2_8:2FTS		94	25-150
13C2_PFDaA		95	25-150
13C2_PFHxDA		104	25-150
13C2_PFTeDA		94	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC26046-001
Description: 1434-1	Matrix: Aqueous
Date Sampled: 03/25/2021 1402	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/26/2021	Project Number: 40224155

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		90	25-150
13C3_PFHxS		99	25-150
13C3-HFPO-DA		96	25-150
13C4_PFBa		98	25-150
13C4_PFHpA		112	25-150
13C5_PFHxA		95	25-150
13C5_PFPeA		107	25-150
13C6_PFDa		97	25-150
13C7_PFUdA		110	25-150
13C8_PFOA		107	25-150
13C8_PFOS		103	25-150
13C8_PFOSA		96	10-150
13C9_PFNA		97	25-150
d-EtFOSA		78	10-150
d5-EtFOSAA		99	25-150
d9-EtFOSE		86	10-150
d-MeFOSA		78	10-150
d3-MeFOSAA		94	25-150
d7-MeFOSE		89	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

████████████████████
3511 Lakeshore Drive
La Crosse, WI 54603

Subject: Private Well Sampling Results
3511 Lakeshore Drive, La Crosse, WI 54603
Tax parcel # 4-1435-0
Sampling Point # 1435-0
Sampling Date: March 2, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	110 ppt	20 ppt^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	24 ppt	20 ppt^{a,b}
The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6		
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	10 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	5.7 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	140 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	16 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	2.2 ppt	None Established ^c

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	2.4 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	18 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-004
Description: 1435-0	Matrix: Aqueous
Date Sampled: 03/02/2021 1332	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 2308	JJG	03/08/2021 1129	84916

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	10		3.5	0.89	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	2.2	J	3.5	0.89	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	5.7		3.5	0.89	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	140		3.5	0.89	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	2.4	J	3.5	0.89	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	16		3.5	0.89	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	110		3.5	0.89	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	18		3.5	0.89	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.89	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	24		3.5	0.89	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		97	25-150
13C2_6:2FTS		94	25-150
13C2_8:2FTS		97	25-150
13C2_PFDa		90	25-150
13C2_PFHxDA		81	25-150
13C2_PFTeDA		89	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-004
Description: 1435-0	Matrix: Aqueous
Date Sampled: 03/02/2021 1332	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		99	25-150
13C3_PFHxS		93	25-150
13C3-HFPO-DA		100	25-150
13C4_PFBa		108	25-150
13C4_PFHpA		96	25-150
13C5_PFHxA		101	25-150
13C5_PFPeA		103	25-150
13C6_PFDA		94	25-150
13C7_PFUdA		91	25-150
13C8_PFOA		101	25-150
13C8_PFOS		87	25-150
13C8_PFOSA		97	10-150
13C9_PFNA		101	25-150
d-EtFOSA		63	10-150
d5-EtFOSAA		87	25-150
d9-EtFOSE		77	10-150
d-MeFOSA		80	10-150
d3-MeFOSAA		97	25-150
d7-MeFOSE		88	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

██████████
609 Dakota Street
La Crosse, WI 54603

Subject: Private Well Sampling Results
609 Dakota Street, La Crosse, WI 54603
Tax parcel # 4-1437-0
Sampling Point # 1437-0
Sampling Date: March 3, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	92 ppt	20 ppt^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	31 ppt	20 ppt^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	15 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	6.7 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	150 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	4.4 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-heptanesulfonic acid (PFHpS) CAS # 375-92-8	0.89 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	2.6 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	7.1 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-015
Description: 1437-0	Matrix: Aqueous
Date Sampled: 03/03/2021 1408	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/10/2021 0230	JJG	03/08/2021 1216	84931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-1-butanefluoride (PFBS)	375-73-5	PFAS by ID SOP	15		3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	0.89	J	3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	2.6	J	3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	6.7		3.5	0.88	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	150		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	4.4		3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	92		3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	7.1		3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	31		3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		99	25-150
13C2_6:2FTS		85	25-150
13C2_8:2FTS		90	25-150
13C2_PFDa		85	25-150
13C2_PFHxDA		85	25-150
13C2_PFTeDA		86	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-015
Description: 1437-0	Matrix: Aqueous
Date Sampled: 03/03/2021 1408	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		90	25-150
13C3_PFHxS		86	25-150
13C3-HFPO-DA		97	25-150
13C4_PFBa		97	25-150
13C4_PFHpA		100	25-150
13C5_PFHxA		95	25-150
13C5_PFPeA		95	25-150
13C6_PFDa		89	25-150
13C7_PFUdA		91	25-150
13C8_PFOa		94	25-150
13C8_PFOs		89	25-150
13C8_PFOsA		90	10-150
13C9_PFNa		97	25-150
d-EtFOSA		65	10-150
d5-EtFOSAA		94	25-150
d9-EtFOSE		73	10-150
d-MeFOSA		64	10-150
d3-MeFOSAA		92	25-150
d7-MeFOSE		71	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

March 25, 2021

[REDACTED]

2905 Bayshore Drive N.
La Crosse, WI 54603

Subject: Private Well Sampling Results
2905 Bayshore Drive N., La Crosse, WI 54603
Tax Parcel # 4-1531-1
Sampling Point # 1531
Sample Date: March 1, 2021

Dear [REDACTED]:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	8.3 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.2 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2905 Bayshore Drive N., La Crosse, WI 54603
 Tax Parcel # 4-1531-1
 Sampling Point # 1531
 March 25, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	9.9 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	5.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	79 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	3.0 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
2905 Bayshore Drive N., La Crosse, WI 54603
Tax Parcel # 4-1531-1
Sampling Point # 1531
March 25, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-004
Description: 1531	Matrix: Aqueous
Date Sampled: 03/01/2021 1435	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 1529	MMM	03/03/2021 1117	84514

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.9	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	9.9		3.9	0.97	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	3.0	J	3.9	0.97	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	5.0		3.9	0.97	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	79		3.9	0.97	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	8.3		3.9	0.97	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.2	J	3.9	0.97	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		106	25-150
13C2_6:2FTS		100	25-150
13C2_8:2FTS		97	25-150
13C2_PFDaA		92	25-150
13C2_PFHxDA		87	25-150
13C2_PFTeDA		97	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-004
Description: 1531	Matrix: Aqueous
Date Sampled: 03/01/2021 1435	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		96	25-150
13C3_PFHxS		108	25-150
13C3-HFPO-DA		111	25-150
13C4_PFBa		97	25-150
13C4_PFHpA		116	25-150
13C5_PFHxA		107	25-150
13C5_PFPeA		106	25-150
13C6_PFDA		94	25-150
13C7_PFUdA		99	25-150
13C8_PFOA		113	25-150
13C8_PFOS		101	25-150
13C8_PFOSA		94	10-150
13C9_PFNA		102	25-150
d-EtFOSA		70	10-150
d5-EtFOSAA		93	25-150
d9-EtFOSE		89	10-150
d-MeFOSA		91	10-150
d3-MeFOSAA		90	25-150
d7-MeFOSE		80	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 25, 2021

[REDACTED]

2905 Bayshore Drive N.
La Crosse, WI 54603

Subject: Private Well Sampling Results
2905 Bayshore Drive N., La Crosse, WI 54603
Tax Parcel # 4-1531-1
Sampling Point # 1531
Sample Date: March 1, 2021

Dear [REDACTED]:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	8.3 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.2 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2905 Bayshore Drive N., La Crosse, WI 54603
 Tax Parcel # 4-1531-1
 Sampling Point # 1531
 March 25, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	9.9 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	5.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	79 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	3.0 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
2905 Bayshore Drive N., La Crosse, WI 54603
Tax Parcel # 4-1531-1
Sampling Point # 1531
March 25, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-004
Description: 1531	Matrix: Aqueous
Date Sampled: 03/01/2021 1435	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 1529	MMM	03/03/2021 1117	84514

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.9	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	9.9		3.9	0.97	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	3.0	J	3.9	0.97	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	5.0		3.9	0.97	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	79		3.9	0.97	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	8.3		3.9	0.97	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.2	J	3.9	0.97	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		106	25-150
13C2_6:2FTS		100	25-150
13C2_8:2FTS		97	25-150
13C2_PFDaA		92	25-150
13C2_PFHxDA		87	25-150
13C2_PFTeDA		97	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02011-004
Description: 1531	Matrix: Aqueous
Date Sampled: 03/01/2021 1435	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222700

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		96	25-150
13C3_PFHxS		108	25-150
13C3-HFPO-DA		111	25-150
13C4_PFBa		97	25-150
13C4_PFHpA		116	25-150
13C5_PFHxA		107	25-150
13C5_PFPeA		106	25-150
13C6_PFDA		94	25-150
13C7_PFUdA		99	25-150
13C8_PFOA		113	25-150
13C8_PFOS		101	25-150
13C8_PFOSA		94	10-150
13C9_PFNA		102	25-150
d-EtFOSA		70	10-150
d5-EtFOSAA		93	25-150
d9-EtFOSE		89	10-150
d-MeFOSA		91	10-150
d3-MeFOSAA		90	25-150
d7-MeFOSE		80	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 1, 2021

██████████
905 Plainview Road
La Crosse, WI 54603

Subject: Private Well Sampling Results
905 Plainview Road, La Crosse, WI 54603
Tax Parcel # 4-1556-2
Sampling Point # 1556-2
Sampling Date: February 17, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	6.6 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	54 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	19 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	5.9 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	6.1 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	6.0 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) CAS # 27619-97-2	110 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.1 ppt	None Established ^c
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	2.2 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	4.1 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

March 01, 2021

Steve Osesek
The OS Group, LLC
N6746 McCurdy Road
Holmen, WI 54636

RE: Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40222418

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on February 23, 2021. 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:

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

Sincerely,



Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC



REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40222418

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40222418001	1556-2	Water	02/17/21 09:52	02/23/21 11:15

REPORT OF LABORATORY ANALYSIS

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

(Please Print Clearly)

Company Name: The OS Group LLC
 Branch/Location: LaCrosse WI
 Project Contact: Steven Oseseck
 Phone: 608-433-9388
 Project Number: LaCrosse Wells 23+24
 Project Name:
 Project State: WI
 Sampled By (Print): Kristie R Tweed
 Sampled By (Sign): *Kristie R Tweed*
 PO #:
 Regulatory Program:



UPPER MIDWEST REGION
 MN: 612-607-1700 WI: 920-469-2436

Page of

COC No. *40222418*

CHAIN OF CUSTODY

***Preservation Codes**
 A=None B=HCL C=H2SO4 D=HNO3 E=DJ Water F=Methanol G=NaOH
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?
 (YES/NO)
 PRESERVATION
 (CODE)*

Y/N	Pick Letter	Analysis Requested
N	A	PPAS WI 36
		X

Data Package Options (billable)
 EPA Level III
 EPA Level IV
MS/MSD
 On your sample (billable)
 NOT needed on your sample
Matrix Codes
 A = Air W = Water
 B = Biota DW = Drinking Water
 C = Charcoal GW = Ground Water
 O = Oil SW = Surface Water
 S = Soil WW = Waste Water
 SI = Sludge WP = Wipe

Quote #:
 Mail To Contact: Steven Oseseck
 Mail To Company: The OS Group LLC
 Mail To Address: 444 21st St S LaCrosse, WI 54601
 Invoice To Contact: Steven Oseseck
 Invoice To Company: The OS Group LLC
 Invoice To Address: 444 21st St S LaCrosse, WI 54601
 Invoice To Phone: 608-433-9388
CLIENT COMMENTS
LAB COMMENTS (Lab Use Only)
 Profile #

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
	1556-2	2/17	9:52	DW



WB23023

KLC2

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)
 Date Needed: *8-10 Day*

Relinquished By: <i>Kristie R Tweed</i>	Date/Time: <i>2-17-21 3:42 pm</i>	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By: <i>FedEx</i>	Date/Time: <i>2/23/21 11:5</i>	Received By: <i>[Signature]</i>	Date/Time: <i>2/23/21 11:5</i>

PACE Project No. *40222418*
 Receipt Temp = *3.3* °C
 Sample Receipt pH
 OK / Adjusted
 Cooler Custody Seal Present / Not Present Intact / Not Intact

Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: WI

Cert. Needed: Yes No

Owner Received Date: 2/23/2021 Results Requested By: 3/5/2021



Workorder: 40222418 Workorder Name: LACROSSE WELLS 23 & 24

Report To		Subcontract To				Requested Analysis												LAB USE ONLY							
Christopher Hyska Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436		Pace Analytical West Columbia 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-9700				WI 36 PFAS by ID																			
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix		Unpreserved	Preserved Containers																	
1	1556-2	PS	2/17/2021 09:52	40222418001	Water		2																		
2																									
3																									
4																									
5																									

Transfers					Released By		Date/Time	Received By		Date/Time	Comments
1											IR77 - MDL reporting - Quote 23492 Rush TAT - Direct ship to Pace SC (WB23023)
2											
3											

Cooler Temperature on Receipt	°C	Custody Seal	Y or N	Received on Ice	Y or N	Samples Intact	Y 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.

WO#: 40222418



Samples Receipt Checklist (SRC) (ME0018C-15)

Issuing Authority: Pace ENV - WCOL

Sample Receipt Checklist (SRC)

Client: THE OS GROUP LLC

Cooler Inspected by/date: JRG2 / 2/23/2021

Lot #: WB23023

Means of receipt: Pace Client UPS FedEx Other: _____

Yes No 1. Were custody seals present on the cooler?

Yes No NA 2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA
 3.3 / 3.3 °C NA / NA °C NA / NA °C NA / NA °C

Method: Temperature Blank Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: Wet Ice Ice Packs Dry Ice None

Yes No NA 3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified?
 PM was Notified by: phone / email / face-to-face (circle one).

Yes No NA 4. Is the commercial courier's packing slip attached to this form?

Yes No 5. Were proper custody procedures (relinquished/received) followed?

Yes No 6. Were sample IDs listed on the COC?

Yes No 7. Were sample IDs listed on all sample containers?

Yes No 8. Was collection date & time listed on the COC?

Yes No 9. Was collection date & time listed on all sample containers?

Yes No 10. Did all container label information (ID, date, time) agree with the COC?

Yes No 11. Were tests to be performed listed on the COC?

Yes No 12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____

Yes No 13. Was adequate sample volume available?

Yes No 14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?

Yes No 15. Were any samples containers missing/excess (circle one) samples Not listed on COC?

Yes No NA 16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any of the VOA vials?

Yes No NA 17. Were all DRO/metals/nutrient samples received at a pH of < 2?

Yes No NA 18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?

Yes No NA 19. Were all applicable NH₃/TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?

Yes No NA 20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?

Yes No 21. Was the quote number listed on the container label? If yes, Quote # _____

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA. Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na₂S₂O₃) with Shealy ID: NA.

SR barcode labels applied by: JRG2 Date: 2/23/2021

Comments:



Report of Analysis

Pace Analytical Services, LLC
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222418

Lot Number: **WB23023**

Date Completed: 02/26/2021

Karen Coonan

02/28/2021 10:47 AM

Approved and released by:
Project Manager II: **Karen L. Coonan**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WB23023

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

In the Matrix Spike (MS) associated with sample -001, two analytes recovered outside of the acceptance limits. The Laboratory Control Spike (LCS) recovered within the required acceptance limits; therefore, this demonstrates a matrix effect and data quality is not impacted.

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Pace Analytical Services, LLC

Lot Number: WB23023

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222418

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	1556-2	Aqueous	02/17/2021 0952	02/23/2021

(1 sample)

PACE ANALYTICAL SERVICES, LLC

Detection Summary
Pace Analytical Services, LLC
Lot Number: WB23023
Project Name: LACROSSE WELLS 23 & 24
Project Number: 40222418

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	1556-2	Aqueous	6:2 FTS	PFAS by ID	110		ng/L	5
001	1556-2	Aqueous	PFBS	PFAS by ID	19		ng/L	5
001	1556-2	Aqueous	PFPeS	PFAS by ID	1.1	J	ng/L	5
001	1556-2	Aqueous	PFHxS	PFAS by ID	5.9		ng/L	5
001	1556-2	Aqueous	PFBA	PFAS by ID	6.1		ng/L	5
001	1556-2	Aqueous	PFHpA	PFAS by ID	2.2	J	ng/L	6
001	1556-2	Aqueous	PFHxA	PFAS by ID	6.0		ng/L	6
001	1556-2	Aqueous	PFOA	PFAS by ID	6.6		ng/L	6
001	1556-2	Aqueous	PFPeA	PFAS by ID	4.1		ng/L	6
001	1556-2	Aqueous	PFOS	PFAS by ID	54		ng/L	6

(10 detections)

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB23023-001
Description: 1556-2	Matrix: Aqueous
Date Sampled: 02/17/2021 0952	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/23/2021	Project Number: 40222418

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	02/25/2021 1837	JJG	02/24/2021 1132	83776

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	110		7.8	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		16	3.9	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	19		3.9	0.97	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.1	J	3.9	0.97	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	5.9		3.9	0.97	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	6.1		3.9	0.97	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	2.2	J	3.9	0.97	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	6.0		3.9	0.97	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.8	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	6.6		3.9	0.97	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	4.1		3.9	0.97	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.9	0.97	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	54		3.9	0.97	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		103	25-150
13C2_6:2FTS		107	25-150
13C2_8:2FTS		99	25-150
13C2_PFDaA		98	25-150
13C2_PFHxDA		105	25-150
13C2_PFTeDA		92	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB23023-001
Description: 1556-2	Matrix: Aqueous
Date Sampled: 02/17/2021 0952	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/23/2021	Project Number: 40222418

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		94	25-150
13C3_PFHxS		91	25-150
13C3-HFPO-DA		110	25-150
13C4_PFBa		95	25-150
13C4_PFHpA		99	25-150
13C5_PFHxA		95	25-150
13C5_PFPeA		92	25-150
13C6_PFDa		93	25-150
13C7_PFUdA		90	25-150
13C8_PFOA		96	25-150
13C8_PFOS		103	25-150
13C8_PFOSA		102	10-150
13C9_PFNA		97	25-150
d-EtFOSA		79	10-150
d5-EtFOSAA		99	25-150
d9-EtFOSE		90	10-150
d-MeFOSA		79	10-150
d3-MeFOSAA		97	25-150
d7-MeFOSE		103	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: WQ83776-001

Matrix: Aqueous

Batch: 83776

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/24/2021 1132

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND		1	8.0	2.0	ng/L	02/25/2021 1816
11CI-PF3OUdS	ND		1	8.0	2.0	ng/L	02/25/2021 1816
8:2 FTS	ND		1	8.0	2.0	ng/L	02/25/2021 1816
6:2 FTS	ND		1	8.0	2.0	ng/L	02/25/2021 1816
10:2 FTS	ND		1	8.0	2.0	ng/L	02/25/2021 1816
4:2 FTS	ND		1	8.0	2.0	ng/L	02/25/2021 1816
GenX	ND		1	8.0	2.0	ng/L	02/25/2021 1816
ADONA	ND		1	8.0	2.0	ng/L	02/25/2021 1816
EtFOSA	ND		1	8.0	2.0	ng/L	02/25/2021 1816
EtFOSAA	ND		1	8.0	2.0	ng/L	02/25/2021 1816
EtFOSE	ND		1	8.0	2.0	ng/L	02/25/2021 1816
MeFOSA	ND		1	16	4.0	ng/L	02/25/2021 1816
MeFOSAA	ND		1	8.0	2.0	ng/L	02/25/2021 1816
MeFOSE	ND		1	8.0	2.0	ng/L	02/25/2021 1816
PFBS	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFDS	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFHpS	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFNS	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFOSA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFPeS	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFDOS	ND		1	8.0	2.0	ng/L	02/25/2021 1816
PFHxS	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFBA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFDA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFDoA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFHpA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFHxDA	ND		1	8.0	2.0	ng/L	02/25/2021 1816
PFHxA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFNA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFODA	ND		1	8.0	2.0	ng/L	02/25/2021 1816
PFOA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFPeA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFTeDA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFTTrDA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFUdA	ND		1	4.0	1.0	ng/L	02/25/2021 1816
PFOS	ND		1	4.0	1.0	ng/L	02/25/2021 1816

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		114	25-150
13C2_6:2FTS		109	25-150
13C2_8:2FTS		105	25-150
13C2_PFDoA		99	25-150
13C2_PFHxDA		108	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MB

Sample ID: WQ83776-001

Matrix: Aqueous

Batch: 83776

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/24/2021 1132

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		97	25-150
13C3_PFBs		101	25-150
13C3_PFHxS		99	25-150
13C3-HFPO-DA		114	25-150
13C4_PFBa		102	25-150
13C4_PFHpA		102	25-150
13C5_PFHxA		94	25-150
13C5_PFPeA		99	25-150
13C6_PFDa		94	25-150
13C7_PFUdA		97	25-150
13C8_PFOA		105	25-150
13C8_PFOs		95	25-150
13C8_PFOsA		104	10-150
13C9_PFNa		103	25-150
d-EtFOsA		85	10-150
d5-EtFOsAA		99	25-150
d9-EtFOsE		100	10-150
d-MeFOsA		85	10-150
d3-MeFOsAA		101	25-150
d7-MeFOsE		104	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ83776-002

Matrix: Aqueous

Batch: 83776

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/24/2021 1132

Parameter	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	15	16		1	110	50-150	02/25/2021 1827
11CI-PF3OUdS	15	15		1	102	50-150	02/25/2021 1827
8:2 FTS	15	18		1	117	50-150	02/25/2021 1827
6:2 FTS	15	16		1	106	50-150	02/25/2021 1827
10:2 FTS	15	15		1	98	50-150	02/25/2021 1827
4:2 FTS	15	17		1	112	50-150	02/25/2021 1827
GenX	32	34		1	106	50-150	02/25/2021 1827
ADONA	15	17		1	111	50-150	02/25/2021 1827
EtFOSA	16	20		1	128	50-150	02/25/2021 1827
EtFOSAA	16	15		1	96	50-150	02/25/2021 1827
EtFOSE	16	17		1	107	50-150	02/25/2021 1827
MeFOSA	16	16		1	98	50-150	02/25/2021 1827
MeFOSAA	16	17		1	107	50-150	02/25/2021 1827
MeFOSE	16	17		1	104	50-150	02/25/2021 1827
PFBS	14	16		1	113	50-150	02/25/2021 1827
PFDS	15	15		1	95	50-150	02/25/2021 1827
PFHpS	15	16		1	106	50-150	02/25/2021 1827
PFNS	15	16		1	105	50-150	02/25/2021 1827
PFOSA	16	17		1	103	50-150	02/25/2021 1827
PFPeS	15	19		1	124	50-150	02/25/2021 1827
PFDOS	15	16		1	105	50-150	02/25/2021 1827
PFHxS	15	17		1	114	50-150	02/25/2021 1827
PFBA	16	18		1	112	50-150	02/25/2021 1827
PFDA	16	17		1	109	50-150	02/25/2021 1827
PFDoA	16	19		1	118	50-150	02/25/2021 1827
PFHpA	16	18		1	111	50-150	02/25/2021 1827
PFHxDA	16	17		1	107	50-150	02/25/2021 1827
PFHxA	16	17		1	108	50-150	02/25/2021 1827
PFNA	16	18		1	112	50-150	02/25/2021 1827
PFODA	16	17		1	106	50-150	02/25/2021 1827
PFOA	16	18		1	113	50-150	02/25/2021 1827
PFPeA	16	17		1	109	50-150	02/25/2021 1827
PFTeDA	16	19		1	116	50-150	02/25/2021 1827
PFTTrDA	16	17		1	103	50-150	02/25/2021 1827
PFUdA	16	17		1	105	50-150	02/25/2021 1827
PFOS	15	16		1	105	50-150	02/25/2021 1827

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		96	25-150
13C2_6:2FTS		99	25-150
13C2_8:2FTS		92	25-150
13C2_PFDoA		90	25-150
13C2_PFHxDA		101	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ83776-002

Matrix: Aqueous

Batch: 83776

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/24/2021 1132

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		86	25-150
13C3_PFBs		87	25-150
13C3_PFHxS		91	25-150
13C3-HFPO-DA		103	25-150
13C4_PFBa		93	25-150
13C4_PFHpA		96	25-150
13C5_PFHxA		92	25-150
13C5_PFPeA		91	25-150
13C6_PFDA		90	25-150
13C7_PFUdA		90	25-150
13C8_PFOA		91	25-150
13C8_PFOS		92	25-150
13C8_PFOsA		95	10-150
13C9_PFNA		91	25-150
d-EtFOsA		74	10-150
d5-EtFOsAA		94	25-150
d9-EtFOsE		84	10-150
d-MeFOsA		77	10-150
d3-MeFOsAA		97	25-150
d7-MeFOsE		97	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MS

Sample ID: WB23023-001MS

Matrix: Aqueous

Batch: 83776

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/24/2021 1132

Parameter	Sample Amount (ng/L)	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	ND	14	14		1	100	50-150	02/25/2021 1848
11CI-PF3OUdS	ND	14	15		1	102	50-150	02/25/2021 1848
8:2 FTS	ND	14	15		1	106	50-150	02/25/2021 1848
6:2 FTS	110	14	20	N	1	-655	50-150	02/25/2021 1848
10:2 FTS	ND	15	14		1	97	50-150	02/25/2021 1848
4:2 FTS	ND	14	14		1	101	50-150	02/25/2021 1848
GenX	ND	30	29		1	97	50-150	02/25/2021 1848
ADONA	ND	14	14		1	101	50-150	02/25/2021 1848
EtFOSA	ND	15	17		1	112	50-150	02/25/2021 1848
EtFOSAA	ND	15	14		1	94	50-150	02/25/2021 1848
EtFOSE	ND	15	13		1	85	50-150	02/25/2021 1848
MeFOSA	ND	15	15		1	101	50-150	02/25/2021 1848
MeFOSAA	ND	15	15		1	100	50-150	02/25/2021 1848
MeFOSE	ND	15	15		1	99	50-150	02/25/2021 1848
PFBS	19	13	31		1	94	50-150	02/25/2021 1848
PFDS	ND	15	15		1	105	50-150	02/25/2021 1848
PFHpS	ND	14	16		1	111	50-150	02/25/2021 1848
PFNS	ND	14	15		1	103	50-150	02/25/2021 1848
PFOSA	ND	15	15		1	96	50-150	02/25/2021 1848
PFPeS	1.1	14	17		1	115	50-150	02/25/2021 1848
PFDOS	ND	15	15		1	103	50-150	02/25/2021 1848
PFHxS	5.9	14	19		1	93	50-150	02/25/2021 1848
PFBA	6.1	15	21		1	102	50-150	02/25/2021 1848
PFDA	ND	15	16		1	105	50-150	02/25/2021 1848
PFDaA	ND	15	17		1	112	50-150	02/25/2021 1848
PFHpA	2.2	15	18		1	107	50-150	02/25/2021 1848
PFHxDA	ND	15	15		1	97	50-150	02/25/2021 1848
PFHxA	6.0	15	18		1	82	50-150	02/25/2021 1848
PFNA	ND	15	17		1	110	50-150	02/25/2021 1848
PFODA	ND	15	15		1	98	50-150	02/25/2021 1848
PFOA	6.6	15	22		1	103	50-150	02/25/2021 1848
PFPeA	4.1	15	20		1	104	50-150	02/25/2021 1848
PFTeDA	ND	15	16		1	105	50-150	02/25/2021 1848
PFTrDA	ND	15	16		1	105	50-150	02/25/2021 1848
PFUdA	ND	15	15		1	99	50-150	02/25/2021 1848
PFOS	54	14	60	N	1	41	50-150	02/25/2021 1848
Surrogate	Q	% Rec	Acceptance Limit					
13C2_4:2FTS		107	25-150					
13C2_6:2FTS		100	25-150					
13C2_8:2FTS		102	25-150					
13C2_PFDaA		91	25-150					
13C2_PFHxDA		109	25-150					

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MS

Sample ID: WB23023-001MS

Matrix: Aqueous

Batch: 83776

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/24/2021 1132

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		95	25-150
13C3_PFBs		94	25-150
13C3_PFHxS		94	25-150
13C3-HFPO-DA		104	25-150
13C4_PFBa		93	25-150
13C4_PFHpA		98	25-150
13C5_PFHxA		92	25-150
13C5_PFPeA		92	25-150
13C6_PFDa		95	25-150
13C7_PFUdA		96	25-150
13C8_PFOA		100	25-150
13C8_PFOs		95	25-150
13C8_PFOsA		108	10-150
13C9_PFNa		94	25-150
d-EtFOsA		72	10-150
d5-EtFOsAA		96	25-150
d9-EtFOsE		98	10-150
d-MeFOsA		76	10-150
d3-MeFOsAA		101	25-150
d7-MeFOsE		102	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents

(Please Print Clearly)

Company Name: The OS Group LLC
 Branch/Location: LaCrosse WI
 Project Contact: Steven Osesek
 Phone: 608-433-9388
 Project Number: LaCrosse Wells 23+34
 Project Name: [Handwritten]
 Project State: WI
 Sampled By (Print): Kristie L Tweedy
 Sampled By (Sign): [Signature]
 PO #: [Blank] Regulatory Program: [Blank]



UPPER MIDWEST REGION
 MN: 612-607-1700 WI: 920-469-2435

Page of

COC No.

CHAIN OF CUSTODY

Preservation Codes
 A=None B=HCl C=H2SO4 D=HN03 E=DI Water F=Methanol G=NaOH
 H=Sodium Bicarbonate Solution I=Sodium Thiosulfate J=Other

FILTERED?
 (YES/NO)
 PRESERVATION
 (CODE)*

Y/N	Pick Letter	Analyses Requested
N	A	PFAS WI 36
X		

Data Package Options (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Air W = Water
 B = Bios DW = Drinking Water
 C = Chemical GW = Ground Water
 D = DI SW = Surface Water
 E = Sediment WW = Waste Water
 F = Sludge WP = Wine

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
	1551a-2	2/17	9:58	DW

Quote #:	
Mail To Contact:	Steven Osesek
Mail To Company:	The OS Group LLC
Mail To Address:	444 21st St S LaCrosse, WI 54601
Invoice To Contact:	Steven Osesek
Invoice To Company:	The OS Group LLC
Invoice To Address:	444 21st St S LaCrosse, WI 54601
Invoice To Phone:	608-433-9388
CLIENT COMMENTS	LAB COMMENTS (Lab Use Only) Profile #
	 WB23023 FLC2

Rush Turnaround Time Requested - Prelims
 (Rush TAT subject to approval/surcharge)
 Date Needed: 8-10 Day

Transport Prelim Rush Results by (complete what you want):

Email #1:
 Email #2:
 Telephone:
 Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By: [Signature] Date/Time: 2-17-21 3:42 PM

Relinquished By: [Signature] Date/Time: 2/23/21 11:15

Received By: [Signature] Date/Time: 2/23/21 11:15

PACE Project No.
 Receipt Temp = 8.3 °C
 Sample Receipt pH
 OK / Adjusted
 Cooler Custody Seal
 Present / Not Present
 Intact / Not Intact

PACE ANALYTICAL SERVICES, LLC

Version 6.0 05/14/20

PACE ANALYTICAL SERVICES, LLC



Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: THE OS GROUP LLC Cooler Inspected by/date: JRG2 / 2/23/2021 Lot #: WB23023

Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Other: _____	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: <u>NA</u> Chlorine Strip ID: <u>NA</u> Tested by: <u>NA</u>	
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: <u>NA</u> <u>3.3 / 3.3</u> °C <u>NA</u> / <u>NA</u> °C <u>NA</u> / <u>NA</u> °C <u>NA</u> / <u>NA</u> °C	
Method: <input checked="" type="checkbox"/> Temperature Blank <input type="checkbox"/> Against Bottles IR Gun ID: <u>6</u> IR Gun Correction Factor: <u>0</u> °C	
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote # _____
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)	
Sample(s) <u>NA</u> were received incorrectly preserved and were adjusted accordingly in sample receiving with <u>NA</u> ml. of circle one: H2SO4, HNO3, HCl, NaOH using SR # <u>NA</u>	
Time of preservation <u>NA</u> . If more than one preservative is needed, please note in the comments below.	
Sample(s) <u>NA</u> were received with bubbles >6 mm in diameter.	
Sample(s) <u>NA</u> were received with TRC > 0.5 mg/L. (If #19 is <i>no</i>) and were adjusted accordingly in sample receiving with sodium tetrathionate (Na ₂ S ₂ O ₈) with Shealy ID: <u>NA</u>	
SR barcode labels applied by: <u>JRG2</u> Date: <u>2/23/2021</u>	

Comments:



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

April 6, 2021

██████████
 905 Plainview Rd
 La Crosse, WI 54603

Subject: Private Well Post-Treatment Sampling Results
 905 Plainview Rd, La Crosse, WI 54603
 Tax Parcel # 4-1556-2
 Sampling Point # 1556-2 Post-Treatment
 Sample Date: March 25, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected from the kitchen drinking water tap at the above address. We understand this tap is downstream from the water treatment devices you had installed; we refer to this as a “post-treatment” or “post-filter” sample. One PFAS compounds was found, but the levels found were **below** the 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* drinking water sample are called the “Post-Treatment Sample Result” in the table below.

Post-Treatment Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (FOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	17 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	

Private Well Re-Sampling Results for
 905 Plainview Rd, La Crosse, WI 54603
 Tax Parcel # 4-1556-2
 Sampling Point # 1556-2 Post-Treatment
 Sample Date: March 25, 2021
 April 6, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	Not Detected	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	Not Detected	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	Not Detected	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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

^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.

^c 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.

Private Well Re-Sampling Results for
905 Plainview Rd, La Crosse, WI 54603
Tax Parcel # 4-1556-2
Sampling Point # 1556-2 Post-Treatment
Sample Date: March 25, 2021
April 6, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

April 06, 2021

Steve Osesek
The OS Group, LLC
N6746 McCurdy Road
Holmen, WI 54636

RE: Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40224156

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on March 26, 2021. 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:

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

Sincerely,



Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC



REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40224156

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40224156001	1556-2 POST FILTER	Water	03/25/21 08:37	03/26/21 00:00

REPORT OF LABORATORY ANALYSIS

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

(Please Print Clearly)

UPPER MIDWEST REGION

Page 1 of 1

MN: 612-607-1700 WI: 920-469-2436

COC No. 40224156



CHAIN OF CUSTODY

*Preservation Codes
 A=None B=HCL C=H2SO4 D=HNO3 E=DJ Water F=Methand G=NaOH
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?
(YES/NO)
 PRESERVATION
(CODE)*

Y/N	Pick/Letter	Analyses Requested	WI 36 PFAS by ID
N	A		X

Quote #:	-	
Mail To Contact:	Steven Oseseck	
Mail To Company:	The OS Group LLC	
Mail To Address:	444 21st St S LaCrosse, WI 54601	
Invoice To Contact:	Steven Oseseck	
Invoice To Company:	The OS Group LLC	
Invoice To Address:	444 21st St S LaCrosse, WI 54601	
Invoice To Phone:	608-433-9388	
CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
		4532
7-DAY RUSH		
WC26045		
KLG2		

Company Name:	The OS Group LLC
Branch/Location:	LaCrosse WI
Project Contact:	Steven Oseseck
Phone:	608-433-9388
Project Number:	-
Project Name:	LACROSSE WELLS 23 & 24
Project State:	WI
Sampled By (Print):	Steven Oseseck
Sampled By (Sign):	<i>Steven Oseseck</i>
PO #:	-
Regulatory Program:	WDNR

Data Package Options (billable)	MS/MSD	Matrix Codes
<input type="checkbox"/> EPA Level III	<input type="checkbox"/> On your sample (billable)	A = Air W = Water
<input type="checkbox"/> EPA Level IV	<input type="checkbox"/> NOT needed on your sample	B = Biota CW = Drinking Water
		C = Charcoal GW = Ground Water
		O = Oil SW = Surface Water
		S = Soil WW = Waste Water
		Sl = Sludge WP = Wine

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
	1556-2	3/28/21	8:37	DW

7-DAY TURN

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed:	Reinquished By: <i>Steven Oseseck</i>	Date/Time: 3/29/21 4:23
Transmit Prelim Rush Results by (complete what you want):	Reinquished By:	Date/Time:
Email #1:	Reinquished By:	Date/Time:
Email #2:	Reinquished By:	Date/Time:
Telephone:	Reinquished By:	Date/Time:
Fax:	Reinquished By:	Date/Time:

Received By:	Date/Time:
Received By:	Date/Time:
Received By:	Date/Time:
Received By:	Date/Time:
Received By: <i>Fedex</i>	Date/Time: 3/29/21 10:00 AM
Received By: <i>Horstman</i>	Date/Time: 3/29/21 10:00

PACE Project No. 40224156
Receipt Temp = 5.7 °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal Present / Not Present Intact / Not Intact



Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: THE OS GROUP Cooler Inspected by/date: JRG2 / 3/26/2021 Lot #: WC26045

Means of receipt:		<input type="checkbox"/> Pace	<input type="checkbox"/> Client	<input type="checkbox"/> UPS	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?				
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?			
pH Strip ID: NA		Chlorine Strip ID: NA		Tested by: NA		
Original temperature upon receipt / Derived (Corrected) temperature upon receipt		%Solid Snap-Cup ID: NA				
5.1 / 5.1 °C	NA / NA °C	NA / NA °C	NA / NA °C			
Method: <input type="checkbox"/> Temperature Blank		<input checked="" type="checkbox"/> Against Bottles		IR Gun ID: 6 IR Gun Correction Factor: 0 °C		
Method of coolant: <input checked="" type="checkbox"/> Wet Ice		<input type="checkbox"/> Ice Packs		<input type="checkbox"/> Dry Ice <input type="checkbox"/> None		
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?				
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	6. Were sample IDs listed on the COC?				
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?				
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	8. Was collection date & time listed on the COC?				
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?				
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?				
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	11. Were tests to be performed listed on the COC?				
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?				
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	13. Was adequate sample volume available?				
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?				
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?				
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any of the VOA vials?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?			
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote #				
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)						
Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.						
Time of preservation NA. If more than one preservative is needed, please note in the comments below.						
Sample(s) NA were received with bubbles >6 mm in diameter.						
Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: NA.						
SR barcode labels applied by: JRG2 Date: 3/26/2021						

Comments:



Report of Analysis

Pace Analytical Services, LLC
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40224156

Lot Number: **WC26045**

Date Completed: 04/05/2021

Karen Coonan

04/05/2021 10:18 PM

Approved and released by:
Project Manager II: **Karen L. Coonan**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WC26045

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Pace Analytical Services, LLC

Lot Number: WC26045

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40224156

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	1556-2 POST FILTER	Aqueous	03/25/2021 0837	03/26/2021

(1 sample)

PACE ANALYTICAL SERVICES, LLC

Detection Summary
Pace Analytical Services, LLC
Lot Number: WC26045
Project Name: LACROSSE WELLS 23 & 24
Project Number: 40224156

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	1556-2 POST FILTER	Aqueous	PFOA	PFAS by ID	17		ng/L	6

(1 detection)

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC26045-001
Description: 1556-2 POST FILTER	Matrix: Aqueous
Date Sampled: 03/25/2021 0837	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/26/2021	Project Number: 40224156

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/31/2021 0113	JJG	03/29/2021 1043	87148

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-butanefluoronic acid (PFBA)	375-22-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	17		3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		117	25-150
13C2_6:2FTS		127	25-150
13C2_8:2FTS		121	25-150
13C2_PFDaA		107	25-150
13C2_PFHxDA		109	25-150
13C2_PFTeDA		107	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC26045-001
Description: 1556-2 POST FILTER	Matrix: Aqueous
Date Sampled: 03/25/2021 0837	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/26/2021	Project Number: 40224156

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		98	25-150
13C3_PFHxS		115	25-150
13C3-HFPO-DA		120	25-150
13C4_PFBa		128	25-150
13C4_PFHpA		123	25-150
13C5_PFHxA		117	25-150
13C5_PFPeA		114	25-150
13C6_PFDa		116	25-150
13C7_PFUdA		116	25-150
13C8_PFOA		119	25-150
13C8_PFOS		112	25-150
13C8_PFOSA		119	10-150
13C9_PFNA		123	25-150
d-EtFOSA		99	10-150
d5-EtFOSAA		114	25-150
d9-EtFOSE		103	10-150
d-MeFOSA		110	10-150
d3-MeFOSAA		109	25-150
d7-MeFOSE		103	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: WQ87148-001

Matrix: Aqueous

Batch: 87148

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/29/2021 1043

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND		1	8.0	2.0	ng/L	03/30/2021 2150
11CI-PF3OUdS	ND		1	8.0	2.0	ng/L	03/30/2021 2150
8:2 FTS	ND		1	8.0	2.0	ng/L	03/30/2021 2150
6:2 FTS	ND		1	8.0	2.0	ng/L	03/30/2021 2150
10:2 FTS	ND		1	8.0	2.0	ng/L	03/30/2021 2150
4:2 FTS	ND		1	8.0	2.0	ng/L	03/30/2021 2150
GenX	ND		1	8.0	2.0	ng/L	03/30/2021 2150
ADONA	ND		1	8.0	2.0	ng/L	03/30/2021 2150
EtFOSA	ND		1	8.0	2.0	ng/L	03/30/2021 2150
EtFOSAA	ND		1	8.0	2.0	ng/L	03/30/2021 2150
EtFOSE	ND		1	8.0	2.0	ng/L	03/30/2021 2150
MeFOSA	ND		1	16	4.0	ng/L	03/30/2021 2150
MeFOSAA	ND		1	8.0	2.0	ng/L	03/30/2021 2150
MeFOSE	ND		1	8.0	2.0	ng/L	03/30/2021 2150
PFBS	ND		1	4.0	1.0	ng/L	03/30/2021 2150
PFDS	ND		1	4.0	1.0	ng/L	03/30/2021 2150
PFHpS	ND		1	4.0	1.0	ng/L	03/30/2021 2150
PFNS	ND		1	4.0	1.0	ng/L	03/30/2021 2150
PFOSA	ND		1	4.0	1.0	ng/L	03/30/2021 2150
PFPeS	ND		1	4.0	1.0	ng/L	03/30/2021 2150
PFDOS	ND		1	8.0	2.0	ng/L	03/30/2021 2150
PFHxS	ND		1	4.0	1.0	ng/L	03/30/2021 2150
PFBA	ND		1	4.0	1.0	ng/L	03/30/2021 2150
PFDA	ND		1	4.0	1.0	ng/L	03/30/2021 2150
PFDoA	ND		1	4.0	1.0	ng/L	03/30/2021 2150
PFHpA	ND		1	4.0	1.0	ng/L	03/30/2021 2150
PFHxDA	ND		1	8.0	2.0	ng/L	03/30/2021 2150
PFHxA	ND		1	4.0	1.0	ng/L	03/30/2021 2150
PFNA	ND		1	4.0	1.0	ng/L	03/30/2021 2150
PFODA	ND		1	8.0	2.0	ng/L	03/30/2021 2150
PFOA	ND		1	4.0	1.0	ng/L	03/30/2021 2150
PFPeA	ND		1	4.0	1.0	ng/L	03/30/2021 2150
PFTeDA	ND		1	4.0	1.0	ng/L	03/30/2021 2150
PFTTrDA	ND		1	4.0	1.0	ng/L	03/30/2021 2150
PFUdA	ND		1	4.0	1.0	ng/L	03/30/2021 2150
PFOS	ND		1	4.0	1.0	ng/L	03/30/2021 2150

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		101	25-150
13C2_6:2FTS		97	25-150
13C2_8:2FTS		106	25-150
13C2_PFDoA		94	25-150
13C2_PFHxDA		91	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MB

Sample ID: WQ87148-001

Matrix: Aqueous

Batch: 87148

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/29/2021 1043

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		86	25-150
13C3_PFBs		87	25-150
13C3_PFHxS		98	25-150
13C3-HFPO-DA		93	25-150
13C4_PFBa		101	25-150
13C4_PFHpA		104	25-150
13C5_PFHxA		103	25-150
13C5_PFPeA		101	25-150
13C6_PFDa		99	25-150
13C7_PFUdA		92	25-150
13C8_PFOA		100	25-150
13C8_PFOs		93	25-150
13C8_PFOsA		101	10-150
13C9_PFNa		97	25-150
d-EtFOsA		94	10-150
d5-EtFOsAA		90	25-150
d9-EtFOsE		92	10-150
d-MeFOsA		112	10-150
d3-MeFOsAA		100	25-150
d7-MeFOsE		92	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ87148-002

Matrix: Aqueous

Batch: 87148

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/29/2021 1043

Parameter	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
9CI-PF3ONS	15	15		1	98	50-150	03/30/2021 2201
11CI-PF3OUdS	15	14		1	91	50-150	03/30/2021 2201
8:2 FTS	15	16		1	104	50-150	03/30/2021 2201
6:2 FTS	15	14		1	96	50-150	03/30/2021 2201
10:2 FTS	15	13		1	87	50-150	03/30/2021 2201
4:2 FTS	15	13		1	86	50-150	03/30/2021 2201
GenX	32	31		1	95	50-150	03/30/2021 2201
ADONA	15	14		1	91	50-150	03/30/2021 2201
EtFOSA	16	16		1	98	50-150	03/30/2021 2201
EtFOSAA	16	15		1	94	50-150	03/30/2021 2201
EtFOSE	16	16		1	100	50-150	03/30/2021 2201
MeFOSA	16	16		1	103	50-150	03/30/2021 2201
MeFOSAA	16	16		1	103	50-150	03/30/2021 2201
MeFOSE	16	16		1	101	50-150	03/30/2021 2201
PFBS	14	16		1	111	50-150	03/30/2021 2201
PFDS	15	15		1	94	50-150	03/30/2021 2201
PFHpS	15	15		1	96	50-150	03/30/2021 2201
PFNS	15	16		1	105	50-150	03/30/2021 2201
PFOSA	16	16		1	98	50-150	03/30/2021 2201
PFPeS	15	16		1	109	50-150	03/30/2021 2201
PFDOS	15	15		1	96	50-150	03/30/2021 2201
PFHxS	15	14		1	96	50-150	03/30/2021 2201
PFBA	16	16		1	98	50-150	03/30/2021 2201
PFDA	16	16		1	99	50-150	03/30/2021 2201
PFDoA	16	16		1	98	50-150	03/30/2021 2201
PFHpA	16	15		1	92	50-150	03/30/2021 2201
PFHxDA	16	17		1	105	50-150	03/30/2021 2201
PFHxA	16	15		1	92	50-150	03/30/2021 2201
PFNA	16	14		1	89	50-150	03/30/2021 2201
PFODA	16	16		1	98	50-150	03/30/2021 2201
PFOA	16	16		1	98	50-150	03/30/2021 2201
PFPeA	16	15		1	96	50-150	03/30/2021 2201
PFTeDA	16	15		1	96	50-150	03/30/2021 2201
PFTTrDA	16	16		1	98	50-150	03/30/2021 2201
PFUdA	16	16		1	101	50-150	03/30/2021 2201
PFOS	15	14		1	96	50-150	03/30/2021 2201

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		96	25-150
13C2_6:2FTS		102	25-150
13C2_8:2FTS		97	25-150
13C2_PFDoA		91	25-150
13C2_PFHxDA		87	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ87148-002

Matrix: Aqueous

Batch: 87148

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/29/2021 1043

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		84	25-150
13C3_PFBs		85	25-150
13C3_PFHxS		99	25-150
13C3-HFPO-DA		93	25-150
13C4_PFBa		98	25-150
13C4_PFHpA		101	25-150
13C5_PFHxA		98	25-150
13C5_PFPeA		98	25-150
13C6_PFDa		98	25-150
13C7_PFUdA		88	25-150
13C8_PFOA		106	25-150
13C8_PFOs		90	25-150
13C8_PFOsA		100	10-150
13C9_PFNa		100	25-150
d-EtFOsA		102	10-150
d5-EtFOsAA		86	25-150
d9-EtFOsE		83	10-150
d-MeFOsA		93	10-150
d3-MeFOsAA		99	25-150
d7-MeFOsE		84	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents

(Please Print Clearly)

Company Name: The OS Group LLC
 Branch/Location: LaCrosse WI
 Project Contact: Steven Oseseck
 Phone: 608-433-9388
 Project Number:
 Project Name: LACROSSE WELLS 23 & 24
 Project State: WI
 Sampled By (Print): Steven Oseseck
 Sampled By (Sign): *Steven Oseseck*
 PC #: Regulatory Program: WGNR



UPPER MIDWEST REGION
 MN: 612-807-1700 WI: 920-469-2435

COC No.

Preservation Codes

A=None	B=HCl	C=H2SO4	D=HNO3	F=DI Water	F=Whewell	G=NaOH
H=Barium Resulfate Solution	I=Sodium Thiosulfate	J=Other				

Filtering? (YES/NO)
 Preservation (CODE)

Analyses Requested	Pick Label	N																
WI 36 PFAS by ID	A																	

Quote #: -
 Mail To Contact: Steven Oseseck
 Mail To Company: The OS Group LLC
 Mail To Address: 444 21st St S
 LaCrosse, WI 54601
 Invoice To Contact: Steven Oseseck
 Invoice To Company: The OS Group LLC
 Invoice To Address: 444 21st St S
 LaCrosse, WI 54601
 Invoice To Phone: 608-433-9388
 CLIENT COMMENTS: 7-DAY RUSH
 LAB COMMENTS (Lab Use Only):
 Profile #: 4532

Data Package Options (billable)
 EPA Level III
 EPA Level IV
MS/MSD
 On your sample (billable)
 NOT needed on your sample
Matrix Codes
 A - Air W - Water
 B - Bulk DW - Drinking Water
 C - Chemical SW - Surface Water
 D - DI F - Filtered Water
 E - Effluent W - Waste Water
 F - Fishery WT - Waste
 G - Gas
 H - Haze
 I - Ice
 J - Other

PAGE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX	Analyses Requested
		DATE	TIME		
	1556-2	3/28/21	8:37	DW	X

Rush Turnaround Time Requested - Prelims (Rush NOT subject to approval/surcharge)
 Date Needed: *3/29/21*
 Relinquished By: *Steven Oseseck* Date/Time: *3/29/21 4:23*
 Received By: _____ Date/Time: _____
 Relinquished By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____
 Relinquished By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____
 Relinquished By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____
 Relinquished By: *Fedex* Date/Time: *3/26/21 1000*
 Received By: *Jim Handwin* Date/Time: *3/26/21 1000*
 FACE Project No.: _____
 Receipt Temp = *5.7* °C
 Sample Receipt pH: _____
 Cooler Custody Seal: _____
 Present / Not Present: _____
 Intact / Not Intact: _____

7-DAY TURN

PACE ANALYTICAL SERVICES, LLC



Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: THE OS GROUP Cooler Inspected by/date: JRG2 / 3/26/2021 Lot #: WC26045

Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Other: _____	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA	
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA	
5.1 / 5.1 °C NA / NA °C NA / NA °C NA / NA °C	
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: NA IR Gun Correction Factor: 0 °C	
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote # _____
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)	
Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA	
Time of preservation NA. If more than one preservative is needed, please note in the comments below.	
Sample(s) NA were received with bubbles >6 mm in diameter.	
Samples(s) NA were received with TRC > 0.5 mg/l. (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Steady ID: NA	
SR barcode labels applied by: JRG2 Date: 3/26/2021	

Comments:



Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: WI
 Cert. Needed: Yes No

Owner Received Date: 3/26/2021 Results Requested By: 4/6/2021

Workorder: 40224156 Workorder Name: LACROSSE WELLS 23 & 24

Report To: Christopher Hyska
 Subcontract To: Pace Analytical West Columbia

Christopher Hyska
 Pace Analytical Green Bay
 1241 Bellevue Street
 Suite 9
 Green Bay, WI 54302
 Phone (920)459-2436

Pace Analytical West Columbia
 106 Vantage Point Drive
 West Columbia, SC 29172
 Phone (803)791-9700

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers					WT & PFAS by ID	Requested Analysis	LAB USE ONLY
						1	2	3	4	5			
1	1556-2 POST FILTER	PS	3/25/2021 08:37	40224156001	Water	2					X		WC 26045
2													
3													
4													
5													

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1					IR77 - MDL reporting - Quote 23492
2					Direct Ship - WC26045
3	FEPW	3/26/21 1000	JAA	3/26/21 1000	

Cooler Temperature on Receipt 5.1 °C Custody Seal Y or N Received on Ice Y or N Samples Intact Y 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.

PACE ANALYTICAL SERVICES, LLC



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

March 30, 2021

██████████
817 Plainview Road
La Crosse, WI 54603

Subject: Private Well Sampling Results
817 Plainview Road, La Crosse, WI 54603
Tax parcel # 4-1580-1
Sampling Point # 1580-1
Sampling Date: March 8, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.1 ppt	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	5.7 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	44 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	13 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.8 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	13 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	2.0 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.5 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	2.6 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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) ^f Detected in the method blank. Possible lab contaminant.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-008
Description: 1586-0 actually 1580-1	Matrix: Aqueous
Date Sampled: 03/08/2021 1524	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/16/2021 2025	SES	03/15/2021 1045	85709

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	13		3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.1	J	3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.8	J	3.5	0.88	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	13		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.5	J	3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.0	J	3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	5.7		3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	2.6	J	3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	44		3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		100	25-150
13C2_6:2FTS		107	25-150
13C2_8:2FTS		98	25-150
13C2_PFDa		100	25-150
13C2_PFHxDA		111	25-150
13C2_PFTeDA		107	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-008
Description: 1586-0 actually 1580-1	Matrix: Aqueous
Date Sampled: 03/08/2021 1524	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		97	25-150
13C3_PFHxS		107	25-150
13C3-HFPO-DA		106	25-150
13C4_PFBa		111	25-150
13C4_PFHpA		106	25-150
13C5_PFHxA		111	25-150
13C5_PFPeA		112	25-150
13C6_PFDa		105	25-150
13C7_PFUdA		102	25-150
13C8_PFOA		107	25-150
13C8_PFOS		106	25-150
13C8_PFOsA		101	10-150
13C9_PFNa		109	25-150
d-EtFOsA		82	10-150
d5-EtFOsAA		98	25-150
d9-EtFOSE		101	10-150
d-MeFOsA		74	10-150
d3-MeFOsAA		102	25-150
d7-MeFOSE		88	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

April 9, 2021

██████████
 2823 Bayshore Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2823 Bayshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-1583-1
 Sampling Point # 1583-1
 Sample Date: March 11, 2021

Dear ██████████ :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.4 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.3 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2823 Bayshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-1583-1
 Sampling Point # 1583-1
 April 9, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.0 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.9 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	23 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.2 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
2823 Bayshore Drive, La Crosse, WI 54603
Tax Parcel # 4-1583-1
Sampling Point # 1583-1
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-012
Description: 1583-1	Matrix: Aqueous
Date Sampled: 03/11/2021 1456	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/25/2021 0059	JJG	03/23/2021 1200	86528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.0	J	3.5	0.87	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.9	J	3.5	0.87	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	23		3.5	0.87	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.4	J	3.5	0.87	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.2	J	3.5	0.87	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.3	J	3.5	0.87	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		124	25-150
13C2_6:2FTS		93	25-150
13C2_8:2FTS		92	25-150
13C2_PFDaA		87	25-150
13C2_PFHxDA		81	25-150
13C2_PFTeDA		78	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-012
Description: 1583-1	Matrix: Aqueous
Date Sampled: 03/11/2021 1456	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		86	25-150
13C3_PFHxS		90	25-150
13C3-HFPO-DA		100	25-150
13C4_PFBa		98	25-150
13C4_PFHpA		94	25-150
13C5_PFHxA		94	25-150
13C5_PFPeA		101	25-150
13C6_PFDa		93	25-150
13C7_PFUdA		91	25-150
13C8_PFOA		95	25-150
13C8_PFOS		90	25-150
13C8_PFOsA		93	10-150
13C9_PFNa		97	25-150
d-EtFOSA		77	10-150
d5-EtFOSAA		89	25-150
d9-EtFOSE		81	10-150
d-MeFOSA		82	10-150
d3-MeFOSAA		96	25-150
d7-MeFOSE		88	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

██████████
 810 Hanson Road
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 810 Hanson Road, La Crosse, WI 54603
 Tax Parcel # 4-1631-0
 Sampling Point # 1631-0
 Sample Date: March 11, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.3 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	2.5 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 810 Hanson Road, La Crosse, WI 54603
 Tax Parcel # 4-1631-0
 Sampling Point # 1631-0
 April 9, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.4 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	Not Detected	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	9.2 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
810 Hanson Road, La Crosse, WI 54603
Tax Parcel # 4-1631-0
Sampling Point # 1631-0
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-013
Description: 1631-0	Matrix: Aqueous
Date Sampled: 03/11/2021 1511	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/25/2021 0110	JJG	03/23/2021 1200	86528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	1.4	J	3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	9.2		3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.3	J	3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.5	J	3.7	0.92	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		114	25-150
13C2_6:2FTS		95	25-150
13C2_8:2FTS		88	25-150
13C2_PFDoA		81	25-150
13C2_PFHxDA		74	25-150
13C2_PFTeDA		76	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-013
Description: 1631-0	Matrix: Aqueous
Date Sampled: 03/11/2021 1511	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		84	25-150
13C3_PFHxS		82	25-150
13C3-HFPO-DA		99	25-150
13C4_PFBa		96	25-150
13C4_PFHpA		95	25-150
13C5_PFHxA		93	25-150
13C5_PFPeA		97	25-150
13C6_PFDa		87	25-150
13C7_PFUdA		90	25-150
13C8_PFOA		93	25-150
13C8_PFOS		95	25-150
13C8_PFOsA		95	10-150
13C9_PFNa		92	25-150
d-EtFOSA		73	10-150
d5-EtFOSAA		80	25-150
d9-EtFOSE		79	10-150
d-MeFOSA		79	10-150
d3-MeFOSAA		91	25-150
d7-MeFOSE		83	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

██████████
 901 Kime Street
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 901 Kime Street, La Crosse, WI 54603
 Tax Parcel # 4-1637-0
 Sampling Point # 1637-0
 Sample Date: March 18, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	2.9 ppt	20 ppt ^{a,b}	

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.3 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	Not Detected	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	2.4 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
901 Kime Street, La Crosse, WI 54603
Tax Parcel # 4-1637-0
Sampling Point # 1637-0
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC24099-005
Description: 1637-0	Matrix: Aqueous
Date Sampled: 03/18/2021 1336	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/30/2021 2119	JJG	03/29/2021 1125	87152

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	1.3	J	3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	2.4	J	3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.9	J	3.7	0.92	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		107	25-150
13C2_6:2FTS		101	25-150
13C2_8:2FTS		94	25-150
13C2_PFDa		90	25-150
13C2_PFHxDA		78	25-150
13C2_PFTeDA		83	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC24099-005
Description: 1637-0	Matrix: Aqueous
Date Sampled: 03/18/2021 1336	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		83	25-150
13C3_PFHxS		91	25-150
13C3-HFPO-DA		89	25-150
13C4_PFBa		98	25-150
13C4_PFHpA		99	25-150
13C5_PFHxA		95	25-150
13C5_PFPeA		97	25-150
13C6_PFDa		97	25-150
13C7_PFUdA		86	25-150
13C8_PFOA		100	25-150
13C8_PFOS		86	25-150
13C8_PFOsA		102	10-150
13C9_PFNa		97	25-150
d-EtFOsA		91	10-150
d5-EtFOsAA		90	25-150
d9-EtFOsE		80	10-150
d-MeFOsA		92	10-150
d3-MeFOsAA		93	25-150
d7-MeFOsE		87	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 30, 2021

██████████
 914 Hanson Road
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 914 Hanson Road, La Crosse, WI 54603
 Tax Parcel # 4-1640-0
 Sampling Point # 1640-0
 Sample Date: March 8, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	2.7 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 914 Hanson Road, La Crosse, WI 54603
 Tax Parcel # 4-1640-0
 Sampling Point # 1640-0
 March 30, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.0 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	Not Detected	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	2.5 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
914 Hanson Road, La Crosse, WI 54603
Tax Parcel # 4-1640-0
Sampling Point # 1640-0
March 30, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-004
Description: 1640-0	Matrix: Aqueous
Date Sampled: 03/08/2021 1431	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/16/2021 1932	SES	03/15/2021 1045	85709

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	2.0	J	3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	2.5	J	3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.7	J	3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		99	25-150
13C2_6:2FTS		94	25-150
13C2_8:2FTS		98	25-150
13C2_PFDaA		97	25-150
13C2_PFHxDA		96	25-150
13C2_PFTeDA		98	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-004
Description: 1640-0	Matrix: Aqueous
Date Sampled: 03/08/2021 1431	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		88	25-150
13C3_PFHxS		90	25-150
13C3-HFPO-DA		97	25-150
13C4_PFBa		106	25-150
13C4_PFHpA		100	25-150
13C5_PFHxA		104	25-150
13C5_PFPeA		105	25-150
13C6_PFDa		97	25-150
13C7_PFUdA		103	25-150
13C8_PFOA		100	25-150
13C8_PFOS		93	25-150
13C8_PFOSA		99	10-150
13C9_PFNA		100	25-150
d-EtFOSA		100	10-150
d5-EtFOSAA		99	25-150
d9-EtFOSE		92	10-150
d-MeFOSA		71	10-150
d3-MeFOSAA		91	25-150
d7-MeFOSE		77	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 31, 2021

██████████
 3151 Edgewater Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 3151 Edgewater Drive, La Crosse, WI 54603
 Tax Parcel # 4-1660-1
 Sampling Point # 1660-1
 Sample Date: March 15, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	2.4 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 3151 Edgewater Drive, La Crosse, WI 54603
 Tax Parcel # 4-1660-1
 Sampling Point # 1660-1
 March 31, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.7 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	Not Detected	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	2.1 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
3151 Edgewater Drive, La Crosse, WI 54603
Tax Parcel # 4-1660-1
Sampling Point # 1660-1
March 31, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-011
Description: 1660-1	Matrix: Aqueous
Date Sampled: 03/16/2021 0951	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/26/2021 1943	SES	03/25/2021 1122	86804

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.4	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	1.7	J	3.4	0.85	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	2.1	J	3.4	0.85	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.4	0.85	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.4	J	3.4	0.85	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		111	25-150
13C2_6:2FTS		92	25-150
13C2_8:2FTS		84	25-150
13C2_PFDoA		70	25-150
13C2_PFHxDA		81	25-150
13C2_PFTeDA		68	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-011
Description: 1660-1	Matrix: Aqueous
Date Sampled: 03/16/2021 0951	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		78	25-150
13C3_PFHxS		84	25-150
13C3-HFPO-DA		91	25-150
13C4_PFBa		97	25-150
13C4_PFHpA		97	25-150
13C5_PFHxA		89	25-150
13C5_PFPeA		96	25-150
13C6_PFDa		83	25-150
13C7_PFUdA		75	25-150
13C8_PFOA		92	25-150
13C8_PFOS		85	25-150
13C8_PFOsA		93	10-150
13C9_PFNa		92	25-150
d-EtFOSA		62	10-150
d5-EtFOSAA		75	25-150
d9-EtFOSE		67	10-150
d-MeFOSA		61	10-150
d3-MeFOSAA		84	25-150
d7-MeFOSE		66	10-150

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis			S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

████████████████████
 3102 Edgewater Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 3102 Edgewater Drive, La Crosse, WI 54603
 Tax Parcel # 4-1733-1
 Sampling Point # 1733-1
 Sample Date: March 4, 2021

Dear ████████████████████ :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	

Private Well Sampling Results for
 3102 Edgewater Drive, La Crosse, WI 54603
 Tax Parcel # 4-1733-1
 Sampling Point # 1733-1
 March 27, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.2 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	Not Detected	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	5.0 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

^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.

^c 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.

Private Well Sampling Results for
3102 Edgewater Drive, La Crosse, WI 54603
Tax Parcel # 4-1733-1
Sampling Point # 1733-1
March 27, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC10015-003
Description: 1733-1	Matrix: Aqueous
Date Sampled: 03/04/2021 1409	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/10/2021	Project Number: 40222997

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/12/2021 2338	JJG	03/11/2021 1045	85377

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	1.2	J	3.5	0.87	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	5.0		3.5	0.87	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		102	25-150
13C2_6:2FTS		92	25-150
13C2_8:2FTS		91	25-150
13C2_PFDaA		87	25-150
13C2_PFHxDA		78	25-150
13C2_PFTeDA		86	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC10015-003
Description: 1733-1	Matrix: Aqueous
Date Sampled: 03/04/2021 1409	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/10/2021	Project Number: 40222997

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		85	25-150
13C3_PFHxS		89	25-150
13C3-HFPO-DA		93	25-150
13C4_PFBa		97	25-150
13C4_PFHpA		96	25-150
13C5_PFHxA		100	25-150
13C5_PFPeA		94	25-150
13C6_PFDa		95	25-150
13C7_PFUdA		80	25-150
13C8_PFOA		94	25-150
13C8_PFOS		85	25-150
13C8_PFOSA		99	10-150
13C9_PFNA		94	25-150
d-EtFOSA		67	10-150
d5-EtFOSAA		88	25-150
d9-EtFOSE		76	10-150
d-MeFOSA		74	10-150
d3-MeFOSAA		87	25-150
d7-MeFOSE		78	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

██████████
 2922 Pierce Avenue
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2922 Pierce Avenue, La Crosse, WI 54603
 Tax Parcel # 4-1764-0
 Sampling Point # 1764-0
 Sample Date: March 17, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	12 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2922 Pierce Avenue, La Crosse, WI 54603
 Tax Parcel # 4-1764-0
 Sampling Point # 1764-0
 April 9, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.1 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	8.6 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	11 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
2922 Pierce Avenue, La Crosse, WI 54603
Tax Parcel # 4-1764-0
Sampling Point # 1764-0
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC24099-003
Description: 1764-0	Matrix: Aqueous
Date Sampled: 03/17/2021 1302	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/30/2021 2057	JJG	03/29/2021 1125	87152

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.1	J	3.7	0.93	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	8.6		3.7	0.93	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	11		3.7	0.93	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	12		3.7	0.93	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		113	25-150
13C2_6:2FTS		101	25-150
13C2_8:2FTS		101	25-150
13C2_PFDaA		97	25-150
13C2_PFHxDA		88	25-150
13C2_PFTeDA		84	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC24099-003
Description: 1764-0	Matrix: Aqueous
Date Sampled: 03/17/2021 1302	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		87	25-150
13C3_PFHxS		95	25-150
13C3-HFPO-DA		95	25-150
13C4_PFBa		103	25-150
13C4_PFHpA		101	25-150
13C5_PFHxA		98	25-150
13C5_PFPeA		100	25-150
13C6_PFDa		98	25-150
13C7_PFUdA		91	25-150
13C8_PFOa		100	25-150
13C8_PFOs		93	25-150
13C8_PFOsA		102	10-150
13C9_PFNa		94	25-150
d-EtFOsA		99	10-150
d5-EtFOsAA		93	25-150
d9-EtFOsE		83	10-150
d-MeFOsA		93	10-150
d3-MeFOsAA		99	25-150
d7-MeFOsE		85	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

██████████
 2907 Pierce Avenue
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2907 Pierce Avenue, La Crosse, WI 54603
 Tax Parcel # 4-1788-0
 Sampling Point # 1788-0
 Sample Date: March 11, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.0 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.6 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.2 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	17 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
2907 Pierce Avenue, La Crosse, WI 54603
Tax Parcel # 4-1788-0
Sampling Point # 1788-0
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-014
Description: 1788-0	Matrix: Aqueous
Date Sampled: 03/11/2021 1524	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/25/2021 0121	JJG	03/23/2021 1200	86528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.8	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.6	J	3.8	0.95	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.0	J	3.8	0.95	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.2	J	3.8	0.95	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	17		3.8	0.95	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		116	25-150
13C2_6:2FTS		103	25-150
13C2_8:2FTS		100	25-150
13C2_PFDa		91	25-150
13C2_PFHxDA		84	25-150
13C2_PFTeDA		83	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-014
Description: 1788-0	Matrix: Aqueous
Date Sampled: 03/11/2021 1524	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		88	25-150
13C3_PFHxS		86	25-150
13C3-HFPO-DA		99	25-150
13C4_PFBa		91	25-150
13C4_PFHpA		92	25-150
13C5_PFHxA		93	25-150
13C5_PFPeA		104	25-150
13C6_PFDA		94	25-150
13C7_PFUdA		94	25-150
13C8_PFOA		93	25-150
13C8_PFOS		96	25-150
13C8_PFOsA		102	10-150
13C9_PFNAA		100	25-150
d-EtFOSA		82	10-150
d5-EtFOSAA		90	25-150
d9-EtFOSE		84	10-150
d-MeFOSA		86	10-150
d3-MeFOSAA		92	25-150
d7-MeFOSE		88	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

██████████
 1812 Prairie Pl
 Holmen, WI 54636

██████████
 3147 Lakeshore Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 3147 Lakeshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-1808-0
 Sampling Point # 1808-0
 Sample Date: March 10, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.1 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.4 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	8.2 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 3147 Lakeshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-1808-0
 Sampling Point # 1808-0
 April 9, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	4.5 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	14 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
3147 Lakeshore Drive, La Crosse, WI 54603
Tax Parcel # 4-1808-0
Sampling Point # 1808-0
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-001
Description: 1808-0	Matrix: Aqueous
Date Sampled: 03/10/2021 1315	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/24/2021 2230	JJG	03/23/2021 1200	86528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	4.5		3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.1	J	3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.0	J	3.6	0.90	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	14		3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.4	J	3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	8.2		3.6	0.90	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		105	25-150
13C2_6:2FTS		97	25-150
13C2_8:2FTS		93	25-150
13C2_PFDaA		82	25-150
13C2_PFHxDA		79	25-150
13C2_PFTeDA		78	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-001
Description: 1808-0	Matrix: Aqueous
Date Sampled: 03/10/2021 1315	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		84	25-150
13C3_PFHxS		90	25-150
13C3-HFPO-DA		95	25-150
13C4_PFBa		93	25-150
13C4_PFHpA		94	25-150
13C5_PFHxA		91	25-150
13C5_PFPeA		93	25-150
13C6_PFDa		90	25-150
13C7_PFUdA		91	25-150
13C8_PFOA		89	25-150
13C8_PFOS		91	25-150
13C8_PFOSA		95	10-150
13C9_PFNA		93	25-150
d-EtFOSA		79	10-150
d5-EtFOSAA		84	25-150
d9-EtFOSE		91	10-150
d-MeFOSA		82	10-150
d3-MeFOSAA		86	25-150
d7-MeFOSE		86	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 13, 2021

██████████
 3034 Youngdale Avenue
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 3034 Youngdale Avenue, La Crosse, WI 54603
 Tax Parcel # 4-1841-0
 Sampling Point # 1841-0
 Sample Date: March 23, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	6.5 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	9.1 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 3034 Youngdale Avenue, La Crosse, WI 54603
 Tax Parcel # 4-1841-0
 Sampling Point # 1841-0
 April 13, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.9 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	10 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	12 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	2.1 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	2.8 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
3034 Youngdale Avenue, La Crosse, WI 54603
Tax Parcel # 4-1841-0
Sampling Point # 1841-0
April 13, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: **Pace Analytical Services, LLC**

Laboratory ID: **WC26011-001**

Description: **1841-0**

Matrix: **Aqueous**

Date Sampled: **03/23/2021 1107**

Project Name: **LACROSSE WELLS 23 & 24**

Date Received: **03/26/2021**

Project Number: **40223969**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	04/01/2021 0100	MMM	03/30/2021 1055	87283

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		8.2	2.1	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		8.2	2.1	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		8.2	2.1	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		8.2	2.1	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		8.2	2.1	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		8.2	2.1	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		8.2	2.1	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		8.2	2.1	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		8.2	2.1	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		8.2	2.1	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		8.2	2.1	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		16	4.1	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		8.2	2.1	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		8.2	2.1	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	2.9	J	4.1	1.0	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		8.2	2.1	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	10		4.1	1.0	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	12		4.1	1.0	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		8.2	2.1	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.1	J	4.1	1.0	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		8.2	2.1	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	6.5		4.1	1.0	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	2.8	J	4.1	1.0	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		4.1	1.0	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	9.1		4.1	1.0	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		124	25-150
13C2_6:2FTS		131	25-150
13C2_8:2FTS		114	25-150
13C2_PFDa		112	25-150
13C2_PFHxDA		102	25-150
13C2_PFTeDA		109	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC26011-001
Description: 1841-0	Matrix: Aqueous
Date Sampled: 03/23/2021 1107	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/26/2021	Project Number: 40223969

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		97	25-150
13C3_PFHxS		113	25-150
13C3-HFPO-DA		112	25-150
13C4_PFBa		114	25-150
13C4_PFHpA		118	25-150
13C5_PFHxA		114	25-150
13C5_PFPeA		108	25-150
13C6_PFDA		114	25-150
13C7_PFUdA		100	25-150
13C8_PFOA		106	25-150
13C8_PFOS		89	25-150
13C8_PFOSA		109	10-150
13C9_PFNA		110	25-150
d-EtFOSA		74	10-150
d5-EtFOSAA		113	25-150
d9-EtFOSE		86	10-150
d-MeFOSA		91	10-150
d3-MeFOSAA		109	25-150
d7-MeFOSE		88	10-150

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis			S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

██████████
 3129 Youngdale Avenue
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 3129 Youngdale Avenue, La Crosse, WI 54603
 Tax Parcel # 4-1863-0
 Sampling Point # 1863-0
 Sample Date: March 4, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	5.9 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 3129 Youngdale Avenue, La Crosse, WI 54603
 Tax Parcel # 4-1863-0
 Sampling Point # 1863-0
 March 27, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.5 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	0.96 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	10 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

^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.

^c 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.

Private Well Sampling Results for
3129 Youngdale Avenue, La Crosse, WI 54603
Tax Parcel # 4-1863-0
Sampling Point # 1863-0
March 27, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC10015-002
Description: 1865-0	Matrix: Aqueous
Date Sampled: 03/04/2021 1356	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/10/2021	Project Number: 40222997

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/12/2021 2317	JJG	03/11/2021 1045	85377

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.8	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	2.5	J	3.8	0.96	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	0.96	J	3.8	0.96	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	10		3.8	0.96	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	5.9		3.8	0.96	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		90	25-150
13C2_6:2FTS		91	25-150
13C2_8:2FTS		95	25-150
13C2_PFDaA		87	25-150
13C2_PFHxDA		77	25-150
13C2_PFTeDA		88	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC10015-002
Description: 1865-0	Matrix: Aqueous
Date Sampled: 03/04/2021 1356	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/10/2021	Project Number: 40222997

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		89	25-150
13C3_PFHxS		97	25-150
13C3-HFPO-DA		94	25-150
13C4_PFBa		101	25-150
13C4_PFHpA		98	25-150
13C5_PFHxA		97	25-150
13C5_PFPeA		94	25-150
13C6_PFDa		93	25-150
13C7_PFUdA		82	25-150
13C8_PFOA		90	25-150
13C8_PFOS		90	25-150
13C8_PFOsA		98	10-150
13C9_PFNa		92	25-150
d-EtFOsA		70	10-150
d5-EtFOsAA		89	25-150
d9-EtFOsE		78	10-150
d-MeFOsA		68	10-150
d3-MeFOsAA		91	25-150
d7-MeFOsE		84	10-150

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis			S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

██████████
 3129 Youngdale Avenue
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 3129 Youngdale Avenue, La Crosse, WI 54603
 Tax Parcel # 4-1863-0
 Sampling Point # 1863-0
 Sample Date: March 4, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	5.9 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 3129 Youngdale Avenue, La Crosse, WI 54603
 Tax Parcel # 4-1863-0
 Sampling Point # 1863-0
 March 27, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.5 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	0.96 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	10 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

^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.

^c 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.

Private Well Sampling Results for
3129 Youngdale Avenue, La Crosse, WI 54603
Tax Parcel # 4-1863-0
Sampling Point # 1863-0
March 27, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC10015-002
Description: 1865-0	Matrix: Aqueous
Date Sampled: 03/04/2021 1356	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/10/2021	Project Number: 40222997

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/12/2021 2317	JJG	03/11/2021 1045	85377

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.8	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	2.5	J	3.8	0.96	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	0.96	J	3.8	0.96	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	10		3.8	0.96	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	5.9		3.8	0.96	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		90	25-150
13C2_6:2FTS		91	25-150
13C2_8:2FTS		95	25-150
13C2_PFDaA		87	25-150
13C2_PFHxDA		77	25-150
13C2_PFTeDA		88	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC10015-002
Description: 1865-0	Matrix: Aqueous
Date Sampled: 03/04/2021 1356	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/10/2021	Project Number: 40222997

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		89	25-150
13C3_PFHxS		97	25-150
13C3-HFPO-DA		94	25-150
13C4_PFBa		101	25-150
13C4_PFHpA		98	25-150
13C5_PFHxA		97	25-150
13C5_PFPeA		94	25-150
13C6_PFDa		93	25-150
13C7_PFUdA		82	25-150
13C8_PFOA		90	25-150
13C8_PFOS		90	25-150
13C8_PFOsA		98	10-150
13C9_PFNa		92	25-150
d-EtFOsA		70	10-150
d5-EtFOsAA		89	25-150
d9-EtFOsE		78	10-150
d-MeFOsA		68	10-150
d3-MeFOsAA		91	25-150
d7-MeFOsE		84	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 13, 2021

██████████
 813 Spillway Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 813 Spillway Drive, La Crosse, WI 54603
 Tax Parcel # 4-1910-0
 Sampling Point # 1910-0
 Sample Date: March 23, 2021

Dear ██████████ :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	2.3 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	8.5 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 813 Spillway Drive, La Crosse, WI 54603
 Tax Parcel # 4-1910-0
 Sampling Point # 1910-0
 April 13, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	4.0 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.8 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	14 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
813 Spillway Drive, La Crosse, WI 54603
Tax Parcel # 4-1910-0
Sampling Point # 1910-0
April 13, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: **Pace Analytical Services, LLC**

Laboratory ID: **WC26011-004**

Description: **1910-0**

Matrix: **Aqueous**

Date Sampled: **03/23/2021 1215**

Project Name: **LACROSSE WELLS 23 & 24**

Date Received: **03/26/2021**

Project Number: **40223969**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	04/01/2021 1407	MMM	03/31/2021 1049	87430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	L	7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	4.0		3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.8	J	3.7	0.92	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	14		3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	2.3	BJ	3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUDA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	8.5	B	3.7	0.92	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		98	25-150
13C2_6:2FTS		103	25-150
13C2_8:2FTS		87	25-150
13C2_PFDa		103	25-150
13C2_PFHxDA		94	25-150
13C2_PFTeDA		89	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC26011-004
Description: 1910-0	Matrix: Aqueous
Date Sampled: 03/23/2021 1215	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/26/2021	Project Number: 40223969

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		86	25-150
13C3_PFHxS		92	25-150
13C3-HFPO-DA		95	25-150
13C4_PFBa		98	25-150
13C4_PFHpA		100	25-150
13C5_PFHxA		88	25-150
13C5_PFPeA		103	25-150
13C6_PFDA		95	25-150
13C7_PFUdA		99	25-150
13C8_PFOA		103	25-150
13C8_PFOS		91	25-150
13C8_PFOSA		99	10-150
13C9_PFNA		100	25-150
d-EtFOSA		75	10-150
d5-EtFOSAA		90	25-150
d9-EtFOSE		86	10-150
d-MeFOSA		85	10-150
d3-MeFOSAA		96	25-150
d7-MeFOSE		104	10-150

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis			S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

██████████
 2623 Bayview Court
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2623 Bayview Court, La Crosse, WI 54603
 Tax Parcel # 4-1913-9
 Sampling Point # 1913-9
 Sample Date: March 11, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.3 ppt	20 ppt ^{a,b}	

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
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	2.6 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	6.4 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
2623 Bayview Court, La Crosse, WI 54603
Tax Parcel # 4-1913-9
Sampling Point # 1913-9
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-011
Description: 1913-9	Matrix: Aqueous
Date Sampled: 03/11/2021 1427	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/25/2021 0038	JJG	03/23/2021 1200	86528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.8	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	6.0		3.8	0.96	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.6	J	3.8	0.96	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	6.4		3.8	0.96	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.7	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.8	0.96	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.3	J	3.8	0.96	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		107	25-150
13C2_6:2FTS		91	25-150
13C2_8:2FTS		91	25-150
13C2_PFDoA		84	25-150
13C2_PFHxDA		76	25-150
13C2_PFTeDA		75	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-011
Description: 1913-9	Matrix: Aqueous
Date Sampled: 03/11/2021 1427	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBS		84	25-150
13C3_PFHxS		85	25-150
13C3-HFPO-DA		92	25-150
13C4_PFBa		94	25-150
13C4_PFHpA		87	25-150
13C5_PFHxA		89	25-150
13C5_PFPeA		98	25-150
13C6_PFDA		90	25-150
13C7_PFUdA		85	25-150
13C8_PFOA		91	25-150
13C8_PFOS		88	25-150
13C8_PFOSA		94	10-150
13C9_PFNA		91	25-150
d-EtFOSA		73	10-150
d5-EtFOSAA		81	25-150
d9-EtFOSE		76	10-150
d-MeFOSA		79	10-150
d3-MeFOSAA		86	25-150
d7-MeFOSE		84	10-150

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis			S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

██████████
 2629 Lakeshore Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2629 Lakeshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-1913-10
 Sampling Point # 1913-10
 Sample Date: March 20, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	4.4 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	6.9 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2629 Lakeshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-1913-10
 Sampling Point # 1913-10
 April 9, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	8.9 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.5 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	16 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	1.9 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	0.92 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
2629 Lakeshore Drive, La Crosse, WI 54603
Tax Parcel # 4-1913-10
Sampling Point # 1913-10
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-002
Description: 1913-10	Matrix: Aqueous
Date Sampled: 03/10/2021 1335	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/24/2021 2241	JJG	03/23/2021 1200	86528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	8.9		3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	0.92	J	3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.5	J	3.6	0.90	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	16		3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.9	J	3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	4.4		3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	6.9		3.6	0.90	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		105	25-150
13C2_6:2FTS		101	25-150
13C2_8:2FTS		93	25-150
13C2_PFDaA		88	25-150
13C2_PFHxDA		89	25-150
13C2_PFTeDA		84	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-002
Description: 1913-10	Matrix: Aqueous
Date Sampled: 03/10/2021 1335	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		86	25-150
13C3_PFHxS		89	25-150
13C3-HFPO-DA		100	25-150
13C4_PFBa		100	25-150
13C4_PFHpA		94	25-150
13C5_PFHxA		91	25-150
13C5_PFPeA		97	25-150
13C6_PFDA		94	25-150
13C7_PFUdA		95	25-150
13C8_PFOA		99	25-150
13C8_PFOS		91	25-150
13C8_PFOSA		107	10-150
13C9_PFNA		97	25-150
d-EtFOSA		77	10-150
d5-EtFOSAA		92	25-150
d9-EtFOSE		97	10-150
d-MeFOSA		86	10-150
d3-MeFOSAA		93	25-150
d7-MeFOSE		97	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 30, 2021

██████████
 2535 Baumgartner Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2535 Baumgartner Drive, La Crosse, WI 54603
 Tax Parcel # 4-1924-2
 Sampling Point # 1924-2
 Sample Date: March 9, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	5.0 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	13 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2535 Baumgartner Drive, La Crosse, WI 54603
 Tax Parcel # 4-1924-2
 Sampling Point # 1924-2
 March 30, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	9.9 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.4 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	13 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	1.5 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) CAS # 27619-97-2	7.7 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.8 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

Private Well Sampling Results for
2535 Baumgartner Drive, La Crosse, WI 54603
Tax Parcel # 4-1924-2
Sampling Point # 1924-2
March 30, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-016
Description: 1924-2	Matrix: Aqueous
Date Sampled: 03/09/2021 1422	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/17/2021 1853	JJG	03/16/2021 1147	85809

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	7.7		7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	9.9		3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.4	J	3.7	0.92	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	13		3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.5	J	3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	5.0		3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.8	J	3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	13		3.7	0.92	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		105	25-150
13C2_6:2FTS		108	25-150
13C2_8:2FTS		110	25-150
13C2_PFDaA		107	25-150
13C2_PFHxDA		121	25-150
13C2_PFTeDA		115	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-016
Description: 1924-2	Matrix: Aqueous
Date Sampled: 03/09/2021 1422	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		92	25-150
13C3_PFHxS		113	25-150
13C3-HFPO-DA		119	25-150
13C4_PFBa		116	25-150
13C4_PFHpA		122	25-150
13C5_PFHxA		116	25-150
13C5_PFPeA		116	25-150
13C6_PFDa		109	25-150
13C7_PFUdA		102	25-150
13C8_PFOa		117	25-150
13C8_PFOs		116	25-150
13C8_PFOsA		118	10-150
13C9_PFNa		108	25-150
d-EtFOsA		125	10-150
d5-EtFOsAA		109	25-150
d9-EtFOsE		118	10-150
d-MeFOsA		109	10-150
d3-MeFOsAA		112	25-150
d7-MeFOsE		107	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

████████████████████
 2533 Baumgartner Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2533 Baumgartner Drive, La Crosse, WI 54603
 Tax Parcel # 4-1924-3
 Sampling Point # 1924-3
 Sample Date: March 11, 2021

Dear ██████████ :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	6.5 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	9.5 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2533 Baumgartner Drive, La Crosse, WI 54603
 Tax Parcel # 4-1924-3
 Sampling Point # 1924-3
 April 9, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	10 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.4 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	14 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	2.1 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.2 ppt	None Established ^c
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.1 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	2.5 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
2533 Baumgartner Drive, La Crosse, WI 54603
Tax Parcel # 4-1924-3
Sampling Point # 1924-3
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-010
Description: 1924-3	Matrix: Aqueous
Date Sampled: 03/11/2021 1401	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/25/2021 0017	JJG	03/23/2021 1200	86528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	10		3.7	0.93	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.2	J	3.7	0.93	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.4	J	3.7	0.93	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	14		3.7	0.93	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.1	J	3.7	0.93	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.1	J	3.7	0.93	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	6.5		3.7	0.93	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	2.5	J	3.7	0.93	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	9.5		3.7	0.93	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		108	25-150
13C2_6:2FTS		102	25-150
13C2_8:2FTS		102	25-150
13C2_PFDaA		95	25-150
13C2_PFHxDA		94	25-150
13C2_PFTeDA		91	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-010
Description: 1924-3	Matrix: Aqueous
Date Sampled: 03/11/2021 1401	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		95	25-150
13C3_PFHxS		97	25-150
13C3-HFPO-DA		104	25-150
13C4_PFBa		104	25-150
13C4_PFHpA		99	25-150
13C5_PFHxA		96	25-150
13C5_PFPeA		100	25-150
13C6_PFDa		100	25-150
13C7_PFUdA		100	25-150
13C8_PFOA		98	25-150
13C8_PFOS		99	25-150
13C8_PFOsA		100	10-150
13C9_PFNa		104	25-150
d-EtFOsA		93	10-150
d5-EtFOsAA		97	25-150
d9-EtFOsE		94	10-150
d-MeFOsA		78	10-150
d3-MeFOsAA		99	25-150
d7-MeFOsE		101	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

██████████
2531 Baumgartner Drive
La Crosse, WI 54603

Subject: Private Well Sampling Results
2531 Baumgartner Drive, La Crosse, WI 54603
Tax parcel # 4-1924-5
Sampling Point # 1924-5
Sampling Date: March 11, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.3 ppt	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	9.9 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	11 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	14 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.2 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	30 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	3.4 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.0 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	0.89 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	3.5 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-009
Description: 1924-5	Matrix: Aqueous
Date Sampled: 03/11/2021 1341	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/25/2021 0006	JJG	03/23/2021 1200	86528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	14		3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.3	J	3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.0	J	3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.2	J	3.5	0.88	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	30		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	0.89	J	3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	3.4	J	3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	9.9		3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	3.5		3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	11		3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		95	25-150
13C2_6:2FTS		96	25-150
13C2_8:2FTS		93	25-150
13C2_PFDa		85	25-150
13C2_PFHxDA		83	25-150
13C2_PFTeDA		80	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-009
Description: 1924-5	Matrix: Aqueous
Date Sampled: 03/11/2021 1341	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		89	25-150
13C3_PFHxS		89	25-150
13C3-HFPO-DA		94	25-150
13C4_PFBa		100	25-150
13C4_PFHpA		93	25-150
13C5_PFHxA		94	25-150
13C5_PFPeA		97	25-150
13C6_PFDa		91	25-150
13C7_PFUdA		94	25-150
13C8_PFOa		92	25-150
13C8_PFOs		91	25-150
13C8_PFOsA		93	10-150
13C9_PFNa		94	25-150
d-EtFOSA		71	10-150
d5-EtFOSAA		87	25-150
d9-EtFOSE		81	10-150
d-MeFOSA		81	10-150
d3-MeFOSAA		87	25-150
d7-MeFOSE		86	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks**.

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or call 1-866-220-4841.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

Please check the box if you are currently paying for your own bottled-water delivery service and indicate with which company you have existing service: _____

HOUSEHOLD INFORMATION:

_____	_____
Household Contact Name (Print)	Number of Household Members
_____	_____
Signature of Occupant Authorized to Enter into Agreement	Date

Address (for water service)	
_____	_____
Email Address	Phone Number where you can be reached during the day

PROPERTY OWNER INFORMATION (if different than the occupant):

Name of Property Owner	
_____	_____
Email Address	Phone Number



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

March 30, 2021

██████████
 2405 Lakeshore Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2405 Lakeshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-1924-11
 Sampling Point # 1924-11
 Sample Date: March 8, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	5.8 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	2.7 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2405 Lakeshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-1924-11
 Sampling Point # 1924-11
 March 30, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.3 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.8 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	27 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
2405 Lakeshore Drive, La Crosse, WI 54603
Tax Parcel # 4-1924-11
Sampling Point # 1924-11
March 30, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-002
Description: 1924-11	Matrix: Aqueous
Date Sampled: 03/08/2021 1352	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/16/2021 1900	SES	03/15/2021 1045	85709

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.3	J	3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.8	J	3.7	0.92	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	27		3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	5.8		3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	2.7	J	3.7	0.92	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		108	25-150
13C2_6:2FTS		108	25-150
13C2_8:2FTS		115	25-150
13C2_PFDaA		108	25-150
13C2_PFHxDA		113	25-150
13C2_PFTeDA		112	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-002
Description: 1924-11	Matrix: Aqueous
Date Sampled: 03/08/2021 1352	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBS		104	25-150
13C3_PFHxS		112	25-150
13C3-HFPO-DA		108	25-150
13C4_PFBA		116	25-150
13C4_PFHpA		118	25-150
13C5_PFHxA		113	25-150
13C5_PFPeA		117	25-150
13C6_PFDA		108	25-150
13C7_PFUdA		112	25-150
13C8_PFOA		111	25-150
13C8_PFOS		105	25-150
13C8_PFOSA		111	10-150
13C9_PFNA		113	25-150
d-EtFOSA		88	10-150
d5-EtFOSAA		107	25-150
d9-EtFOSE		105	10-150
d-MeFOSA		97	10-150
d3-MeFOSAA		109	25-150
d7-MeFOSE		97	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 16, 2021

██████████
 3029 Youngdale Avenue
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 3029 Youngdale Avenue, La Crosse, WI 54603
 Tax Parcel # 4-2027-0
 Sampling Point # 2027
 Sample Date: February 24, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.1 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	2.9 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	12 ppt	20 ppt ^{a,b}	

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.7 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.6 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	14 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

^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.

^c 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.

Private Well Sampling Results for
3029 Youngdale Avenue, La Crosse, WI 54603
Tax Parcel # 4-2027-0
Sampling Point # 2027
March 16, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

March 16, 2021

Steve Osesek
The OS Group, LLC
N6746 McCurdy Road
Holmen, WI 54636

RE: Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40222547

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on February 26, 2021. 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:

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

Sincerely,



Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC



REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40222547

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40222547001	2027	Water	02/24/21 13:02	02/26/21 00:00

REPORT OF LABORATORY ANALYSIS

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

(Please Print Clearly)

Company Name: The OS Group
 Branch/Location: LaCrosse, WI
 Project Contact: Steven Osesek
 Phone: 608-433-9386
 Project Number: _____
 Project Name: LaCrosse Wells 23+24
 Project State: WI
 Sampled By (Print): Kristie L Tweed
 Sampled By (Sign): Kristie L Tweed
 PO #: _____ Regulatory Program: _____



UPPER MIDWEST REGION
 MN: 612-607-1700 WI: 920-489-2436

Page 1 of

40722547

CHAIN OF CUSTODY

Preservation Codes
 A=None B=HCL C=H2SO4 D=HNO3 E=OI Water F=Methanol G=NaOH
 H=Barium Sulfate Solution I=300ul% Tricoulor J=Other

FILTERED?
(YES/NO)
 PRESERVATION
(CODE)*

Lab	Analysis Requested	DATE	TIME	MATRIX
N	A			
WI PFA5 36	X	02/24	1:02	DW

Quote #: _____
 Mail To Contact: Steven Osesek
 Mail To Company: The OS Group
 Mail To Address: 444 21st St S
LaCrosse, WI 54601
 Invoice To Contact: Steven Osesek
 Invoice To Company: The OS Group
 Invoice To Address: 444 21st St S
LaCrosse, WI 54601
 Invoice To Phone: 608-433-9386

Data Package Options (billable)
 EPA Level III
 EPA Level IV
 MS/MSD
 On your sample (billable)
 NOT needed on your sample
 Matrix Codes
 A = Air W = Water
 B = Bio DW = Drinking Water
 C = Charcoal GW = Ground Water
 O = Oil SW = Surface Water
 S = Soil WW = Wastewater
 SL = Sludge WP = Wipe

PAGE LAB #	CLIENT FIELD ID	DATE	TIME	MATRIX
001	2027	02/24	1:02	DW

CLIENT COMMENTS LAB COMMENTS Profile #
 (Lab Use Only)



Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)
 Date Needed: _____
 Transmitted From Rush Results by (complete what you want): _____
 Email #1: _____
 Email #2: _____
 Telephone: _____
 Fax: _____
 Samples on HOLD are subject to special pricing and release of liability

Requested By: Kristie L Tweed Date/Time: 02/25/21 3:30
 Received By: _____ Date/Time: _____
 Re-Requested By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____
 Re-Requested By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____
 Re-Requested By: IPS Date/Time: 2/26/21 09:15
 Received By: YAN Lomay Date/Time: 2/26/21 09:15

PAGE Project No. 40722547
 Receipt Temp = 2.7 °C
 Sample Receipt pH OK / Adjusted
 Cooler Custody Seal Present / Not Present Intact / Not Intact

C0196(27Jun2006)

ORIGINAL

WO#: 40222547



40222547



Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: PACE

Cooler Inspected by/date: JRG2 / 2/26/2021

Lot #: WR26028

Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Other: _____	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: NA	Chlorine Strip ID: NA
Original temperature upon receipt / Derived (Corrected) temperature upon receipt	
2.7 / 2.7 °C	NA / NA °C
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C	
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one)
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present > "pca-size" (1/4" or 6mm in diameter) in any of the VOA vials?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote #

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA

Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles > 6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na₂S₂O₅) with Shealy ID: NA

SR barcode labels applied by: JRG2 Date: 2/26/2021

Comments:



Report of Analysis

Pace Analytical Services, LLC
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222547

Lot Number: **WB26028**

Date Completed: 03/12/2021

Karen Coonan

03/14/2021 4:16 PM

Approved and released by:
Project Manager II: **Karen L. Coonan**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WB26028

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Pace Analytical Services, LLC

Lot Number: WB26028

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222547

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	2027	Aqueous	02/24/2021 1302	02/26/2021

(1 sample)

PACE ANALYTICAL SERVICES, LLC

Detection Summary
Pace Analytical Services, LLC
Lot Number: WB26028
Project Name: LACROSSE WELLS 23 & 24
Project Number: 40222547

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	2027	Aqueous	PFBS	PFAS by ID	3.7	J	ng/L	5
001	2027	Aqueous	PFOSA	PFAS by ID	1.1	J	ng/L	5
001	2027	Aqueous	PFHxS	PFAS by ID	1.6	J	ng/L	5
001	2027	Aqueous	PFBA	PFAS by ID	14		ng/L	5
001	2027	Aqueous	PFOA	PFAS by ID	2.9	BJ	ng/L	6
001	2027	Aqueous	PFOS	PFAS by ID	12		ng/L	6

(6 detections)

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB26028-001
Description: 2027	Matrix: Aqueous
Date Sampled: 02/24/2021 1302	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/26/2021	Project Number: 40222547

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/02/2021 1839	MMM	03/01/2021 1010	84236

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.8	2.0	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.8	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.8	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.8	2.0	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.8	2.0	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.8	2.0	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.8	2.0	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.8	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.8	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.8	2.0	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.8	2.0	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		16	3.9	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.8	2.0	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.8	2.0	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.7	J	3.9	0.98	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.1	J	3.9	0.98	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.8	2.0	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.6	J	3.9	0.98	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	14		3.9	0.98	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.8	2.0	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.8	2.0	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	2.9	BJ	3.9	0.98	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	12		3.9	0.98	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		102	25-150
13C2_6:2FTS		108	25-150
13C2_8:2FTS		97	25-150
13C2_PFDaA		93	25-150
13C2_PFHxDA		101	25-150
13C2_PFTeDA		98	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB26028-001
Description: 2027	Matrix: Aqueous
Date Sampled: 02/24/2021 1302	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/26/2021	Project Number: 40222547

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		103	25-150
13C3_PFHxS		107	25-150
13C3-HFPO-DA		91	25-150
13C4_PFBa		101	25-150
13C4_PFHpA		109	25-150
13C5_PFHxA		107	25-150
13C5_PFPeA		120	25-150
13C6_PFDa		101	25-150
13C7_PFUdA		98	25-150
13C8_PFOA		110	25-150
13C8_PFOS		96	25-150
13C8_PFOSA		86	10-150
13C9_PFNA		97	25-150
d-EtFOSA		96	10-150
d5-EtFOSAA		90	25-150
d9-EtFOSE		93	10-150
d-MeFOSA		75	10-150
d3-MeFOSAA		95	25-150
d7-MeFOSE		83	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: WQ84236-001

Matrix: Aqueous

Batch: 84236

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/01/2021 1010

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
11CI-PF3OUdS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
8:2 FTS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
6:2 FTS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
10:2 FTS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
4:2 FTS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
GenX	ND		1	8.0	2.0	ng/L	03/02/2021 1611
ADONA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
EtFOSA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
EtFOSAA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
EtFOSE	ND		1	8.0	2.0	ng/L	03/02/2021 1611
MeFOSA	ND		1	16	4.0	ng/L	03/02/2021 1611
MeFOSAA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
MeFOSE	ND		1	8.0	2.0	ng/L	03/02/2021 1611
PFBS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFDS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFHpS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFNS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFOSA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFPeS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFDOS	ND		1	8.0	2.0	ng/L	03/02/2021 1611
PFHxS	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFBA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFDA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFDoA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFHpA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFHxDA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
PFHxA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFNA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFODA	ND		1	8.0	2.0	ng/L	03/02/2021 1611
PFOA	1.3	J	1	4.0	1.0	ng/L	03/02/2021 1611
PFPeA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFTeDA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFTTrDA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFUdA	ND		1	4.0	1.0	ng/L	03/02/2021 1611
PFOS	ND		1	4.0	1.0	ng/L	03/02/2021 1611

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		101	25-150
13C2_6:2FTS		102	25-150
13C2_8:2FTS		115	25-150
13C2_PFDoA		101	25-150
13C2_PFHxDA		94	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MB

Sample ID: WQ84236-001

Matrix: Aqueous

Batch: 84236

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/01/2021 1010

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		100	25-150
13C3_PFBs		107	25-150
13C3_PFHxS		98	25-150
13C3-HFPO-DA		92	25-150
13C4_PFBA		104	25-150
13C4_PFHpA		104	25-150
13C5_PFHxA		102	25-150
13C5_PFPeA		114	25-150
13C6_PFDA		92	25-150
13C7_PFUdA		79	25-150
13C8_PFOA		93	25-150
13C8_PFOS		98	25-150
13C8_PFOA		85	10-150
13C9_PFNA		103	25-150
d-EtFOA		80	10-150
d5-EtFOA		94	25-150
d9-EtFOA		89	10-150
d-MeFOA		75	10-150
d3-MeFOA		98	25-150
d7-MeFOA		75	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ84236-002

Matrix: Aqueous

Batch: 84236

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/01/2021 1010

Parameter	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	15	14		1	91	50-150	03/02/2021 1621
11CI-PF3OUdS	15	14		1	94	50-150	03/02/2021 1621
8:2 FTS	15	18		1	117	50-150	03/02/2021 1621
6:2 FTS	15	16		1	104	50-150	03/02/2021 1621
10:2 FTS	15	13		1	83	50-150	03/02/2021 1621
4:2 FTS	15	15		1	99	50-150	03/02/2021 1621
GenX	32	35		1	110	50-150	03/02/2021 1621
ADONA	15	15		1	102	50-150	03/02/2021 1621
EtFOSA	16	17		1	108	50-150	03/02/2021 1621
EtFOSAA	16	18		1	115	50-150	03/02/2021 1621
EtFOSE	16	16		1	99	50-150	03/02/2021 1621
MeFOSA	16	16		1	98	50-150	03/02/2021 1621
MeFOSAA	16	16		1	98	50-150	03/02/2021 1621
MeFOSE	16	13		1	82	50-150	03/02/2021 1621
PFBS	14	14		1	98	50-150	03/02/2021 1621
PFDS	15	14		1	92	50-150	03/02/2021 1621
PFHpS	15	16		1	103	50-150	03/02/2021 1621
PFNS	15	14		1	93	50-150	03/02/2021 1621
PFOSA	16	16		1	98	50-150	03/02/2021 1621
PFPeS	15	14		1	90	50-150	03/02/2021 1621
PFDOS	15	15		1	97	50-150	03/02/2021 1621
PFHxS	15	13		1	92	50-150	03/02/2021 1621
PFBA	16	16		1	98	50-150	03/02/2021 1621
PFDA	16	14		1	86	50-150	03/02/2021 1621
PFDoA	16	17		1	104	50-150	03/02/2021 1621
PFHpA	16	14		1	89	50-150	03/02/2021 1621
PFHxDA	16	16		1	103	50-150	03/02/2021 1621
PFHxA	16	18		1	111	50-150	03/02/2021 1621
PFNA	16	16		1	97	50-150	03/02/2021 1621
PFODA	16	18		1	114	50-150	03/02/2021 1621
PFOA	16	15		1	94	50-150	03/02/2021 1621
PFPeA	16	15		1	95	50-150	03/02/2021 1621
PFTeDA	16	17		1	104	50-150	03/02/2021 1621
PFTTrDA	16	16		1	101	50-150	03/02/2021 1621
PFUdA	16	15		1	96	50-150	03/02/2021 1621
PFOS	15	16		1	105	50-150	03/02/2021 1621
Surrogate	Q	% Rec	Acceptance Limit				
13C2_4:2FTS		94	25-150				
13C2_6:2FTS		104	25-150				
13C2_8:2FTS		94	25-150				
13C2_PFDoA		87	25-150				
13C2_PFHxDA		86	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ84236-002

Matrix: Aqueous

Batch: 84236

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/01/2021 1010

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		90	25-150
13C3_PFBs		96	25-150
13C3_PFHxS		96	25-150
13C3-HFPO-DA		93	25-150
13C4_PFBA		100	25-150
13C4_PFHpA		106	25-150
13C5_PFHxA		86	25-150
13C5_PFPeA		113	25-150
13C6_PFDA		95	25-150
13C7_PFUdA		94	25-150
13C8_PFOA		100	25-150
13C8_PFOS		89	25-150
13C8_PFOA		76	10-150
13C9_PFNA		95	25-150
d-EtFOSA		76	10-150
d5-EtFOSAA		84	25-150
d9-EtFOSE		90	10-150
d-MeFOSA		62	10-150
d3-MeFOSAA		80	25-150
d7-MeFOSE		79	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents



UPPER MIDWEST REGION
 MN: 612-607-1700 WI: 820-489-2436

(Please Print Clearly)

Company Name: The OS Group
 Branch/Location: LaCrosse, WI
 Project Contact: Steven Osesek
 Phone: 608-433-9386
 Project Number:
 Project Name: LaCrosse Wells 23+24
 Project State: WI
 Sampled By (Print): Kristie L Tweed
 Sampled By (Sign): Kristie L Tweed
 PO #:
 Regulatory Program:

CHAIN OF CUSTODY

*Preparation Codes
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
 H=Sodium Chloride Solution I=Sodium Thiosulfate J=Other

FILTERED?
 (YES/NO)
 PRESERVATION
 (CODE)*

Y/N	Filter	Lab	Analysis Requested
N	A		WI PFA 36
			X

Data Package Options (billable)
 EPA Level II
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Air W = Water
 B = Bios DW = Drinking Water
 C = Charcoal GW = Ground Water
 D = CE SW = Surface Water
 S = Sed WW = Waste Water
 Sl = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
	2027	02/24	1:02	DW

Quote #:
 Mail To Contact: Steven Osesek
 Mail To Company: The OS Group
 Mail To Address: 444 21st St S
LaCrosse, WI 54601
 Invoice To Contact: Steven Osesek
 Invoice To Company: The OS Group
 Invoice To Address: 444 21st St S
LaCrosse, WI 54601
 Invoice To Phone: 608-433-9386

CLIENT COMMENTS
 LAB COMMENTS (Lab Use Only)
 Profile #



Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)
 Date Needed:

Relinquished By: Kristie L Tweed Date/Time: 02/24/12 3:30
 Received By: _____ Date/Time: _____

Transmit Prelim Rush Results by (complete what you want):
 Relinquished By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____

Relinquished By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____

Relinquished By: UPS Date/Time: 2/26/12 09:15
 Received By: JM Homan Date/Time: 2/26/12 09:15

Receipt Temp = 2.7 °C
 Sample Receipt pH OK / Adjusted
 Cooler Custody Seal Present / Not Present Intact / Not Intact

C019a(27Jun2006)

Version 4.0 02/14/05

ORIGINAL

PACE ANALYTICAL SERVICES, LLC



Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: PACE

Cooler Inspected by/date: JRG2 / 2/26/2021

Lot #: WR26028

Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Other:	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: NA	Chlorine Strip ID: NA
Original temperature upon receipt / Derived (Corrected) temperature upon receipt	
2.7 / 2.7 °C	NA / NA °C
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C	
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any of the VOA vials?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote #
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)	
Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA	
Time of preservation NA. If more than one preservative is needed, please note in the comments below.	
Sample(s) NA were received with bubbles >6 mm in diameter.	
Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₅) with Shealy ID: NA	
SR barcode labels applied by: JRG2 Date: 2/26/2021	

Comments:



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

March 27, 2021

██████████
 503 Church Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 503 Church Drive, La Crosse, WI 54603
 Tax Parcel # 4-2055-0
 Sampling Point # 2055-0
 Sample Date: March 2, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	0.87 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	1.9 ppt	20 ppt ^{a,b}	

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.0 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.2 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	3.6 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS #2706-91-4	1.4 ppt	None Established ^c

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

Private Well Sampling Results for
503 Church Drive, La Crosse, WI 54603
Tax Parcel # 4-2055-0
Sampling Point # 2055-0
March 27, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-009
Description: 2055-0	Matrix: Aqueous
Date Sampled: 03/02/2021 1521	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/10/2021 0001	JJG	03/08/2021 1129	84916

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.0	J	3.5	0.87	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	0.87	J	3.5	0.87	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.4	J	3.5	0.87	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.2	J	3.5	0.87	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	3.6		3.5	0.87	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	1.9	J	3.5	0.87	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		102	25-150
13C2_6:2FTS		100	25-150
13C2_8:2FTS		91	25-150
13C2_PFDaA		92	25-150
13C2_PFHxDA		85	25-150
13C2_PFTeDA		88	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-009
Description: 2055-0	Matrix: Aqueous
Date Sampled: 03/02/2021 15:21	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		98	25-150
13C3_PFHxS		98	25-150
13C3-HFPO-DA		105	25-150
13C4_PFBa		105	25-150
13C4_PFHpA		99	25-150
13C5_PFHxA		103	25-150
13C5_PFPeA		103	25-150
13C6_PFDA		94	25-150
13C7_PFUdA		95	25-150
13C8_PFOA		101	25-150
13C8_PFOS		93	25-150
13C8_PFOSA		96	10-150
13C9_PFNA		100	25-150
d-EtFOSA		67	10-150
d5-EtFOSAA		88	25-150
d9-EtFOSE		82	10-150
d-MeFOSA		76	10-150
d3-MeFOSAA		99	25-150
d7-MeFOSE		87	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

██████████
701 Fanta Reed Road
La Crosse, WI 54603

Subject: Private Well Sampling Results
701 Fanta Reed Road, La Crosse, WI 54603
Tax parcel # 4-2057-0
Sampling Point # 2057-0
Sampling Date: March 2, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	40 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	16 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	6.7 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	10 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	54 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	3.1 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	3.3ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

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

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-006
Description: 2057-0	Matrix: Aqueous
Date Sampled: 03/02/2021 1421	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 2329	JJG	03/08/2021 1129	84916

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	6.7		3.6	0.89	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	10		3.6	0.89	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	54		3.6	0.89	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	3.1	J	3.6	0.89	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	40		3.6	0.89	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	3.3	J	3.6	0.89	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	16		3.6	0.89	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		98	25-150
13C2_6:2FTS		99	25-150
13C2_8:2FTS		97	25-150
13C2_PFDaA		90	25-150
13C2_PFHxDA		82	25-150
13C2_PFTeDA		91	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-006
Description: 2057-0	Matrix: Aqueous
Date Sampled: 03/02/2021 14:21	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		102	25-150
13C3_PFHxS		98	25-150
13C3-HFPO-DA		101	25-150
13C4_PFBa		108	25-150
13C4_PFHpA		105	25-150
13C5_PFHxA		103	25-150
13C5_PFPeA		107	25-150
13C6_PFDa		93	25-150
13C7_PFUdA		100	25-150
13C8_PFOA		97	25-150
13C8_PFOS		98	25-150
13C8_PFOsA		94	10-150
13C9_PFNAs		102	25-150
d-EtFOSA		62	10-150
d5-EtFOSAA		87	25-150
d9-EtFOSE		76	10-150
d-MeFOSA		75	10-150
d3-MeFOSAA		104	25-150
d7-MeFOSE		85	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

April 9, 2021

██████████
 2604 Jerald Street
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2604 Jerald Street, La Crosse, WI 54603
 Tax Parcel # 4-2068-0
 Sampling Point # 2068-0
 Sample Date: March 17, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.1 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	4.5 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.6 ppt	20 ppt ^{a,b}	

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.3 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	Not Detected	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	14 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	0.96 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.3 ppt	None Established ^c

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

Private Well Sampling Results for
2604 Jerald Street, La Crosse, WI 54603
Tax Parcel # 4-2068-0
Sampling Point # 2068-0
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC24099-001
Description: 2068-0	Matrix: Aqueous
Date Sampled: 03/17/2021 1232	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/30/2021 2036	JJG	03/29/2021 1125	87152

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.3	J	3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.1	J	3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	14		3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	0.96	J	3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	4.5		3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.3	J	3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.6		3.6	0.90	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		109	25-150
13C2_6:2FTS		107	25-150
13C2_8:2FTS		98	25-150
13C2_PFDaA		96	25-150
13C2_PFHxDA		89	25-150
13C2_PFTeDA		94	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC24099-001
Description: 2068-0	Matrix: Aqueous
Date Sampled: 03/17/2021 1232	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		93	25-150
13C3_PFHxS		101	25-150
13C3-HFPO-DA		98	25-150
13C4_PFBa		106	25-150
13C4_PFHpA		107	25-150
13C5_PFHxA		105	25-150
13C5_PFPeA		105	25-150
13C6_PFDa		103	25-150
13C7_PFUdA		94	25-150
13C8_PFOa		111	25-150
13C8_PFOs		104	25-150
13C8_PFOsA		118	10-150
13C9_PFNa		103	25-150
d-EtFOsA		96	10-150
d5-EtFOsAA		96	25-150
d9-EtFOsE		93	10-150
d-MeFOsA		95	10-150
d3-MeFOsAA		105	25-150
d7-MeFOsE		101	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

██████████
 2610 Thomas Street
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2610 Thomas Street, La Crosse, WI 54603
 Tax Parcel # 4-2077-0
 Sampling Point # 2077-0
 Sample Date: March 18, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.0 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	2.1 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.0 ppt	20 ppt ^{a,b}	

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
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	1.9 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	19 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	1.4 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.0 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.9 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

Private Well Sampling Results for
2610 Thomas Street, La Crosse, WI 54603
Tax Parcel # 4-2077-0
Sampling Point # 2077-0
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC24099-007
Description: 2077-0	Matrix: Aqueous
Date Sampled: 03/18/2021 1405	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/30/2021 2212	JJG	03/29/2021 1125	87152

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	6.0		3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.0	J	3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.0	J	3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.9	J	3.6	0.90	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	19		3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.4	J	3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	2.1	J	3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.9	J	3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.0	J	3.6	0.90	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		101	25-150
13C2_6:2FTS		100	25-150
13C2_8:2FTS		108	25-150
13C2_PFDaA		97	25-150
13C2_PFHxDA		94	25-150
13C2_PFTeDA		95	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC24099-007
Description: 2077-0	Matrix: Aqueous
Date Sampled: 03/18/2021 1405	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		92	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		96	25-150
13C4_PFBa		108	25-150
13C4_PFHpA		102	25-150
13C5_PFHxA		104	25-150
13C5_PFPeA		103	25-150
13C6_PFDa		103	25-150
13C7_PFUdA		90	25-150
13C8_PFOA		106	25-150
13C8_PFOS		104	25-150
13C8_PFOSA		111	10-150
13C9_PFNA		104	25-150
d-EtFOSA		90	10-150
d5-EtFOSAA		101	25-150
d9-EtFOSE		91	10-150
d-MeFOSA		99	10-150
d3-MeFOSAA		101	25-150
d7-MeFOSE		91	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 10, 2021

██████████
2603 Thomas Street
La Crosse, WI 54603

Subject: Private Well Sampling Results
2603 Thomas Street, La Crosse, WI 54603
Tax parcel # 4-2084-0
Sampling Point # 2084-0
Sampling Date: February 21, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	7.4 ppt	20 ppt^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	18 ppt	20 ppt^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	10 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.2 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	13 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	2.7 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.4 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.6 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	2.5 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

March 10, 2021

Steve Osesek
The OS Group, LLC
N6746 McCurdy Road
Holmen, WI 54636

RE: Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40222431

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on February 24, 2021. 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:

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

Sincerely,



Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC



REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: LACROSSE WELLS 23 & 24

Pace Project No.: 40222431

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40222431001	2084-0	Water	02/22/21 15:15	02/24/21 09:20

REPORT OF LABORATORY ANALYSIS

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

(Please Print Clearly)

Company Name:	The OS Group LLC	
Branch/Location:	LaCrosse WI	
Project Contact:	Steven Osesek	
Phone:	608-433-9388	
Project Number:		
Project Name:	LaCrosse Walks 23+24	
Project State:	WI	
Sampled By (Print):	Kristie L Tweed	
Sampled By (Sign):	<i>Kristie L Tweed</i>	
PO #:		Regulatory Program:



UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page of

COC No. 40222431

CHAIN OF CUSTODY


***Preservation Codes**
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?
(YES/NO)
PRESERVATION
(CODE)*

Y/N	Pick Letter	Analysis Requested
N	A	WI PAS 36
		X

Data Package Options (billable)	MS/MSD	Matrix Codes
<input type="checkbox"/> EPA Level III <input type="checkbox"/> EPA Level IV	<input checked="" type="checkbox"/> On your sample (billable) <input type="checkbox"/> NOT needed on your sample	A = Air W = Water B = Biota DW = Drinking Water C = Charcoal GW = Ground Water O = Oil SW = Surface Water S = Soil WW = Waste Water SL = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
	2084 - 0	2/22	3:15	DW

Quote #:	
Mail To Contact:	Steven Osesek
Mail To Company:	The OS Group LLC
Mail To Address:	444 21st St S LaCrosse, WI 54601
Invoice To Contact:	Steven Osesek
Invoice To Company:	The OS Group LLC
Invoice To Address:	444 21st St S LaCrosse, WI 54601
Invoice To Phone:	608-433-9388
CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)
	 WB24004 KLC2
	Profile #

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed:
Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:
Samples on HOLD are subject to special pricing and release of liability

Relinquished By: <i>Kristie L Tweed</i>	Date/Time: 2/22/21 4:30pm
Relinquished By:	Date/Time:
Relinquished By:	Date/Time:
Relinquished By: <i>UPS</i>	Date/Time: 2/24/21 0920
Relinquished By:	Date/Time:

Received By:	Date/Time:
Received By:	Date/Time:
Received By:	Date/Time:
Received By: <i>M.Hemery</i>	Date/Time: 2/24/21 0920
Received By:	Date/Time:

PACE Project No. 40222431
Receipt Temp = 3.9 °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal Present / Not Present Intact / Not Intact

Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: WI

Cert. Needed: Yes No

Owner Received Date: 2/24/2021 Results Requested By: 3/15/2021

Workorder: 40222431 Workorder Name: LACROSSE WELLS 23 & 24

Report To		Subcontract To					Requested Analysis																																																																																																					
Christopher Hyska Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436		Pace Analytical West Columbia 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-9700					<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">WI 36 PFAS by ID</div> <table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr> <th colspan="12">Preserved Containers</th> </tr> <tr> <th>Unpreserved</th> <th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th> <th colspan="6" rowspan="6" style="text-align: center; vertical-align: middle;">LAB USE ONLY</th> </tr> <tr> <td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table> </div>												Preserved Containers												Unpreserved												LAB USE ONLY						X																																																											
Preserved Containers																																																																																																												
Unpreserved																								LAB USE ONLY																																																																																				
X																																																																																																												
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Unpreserved																																																																																																						
1	2084-0	PS	2/22/2021 15:15	40222431001	Water	2																																																																																																						
2																																																																																																												
3																																																																																																												
4																																																																																																												
5																																																																																																												
Transfers						Released By						Date/Time						Received By						Date/Time						Comments																																																																														
1																														IR77 - MDL reporting - Quote 23492 Direct Ship - Pace SC, WB24004																																																																														
2																																																																																																												
3																																																																																																												
Cooler Temperature on Receipt				°C	Custody Seal				Y or N	Received on Ice				Y or N	Samples Intact				Y 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.



Samples Receipt Checklist (SRC) (ME0018C-15)

Issuing Authority: Pace ENV - WCOL

Sample Receipt Checklist (SRC)

Client: PACE

Cooler Inspected by/date: MEH / 02/24/2021

Lot #: WB24004

Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other: _____	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA	
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA	
3.9 / 3.9 °C NA / NA °C NA / NA °C NA / NA °C	
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C	
Method of coolant: <input type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input checked="" type="checkbox"/> None	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/2" or 6mm in diameter) in any of the VOA vials?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote # NA
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)	
Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA	
Time of preservation NA. If more than one preservative is needed, please note in the comments below.	
Sample(s) NA were received with bubbles >6 mm in diameter.	
Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: NA	
SR barcode labels applied by: MEH Date: 02/24/2021	

Comments:



Report of Analysis

Pace Analytical Services, LLC
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222431

Lot Number: **WB24004**

Date Completed: 03/08/2021

Karen Coonan

03/09/2021 4:38 PM

Approved and released by:
Project Manager II: **Karen L. Coonan**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WB24004

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Pace Analytical Services, LLC

Lot Number: WB24004

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222431

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	2084-0	Aqueous	02/22/2021 1515	02/24/2021

(1 sample)

PACE ANALYTICAL SERVICES, LLC

Detection Summary
Pace Analytical Services, LLC
Lot Number: WB24004
Project Name: LACROSSE WELLS 23 & 24
Project Number: 40222431

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	2084-0	Aqueous	PFBS	PFAS by ID	10		ng/L	5
001	2084-0	Aqueous	PFPeS	PFAS by ID	1.4	J	ng/L	5
001	2084-0	Aqueous	PFHxS	PFAS by ID	4.2		ng/L	5
001	2084-0	Aqueous	PFBA	PFAS by ID	13		ng/L	5
001	2084-0	Aqueous	PFHpA	PFAS by ID	1.6	J	ng/L	6
001	2084-0	Aqueous	PFHxA	PFAS by ID	2.7	J	ng/L	6
001	2084-0	Aqueous	PFOA	PFAS by ID	7.4		ng/L	6
001	2084-0	Aqueous	PFPeA	PFAS by ID	2.5	J	ng/L	6
001	2084-0	Aqueous	PFOS	PFAS by ID	18		ng/L	6

(9 detections)

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB24004-001
Description: 2084-0	Matrix: Aqueous
Date Sampled: 02/22/2021 1515	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/24/2021	Project Number: 40222431

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	02/26/2021 1951	JJG	02/25/2021 1105	83922

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	10		3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.4	J	3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.2		3.6	0.90	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	13		3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.6	J	3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.7	J	3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	7.4		3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	2.5	J	3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	18		3.6	0.90	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		117	25-150
13C2_6:2FTS		105	25-150
13C2_8:2FTS		105	25-150
13C2_PFDaA		96	25-150
13C2_PFHxDA		116	25-150
13C2_PFTeDA		97	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB24004-001
Description: 2084-0	Matrix: Aqueous
Date Sampled: 02/22/2021 1515	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/24/2021	Project Number: 40222431

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		101	25-150
13C3_PFHxS		101	25-150
13C3-HFPO-DA		115	25-150
13C4_PFBa		107	25-150
13C4_PFHpA		102	25-150
13C5_PFHxA		107	25-150
13C5_PFPeA		102	25-150
13C6_PFDa		107	25-150
13C7_PFUdA		94	25-150
13C8_PFOA		98	25-150
13C8_PFOS		95	25-150
13C8_PFOsA		109	10-150
13C9_PFNa		106	25-150
d-EtFOSA		107	10-150
d5-EtFOSAA		118	25-150
d9-EtFOSE		105	10-150
d-MeFOSA		110	10-150
d3-MeFOSAA		113	25-150
d7-MeFOSE		110	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: WQ83922-001

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
11CI-PF3OUdS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
8:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
6:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
10:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
4:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
GenX	ND		1	8.0	2.0	ng/L	02/26/2021 1815
ADONA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
EtFOSA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
EtFOSAA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
EtFOSE	ND		1	8.0	2.0	ng/L	02/26/2021 1815
MeFOSA	ND		1	16	4.0	ng/L	02/26/2021 1815
MeFOSAA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
MeFOSE	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFBS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFHpS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFNS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFOSA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFPeS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDOS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFHxS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFBA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDoA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFHpA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFHxDA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFHxA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFNA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFODA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFOA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFPeA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFTeDA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFTTrDA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFUdA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFOS	ND		1	4.0	1.0	ng/L	02/26/2021 1815

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		122	25-150
13C2_6:2FTS		118	25-150
13C2_8:2FTS		118	25-150
13C2_PFDoA		104	25-150
13C2_PFHxDA		129	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MB

Sample ID: WQ83922-001

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		106	25-150
13C3_PFBs		109	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		122	25-150
13C4_PFBa		112	25-150
13C4_PFHpA		113	25-150
13C5_PFHxA		108	25-150
13C5_PFPeA		104	25-150
13C6_PFDa		109	25-150
13C7_PFUdA		110	25-150
13C8_PFOA		105	25-150
13C8_PFOs		114	25-150
13C8_PFOsA		114	10-150
13C9_PFNa		114	25-150
d-EtFOsA		94	10-150
d5-EtFOsAA		117	25-150
d9-EtFOsE		119	10-150
d-MeFOsA		99	10-150
d3-MeFOsAA		124	25-150
d7-MeFOsE		119	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ83922-002

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Parameter	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	15	17		1	111	50-150	02/26/2021 1825
11CI-PF3OUdS	15	17		1	113	50-150	02/26/2021 1825
8:2 FTS	15	15		1	101	50-150	02/26/2021 1825
6:2 FTS	15	15		1	99	50-150	02/26/2021 1825
10:2 FTS	15	13		1	87	50-150	02/26/2021 1825
4:2 FTS	15	14		1	96	50-150	02/26/2021 1825
GenX	32	31		1	98	50-150	02/26/2021 1825
ADONA	15	17		1	115	50-150	02/26/2021 1825
EtFOSA	16	18		1	112	50-150	02/26/2021 1825
EtFOSAA	16	15		1	93	50-150	02/26/2021 1825
EtFOSE	16	17		1	107	50-150	02/26/2021 1825
MeFOSA	16	16		1	103	50-150	02/26/2021 1825
MeFOSAA	16	15		1	95	50-150	02/26/2021 1825
MeFOSE	16	15		1	93	50-150	02/26/2021 1825
PFBS	14	16		1	110	50-150	02/26/2021 1825
PFDS	15	18		1	117	50-150	02/26/2021 1825
PFHpS	15	17		1	113	50-150	02/26/2021 1825
PFNS	15	16		1	105	50-150	02/26/2021 1825
PFOSA	16	15		1	94	50-150	02/26/2021 1825
PFPeS	15	16		1	109	50-150	02/26/2021 1825
PFDOS	15	17		1	112	50-150	02/26/2021 1825
PFHxS	15	17		1	116	50-150	02/26/2021 1825
PFBA	16	17		1	105	50-150	02/26/2021 1825
PFDA	16	17		1	107	50-150	02/26/2021 1825
PFDoA	16	16		1	100	50-150	02/26/2021 1825
PFHpA	16	18		1	111	50-150	02/26/2021 1825
PFHxDA	16	16		1	102	50-150	02/26/2021 1825
PFHxA	16	17		1	107	50-150	02/26/2021 1825
PFNA	16	16		1	101	50-150	02/26/2021 1825
PFODA	16	17		1	105	50-150	02/26/2021 1825
PFOA	16	18		1	114	50-150	02/26/2021 1825
PFPeA	16	17		1	106	50-150	02/26/2021 1825
PFTeDA	16	18		1	113	50-150	02/26/2021 1825
PFTTrDA	16	16		1	99	50-150	02/26/2021 1825
PFUdA	16	16		1	100	50-150	02/26/2021 1825
PFOS	15	18		1	123	50-150	02/26/2021 1825
Surrogate	Q	% Rec	Acceptance Limit				
13C2_4:2FTS		113	25-150				
13C2_6:2FTS		119	25-150				
13C2_8:2FTS		113	25-150				
13C2_PFDoA		100	25-150				
13C2_PFHxDA		117	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ83922-002

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		101	25-150
13C3_PFBs		104	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		118	25-150
13C4_PFBa		107	25-150
13C4_PFHpA		105	25-150
13C5_PFHxA		104	25-150
13C5_PFPeA		103	25-150
13C6_PFDa		111	25-150
13C7_PFUdA		105	25-150
13C8_PFOA		102	25-150
13C8_PFOs		95	25-150
13C8_PFOsA		106	10-150
13C9_PFNa		114	25-150
d-EtFOsA		111	10-150
d5-EtFOsAA		117	25-150
d9-EtFOsE		112	10-150
d-MeFOsA		106	10-150
d3-MeFOsAA		125	25-150
d7-MeFOsE		121	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents

(Please Print Clearly)

Company Name: The OS Group LLC
 Branch/Location: LaCrosse WI
 Project Contact: Steven Osesok
 Phone: 808-433-9388
 Project Number:
 Project Name: LaCrosse Walk 23+24
 Project State: WI
 Sampled By (Print): Kristie L Tweed
 Sampled By (Sign): *Kristie L Tweed*
 PO #:
 Regulatory Programs:



UPPER MIDWEST REGION
 MN: 612-607-1700 WI: 920-468-2436

Page of

COC No.

CHAIN OF CUSTODY

Preservation Codes
 A=None B=HCL C=H2SO4 D=HNO3 E-DI Water F-Methanol G=NaOH
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?
 (YES/NO)
 PRESERVATION
 (CODE)

Y/N	Pick Letter	Analysis Requested
N	A	WI PMASB6
		X

Data Package Options (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Air W = Water
 B = Bios DW = Drinking Water
 C = Chemical GW = Ground Water
 D = Oil SW = Surface Water
 S = Soil WW = Waste Water
 SL = Sludge WP = Wipe

PAGE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
	2084-0	2/22	3:15	DW

Quote #:
 Mail To Contact: Steven Osesok
 Mail To Company: The OS Group LLC
 Mail To Address: 444 21st St S
 LaCrosse, WI 54601
 Invoice To Contact: Steven Osesok
 Invoice To Company: The OS Group LLC
 Invoice To Address: 444 21st St S
 LaCrosse, WI 54601
 Invoice To Phone: 808-433-9388

CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
	 WB24004 KLC2	

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)
 Date Needed: _____

Relinquished By: *Kristie L Tweed* Date/Time: *02-23-21 4:30pm*

Received By: _____ Date/Time: _____

Transmit Prelim Rush Results by (complete what you want): _____

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: _____

Email #1: _____

Relinquished By: *UPS* Date/Time: *2/24/21 0920*

Received By: *Mattency* Date/Time: *2/24/21 0920*

Email #2: _____

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: _____

Telephone: _____

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: _____

Fax: _____

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: _____

Samples on HOLD are subject to special pricing and release of liability

PAGE Project No. _____
 Receipt Temp = *39* °C
 Sample Receipt pH: _____
 OK / Adjusted: _____
 Cooler Custody Seal: _____
 Present / Not Present: _____
 Intact / Not Intact: _____

PACE ANALYTICAL SERVICES, LLC

PACE ANALYTICAL SERVICES, LLC



Samples Receipt Checklist (SRC) (ME0018C-15)
 Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020
 Page 1 of 1

Sample Receipt Checklist (SRC)

Client: PACE

Cooler Inspected by/date: MEH / 02/24/2021

Lot #: WB24004

Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other:	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA	
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA 3.9 / 3.9 °C NA / NA °C NA / NA °C NA / NA °C	
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C	
Method of coolant: <input type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input checked="" type="checkbox"/> None	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/508.3 (< 0.5mg/L) samples free of residual chlorine?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote # NA
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)	
Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H ₂ SO ₄ , HNO ₃ , HCl, NaOH using SR # NA	
Time of preservation NA. If more than one preservative is needed, please note in the comments below.	
Sample(s) NA were received with bubbles >6 mm in diameter.	
Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: NA	
SR barcode labels applied by: MEH Date: 02/24/2021	

Comments:



Internal Transfer Chain of Custody

Samples Pre-Logged into eCOC.

State Of Origin: WI
Cert. Needed: Yes No
Owner Received Date: 2/24/2021 Results Requested By: 3/15/2021



Workorder: 40222431

Workorder Name: LACROSSE WELLS 23 & 24

Report To
Christopher Hyska
Pace Analytical Green Bay
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Phone (920)469-2436

Subcontract To
Pace Analytical West Columbia
106 Vantage Point Drive
West Columbia, SC 29172
Phone (803)791-9700

Requested Analysis



WB24004

KL02

Preserved Containers

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Unpreserved	Preserved	Unpreserved	Preserved	Unpreserved	Preserved	Unpreserved	Preserved	Unpreserved	Preserved	Unpreserved	Preserved	Unpreserved	
1	2064-0	PS	2/22/2021 15:15	40222431001	Water	2													
2																			
3																			
4																			
5																			

LAB USE ONLY

Comments

IR77 - MDL reporting - Quote 23492
Direct Ship - Pace SC, WB24004

Transfers	Released By	Date/Time	Received By	Date/Time
1				
2				
3	UPS	2/24/21 09:30	[Signature]	2/24/21 09:28

Cooler Temperature on Receipt 3.9 °C Custody Seal Y or N Received on Ice Y or N Samples Intact Y 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.

PACE ANALYTICAL SERVICES, LLC

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com
Page 15 of 15
Page 20 of 20



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

April 13, 2021

██████████
 2605 Thomas Street
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2605 Thomas Street, La Crosse, WI 54603
 Tax Parcel # 4-2085-0
 Sampling Point # 2085-0
 Sample Date: March 25, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.3 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.6 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	9.2 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2605 Thomas Street, La Crosse, WI 54603
 Tax Parcel # 4-2085-0
 Sampling Point # 2085-0
 April 13, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	5.1 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.3 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	8.7 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
2605 Thomas Street, La Crosse, WI 54603
Tax Parcel # 4-2085-0
Sampling Point # 2085-0
April 13, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC26046-003
Description: 2085-0	Matrix: Aqueous
Date Sampled: 03/25/2021 1437	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/26/2021	Project Number: 40224155

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	SOP SPE	PFAS by ID SOP	1	04/08/2021 1157	MMM	04/07/2021 1022	88229

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.5	1.9	ng/L	2
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.5	1.9	ng/L	2
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	2
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	2
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.5	1.9	ng/L	2
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	2
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	2
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	2
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	2
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	2
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	2
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.5	1.9	ng/L	2
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.5	1.9	ng/L	2
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	5.1		3.7	0.94	ng/L	2
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.94	ng/L	2
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.94	ng/L	2
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.94	ng/L	2
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.3	J	3.7	0.94	ng/L	2
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.94	ng/L	2
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.5	1.9	ng/L	2
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.3	J	3.7	0.94	ng/L	2
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	8.7		3.7	0.94	ng/L	2
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.94	ng/L	2
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.94	ng/L	2
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.94	ng/L	2
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.5	1.9	ng/L	2
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.7	0.94	ng/L	2
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.94	ng/L	2
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	2
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.6	J	3.7	0.94	ng/L	2
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.7	0.94	ng/L	2
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.94	ng/L	2
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.94	ng/L	2
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.94	ng/L	2
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	9.2		3.7	0.94	ng/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
13C2_4:2FTS		84	25-150
13C2_6:2FTS		102	25-150
13C2_8:2FTS		81	25-150
13C2_PFDaA		87	25-150
13C2_PFHxDA		113	25-150
13C2_PFTeDA		94	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC26046-003
Description: 2085-0	Matrix: Aqueous
Date Sampled: 03/25/2021 1437	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/26/2021	Project Number: 40224155

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
13C3_PFBs		79	25-150
13C3_PFHxS		85	25-150
13C3-HFPO-DA		85	25-150
13C4_PFBa		93	25-150
13C4_PFHpA		108	25-150
13C5_PFHxA		92	25-150
13C5_PFPeA		104	25-150
13C6_PFDa		94	25-150
13C7_PFUdA		96	25-150
13C8_PFOA		101	25-150
13C8_PFOS		90	25-150
13C8_PFOSA		90	10-150
13C9_PFNA		92	25-150
d-EtFOSA		91	10-150
d5-EtFOSAA		82	25-150
d9-EtFOSE		112	10-150
d-MeFOSA		106	10-150
d3-MeFOSAA		94	25-150
d7-MeFOSE		82	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 31, 2021

██████████
2609 Thomas Street
La Crosse, WI 54603

Subject: Private Well Sampling Results
2609 Thomas Street, La Crosse, WI 54603
Tax parcel # 4-2087-0
Sampling Point # 2087-0
Sampling Date: March 16, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	2.3 ppt	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	5.1 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	17 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	5.1 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	12 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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-decanesulfonic acid (PFDS) CAS # 335-77-3	1.2 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	1.1 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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) ^f Detected in the method blank. Possible lab contaminant.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-002
Description: 2087-0	Matrix: Aqueous
Date Sampled: 03/16/2021 1342	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/25/2021 1915	JJG	03/24/2021 1224	86689

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-1-butanefluoride (PFBS)	375-73-5	PFAS by ID SOP	5.1		3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	1.2	J	3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	2.3	J	3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.0	J	3.6	0.90	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	12		3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	5.1		3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.1	J	3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	17		3.6	0.90	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		111	25-150
13C2_6:2FTS		118	25-150
13C2_8:2FTS		123	25-150
13C2_PFDa		110	25-150
13C2_PFHxDA		109	25-150
13C2_PFTeDA		109	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-002
Description: 2087-0	Matrix: Aqueous
Date Sampled: 03/16/2021 1342	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		95	25-150
13C3_PFHxS		101	25-150
13C3-HFPO-DA		111	25-150
13C4_PFBa		108	25-150
13C4_PFHpA		117	25-150
13C5_PFHxA		114	25-150
13C5_PFPeA		109	25-150
13C6_PFDA		134	25-150
13C7_PFUdA		109	25-150
13C8_PFOA		113	25-150
13C8_PFOS		108	25-150
13C8_PFOSA		113	10-150
13C9_PFNA		110	25-150
d-EtFOSA		72	10-150
d5-EtFOSAA		87	25-150
d9-EtFOSE		92	10-150
d-MeFOSA		74	10-150
d3-MeFOSAA		98	25-150
d7-MeFOSE		86	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

March 31, 2021

██████████
2606 Baumgartner Drive
La Crosse, WI 54603

Subject: Private Well Sampling Results
2606 Baumgartner Drive, La Crosse, WI 54603
Tax parcel # 4-2090-0
Sampling Point # 2090-0
Sampling Date: March 16, 2021

Dear ██████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.6 ppt	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	6.7 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	24 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	10 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.5 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	11 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	2.4 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) CAS # 27619-97-2	14 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.1 ppt	None Established ^c
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.3 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	3.4 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-006
Description: 2090-0	Matrix: Aqueous
Date Sampled: 03/16/2021 1450	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/26/2021 1840	SES	03/25/2021 1122	86804

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	14		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	10		3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.6	J	3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.1	J	3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.5		3.5	0.88	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	11		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.3	J	3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.4	J	3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	6.7		3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	3.4	J	3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	24		3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		97	25-150
13C2_6:2FTS		97	25-150
13C2_8:2FTS		88	25-150
13C2_PFDaA		86	25-150
13C2_PFHxDA		95	25-150
13C2_PFTeDA		84	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-006
Description: 2090-0	Matrix: Aqueous
Date Sampled: 03/16/2021 1450	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		82	25-150
13C3_PFHxS		96	25-150
13C3-HFPO-DA		98	25-150
13C4_PFBa		101	25-150
13C4_PFHpA		99	25-150
13C5_PFHxA		94	25-150
13C5_PFPeA		100	25-150
13C6_PFDa		90	25-150
13C7_PFUdA		81	25-150
13C8_PFOA		97	25-150
13C8_PFOS		94	25-150
13C8_PFOsA		102	10-150
13C9_PFNa		99	25-150
d-EtFOsA		81	10-150
d5-EtFOsAA		91	25-150
d9-EtFOsE		93	10-150
d-MeFOsA		81	10-150
d3-MeFOsAA		90	25-150
d7-MeFOsE		96	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks**.

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

March 31, 2021

██████████
2602 Baumgartner Drive
La Crosse, WI 54603

Subject: Private Well Sampling Results
2602 Baumgartner Drive, La Crosse, WI 54603
Tax parcel # 4-2094-0
Sampling Point # 2094-0
Sampling Date: March 16, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.6 ppt	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	6.1 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	17 ppt	20 ppt ^{a,b}
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	3.1 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	12 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	2.4 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (6:2 FTS) CAS # 27619-97-2	9.0 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	3.3 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-007
Description: 2094-0	Matrix: Aqueous
Date Sampled: 03/16/2021 1509	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/26/2021 1901	SES	03/25/2021 1122	86804

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	9.0		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	6.0		3.7	0.93	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.6	J	3.7	0.93	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.1	J	3.7	0.93	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	12		3.7	0.93	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.4	J	3.7	0.93	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	6.1		3.7	0.93	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	3.3	J	3.7	0.93	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	17		3.7	0.93	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		93	25-150
13C2_6:2FTS		93	25-150
13C2_8:2FTS		95	25-150
13C2_PFDaA		83	25-150
13C2_PFHxDA		88	25-150
13C2_PFTeDA		80	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-007
Description: 2094-0	Matrix: Aqueous
Date Sampled: 03/16/2021 1509	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		73	25-150
13C3_PFHxS		83	25-150
13C3-HFPO-DA		89	25-150
13C4_PFBa		95	25-150
13C4_PFHpA		89	25-150
13C5_PFHxA		86	25-150
13C5_PFPeA		88	25-150
13C6_PFDa		81	25-150
13C7_PFUdA		76	25-150
13C8_PFOA		89	25-150
13C8_PFOS		82	25-150
13C8_PFOSA		93	10-150
13C9_PFNA		88	25-150
d-EtFOSA		75	10-150
d5-EtFOSAA		86	25-150
d9-EtFOSE		96	10-150
d-MeFOSA		77	10-150
d3-MeFOSAA		87	25-150
d7-MeFOSE		85	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

March 30, 2021

████████████████████
 2613 Baumgartner Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2613 Baumgartner Drive, La Crosse, WI 54603
 Tax Parcel # 4-2095-0
 Sampling Point # 2095-0
 Sample Date: March 8, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.6 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	8.0 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2613 Baumgartner Drive, La Crosse, WI 54603
 Tax Parcel # 4-2095-0
 Sampling Point # 2095-0
 March 30, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.6 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.5 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	16 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
2613 Baumgartner Drive, La Crosse, WI 54603
Tax Parcel # 4-2095-0
Sampling Point # 2095-0
March 30, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-009
Description: 2095-0	Matrix: Aqueous
Date Sampled: 03/08/2021 1536	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/16/2021 2036	SES	03/15/2021 1045	85709

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.6		3.6	0.91	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.6	J	3.6	0.91	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.5	J	3.6	0.91	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	16		3.6	0.91	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	8.0		3.6	0.91	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		106	25-150
13C2_6:2FTS		109	25-150
13C2_8:2FTS		112	25-150
13C2_PFDaA		102	25-150
13C2_PFHxDA		107	25-150
13C2_PFTeDA		107	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-009
Description: 2095-0	Matrix: Aqueous
Date Sampled: 03/08/2021 1536	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		96	25-150
13C3_PFHxS		99	25-150
13C3-HFPO-DA		108	25-150
13C4_PFBa		113	25-150
13C4_PFHpA		114	25-150
13C5_PFHxA		113	25-150
13C5_PFPeA		117	25-150
13C6_PFDa		107	25-150
13C7_PFUdA		102	25-150
13C8_PFOA		108	25-150
13C8_PFOS		108	25-150
13C8_PFOSA		108	10-150
13C9_PFNA		110	25-150
d-EtFOSA		95	10-150
d5-EtFOSAA		97	25-150
d9-EtFOSE		101	10-150
d-MeFOSA		84	10-150
d3-MeFOSAA		102	25-150
d7-MeFOSE		94	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 31, 2021

██████████
 2611 Baumgartner Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2611 Baumgartner Drive, La Crosse, WI 54603
 Tax Parcel # 4-2096-0
 Sampling Point # 2096-0
 Sample Date: March 16, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	0.91 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	4.2 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	6.6 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2611 Baumgartner Drive, La Crosse, WI 54603
 Tax Parcel # 4-2096-0
 Sampling Point # 2096-0
 March 31, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	4.6 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.7 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	23 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	1.5 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-decanesulfonic acid (PFDS) CAS # 335-77-3	1.0 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.4 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

Private Well Sampling Results for
2611 Baumgartner Drive, La Crosse, WI 54603
Tax Parcel # 4-2096-0
Sampling Point # 2096-0
March 31, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-005
Description: 2096-0	Matrix: Aqueous
Date Sampled: 03/16/2021 1437	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/25/2021 2018	JJG	03/24/2021 1224	86689

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-1-butanefluoride (PFBS)	375-73-5	PFAS by ID SOP	4.6		3.6	0.91	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	1.0	J	3.6	0.91	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	0.91	J	3.6	0.91	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.7	J	3.6	0.91	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	23		3.6	0.91	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.5	J	3.6	0.91	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	4.2		3.6	0.91	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.4	J	3.6	0.91	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.91	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	6.6		3.6	0.91	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		122	25-150
13C2_6:2FTS		118	25-150
13C2_8:2FTS		114	25-150
13C2_PFDaA		105	25-150
13C2_PFHxDA		102	25-150
13C2_PFTeDA		110	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-005
Description: 2096-0	Matrix: Aqueous
Date Sampled: 03/16/2021 1437	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		94	25-150
13C3_PFHxS		101	25-150
13C3-HFPO-DA		106	25-150
13C4_PFBa		111	25-150
13C4_PFHpA		117	25-150
13C5_PFHxA		105	25-150
13C5_PFPeA		111	25-150
13C6_PFDA		115	25-150
13C7_PFUdA		110	25-150
13C8_PFOA		109	25-150
13C8_PFOS		106	25-150
13C8_PFOSA		117	10-150
13C9_PFNA		120	25-150
d-EtFOSA		89	10-150
d5-EtFOSAA		100	25-150
d9-EtFOSE		102	10-150
d-MeFOSA		85	10-150
d3-MeFOSAA		113	25-150
d7-MeFOSE		96	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

██████████
 2603 Baumgartner Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2603 Baumgartner Drive, La Crosse, WI 54603
 Tax Parcel # 4-2100-0
 Sampling Point # 2100-0
 Sample Date: March 2, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	3.9 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.9 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2603 Baumgartner Drive, La Crosse, WI 54603
 Tax Parcel # 4-2100-0
 Sampling Point # 2100-0
 March 27, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.3 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.1 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	13 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	1.7 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.8 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
2603 Baumgartner Drive, La Crosse, WI 54603
Tax Parcel # 4-2100-0
Sampling Point # 2100-0
March 27, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-005
Description: 2100-0	Matrix: Aqueous
Date Sampled: 03/02/2021 1406	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/09/2021 2319	JJG	03/08/2021 1129	84916

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.4	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.3	J	3.4	0.86	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.1	J	3.4	0.86	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	13		3.4	0.86	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.7	J	3.4	0.86	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		6.8	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	3.9		3.4	0.86	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.8	J	3.4	0.86	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.4	0.86	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.9		3.4	0.86	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		99	25-150
13C2_6:2FTS		107	25-150
13C2_8:2FTS		93	25-150
13C2_PFDaA		93	25-150
13C2_PFHxDA		90	25-150
13C2_PFTeDA		93	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-005
Description: 2100-0	Matrix: Aqueous
Date Sampled: 03/02/2021 1406	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		101	25-150
13C3_PFHxS		100	25-150
13C3-HFPO-DA		102	25-150
13C4_PFBa		105	25-150
13C4_PFHpA		105	25-150
13C5_PFHxA		102	25-150
13C5_PFPeA		107	25-150
13C6_PFDA		96	25-150
13C7_PFUdA		97	25-150
13C8_PFOA		101	25-150
13C8_PFOS		91	25-150
13C8_PFOSA		92	10-150
13C9_PFNA		103	25-150
d-EtFOSA		66	10-150
d5-EtFOSAA		94	25-150
d9-EtFOSE		77	10-150
d-MeFOSA		87	10-150
d3-MeFOSAA		97	25-150
d7-MeFOSE		91	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

██████████
 2601 Baumgartner Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2601 Baumgartner Drive, La Crosse, WI 54603
 Tax Parcel # 4-2101-0
 Sampling Point # 2101-0
 Sample Date: March 10, 2021

Dear ██████████ :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.6 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	4.1 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	4.4 ppt	20 ppt ^{a,b}	

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	4.5 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	Not Detected	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	13 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.3 ppt	None Established ^c

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

Private Well Sampling Results for
2601 Baumgartner Drive, La Crosse, WI 54603
Tax Parcel # 4-2101-0
Sampling Point # 2101-0
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-005
Description: 2101-0	Matrix: Aqueous
Date Sampled: 03/10/2021 1432	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/24/2021 2313	JJG	03/23/2021 1200	86528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	4.5		3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.6	J	3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	13		3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	4.1		3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.3	J	3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	4.4		3.6	0.90	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		106	25-150
13C2_6:2FTS		101	25-150
13C2_8:2FTS		94	25-150
13C2_PFDoA		85	25-150
13C2_PFHxDA		78	25-150
13C2_PFTeDA		81	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-005
Description: 2101-0	Matrix: Aqueous
Date Sampled: 03/10/2021 1432	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		85	25-150
13C3_PFHxS		88	25-150
13C3-HFPO-DA		100	25-150
13C4_PFBa		98	25-150
13C4_PFHpA		93	25-150
13C5_PFHxA		91	25-150
13C5_PFPeA		97	25-150
13C6_PFDa		94	25-150
13C7_PFUdA		84	25-150
13C8_PFOA		95	25-150
13C8_PFOS		92	25-150
13C8_PFOsA		97	10-150
13C9_PFNa		97	25-150
d-EtFOSA		79	10-150
d5-EtFOSAA		88	25-150
d9-EtFOSE		100	10-150
d-MeFOSA		85	10-150
d3-MeFOSAA		90	25-150
d7-MeFOSE		92	10-150

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis			S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 31, 2021

██████████
802 Fanta Reed Road
La Crosse, WI 54603

Subject: Private Well Sampling Results
802 Fanta Reed Road, La Crosse, WI 54603
Tax Parcel # 4-2104-0
Sampling Point # 2104-0
Sample Date: March 16, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were ***below*** the 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. **PLEASE NOTE: During this sampling at your property, we took a second “duplicate” sample for quality control / quality assurance purposes. The two sample tests confirmed each other, and there were only minor differences. The results in the table below are based on the highest concentration of contaminants observed in either of the two samples.**

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.0 ppt	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	2.6 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	1.7 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.0 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.5 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	17 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Private Well Sampling Results for
 802 Fanta Reed Road, La Crosse, WI 54603
 Tax Parcel # 4-2104-0
 Sampling Point # 2104-0
 March 31, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>	<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-001
Description: 2104-0	Matrix: Aqueous
Date Sampled: 03/16/2021 1317	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/25/2021 1854	JJG	03/24/2021 1224	86689

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.8	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.0	J	3.8	0.95	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.0	J	3.8	0.95	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.0		3.8	0.95	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	17		3.8	0.95	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.6	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	2.2	J	3.8	0.95	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.8	0.95	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	1.7	J	3.8	0.95	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		122	25-150
13C2_6:2FTS		110	25-150
13C2_8:2FTS		99	25-150
13C2_PFDaA		99	25-150
13C2_PFHxDA		103	25-150
13C2_PFTeDA		107	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-001
Description: 2104-0	Matrix: Aqueous
Date Sampled: 03/16/2021 1317	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		89	25-150
13C3_PFHxS		100	25-150
13C3-HFPO-DA		109	25-150
13C4_PFBa		104	25-150
13C4_PFHpA		110	25-150
13C5_PFHxA		105	25-150
13C5_PFPeA		108	25-150
13C6_PFDa		121	25-150
13C7_PFUdA		108	25-150
13C8_PFOA		114	25-150
13C8_PFOS		101	25-150
13C8_PFOsA		115	10-150
13C9_PFNa		112	25-150
d-EtFOSA		62	10-150
d5-EtFOSAA		97	25-150
d9-EtFOSE		92	10-150
d-MeFOSA		71	10-150
d3-MeFOSAA		97	25-150
d7-MeFOSE		91	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-004
Description: DUP 18	Matrix: Aqueous
Date Sampled: 03/16/2021	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/25/2021 2008	JJG	03/24/2021 1224	86689

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.8	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	2.9	J	3.8	0.94	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.5		3.8	0.94	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	16		3.8	0.94	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	2.6	J	3.8	0.94	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.8	0.94	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	1.6	J	3.8	0.94	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		110	25-150
13C2_6:2FTS		114	25-150
13C2_8:2FTS		100	25-150
13C2_PFDaA		108	25-150
13C2_PFHxDA		109	25-150
13C2_PFTeDA		109	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-004
Description: DUP 18	Matrix: Aqueous
Date Sampled: 03/16/2021	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		92	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		110	25-150
13C4_PFBa		110	25-150
13C4_PFHpA		115	25-150
13C5_PFHxA		113	25-150
13C5_PFPeA		108	25-150
13C6_PFDa		120	25-150
13C7_PFUdA		107	25-150
13C8_PFOA		112	25-150
13C8_PFOS		108	25-150
13C8_PFOsA		118	10-150
13C9_PFNa		114	25-150
d-EtFOsA		77	10-150
d5-EtFOsAA		107	25-150
d9-EtFOsE		107	10-150
d-MeFOsA		67	10-150
d3-MeFOsAA		112	25-150
d7-MeFOsE		101	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

██████████
 806 Fanta Reed Road
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 806 Fanta Reed Road, La Crosse, WI 54603
 Tax Parcel # 4-2106-0
 Sampling Point # 2106-0
 Sample Date: March 18, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	6.4 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	6.7 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 806 Fanta Reed Road, La Crosse, WI 54603
 Tax Parcel # 4-2106-0
 Sampling Point # 2106-0
 April 9, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	8.2 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.8 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	19 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	1.2 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.7 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
806 Fanta Reed Road, La Crosse, WI 54603
Tax Parcel # 4-2106-0
Sampling Point # 2106-0
April 9, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC24099-008
Description: 2106-0	Matrix: Aqueous
Date Sampled: 03/18/2021 1414	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/30/2021 2222	JJG	03/29/2021 1125	87152

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	8.2		3.7	0.93	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.8	J	3.7	0.93	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	19		3.7	0.93	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.2	J	3.7	0.93	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.4	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	6.4		3.7	0.93	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.7	J	3.7	0.93	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	6.7		3.7	0.93	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		103	25-150
13C2_6:2FTS		110	25-150
13C2_8:2FTS		107	25-150
13C2_PFDaA		96	25-150
13C2_PFHxDA		92	25-150
13C2_PFTeDA		91	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC24099-008
Description: 2106-0	Matrix: Aqueous
Date Sampled: 03/18/2021 1414	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		95	25-150
13C3_PFHxS		101	25-150
13C3-HFPO-DA		99	25-150
13C4_PFBa		104	25-150
13C4_PFHpA		104	25-150
13C5_PFHxA		105	25-150
13C5_PFPeA		105	25-150
13C6_PFDa		100	25-150
13C7_PFUdA		90	25-150
13C8_PFOA		107	25-150
13C8_PFOS		100	25-150
13C8_PFOsA		108	10-150
13C9_PFNa		102	25-150
d-EtFOSA		90	10-150
d5-EtFOSAA		93	25-150
d9-EtFOSE		94	10-150
d-MeFOSA		97	10-150
d3-MeFOSAA		102	25-150
d7-MeFOSE		90	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 10, 2021

████████████████████
2523 Baumgartner Street
La Crosse, WI 54603

Subject: Private Well Sampling Results
2523 Baumgartner Street, La Crosse, WI 54603
Tax parcel # 4-2133-0
Sampling Point # 2133-0
Sampling Date: February 21, 2021

Dear ████████████████████:

We have received and reviewed the test results for the sample collected at the above address. 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 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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	44 ppt	20 ppt^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	24 ppt	20 ppt^{a,b}
The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6		
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	9.1 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	6.3ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	82 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	2.0 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.1 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	2.0 ppt	None Established ^c

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

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

March 10, 2021

Steve Osesek
The OS Group, LLC
N6746 McCurdy Road
Holmen, WI 54636

RE: Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40222427

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on February 24, 2021. 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:

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

Sincerely,



Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC



REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40222427

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40222427001	2133-0	Water	02/22/21 15:52	02/24/21 09:20

REPORT OF LABORATORY ANALYSIS

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

(Please Print Clearly)

Company Name: The OS Group LLC
 Branch/Location: LaCrosse, WI
 Project Contact: Steven Osesek
 Phone: 608-433-9388
 Project Number: _____
 Project Name: LaCrosse Wells 2324
 Project State: WI
 Sampled By (Print): Kristie Tweed
 Sampled By (Sign): Kristie Tweed



UPPER MIDWEST REGION
 MN: 612-607-1700 WI: 920-469-2436

40222427

CHAIN OF CUSTODY

Preservation Codes
 A=None B=HCL C=H2SO4 D=HNO3 E=DJ Water F=Methanol G=NaOH
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?
(YES/NO)
 PRESERVATION
(CODE)*
 Regulatory
Program:

Analysis Requested	✓																		
	PK																		

Quote #: _____
 Mail To Contact: Steven Osesek
 Mail To Company: The OS Group LLC
 Mail To Address: 444 21st St S
LaCrosse, WI 54601
 Invoice To Contact: Steven Osesek
 Invoice To Company: The OS Group
 Invoice To Address: 444 21st St S
LaCrosse, WI 54601
 Invoice To Phone: _____

PO #: _____
 Data Package Options (billable)
 EPA Level III
 EPA Level IV
 MS/MSD
 On your sample (billable)
 NOT needed on your sample
 Matrix Codes
 A = Air W = Water
 B = Biota DW = Drinking Water
 C = Charcoal GW = Ground Water
 O = Oil SW = Surface Water
 S = Soil WW = Waste Water
 Sl = Sludge WP = Wipe

PACE LAB#	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
	<u>2133-0</u>	<u>02/22</u>	<u>3:57</u>	<u>DW</u>

Analysis Requested
 WI 17AS36

CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
	 WB24001 KLC2	

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed:	Relinquished By: <u>Kristie Tweed</u> Date/Time: <u>02-23-21 4:30pm</u>	Received By: _____ Date/Time: _____	PACE Project No. <u>40222427</u>
	Relinquished By: _____ Date/Time: _____	Received By: _____ Date/Time: _____	
Transmit Prelim Rush Results by (complete what you want):	Relinquished By: _____ Date/Time: _____	Received By: _____ Date/Time: _____	Sample Receipt pH OK / Adjusted
Email #1: _____	Relinquished By: _____ Date/Time: _____	Received By: _____ Date/Time: _____	Cooler Custody Seal Present / Not Present
Email #2: _____	Relinquished By: _____ Date/Time: _____	Received By: _____ Date/Time: _____	Intact / Not Intact
Telephone: _____	Relinquished By: _____ Date/Time: _____	Received By: _____ Date/Time: _____	
Fax: _____	Relinquished By: _____ Date/Time: _____	Received By: _____ Date/Time: _____	
Samples on HOLD are subject to special pricing and release of liability	Relinquished By: _____ Date/Time: _____	Received By: _____ Date/Time: _____	

ups 2/24/21 0920
M. Haney 2/24/21 0920

Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: WI
 Cert. Needed: Yes No
 Owner Received Date: 2/24/2021 Results Requested By: 3/15/2021



Workorder: 40222427 Workorder Name: LACROSSE WELLS 23 & 24

Report To	Subcontract To	Requested Analysis											
Christopher Hyska Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436	Pace Analytical West Columbia 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-9700												
												LAB USE ONLY	

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers					WT 36 PFAS by ID	LAB USE ONLY
						Unpreserved						
1	2133-0	PS	2/22/2021 15:52	40222427001	Water	2					X	
2												
3												
4												
5												

						Comments	
Transfers	Released By	Date/Time	Received By	Date/Time			
1					IR77 - MDL reporting - Quote 23492		
2					Direct Ship - Pace SC, WB24001		
3							

Cooler Temperature on Receipt	°C	Custody Seal Y or N	Received on Ice Y or N	Samples Intact Y 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.



Samples Receipt Checklist (SRC) (ME0018C-15)

Issuing Authority: Pace ENV - WCOL

Sample Receipt Checklist (SRC)

WO#: 40222427



40222427

Client: PACE

Cooler Inspected by/date: MEH / 02/24/2021

Lot #: WB24001

Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other:	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA	
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA	
3.9 / 3.9 °C NA / NA °C NA / NA °C NA / NA °C	
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C	
Method of coolant: <input type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input checked="" type="checkbox"/> None	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any of the VOA vials?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote # NA
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)	
Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA	
Time of preservation NA. If more than one preservative is needed, please note in the comments below.	
Sample(s) NA were received with bubbles >6 mm in diameter.	
Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: NA	
SR barcode labels applied by: MEH Date: 02/24/2021	

Comments:



Report of Analysis

Pace Analytical Services, LLC
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222427

Lot Number: **WB24001**

Date Completed: 03/08/2021

Karen Coonan

03/09/2021 4:36 PM

Approved and released by:
Project Manager II: **Karen L. Coonan**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WB24001

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Pace Analytical Services, LLC

Lot Number: WB24001

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222427

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	2133-0	Aqueous	02/22/2021 1552	02/24/2021

(1 sample)

PACE ANALYTICAL SERVICES, LLC

Detection Summary
Pace Analytical Services, LLC
Lot Number: WB24001
Project Name: LACROSSE WELLS 23 & 24
Project Number: 40222427

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	2133-0	Aqueous	PFBS	PFAS by ID	9.1		ng/L	5
001	2133-0	Aqueous	PFPeS	PFAS by ID	1.1	J	ng/L	5
001	2133-0	Aqueous	PFHxS	PFAS by ID	6.3		ng/L	5
001	2133-0	Aqueous	PFBA	PFAS by ID	82		ng/L	5
001	2133-0	Aqueous	PFHxA	PFAS by ID	2.0	J	ng/L	6
001	2133-0	Aqueous	PFOA	PFAS by ID	44		ng/L	6
001	2133-0	Aqueous	PFPeA	PFAS by ID	2.0	J	ng/L	6
001	2133-0	Aqueous	PFOS	PFAS by ID	24		ng/L	6

(8 detections)

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB24001-001
Description: 2133-0	Matrix: Aqueous
Date Sampled: 02/22/2021 1552	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/24/2021	Project Number: 40222427

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	02/26/2021 1857	JJG	02/25/2021 1105	83922

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	9.1		3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.1	J	3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	6.3		3.7	0.92	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	82		3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.0	J	3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.3	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	44		3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	2.0	J	3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	24		3.7	0.92	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		109	25-150
13C2_6:2FTS		118	25-150
13C2_8:2FTS		110	25-150
13C2_PFDaA		96	25-150
13C2_PFHxDA		116	25-150
13C2_PFTeDA		101	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WB24001-001
Description: 2133-0	Matrix: Aqueous
Date Sampled: 02/22/2021 1552	Project Name: LACROSSE WELLS 23 & 24
Date Received: 02/24/2021	Project Number: 40222427

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		105	25-150
13C3_PFHxS		108	25-150
13C3-HFPO-DA		117	25-150
13C4_PFBa		106	25-150
13C4_PFHpA		105	25-150
13C5_PFHxA		103	25-150
13C5_PFPeA		101	25-150
13C6_PFDa		107	25-150
13C7_PFUdA		100	25-150
13C8_PFOA		98	25-150
13C8_PFOS		102	25-150
13C8_PFOsA		110	10-150
13C9_PFNa		106	25-150
d-EtFOsA		107	10-150
d5-EtFOsAA		112	25-150
d9-EtFOsE		106	10-150
d-MeFOsA		124	10-150
d3-MeFOsAA		118	25-150
d7-MeFOsE		112	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: WQ83922-001

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
11CI-PF3OUdS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
8:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
6:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
10:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
4:2 FTS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
GenX	ND		1	8.0	2.0	ng/L	02/26/2021 1815
ADONA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
EtFOSA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
EtFOSAA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
EtFOSE	ND		1	8.0	2.0	ng/L	02/26/2021 1815
MeFOSA	ND		1	16	4.0	ng/L	02/26/2021 1815
MeFOSAA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
MeFOSE	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFBS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFHpS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFNS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFOSA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFPeS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDOS	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFHxS	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFBA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFDoA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFHpA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFHxDA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFHxA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFNA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFODA	ND		1	8.0	2.0	ng/L	02/26/2021 1815
PFOA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFPeA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFTeDA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFTTrDA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFUdA	ND		1	4.0	1.0	ng/L	02/26/2021 1815
PFOS	ND		1	4.0	1.0	ng/L	02/26/2021 1815

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		122	25-150
13C2_6:2FTS		118	25-150
13C2_8:2FTS		118	25-150
13C2_PFDoA		104	25-150
13C2_PFHxDA		129	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MB

Sample ID: WQ83922-001

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		106	25-150
13C3_PFBs		109	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		122	25-150
13C4_PFBa		112	25-150
13C4_PFHpA		113	25-150
13C5_PFHxA		108	25-150
13C5_PFPeA		104	25-150
13C6_PFDa		109	25-150
13C7_PFUdA		110	25-150
13C8_PFOA		105	25-150
13C8_PFOs		114	25-150
13C8_PFOsA		114	10-150
13C9_PFNa		114	25-150
d-EtFOsA		94	10-150
d5-EtFOsAA		117	25-150
d9-EtFOsE		119	10-150
d-MeFOsA		99	10-150
d3-MeFOsAA		124	25-150
d7-MeFOsE		119	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ83922-002

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Parameter	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	15	17		1	111	50-150	02/26/2021 1825
11CI-PF3OUdS	15	17		1	113	50-150	02/26/2021 1825
8:2 FTS	15	15		1	101	50-150	02/26/2021 1825
6:2 FTS	15	15		1	99	50-150	02/26/2021 1825
10:2 FTS	15	13		1	87	50-150	02/26/2021 1825
4:2 FTS	15	14		1	96	50-150	02/26/2021 1825
GenX	32	31		1	98	50-150	02/26/2021 1825
ADONA	15	17		1	115	50-150	02/26/2021 1825
EtFOSA	16	18		1	112	50-150	02/26/2021 1825
EtFOSAA	16	15		1	93	50-150	02/26/2021 1825
EtFOSE	16	17		1	107	50-150	02/26/2021 1825
MeFOSA	16	16		1	103	50-150	02/26/2021 1825
MeFOSAA	16	15		1	95	50-150	02/26/2021 1825
MeFOSE	16	15		1	93	50-150	02/26/2021 1825
PFBS	14	16		1	110	50-150	02/26/2021 1825
PFDS	15	18		1	117	50-150	02/26/2021 1825
PFHpS	15	17		1	113	50-150	02/26/2021 1825
PFNS	15	16		1	105	50-150	02/26/2021 1825
PFOSA	16	15		1	94	50-150	02/26/2021 1825
PFPeS	15	16		1	109	50-150	02/26/2021 1825
PFDOS	15	17		1	112	50-150	02/26/2021 1825
PFHxS	15	17		1	116	50-150	02/26/2021 1825
PFBA	16	17		1	105	50-150	02/26/2021 1825
PFDA	16	17		1	107	50-150	02/26/2021 1825
PFDoA	16	16		1	100	50-150	02/26/2021 1825
PFHpA	16	18		1	111	50-150	02/26/2021 1825
PFHxDA	16	16		1	102	50-150	02/26/2021 1825
PFHxA	16	17		1	107	50-150	02/26/2021 1825
PFNA	16	16		1	101	50-150	02/26/2021 1825
PFODA	16	17		1	105	50-150	02/26/2021 1825
PFOA	16	18		1	114	50-150	02/26/2021 1825
PFPeA	16	17		1	106	50-150	02/26/2021 1825
PFTeDA	16	18		1	113	50-150	02/26/2021 1825
PFTTrDA	16	16		1	99	50-150	02/26/2021 1825
PFUdA	16	16		1	100	50-150	02/26/2021 1825
PFOS	15	18		1	123	50-150	02/26/2021 1825
Surrogate	Q	% Rec	Acceptance Limit				
13C2_4:2FTS		113	25-150				
13C2_6:2FTS		119	25-150				
13C2_8:2FTS		113	25-150				
13C2_PFDoA		100	25-150				
13C2_PFHxDA		117	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ83922-002

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		101	25-150
13C3_PFBs		104	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		118	25-150
13C4_PFBa		107	25-150
13C4_PFHpA		105	25-150
13C5_PFHxA		104	25-150
13C5_PFPeA		103	25-150
13C6_PFDa		111	25-150
13C7_PFUdA		105	25-150
13C8_PFOA		102	25-150
13C8_PFOs		95	25-150
13C8_PFOsA		106	10-150
13C9_PFNa		114	25-150
d-EtFOsA		111	10-150
d5-EtFOsAA		117	25-150
d9-EtFOsE		112	10-150
d-MeFOsA		106	10-150
d3-MeFOsAA		125	25-150
d7-MeFOsE		121	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MS

Sample ID: WB24001-001MS

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Parameter	Sample Amount (ng/L)	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	ND	13	14		1	106	50-150	02/26/2021 1908
11CI-PF3OUdS	ND	13	14		1	107	50-150	02/26/2021 1908
8:2 FTS	ND	13	16		1	121	50-150	02/26/2021 1908
6:2 FTS	ND	13	13		1	101	50-150	02/26/2021 1908
10:2 FTS	ND	14	14		1	104	50-150	02/26/2021 1908
4:2 FTS	ND	13	13		1	100	50-150	02/26/2021 1908
GenX	ND	28	29		1	102	50-150	02/26/2021 1908
ADONA	ND	13	14		1	105	50-150	02/26/2021 1908
EtFOSA	ND	14	14		1	100	50-150	02/26/2021 1908
EtFOSAA	ND	14	13		1	91	50-150	02/26/2021 1908
EtFOSE	ND	14	13		1	93	50-150	02/26/2021 1908
MeFOSA	ND	14	15		1	107	50-150	02/26/2021 1908
MeFOSAA	ND	14	13		1	94	50-150	02/26/2021 1908
MeFOSE	ND	14	14		1	97	50-150	02/26/2021 1908
PFBS	9.1	12	25		1	128	50-150	02/26/2021 1908
PFDS	ND	14	14		1	102	50-150	02/26/2021 1908
PFHpS	ND	13	16		1	120	50-150	02/26/2021 1908
PFNS	ND	14	16		1	120	50-150	02/26/2021 1908
PFOSA	ND	14	16		1	113	50-150	02/26/2021 1908
PFPeS	1.1	13	17		1	121	50-150	02/26/2021 1908
PFDOS	ND	14	13		1	98	50-150	02/26/2021 1908
PFHxS	6.3	13	21		1	115	50-150	02/26/2021 1908
PFBA	82	14	100		1	123	50-150	02/26/2021 1908
PFDA	ND	14	16		1	111	50-150	02/26/2021 1908
PFDaA	ND	14	17		1	119	50-150	02/26/2021 1908
PFHpA	ND	14	17		1	123	50-150	02/26/2021 1908
PFHxDA	ND	14	14		1	97	50-150	02/26/2021 1908
PFHxA	2.0	14	17		1	108	50-150	02/26/2021 1908
PFNA	ND	14	15		1	108	50-150	02/26/2021 1908
PFODA	ND	14	14		1	100	50-150	02/26/2021 1908
PFOA	44	14	61		1	124	50-150	02/26/2021 1908
PFPeA	2.0	14	17		1	105	50-150	02/26/2021 1908
PFTeDA	ND	14	15		1	107	50-150	02/26/2021 1908
PFTrDA	ND	14	15		1	106	50-150	02/26/2021 1908
PFUdA	ND	14	15		1	105	50-150	02/26/2021 1908
PFOS	24	13	43		1	143	50-150	02/26/2021 1908
Surrogate	Q	% Rec	Acceptance Limit					
13C2_4:2FTS		116	25-150					
13C2_6:2FTS		108	25-150					
13C2_8:2FTS		98	25-150					
13C2_PFDaA		92	25-150					
13C2_PFHxDA		113	25-150					

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MS

Sample ID: WB24001-001MS

Matrix: Aqueous

Batch: 83922

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 02/25/2021 1105

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		97	25-150
13C3_PFBs		98	25-150
13C3_PFHxS		98	25-150
13C3-HFPO-DA		110	25-150
13C4_PFBa		103	25-150
13C4_PFHpA		98	25-150
13C5_PFHxA		102	25-150
13C5_PFPeA		101	25-150
13C6_PFDA		101	25-150
13C7_PFUdA		98	25-150
13C8_PFOA		95	25-150
13C8_PFOS		94	25-150
13C8_PFOsA		105	10-150
13C9_PFNA		102	25-150
d-EtFOsA		102	10-150
d5-EtFOsAA		114	25-150
d9-EtFOSE		107	10-150
d-MeFOsA		93	10-150
d3-MeFOsAA		110	25-150
d7-MeFOSE		104	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents

(Please Print Clearly)

Company Name: The OS Group LLC
 Branch/Location: LaCrosse, WI
 Project Contact: Steven Osesek
 Phone: 608-433-9388
 Project Number: _____
 Project Name: LaCrosse Wells 2133-D
 Project State: WI
 Sampled By (Print): Kristie L Tweed
 Sampled By (Sign): Kristie L Tweed
 PO #: _____ Regulatory Program: _____



UPPER MIDWEST REGION
 MN: 612-607-1700 WI: 520-489-2438

CHAIN OF CUSTODY

Preservation Codes
 A=New B=HCL C=H2SO4 D=MND3 E=D. Water F=Mercuric G=NaOH
 H=Sodium Disulfate Solution I=Sodium Thiosulfate J=Other

DATE	TIME	MATERIAL	Y/N	PKL	Letter
02/23	3:52	DW	X		

Quote #: _____
 Mail To Contact: Steven Osesek
 Mail To Company: The OS Group LLC
 Mail To Address: 444 21st St S
LaCrosse, WI 54601
 Invoice To Contact: Steven Osesek
 Invoice To Company: The OS Group
 Invoice To Address: 444 21st St S
LaCrosse, WI 54601
 Invoice To Phone: _____
 CLIENT COMMENTS: _____
 LAB COMMENTS (Lab Use Only): _____
 Profile #: _____

Date Package Options (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Air W = Water
 B = Biotin DW = Drinking Water
 C = Chemical GW = Ground Water
 D = Oil SW = Surface Water
 S = Soil WW = Waste Water
 SL = Sludge WP = Wipe

PAGE LAB #	CLIENT FIELD ID	COLLECTION DATE	TIME	MATERIAL	ANALYSES REQUESTED
	<u>2133-D</u>	<u>02/23</u>	<u>3:52</u>	<u>DW</u>	<u>WI AAAS36</u>

WB24001
 KLCZ

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)
 Date Needed: _____

Transmit Prelim Rush Results by (complete what you want):
 Email #1: _____
 Email #2: _____
 Telephone: _____
 Fax: _____

Samples on HOLD are subject to special pricing and release of liability

Relinquished By: Kristie L Tweed Date/Time: 02-23-21 4:30pm
 Relinquished By: _____ Date/Time: _____
 Relinquished By: _____ Date/Time: _____
 Relinquished By: UPS Date/Time: 2/24/21 0920
 Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____
 Received By: M. Haney Date/Time: 2/24/21 0920
 Received By: _____ Date/Time: _____

PACE Project No. _____
 Receipt Temp = 3.9 °C
 Sample Receipt pH: _____
 OK / Adjusted: _____
 Cooler Custody Seal Present / Not Present: _____
 Intact / Not Intact: _____

PACE ANALYTICAL SERVICES, LLC

PACE ANALYTICAL SERVICES, LLC



Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: PACB Cooler Inspected by/date: MEH / 02/24/2021 Lot #: W324001

Means of receipt: <input type="checkbox"/> Pace <input type="checkbox"/> Client <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other: _____	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: <u>NA</u> Chlorine Strip ID: <u>NA</u> Tested by: <u>NA</u>	
Original temperature upon receipt / Derived (Corrected) temperature upon receipt: <u>3.9 / 3.9 °C</u> <u>NA / NA °C</u> <u>NA / NA °C</u> <u>NA / NA °C</u> %Solid Snap-Cup ID: <u>NA</u>	
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: <u>6</u> IR Gun Correction Factor: <u>0</u> °C	
Method of coolant: <input type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input checked="" type="checkbox"/> None	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/4" or 6mm in diameter) in any of the VOA vials?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote # <u>NA</u>
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)	
Sample(s) <u>NA</u> were received incorrectly preserved and were adjusted accordingly in sample receiving with <u>NA</u> mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # <u>NA</u>	
Time of preservation <u>NA</u> . If more than one preservative is needed, please note in the comments below.	
Sample(s) <u>NA</u> were received with bubbles >6 mm in diameter.	
Sample(s) <u>NA</u> were received with TRC > 0.5 mg/L. (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: <u>NA</u>	
SR barcode labels applied by: <u>MEH</u> Date: <u>02/24/2021</u>	

Comments:

Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: WI
 Cert. Needed: Yes No
 Owner Received Date: 2/24/2021



Workorder: 40222427 Workorder Name: LACROSSE WELLS 23 & 24

Results Requested By: 3/15/2021

Report To:		Subcontract To:		Requested Analysis									
Christopher Hyska Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436		Pace Analytical West Columbia 108 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-9700		<div style="text-align: right;"> WB24001 KLC2 </div>									
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	WT 36 PTAS by ID	LAB USE ONLY					
1	2133-0	PS	2/22/2021 15:52	40222427001	Water	2	X						
2													
3													
4													
5													

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1					IR77 - MDL reporting - Quote 23492
2					Direct Ship - Pace SC, WB24001
3	UPS	2/24/21 09:28	[Signature]	2/24/21 10:48	for MCH 2/24/21

Cooler Temperature on Receipt 3-9 °C Custody Seal Y or (N) N Received on Ice Y or N Samples Intact Y 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.

Wednesday, February 24, 2021 11:10:56 AM



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

April 9, 2021

[REDACTED]
2529 Baumgartner Drive
La Crosse, WI 54603

Subject: Private Well Sampling Results
2529 Baumgartner Drive, La Crosse, WI 54603
Tax parcel # 4-2136-0
Sampling Point # 2136-0
Sampling Date: March 10, 2021

Dear [REDACTED]:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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). **PLEASE NOTE: During this sampling at your property, we took a second “duplicate” sample for quality control / quality assurance purposes. The two sample tests confirmed each other, and there were only minor differences. The results in the table below are based on the highest concentration of contaminants observed in either of the two samples.**

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	2.2 ppt	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	7.9 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	10 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	12 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.4 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	27 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	2.5 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	2.1 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

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

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-004
Description: 2136-0	Matrix: Aqueous
Date Sampled: 03/10/2021 1414	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/24/2021 2302	JJG	03/23/2021 1200	86528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	12		3.7	0.93	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	2.2	J	3.7	0.93	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.4	J	3.7	0.93	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	27		3.7	0.93	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.2	J	3.7	0.93	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	6.0		3.7	0.93	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	2.1	J	3.7	0.93	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.93	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	10		3.7	0.93	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		94	25-150
13C2_6:2FTS		99	25-150
13C2_8:2FTS		97	25-150
13C2_PFDoA		87	25-150
13C2_PFHxDA		87	25-150
13C2_PFTeDA		84	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-004
Description: 2136-0	Matrix: Aqueous
Date Sampled: 03/10/2021 1414	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		90	25-150
13C3_PFHxS		93	25-150
13C3-HFPO-DA		95	25-150
13C4_PFBa		99	25-150
13C4_PFHpA		96	25-150
13C5_PFHxA		95	25-150
13C5_PFPeA		97	25-150
13C6_PFDa		93	25-150
13C7_PFUdA		90	25-150
13C8_PFOA		94	25-150
13C8_PFOS		92	25-150
13C8_PFOSA		94	10-150
13C9_PFNA		97	25-150
d-EtFOSA		88	10-150
d5-EtFOSAA		86	25-150
d9-EtFOSE		87	10-150
d-MeFOSA		80	10-150
d3-MeFOSAA		94	25-150
d7-MeFOSE		81	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-007
Description: DUP 17	Matrix: Aqueous
Date Sampled: 03/10/2021	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/24/2021 2334	JJG	03/23/2021 1200	86528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	12		3.7	0.94	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.94	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.94	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.94	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.3	J	3.7	0.94	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.7	0.94	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.3	J	3.7	0.94	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	26		3.7	0.94	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.94	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.94	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.7	0.94	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.5	J	3.7	0.94	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.94	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.5	1.9	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	7.9		3.7	0.94	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	2.1	J	3.7	0.94	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.94	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.94	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.94	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	10		3.7	0.94	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		99	25-150
13C2_6:2FTS		97	25-150
13C2_8:2FTS		99	25-150
13C2_PFDaA		92	25-150
13C2_PFHxDA		86	25-150
13C2_PFTeDA		85	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC16027-007
Description: DUP 17	Matrix: Aqueous
Date Sampled: 03/10/2021	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/16/2021	Project Number: 40223351

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		87	25-150
13C3_PFHxS		91	25-150
13C3-HFPO-DA		99	25-150
13C4_PFBa		101	25-150
13C4_PFHpA		91	25-150
13C5_PFHxA		93	25-150
13C5_PFPeA		97	25-150
13C6_PFDa		92	25-150
13C7_PFUdA		94	25-150
13C8_PFOA		96	25-150
13C8_PFOS		94	25-150
13C8_PFOsA		97	10-150
13C9_PFNa		92	25-150
d-EtFOsA		79	10-150
d5-EtFOsAA		86	25-150
d9-EtFOsE		93	10-150
d-MeFOsA		85	10-150
d3-MeFOsAA		89	25-150
d7-MeFOsE		89	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or call 1-866-220-4841.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

Please check the box if you are currently paying for your own bottled-water delivery service and indicate with which company you have existing service: _____

HOUSEHOLD INFORMATION:

Household Contact Name (Print)

Number of Household Members

Signature of Occupant Authorized to Enter into Agreement

Date

Address (for water service)

Email Address

Phone Number where you can be reached during the day

PROPERTY OWNER INFORMATION (if different than the occupant):

Name of Property Owner

Email Address

Phone Number



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

March 31, 2021

██████████
 2614 Baumgartner Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2614 Baumgartner Drive, La Crosse, WI 54603
 Tax Parcel # 4-2139-0
 Sampling Point # 2139-0
 Sample Date: March 16, 2021

Dear ██████████ :

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.1 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	6.5 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	8.1 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2614 Baumgartner Drive, La Crosse, WI 54603
 Tax Parcel # 4-2139-0
 Sampling Point # 2139-0
 March 31, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	4.8 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.6 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	15 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	3.5 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	4.2 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
2614 Baumgartner Drive, La Crosse, WI 54603
Tax Parcel # 4-2139-0
Sampling Point # 2139-0
March 31, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-003
Description: 2139-0	Matrix: Aqueous
Date Sampled: 03/16/2021 1411	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/25/2021 1926	JJG	03/24/2021 1224	86689

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	4.8		3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.1	J	3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.6	J	3.5	0.88	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	15		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	3.5		3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	6.5		3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	4.2		3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	8.1		3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		126	25-150
13C2_6:2FTS		113	25-150
13C2_8:2FTS		117	25-150
13C2_PFDaA		107	25-150
13C2_PFHxDA		103	25-150
13C2_PFTeDA		110	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-003
Description: 2139-0	Matrix: Aqueous
Date Sampled: 03/16/2021 1411	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		90	25-150
13C3_PFHxS		103	25-150
13C3-HFPO-DA		112	25-150
13C4_PFBa		106	25-150
13C4_PFHpA		113	25-150
13C5_PFHxA		108	25-150
13C5_PFPeA		113	25-150
13C6_PFDa		102	25-150
13C7_PFUdA		113	25-150
13C8_PFOA		111	25-150
13C8_PFOS		102	25-150
13C8_PFOsA		108	10-150
13C9_PFNa		127	25-150
d-EtFOSA		81	10-150
d5-EtFOSAA		99	25-150
d9-EtFOSE		95	10-150
d-MeFOSA		78	10-150
d3-MeFOSAA		104	25-150
d7-MeFOSE		84	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 9, 2021

██████████
2614 Thomas Street
La Crosse, WI 54603

Subject: Private Well Sampling Results
2614 Thomas Street, La Crosse, WI 54603
Tax parcel # 4-2224-0
Sampling Point # 2224-0
Sampling Date: March 17, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.4 ppt	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	2.4 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	21 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	18 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.9 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	33 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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.4 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

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

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC24099-002
Description: 2224-0	Matrix: Aqueous
Date Sampled: 03/17/2021 1242	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/30/2021 2047	JJG	03/29/2021 1125	87152

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	18		3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.4	J	3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.4	J	3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.9		3.5	0.88	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	33		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	2.4	J	3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	21		3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		99	25-150
13C2_6:2FTS		90	25-150
13C2_8:2FTS		89	25-150
13C2_PFDaA		88	25-150
13C2_PFHxDA		67	25-150
13C2_PFTeDA		79	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC24099-002
Description: 2224-0	Matrix: Aqueous
Date Sampled: 03/17/2021 1242	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/24/2021	Project Number: 40223728

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		73	25-150
13C3_PFHxS		86	25-150
13C3-HFPO-DA		86	25-150
13C4_PFBa		97	25-150
13C4_PFHpA		91	25-150
13C5_PFHxA		95	25-150
13C5_PFPeA		92	25-150
13C6_PFDa		90	25-150
13C7_PFUdA		85	25-150
13C8_PFOa		95	25-150
13C8_PFOs		84	25-150
13C8_PFOsA		98	10-150
13C9_PFNa		88	25-150
d-EtFOsA		87	10-150
d5-EtFOsAA		83	25-150
d9-EtFOsE		82	10-150
d-MeFOsA		96	10-150
d3-MeFOsAA		94	25-150
d7-MeFOsE		76	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 13, 2021

██████████
 2613 Jerald Street
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2613 Jerald Street, La Crosse, WI 54603
 Tax Parcel # 4-2235-0
 Sampling Point # 2235-0
 Sample Date: March 23, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	5.2 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	1.7 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	10 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2613 Jerald Street, La Crosse, WI 54603
 Tax Parcel # 4-2235-0
 Sampling Point # 2235-0
 April 13, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	5.1 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	1.9 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	7.6 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
2613 Jerald Street, La Crosse, WI 54603
Tax Parcel # 4-2235-0
Sampling Point # 2235-0
April 13, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: **Pace Analytical Services, LLC**

Laboratory ID: **WC26011-003**

Description: **2235-0**

Matrix: **Aqueous**

Date Sampled: **03/23/2021 1149**

Project Name: **LACROSSE WELLS 23 & 24**

Date Received: **03/26/2021**

Project Number: **40223969**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	04/01/2021 0122	MMM	03/30/2021 1055	87283

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		8.9	2.2	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		8.9	2.2	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		8.9	2.2	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		8.9	2.2	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		8.9	2.2	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		8.9	2.2	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		8.9	2.2	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		8.9	2.2	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		8.9	2.2	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		8.9	2.2	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		8.9	2.2	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		18	4.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		8.9	2.2	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		8.9	2.2	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	5.1		4.5	1.1	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		4.5	1.1	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		4.5	1.1	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		4.5	1.1	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	5.2		4.5	1.1	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		4.5	1.1	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		8.9	2.2	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	1.9	J	4.5	1.1	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	7.6		4.5	1.1	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		4.5	1.1	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		4.5	1.1	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		4.5	1.1	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		8.9	2.2	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		4.5	1.1	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		4.5	1.1	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		8.9	2.2	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.7	J	4.5	1.1	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		4.5	1.1	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		4.5	1.1	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		4.5	1.1	ng/L	1
Perfluoro-n-undecanoic acid (PFUDA)	2058-94-8	PFAS by ID SOP	ND		4.5	1.1	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	10		4.5	1.1	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		118	25-150
13C2_6:2FTS		123	25-150
13C2_8:2FTS		103	25-150
13C2_PFDa		109	25-150
13C2_PFHxDA		104	25-150
13C2_PFTeDA		101	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC26011-003
Description: 2235-0	Matrix: Aqueous
Date Sampled: 03/23/2021 1149	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/26/2021	Project Number: 40223969

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		90	25-150
13C3_PFHxS		102	25-150
13C3-HFPO-DA		113	25-150
13C4_PFBa		109	25-150
13C4_PFHpA		115	25-150
13C5_PFHxA		105	25-150
13C5_PFPeA		107	25-150
13C6_PFDa		104	25-150
13C7_PFUdA		108	25-150
13C8_PFOa		120	25-150
13C8_PFOs		84	25-150
13C8_PFOsA		104	10-150
13C9_PFNa		100	25-150
d-EtFOsA		68	10-150
d5-EtFOsAA		102	25-150
d9-EtFOsE		87	10-150
d-MeFOsA		85	10-150
d3-MeFOsAA		101	25-150
d7-MeFOsE		92	10-150

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis			S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

April 13, 2021

██████████
 2622 Jerald Street
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 2622 Jerald Street, La Crosse, WI 54603
 Tax Parcel # 4-2244-0
 Sampling Point # 2244-0
 Sample Date: March 25, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	4.2 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	3.2 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 2622 Jerald Street, La Crosse, WI 54603
 Tax Parcel # 4-2244-0
 Sampling Point # 2244-0
 April 13, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	7.1 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.2 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	18 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	5.9 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	2.5 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	5.3 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

Private Well Sampling Results for
2622 Jerald Street, La Crosse, WI 54603
Tax Parcel # 4-2244-0
Sampling Point # 2244-0
April 13, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC26046-002
Description: 2244-0	Matrix: Aqueous
Date Sampled: 03/25/2021 1423	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/26/2021	Project Number: 40224155

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	04/01/2021 1450	MMM	03/31/2021 1049	87430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND	LS	7.0	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	7.1		3.5	0.87	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.2		3.5	0.87	ng/L	1
Perfluoro-n-butanofluoronic acid (PFBA)	375-22-4	PFAS by ID SOP	18		3.5	0.87	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	2.5	J	3.5	0.87	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	5.9		3.5	0.87	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	4.2	B	3.5	0.87	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	5.3		3.5	0.87	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	3.2	BJ	3.5	0.87	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		93	25-150
13C2_6:2FTS		97	25-150
13C2_8:2FTS		95	25-150
13C2_PFDaA		96	25-150
13C2_PFHxDA		102	25-150
13C2_PFTeDA		96	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC26046-002
Description: 2244-0	Matrix: Aqueous
Date Sampled: 03/25/2021 1423	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/26/2021	Project Number: 40224155

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		90	25-150
13C3_PFHxS		95	25-150
13C3-HFPO-DA		107	25-150
13C4_PFBa		105	25-150
13C4_PFHpA		104	25-150
13C5_PFHxA		94	25-150
13C5_PFPeA		112	25-150
13C6_PFDA		93	25-150
13C7_PFUdA		101	25-150
13C8_PFOA		102	25-150
13C8_PFOS		99	25-150
13C8_PFOSA		99	10-150
13C9_PFNA		106	25-150
d-EtFOSA		77	10-150
d5-EtFOSAA		99	25-150
d9-EtFOSE		95	10-150
d-MeFOSA		76	10-150
d3-MeFOSAA		94	25-150
d7-MeFOSE		93	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 30, 2021

██████████
 901 Steven Place
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 901 Steven Place, La Crosse, WI 54603
 Tax Parcel # 4-2251-0
 Sampling Point # 2251-0
 Sample Date: March 9, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.1 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	6.7 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	4.8 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 901 Steven Place, La Crosse, WI 54603
 Tax Parcel # 4-2251-0
 Sampling Point # 2251-0
 March 30, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	4.8 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.9 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	29 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	1.9 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.0 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	2.1 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

Private Well Sampling Results for
901 Steven Place, La Crosse, WI 54603
Tax Parcel # 4-2251-0
Sampling Point # 2251-0
March 30, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-017
Description: 2251-0	Matrix: Aqueous
Date Sampled: 03/09/2021 1444	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/17/2021 1903	JJG	03/16/2021 1147	85809

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		8.4	2.1	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		8.4	2.1	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		8.4	2.1	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		8.4	2.1	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		8.4	2.1	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		8.4	2.1	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		8.4	2.1	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		8.4	2.1	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		8.4	2.1	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		8.4	2.1	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		8.4	2.1	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		17	4.2	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		8.4	2.1	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		8.4	2.1	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	4.8		4.2	1.0	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		4.2	1.0	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		4.2	1.0	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		4.2	1.0	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.1	J	4.2	1.0	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		4.2	1.0	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		8.4	2.1	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.9	J	4.2	1.0	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	29		4.2	1.0	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		4.2	1.0	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		4.2	1.0	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.0	J	4.2	1.0	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		8.4	2.1	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.9	J	4.2	1.0	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		4.2	1.0	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		8.4	2.1	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	6.7		4.2	1.0	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	2.1	J	4.2	1.0	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		4.2	1.0	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		4.2	1.0	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		4.2	1.0	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	4.8		4.2	1.0	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		95	25-150
13C2_6:2FTS		89	25-150
13C2_8:2FTS		99	25-150
13C2_PFDaA		90	25-150
13C2_PFHxDA		100	25-150
13C2_PFTeDA		96	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-017
Description: 2251-0	Matrix: Aqueous
Date Sampled: 03/09/2021 1444	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		82	25-150
13C3_PFHxS		99	25-150
13C3-HFPO-DA		101	25-150
13C4_PFBa		103	25-150
13C4_PFHpA		104	25-150
13C5_PFHxA		99	25-150
13C5_PFPeA		102	25-150
13C6_PFDa		95	25-150
13C7_PFUdA		91	25-150
13C8_PFOA		99	25-150
13C8_PFOS		102	25-150
13C8_PFOsA		100	10-150
13C9_PFNA		95	25-150
d-EtFOSA		88	10-150
d5-EtFOSAA		95	25-150
d9-EtFOSE		89	10-150
d-MeFOSA		72	10-150
d3-MeFOSAA		96	25-150
d7-MeFOSE		82	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 31, 2021

██████████
2507 Lakeshore Drive
La Crosse, WI 54603

Subject: Private Well Sampling Results
2507 Lakeshore Drive, La Crosse, WI 54603
Tax parcel # 4-2252-0
Sampling Point # 2252-0
Sampling Date: March 16, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.2 ppt	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	14 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	10 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	6.5 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	3.2 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	47 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	3.9 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) CAS # 27619-97-2	2.2 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	0.98 ppt	None Established ^c
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	2.0 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	6.1 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-009
Description: 2252-0	Matrix: Aqueous
Date Sampled: 03/16/2021 1532	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/26/2021 1922	SES	03/25/2021 1122	86804

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	2.2	J	7.9	2.0	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		16	3.9	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	6.5		3.9	0.98	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.2	J	3.9	0.98	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	0.98	J	3.9	0.98	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	3.2	J	3.9	0.98	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	47		3.9	0.98	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	2.0	J	3.9	0.98	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	3.9		3.9	0.98	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.9	2.0	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	14		3.9	0.98	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	6.1		3.9	0.98	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.9	0.98	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	10		3.9	0.98	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		93	25-150
13C2_6:2FTS		106	25-150
13C2_8:2FTS		92	25-150
13C2_PFDaA		89	25-150
13C2_PFHxDA		94	25-150
13C2_PFTeDA		88	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-009
Description: 2252-0	Matrix: Aqueous
Date Sampled: 03/16/2021 1532	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBS		84	25-150
13C3_PFHxS		95	25-150
13C3-HFPO-DA		97	25-150
13C4_PFBFA		100	25-150
13C4_PFHpA		102	25-150
13C5_PFHxA		91	25-150
13C5_PFPeA		97	25-150
13C6_PFDA		95	25-150
13C7_PFUdA		84	25-150
13C8_PFOA		98	25-150
13C8_PFOS		97	25-150
13C8_PFOSA		103	10-150
13C9_PFNA		96	25-150
d-EtFOSA		79	10-150
d5-EtFOSAA		91	25-150
d9-EtFOSE		99	10-150
d-MeFOSA		80	10-150
d3-MeFOSAA		96	25-150
d7-MeFOSE		97	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

March 31, 2021

██████████
2505 Lakeshore Drive
La Crosse, WI 54603

Subject: Private Well Sampling Results
2505 Lakeshore Drive, La Crosse, WI 54603
Tax parcel # 4-2253-0
Sampling Point # 2253-0
Sampling Date: March 16, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	2.1 ppt	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	22 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	14 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	5.0 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.7 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	72 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	2.0 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS) CAS # 27619-97-2	3.2 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.5 ppt	None Established ^c
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	0.96 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	2.0 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-008
Description: 2253-0	Matrix: Aqueous
Date Sampled: 03/16/2021 1521	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/26/2021 1911	SES	03/25/2021 1122	86804

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	3.2	J	7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	5.0		3.5	0.88	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	2.1	J	3.5	0.88	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.5	J	3.5	0.88	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.7		3.5	0.88	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	72		3.5	0.88	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	0.96	J	3.5	0.88	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	2.0	J	3.5	0.88	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.0	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	22		3.5	0.88	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	2.0	J	3.5	0.88	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.88	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	14		3.5	0.88	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		100	25-150
13C2_6:2FTS		103	25-150
13C2_8:2FTS		104	25-150
13C2_PFDa		92	25-150
13C2_PFHxDA		99	25-150
13C2_PFTeDA		87	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC18022-008
Description: 2253-0	Matrix: Aqueous
Date Sampled: 03/16/2021 15:21	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/18/2021	Project Number: 40223540

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		87	25-150
13C3_PFHxS		97	25-150
13C3-HFPO-DA		102	25-150
13C4_PFBa		105	25-150
13C4_PFHpA		105	25-150
13C5_PFHxA		98	25-150
13C5_PFPeA		102	25-150
13C6_PFDa		95	25-150
13C7_PFUdA		85	25-150
13C8_PFOA		106	25-150
13C8_PFOS		99	25-150
13C8_PFOsA		108	10-150
13C9_PFNa		100	25-150
d-EtFOSA		69	10-150
d5-EtFOSAA		92	25-150
d9-EtFOSE		98	10-150
d-MeFOSA		73	10-150
d3-MeFOSAA		98	25-150
d7-MeFOSE		91	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

March 27, 2021

██████████
904 Steven Place
La Crosse, WI 54603

Subject: Private Well Sampling Results
904 Steven Place, La Crosse, WI 54603
Tax parcel # 4-2257-1
Sampling Point # 2257-1
Sampling Date: March 4, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	37 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	13 ppt	20 ppt ^{a,b}
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	5.9 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	6.6 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	130 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	3.0 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	2.6 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	1.0 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	3.6 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC10015-001
Description: 2257-1	Matrix: Aqueous
Date Sampled: 03/04/2021 1319	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/10/2021	Project Number: 40222997

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/12/2021 2306	JJG	03/11/2021 1045	85377

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		15	3.7	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	5.9		3.7	0.92	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	2.6	J	3.7	0.92	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	6.6		3.7	0.92	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	130		3.7	0.92	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	1.0	J	3.7	0.92	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	3.0	J	3.7	0.92	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.4	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	37		3.7	0.92	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	3.6	J	3.7	0.92	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.7	0.92	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	13		3.7	0.92	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		83	25-150
13C2_6:2FTS		93	25-150
13C2_8:2FTS		92	25-150
13C2_PFDaA		88	25-150
13C2_PFHxDA		83	25-150
13C2_PFTeDA		93	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC10015-001
Description: 2257-1	Matrix: Aqueous
Date Sampled: 03/04/2021 1319	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/10/2021	Project Number: 40222997

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		93	25-150
13C3_PFHxS		96	25-150
13C3-HFPO-DA		96	25-150
13C4_PFBa		99	25-150
13C4_PFHpA		95	25-150
13C5_PFHxA		96	25-150
13C5_PFPeA		96	25-150
13C6_PFDA		94	25-150
13C7_PFUdA		88	25-150
13C8_PFOA		94	25-150
13C8_PFOS		95	25-150
13C8_PFOSA		100	10-150
13C9_PFNA		94	25-150
d-EtFOSA		74	10-150
d5-EtFOSAA		95	25-150
d9-EtFOSE		78	10-150
d-MeFOSA		76	10-150
d3-MeFOSAA		97	25-150
d7-MeFOSE		84	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

March 30, 2021

████████████████████
 2809 Lakeshore Drive
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 1902 – 1924 Caroline Street, La Crosse, WI 54603
 Tax Parcel # 4-2304-0
 Sampling Point # 2304-0
 Sample Date: March 9, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}	

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	3.5 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.9 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	2.1 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	1.1 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.4 ppt	None Established ^c

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

^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.

^c 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.

Private Well Sampling Results for
1902 – 1924 Caroline Street, La Crosse, WI 54603
Tax Parcel # 4-2304-0
Sampling Point # 2304-0
March 30, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-012
Description: 2304-0	Matrix: Aqueous
Date Sampled: 03/09/2021 1319	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/16/2021 2108	SES	03/15/2021 1045	85709

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	3.5	J	3.6	0.89	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.4	J	3.6	0.89	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.9		3.6	0.89	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	2.1	J	3.6	0.89	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.1	J	3.6	0.89	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.1	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.89	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		3.6	0.89	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		102	25-150
13C2_6:2FTS		108	25-150
13C2_8:2FTS		106	25-150
13C2_PFDaA		104	25-150
13C2_PFHxDA		110	25-150
13C2_PFTeDA		105	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-012
Description: 2304-0	Matrix: Aqueous
Date Sampled: 03/09/2021 1319	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		93	25-150
13C3_PFHxS		106	25-150
13C3-HFPO-DA		108	25-150
13C4_PFBa		110	25-150
13C4_PFHpA		110	25-150
13C5_PFHxA		106	25-150
13C5_PFPeA		111	25-150
13C6_PFDa		106	25-150
13C7_PFUdA		106	25-150
13C8_PFOA		109	25-150
13C8_PFOS		104	25-150
13C8_PFOsA		101	10-150
13C9_PFNA		105	25-150
d-EtFOSA		70	10-150
d5-EtFOSAA		105	25-150
d9-EtFOSE		99	10-150
d-MeFOSA		71	10-150
d3-MeFOSAA		101	25-150
d7-MeFOSE		88	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 30, 2021

██████████
 70 Dawson Place
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 70 Dawson Place, La Crosse, WI 54603
 Tax Parcel # 4-2305-0
 Sampling Point # 2305-0
 Sample Date: March 9, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	3.0 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	4.9 ppt	20 ppt ^{a,b}	

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	4.8 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	4.0 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	3.5 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	1.4 ppt	150,000 ppt ^a
Perfluorononanoic acid (PFNA) CAS # 375-95-1	Not Detected	30 ppt ^a
Perfluorotetradecanoic acid (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-n-heptanoic acid (PFHpA) CAS # 375-85-9	0.9 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS # 2706-90-3	1.3 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

Private Well Sampling Results for
70 Dawson Place, La Crosse, WI 54603
Tax Parcel # 4-2305-0
Sampling Point # 2305-0
March 30, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-020
Description: 2305-0	Matrix: Aqueous
Date Sampled: 03/09/2021 1558	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/17/2021 1946	JJG	03/16/2021 1147	85809

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	4.8		3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	4.0		3.6	0.90	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	3.5	J	3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	0.90	J	3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.4	J	3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	3.0	J	3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.3	J	3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	4.9		3.6	0.90	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		103	25-150
13C2_6:2FTS		94	25-150
13C2_8:2FTS		104	25-150
13C2_PFDaA		94	25-150
13C2_PFHxDA		101	25-150
13C2_PFTeDA		95	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC12013-020
Description: 2305-0	Matrix: Aqueous
Date Sampled: 03/09/2021 1558	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/12/2021	Project Number: 40223221

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		89	25-150
13C3_PFHxS		101	25-150
13C3-HFPO-DA		105	25-150
13C4_PFBa		110	25-150
13C4_PFHpA		113	25-150
13C5_PFHxA		109	25-150
13C5_PFPeA		108	25-150
13C6_PFDA		99	25-150
13C7_PFUdA		91	25-150
13C8_PFOA		101	25-150
13C8_PFOS		103	25-150
13C8_PFOsA		116	10-150
13C9_PFNAA		106	25-150
d-EtFOSA		95	10-150
d5-EtFOSAA		92	25-150
d9-EtFOSE		88	10-150
d-MeFOSA		84	10-150
d3-MeFOSAA		101	25-150
d7-MeFOSE		89	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 27, 2021

[REDACTED]
3313 Lakeshore Drive
La Crosse, WI 54603

Subject: Private Well Sampling Results
3313 Lakeshore Drive, La Crosse, WI 54603
Tax parcel # 4-2317-0
Sampling Point # 2317-0
Sampling Date: March 3, 2021

Dear [REDACTED]:

We have received and reviewed the test results for the sample collected at the above address. 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 DNR is offering temporary bottled water to residents of French Island. Please go to this link to request bottled water from the DNR:

<https://dnr.wisconsin.gov/topic/PFAS/Campbell.html>

Or complete and mail the attached DNR form – Agreement for Requesting Temporary Emergency Water.

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)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	2.9 ppt	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	250 ppt	20 ppt ^{a,b}
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	12 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	10 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	1.9 ppt	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	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a
Perfluoro-1-heptanesulfonic acid (PFHpS) CAS # 375-92-8	1.7 ppt	None Established ^c

The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6

Perfluoro-1-pentanesulfonic acid (PFPeS) CAS # 2706-91-4	1.8 ppt	None Established ^c
Perfluoro-n-pentanoic acid (PFPeA) CAS #2706-90-3	1.1 ppt	None Established ^c
^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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.		

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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
 DNR Agreement for Requesting Temporary Emergency Water

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-012
Description: 2317-0	Matrix: Aqueous
Date Sampled: 03/03/2021 1249	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/10/2021 0137	JJG	03/08/2021 1216	84931

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.5	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	6.0		3.5	0.87	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	1.7	J	3.5	0.87	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	1.8	J	3.5	0.87	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	12	S	3.5	0.87	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	10		3.5	0.87	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	1.9	J	3.5	0.87	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		6.9	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	2.9	J	3.5	0.87	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	1.1	J	3.5	0.87	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.5	0.87	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	250	S	3.5	0.87	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		105	25-150
13C2_6:2FTS		91	25-150
13C2_8:2FTS		102	25-150
13C2_PFDaA		90	25-150
13C2_PFHxDA		86	25-150
13C2_PFTeDA		90	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC05113-012
Description: 2317-0	Matrix: Aqueous
Date Sampled: 03/03/2021 1249	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/05/2021	Project Number: 40222881

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		96	25-150
13C3_PFHxS		92	25-150
13C3-HFPO-DA		102	25-150
13C4_PFBa		105	25-150
13C4_PFHpA		106	25-150
13C5_PFHxA		99	25-150
13C5_PFPeA		103	25-150
13C6_PFDa		92	25-150
13C7_PFUdA		89	25-150
13C8_PFOA		99	25-150
13C8_PFOS		88	25-150
13C8_PFOSA		98	10-150
13C9_PFNA		102	25-150
d-EtFOSA		63	10-150
d5-EtFOSAA		92	25-150
d9-EtFOSE		71	10-150
d-MeFOSA		82	10-150
d3-MeFOSAA		95	25-150
d7-MeFOSE		85	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Agreement for Requesting Temporary Emergency Water

The signed agreement may be returned the following ways:

Mailed to:

Wisconsin Department of Natural Resources
c/o Jenna Soyer – RR/5
P.O. Box 7923
Madison, WI 53703

Scanned or photographed and emailed to:

DNRCampbellPFAS@wisconsin.gov

Please send both pages and use your address as the email subject line.

The Wisconsin Department of Natural Resources (DNR) determined that your well may be, or is, adversely affected by contamination from environmental pollution or a hazardous substance discharge based on sample results received by the DNR or an advisory issued for your well by the Wisconsin Department of Health Services (DHS). Therefore, the DNR is advising you that your water is **not fit for human consumption at this time due to potential human health risks.**

The DNR determined you to be eligible to receive a temporary supply of drinking water from the DNR under Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 738 and/or Wisconsin Statutes (Wis. Stat.) § 292.31, based on the information available at this time. To receive a temporary supply of drinking water, the DNR requires that you enter into an agreement with the DNR and that you be responsible for the proper maintenance of any physical equipment provided as part of the temporary emergency water supply. A third-party contractor, not the DNR, will provide the temporary supply of emergency water for consumption. The department will arrange for the contractor and will pay for this service. The contractor will contact you to arrange a delivery time, and for the return of equipment when specified. Please note that because the advisory is for human consumption, DNR is only authorized to provide a temporary supply of emergency water for consumption (i.e., drinking, cooking, etc.). If you desire to obtain additional water for other non-consumptive uses, such as bathing, you must make arrangements directly with the third-party contractor.

A temporary emergency water supply is available for a maximum of six months from the date of this agreement, or until such time as the DNR confirms one or more of the following has occurred, whichever occurs first:

- 1) Results of laboratory analysis confirm that well water does not contain contaminants above maximum levels set forth in Wis. Adm. Code chs. 140 and 809, or above DHS recommended enforcement standards and the cumulative risk hazard index for per- and polyfluoroalkyl substances (PFAS);
- 2) The contaminated water supply has been replaced by an uncontaminated water supply; and/or
- 3) The private water supply has returned to an uncontaminated condition.

If well sample results confirm any of the above, the DNR will no longer provide a temporary emergency water supply. The DNR will attempt to contact the responsible party if known, to ask them to provide water to you prior to the DNR providing water. If the responsible party agrees, DNR staff will notify you that the responsible party will provide water. If so, this agreement becomes null and void. All arrangements between you and the responsible party and you are outside the terms of this agreement.

By signing below, you acknowledge entering into an agreement with the DNR, and you agree to:

- 1) take responsibility for the proper maintenance of any physical equipment constructed or provided to you by the third-party contractor for your use as part of the temporary water supply;
- 2) allow the DNR reasonable access to take private water samples during the period of time that the DNR is providing temporary water;
- 3) agree to indemnify and hold harmless the DNR for any damage that may occur to the physical equipment provided to you for your use as part of the temporary water supply while the equipment is in your possession;
- 4) understand that this is a “request” for temporary water, but such water may be supplied by the responsible party, and

- 5) understand that the advisory issued for your water is limited to a consumption advisory, and that therefore temporary water will only be supplied for consumption purposes. If you wish to obtain additional water for other household uses, you must make arrangements directly with the third-party contractor.

The above terms regarding equipment may also be outlined in any agreement between you and the third-party vendor. If you have questions about this agreement, you may send them to DNRCampbellPFAS@wisconsin.gov or you may contact Dave Rozeboom, DNR Remediation and Redevelopment Program, by phone at (715) 215-2078.

Please check the box if you need a **bottom-loading water dispenser**. Bottom-loading dispenser are generally provided to those who are unable to lift 5-gallon jugs.

IN WITNESS WHEREOF:

Property Owner (Print)

Signature of Property Owner or Authorized Representative

Date

Mailing Address

Email Address

Phone Number

Contact information for occupants, tenants or lessees (if different than owner). Contact information for the person residing in the home (if different than the owner) is needed so the vendor may schedule a time to set up the water dispenser:

Name of Occupant

Email Address

Phone Number



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

April 15, 2021

██████████
 75 Hinkley Road
 La Crosse, WI 54603

Subject: Private Well Sampling Results
 75 Hinkley Road, La Crosse, WI 54603
 Tax Parcel # 4-2327-0
 Sampling Point # 2327-0
 Sample Date: March 29, 2021

Dear ██████████:

We have received and reviewed the test results for the sample collected at the above address. Some PFAS compounds were found, but the levels found were **below** the 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.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)	
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}	The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}	
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}	
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	1.2 ppt	20 ppt ^{a,b}	
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	0.92 ppt	20 ppt ^{a,b}	
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	1.0 ppt	20 ppt ^{a,b}	

Private Well Sampling Results for
 75 Hinkley Road, La Crosse, WI 54603
 Tax Parcel # 4-2327-0
 Sampling Point # 2327-0
 April 15, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	1.2 ppt	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	2.3 ppt	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	7.1 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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

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

Private Well Sampling Results for
75 Hinkley Road, La Crosse, WI 54603
Tax Parcel # 4-2327-0
Sampling Point # 2327-0
April 15, 2021

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.

<u>Questions about...</u>		<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WD02062-002
Description: 2327-0	Matrix: Aqueous
Date Sampled: 03/29/2021 0926	Project Name: LACROSSE WELLS 23 & 24
Date Received: 04/02/2021	Project Number: 40224248

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	04/07/2021 1937	JJG	04/06/2021 1155	88075

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		14	3.6	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	1.2	J	3.6	0.90	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	1.2	J	3.6	0.90	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	2.3	J	3.6	0.90	ng/L	1
Perfluoro-n-butyric acid (PFBA)	375-22-4	PFAS by ID SOP	7.1		3.6	0.90	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		7.2	1.8	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	0.92	J	3.6	0.90	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.6	0.90	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	1.0	J	3.6	0.90	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		129	25-150
13C2_6:2FTS		102	25-150
13C2_8:2FTS		106	25-150
13C2_PFDaA		104	25-150
13C2_PFHxDA		94	25-150
13C2_PFTeDA		108	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WD02062-002
Description: 2327-0	Matrix: Aqueous
Date Sampled: 03/29/2021 0926	Project Name: LACROSSE WELLS 23 & 24
Date Received: 04/02/2021	Project Number: 40224248

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		94	25-150
13C3_PFHxS		112	25-150
13C3-HFPO-DA		100	25-150
13C4_PFBa		115	25-150
13C4_PFHpA		116	25-150
13C5_PFHxA		108	25-150
13C5_PFPeA		113	25-150
13C6_PFDA		114	25-150
13C7_PFUdA		97	25-150
13C8_PFOA		114	25-150
13C8_PFOS		116	25-150
13C8_PFOSA		104	10-150
13C9_PFNA		108	25-150
d-EtFOSA		82	10-150
d5-EtFOSAA		101	25-150
d9-EtFOSE		94	10-150
d-MeFOSA		87	10-150
d3-MeFOSAA		106	25-150
d7-MeFOSE		100	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com



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

March 6, 2021



807 East Ave S
La Crosse Wisconsin 54601

Subject: Well Sampling Results
[Redacted] 1800 Lakeshore Drive, La Crosse, WI 54603
Tax Parcel # 4-726-0
Sampling Point # 726-0
Sample Date: March 1, 2021

Dear [Redacted]:

We have received and reviewed the test results for the sample collected at the above address. Two PFAS compounds (PFBS and PFBA) were found, but the levels found were **below** the Department of Health Services (DHS) levels recommended for protecting health. These levels are called the “Recommended Public Health Standard” in the table below. **Both compounds were detected below the Limit of Quantitation, which means the levels were so low, the lab could not certify the numeric concentration present but the lab could confirm the presence of the compounds. In everyday language, it is accurate to say the compounds were “barely detectible.”** The levels found in *the school’s* well are called the “Sample Result” in the table below. Note that in the lab report the units are listed as nanograms per liter (ng/L), and in the table, the units are listed as parts per trillion (ppt). They are equivalent expressions of the same units. The table lists the two PFAS compounds detected in the Summit School sample and shows “not detected” for other PFAS compounds for which DHS has recommended a standard. No other PFAs compounds were detected in the sample.

As you can see in the table, the proposed standard for PFBS is 450,000 ppt, and the Summit School well result was 2.1 ppt. For PFBA, the proposed standard for PFBA is 10,000 ppt, and the Summit School well result was 2.1 ppt.

Sample Results

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
N-Ethyl Perfluorooctane sulfonamide (NEtFOSA) CAS # 4151-50-2	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) CAS # 2991-50-6	Not Detected	20 ppt ^{a,b}
N-Ethyl perfluorooctane sulfonamidoethanol (NEtFOSE) CAS # 1691-99-2	Not Detected	20 ppt ^{a,b}
Perfluorooctane sulfonamide (PFOSA) CAS # 754-91-6	Not Detected	20 ppt ^{a,b}
Perfluorooctanoic acid (PFOA) CAS # 335-67-1	Not Detected	20 ppt ^{a,b}
Perfluorooctanesulfonic acid (PFOS) CAS # 1763-23-1	Not Detected	20 ppt ^{a,b}
The recommended limit is 20 ppt for any one of these 6 compounds or the combined total of all 6		
Hexafluoropropylene oxide dimer acid (HPFO-DA; GenX) CAS # 13252-13-6	Not Detected	300 ppt ^a
Perfluorobutanesulfonic acid (PFBS) CAS # 375-73-5	2.1 ppt ^j	450,000 ppt ^a
Perfluorohexanesulfonic acid (PFHxS) CAS # 355-46-4	Not Detected	40 ppt ^a
Perfluorobutanoic acid (PFBA) CAS # 375-22-4	1.7 ppt ^j	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 (PFTeA) CAS # 376-06-7	Not Detected	10,000 ppt ^a
Perfluoroundecanoic acid (PFUnA) CAS # 2058-94-8	Not Detected	3,000 ppt ^a
4,8-Dioxa-3H-perfluorononanoic acid (DONA) CAS # 919005-14-4	Not Detected	3,000 ppt ^a
Perfluorooctadecanoic acid (PFODA) CAS # 16517-11-6	Not Detected	400,000 ppt ^a

Well Sampling Results for
 1800 Lakeshore Drive, La Crosse, WI 54603
 Tax Parcel # 4-726-0
 Sampling Point # 726-0
 March 6, 2021

Compound	Sample Result (unit)	Recommended Public Health Standard (unit ^e)
NOTES: ^a Public health enforcement standard (ES) recommended by DHS. ^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. ^c 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) ^j Estimated result, less than the Limit of Quantitation LOQ and greater than the Detection Limit (DL) ^{bl} Detected in the method blank. Possible lab contaminant.		

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 the health of the students, staff and public.*

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, your staff or student families, have any questions, please call The OS Group at (608) 668-2718 or email them at PFAS@theOSgrp.com.

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

<u>Questions about...</u>	<u>Contact</u>	<u>Phone</u>	<u>E-mail Address</u>
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

Well Sampling Results for
Summit School – 1800 Lakeshore Drive, La Crosse, WI 54603
Tax Parcel # 4-726-0
Sampling Point # 726-0
March 6, 2021

Do not hesitate to contact me directly with any question you or the District may have. My direct number is 608-433-9389, and my email is john.storlie@theosgrp.com. Thank you again for cooperating with the City in this investigation.

On behalf of The City of La Crosse,
Sincerely,
The OS Group, LLC



John C. Storlie, PG
Principal Hydrogeologist

Attachment: Lab report for Summit School well sample

cc: Mayor Kabat, City of La Crosse
David Rozeboom, Wisconsin Department of Natural Resources

March 05, 2021

Steve Osesek
The OS Group, LLC
N6746 McCurdy Road
Holmen, WI 54636

RE: Project: LACROSSE WELLS 23 & 24
Pace Project No.: 40222699

Dear Steve Osesek:

Enclosed are the analytical results for sample(s) received by the laboratory on March 02, 2021. 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:

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

Sincerely,



Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: John Storlie, The OS Group, LLC



REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: LACROSSE WELLS 23 & 24

Pace Project No.: 40222699

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40222699001	726-0	Water	03/01/21 13:08	03/02/21 08:55

REPORT OF LABORATORY ANALYSIS

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

40222699



CHAIN OF CUSTODY

***Preservation Codes**
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)

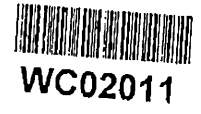
Company Name: The OS Group LLC
 Branch/Location: LaCrosse WI
 Project Contact: Steven Ossek
 Phone: 608-433-9386
 Project Number:
 Project Name: LaCrosse Wells 3/2/21
 Project State: WI
 Sampled By (Print): Kristie L Tweed
 Sampled By (Sign): Kristie L Tweed
 PO #:
 Regulatory Program:

Data Package Options (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Air W = Water
 B = Biota DW = Drinking Water
 C = Charcoal GW = Ground Water
 O = Oil SW = Surface Water
 S = Soil WW = Waste Water
 SI = Sludge WP = Wipe

Filtered? (YES/NO)	Preservation (CODE)*	Analyses Requested	Matrix	Retention	Release	Signature	Date/Time
		WI PFAS 36	DW	X			
				X	*		
				X	*		
				X	*		
				X	*		
				X	*		
				X	*		
				X	*		



KLC2

Quote #: 40222699

Mail To Contact: Steven Ossek

Mail To Company: The OS Group LLC

Mail To Address: 444 21st St S
LaCrosse, WI 54601

Invoice To Contact: Steven Ossek

Invoice To Company: The OS Group

Invoice To Address: 444 21st St S
LaCrosse, WI 54601

Invoice To Phone: 608-433-9386

CLIENT COMMENTS

LAB COMMENTS (Lab Use Only)

Profile #

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX	Retention	Release	Signature	Date/Time
		DATE	TIME					
	726-0	03-01	1:08	DW	X			
	547-0		1:37		X	*		
	1433-0		2:12		X	*		
	1531		2:35		X	*		
	Dup 14				X	*		
	142-0		3:17		X	*		
	213-0		3:40		X	*		
	Blank 14				X	*		

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed: ASAP*

Relinquished By: Kristie L Tweed Date/Time: 03-01-21 4:30

Received By: _____ Date/Time: _____

Transmit Prelim Rush Results by (complete what you want):

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: _____

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: _____

Relinquished By: UPS Date/Time: 3/2/21 09:50

Received By: Jim Goodwin Date/Time: 3/2/21 09:30

PACE Project No. 40222699

Receipt Temp = 3.4 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present
Intact / Not Intact

Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: WI

Cert. Needed: Yes No

Owner Received Date: 3/2/2021 Results Requested By: 3/5/2021

Workorder: 40222699 Workorder Name: LACROSSE WELLS 23 & 24

Report To		Subcontract To				Requested Analysis														
Christopher Hyska Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436		Pace Analytical West Columbia 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-9700				<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">WT 36 PFAS by ID</div> <div style="border: 1px solid black; width: 100%; height: 100%;"></div> </div>														
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix											Preserved Containers				
1	726-0	PS	3/1/2021 13:08	40222699001	Water	2														
2																				
3																				
4																				
5																				
Transfers											Comments									
Released By	Date/Time	Received By	Date/Time	IR77 - MDL reporting - Quote 23492																
1				Rush TAT!																
2				Direct Ship - WA02038																
3																				
Cooler Temperature on Receipt °C		Custody Seal Y or N		Received on Ice Y or N		Samples Intact Y 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.



Samples Receipt Checklist (SRC) (ME0018C-1)
 Issuing Authority: Pace ENV - WCOL

WO#: 40222699



Sample Receipt Checklist (SRC)

Client: The OS Group LLC

Cooler Inspected by/date: JRG2 / 03/02/2021

Lot #: WC02011

Means of receipt: <input type="checkbox"/> Pace <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other: _____	
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA	
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA	
3.4 / 3.4 °C NA / NA °C NA / NA °C NA / NA °C	
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C	
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH ₃ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote #
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)	
Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.	
Time of preservation NA. If more than one preservative is needed, please note in the comments below.	
Sample(s) NA were received with bubbles >6 mm in diameter.	
Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na ₂ S ₂ O ₃) with Shealy ID: NA.	
SR barcode labels applied by: JRG2 Date: 03/01/2021	

Comments:



Report of Analysis

Pace Analytical Services, LLC
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Attention: Christopher Hyska

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222699

Lot Number: **WC02038**

Date Completed: 03/05/2021

Karen Coonan

03/05/2021 4:12 PM

Approved and released by:
Project Manager II: **Karen L. Coonan**



The electronic signature above is the equivalent of a handwritten signature.
This report shall not be reproduced, except in its entirety, without the written approval of Pace Analytical Services, LLC.

PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WC02038

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

The method blank for analytical batch 84704 contained 6:2-FTS greater than the acceptance criteria. The associated sample WC02038-001, did not contain detections for the target analyte; therefore, re-extraction and/ re-analysis of the sample was not performed. The data has been reported.

PACE ANALYTICAL SERVICES, LLC

Sample Summary

Pace Analytical Services, LLC

Lot Number: WC02038

Project Name: LACROSSE WELLS 23 & 24

Project Number: 40222699

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	726-0	Aqueous	03/01/2021 1308	03/02/2021

(1 sample)

PACE ANALYTICAL SERVICES, LLC

Detection Summary
Pace Analytical Services, LLC
Lot Number: WC02038
Project Name: LACROSSE WELLS 23 & 24
Project Number: 40222699

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	726-0	Aqueous	PFBS	PFAS by ID	2.1	J	ng/L	5
001	726-0	Aqueous	PFBA	PFAS by ID	1.7	J	ng/L	5

(2 detections)

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02038-001
Description: 726-0	Matrix: Aqueous
Date Sampled: 03/01/2021 1308	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222699

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	03/04/2021 1233	JJG	03/03/2021 1112	84503

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		6.7	1.7	ng/L	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		6.7	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		6.7	1.7	ng/L	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		6.7	1.7	ng/L	1
1H,1H,2H,2H-perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	PFAS by ID SOP	ND		6.7	1.7	ng/L	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		6.7	1.7	ng/L	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		6.7	1.7	ng/L	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		6.7	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		6.7	1.7	ng/L	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		6.7	1.7	ng/L	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		6.7	1.7	ng/L	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		13	3.3	ng/L	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		6.7	1.7	ng/L	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		6.7	1.7	ng/L	1
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	2.1	J	3.3	0.83	ng/L	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		3.3	0.83	ng/L	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		3.3	0.83	ng/L	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		3.3	0.83	ng/L	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		3.3	0.83	ng/L	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		3.3	0.83	ng/L	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		6.7	1.7	ng/L	1
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	ND		3.3	0.83	ng/L	1
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	1.7	J	3.3	0.83	ng/L	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		3.3	0.83	ng/L	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		3.3	0.83	ng/L	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		3.3	0.83	ng/L	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	67905-19-5	PFAS by ID SOP	ND		6.7	1.7	ng/L	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		3.3	0.83	ng/L	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		3.3	0.83	ng/L	1
Perfluoro-n-octadecanoic acid (PFODA)	16517-11-6	PFAS by ID SOP	ND		6.7	1.7	ng/L	1
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	ND		3.3	0.83	ng/L	1
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		3.3	0.83	ng/L	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		3.3	0.83	ng/L	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		3.3	0.83	ng/L	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		3.3	0.83	ng/L	1
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	ND		3.3	0.83	ng/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		91	25-150
13C2_6:2FTS		88	25-150
13C2_8:2FTS		73	25-150
13C2_PFDa		83	25-150
13C2_PFHxDA		83	25-150
13C2_PFTeDA		81	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WC02038-001
Description: 726-0	Matrix: Aqueous
Date Sampled: 03/01/2021 1308	Project Name: LACROSSE WELLS 23 & 24
Date Received: 03/02/2021	Project Number: 40222699

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C3_PFBs		90	25-150
13C3_PFHxS		89	25-150
13C3-HFPO-DA		82	25-150
13C4_PFBa		91	25-150
13C4_PFHpA		87	25-150
13C5_PFHxA		88	25-150
13C5_PFPeA		92	25-150
13C6_PFDa		89	25-150
13C7_PFUdA		85	25-150
13C8_PFOA		87	25-150
13C8_PFOs		79	25-150
13C8_PFOsA		92	10-150
13C9_PFNa		85	25-150
d-EtFOsA		74	10-150
d5-EtFOsAA		74	25-150
d9-EtFOsE		80	10-150
d-MeFOsA		73	10-150
d3-MeFOsAA		77	25-150
d7-MeFOsE		73	10-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL
 H = Out of holding time W = Reported on wet weight basis

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: WQ84503-001

Matrix: Aqueous

Batch: 84503

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/03/2021 1112

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND		1	8.0	2.0	ng/L	03/04/2021 1108
11CI-PF3OUdS	ND		1	8.0	2.0	ng/L	03/04/2021 1108
8:2 FTS	ND		1	8.0	2.0	ng/L	03/04/2021 1108
6:2 FTS	16		1	8.0	2.0	ng/L	03/04/2021 1108
10:2 FTS	ND		1	8.0	2.0	ng/L	03/04/2021 1108
4:2 FTS	ND		1	8.0	2.0	ng/L	03/04/2021 1108
GenX	ND		1	8.0	2.0	ng/L	03/04/2021 1108
ADONA	ND		1	8.0	2.0	ng/L	03/04/2021 1108
EtFOSA	ND		1	8.0	2.0	ng/L	03/04/2021 1108
EtFOSAA	ND		1	8.0	2.0	ng/L	03/04/2021 1108
EtFOSE	ND		1	8.0	2.0	ng/L	03/04/2021 1108
MeFOSA	ND		1	16	4.0	ng/L	03/04/2021 1108
MeFOSAA	ND		1	8.0	2.0	ng/L	03/04/2021 1108
MeFOSE	ND		1	8.0	2.0	ng/L	03/04/2021 1108
PFBS	ND		1	4.0	1.0	ng/L	03/04/2021 1108
PFDS	ND		1	4.0	1.0	ng/L	03/04/2021 1108
PFHpS	ND		1	4.0	1.0	ng/L	03/04/2021 1108
PFNS	ND		1	4.0	1.0	ng/L	03/04/2021 1108
PFOSA	ND		1	4.0	1.0	ng/L	03/04/2021 1108
PFPeS	ND		1	4.0	1.0	ng/L	03/04/2021 1108
PFDOS	ND		1	8.0	2.0	ng/L	03/04/2021 1108
PFHxS	ND		1	4.0	1.0	ng/L	03/04/2021 1108
PFBA	ND		1	4.0	1.0	ng/L	03/04/2021 1108
PFDA	ND		1	4.0	1.0	ng/L	03/04/2021 1108
PFDoA	ND		1	4.0	1.0	ng/L	03/04/2021 1108
PFHpA	ND		1	4.0	1.0	ng/L	03/04/2021 1108
PFHxDA	ND		1	8.0	2.0	ng/L	03/04/2021 1108
PFHxA	ND		1	4.0	1.0	ng/L	03/04/2021 1108
PFNA	ND		1	4.0	1.0	ng/L	03/04/2021 1108
PFODA	ND		1	8.0	2.0	ng/L	03/04/2021 1108
PFOA	ND		1	4.0	1.0	ng/L	03/04/2021 1108
PFPeA	ND		1	4.0	1.0	ng/L	03/04/2021 1108
PFTeDA	ND		1	4.0	1.0	ng/L	03/04/2021 1108
PFTTrDA	ND		1	4.0	1.0	ng/L	03/04/2021 1108
PFUdA	ND		1	4.0	1.0	ng/L	03/04/2021 1108
PFOS	ND		1	4.0	1.0	ng/L	03/04/2021 1108

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		100	25-150
13C2_6:2FTS		103	25-150
13C2_8:2FTS		96	25-150
13C2_PFDoA		94	25-150
13C2_PFHxDA		91	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MB

Sample ID: WQ84503-001

Matrix: Aqueous

Batch: 84503

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/03/2021 1112

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		95	25-150
13C3_PFBs		95	25-150
13C3_PFHxS		106	25-150
13C3-HFPO-DA		96	25-150
13C4_PFBa		103	25-150
13C4_PFHpA		102	25-150
13C5_PFHxA		101	25-150
13C5_PFPeA		104	25-150
13C6_PFDa		100	25-150
13C7_PFUdA		100	25-150
13C8_PFOA		101	25-150
13C8_PFOs		84	25-150
13C8_PFOsA		97	10-150
13C9_PFNa		97	25-150
d-EtFOsA		78	10-150
d5-EtFOsAA		89	25-150
d9-EtFOsE		94	10-150
d-MeFOsA		86	10-150
d3-MeFOsAA		90	25-150
d7-MeFOsE		92	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ84503-002

Matrix: Aqueous

Batch: 84503

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/03/2021 1112

Parameter	Spike Amount (ng/L)	Result (ng/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
9CI-PF3ONS	15	15		1	99	50-150	03/04/2021 1119
11CI-PF3OUdS	15	14		1	93	50-150	03/04/2021 1119
8:2 FTS	15	17		1	114	50-150	03/04/2021 1119
6:2 FTS	15	19		1	128	50-150	03/04/2021 1119
10:2 FTS	15	16		1	105	50-150	03/04/2021 1119
4:2 FTS	15	17		1	117	50-150	03/04/2021 1119
GenX	32	36		1	112	50-150	03/04/2021 1119
ADONA	15	17		1	110	50-150	03/04/2021 1119
EtFOSA	16	16		1	102	50-150	03/04/2021 1119
EtFOSAA	16	15		1	94	50-150	03/04/2021 1119
EtFOSE	16	17		1	109	50-150	03/04/2021 1119
MeFOSA	16	16		1	100	50-150	03/04/2021 1119
MeFOSAA	16	16		1	98	50-150	03/04/2021 1119
MeFOSE	16	17		1	106	50-150	03/04/2021 1119
PFBS	14	15		1	105	50-150	03/04/2021 1119
PFDS	15	14		1	89	50-150	03/04/2021 1119
PFHpS	15	15		1	101	50-150	03/04/2021 1119
PFNS	15	15		1	96	50-150	03/04/2021 1119
PFOSA	16	18		1	109	50-150	03/04/2021 1119
PFPeS	15	16		1	106	50-150	03/04/2021 1119
PFDOS	15	14		1	91	50-150	03/04/2021 1119
PFHxS	15	15		1	103	50-150	03/04/2021 1119
PFBA	16	16		1	102	50-150	03/04/2021 1119
PFDA	16	16		1	98	50-150	03/04/2021 1119
PFDoA	16	17		1	106	50-150	03/04/2021 1119
PFHpA	16	16		1	98	50-150	03/04/2021 1119
PFHxDA	16	18		1	109	50-150	03/04/2021 1119
PFHxA	16	16		1	102	50-150	03/04/2021 1119
PFNA	16	17		1	106	50-150	03/04/2021 1119
PFODA	16	18		1	113	50-150	03/04/2021 1119
PFOA	16	17		1	109	50-150	03/04/2021 1119
PFPeA	16	16		1	99	50-150	03/04/2021 1119
PFTeDA	16	16		1	103	50-150	03/04/2021 1119
PFTTrDA	16	16		1	100	50-150	03/04/2021 1119
PFUdA	16	15		1	94	50-150	03/04/2021 1119
PFOS	15	15		1	102	50-150	03/04/2021 1119

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		98	25-150
13C2_6:2FTS		100	25-150
13C2_8:2FTS		82	25-150
13C2_PFDoA		89	25-150
13C2_PFHxDA		86	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ84503-002

Matrix: Aqueous

Batch: 84503

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/03/2021 1112

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		91	25-150
13C3_PFBs		94	25-150
13C3_PFHxS		95	25-150
13C3-HFPO-DA		92	25-150
13C4_PFBa		100	25-150
13C4_PFHpA		98	25-150
13C5_PFHxA		99	25-150
13C5_PFPeA		104	25-150
13C6_PFDa		96	25-150
13C7_PFUdA		94	25-150
13C8_PFOA		95	25-150
13C8_PFOs		86	25-150
13C8_PFOsA		97	10-150
13C9_PFNA		95	25-150
d-EtFOsA		88	10-150
d5-EtFOsAA		85	25-150
d9-EtFOsE		95	10-150
d-MeFOsA		76	10-150
d3-MeFOsAA		85	25-150
d7-MeFOsE		89	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - Duplicate

Sample ID: WC02038-001DU

Matrix: Aqueous

Batch: 84503

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/03/2021 1112

Parameter	Sample Amount (ng/L)	Result (ng/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
9CI-PF3ONS	ND	ND		1	0.00	20	03/04/2021 1244
11CI-PF3OUdS	ND	ND		1	0.00	20	03/04/2021 1244
8:2 FTS	ND	ND		1	0.00	20	03/04/2021 1244
6:2 FTS	ND	ND		1	0.00	20	03/04/2021 1244
10:2 FTS	ND	ND		1	0.00	20	03/04/2021 1244
4:2 FTS	ND	ND		1	0.00	20	03/04/2021 1244
GenX	ND	ND		1	0.00	20	03/04/2021 1244
ADONA	ND	ND		1	0.00	20	03/04/2021 1244
EtFOSA	ND	ND		1	0.00	20	03/04/2021 1244
EtFOSAA	ND	ND		1	0.00	20	03/04/2021 1244
EtFOSE	ND	ND		1	0.00	20	03/04/2021 1244
MeFOSA	ND	ND		1	0.00	20	03/04/2021 1244
MeFOSAA	ND	ND		1	0.00	20	03/04/2021 1244
MeFOSE	ND	ND		1	0.00	20	03/04/2021 1244
PFBS	2.1	2.2	J	1	7.9	20	03/04/2021 1244
PFDS	ND	ND		1	0.00	20	03/04/2021 1244
PFHpS	ND	ND		1	0.00	20	03/04/2021 1244
PFNS	ND	ND		1	0.00	20	03/04/2021 1244
PFOSA	ND	ND		1	0.00	20	03/04/2021 1244
PFPeS	ND	ND		1	0.00	20	03/04/2021 1244
PFDOS	ND	ND		1	0.00	20	03/04/2021 1244
PFHxS	ND	ND		1	0.00	20	03/04/2021 1244
PFBA	1.7	1.9	J	1	8.1	20	03/04/2021 1244
PFDA	ND	ND		1	0.00	20	03/04/2021 1244
PFDoA	ND	ND		1	0.00	20	03/04/2021 1244
PFHpA	ND	ND		1	0.00	20	03/04/2021 1244
PFHxDA	ND	ND		1	0.00	20	03/04/2021 1244
PFHxA	ND	ND		1	0.00	20	03/04/2021 1244
PFNA	ND	ND		1	0.00	20	03/04/2021 1244
PFODA	ND	ND		1	0.00	20	03/04/2021 1244
PFOA	ND	ND		1	0.00	20	03/04/2021 1244
PFPeA	ND	0.99	+	1	23	20	03/04/2021 1244
PFTeDA	ND	ND		1	0.00	20	03/04/2021 1244
PFTTrDA	ND	ND		1	0.00	20	03/04/2021 1244
PFUdA	ND	ND		1	0.00	20	03/04/2021 1244
PFOS	ND	ND		1	0.00	20	03/04/2021 1244
Surrogate	Q	% Rec	Acceptance Limit				
13C2_4:2FTS		96	25-150				
13C2_6:2FTS		91	25-150				
13C2_8:2FTS		77	25-150				
13C2_PFDoA		89	25-150				
13C2_PFHxDA		82	25-150				

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - Duplicate

Sample ID: WC02038-001DU

Matrix: Aqueous

Batch: 84503

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 03/03/2021 1112

Surrogate	Q	% Rec	Acceptance Limit
13C2_PFTeDA		85	25-150
13C3_PFBs		91	25-150
13C3_PFHxS		91	25-150
13C3-HFPO-DA		88	25-150
13C4_PFBa		98	25-150
13C4_PFHpA		93	25-150
13C5_PFHxA		92	25-150
13C5_PFPeA		96	25-150
13C6_PFDa		93	25-150
13C7_PFUdA		90	25-150
13C8_PFOA		90	25-150
13C8_PFOs		86	25-150
13C8_PFOsA		92	10-150
13C9_PFNa		89	25-150
d-EtFOsA		79	10-150
d5-EtFOsAA		77	25-150
d9-EtFOsE		87	10-150
d-MeFOsA		75	10-150
d3-MeFOsAA		85	25-150
d7-MeFOsE		82	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents

Please Print Clearly)

Company Name: The OS Group LLC
 Branch/Location: LaCrosse WI
 Project Contact: Steven Ossek
 Phone: 608-433-9386
 Project Number:
 Project Name: LaCrosse Wells 38434
 Project State: WI
 Sampled By (Print): Kristie L Tweed
 Sampled By (Sign): Kristie L Tweed
 PO #:
 Regulatory Program:



UPPER MIDWEST REGION
 MN: 612-607-1700 WI: 920-469-2436

Page 1 of

CHAIN OF CUSTODY

Preservation Codes

A=None	B=HCL	CH=2304	D=HNO3	E=DI Water	F=Metanol	G=NaOH
H=Acetic Acid	I=HCl	J=Other				

FILTERED?
(YES/NO)
 PRESERVATION
(CODEY)

Y/N	Pick Letter	Analyses Requested
		WI PFAS 36

WC02011
 WC02038

Quote #:
 Mail To Contact: Steven Ossek
 Mail To Company: The OS Group LLC
 Mail To Address: 444 21st St S
 LaCrosse, WI 54601
 Invoice To Contact: Steven Ossek
 Invoice To Company: The OS Group
 Invoice To Address: 444 21st St S
 LaCrosse, WI 54601
 Invoice To Phone: 608-433-9386

Data Package Options (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Air W = Water
 B = Biot B = Drinking Water
 C = Charcoal GW = Ground Water
 D = DI SW = Surface Water
 S = Soil WP = Waste Water
 SI = Sludge

FACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX	Y/N	Pick Letter	Analyses Requested
		DATE	TIME				
	726-0	0801	1:08	DW	X		
	547-0		1:37		X		
	1433-0		2:12		X		
	1531		2:35		X		
	Dup 14				X		
	142-0		3:17		X		
	213-0		3:40		X		
	Blank 14				X		

CLIENT COMMENTS
 LAB COMMENTS (Lab Use Only)
 Profile #

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)
 Date Needed: 03-01-21
 Requested By: Kristie L Tweed Date/Time: 03-01-21 4:30
 Relinquished By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____

Transmit Prelim Rush Results by (complete what you want):
 Email #1: _____ Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____
 Email #2: _____ Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____
 Telephone: _____ Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____
 Fax: _____ Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____

Samples on HOLD are subject to special pricing and release of liability
 Relinquished By: LPS Date/Time: 3/2/21 09:30
 Received By: Tom Goodwin Date/Time: 3/2/21 09:30

FACE Project No.
 Receipt Temp = 3.4 °C
 Sample Receipt pH
 OK / Adjusted
 Cooler Custody Seal
 Present / Not Present
 Intact / Not Intact

PACE ANALYTICAL SERVICES, LLC

PACE ANALYTICAL SERVICES, LLC



Samples Receipt Checklist (SRC) (ME0018C-15)
 Issuing Authority: Pace ENV - WCOL

WC02038

d:9/29/2020
 Page 1 of 1

Sample Receipt Checklist (SRC)

KLG2

Client: The OS Group LLC

Cooler Inspected by/date: JRG2 / 03/01/2021

Lot #: WC02011

Means of receipt: <input type="checkbox"/> Pace <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other: _____	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1. Were custody seals present on the cooler?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	2. If custody seals were present, were they intact and unbroken?
pH Strip ID: <u>NA</u> Chlorine Strip ID: <u>NA</u> Tested by: <u>NA</u>	
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: <u>NA</u> <u>3.4 / 3.4</u> °C <u>NA</u> / <u>NA</u> °C <u>NA</u> / <u>NA</u> °C <u>NA</u> / <u>NA</u> °C	
Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles IR Gun ID: <u>5</u> IR Gun Correction Factor: <u>0</u> °C	
Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Ice Packs <input type="checkbox"/> Dry Ice <input type="checkbox"/> None	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	4. Is the commercial courier's packing slip attached to this form?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Were proper custody procedures (relinquished/received) followed?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. Were sample IDs listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. Were sample IDs listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8. Was collection date & time listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. Was collection date & time listed on all sample containers?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. Did all container label information (ID, date, time) agree with the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. Were tests to be performed listed on the COC?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13. Was adequate sample volume available?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	19. Were all applicable NH ₄ /TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Was the quote number listed on the container label? If yes, Quote # _____

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
 Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na₂S₂O₃) with Shealy ID: NA.

SR barcode labels applied by: JRG2 Date: 03/01/2021.

Comments: _____

Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: WI
 Cert. Needed: Yes No



Workorder: 40222699 Workorder Name: LACROSSE WELLS 23 & 24 Owner Received Date: 3/2/2021 Results Requested By: 3/5/2021

Report To	Subcontract To	Requested Analytes
Christopher Hyska Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)489-2436	Pace Analytical West Columbia 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791 9700	WC 02038

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers				LAB USE ONLY
						Unreserved				
1	728 J	PS	3/1/2021 13:08	40222699001	Water	2				
2										
3										
4										
5										

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1					IR77 - MDL reporting - Quote 23492 Rush TAT! Direct Ship - WA02038
2					
3	UPS	3/2/21 09:30	[Signature]	09:30 3/2/21	

Cooler Temperature on Receipt: 3.4 °C
 Custody Seal: Y or N
 Received on Ice: Y or N
 Samples Intact: Y 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.

Pace Analytical Services, LLC (formerly Sheehy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com
 Page 17 of 17 Page 22 of 22

PACE ANALYTICAL SERVICES, LLC