

FREQUENTLY ASKED QUESTIONS ABOUT PFAS



What are Per- and Polyfluoroalkyl substances (PFAS) and why are they harmful?

Per- and polyfluoroalkyl substances (PFAS) are a large group of manmade chemicals that are resistant to heat, water, and oil. PFAS have been classified by the U.S. Environmental Protection Agency (EPA) as an emerging contaminant on the national landscape. For decades, they have been used in many industrial applications and consumer products such as carpeting, waterproof clothing, upholstery, food paper wrappings, personal care products, fire-fighting foams, and metal plating. PFAS have been found at low levels both in the environment and in blood samples of the general U.S. population.

Click this link to learn more: <https://dnr.wi.gov/files/pdf/pubs/rr/RR114bE.pdf>

How does PFAS get into drinking water?

PFAS can get into drinking water when products or wastes containing them are disposed of, used or spilled onto the ground or into lakes and rivers. The four major sources of PFAS are: fire training/fire response sites, industrial sites, landfills, and wastewater treatment plants/biosolids.

PFAS move easily through the ground, getting into groundwater that is used for some water supplies or for private drinking water wells. When released into lakes or rivers used as sources of drinking water, they can get into drinking water supplies. PFAS released by facilities into the air can also end up in rivers and lakes used for drinking water.

How could I be exposed to PFAS?

The main way people are exposed to these chemicals is by swallowing them. PFAS chemicals are sometimes found in drinking water and in cooking- or food-packaging products. PFAS can be swallowed along with the water or food, from there they can enter the bloodstream.

Touching products made with PFAS or touching water that contains PFAS is not the main way people are exposed to these chemicals. Most PFAS do not easily absorb into the skin.

Feel free to click here to learn more:

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

Has Marshfield tested their water for PFAS?

In 2014 as a part of the EPA's Third Unregulated Contaminant Monitoring Rule (UCMR 3), Marshfield Utilities tested all three of their entry points for the required six types of PFAS at a Parts Per Billion (ppb) level and we received no detects (ND). Please see the last page of this document for our test results.

What are the current standards in Wisconsin for PFAS?

The EPA & Wisconsin are currently working on setting standards.

The Wisconsin Department of Health and Safety (DHS) sent the Wisconsin Department of Natural Resources (DNR) recommended groundwater standards for 18 PFAS. These recommendations are based on available scientific information and are set to protect sensitive populations.

View recommended Groundwater Standards at <https://www.dhs.wisconsin.gov/chemical/pfas.htm>

What is Wisconsin doing about PFAS?

Governor Evers signed Executive Order #40 which established the Wisconsin PFAS Action Council and they, in turn, developed the Wisconsin PFAS Action Plan. The Action Plan contains the standard-setting process, sampling techniques, pollution prevention, public education, and other items. Click this link to learn about Wisconsin's PFAS Action Plan: https://widnr.widen.net/content/d4vyg9qqwj/pdf/EM_PFASActionPlan.pdf

What is Marshfield doing about PFAS?

Marshfield participated in the DNR's Voluntary Testing Program which was announced in February 2022. Due to 2022 results at the South-side Booster Station, those wells were immediately shut down. A temporary PFAS Removal Facility will be installed while going through design, permitting, and construction of a permanent facility.

Marshfield tested for PFAS again in 2023 for the EPA's Fifth Unregulated Contaminant Monitoring Rule (UCMR 5). As a part of UCMR 5, Marshfield Utilities tested for 29 PFAS substances. Visit <https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule> for more information.

How can PFAS affect people's health?

Some scientific studies suggest that certain PFAS may affect different systems in the body. National Center for Environmental Health (NCEH) / Agency for Toxic Substances & Disease Registry (ATSDR) are working with various partners to better understand how exposure to PFAS might affect people's health— especially how exposure to PFAS in water and food may be harmful. Although more research is needed, research involving humans suggests that high levels of certain PFAS may lead to the following:

- Increased cholesterol levels
- Changes in liver enzymes
- Decreased vaccine response in children
- Increased risk of high blood pressure or pre-eclampsia in pregnant women
- Small decreases in infant birth weights
- Increased risk of kidney or testicular cancer

At this time, scientists are still learning about the health effects of exposures to mixtures of PFAS.

How can I reduce my exposure to PFAS?

PFAS are present at low levels in some food products and in the environment (air, water, soil etc.), so you probably cannot prevent PFAS exposure altogether. However, if you live near known sources of PFAS contamination, you can take steps to reduce your risk of exposure.

If your drinking water contains PFAS above the EPA Lifetime Health Advisory, consider using an alternative or treated water source for any activity in which you might swallow water:

- a. drinking
- b. food preparation
- c. cooking
- d. brushing teeth, and
- e. preparing infant formula

Check for fish advisories for water bodies where you fish.

- a. Follow fish advisories that tell people to stop or limit eating fish from waters contaminated with PFAS or other compounds.
- b. Research has shown the benefits of eating fish, so continue to eat fish from safe sources as part of your healthy diet.

Read consumer product labels and avoid using those with PFAS.

How can I learn more?

You can visit the following websites for more information:

Center for Disease Control (CDC) / Agency for Toxic Substances & Disease Registry (ATSDR):

<https://www.cdc.gov/cdc-info/>, or (800) 232-4636.

<https://www.atsdr.cdc.gov/pfas/>

<https://www.cdc.gov/exposurereport/index.html>

<https://www.atsdr.cdc.gov/pfas/resources/pfas-faqs.html>

Environmental Protection Agency (EPA):

<https://www.epa.gov/chemical-research/research-and-polyfluoroalkyl-substances-pfasexternal icon>

Food and Drug Administration:

<https://www.fda.gov/food/newsevents/constituentupdates/ucm479465.htmexternal icon>

National Toxicology Program:

<https://ntp.niehs.nih.gov/pubhealth/hat/noms/pfoa/index.htmexternal icon>

ANALYTICAL RESULTS: 537 UCMR3 Safe Drinking Water Analysis

Page 1 of 1

Customer: Marshfield Electric & Water Utilities NLS Project: 221162

Project Description: UCMR3 (SE2)

Project Title: EPs & DSMRTs

Template: 537UCMR3 Printed: 07/08/2014 10:46

Sample: 797573 WTF Sample Faucet Collected: 06/17/14 Analyzed: 06/24/14 - Analytes: 6

ANALYTE NAME	RESULT	UNITS	DIL	MRL	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ug/L	1	0.090		
perfluoroheptanoic acid (PFHpA)	ND	ug/L	1	0.010		
perfluorohexanesulfonic acid (PFHxS)	ND	ug/L	1	0.030		
perfluorooctanoic acid (PFOA)	ND	ug/L	1	0.020		
perfluorononanoic acid (PFNA)	ND	ug/L	1	0.020		
perfluorooctanesulfonic acid (PFOS)	ND	ug/L	1	0.040		
C13-PFHxA (SURR)	83.881%					S
C13-PFDA (SURR)	80.244%					S

NOTES APPLICABLE TO THIS ANALYSIS:

S = This compound is a surrogate used to evaluate the quality control of a method.

Sample: 797575 Wildwood Sample Faucet Collected: 06/17/14 Analyzed: 06/24/14 - Analytes: 6

ANALYTE NAME	RESULT	UNITS	DIL	MRL	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ug/L	1	0.090		
perfluoroheptanoic acid (PFHpA)	ND	ug/L	1	0.010		
perfluorohexanesulfonic acid (PFHxS)	ND	ug/L	1	0.030		
perfluorooctanoic acid (PFOA)	ND	ug/L	1	0.020		
perfluorononanoic acid (PFNA)	ND	ug/L	1	0.020		
perfluorooctanesulfonic acid (PFOS)	ND	ug/L	1	0.040		
C13-PFHxA (SURR)	89.46%					S
C13-PFDA (SURR)	86.467%					S

NOTES APPLICABLE TO THIS ANALYSIS:

S = This compound is a surrogate used to evaluate the quality control of a method.

Sample: 797583 Southside Sample Faucet Collected: 06/17/14 Analyzed: 06/24/14 - Analytes: 6

ANALYTE NAME	RESULT	UNITS	DIL	MRL	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ug/L	1	0.090		
perfluoroheptanoic acid (PFHpA)	ND	ug/L	1	0.010		
perfluorohexanesulfonic acid (PFHxS)	ND	ug/L	1	0.030		
perfluorooctanoic acid (PFOA)	ND	ug/L	1	0.020		
perfluorononanoic acid (PFNA)	ND	ug/L	1	0.020		
perfluorooctanesulfonic acid (PFOS)	ND	ug/L	1	0.040		
C13-PFHxA (SURR)	86.149%					S
C13-PFDA (SURR)	88.263%					S

NOTES APPLICABLE TO THIS ANALYSIS:

S = This compound is a surrogate used to evaluate the quality control of a method.



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Laboratory Report

Environmental Health Division

WSLH Sample: 615884001

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 04/25/2022 10:40
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: E - Entry Point
 Collection Address: 1818 N OAK
 Location of Sample: WATER TREATMENT PLANT

Monitor Point ID: EP400
 PWS ID#: 77201652
 WI Unique Well#:
 Entry Point ID: 400
 Date Received: 4/26/2022
 Date Reported: 5/25/2022
 Sample Type: I-Investigation

PFAS in DW

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 04/28/22 14:00		Analysis Date: 05/09/22 17:27			
PFBS (375-73-5)	EPA Method 537.1	<0.960	ng/L	0.960	0.960
PFHxA (307-24-4)	EPA Method 537.1	<0.960	ng/L	0.960	0.960
HFPO-DA (13252-13-6)	EPA Method 537.1	<0.960	ng/L	0.960	0.960
PFHpA (375-85-9)	EPA Method 537.1	<0.960	ng/L	0.960	0.960
PFHxS (355-46-4)	EPA Method 537.1	<0.960	ng/L	0.960	0.960
DONA (919005-14-4)	EPA Method 537.1	<0.960	ng/L	0.960	0.960
PFNA (375-95-1)	EPA Method 537.1	<0.960	ng/L	0.960	0.960
PFOS (1763-23-1)	EPA Method 537.1	<0.960	ng/L	0.960	0.960
9CI-PF3ONS (756426-58-1)	EPA Method 537.1	<0.960	ng/L	0.960	0.960
PFDA (335-76-2)	EPA Method 537.1	<0.960	ng/L	0.960	0.960
N-MeFOSAA (2355-31-9)	EPA Method 537.1	<0.960	ng/L	0.960	0.960
N-EtFOSAA (2991-50-6)	EPA Method 537.1	<0.960	ng/L	0.960	0.960
PFUnA (2058-94-8)	EPA Method 537.1	<0.960	ng/L	0.960	0.960
PFOA (335-67-1)	EPA Method 537.1	<0.960	ng/L	0.960	0.960
11CI-PF3OUdS (763051-92-9)	EPA Method 537.1	<0.960	ng/L	0.960	0.960
PFDoA (307-55-1)	EPA Method 537.1	<0.960	ng/L	0.960	0.960
PFTTrDA (72629-94-8)	EPA Method 537.1	<0.960	ng/L	0.960	0.960



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Laboratory Report

Environmental Health Division

WSLH Sample: 615884001

PFAS in DW

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 04/28/22 14:00	Analysis Date: 05/09/22 17:27				
PFTeDA (376-06-7)	EPA Method 537.1	<0.960	ng/L	0.960	0.960



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Laboratory Report

Environmental Health Division

WSLH Sample: 615884001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes

see <http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation>

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Results relate only to the items tested.

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Previous Reports

This sample was previously reported under the following report ID(s): 9701847

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281

Metals: Graham Anderson, Supervisor 608-224-6281

Organics: Erin Mani, Supervisor 608-224-6269

Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230

Water Microbiology: Martin Collins, Supervisor 608-224-6239

Radiochemistry: David Webb, Division Director 608-224-6227



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Laboratory Report

Environmental Health Division

WSLH Sample: 615885001

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 04/25/2022 11:45
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: E - Entry Point
 Collection Address: EAST 29TH ST
 Location of Sample: SOUTHSIDE BOOSTER STATION

Monitor Point ID: EP200
 PWS ID#: 77201652
 WI Unique Well#:
 Entry Point ID: 200
 Date Received: 4/26/2022
 Date Reported: 5/24/2022
 Sample Type: I-Investigation

PFAS in DW

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 04/28/22 14:00		Analysis Date: 05/03/22 16:59			
PFBS (375-73-5)	EPA Method 537.1	4.67	ng/L	0.925	0.925
PFHxA (307-24-4)	EPA Method 537.1	10.6	ng/L	0.925	0.925
HFPO-DA (13252-13-6)	EPA Method 537.1	<0.925	ng/L	0.925	0.925
PFHpA (375-85-9)	EPA Method 537.1	3.61	ng/L	0.925	0.925
PFHxS (355-46-4)	EPA Method 537.1	22.0	ng/L	0.925	0.925
DONA (919005-14-4)	EPA Method 537.1	<0.925	ng/L	0.925	0.925
PFNA (375-95-1)	EPA Method 537.1	<0.925	ng/L	0.925	0.925
PFOS (1763-23-1)	EPA Method 537.1	24.0	ng/L	0.925	0.925
9CI-PF3ONS (756426-58-1)	EPA Method 537.1	<0.925	ng/L	0.925	0.925
PFDA (335-76-2)	EPA Method 537.1	<0.925	ng/L	0.925	0.925
N-MeFOSAA (2355-31-9)	EPA Method 537.1	<0.925	ng/L	0.925	0.925
N-EtFOSAA (2991-50-6)	EPA Method 537.1	<0.925	ng/L	0.925	0.925
PFUnA (2058-94-8)	EPA Method 537.1	<0.925	ng/L	0.925	0.925
PFOA (335-67-1)	EPA Method 537.1	4.78	ng/L	0.925	0.925
11CI-PF3OUdS (763051-92-9)	EPA Method 537.1	<0.925	ng/L	0.925	0.925
PFDoA (307-55-1)	EPA Method 537.1	<0.925	ng/L	0.925	0.925
PFTTrDA (72629-94-8)	EPA Method 537.1	<0.925	ng/L	0.925	0.925



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Laboratory Report

Environmental Health Division

WSLH Sample: 615885001

PFAS in DW

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 04/28/22 14:00	Analysis Date: 05/03/22 16:59				
PFTeDA (376-06-7)	EPA Method 537.1	<0.925	ng/L	0.925	0.925



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Laboratory Report

Environmental Health Division

WSLH Sample: 615885001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

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LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
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Laboratory Report

Environmental Health Division

WSLH Sample: 615885002

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 04/25/2022 11:45
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: E - Entry Point
 Collection Address: EAST 29TH ST
 Location of Sample: SOUTHSIDE BOOSTER STATION

Monitor Point ID: EP200
 PWS ID#: 77201652
 WI Unique Well#:
 Entry Point ID: 200
 Date Received: 4/26/2022
 Date Reported: 5/24/2022
 Sample Type: I-Investigation

Sample Comments

FIELD REAGENT BLANK (FRB)

Analyzed past the 14 days holding time: Method EPA Method 537.1 analyzed on 05/12/22 1100

PFAS in DW

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 05/12/22 11:00		Analysis Date: 05/13/22 11:15			
PFBS (375-73-5)	EPA Method 537.1	<0.983	ng/L	0.983	0.983
PFHxA (307-24-4)	EPA Method 537.1	<0.983	ng/L	0.983	0.983
HFPO-DA (13252-13-6)	EPA Method 537.1	<0.983	ng/L	0.983	0.983
PFHpA (375-85-9)	EPA Method 537.1	<0.983	ng/L	0.983	0.983
PFHxS (355-46-4)	EPA Method 537.1	<0.983	ng/L	0.983	0.983
DONA (919005-14-4)	EPA Method 537.1	<0.983	ng/L	0.983	0.983
PFNA (375-95-1)	EPA Method 537.1	<0.983	ng/L	0.983	0.983
PFOS (1763-23-1)	EPA Method 537.1	<0.983	ng/L	0.983	0.983
9CI-PF3ONS (756426-58-1)	EPA Method 537.1	<0.983	ng/L	0.983	0.983
PFDA (335-76-2)	EPA Method 537.1	<0.983	ng/L	0.983	0.983
N-MeFOSAA (2355-31-9)	EPA Method 537.1	<0.983	ng/L	0.983	0.983
N-EtFOSAA (2991-50-6)	EPA Method 537.1	<0.983	ng/L	0.983	0.983
PFUnA (2058-94-8)	EPA Method 537.1	<0.983	ng/L	0.983	0.983



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Laboratory Report

Environmental Health Division

WSLH Sample: 615885002

PFAS in DW

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 05/12/22 11:00		Analysis Date: 05/13/22 11:15			
PFOA (335-67-1)	EPA Method 537.1	<0.983	ng/L	0.983	0.983
11CI-PF3OUds (763051-92-9)	EPA Method 537.1	<0.983	ng/L	0.983	0.983
PFDaA (307-55-1)	EPA Method 537.1	<0.983	ng/L	0.983	0.983
PFTrDA (72629-94-8)	EPA Method 537.1	<0.983	ng/L	0.983	0.983
PFTeDA (376-06-7)	EPA Method 537.1	<0.983	ng/L	0.983	0.983



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Laboratory Report

Environmental Health Division

WSLH Sample: 615885002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

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LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
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if LOD=LOQ, Limits were not statistically derived

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WSLH Sample: 615886001

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 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 04/25/2022 13:15
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: E - Entry Point
 Collection Address: 2000 S CENTRAL AVE
 Location of Sample: WILDWOOD BOOSTER STATION

Monitor Point ID: EP300
 PWS ID#: 77201652
 WI Unique Well#:
 Entry Point ID: 300
 Date Received: 4/26/2022
 Date Reported: 5/24/2022
 Sample Type: I-Investigation

PFAS in DW

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 04/28/22 14:00		Analysis Date: 05/03/22 17:11			
PFBS (375-73-5)	EPA Method 537.1	0.988	ng/L	0.929	0.929
PFHxA (307-24-4)	EPA Method 537.1	<0.929	ng/L	0.929	0.929
HFPO-DA (13252-13-6)	EPA Method 537.1	<0.929	ng/L	0.929	0.929
PFHpA (375-85-9)	EPA Method 537.1	<0.929	ng/L	0.929	0.929
PFHxS (355-46-4)	EPA Method 537.1	1.40	ng/L	0.929	0.929
DONA (919005-14-4)	EPA Method 537.1	<0.929	ng/L	0.929	0.929
PFNA (375-95-1)	EPA Method 537.1	<0.929	ng/L	0.929	0.929
PFOS (1763-23-1)	EPA Method 537.1	2.10	ng/L	0.929	0.929
9CI-PF3ONS (756426-58-1)	EPA Method 537.1	<0.929	ng/L	0.929	0.929
PFDA (335-76-2)	EPA Method 537.1	<0.929	ng/L	0.929	0.929
N-MeFOSAA (2355-31-9)	EPA Method 537.1	<0.929	ng/L	0.929	0.929
N-EtFOSAA (2991-50-6)	EPA Method 537.1	<0.929	ng/L	0.929	0.929
PFUnA (2058-94-8)	EPA Method 537.1	<0.929	ng/L	0.929	0.929
PFOA (335-67-1)	EPA Method 537.1	<0.929	ng/L	0.929	0.929
11CI-PF3OUdS (763051-92-9)	EPA Method 537.1	<0.929	ng/L	0.929	0.929
PFDoA (307-55-1)	EPA Method 537.1	<0.929	ng/L	0.929	0.929
PFTTrDA (72629-94-8)	EPA Method 537.1	<0.929	ng/L	0.929	0.929



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Laboratory Report

Environmental Health Division

WSLH Sample: 615886001

PFAS in DW

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 04/28/22 14:00	Analysis Date: 05/03/22 17:11				
PFTeDA (376-06-7)	EPA Method 537.1	<0.929	ng/L	0.929	0.929



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Laboratory Report

Environmental Health Division

WSLH Sample: 615886001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281

Metals: Graham Anderson, Supervisor 608-224-6281

Organics: Erin Mani, Supervisor 608-224-6269

Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230

Water Microbiology: Martin Collins, Supervisor 608-224-6239

Radiochemistry: David Webb, Division Director 608-224-6227



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Laboratory Report

Environmental Health Division

WSLH Sample: 615886002

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 04/25/2022 13:15
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: E - Entry Point
 Collection Address: 2000 S CENTRAL AVE
 Location of Sample: WILDWOOD BOOSTER STATION

Monitor Point ID: EP300
 PWS ID#: 77201652
 WI Unique Well#:
 Entry Point ID: 300
 Date Received: 4/26/2022
 Date Reported: 5/24/2022
 Sample Type: I-Investigation

Sample Comments

FIELD REAGENT BLANK (FRB)

Analyzed past the 14 days holding time: Method EPA Method 537.1 analyzed on 05/12/22 1100

PFAS in DW

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 05/12/22 11:00		Analysis Date: 05/13/22 11:27			
PFBS (375-73-5)	EPA Method 537.1	<0.978	ng/L	0.978	0.978
PFHxA (307-24-4)	EPA Method 537.1	<0.978	ng/L	0.978	0.978
HFPO-DA (13252-13-6)	EPA Method 537.1	<0.978	ng/L	0.978	0.978
PFHpA (375-85-9)	EPA Method 537.1	<0.978	ng/L	0.978	0.978
PFHxS (355-46-4)	EPA Method 537.1	<0.978	ng/L	0.978	0.978
DONA (919005-14-4)	EPA Method 537.1	<0.978	ng/L	0.978	0.978
PFNA (375-95-1)	EPA Method 537.1	<0.978	ng/L	0.978	0.978
PFOS (1763-23-1)	EPA Method 537.1	<0.978	ng/L	0.978	0.978
9CI-PF3ONS (756426-58-1)	EPA Method 537.1	<0.978	ng/L	0.978	0.978
PFDA (335-76-2)	EPA Method 537.1	<0.978	ng/L	0.978	0.978
N-MeFOSAA (2355-31-9)	EPA Method 537.1	<0.978	ng/L	0.978	0.978
N-EtFOSAA (2991-50-6)	EPA Method 537.1	<0.978	ng/L	0.978	0.978
PFUnA (2058-94-8)	EPA Method 537.1	<0.978	ng/L	0.978	0.978



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Laboratory Report

Environmental Health Division

WSLH Sample: 615886002

PFAS in DW

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 05/12/22 11:00	Analysis Date: 05/13/22 11:27				
PFOA (335-67-1)	EPA Method 537.1	<0.978	ng/L	0.978	0.978
11CI-PF3OUds (763051-92-9)	EPA Method 537.1	<0.978	ng/L	0.978	0.978
PFDaA (307-55-1)	EPA Method 537.1	<0.978	ng/L	0.978	0.978
PFTrDA (72629-94-8)	EPA Method 537.1	<0.978	ng/L	0.978	0.978
PFTeDA (376-06-7)	EPA Method 537.1	<0.978	ng/L	0.978	0.978



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Laboratory Report

Environmental Health Division

WSLH Sample: 615886002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

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LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227



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Laboratory Report

Environmental Health Division

WSLH Sample: 622321001

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 05/31/2022 11:54
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: W-Well
 Collection Address: E 29TH ST
 Location of Sample: WELL 6

Monitor Point ID: W-6
 PWS ID#: 77201652
 WI Unique Well#: BH549
 Entry Point ID: 4
 Date Received: 6/1/2022
 Date Reported: 6/22/2022
 Sample Type: I-Investigation

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45		Analysis Date: 06/10/22 13:23			
PFBA (375-22-4)	WSLH PFAS in Water	6.47	ng/L	0.312	0.903
PFPeA (2706-90-3)	WSLH PFAS in Water	3.49	ng/L	0.135	0.903
PFBS (375-73-5)	WSLH PFAS in Water	3.07	ng/L	0.209	0.903
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.171	ng/L	0.171	0.903
PFHxA (307-24-4)	WSLH PFAS in Water	4.06	ng/L	0.184	0.903
PFPeS (2706-91-4)	WSLH PFAS in Water	0.687F	ng/L	0.123	0.903
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.173	ng/L	0.173	0.903
PFHpA (375-85-9)	WSLH PFAS in Water	2.27	ng/L	0.135	0.903
PFHxS (355-46-4)	WSLH PFAS in Water	12.8	ng/L	0.128	0.903
DONA (919005-14-4)	WSLH PFAS in Water	<0.116	ng/L	0.116	0.903
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.246	ng/L	0.246	0.903
PFOA (335-67-1)	WSLH PFAS in Water	6.35	ng/L	0.0975	0.903
PFHpS (375-92-8)	WSLH PFAS in Water	0.215F	ng/L	0.171	0.903
PFOS (1763-23-1)	WSLH PFAS in Water	7.83	ng/L	0.129	0.903
PFNA (375-95-1)	WSLH PFAS in Water	0.246F	ng/L	0.134	0.903
9CI-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.164	ng/L	0.164	0.903
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.236	ng/L	0.236	0.903

Environmental Health Division

WSLH Sample: 622321001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45		Analysis Date: 06/10/22 13:23			
PFDA (335-76-2)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.903
PFNS (68259-12-1)	WSLH PFAS in Water	<0.164	ng/L	0.164	0.903
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.198	ng/L	0.198	0.903
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.191	ng/L	0.191	0.903
FOSA (754-91-6)	WSLH PFAS in Water	<0.140	ng/L	0.140	0.903
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.200	ng/L	0.200	0.903
PFDS (335-77-3)	WSLH PFAS in Water	<0.232	ng/L	0.232	0.903
11CI-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.134	ng/L	0.134	0.903
PFDoA (307-55-1)	WSLH PFAS in Water	<0.245	ng/L	0.245	0.903
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.223	ng/L	0.223	0.903
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.174	ng/L	0.174	0.903
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.903	ng/L	0.903	1.81
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.254	ng/L	0.254	0.903
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.626	ng/L	0.626	1.81
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.191	ng/L	0.191	0.903
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.158	ng/L	0.158	0.903



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Laboratory Report

Environmental Health Division

WSLH Sample: 622321001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227



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Laboratory Report

Environmental Health Division

WSLH Sample: 622321002

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 05/31/2022 11:54
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: W-Well
 Collection Address: E 29TH ST
 Location of Sample: WELL 6

Monitor Point ID: W-6
 PWS ID#: 77201652
 WI Unique Well#: BH549
 Entry Point ID: 4
 Date Received: 6/1/2022
 Date Reported: 6/22/2022
 Sample Type: I-Investigation

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45		Analysis Date: 06/10/22 13:54			
PFBA (375-22-4)	WSLH PFAS in Water	<0.353	ng/L	0.353	1.02
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.153	ng/L	0.153	1.02
PFBS (375-73-5)	WSLH PFAS in Water	<0.235	ng/L	0.235	1.02
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.194	ng/L	0.194	1.02
PFHxA (307-24-4)	WSLH PFAS in Water	<0.208	ng/L	0.208	1.02
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.139	ng/L	0.139	1.02
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.196	ng/L	0.196	1.02
PFHpA (375-85-9)	WSLH PFAS in Water	<0.153	ng/L	0.153	1.02
PFHxS (355-46-4)	WSLH PFAS in Water	<0.145	ng/L	0.145	1.02
DONA (919005-14-4)	WSLH PFAS in Water	<0.130	ng/L	0.130	1.02
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.277	ng/L	0.277	1.02
PFOA (335-67-1)	WSLH PFAS in Water	<0.110	ng/L	0.110	1.02
PFHpS (375-92-8)	WSLH PFAS in Water	<0.194	ng/L	0.194	1.02
PFOS (1763-23-1)	WSLH PFAS in Water	<0.146	ng/L	0.146	1.02
PFNA (375-95-1)	WSLH PFAS in Water	<0.151	ng/L	0.151	1.02

Environmental Health Division

WSLH Sample: 622321002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45		Analysis Date: 06/10/22 13:54			
9CI-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.185	ng/L	0.185	1.02
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.267	ng/L	0.267	1.02
PFDA (335-76-2)	WSLH PFAS in Water	<0.166	ng/L	0.166	1.02
PFNS (68259-12-1)	WSLH PFAS in Water	<0.185	ng/L	0.185	1.02
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.223	ng/L	0.223	1.02
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.216	ng/L	0.216	1.02
FOSA (754-91-6)	WSLH PFAS in Water	<0.158	ng/L	0.158	1.02
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.226	ng/L	0.226	1.02
PFDS (335-77-3)	WSLH PFAS in Water	<0.262	ng/L	0.262	1.02
11CI-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.152	ng/L	0.152	1.02
PFDoA (307-55-1)	WSLH PFAS in Water	<0.276	ng/L	0.276	1.02
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.252	ng/L	0.252	1.02
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.197	ng/L	0.197	1.02
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<1.02	ng/L	1.02	2.04
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.286	ng/L	0.286	1.02
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.707	ng/L	0.707	2.04
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.216	ng/L	0.216	1.02
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.178	ng/L	0.178	1.02



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Laboratory Report

Environmental Health Division

WSLH Sample: 622321002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
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Z next to result = Result is between 0 (zero) and LOD
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Metals: Graham Anderson, Supervisor 608-224-6281
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Laboratory Report

Environmental Health Division

WSLH Sample: 622323001

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 05/31/2022 12:06
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: E - Entry Point
 Collection Address: EAST 29TH ST
 Location of Sample: SOUTHSIDE BOOSTER STATION

Monitor Point ID: EP200
 PWS ID#: 77201652
 WI Unique Well#:
 Entry Point ID: 200
 Date Received: 6/1/2022
 Date Reported: 6/22/2022
 Sample Type: I-Investigation

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45		Analysis Date: 06/10/22 14:25			
PFBA (375-22-4)	WSLH PFAS in Water	7.79	ng/L	0.314	0.907
PFPeA (2706-90-3)	WSLH PFAS in Water	13.0	ng/L	0.136	0.907
PFBS (375-73-5)	WSLH PFAS in Water	5.08	ng/L	0.210	0.907
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.172	ng/L	0.172	0.907
PFHxA (307-24-4)	WSLH PFAS in Water	11.3	ng/L	0.185	0.907
PFPeS (2706-91-4)	WSLH PFAS in Water	3.05	ng/L	0.123	0.907
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.174	ng/L	0.174	0.907
PFHpA (375-85-9)	WSLH PFAS in Water	4.25	ng/L	0.136	0.907
PFHxS (355-46-4)	WSLH PFAS in Water	22.5	ng/L	0.129	0.907
DONA (919005-14-4)	WSLH PFAS in Water	<0.116	ng/L	0.116	0.907
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.247	ng/L	0.247	0.907
PFOA (335-67-1)	WSLH PFAS in Water	4.90	ng/L	0.0980	0.907
PFHpS (375-92-8)	WSLH PFAS in Water	0.533F	ng/L	0.172	0.907
PFOS (1763-23-1)	WSLH PFAS in Water	23.7	ng/L	0.130	0.907
PFNA (375-95-1)	WSLH PFAS in Water	0.359F	ng/L	0.134	0.907
9CI-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.165	ng/L	0.165	0.907
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.238	ng/L	0.238	0.907

Environmental Health Division

WSLH Sample: 622323001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45	Analysis Date: 06/10/22 14:25				
PFDA (335-76-2)	WSLH PFAS in Water	<0.148	ng/L	0.148	0.907
PFNS (68259-12-1)	WSLH PFAS in Water	<0.165	ng/L	0.165	0.907
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.199	ng/L	0.199	0.907
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.192	ng/L	0.192	0.907
FOSA (754-91-6)	WSLH PFAS in Water	<0.141	ng/L	0.141	0.907
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.201	ng/L	0.201	0.907
PFDS (335-77-3)	WSLH PFAS in Water	<0.233	ng/L	0.233	0.907
11CI-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.135	ng/L	0.135	0.907
PFDoA (307-55-1)	WSLH PFAS in Water	<0.246	ng/L	0.246	0.907
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.224	ng/L	0.224	0.907
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.175	ng/L	0.175	0.907
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.907	ng/L	0.907	1.81
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.255	ng/L	0.255	0.907
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.630	ng/L	0.630	1.81
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.192	ng/L	0.192	0.907
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.159	ng/L	0.159	0.907



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2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
<http://www.slh.wisc.edu>

Laboratory Report

Environmental Health Division

WSLH Sample: 622323001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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see <http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation>

Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.

Results relate only to the items tested.

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The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227



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Laboratory Report

Environmental Health Division

WSLH Sample: 622323002

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 05/31/2022 12:06
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: E - Entry Point
 Collection Address: EAST 29TH ST
 Location of Sample: SOUTHSIDE BOOSTER STATION

Monitor Point ID: EP200
 PWS ID#: 77201652
 WI Unique Well#:
 Entry Point ID: 200
 Date Received: 6/1/2022
 Date Reported: 6/22/2022
 Sample Type: I-Investigation

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45		Analysis Date: 06/10/22 14:41			
PFBA (375-22-4)	WSLH PFAS in Water	<0.348	ng/L	0.348	1.01
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.151	ng/L	0.151	1.01
PFBS (375-73-5)	WSLH PFAS in Water	<0.232	ng/L	0.232	1.01
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.191	ng/L	0.191	1.01
PFHxA (307-24-4)	WSLH PFAS in Water	<0.205	ng/L	0.205	1.01
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.137	ng/L	0.137	1.01
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.193	ng/L	0.193	1.01
PFHpA (375-85-9)	WSLH PFAS in Water	<0.151	ng/L	0.151	1.01
PFHxS (355-46-4)	WSLH PFAS in Water	<0.143	ng/L	0.143	1.01
DONA (919005-14-4)	WSLH PFAS in Water	<0.129	ng/L	0.129	1.01
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.274	ng/L	0.274	1.01
PFOA (335-67-1)	WSLH PFAS in Water	<0.109	ng/L	0.109	1.01
PFHpS (375-92-8)	WSLH PFAS in Water	<0.191	ng/L	0.191	1.01
PFOS (1763-23-1)	WSLH PFAS in Water	<0.144	ng/L	0.144	1.01
PFNA (375-95-1)	WSLH PFAS in Water	<0.149	ng/L	0.149	1.01

Environmental Health Division

WSLH Sample: 622323002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45		Analysis Date: 06/10/22 14:41			
9CI-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.183	ng/L	0.183	1.01
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.264	ng/L	0.264	1.01
PFDA (335-76-2)	WSLH PFAS in Water	<0.164	ng/L	0.164	1.01
PFNS (68259-12-1)	WSLH PFAS in Water	<0.183	ng/L	0.183	1.01
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.220	ng/L	0.220	1.01
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.213	ng/L	0.213	1.01
FOSA (754-91-6)	WSLH PFAS in Water	<0.156	ng/L	0.156	1.01
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.223	ng/L	0.223	1.01
PFDS (335-77-3)	WSLH PFAS in Water	<0.259	ng/L	0.259	1.01
11CI-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.150	ng/L	0.150	1.01
PFDoA (307-55-1)	WSLH PFAS in Water	<0.273	ng/L	0.273	1.01
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.249	ng/L	0.249	1.01
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.194	ng/L	0.194	1.01
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<1.01	ng/L	1.01	2.01
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.283	ng/L	0.283	1.01
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.698	ng/L	0.698	2.01
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.213	ng/L	0.213	1.01
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.176	ng/L	0.176	1.01



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Laboratory Report

Environmental Health Division

WSLH Sample: 622323002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

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LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281

Metals: Graham Anderson, Supervisor 608-224-6281

Organics: Erin Mani, Supervisor 608-224-6269

Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230

Water Microbiology: Martin Collins, Supervisor 608-224-6239

Radiochemistry: David Webb, Division Director 608-224-6227



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Laboratory Report

Environmental Health Division

WSLH Sample: 622325001

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 05/31/2022 11:00
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: W-Well
 Collection Address: EAST 29TH ST
 Location of Sample: WELL 5

Monitor Point ID: W-5
 PWS ID#: 77201652
 WI Unique Well#: TU524
 Entry Point ID: 5
 Date Received: 6/1/2022
 Date Reported: 6/22/2022
 Sample Type: I-Investigation

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45		Analysis Date: 06/10/22 15:58			
PFBA (375-22-4)	WSLH PFAS in Water	4.87	ng/L	0.315	0.909
PFPeA (2706-90-3)	WSLH PFAS in Water	3.03	ng/L	0.136	0.909
PFBS (375-73-5)	WSLH PFAS in Water	1.83	ng/L	0.210	0.909
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.173	ng/L	0.173	0.909
PFHxA (307-24-4)	WSLH PFAS in Water	2.15	ng/L	0.186	0.909
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.124	ng/L	0.124	0.909
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.175	ng/L	0.175	0.909
PFHpA (375-85-9)	WSLH PFAS in Water	0.575F	ng/L	0.136	0.909
PFHxS (355-46-4)	WSLH PFAS in Water	0.562F	ng/L	0.129	0.909
DONA (919005-14-4)	WSLH PFAS in Water	<0.116	ng/L	0.116	0.909
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.247	ng/L	0.247	0.909
PFOA (335-67-1)	WSLH PFAS in Water	0.971	ng/L	0.0982	0.909
PFHpS (375-92-8)	WSLH PFAS in Water	<0.173	ng/L	0.173	0.909
PFOS (1763-23-1)	WSLH PFAS in Water	0.811F	ng/L	0.130	0.909
PFNA (375-95-1)	WSLH PFAS in Water	<0.135	ng/L	0.135	0.909
9CI-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.165	ng/L	0.165	0.909
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.238	ng/L	0.238	0.909

Environmental Health Division

WSLH Sample: 622325001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45	Analysis Date: 06/10/22 15:58				
PFDA (335-76-2)	WSLH PFAS in Water	<0.148	ng/L	0.148	0.909
PFNS (68259-12-1)	WSLH PFAS in Water	<0.165	ng/L	0.165	0.909
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.199	ng/L	0.199	0.909
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.193	ng/L	0.193	0.909
FOSA (754-91-6)	WSLH PFAS in Water	<0.141	ng/L	0.141	0.909
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.202	ng/L	0.202	0.909
PFDS (335-77-3)	WSLH PFAS in Water	<0.234	ng/L	0.234	0.909
11CI-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.135	ng/L	0.135	0.909
PFDoA (307-55-1)	WSLH PFAS in Water	<0.246	ng/L	0.246	0.909
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.225	ng/L	0.225	0.909
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.175	ng/L	0.175	0.909
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.909	ng/L	0.909	1.82
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.256	ng/L	0.256	0.909
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.631	ng/L	0.631	1.82
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.193	ng/L	0.193	0.909
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.159	ng/L	0.159	0.909



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Laboratory Report

Environmental Health Division

WSLH Sample: 622325001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

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LOQ = Level of quantification (for PFAS the LOQ = MRL)
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Z next to result = Result is between 0 (zero) and LOD
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Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227



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Laboratory Report

Environmental Health Division

WSLH Sample: 622325002

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 05/31/2022 11:00
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: W-Well
 Collection Address: EAST 29TH ST
 Location of Sample: WELL 5

Monitor Point ID: W-5
 PWS ID#: 77201652
 WI Unique Well#: TU524
 Entry Point ID: 5
 Date Received: 6/1/2022
 Date Reported: 6/22/2022
 Sample Type: I-Investigation

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45		Analysis Date: 06/10/22 16:14			
PFBA (375-22-4)	WSLH PFAS in Water	<0.339	ng/L	0.339	0.980
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.980
PFBS (375-73-5)	WSLH PFAS in Water	<0.226	ng/L	0.226	0.980
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.186	ng/L	0.186	0.980
PFHxA (307-24-4)	WSLH PFAS in Water	<0.200	ng/L	0.200	0.980
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.133	ng/L	0.133	0.980
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.188	ng/L	0.188	0.980
PFHpA (375-85-9)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.980
PFHxS (355-46-4)	WSLH PFAS in Water	<0.139	ng/L	0.139	0.980
DONA (919005-14-4)	WSLH PFAS in Water	<0.125	ng/L	0.125	0.980
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.266	ng/L	0.266	0.980
PFOA (335-67-1)	WSLH PFAS in Water	<0.106	ng/L	0.106	0.980
PFHpS (375-92-8)	WSLH PFAS in Water	<0.186	ng/L	0.186	0.980
PFOS (1763-23-1)	WSLH PFAS in Water	<0.140	ng/L	0.140	0.980
PFNA (375-95-1)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.980

Environmental Health Division

WSLH Sample: 622325002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45		Analysis Date: 06/10/22 16:14			
9CI-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.178	ng/L	0.178	0.980
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.257	ng/L	0.257	0.980
PFDA (335-76-2)	WSLH PFAS in Water	<0.160	ng/L	0.160	0.980
PFNS (68259-12-1)	WSLH PFAS in Water	<0.178	ng/L	0.178	0.980
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.215	ng/L	0.215	0.980
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.208	ng/L	0.208	0.980
FOSA (754-91-6)	WSLH PFAS in Water	<0.152	ng/L	0.152	0.980
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.217	ng/L	0.217	0.980
PFDS (335-77-3)	WSLH PFAS in Water	<0.252	ng/L	0.252	0.980
11CI-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.980
PFDoA (307-55-1)	WSLH PFAS in Water	<0.265	ng/L	0.265	0.980
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.242	ng/L	0.242	0.980
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.189	ng/L	0.189	0.980
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.980	ng/L	0.980	1.96
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.275	ng/L	0.275	0.980
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.680	ng/L	0.680	1.96
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.208	ng/L	0.208	0.980
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.171	ng/L	0.171	0.980

The internal standard QC limit has failed low.



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(800)442-4618 - FAX (608)224-6213
<http://www.slh.wisc.edu>

Laboratory Report

Environmental Health Division

WSLH Sample: 622325002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Laboratory Report

Environmental Health Division

WSLH Sample: 622326001

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 05/31/2022 11:44
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: W-Well
 Collection Address: E 29TH ST
 Location of Sample: WELL 25

Monitor Point ID: W-25
 PWS ID#: 77201652
 WI Unique Well#: BH551
 Entry Point ID: 6
 Date Received: 6/1/2022
 Date Reported: 6/22/2022
 Sample Type: I-Investigation

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45		Analysis Date: 06/10/22 16:29			
PFBA (375-22-4)	WSLH PFAS in Water	19.3	ng/L	0.315	0.909
PFPeA (2706-90-3)	WSLH PFAS in Water	52.1	ng/L	0.136	0.909
PFBS (375-73-5)	WSLH PFAS in Water	18.0	ng/L	0.210	0.909
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.173	ng/L	0.173	0.909
PFHxA (307-24-4)	WSLH PFAS in Water	49.0	ng/L	0.186	0.909
PFPeS (2706-91-4)	WSLH PFAS in Water	15.9	ng/L	0.124	0.909
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.175	ng/L	0.175	0.909
PFHpA (375-85-9)	WSLH PFAS in Water	17.2	ng/L	0.136	0.909
DONA (919005-14-4)	WSLH PFAS in Water	<0.116	ng/L	0.116	0.909
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	0.744F	ng/L	0.247	0.909
PFOA (335-67-1)	WSLH PFAS in Water	15.7	ng/L	0.0982	0.909
PFHpS (375-92-8)	WSLH PFAS in Water	4.23	ng/L	0.173	0.909
PFNA (375-95-1)	WSLH PFAS in Water	1.69	ng/L	0.135	0.909
9CI-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.166	ng/L	0.166	0.909
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.238	ng/L	0.238	0.909
PFDA (335-76-2)	WSLH PFAS in Water	0.264F	ng/L	0.148	0.909
PFNS (68259-12-1)	WSLH PFAS in Water	<0.166	ng/L	0.166	0.909

Environmental Health Division

WSLH Sample: 622326001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45		Analysis Date: 06/10/22 16:29			
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.199	ng/L	0.199	0.909
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.193	ng/L	0.193	0.909
FOSA (754-91-6)	WSLH PFAS in Water	<0.141	ng/L	0.141	0.909
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.202	ng/L	0.202	0.909
PFDS (335-77-3)	WSLH PFAS in Water	<0.234	ng/L	0.234	0.909
11CI-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.135	ng/L	0.135	0.909
PFDoA (307-55-1)	WSLH PFAS in Water	<0.246	ng/L	0.246	0.909
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.225	ng/L	0.225	0.909
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.176	ng/L	0.176	0.909
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.909	ng/L	0.909	1.82
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.256	ng/L	0.256	0.909
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.631	ng/L	0.631	1.82
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.193	ng/L	0.193	0.909
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.159	ng/L	0.159	0.909
Prep Date: 06/03/22 08:45		Analysis Date: 06/16/22 16:19			
PFHxS (355-46-4)	WSLH PFAS in Water	95.6	ng/L	1.29	9.09
PFOS (1763-23-1)	WSLH PFAS in Water	101	ng/L	1.30	9.09



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Madison, WI 53707-7996
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<http://www.slh.wisc.edu>

Laboratory Report

Environmental Health Division

WSLH Sample: 622326001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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see <http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation>

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The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227



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Laboratory Report

Environmental Health Division

WSLH Sample: 622326002

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 05/31/2022 11:44
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: W-Well
 Collection Address: E 29TH ST
 Location of Sample: WELL 25

Monitor Point ID: W-25
 PWS ID#: 77201652
 WI Unique Well#: BH551
 Entry Point ID: 6
 Date Received: 6/1/2022
 Date Reported: 6/22/2022
 Sample Type: I-Investigation

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45		Analysis Date: 06/10/22 16:45			
PFBA (375-22-4)	WSLH PFAS in Water	<0.355	ng/L	0.355	1.03
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.154	ng/L	0.154	1.03
PFBS (375-73-5)	WSLH PFAS in Water	<0.237	ng/L	0.237	1.03
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.195	ng/L	0.195	1.03
PFHxA (307-24-4)	WSLH PFAS in Water	<0.209	ng/L	0.209	1.03
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.140	ng/L	0.140	1.03
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.197	ng/L	0.197	1.03
PFHpA (375-85-9)	WSLH PFAS in Water	<0.154	ng/L	0.154	1.03
PFHxS (355-46-4)	WSLH PFAS in Water	<0.146	ng/L	0.146	1.03
DONA (919005-14-4)	WSLH PFAS in Water	<0.131	ng/L	0.131	1.03
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.279	ng/L	0.279	1.03
PFOA (335-67-1)	WSLH PFAS in Water	<0.111	ng/L	0.111	1.03
PFHpS (375-92-8)	WSLH PFAS in Water	<0.195	ng/L	0.195	1.03
PFOS (1763-23-1)	WSLH PFAS in Water	<0.147	ng/L	0.147	1.03
PFNA (375-95-1)	WSLH PFAS in Water	<0.152	ng/L	0.152	1.03

Environmental Health Division

WSLH Sample: 622326002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45		Analysis Date: 06/10/22 16:45			
9CI-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.187	ng/L	0.187	1.03
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.269	ng/L	0.269	1.03
PFDA (335-76-2)	WSLH PFAS in Water	<0.167	ng/L	0.167	1.03
PFNS (68259-12-1)	WSLH PFAS in Water	<0.187	ng/L	0.187	1.03
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.225	ng/L	0.225	1.03
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.218	ng/L	0.218	1.03
FOSA (754-91-6)	WSLH PFAS in Water	<0.159	ng/L	0.159	1.03
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.228	ng/L	0.228	1.03
PFDS (335-77-3)	WSLH PFAS in Water	<0.264	ng/L	0.264	1.03
11CI-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.153	ng/L	0.153	1.03
PFDoA (307-55-1)	WSLH PFAS in Water	<0.278	ng/L	0.278	1.03
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.254	ng/L	0.254	1.03
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.198	ng/L	0.198	1.03
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<1.03	ng/L	1.03	2.05
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.288	ng/L	0.288	1.03
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.712	ng/L	0.712	2.05
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.218	ng/L	0.218	1.03
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.180	ng/L	0.180	1.03



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Laboratory Report

Environmental Health Division

WSLH Sample: 622326002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Organics: Erin Mani, Supervisor 608-224-6269

Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230

Water Microbiology: Martin Collins, Supervisor 608-224-6239

Radiochemistry: David Webb, Division Director 608-224-6227



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Laboratory Report

Environmental Health Division

WSLH Sample: 622327001

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 05/31/2022 11:27
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: W-Well
 Collection Address: S WASHINGTON AVE
 Location of Sample: WELL 4

Monitor Point ID: W-4
 PWS ID#: 77201652
 WI Unique Well#: WL772
 Entry Point ID: 25
 Date Received: 6/1/2022
 Date Reported: 6/22/2022
 Sample Type: I-Investigation

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45		Analysis Date: 06/10/22 17:00			
PFBA (375-22-4)	WSLH PFAS in Water	3.06	ng/L	0.315	0.910
PFPeA (2706-90-3)	WSLH PFAS in Water	0.613F	ng/L	0.136	0.910
PFBS (375-73-5)	WSLH PFAS in Water	1.38	ng/L	0.210	0.910
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.173	ng/L	0.173	0.910
PFHxA (307-24-4)	WSLH PFAS in Water	0.735F	ng/L	0.186	0.910
PFPeS (2706-91-4)	WSLH PFAS in Water	0.125F	ng/L	0.124	0.910
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.175	ng/L	0.175	0.910
PFHpA (375-85-9)	WSLH PFAS in Water	0.418F	ng/L	0.136	0.910
PFHxS (355-46-4)	WSLH PFAS in Water	0.951	ng/L	0.129	0.910
DONA (919005-14-4)	WSLH PFAS in Water	<0.116	ng/L	0.116	0.910
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.247	ng/L	0.247	0.910
PFOA (335-67-1)	WSLH PFAS in Water	1.39	ng/L	0.0983	0.910
PFHpS (375-92-8)	WSLH PFAS in Water	<0.173	ng/L	0.173	0.910
PFOS (1763-23-1)	WSLH PFAS in Water	1.28	ng/L	0.130	0.910
PFNA (375-95-1)	WSLH PFAS in Water	0.158F	ng/L	0.135	0.910
9CI-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.166	ng/L	0.166	0.910
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.238	ng/L	0.238	0.910

Environmental Health Division

WSLH Sample: 622327001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45		Analysis Date: 06/10/22 17:00			
PFDA (335-76-2)	WSLH PFAS in Water	<0.148	ng/L	0.148	0.910
PFNS (68259-12-1)	WSLH PFAS in Water	<0.166	ng/L	0.166	0.910
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.199	ng/L	0.199	0.910
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.193	ng/L	0.193	0.910
FOSA (754-91-6)	WSLH PFAS in Water	<0.141	ng/L	0.141	0.910
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.202	ng/L	0.202	0.910
PFDS (335-77-3)	WSLH PFAS in Water	<0.234	ng/L	0.234	0.910
11CI-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.136	ng/L	0.136	0.910
PFDoA (307-55-1)	WSLH PFAS in Water	<0.247	ng/L	0.247	0.910
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.225	ng/L	0.225	0.910
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.176	ng/L	0.176	0.910
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.910	ng/L	0.910	1.82
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.256	ng/L	0.256	0.910
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.631	ng/L	0.631	1.82
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.193	ng/L	0.193	0.910
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.159	ng/L	0.159	0.910



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Laboratory Report

Environmental Health Division

WSLH Sample: 622327001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
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Laboratory Report

Environmental Health Division

WSLH Sample: 622327002

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 05/31/2022 11:27
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: W-Well
 Collection Address: S WASHINGTON AVE
 Location of Sample: WELL 4

Monitor Point ID: W-4
 PWS ID#: 77201652
 WI Unique Well#: WL772
 Entry Point ID: 25
 Date Received: 6/1/2022
 Date Reported: 6/22/2022
 Sample Type: I-Investigation

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45		Analysis Date: 06/10/22 17:16			
PFBA (375-22-4)	WSLH PFAS in Water	<0.356	ng/L	0.356	1.03
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.154	ng/L	0.154	1.03
PFBS (375-73-5)	WSLH PFAS in Water	<0.238	ng/L	0.238	1.03
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.196	ng/L	0.196	1.03
PFHxA (307-24-4)	WSLH PFAS in Water	<0.210	ng/L	0.210	1.03
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.140	ng/L	0.140	1.03
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.198	ng/L	0.198	1.03
PFHpA (375-85-9)	WSLH PFAS in Water	<0.154	ng/L	0.154	1.03
PFHxS (355-46-4)	WSLH PFAS in Water	<0.146	ng/L	0.146	1.03
DONA (919005-14-4)	WSLH PFAS in Water	<0.132	ng/L	0.132	1.03
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.280	ng/L	0.280	1.03
PFOA (335-67-1)	WSLH PFAS in Water	<0.111	ng/L	0.111	1.03
PFHpS (375-92-8)	WSLH PFAS in Water	<0.196	ng/L	0.196	1.03
PFOS (1763-23-1)	WSLH PFAS in Water	<0.147	ng/L	0.147	1.03
PFNA (375-95-1)	WSLH PFAS in Water	<0.152	ng/L	0.152	1.03

Environmental Health Division

WSLH Sample: 622327002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/03/22 08:45		Analysis Date: 06/10/22 17:16			
9CI-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.187	ng/L	0.187	1.03
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.270	ng/L	0.270	1.03
PFDA (335-76-2)	WSLH PFAS in Water	<0.168	ng/L	0.168	1.03
PFNS (68259-12-1)	WSLH PFAS in Water	<0.187	ng/L	0.187	1.03
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.225	ng/L	0.225	1.03
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.218	ng/L	0.218	1.03
FOSA (754-91-6)	WSLH PFAS in Water	<0.159	ng/L	0.159	1.03
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.228	ng/L	0.228	1.03
PFDS (335-77-3)	WSLH PFAS in Water	<0.264	ng/L	0.264	1.03
11CI-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.153	ng/L	0.153	1.03
PFDoA (307-55-1)	WSLH PFAS in Water	<0.279	ng/L	0.279	1.03
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.254	ng/L	0.254	1.03
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.199	ng/L	0.199	1.03
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<1.03	ng/L	1.03	2.06
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.289	ng/L	0.289	1.03
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.714	ng/L	0.714	2.06
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.218	ng/L	0.218	1.03
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.180	ng/L	0.180	1.03



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(800)442-4618 - FAX (608)224-6213
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Laboratory Report

Environmental Health Division

WSLH Sample: 622327002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
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if LOD=LOQ, Limits were not statistically derived

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The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281
Metals: Graham Anderson, Supervisor 608-224-6281
Organics: Erin Mani, Supervisor 608-224-6269
Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230
Water Microbiology: Martin Collins, Supervisor 608-224-6239
Radiochemistry: David Webb, Division Director 608-224-6227



Wisconsin State Laboratory of Hygiene
 2601 Agriculture Drive, PO Box 7996
 Madison, WI 53707-7996
 (800)442-4618 - FAX (608)224-6213
<http://www.slh.wisc.edu>

Laboratory Report

Environmental Health Division

WSLH Sample: 623593001

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 06/06/2022 08:55
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: W-Well
 Collection Address: WEST 17TH ST
 Location of Sample: WELL 8

Monitor Point ID: W-8
 PWS ID#: 77201652
 WI Unique Well#: HJ142
 Entry Point ID: 8
 Date Received: 6/7/2022
 Date Reported: 6/28/2022
 Sample Type: I-Investigation

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/16/22 08:35		Analysis Date: 06/21/22 11:27			
PFBA (375-22-4)	WSLH PFAS in Water	2.17	ng/L	0.310	0.896
PFPeA (2706-90-3)	WSLH PFAS in Water	0.284F	ng/L	0.134	0.896
PFBS (375-73-5)	WSLH PFAS in Water	0.970	ng/L	0.207	0.896
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.170	ng/L	0.170	0.896
PFHxA (307-24-4)	WSLH PFAS in Water	0.327F	ng/L	0.183	0.896
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.122	ng/L	0.122	0.896
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.172	ng/L	0.172	0.896
PFHpA (375-85-9)	WSLH PFAS in Water	0.157F	ng/L	0.134	0.896
PFHxS (355-46-4)	WSLH PFAS in Water	1.27	ng/L	0.127	0.896
DONA (919005-14-4)	WSLH PFAS in Water	<0.115	ng/L	0.115	0.896
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.244	ng/L	0.244	0.896
PFOA (335-67-1)	WSLH PFAS in Water	1.05	ng/L	0.0967	0.896
PFHpS (375-92-8)	WSLH PFAS in Water	<0.170	ng/L	0.170	0.896
PFOS (1763-23-1)	WSLH PFAS in Water	0.475F	ng/L	0.128	0.896
PFNA (375-95-1)	WSLH PFAS in Water	0.313F	ng/L	0.133	0.896
9CI-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.163	ng/L	0.163	0.896
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.235	ng/L	0.235	0.896

Environmental Health Division

WSLH Sample: 623593001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/16/22 08:35		Analysis Date: 06/21/22 11:27			
PFDA (335-76-2)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.896
PFNS (68259-12-1)	WSLH PFAS in Water	<0.163	ng/L	0.163	0.896
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.196	ng/L	0.196	0.896
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.190	ng/L	0.190	0.896
FOSA (754-91-6)	WSLH PFAS in Water	<0.139	ng/L	0.139	0.896
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.199	ng/L	0.199	0.896
PFDS (335-77-3)	WSLH PFAS in Water	<0.230	ng/L	0.230	0.896
11CI-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.133	ng/L	0.133	0.896
PFDoA (307-55-1)	WSLH PFAS in Water	<0.243	ng/L	0.243	0.896
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.221	ng/L	0.221	0.896
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.173	ng/L	0.173	0.896
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.896	ng/L	0.896	1.79
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.252	ng/L	0.252	0.896
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.622	ng/L	0.622	1.79
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.190	ng/L	0.190	0.896
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.157	ng/L	0.157	0.896



**Wisconsin State
Laboratory of Hygiene**
UNIVERSITY OF WISCONSIN-MADISON

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<http://www.slh.wisc.edu>

Laboratory Report

Environmental Health Division

WSLH Sample: 623593001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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Organics: Erin Mani, Supervisor 608-224-6269

Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230

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Laboratory Report

Environmental Health Division

WSLH Sample: 623593002

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 06/06/2022 08:55
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: W-Well
 Collection Address: WEST 17TH ST
 Location of Sample: WELL 8

Monitor Point ID: W-8
 PWS ID#: 77201652
 WI Unique Well#: HJ142
 Entry Point ID: 8
 Date Received: 6/7/2022
 Date Reported: 6/28/2022
 Sample Type: I-Investigation

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/16/22 08:35		Analysis Date: 06/21/22 13:00			
PFBA (375-22-4)	WSLH PFAS in Water	<0.338	ng/L	0.338	0.976
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.976
PFBS (375-73-5)	WSLH PFAS in Water	<0.225	ng/L	0.225	0.976
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.185	ng/L	0.185	0.976
PFHxA (307-24-4)	WSLH PFAS in Water	<0.199	ng/L	0.199	0.976
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.133	ng/L	0.133	0.976
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.187	ng/L	0.187	0.976
PFHpA (375-85-9)	WSLH PFAS in Water	<0.146	ng/L	0.146	0.976
PFHxS (355-46-4)	WSLH PFAS in Water	<0.139	ng/L	0.139	0.976
DONA (919005-14-4)	WSLH PFAS in Water	<0.125	ng/L	0.125	0.976
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.265	ng/L	0.265	0.976
PFOA (335-67-1)	WSLH PFAS in Water	<0.105	ng/L	0.105	0.976
PFHpS (375-92-8)	WSLH PFAS in Water	<0.185	ng/L	0.185	0.976
PFOS (1763-23-1)	WSLH PFAS in Water	<0.140	ng/L	0.140	0.976
PFNA (375-95-1)	WSLH PFAS in Water	<0.144	ng/L	0.144	0.976

Environmental Health Division

WSLH Sample: 623593002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/16/22 08:35		Analysis Date: 06/21/22 13:00			
9CI-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.178	ng/L	0.178	0.976
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.256	ng/L	0.256	0.976
PFDA (335-76-2)	WSLH PFAS in Water	<0.159	ng/L	0.159	0.976
PFNS (68259-12-1)	WSLH PFAS in Water	<0.178	ng/L	0.178	0.976
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.214	ng/L	0.214	0.976
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.207	ng/L	0.207	0.976
FOSA (754-91-6)	WSLH PFAS in Water	<0.151	ng/L	0.151	0.976
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.217	ng/L	0.217	0.976
PFDS (335-77-3)	WSLH PFAS in Water	<0.251	ng/L	0.251	0.976
11CI-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.976
PFDoA (307-55-1)	WSLH PFAS in Water	<0.264	ng/L	0.264	0.976
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.241	ng/L	0.241	0.976
PFTTrDA (72629-94-8)	WSLH PFAS in Water	<0.188	ng/L	0.188	0.976
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.976	ng/L	0.976	1.95
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.274	ng/L	0.274	0.976
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.677	ng/L	0.677	1.95
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.207	ng/L	0.207	0.976
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.171	ng/L	0.171	0.976



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Laboratory Report

Environmental Health Division

WSLH Sample: 623593002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

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Laboratory Report

Environmental Health Division

WSLH Sample: 623594001

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 06/06/2022 10:20
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: E - Entry Point
 Collection Address: 2000 S CENTRAL AVE
 Location of Sample: WILDWOOD BOOSTER STATION

Monitor Point ID: EP300
 PWS ID#: 77201652
 WI Unique Well#:
 Entry Point ID: 300
 Date Received: 6/7/2022
 Date Reported: 6/28/2022
 Sample Type: I-Investigation

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/16/22 08:35		Analysis Date: 06/21/22 13:15			
11CI-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.135	ng/L	0.135	0.907
PFDoA (307-55-1)	WSLH PFAS in Water	<0.246	ng/L	0.246	0.907
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.224	ng/L	0.224	0.907
PFTTrDA (72629-94-8)	WSLH PFAS in Water	<0.175	ng/L	0.175	0.907
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.907	ng/L	0.907	1.81
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.255	ng/L	0.255	0.907
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.630	ng/L	0.630	1.81
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.192	ng/L	0.192	0.907
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.159	ng/L	0.159	0.907
PFBA (375-22-4)	WSLH PFAS in Water	3.08	ng/L	0.314	0.907
PFPeA (2706-90-3)	WSLH PFAS in Water	0.504F	ng/L	0.136	0.907
PFBS (375-73-5)	WSLH PFAS in Water	1.18	ng/L	0.210	0.907
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.172	ng/L	0.172	0.907
PFHxA (307-24-4)	WSLH PFAS in Water	0.439F	ng/L	0.185	0.907
PFPeS (2706-91-4)	WSLH PFAS in Water	0.222F	ng/L	0.123	0.907
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.174	ng/L	0.174	0.907
PFHpA (375-85-9)	WSLH PFAS in Water	0.249F	ng/L	0.136	0.907

Environmental Health Division

WSLH Sample: 623594001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/16/22 08:35		Analysis Date: 06/21/22 13:15			
PFHxS (355-46-4)	WSLH PFAS in Water	1.85	ng/L	0.129	0.907
DONA (919005-14-4)	WSLH PFAS in Water	<0.116	ng/L	0.116	0.907
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.247	ng/L	0.247	0.907
PFOA (335-67-1)	WSLH PFAS in Water	1.41	ng/L	0.0980	0.907
PFHpS (375-92-8)	WSLH PFAS in Water	<0.172	ng/L	0.172	0.907
PFOS (1763-23-1)	WSLH PFAS in Water	3.99	ng/L	0.130	0.907
PFNA (375-95-1)	WSLH PFAS in Water	0.302F	ng/L	0.134	0.907
9CI-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.165	ng/L	0.165	0.907
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.238	ng/L	0.238	0.907
PFDA (335-76-2)	WSLH PFAS in Water	<0.148	ng/L	0.148	0.907
PFNS (68259-12-1)	WSLH PFAS in Water	<0.165	ng/L	0.165	0.907
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.199	ng/L	0.199	0.907
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.192	ng/L	0.192	0.907
FOSA (754-91-6)	WSLH PFAS in Water	<0.141	ng/L	0.141	0.907
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.201	ng/L	0.201	0.907
PFDS (335-77-3)	WSLH PFAS in Water	<0.233	ng/L	0.233	0.907



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Laboratory Report

Environmental Health Division

WSLH Sample: 623594001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

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LOQ = Level of quantification (for PFAS the LOQ = MRL)
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Laboratory Report

Environmental Health Division

WSLH Sample: 623594002

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 06/06/2022 10:20
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: E - Entry Point
 Collection Address: 2000 S CENTRAL AVE
 Location of Sample: WILDWOOD BOOSTER STATION

Monitor Point ID: EP300
 PWS ID#: 77201652
 WI Unique Well#:
 Entry Point ID: 300
 Date Received: 6/7/2022
 Date Reported: 6/28/2022
 Sample Type: I-Investigation

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/16/22 08:35		Analysis Date: 06/21/22 13:31			
PFBA (375-22-4)	WSLH PFAS in Water	<0.345	ng/L	0.345	0.996
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.149	ng/L	0.149	0.996
PFBS (375-73-5)	WSLH PFAS in Water	<0.230	ng/L	0.230	0.996
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.189	ng/L	0.189	0.996
PFHxA (307-24-4)	WSLH PFAS in Water	<0.203	ng/L	0.203	0.996
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.135	ng/L	0.135	0.996
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.191	ng/L	0.191	0.996
PFHpA (375-85-9)	WSLH PFAS in Water	<0.149	ng/L	0.149	0.996
PFHxS (355-46-4)	WSLH PFAS in Water	<0.141	ng/L	0.141	0.996
DONA (919005-14-4)	WSLH PFAS in Water	<0.127	ng/L	0.127	0.996
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.271	ng/L	0.271	0.996
PFOA (335-67-1)	WSLH PFAS in Water	<0.108	ng/L	0.108	0.996
PFHpS (375-92-8)	WSLH PFAS in Water	<0.189	ng/L	0.189	0.996
PFOS (1763-23-1)	WSLH PFAS in Water	<0.142	ng/L	0.142	0.996
PFNA (375-95-1)	WSLH PFAS in Water	<0.147	ng/L	0.147	0.996

Environmental Health Division

WSLH Sample: 623594002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/16/22 08:35		Analysis Date: 06/21/22 13:31			
9CI-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.181	ng/L	0.181	0.996
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.261	ng/L	0.261	0.996
PFDA (335-76-2)	WSLH PFAS in Water	<0.162	ng/L	0.162	0.996
PFNS (68259-12-1)	WSLH PFAS in Water	<0.181	ng/L	0.181	0.996
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.218	ng/L	0.218	0.996
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.211	ng/L	0.211	0.996
FOSA (754-91-6)	WSLH PFAS in Water	<0.154	ng/L	0.154	0.996
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.221	ng/L	0.221	0.996
PFDS (335-77-3)	WSLH PFAS in Water	<0.256	ng/L	0.256	0.996
11CI-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.148	ng/L	0.148	0.996
PFDoA (307-55-1)	WSLH PFAS in Water	<0.270	ng/L	0.270	0.996
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.246	ng/L	0.246	0.996
PFTrDA (72629-94-8)	WSLH PFAS in Water	<0.192	ng/L	0.192	0.996
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.996	ng/L	0.996	1.99
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.280	ng/L	0.280	0.996
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.691	ng/L	0.691	1.99
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.211	ng/L	0.211	0.996
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.174	ng/L	0.174	0.996



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Madison, WI 53707-7996
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<http://www.slh.wisc.edu>

Laboratory Report

Environmental Health Division

WSLH Sample: 623594002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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see <http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation>

Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.

Results relate only to the items tested.

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The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Inorganic Chemistry: Graham Anderson, Supervisor 608-224-6281

Metals: Graham Anderson, Supervisor 608-224-6281

Organics: Erin Mani, Supervisor 608-224-6269

Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230

Water Microbiology: Martin Collins, Supervisor 608-224-6239

Radiochemistry: David Webb, Division Director 608-224-6227



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Laboratory Report

Environmental Health Division

WSLH Sample: 623595001

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 06/06/2022 10:10
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: W-Well
 Collection Address: S RADDIS AVE
 Location of Sample: WELL 10

Monitor Point ID: W-10
 PWS ID#: 77201652
 WI Unique Well#: PG961
 Entry Point ID: 10
 Date Received: 6/7/2022
 Date Reported: 6/28/2022
 Sample Type: I-Investigation

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/16/22 08:35		Analysis Date: 06/21/22 13:46			
PFBA (375-22-4)	WSLH PFAS in Water	3.88	ng/L	0.316	0.913
PFPeA (2706-90-3)	WSLH PFAS in Water	0.710F	ng/L	0.137	0.913
PFBS (375-73-5)	WSLH PFAS in Water	1.28	ng/L	0.211	0.913
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.174	ng/L	0.174	0.913
PFHxA (307-24-4)	WSLH PFAS in Water	0.564F	ng/L	0.186	0.913
PFPeS (2706-91-4)	WSLH PFAS in Water	0.280F	ng/L	0.124	0.913
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.175	ng/L	0.175	0.913
PFHpA (375-85-9)	WSLH PFAS in Water	0.347F	ng/L	0.137	0.913
PFHxS (355-46-4)	WSLH PFAS in Water	2.32	ng/L	0.130	0.913
DONA (919005-14-4)	WSLH PFAS in Water	<0.117	ng/L	0.117	0.913
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.248	ng/L	0.248	0.913
PFOA (335-67-1)	WSLH PFAS in Water	1.42	ng/L	0.0986	0.913
PFHpS (375-92-8)	WSLH PFAS in Water	<0.174	ng/L	0.174	0.913
PFOS (1763-23-1)	WSLH PFAS in Water	7.31	ng/L	0.131	0.913
PFNA (375-95-1)	WSLH PFAS in Water	0.324F	ng/L	0.135	0.913
9CI-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.166	ng/L	0.166	0.913
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.239	ng/L	0.239	0.913

Environmental Health Division

WSLH Sample: 623595001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/16/22 08:35		Analysis Date: 06/21/22 13:46			
PFDA (335-76-2)	WSLH PFAS in Water	<0.149	ng/L	0.149	0.913
PFNS (68259-12-1)	WSLH PFAS in Water	<0.166	ng/L	0.166	0.913
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.200	ng/L	0.200	0.913
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.194	ng/L	0.194	0.913
FOSA (754-91-6)	WSLH PFAS in Water	<0.142	ng/L	0.142	0.913
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.203	ng/L	0.203	0.913
PFDS (335-77-3)	WSLH PFAS in Water	<0.235	ng/L	0.235	0.913
11CI-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.136	ng/L	0.136	0.913
PFDoA (307-55-1)	WSLH PFAS in Water	<0.247	ng/L	0.247	0.913
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.226	ng/L	0.226	0.913
PFTTrDA (72629-94-8)	WSLH PFAS in Water	<0.176	ng/L	0.176	0.913
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.913	ng/L	0.913	1.83
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.257	ng/L	0.257	0.913
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.634	ng/L	0.634	1.83
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.194	ng/L	0.194	0.913
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.160	ng/L	0.160	0.913



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Laboratory Report

Environmental Health Division

WSLH Sample: 623595001

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification (for PFAS the LOQ = MRL)
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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see <http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation>

Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.

Results relate only to the items tested.

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Metals: Graham Anderson, Supervisor 608-224-6281

Organics: Erin Mani, Supervisor 608-224-6269

Environmental Toxicology: Dawn Perkins, Supervisor 608-224-6230

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Laboratory Report

Environmental Health Division

WSLH Sample: 623595002

Report To:
 JOHN RICHMOND
 2000 S. CENTRAL AVE
 MARSHFIELD, WI 54449

Invoice To:
 MARSHFIELD CITY CLERK
 PO BOX 727
 MARSHFIELD, WI 54449-0670
 Customer ID: 77201652

System Name: MARSHFIELD UTILITIES
 City: MARSHFIELD
 Collection Date/Time: 06/06/2022 10:10
 Collected By: J DIERICKX
 County: 72 - Wood
 Source Code: W-Well
 Collection Address: S RADDIS AVE
 Location of Sample: WELL 10

Monitor Point ID: W-10
 PWS ID#: 77201652
 WI Unique Well#: PG961
 Entry Point ID: 10
 Date Received: 6/7/2022
 Date Reported: 6/28/2022
 Sample Type: I-Investigation

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/16/22 08:35		Analysis Date: 06/21/22 14:02			
PFBA (375-22-4)	WSLH PFAS in Water	<0.335	ng/L	0.335	0.968
PFPeA (2706-90-3)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.968
PFBS (375-73-5)	WSLH PFAS in Water	<0.224	ng/L	0.224	0.968
4:2 FTSA (757124-72-4)	WSLH PFAS in Water	<0.184	ng/L	0.184	0.968
PFHxA (307-24-4)	WSLH PFAS in Water	<0.198	ng/L	0.198	0.968
PFPeS (2706-91-4)	WSLH PFAS in Water	<0.132	ng/L	0.132	0.968
HFPO-DA (13252-13-6)	WSLH PFAS in Water	<0.186	ng/L	0.186	0.968
PFHpA (375-85-9)	WSLH PFAS in Water	<0.145	ng/L	0.145	0.968
PFHxS (355-46-4)	WSLH PFAS in Water	<0.137	ng/L	0.137	0.968
DONA (919005-14-4)	WSLH PFAS in Water	<0.124	ng/L	0.124	0.968
6:2 FTSA (27619-97-2)	WSLH PFAS in Water	<0.263	ng/L	0.263	0.968
PFOA (335-67-1)	WSLH PFAS in Water	<0.105	ng/L	0.105	0.968
PFHpS (375-92-8)	WSLH PFAS in Water	<0.184	ng/L	0.184	0.968
PFOS (1763-23-1)	WSLH PFAS in Water	<0.138	ng/L	0.138	0.968
PFNA (375-95-1)	WSLH PFAS in Water	<0.143	ng/L	0.143	0.968

Environmental Health Division

WSLH Sample: 623595002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 06/16/22 08:35		Analysis Date: 06/21/22 14:02			
9CI-PF3ONS (756426-58-1)	WSLH PFAS in Water	<0.176	ng/L	0.176	0.968
8:2 FTSA (39108-34-4)	WSLH PFAS in Water	<0.254	ng/L	0.254	0.968
PFDA (335-76-2)	WSLH PFAS in Water	<0.158	ng/L	0.158	0.968
PFNS (68259-12-1)	WSLH PFAS in Water	<0.176	ng/L	0.176	0.968
N-MeFOSAA (2355-31-9)	WSLH PFAS in Water	<0.212	ng/L	0.212	0.968
N-EtFOSAA (2991-50-6)	WSLH PFAS in Water	<0.205	ng/L	0.205	0.968
FOSA (754-91-6)	WSLH PFAS in Water	<0.150	ng/L	0.150	0.968
PFUnA (2058-94-8)	WSLH PFAS in Water	<0.215	ng/L	0.215	0.968
PFDS (335-77-3)	WSLH PFAS in Water	<0.249	ng/L	0.249	0.968
11CI-PF3OUdS (763051-92-9)	WSLH PFAS in Water	<0.144	ng/L	0.144	0.968
PFDoA (307-55-1)	WSLH PFAS in Water	<0.262	ng/L	0.262	0.968
PFDoS (79780-39-5)	WSLH PFAS in Water	<0.239	ng/L	0.239	0.968
PFTTrDA (72629-94-8)	WSLH PFAS in Water	<0.187	ng/L	0.187	0.968
N-MeFOSA (31506-32-8)	WSLH PFAS in Water	<0.968	ng/L	0.968	1.94
N-MeFOSE (24448-09-7)	WSLH PFAS in Water	<0.272	ng/L	0.272	0.968
N-EtFOSA (4151-50-2)	WSLH PFAS in Water	<0.672	ng/L	0.672	1.94
N-EtFOSE (1691-99-2)	WSLH PFAS in Water	<0.205	ng/L	0.205	0.968
PFTeDA (376-06-7)	WSLH PFAS in Water	<0.169	ng/L	0.169	0.968



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Laboratory Report

Environmental Health Division

WSLH Sample: 623595002

WDNR LAB ID:113133790 NELAP LAB ID:2091 EPA LAB ID:WI00007, WI00008 WI DATCP ID:105-415

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Water Microbiology: Martin Collins, Supervisor 608-224-6239

Radiochemistry: David Webb, Division Director 608-224-6227



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE1
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
2/10/23 8:43

Work Order:
CB00440

Sample Summary

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

Lab ID	Sample	Matrix	Sample Type	Qualifiers	Date Sampled	Date Received
CB00440-01	EP200	DW			1/16/23 11:30	1/17/23 8:10
CB00440-02	EP200 Field Blank	DW			1/16/23 11:30	1/17/23 8:10
CB00440-03	EP300	DW			1/16/23 11:05	1/17/23 8:10
CB00440-05	EP400	DW			1/16/23 10:35	1/17/23 8:10



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE1
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
2/10/23 8:43

Work Order:
CB00440

Sample Results

Sample: EP200

CB00440-01 (DW) Sampled: 01/16/23 11:30

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Metals												
Lithium, Total	ND		1		9.0		ug/L	1/18/23 13:33	1/19/23 10:20	RAB	EPA 200.7, Rev 4.4	1
<hr/>												
Surrogate: Yttrium 200.7 ISTD	93%			Limits: 60-125%				1/18/23 13:33	1/19/23 10:20	RAB	EPA 200.7, Rev 4.4	
Semi-Volatiles												
perfluorobutanoic acid (PFBA)	0.0061		1		0.0050		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1		0.0040		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
perfluoropentanoic acid (PFPeA)	0.013		1		0.0030		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
perfluorobutanesulfonic acid (PFBS)	0.0032		1		0.0030		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1		0.020		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
perfluorohexanoic acid (PFHxA)	0.012		1		0.0030		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
perfluoropentanesulfonic acid (PFPeS)	ND		1		0.0040		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		1		0.0050		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
perfluoroheptanoic acid (PFHpA)	0.0034		1		0.0030		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
perfluorohexanesulfonic acid (PFHxS)	0.014		1		0.0030		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)	ND		1		0.0050		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
perfluoroheptanesulfonic acid (PFHpS)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
perfluorooctanoic acid (PFOA)	ND		1		0.0040		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
perfluorononanoic acid (PFNA)	ND		1		0.0040		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
perfluorooctanesulfonic acid (PFOS)	0.014		1		0.0040		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1		0.0020		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
perfluorodecanoic acid (PFDA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8:2FTS)	ND		1		0.0050		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
perfluoroundecanoic acid (PFUnA)	ND		1		0.0020		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document. No duplication of this report is allowed, except in its entirety.



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE1
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
2/10/23 8:43

Work Order:
CB00440

Sample Results (Continued)

Sample: EP200 (Continued)

CB00440-01 (DW) Sampled: 01/16/23 11:30

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles (Continued)												
11-chloroheicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1		0.0050		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
perfluorododecanoic acid (PFDoA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	1
<i>Surrogate: (EIS) MPFBA</i>	105%				Limits: 70-130%			1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	
<i>Surrogate: (EIS) M5PFPeA</i>	105%				Limits: 70-130%			1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	
<i>Surrogate: (EIS) M3PFBS</i>	100%				Limits: 70-130%			1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	
<i>Surrogate: (EIS) M2-4:2FTS</i>	118%				Limits: 70-130%			1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	
<i>Surrogate: (EIS) M5PFHxA</i>	99%				Limits: 70-130%			1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	
<i>Surrogate: (EIS) M4PFHpA</i>	101%				Limits: 70-130%			1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	
<i>Surrogate: (EIS) M3PFHxS</i>	100%				Limits: 70-130%			1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	
<i>Surrogate: (EIS) M2-6:2FTS</i>	84%				Limits: 70-130%			1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	
<i>Surrogate: (EIS) M8PFOA</i>	100%				Limits: 70-130%			1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	
<i>Surrogate: (EIS) M9PFNA</i>	103%				Limits: 70-130%			1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	
<i>Surrogate: (EIS) M8PFOS</i>	105%				Limits: 70-130%			1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	
<i>Surrogate: (EIS) M2-8:2FTS</i>	83%				Limits: 70-130%			1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	
<i>Surrogate: (EIS) M6PFDA</i>	105%				Limits: 70-130%			1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	
<i>Surrogate: (EIS) M7PFUDa</i>	109%				Limits: 70-130%			1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	
<i>Surrogate: (EIS) MPFDoA</i>	109%				Limits: 70-130%			1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	
<i>Surrogate: (EIS) M3HFPODA</i>	104%				Limits: 70-130%			1/25/23 5:16	1/25/23 17:43	RAW	EPA 533	
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1		0.0060		ug/L	1/19/23 7:01	1/20/23 17:37	RAW	EPA 537.1, Rev 2.0	1
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1		0.0050		ug/L	1/19/23 7:01	1/20/23 17:37	RAW	EPA 537.1, Rev 2.0	1
perfluorotridecanoic acid (PFTTrDA)	ND		1		0.0070		ug/L	1/19/23 7:01	1/20/23 17:37	RAW	EPA 537.1, Rev 2.0	1
perfluorotetradecanoic acid (PFTTA)	ND		1		0.0080		ug/L	1/19/23 7:01	1/20/23 17:37	RAW	EPA 537.1, Rev 2.0	1
<i>Surrogate: (SURR) C13-PFHxA</i>	104%				Limits: 70-130%			1/19/23 7:01	1/20/23 17:37	RAW	EPA 537.1, Rev 2.0	
<i>Surrogate: (SURR) C13-HFPODA</i>	101%				Limits: 70-130%			1/19/23 7:01	1/20/23 17:37	RAW	EPA 537.1, Rev 2.0	
<i>Surrogate: (SURR) C13-PFDA</i>	102%				Limits: 70-130%			1/19/23 7:01	1/20/23 17:37	RAW	EPA 537.1, Rev 2.0	
<i>Surrogate: (SURR) d5-NEtFOSAA</i>	98%				Limits: 70-130%			1/19/23 7:01	1/20/23 17:37	RAW	EPA 537.1, Rev 2.0	

Sample: EP200 Field Blank

CB00440-02 (DW) Sampled: 01/16/23 11:30

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
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Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE1
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
2/10/23 8:43

Work Order:
CB00440

Sample Results (Continued)

Sample: EP200 Field Blank (Continued)

CB00440-02 (DW) Sampled: 01/16/23 11:30

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles												
perfluorobutanoic acid (PFBA)	ND		1		0.0050		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1		0.0040		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
perfluoropentanoic acid (PFPeA)	ND		1		0.0030		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
perfluorobutanesulfonic acid (PFBS)	ND		1		0.0030		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1		0.0030		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND		1		0.0030		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
nonafluoro-3,6-dioxahexanoic acid (NFDHA)	ND		1		0.020		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)	ND		1		0.0030		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
perfluorohexanoic acid (PFHxA)	ND		1		0.0030		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
perfluoropentanesulfonic acid (PFPeS)	ND		1		0.0040		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		1		0.0050		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
perfluoroheptanoic acid (PFHpA)	ND		1		0.0030		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
perfluorohexanesulfonic acid (PFHxS)	ND		1		0.0030		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	ND		1		0.0030		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)	ND		1		0.0050		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
perfluoroheptanesulfonic acid (PFHpS)	ND		1		0.0030		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
perfluorooctanoic acid (PFOA)	ND		1		0.0040		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
perfluorononanoic acid (PFNA)	ND		1		0.0040		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
perfluorooctanesulfonic acid (PFOS)	ND		1		0.0040		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1		0.0020		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
perfluorodecanoic acid (PFDA)	ND		1		0.0030		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8:2FTS)	ND		1		0.0050		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
perfluoroundecanoic acid (PFUnA)	ND		1		0.0020		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUds)	ND		1		0.0050		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
perfluorododecanoic acid (PFDoA)	ND		1		0.0030		ug/L	2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	1
Surrogate: (EIS) MPFBA	103%							2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	
Surrogate: (EIS) M5PFPeA	104%							2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document. No duplication of this report is allowed, except in its entirety.



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE1
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
2/10/23 8:43

Work Order:
CB00440

Sample Results (Continued)

Sample: EP200 Field Blank (Continued)

CB00440-02 (DW) Sampled: 01/16/23 11:30

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles (Continued)												
Surrogate: (EIS) M3PFBS	101%				Limits: 70-130%			2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	
Surrogate: (EIS) M2-4:2FTS	84%				Limits: 70-130%			2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	
Surrogate: (EIS) M5PFHxA	106%				Limits: 70-130%			2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	
Surrogate: (EIS) M4PFHpA	108%				Limits: 70-130%			2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	
Surrogate: (EIS) M3PFHxS	103%				Limits: 70-130%			2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	
Surrogate: (EIS) M2-6:2FTS	84%				Limits: 70-130%			2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	
Surrogate: (EIS) M8PFOA	105%				Limits: 70-130%			2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	
Surrogate: (EIS) M9PFNA	108%				Limits: 70-130%			2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	
Surrogate: (EIS) M8PFOS	104%				Limits: 70-130%			2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	
Surrogate: (EIS) M2-8:2FTS	86%				Limits: 70-130%			2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	
Surrogate: (EIS) M6PFDA	107%				Limits: 70-130%			2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	
Surrogate: (EIS) M7PFUDa	111%				Limits: 70-130%			2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	
Surrogate: (EIS) MPFDa	109%				Limits: 70-130%			2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	
Surrogate: (EIS) M3HFPODA	105%				Limits: 70-130%			2/1/23 5:27	2/1/23 19:12	RAW	EPA 533	

Sample: EP300

CB00440-03 (DW) Sampled: 01/16/23 11:05

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Metals												
Lithium, Total	ND		1		9.0		ug/L	1/18/23 13:33	1/19/23 10:23	RAB	EPA 200.7, Rev 4.4	1
Surrogate: Yttrium 200.7 ISTD	93%				Limits: 60-125%			1/18/23 13:33	1/19/23 10:23	RAB	EPA 200.7, Rev 4.4	

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles												
FBNA												
perfluorobutanoic acid (PFBA)	ND		1		0.0050		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1		0.0040		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
perfluoropentanoic acid (PFPeA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
perfluorobutanesulfonic acid (PFBS)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
nonafluoro-3,6-dioxahexanoic acid (NFDHA)	ND		1		0.020		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
perfluorohexanoic acid (PFHxA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1

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Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE1
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
2/10/23 8:43

Work Order:
CB00440

Sample Results (Continued)

Sample: EP300 (Continued)

CB00440-03 (DW) Sampled: 01/16/23 11:05

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles (Continued)		FBNA										
perfluoropentanesulfonic acid (PFPeS)	ND		1		0.0040		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		1		0.0050		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
perfluoroheptanoic acid (PFHpA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
perfluorohexanesulfonic acid (PFHxS)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)	ND		1		0.0050		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
perfluoroheptanesulfonic acid (PFHpS)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
perfluorooctanoic acid (PFOA)	ND		1		0.0040		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
perfluorononanoic acid (PFNA)	ND		1		0.0040		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
perfluorooctanesulfonic acid (PFOS)	ND		1		0.0040		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1		0.0020		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
perfluorodecanoic acid (PFDA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8:2FTS)	ND		1		0.0050		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
perfluoroundecanoic acid (PFUnA)	ND		1		0.0020		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1		0.0050		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
perfluorododecanoic acid (PFDoA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	1
Surrogate: (EIS) MPFBA	105%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	
Surrogate: (EIS) M5PFPeA	99%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	
Surrogate: (EIS) M3PFBS	98%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	
Surrogate: (EIS) M2-4:2FTS	117%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	
Surrogate: (EIS) M5PFHxA	101%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	
Surrogate: (EIS) M4PFHpA	104%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	
Surrogate: (EIS) M3PFHxS	102%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	
Surrogate: (EIS) M2-6:2FTS	86%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	
Surrogate: (EIS) M8PFOA	104%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	
Surrogate: (EIS) M9PFNA	105%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	
Surrogate: (EIS) M8PFOS	106%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	
Surrogate: (EIS) M2-8:2FTS	81%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	
Surrogate: (EIS) M6PFDA	107%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	

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Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE1
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
2/10/23 8:43

Work Order:
CB00440

Sample Results (Continued)

Sample: EP300 (Continued)

CB00440-03 (DW) Sampled: 01/16/23 11:05

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles (Continued) FBNA												
Surrogate: (EIS) M7PFUDa	105%				Limits: 70-130%			1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	
Surrogate: (EIS) MPFDaA	107%				Limits: 70-130%			1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	
Surrogate: (EIS) M3HFPODA	104%				Limits: 70-130%			1/25/23 5:16	1/25/23 18:07	RAW	EPA 533	
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1		0.0060		ug/L	1/19/23 7:01	1/20/23 18:03	RAW	EPA 537.1, Rev 2.0	1
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1		0.0050		ug/L	1/19/23 7:01	1/20/23 18:03	RAW	EPA 537.1, Rev 2.0	1
perfluorotridecanoic acid (PFTrDA)	ND		1		0.0070		ug/L	1/19/23 7:01	1/20/23 18:03	RAW	EPA 537.1, Rev 2.0	1
perfluorotetradecanoic acid (PFTA)	ND		1		0.0080		ug/L	1/19/23 7:01	1/20/23 18:03	RAW	EPA 537.1, Rev 2.0	1
Surrogate: (SURR) C13-PFHxA	103%				Limits: 70-130%			1/19/23 7:01	1/20/23 18:03	RAW	EPA 537.1, Rev 2.0	
Surrogate: (SURR) C13-HFPODA	98%				Limits: 70-130%			1/19/23 7:01	1/20/23 18:03	RAW	EPA 537.1, Rev 2.0	
Surrogate: (SURR) C13-PFDA	102%				Limits: 70-130%			1/19/23 7:01	1/20/23 18:03	RAW	EPA 537.1, Rev 2.0	
Surrogate: (SURR) d5-NEtFOSAA	101%				Limits: 70-130%			1/19/23 7:01	1/20/23 18:03	RAW	EPA 537.1, Rev 2.0	

Sample: EP400

CB00440-05 (DW) Sampled: 01/16/23 10:35

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Metals												
Lithium, Total	ND		1		9.0		ug/L	1/18/23 13:33	1/19/23 10:26	RAB	EPA 200.7, Rev 4.4	1
Surrogate: Yttrium 200.7 ISTD	94%				Limits: 60-125%			1/18/23 13:33	1/19/23 10:26	RAB	EPA 200.7, Rev 4.4	

Semi-Volatiles FBNA												
perfluorobutanoic acid (PFBA)	ND		1		0.0050		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
perfluoro-3-methoxypropanoic acid (PFMPA)	ND		1		0.0040		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
perfluoropentanoic acid (PFPeA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
perfluorobutanesulfonic acid (PFBS)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
perfluoro-4-methoxybutanoic acid (PFMBA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		1		0.020		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
perfluorohexanoic acid (PFHxA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE1
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
2/10/23 8:43

Work Order:
CB00440

Sample Results (Continued)

Sample: EP400 (Continued)

CB00440-05 (DW) Sampled: 01/16/23 10:35

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles (Continued)		FBNA										
perfluoropentanesulfonic acid (PFPeS)	ND		1		0.0040		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		1		0.0050		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
perfluoroheptanoic acid (PFHpA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
perfluorohexanesulfonic acid (PFHxS)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)	ND		1		0.0050		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
perfluoroheptanesulfonic acid (PFHpS)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
perfluorooctanoic acid (PFOA)	ND		1		0.0040		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
perfluorononanoic acid (PFNA)	ND		1		0.0040		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
perfluorooctanesulfonic acid (PFOS)	ND		1		0.0040		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1		0.0020		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
perfluorodecanoic acid (PFDA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8:2FTS)	ND		1		0.0050		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
perfluoroundecanoic acid (PFUnA)	ND		1		0.0020		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1		0.0050		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
perfluorododecanoic acid (PFDoA)	ND		1		0.0030		ug/L	1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	1
Surrogate: (EIS) MPFBA	105%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	
Surrogate: (EIS) M5PFPeA	107%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	
Surrogate: (EIS) M3PFBS	100%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	
Surrogate: (EIS) M2-4:2FTS	111%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	
Surrogate: (EIS) M5PFHxA	99%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	
Surrogate: (EIS) M4PFHpA	104%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	
Surrogate: (EIS) M3PFHxS	101%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	
Surrogate: (EIS) M2-6:2FTS	89%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	
Surrogate: (EIS) M8PFOA	103%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	
Surrogate: (EIS) M9PFNA	104%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	
Surrogate: (EIS) M8PFOS	107%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	
Surrogate: (EIS) M2-8:2FTS	86%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	
Surrogate: (EIS) M6PFDA	108%			Limits:	70-130%			1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document. No duplication of this report is allowed, except in its entirety.



Marshfield Electric & Water Utilities
 2000 South Central Avenue
 Marshfield, WI 54449

Project: UCMR5 Testing SE1
 Project Number: UCMR5 Testing
 Project Manager: John Richmond

Reported:
 2/10/23 8:43

Work Order:
 CB00440

Sample Results (Continued)

Sample: EP400 (Continued)

CB00440-05 (DW) Sampled: 01/16/23 10:35

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles (Continued)												
FBNA												
Surrogate: (EIS) M7PFUDa	108%				Limits: 70-130%			1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	
Surrogate: (EIS) MPFDoA	107%				Limits: 70-130%			1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	
Surrogate: (EIS) M3HFPODA	97%				Limits: 70-130%			1/25/23 5:16	1/25/23 18:31	RAW	EPA 533	
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1		0.0060		ug/L	1/19/23 7:01	1/20/23 18:29	RAW	EPA 537.1, Rev 2.0	1
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1		0.0050		ug/L	1/19/23 7:01	1/20/23 18:29	RAW	EPA 537.1, Rev 2.0	1
perfluorotridecanoic acid (PFTrDA)	ND		1		0.0070		ug/L	1/19/23 7:01	1/20/23 18:29	RAW	EPA 537.1, Rev 2.0	1
perfluorotetradecanoic acid (PFTA)	ND		1		0.0080		ug/L	1/19/23 7:01	1/20/23 18:29	RAW	EPA 537.1, Rev 2.0	1
<hr/>												
Surrogate: (SURR) C13-PFHxA	105%				Limits: 70-130%			1/19/23 7:01	1/20/23 18:29	RAW	EPA 537.1, Rev 2.0	
Surrogate: (SURR) C13-HFPODA	97%				Limits: 70-130%			1/19/23 7:01	1/20/23 18:29	RAW	EPA 537.1, Rev 2.0	
Surrogate: (SURR) C13-PFDA	105%				Limits: 70-130%			1/19/23 7:01	1/20/23 18:29	RAW	EPA 537.1, Rev 2.0	
Surrogate: (SURR) d5-NEtFOSAA	101%				Limits: 70-130%			1/19/23 7:01	1/20/23 18:29	RAW	EPA 537.1, Rev 2.0	



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE1
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
2/10/23 8:43

Work Order:
CB00440

List of Certifications

Code	Description	Number	Expires
1	EPA Laboratory ID No.	WI00034	1/1/26



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE1
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
2/10/23 8:43

Work Order:
CB00440

Qualifiers and Definitions

Item	Definition
FBNA	The field sample had no detects, therefore the corresponding trip blank/field reagent blank was not analyzed.
ND	Analyte NOT DETECTED at or above the LOD or MRL.
LOD	Limit of Detection.
LOQ	Limit of Quantitation.
NA	Not Applicable.
Dry	Dry Weight Basis.
Wet	Wet Weight Basis.
% Dry	Equal to: (mg/kg dry) / 10000.
1000 ug/L	Equal to: 1 mg/L.
MCL	Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.
RPD	Relative Percent Difference.
%REC	Percent Recovery.
Source	Sample that was matrix spiked or duplicated.

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



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: Quarterly Drinking Water Testing
Project Number: 2023 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
3/7/23 12:13

Work Order:
CB01500

Sample Summary

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

Lab ID	Sample	Matrix	Sample Type	Qualifiers	Date Sampled	Date Received
CB01500-03	EP300 (PFAS)	DW			2/14/23 11:05	2/15/23 9:30
CB01500-04	EP300 Field Blank	DW			2/14/23 0:00	2/15/23 9:30
CB01500-05	D17	DW			2/14/23 9:05	2/15/23 9:30
CB01500-06	D19	DW			2/14/23 9:37	2/15/23 9:30

Cancelled Tests:

LabNumber	SampleName	Analysis	Cancelled	Initials
CB01500-01	EP400 (PFAS)	Perfluorinated Chemicals by EPA Method 537.1	3/6/23 14:03	MLT
CB01500-02	EP400 Field Blank	Perfluorinated Chemicals by EPA Method 537.1 FB	3/6/23 14:03	MLT



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: Quarterly Drinking Water Testing
Project Number: 2023 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
3/7/23 12:13

Work Order:
CB01500

Sample Results

Sample: EP300 (PFAS)

CB01500-03 (DW) Sampled: 02/14/23 11:05

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles												
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1	0.31	1.0		ng/L	2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1	0.34	1.1		ng/L	2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		1	0.37	1.2		ng/L	2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		1	0.41	1.4		ng/L	2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1	0.47	1.6		ng/L	2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1	0.40	1.3		ng/L	2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
perfluorobutanesulfonic acid (PFBS)	1.0		1	0.30	1.0		ng/L	2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
perfluorodecanoic acid (PFDA)	ND		1	0.33	1.1		ng/L	2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
perfluorododecanoic acid (PFDoA)	ND		1	0.23	0.77		ng/L	2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
perfluoroheptanoic acid (PFHpA)	ND		1	0.44	1.5		ng/L	2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanoic acid (PFHxA)	ND		1	0.47	1.6		ng/L	2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanesulfonic acid (PFHxS)	1.6		1	0.34	1.1		ng/L	2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
perfluorononanoic acid (PFNA)	ND		1	0.46	1.5		ng/L	2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanoic acid (PFOA)	0.95	J	1	0.49	1.6		ng/L	2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanesulfonic acid (PFOS)	2.3		1	0.31	1.0		ng/L	2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
perfluorotetradecanoic acid (PFTA)	ND		1	0.34	1.1		ng/L	2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
perfluorotridecanoic acid (PFTrDA)	ND		1	0.43	1.4		ng/L	2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
perfluoroundecanoic acid (PFUnA)	ND		1	0.30	1.0		ng/L	2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFHxA	95%			Limits: 70-130%				2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-HFPODA	91%			Limits: 70-130%				2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFDA	86%			Limits: 70-130%				2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) d5-NEtFOSAA	84%			Limits: 70-130%				2/21/23 7:27	2/21/23 23:45	RAW	EPA 537.1, Rev 2.0	2

Sample: EP300 Field Blank

CB01500-04 (DW) Sampled: 02/14/23 00:00

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
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Semi-Volatiles



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: Quarterly Drinking Water Testing
Project Number: 2023 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
3/7/23 12:13

Work Order:
CB01500

Sample Results (Continued)

Sample: EP300 Field Blank (Continued)

CB01500-04 (DW) Sampled: 02/14/23 00:00

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles (Continued)												
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1	0.31	1.0		ng/L	2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1	0.34	1.1		ng/L	2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		1	0.37	1.2		ng/L	2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		1	0.41	1.4		ng/L	2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
N-ethyl perfluorooctanesulfonamidoacetic acid (NETFOSAA)	ND		1	0.47	1.6		ng/L	2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1	0.40	1.3		ng/L	2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
perfluorobutanesulfonic acid (PFBS)	ND		1	0.30	1.0		ng/L	2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
perfluorodecanoic acid (PFDA)	ND		1	0.33	1.1		ng/L	2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
perfluorododecanoic acid (PFDoA)	ND		1	0.23	0.77		ng/L	2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
perfluoroheptanoic acid (PFHpA)	ND		1	0.44	1.5		ng/L	2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanoic acid (PFHxA)	ND		1	0.47	1.6		ng/L	2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanesulfonic acid (PFHxS)	ND		1	0.34	1.1		ng/L	2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
perfluorononanoic acid (PFNA)	ND		1	0.46	1.5		ng/L	2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanoic acid (PFOA)	ND		1	0.49	1.6		ng/L	2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanesulfonic acid (PFOS)	ND		1	0.31	1.0		ng/L	2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
perfluorotetradecanoic acid (PFTA)	ND		1	0.34	1.1		ng/L	2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
perfluorotridecanoic acid (PFTrDA)	ND		1	0.43	1.4		ng/L	2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
perfluoroundecanoic acid (PFUnA)	ND		1	0.30	1.0		ng/L	2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURRE) C13-PFHxA	88%					Limits: 70-130%		2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURRE) C13-HFPODA	89%					Limits: 70-130%		2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURRE) C13-PFDA	93%					Limits: 70-130%		2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURRE) d5-NETFOSAA	84%					Limits: 70-130%		2/27/23 5:22	2/28/23 10:57	RAW	EPA 537.1, Rev 2.0	2

Sample: D17

CB01500-05 (DW) Sampled: 02/14/23 09:05

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Volatiles												
Bromodichloromethane	5.8		1	0.17	0.56		ug/L	2/23/23 12:21	2/23/23 18:36	JLG	EPA 524.2, Rev 4.1	2

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Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: Quarterly Drinking Water Testing
Project Number: 2023 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
3/7/23 12:13

Work Order:
CB01500

Sample Results (Continued)

Sample: D17 (Continued)

CB01500-05 (DW) Sampled: 02/14/23 09:05

Table with 13 columns: Analyte, Result, Qualifier, Dilution, LOD, LOQ, MCL, Units, Date Prepared, Date Analyzed, Analyst, Method, Lab Cert Code. Includes Volatiles (Continued) section with rows for Bromoform, Chloroform, Dibromochloromethane, Total Trihalomethanes (TTHM), and Surrogate results for 4-Bromofluorobenzene and 1,2-Dichlorobenzene-d4.

Semi-Volatiles

Table with 13 columns: Analyte, Result, Qualifier, Dilution, LOD, LOQ, MCL, Units, Date Prepared, Date Analyzed, Analyst, Method, Lab Cert Code. Includes rows for Haloacetic Acid Total, Monochloroacetic acid (MCAA), Monobromoacetic acid (MBAA), Dichloroacetic acid (DCAA), Trichloroacetic acid (TCAA), Dibromoacetic acid (DBAA), and Surrogate result for 2-Bromobutanoic Acid.

Sample: D19

CB01500-06 (DW) Sampled: 02/14/23 09:37

Table with 13 columns: Analyte, Result, Qualifier, Dilution, LOD, LOQ, MCL, Units, Date Prepared, Date Analyzed, Analyst, Method, Lab Cert Code. Includes Volatiles section with rows for Bromodichloromethane, Bromoform, Chloroform, Dibromochloromethane, Total Trihalomethanes (TTHM), and Surrogate results for 4-Bromofluorobenzene and 1,2-Dichlorobenzene-d4.

Semi-Volatiles

Table with 13 columns: Analyte, Result, Qualifier, Dilution, LOD, LOQ, MCL, Units, Date Prepared, Date Analyzed, Analyst, Method, Lab Cert Code. Includes rows for Haloacetic Acid Total and Monochloroacetic acid (MCAA).

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document. No duplication of this report is allowed, except in its entirety.



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: Quarterly Drinking Water Testing
Project Number: 2023 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
3/7/23 12:13

Work Order:
CB01500

Sample Results (Continued)

Sample: D19 (Continued)

CB01500-06 (DW) Sampled: 02/14/23 09:37

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles (Continued)												
Monobromoacetic acid (MBAA)	ND		1	0.15	0.50		ug/L	2/23/23 8:37	2/24/23 8:37	CSC	EPA 552.3, Rev 1.0	2
Dichloroacetic acid (DCAA)	1.9		1	0.15	0.49		ug/L	2/23/23 8:37	2/24/23 8:37	CSC	EPA 552.3, Rev 1.0	2
Trichloroacetic acid (TCAA)	0.74		1	0.22	0.72		ug/L	2/23/23 8:37	2/24/23 8:37	CSC	EPA 552.3, Rev 1.0	2
Dibromoacetic acid (DBAA)	1.6		1	0.24	0.81		ug/L	2/23/23 8:37	2/24/23 8:37	CSC	EPA 552.3, Rev 1.0	2
<hr/>												
Surrogate: (SURR) 2-Bromobutanoic Acid	115%			Limits: 70-130%				2/23/23 8:37	2/24/23 8:37	CSC	EPA 552.3, Rev 1.0	2



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: Quarterly Drinking Water Testing
Project Number: 2023 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
3/7/23 12:13

Work Order:
CB01500

List of Certifications

Code	Description	Number	Expires
2	NLS (Crandon) WDNR Laboratory ID No.	721026460	8/31/23



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: Quarterly Drinking Water Testing
Project Number: 2023 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
3/7/23 12:13

Work Order:
CB01500

Qualifiers and Definitions

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

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



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: Quarterly Drinking Water Testing
Project Number: 2023 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
3/10/23 10:41

Work Order:
CB01908

Sample Summary

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

Lab ID	Sample	Matrix	Sample Type	Qualifiers	Date Sampled	Date Received
CB01908-01	EP400 (PFAS)	DW			2/28/23 12:45	3/1/23 9:30
CB01908-02	EP400 Field Blank	DW			2/28/23 0:00	3/1/23 9:30



Marshfield Electric & Water Utilities
 2000 South Central Avenue
 Marshfield, WI 54449

Project: Quarterly Drinking Water Testing
 Project Number: 2023 WDNR Drinking Water Requirements
 Project Manager: John Richmond

Reported:
 3/10/23 10:41

Work Order:
 CB01908

Sample Results

Sample: EP400 (PFAS)

CB01908-01 (DW) Sampled: 02/28/23 12:45

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles												
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1	0.31	1.0		ng/L	3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1	0.34	1.1		ng/L	3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		1	0.37	1.2		ng/L	3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		1	0.41	1.4		ng/L	3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1	0.47	1.6		ng/L	3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1	0.40	1.3		ng/L	3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
perfluorobutanesulfonic acid (PFBS)	0.62	J	1	0.30	1.0		ng/L	3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
perfluorodecanoic acid (PFDA)	ND		1	0.33	1.1		ng/L	3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
perfluorododecanoic acid (PFDoA)	ND		1	0.23	0.77		ng/L	3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
perfluoroheptanoic acid (PFHpA)	ND		1	0.44	1.5		ng/L	3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanoic acid (PFHxA)	ND		1	0.47	1.6		ng/L	3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanesulfonic acid (PFHxS)	0.37	J	1	0.34	1.1		ng/L	3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
perfluorononanoic acid (PFNA)	ND		1	0.46	1.5		ng/L	3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanoic acid (PFOA)	0.60	J	1	0.49	1.6		ng/L	3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanesulfonic acid (PFOS)	0.64	J	1	0.31	1.0		ng/L	3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
perfluorotetradecanoic acid (PFTA)	ND		1	0.34	1.1		ng/L	3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
perfluorotridecanoic acid (PFTrDA)	ND		1	0.43	1.4		ng/L	3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
perfluoroundecanoic acid (PFUnA)	ND		1	0.30	1.0		ng/L	3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURRE) C13-PFHxA	97%			Limits: 70-130%				3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURRE) C13-HFPODA	99%			Limits: 70-130%				3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURRE) C13-PFDA	99%			Limits: 70-130%				3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURRE) d5-NEtFOSAA	88%			Limits: 70-130%				3/2/23 8:15	3/2/23 23:09	RAW	EPA 537.1, Rev 2.0	2

Sample: EP400 Field Blank

CB01908-02 (DW) Sampled: 02/28/23 00:00

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles												



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: Quarterly Drinking Water Testing
Project Number: 2023 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
3/10/23 10:41

Work Order:
CB01908

Sample Results (Continued)

Sample: EP400 Field Blank (Continued)

CB01908-02 (DW) Sampled: 02/28/23 00:00

Analyte	Result	Qualifier	Dilution	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles (Continued)												
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		1	0.31	1.0		ng/L	3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		1	0.34	1.1		ng/L	3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		1	0.37	1.2		ng/L	3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		1	0.41	1.4		ng/L	3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1	0.47	1.6		ng/L	3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1	0.40	1.3		ng/L	3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
perfluorobutanesulfonic acid (PFBS)	ND		1	0.30	1.0		ng/L	3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
perfluorodecanoic acid (PFDA)	ND		1	0.33	1.1		ng/L	3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
perfluorododecanoic acid (PFDoA)	ND		1	0.23	0.77		ng/L	3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
perfluoroheptanoic acid (PFHpA)	ND		1	0.44	1.5		ng/L	3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanoic acid (PFHxA)	ND		1	0.47	1.6		ng/L	3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanesulfonic acid (PFHxS)	ND		1	0.34	1.1		ng/L	3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
perfluorononanoic acid (PFNA)	ND		1	0.46	1.5		ng/L	3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanoic acid (PFOA)	ND		1	0.49	1.6		ng/L	3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanesulfonic acid (PFOS)	ND		1	0.31	1.0		ng/L	3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
perfluorotetradecanoic acid (PFTA)	ND		1	0.34	1.1		ng/L	3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
perfluorotridecanoic acid (PFTTrDA)	ND		1	0.43	1.4		ng/L	3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
perfluoroundecanoic acid (PFUnA)	ND		1	0.30	1.0		ng/L	3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFHxA	89%			Limits: 70-130%				3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-HFPODA	85%			Limits: 70-130%				3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFDA	95%			Limits: 70-130%				3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) d5-NEtFOSAA	82%			Limits: 70-130%				3/3/23 10:13	3/6/23 13:10	RAW	EPA 537.1, Rev 2.0	2



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: Quarterly Drinking Water Testing
Project Number: 2023 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
3/10/23 10:41

Work Order:
CB01908

List of Certifications

Code	Description	Number	Expires
2	NLS (Crandon) WDNR Laboratory ID No.	721026460	8/31/23



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: Quarterly Drinking Water Testing
Project Number: 2023 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
3/10/23 10:41

Work Order:
CB01908

Qualifiers and Definitions

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

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



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: Quarterly Drinking Water Testing
Project Number: 2023 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
6/14/23 17:33

Work Order:
CB05760

Sample Summary

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

Lab ID	Sample	Matrix	Sample Type	Qualifiers	Date Sampled	Date Received
CB05760-01	EP300 (PFAS)	DW			5/31/23 9:55	6/1/23 9:20
CB05760-02	EP300 Field Blank	DW			5/31/23 9:55	6/1/23 9:20
CB05760-03	EP400 (PFAS)	DW			5/31/23 8:32	6/1/23 9:20

Analysis Qualifiers:

LabNumber	Analysis	Qualifier
CB05760-03	537.1 Perfluorinated Chemicals by LC/MS/MS	FBNA1

Cancelled Tests:

Lab ID	Sample	Analysis	Cancelled	Initials
CB05760-04	EP400 Field Blank	Perfluorinated Chemicals by EPA Method 537.1 FB	6/6/23 14:42	CSC



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: Quarterly Drinking Water Testing
Project Number: 2023 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
6/14/23 17:33

Work Order:
CB05760

Sample Results

Sample: EP300 (PFAS)

CB05760-01 (DW) Sampled: 05/31/23 09:55

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles											
11-chloroicosafafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.30	0.98		ng/L	6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.33	1.1		ng/L	6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.36	1.2		ng/L	6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		0.40	1.4		ng/L	6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.46	1.6		ng/L	6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.39	1.3		ng/L	6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
perfluorobutanesulfonic acid (PFBS)	1.3		0.29	0.98		ng/L	6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
perfluorodecanoic acid (PFDA)	ND		0.32	1.1		ng/L	6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
perfluorododecanoic acid (PFDoA)	ND		0.23	0.75		ng/L	6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
perfluoroheptanoic acid (PFHpA)	ND		0.43	1.5		ng/L	6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanoic acid (PFHxA)	0.48	J	0.46	1.6		ng/L	6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanesulfonic acid (PFHxS)	1.7		0.33	1.1		ng/L	6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
perfluorononanoic acid (PFNA)	ND		0.45	1.5		ng/L	6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanoic acid (PFOA)	1.1	J	0.48	1.6		ng/L	6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanesulfonic acid (PFOS)	2.5		0.30	0.98		ng/L	6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
perfluorotetradecanoic acid (PFTA)	ND		0.33	1.1		ng/L	6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
perfluorotridecanoic acid (PFTrDA)	ND		0.42	1.4		ng/L	6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
perfluoroundecanoic acid (PFUnA)	ND		0.29	0.98		ng/L	6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFHxA	91%		Limits: 70-130%				6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-HFPODA	85%		Limits: 70-130%				6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFDA	88%		Limits: 70-130%				6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) d5-NEtFOSAA	89%		Limits: 70-130%				6/4/23 12:02	6/5/23 12:46	RAW	EPA 537.1, Rev 2.0	2



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: Quarterly Drinking Water Testing
Project Number: 2023 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
6/14/23 17:33

Work Order:
CB05760

Sample: EP300 Field Blank

CB05760-02 (DW) Sampled: 05/31/23 09:55

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles											
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.31	1.0		ng/L	6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.34	1.1		ng/L	6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.37	1.2		ng/L	6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		0.41	1.4		ng/L	6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.47	1.6		ng/L	6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.40	1.3		ng/L	6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
perfluorobutanesulfonic acid (PFBS)	ND		0.30	1.0		ng/L	6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
perfluorodecanoic acid (PFDA)	ND		0.33	1.1		ng/L	6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
perfluorododecanoic acid (PFDoA)	ND		0.23	0.77		ng/L	6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
perfluoroheptanoic acid (PFHpA)	ND		0.44	1.5		ng/L	6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanoic acid (PFHxA)	ND		0.47	1.6		ng/L	6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanesulfonic acid (PFHxS)	ND		0.34	1.1		ng/L	6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
perfluorononanoic acid (PFNA)	ND		0.46	1.5		ng/L	6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanoic acid (PFOA)	ND		0.49	1.6		ng/L	6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanesulfonic acid (PFOS)	ND		0.31	1.0		ng/L	6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
perfluorotetradecanoic acid (PFTA)	ND		0.34	1.1		ng/L	6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
perfluorotridecanoic acid (PFTTrDA)	ND		0.43	1.4		ng/L	6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
perfluoroundecanoic acid (PFUnA)	ND		0.30	1.0		ng/L	6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFHxA	90%		Limits: 70-130%				6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-HFPODA	89%		Limits: 70-130%				6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFDA	98%		Limits: 70-130%				6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) d5-NEtFOSAA	93%		Limits: 70-130%				6/7/23 7:05	6/7/23 17:46	RAW	EPA 537.1, Rev 2.0	2



Marshfield Electric & Water Utilities
 2000 South Central Avenue
 Marshfield, WI 54449

Project: Quarterly Drinking Water Testing
 Project Number: 2023 WDNR Drinking Water Requirements
 Project Manager: John Richmond

Reported:
 6/14/23 17:33

Work Order:
 CB05760

Sample: EP400 (PFAS)
CB05760-03 (DW) Sampled: 05/31/23 08:32

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles											
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.30	0.98		ng/L	6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.33	1.1		ng/L	6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.36	1.2		ng/L	6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		0.40	1.4		ng/L	6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.46	1.6		ng/L	6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.39	1.3		ng/L	6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
perfluorobutanesulfonic acid (PFBS)	0.63	J	0.29	0.98		ng/L	6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
perfluorodecanoic acid (PFDA)	ND		0.32	1.1		ng/L	6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
perfluorododecanoic acid (PFDoA)	ND		0.23	0.75		ng/L	6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
perfluoroheptanoic acid (PFHpA)	ND		0.43	1.5		ng/L	6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanoic acid (PFHxA)	ND		0.46	1.6		ng/L	6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
perfluorohexanesulfonic acid (PFHxS)	0.41	J	0.33	1.1		ng/L	6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
perfluorononanoic acid (PFNA)	ND		0.45	1.5		ng/L	6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanoic acid (PFOA)	0.72	J	0.48	1.6		ng/L	6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
perfluorooctanesulfonic acid (PFOS)	1.1		0.30	0.98		ng/L	6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
perfluorotetradecanoic acid (PFTA)	ND		0.33	1.1		ng/L	6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
perfluorotridecanoic acid (PFTTrDA)	ND		0.42	1.4		ng/L	6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
perfluoroundecanoic acid (PFUnA)	ND		0.29	0.98		ng/L	6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFHxA	85%		Limits: 70-130%				6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-HFPODA	86%		Limits: 70-130%				6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFDA	91%		Limits: 70-130%				6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) d5-NEtFOSAA	90%		Limits: 70-130%				6/4/23 12:02	6/5/23 13:12	RAW	EPA 537.1, Rev 2.0	2



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: Quarterly Drinking Water Testing
Project Number: 2023 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
6/14/23 17:33

Work Order:
CB05760

List of Certifications

Code	Description	Number	Expires
2	NLS (Crandon) WDNR Laboratory ID No.	721026460	8/31/23



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: Quarterly Drinking Water Testing
Project Number: 2023 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
6/14/23 17:33

Work Order:
CB05760

Qualifiers and Definitions

Item	Definition
FBNA1	The field sample had no detects at or greater than 2.0 ng/L, per the WDNR the corresponding field reagent blank was not required to be analyzed.
J	Result is between LOD and LOQ and considered to be within a region of less-certain quantitation.
ND	Analyte NOT DETECTED at or above the LOD or MRL.
LOD	Limit of Detection.
LOQ	Limit of Quantitation.
NA	Not Applicable.
Dry	Dry Weight Basis.
Wet	Wet Weight Basis.
% Dry	Equal to: (mg/kg dry) / 10000.
1000 ug/L	Equal to: 1 mg/L.
MCL	Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.
RPD	Relative Percent Difference.
%REC	Percent Recovery.
Source	Sample that was matrix spiked or duplicated.

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



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE2
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
7/31/23 6:50

Work Order:
CB07801

Sample Summary

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

Lab ID	Sample	Matrix	Sample Type	Qualifiers	Date Sampled	Date Received
CB07801-01	EP200	DW			7/12/23 10:54	7/13/23 8:00
CB07801-02	EP200 Field Blank	DW			7/12/23 10:54	7/13/23 8:00
CB07801-03	EP300	DW			7/12/23 9:07	7/13/23 8:00
CB07801-05	EP400	DW			7/12/23 10:15	7/13/23 8:00

Analysis Qualifiers:

LabNumber	Analysis	Qualifier
CB07801-01	UCMR5 EPA Method 537.1	FBNA
CB07801-03	UCMR5 EPA Method 533	FBNA
CB07801-03	UCMR5 EPA Method 537.1	FBNA
CB07801-05	UCMR5 EPA Method 533	FBNA
CB07801-05	UCMR5 EPA Method 537.1	FBNA

Cancelled Tests:

Lab ID	Sample	Analysis	Cancelled	Initials
CB07801-02	EP200 Field Blank	Perfluorinated Chemicals by EPA Method 537.1	7/19/23 9:50	CSC
CB07801-04	EP300 Field Blank	Perfluorinated Chemicals by EPA Method 533	7/21/23 13:11	CSC
CB07801-04	EP300 Field Blank	Perfluorinated Chemicals by EPA Method 537.1	7/19/23 9:50	CSC
CB07801-06	EP400 Field Blank	Perfluorinated Chemicals by EPA Method 533	7/21/23 13:11	CSC
CB07801-06	EP400 Field Blank	Perfluorinated Chemicals by EPA Method 537.1	7/19/23 9:50	CSC



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE2
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
7/31/23 6:50

Work Order:
CB07801

Sample Results

Sample: EP200

CB07801-01 (DW) Sampled: 07/12/23 10:54

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Metals											
Lithium, Total	ND			9.0		ug/L	7/19/23 12:21	7/20/23 12:41	RAB	EPA 200.7, Rev 4.4	1
<hr/>											
<i>Surrogate: Yttrium 200.7 ISTD</i>	<i>94%</i>			<i>Limits: 60-125%</i>			<i>7/19/23 12:21</i>	<i>7/20/23 12:41</i>	<i>RAB</i>	<i>EPA 200.7, Rev 4.4</i>	
<hr/>											
Semi-Volatiles											
perfluorobutanoic acid (PFBA)	0.0067			0.0050		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
perfluoro-3-methoxypropanoic acid (PFMPA)	ND			0.0040		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
perfluoropentanoic acid (PFPeA)	0.014			0.0030		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
perfluorobutanesulfonic acid (PFBS)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
perfluoro-4-methoxybutanoic acid (PFMBA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND			0.020		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
perfluorohexanoic acid (PFHxA)	0.011			0.0030		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
perfluoropentanesulfonic acid (PFPeS)	ND			0.0040		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
hexafluoropropylene oxide dimer acid (HFPO DA)	ND			0.0050		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
perfluoroheptanoic acid (PFHpA)	0.0034			0.0030		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
perfluorohexanesulfonic acid (PFHxS)	0.010			0.0030		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)	ND			0.0050		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
perfluoroheptanesulfonic acid (PFHpS)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
perfluorooctanoic acid (PFOA)	ND			0.0040		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
perfluorononanoic acid (PFNA)	ND			0.0040		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
perfluorooctanesulfonic acid (PFOS)	0.012			0.0040		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND			0.0020		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
perfluorodecanoic acid (PFDA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8:2FTS)	ND			0.0050		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
perfluoroundecanoic acid (PFUnA)	ND			0.0020		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE2
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
7/31/23 6:50

Work Order:
CB07801

Sample: EP200 (Continued)

CB07801-01 (DW) Sampled: 07/12/23 10:54

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles (Continued)											
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND			0.0050		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
perfluorododecanoic acid (PFDaA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:04	RAW	EPA 533	1
<i>Surrogate: (EIS) MPFBA</i>	<i>100%</i>			<i>Limits: 50-200%</i>			<i>7/20/23 5:18</i>	<i>7/20/23 22:04</i>	<i>RAW</i>	<i>EPA 533</i>	
<i>Surrogate: (EIS) M5PFPeA</i>	<i>100%</i>			<i>Limits: 50-200%</i>			<i>7/20/23 5:18</i>	<i>7/20/23 22:04</i>	<i>RAW</i>	<i>EPA 533</i>	
<i>Surrogate: (EIS) M3PFBS</i>	<i>95%</i>			<i>Limits: 50-200%</i>			<i>7/20/23 5:18</i>	<i>7/20/23 22:04</i>	<i>RAW</i>	<i>EPA 533</i>	
<i>Surrogate: (EIS) M2-4:2FTS</i>	<i>123%</i>			<i>Limits: 50-200%</i>			<i>7/20/23 5:18</i>	<i>7/20/23 22:04</i>	<i>RAW</i>	<i>EPA 533</i>	
<i>Surrogate: (EIS) M5PFHxA</i>	<i>95%</i>			<i>Limits: 50-200%</i>			<i>7/20/23 5:18</i>	<i>7/20/23 22:04</i>	<i>RAW</i>	<i>EPA 533</i>	
<i>Surrogate: (EIS) M4PFHpA</i>	<i>94%</i>			<i>Limits: 50-200%</i>			<i>7/20/23 5:18</i>	<i>7/20/23 22:04</i>	<i>RAW</i>	<i>EPA 533</i>	
<i>Surrogate: (EIS) M3PFHxS</i>	<i>93%</i>			<i>Limits: 50-200%</i>			<i>7/20/23 5:18</i>	<i>7/20/23 22:04</i>	<i>RAW</i>	<i>EPA 533</i>	
<i>Surrogate: (EIS) M2-6:2FTS</i>	<i>96%</i>			<i>Limits: 50-200%</i>			<i>7/20/23 5:18</i>	<i>7/20/23 22:04</i>	<i>RAW</i>	<i>EPA 533</i>	
<i>Surrogate: (EIS) M8PFOA</i>	<i>96%</i>			<i>Limits: 50-200%</i>			<i>7/20/23 5:18</i>	<i>7/20/23 22:04</i>	<i>RAW</i>	<i>EPA 533</i>	
<i>Surrogate: (EIS) M9PFNA</i>	<i>93%</i>			<i>Limits: 50-200%</i>			<i>7/20/23 5:18</i>	<i>7/20/23 22:04</i>	<i>RAW</i>	<i>EPA 533</i>	
<i>Surrogate: (EIS) M8PFOS</i>	<i>98%</i>			<i>Limits: 50-200%</i>			<i>7/20/23 5:18</i>	<i>7/20/23 22:04</i>	<i>RAW</i>	<i>EPA 533</i>	
<i>Surrogate: (EIS) M2-8:2FTS</i>	<i>94%</i>			<i>Limits: 50-200%</i>			<i>7/20/23 5:18</i>	<i>7/20/23 22:04</i>	<i>RAW</i>	<i>EPA 533</i>	
<i>Surrogate: (EIS) M6PFDA</i>	<i>94%</i>			<i>Limits: 50-200%</i>			<i>7/20/23 5:18</i>	<i>7/20/23 22:04</i>	<i>RAW</i>	<i>EPA 533</i>	
<i>Surrogate: (EIS) M7PFUdA</i>	<i>92%</i>			<i>Limits: 50-200%</i>			<i>7/20/23 5:18</i>	<i>7/20/23 22:04</i>	<i>RAW</i>	<i>EPA 533</i>	
<i>Surrogate: (EIS) MPFDaA</i>	<i>91%</i>			<i>Limits: 50-200%</i>			<i>7/20/23 5:18</i>	<i>7/20/23 22:04</i>	<i>RAW</i>	<i>EPA 533</i>	
<i>Surrogate: (EIS) M3HFPODA</i>	<i>90%</i>			<i>Limits: 50-200%</i>			<i>7/20/23 5:18</i>	<i>7/20/23 22:04</i>	<i>RAW</i>	<i>EPA 533</i>	
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND			0.0060		ug/L	7/17/23 8:39	7/18/23 17:32	RAW	EPA 537.1, Rev 2.0	1
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND			0.0050		ug/L	7/17/23 8:39	7/18/23 17:32	RAW	EPA 537.1, Rev 2.0	1
perfluorotridecanoic acid (PFTrDA)	ND			0.0070		ug/L	7/17/23 8:39	7/18/23 17:32	RAW	EPA 537.1, Rev 2.0	1
perfluorotetradecanoic acid (PFTaA)	ND			0.0080		ug/L	7/17/23 8:39	7/18/23 17:32	RAW	EPA 537.1, Rev 2.0	1
<i>Surrogate: (SURR) C13-PFHxA</i>	<i>91%</i>			<i>Limits: 70-130%</i>			<i>7/17/23 8:39</i>	<i>7/18/23 17:32</i>	<i>RAW</i>	<i>EPA 537.1, Rev 2.0</i>	
<i>Surrogate: (SURR) C13-HFPODA</i>	<i>85%</i>			<i>Limits: 70-130%</i>			<i>7/17/23 8:39</i>	<i>7/18/23 17:32</i>	<i>RAW</i>	<i>EPA 537.1, Rev 2.0</i>	
<i>Surrogate: (SURR) C13-PFDA</i>	<i>96%</i>			<i>Limits: 70-130%</i>			<i>7/17/23 8:39</i>	<i>7/18/23 17:32</i>	<i>RAW</i>	<i>EPA 537.1, Rev 2.0</i>	
<i>Surrogate: (SURR) d5-NEtFOSAA</i>	<i>87%</i>			<i>Limits: 70-130%</i>			<i>7/17/23 8:39</i>	<i>7/18/23 17:32</i>	<i>RAW</i>	<i>EPA 537.1, Rev 2.0</i>	



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE2
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
7/31/23 6:50

Work Order:
CB07801

Sample: EP200 Field Blank

CB07801-02 (DW) Sampled: 07/12/23 10:54

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles											
perfluorobutanoic acid (PFBA)	ND			0.0050		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
perfluoro-3-methoxypropanoic acid (PFMPA)	ND			0.0040		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
perfluoropentanoic acid (PFPeA)	ND			0.0030		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
perfluorobutanesulfonic acid (PFBS)	ND			0.0030		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
perfluoro-4-methoxybutanoic acid (PFMBA)	ND			0.0030		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND			0.0030		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND			0.020		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)	ND			0.0030		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
perfluorohexanoic acid (PFHxA)	ND			0.0030		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
perfluoropentanesulfonic acid (PFPeS)	ND			0.0040		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
hexafluoropropylene oxide dimer acid (HFPO DA)	ND			0.0050		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
perfluoroheptanoic acid (PFHpA)	ND			0.0030		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
perfluorohexanesulfonic acid (PFHxS)	ND			0.0030		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND			0.0030		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)	ND			0.0050		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
perfluoroheptanesulfonic acid (PFHpS)	ND			0.0030		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
perfluorooctanoic acid (PFOA)	ND			0.0040		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
perfluorononanoic acid (PFNA)	ND			0.0040		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
perfluorooctanesulfonic acid (PFOS)	ND			0.0040		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND			0.0020		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
perfluorodecanoic acid (PFDA)	ND			0.0030		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8:2FTS)	ND			0.0050		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
perfluoroundecanoic acid (PFUnA)	ND			0.0020		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND			0.0050		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
perfluorododecanoic acid (PFDoA)	ND			0.0030		ug/L	7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	1
<hr/>											
Surrogate: (EIS) MPFBA	94%						7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	
Surrogate: (EIS) MSFPeA	94%						7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	
Surrogate: (EIS) M3PFBS	98%						7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE2
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
7/31/23 6:50

Work Order:
CB07801

Sample: EP200 Field Blank (Continued)

CB07801-02 (DW) Sampled: 07/12/23 10:54

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles (Continued)											
Surrogate: (EIS) M2-4:2FTS	97%				Limits: 50-200%		7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	
Surrogate: (EIS) M5PFHxA	98%				Limits: 50-200%		7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	
Surrogate: (EIS) M4PFHpA	95%				Limits: 50-200%		7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	
Surrogate: (EIS) M3PFHxS	92%				Limits: 50-200%		7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	
Surrogate: (EIS) M2-6:2FTS	95%				Limits: 50-200%		7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	
Surrogate: (EIS) M8PFOA	94%				Limits: 50-200%		7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	
Surrogate: (EIS) M9PFNA	94%				Limits: 50-200%		7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	
Surrogate: (EIS) M8PFOS	92%				Limits: 50-200%		7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	
Surrogate: (EIS) M2-8:2FTS	98%				Limits: 50-200%		7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	
Surrogate: (EIS) M6PFDA	90%				Limits: 50-200%		7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	
Surrogate: (EIS) M7PFUdA	92%				Limits: 50-200%		7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	
Surrogate: (EIS) MPFDoA	96%				Limits: 50-200%		7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	
Surrogate: (EIS) M3HFPODA	96%				Limits: 50-200%		7/25/23 5:29	7/25/23 14:35	RAW	EPA 533	



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE2
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
7/31/23 6:50

Work Order:
CB07801

Sample: EP300

CB07801-03 (DW) Sampled: 07/12/23 09:07

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Metals											
Lithium, Total	ND			9.0		ug/L	7/19/23 12:21	7/20/23 12:44	RAB	EPA 200.7, Rev 4.4	1
<hr/>											
<i>Surrogate: Yttrium 200.7 ISTD</i>	<i>94%</i>			<i>Limits: 60-125%</i>			<i>7/19/23 12:21</i>	<i>7/20/23 12:44</i>	<i>RAB</i>	<i>EPA 200.7, Rev 4.4</i>	
Semi-Volatiles											
perfluorobutanoic acid (PFBA)	ND			0.0050		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
perfluoro-3-methoxypropanoic acid (PFMPA)	ND			0.0040		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
perfluoropentanoic acid (PFPeA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
perfluorobutanesulfonic acid (PFBS)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
perfluoro-4-methoxybutanoic acid (PFMBA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND			0.020		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
perfluorohexanoic acid (PFHxA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
perfluoropentanesulfonic acid (PFPeS)	ND			0.0040		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
hexafluoropropylene oxide dimer acid (HFPO DA)	ND			0.0050		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
perfluoroheptanoic acid (PFHpA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
perfluorohexanesulfonic acid (PFHxS)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)	ND			0.0050		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
perfluoroheptanesulfonic acid (PFHpS)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
perfluorooctanoic acid (PFOA)	ND			0.0040		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
perfluorononanoic acid (PFNA)	ND			0.0040		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
perfluorooctanesulfonic acid (PFOS)	ND			0.0040		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND			0.0020		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
perfluorodecanoic acid (PFDA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8:2FTS)	ND			0.0050		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
perfluoroundecanoic acid (PFUnA)	ND			0.0020		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND			0.0050		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1
perfluorododecanoic acid (PFDoA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	1

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document. No duplication of this report is allowed, except in its entirety.



Marshfield Electric & Water Utilities
 2000 South Central Avenue
 Marshfield, WI 54449

Project: UCMR5 Testing SE2
 Project Number: UCMR5 Testing
 Project Manager: John Richmond

Reported:
 7/31/23 6:50

Work Order:
 CB07801

Sample: EP300 (Continued)

CB07801-03 (DW) Sampled: 07/12/23 09:07

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles (Continued)											
Surrogate: (EIS) MPFBA	93%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	
Surrogate: (EIS) M5PFPeA	97%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	
Surrogate: (EIS) M3PFBS	87%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	
Surrogate: (EIS) M2-4:2FTS	112%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	
Surrogate: (EIS) M5PFHxA	91%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	
Surrogate: (EIS) M4PFHpA	92%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	
Surrogate: (EIS) M3PFHxS	89%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	
Surrogate: (EIS) M2-6:2FTS	87%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	
Surrogate: (EIS) M8PFOA	90%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	
Surrogate: (EIS) M9PFNA	87%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	
Surrogate: (EIS) M8PFOS	86%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	
Surrogate: (EIS) M2-8:2FTS	86%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	
Surrogate: (EIS) M6PFDA	92%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	
Surrogate: (EIS) M7PFUDa	91%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	
Surrogate: (EIS) MPFDaA	88%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	
Surrogate: (EIS) M3HFPODA	90%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:28	RAW	EPA 533	
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND			0.0060		ug/L	7/17/23 8:39	7/18/23 17:58	RAW	EPA 537.1, Rev 2.0	1
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND			0.0050		ug/L	7/17/23 8:39	7/18/23 17:58	RAW	EPA 537.1, Rev 2.0	1
perfluorotridecanoic acid (PFTrDA)	ND			0.0070		ug/L	7/17/23 8:39	7/18/23 17:58	RAW	EPA 537.1, Rev 2.0	1
perfluorotetradecanoic acid (PFTA)	ND			0.0080		ug/L	7/17/23 8:39	7/18/23 17:58	RAW	EPA 537.1, Rev 2.0	1

Surrogate: (SURR) C13-PFHxA	97%				Limits: 70-130%		7/17/23 8:39	7/18/23 17:58	RAW	EPA 537.1, Rev 2.0	
Surrogate: (SURR) C13-HFPODA	92%				Limits: 70-130%		7/17/23 8:39	7/18/23 17:58	RAW	EPA 537.1, Rev 2.0	
Surrogate: (SURR) C13-PFDA	99%				Limits: 70-130%		7/17/23 8:39	7/18/23 17:58	RAW	EPA 537.1, Rev 2.0	
Surrogate: (SURR) d5-NEtFOSAA	92%				Limits: 70-130%		7/17/23 8:39	7/18/23 17:58	RAW	EPA 537.1, Rev 2.0	



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE2
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
7/31/23 6:50

Work Order:
CB07801

Sample: EP400

CB07801-05 (DW) Sampled: 07/12/23 10:15

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Metals											
Lithium, Total	ND			9.0		ug/L	7/19/23 12:21	7/20/23 12:47	RAB	EPA 200.7, Rev 4.4	1
<hr/>											
Surrogate: Yttrium 200.7 ISTD	96%		Limits: 60-125%				7/19/23 12:21	7/20/23 12:47	RAB	EPA 200.7, Rev 4.4	
Semi-Volatiles											
perfluorobutanoic acid (PFBA)	ND			0.0050		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
perfluoro-3-methoxypropanoic acid (PFMPA)	ND			0.0040		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
perfluoropentanoic acid (PFPeA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
perfluorobutanesulfonic acid (PFBS)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
perfluoro-4-methoxybutanoic acid (PFMBA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND			0.020		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
perfluorohexanoic acid (PFHxA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
perfluoropentanesulfonic acid (PFPeS)	ND			0.0040		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
hexafluoropropylene oxide dimer acid (HFPO DA)	ND			0.0050		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
perfluoroheptanoic acid (PFHpA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
perfluorohexanesulfonic acid (PFHxS)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)	ND			0.0050		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
perfluoroheptanesulfonic acid (PFHpS)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
perfluorooctanoic acid (PFOA)	ND			0.0040		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
perfluorononanoic acid (PFNA)	ND			0.0040		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
perfluorooctanesulfonic acid (PFOS)	ND			0.0040		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND			0.0020		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
perfluorodecanoic acid (PFDA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8:2FTS)	ND			0.0050		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
perfluoroundecanoic acid (PFUnA)	ND			0.0020		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND			0.0050		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1
perfluorododecanoic acid (PFDoA)	ND			0.0030		ug/L	7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	1

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document. No duplication of this report is allowed, except in its entirety.



Marshfield Electric & Water Utilities
 2000 South Central Avenue
 Marshfield, WI 54449

Project: UCMR5 Testing SE2
 Project Number: UCMR5 Testing
 Project Manager: John Richmond

Reported:
 7/31/23 6:50

Work Order:
 CB07801

Sample: EP400 (Continued)

CB07801-05 (DW) Sampled: 07/12/23 10:15

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles (Continued)											
Surrogate: (EIS) MPFBA	92%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	
Surrogate: (EIS) M5PFPeA	96%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	
Surrogate: (EIS) M3PFBS	87%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	
Surrogate: (EIS) M2-4:2FTS	118%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	
Surrogate: (EIS) M5PFHxA	95%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	
Surrogate: (EIS) M4PFHpA	93%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	
Surrogate: (EIS) M3PFHxS	93%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	
Surrogate: (EIS) M2-6:2FTS	88%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	
Surrogate: (EIS) M8PFOA	94%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	
Surrogate: (EIS) M9PFNA	93%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	
Surrogate: (EIS) M8PFOS	92%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	
Surrogate: (EIS) M2-8:2FTS	90%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	
Surrogate: (EIS) M6PFDA	91%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	
Surrogate: (EIS) M7PFUDa	92%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	
Surrogate: (EIS) MPFDaA	91%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	
Surrogate: (EIS) M3HFPODA	90%				Limits: 50-200%		7/20/23 5:18	7/20/23 22:52	RAW	EPA 533	
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND			0.0060		ug/L	7/17/23 8:39	7/18/23 18:24	RAW	EPA 537.1, Rev 2.0	1
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND			0.0050		ug/L	7/17/23 8:39	7/18/23 18:24	RAW	EPA 537.1, Rev 2.0	1
perfluorotridecanoic acid (PFTrDA)	ND			0.0070		ug/L	7/17/23 8:39	7/18/23 18:24	RAW	EPA 537.1, Rev 2.0	1
perfluorotetradecanoic acid (PFTA)	ND			0.0080		ug/L	7/17/23 8:39	7/18/23 18:24	RAW	EPA 537.1, Rev 2.0	1

Surrogate: (SURR) C13-PFHxA	94%				Limits: 70-130%		7/17/23 8:39	7/18/23 18:24	RAW	EPA 537.1, Rev 2.0	
Surrogate: (SURR) C13-HFPODA	93%				Limits: 70-130%		7/17/23 8:39	7/18/23 18:24	RAW	EPA 537.1, Rev 2.0	
Surrogate: (SURR) C13-PFDA	96%				Limits: 70-130%		7/17/23 8:39	7/18/23 18:24	RAW	EPA 537.1, Rev 2.0	
Surrogate: (SURR) d5-NEtFOSAA	93%				Limits: 70-130%		7/17/23 8:39	7/18/23 18:24	RAW	EPA 537.1, Rev 2.0	



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE2
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
7/31/23 6:50

Work Order:
CB07801

List of Certifications

Code	Description	Number	Expires
1	EPA Laboratory ID No.	WI00034	1/1/26



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: UCMR5 Testing SE2
Project Number: UCMR5 Testing
Project Manager: John Richmond

Reported:
7/31/23 6:50

Work Order:
CB07801

Qualifiers and Definitions

Item	Definition
FBNA	The field sample had no detects, therefore the corresponding trip blank/field reagent blank was not analyzed.
ND	Analyte NOT DETECTED at or above the LOD or MRL.
LOD	Limit of Detection.
LOQ	Limit of Quantitation.
NA	Not Applicable.
Dry	Dry Weight Basis.
Wet	Wet Weight Basis.
% Dry	Equal to: (mg/kg dry) / 10000.
1000 ug/L	Equal to: 1 mg/L.
MCL	Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.
RPD	Relative Percent Difference.
%REC	Percent Recovery.
Source	Sample that was matrix spiked or duplicated.

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



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

August 19, 2024

John Richmond
Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: 2024 Quarterly DW
Project Number: 2024 WDNR Drinking Water Requirements
Work Order: CC08881
Received: 08/07/24
PWS ID: 77201652

Enclosed are the results of analyses for samples received by our laboratory on 8/7/2024. If you have any questions concerning this report, please feel free to contact a client service representative at clientservices@nlslab.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven M. Hefter".

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



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: 2024 Quarterly DW
Project Number: 2024 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
8/19/24 16:46

Work Order:
CC08881

Sample Summary

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

Lab ID	Sample	Matrix	Qualifiers	Date Sampled	Date Received
CC08881-01	EP200 (PFAS)	DW		8/6/24 8:50	8/7/24 8:30
CC08881-02	EP200 Field Blank	DW		8/6/24 9:05	8/7/24 8:30



Marshfield Electric & Water Utilities 2000 South Central Avenue Marshfield, WI 54449	Project: 2024 Quarterly DW Project Number: 2024 WDNR Drinking Water Requirements Project Manager: John Richmond	Reported: 8/19/24 16:46	Work Order: CC08881
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Sample Results

Sample: EP200 (PFAS)
CC08881-01 (DW) Sampled: 08/06/24 08:50

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles											
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.30	1.0		ng/L	8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.46	1.5		ng/L	8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.40	1.3		ng/L	8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		0.91	3.0		ng/L	8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	5.7		ng/L	8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.9	6.3		ng/L	8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
perfluorobutanesulfonic acid (PFBS)	ND		0.71	2.4		ng/L	8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
perfluorodecanoic acid (PFDA)	ND		0.53	1.8		ng/L	8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
perfluorododecanoic acid (PFDoA)	ND		0.61	2.0		ng/L	8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
perfluoroheptanoic acid (PFHpA)	0.67	J	0.53	1.8		ng/L	8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
perfluorohexanoic acid (PFHxA)	4.8		0.55	1.8		ng/L	8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
perfluorohexanesulfonic acid (PFHxS)	ND		0.62	2.1		ng/L	8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
perfluorononanoic acid (PFNA)	ND		0.51	1.7		ng/L	8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
perfluorooctanoic acid (PFOA)	ND		0.46	1.5		ng/L	8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
perfluorooctanesulfonic acid (PFOS)	ND		0.47	1.6		ng/L	8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
perfluorotetradecanoic acid (PFTA)	ND		0.53	1.8		ng/L	8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
perfluorotridecanoic acid (PFTTrDA)	ND		0.53	1.8		ng/L	8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
perfluoroundecanoic acid (PFUnA)	ND		0.51	1.7		ng/L	8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFHxA	97%		Limits: 70-130%				8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-HFPODA	90%		Limits: 70-130%				8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFDA	91%		Limits: 70-130%				8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) d5-NEtFOSAA	90%		Limits: 70-130%				8/8/24 6:17	8/8/24 20:33	JPW	EPA 537.1, Rev 2.0	2



Marshfield Electric & Water Utilities
 2000 South Central Avenue
 Marshfield, WI 54449

Project: 2024 Quarterly DW
 Project Number: 2024 WDNR Drinking Water Requirements
 Project Manager: John Richmond

Reported:
 8/19/24 16:46

Work Order:
 CC08881

Sample: EP200 Field Blank

CC08881-02 (DW) Sampled: 08/06/24 09:05

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles											
11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.30	1.0		ng/L	8/15/24 9:29	8/16/24 17:51	JPW	EPA 537.1, Rev 2.0	2
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.46	1.5		ng/L	8/15/24 9:29	8/16/24 17:51	JPW	EPA 537.1, Rev 2.0	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.40	1.3		ng/L	8/15/24 9:29	8/16/24 17:51	JPW	EPA 537.1, Rev 2.0	2
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		0.91	3.0		ng/L	8/15/24 9:29	8/16/24 17:51	JPW	EPA 537.1, Rev 2.0	2
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	5.7		ng/L	8/15/24 9:29	8/16/24 17:51	JPW	EPA 537.1, Rev 2.0	2
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.9	6.3		ng/L	8/15/24 9:29	8/16/24 17:51	JPW	EPA 537.1, Rev 2.0	2
perfluorobutanesulfonic acid (PFBS)	ND		0.71	2.4		ng/L	8/15/24 9:29	8/16/24 17:51	JPW	EPA 537.1, Rev 2.0	2
perfluorodecanoic acid (PFDA)	ND		0.53	1.8		ng/L	8/15/24 9:29	8/16/24 17:51	JPW	EPA 537.1, Rev 2.0	2
perfluorododecanoic acid (PFDoA)	ND		0.61	2.0		ng/L	8/15/24 9:29	8/16/24 17:51	JPW	EPA 537.1, Rev 2.0	2
perfluoroheptanoic acid (PFHpA)	ND		0.53	1.8		ng/L	8/15/24 9:29	8/16/24 17:51	JPW	EPA 537.1, Rev 2.0	2
perfluorohexanoic acid (PFHxA)	ND		0.55	1.8		ng/L	8/15/24 9:29	8/16/24 17:51	JPW	EPA 537.1, Rev 2.0	2
perfluorohexanesulfonic acid (PFHxS)	ND		0.62	2.1		ng/L	8/15/24 9:29	8/16/24 17:51	JPW	EPA 537.1, Rev 2.0	2
perfluorononanoic acid (PFNA)	ND		0.51	1.7		ng/L	8/15/24 9:29	8/16/24 17:51	JPW	EPA 537.1, Rev 2.0	2
perfluorooctanoic acid (PFOA)	ND		0.46	1.5		ng/L	8/15/24 9:29	8/16/24 17:51	JPW	EPA 537.1, Rev 2.0	2
perfluorooctanesulfonic acid (PFOS)	ND		0.47	1.6		ng/L	8/15/24 9:29	8/16/24 17:51	JPW	EPA 537.1, Rev 2.0	2
perfluorotetradecanoic acid (PFTA)	ND		0.53	1.8		ng/L	8/15/24 9:29	8/16/24 17:51	JPW	EPA 537.1, Rev 2.0	2
perfluorotridecanoic acid (PFTTrDA)	ND		0.53	1.8		ng/L	8/15/24 9:29	8/16/24 17:51	JPW	EPA 537.1, Rev 2.0	2
perfluoroundecanoic acid (PFUnA)	ND		0.51	1.7		ng/L	8/15/24 9:29	8/16/24 17:51	JPW	EPA 537.1, Rev 2.0	2
<i>Surrogate: (SURR) C13-PFHxA</i>	<i>87%</i>						<i>8/15/24 9:29</i>	<i>8/16/24 17:51</i>	<i>JPW</i>	<i>EPA 537.1, Rev 2.0</i>	<i>2</i>
<i>Surrogate: (SURR) C13-HFPODA</i>	<i>88%</i>						<i>8/15/24 9:29</i>	<i>8/16/24 17:51</i>	<i>JPW</i>	<i>EPA 537.1, Rev 2.0</i>	<i>2</i>
<i>Surrogate: (SURR) C13-PFDA</i>	<i>88%</i>						<i>8/15/24 9:29</i>	<i>8/16/24 17:51</i>	<i>JPW</i>	<i>EPA 537.1, Rev 2.0</i>	<i>2</i>
<i>Surrogate: (SURR) d5-NEtFOSAA</i>	<i>79%</i>						<i>8/15/24 9:29</i>	<i>8/16/24 17:51</i>	<i>JPW</i>	<i>EPA 537.1, Rev 2.0</i>	<i>2</i>



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: 2024 Quarterly DW
Project Number: 2024 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
8/19/24 16:46

Work Order:
CC08881

List of Certifications

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



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: 2024 Quarterly DW
Project Number: 2024 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
8/19/24 16:46

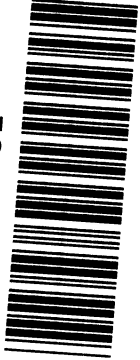
Work Order:
CC08881

Qualifiers and Definitions

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

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

CC08881



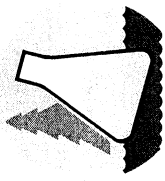
SAMPLE COLLECTION AND CHAIN OF CUSTODY RECORD

Wisconsin Lab Cert. No. 7210264
WI DATCP 105-000330

CLIENT: Marshfield Utilities
 ADDRESS: 2000 S CENTRAL AVE ZIP: 53479
 CITY: MARSHFIELD STATE: WI QUOTATION NO.:
 PROJECT DESCRIPTION / NO.:
 DNR FID # _____ DNR LICENSE # _____
 CONTACT: John Richmond PHONE: 715-389-1195
 PURCHASE ORDER NO.: 715-389-3016 FAX: 715-389-3016

USE BOXES BELOW; Indicate Y or N if GW Sample is field filtered.
Indicate G or C if WW Sample is Grab or Composite.

MATRIX:
 SW = surface water
 WW = waste water
 GW = groundwater
 DW = drinking water
 TIS = tissue
 AIR = air
 SOIL = soil
 SED = sediment
 PROD = product
 SL = sludge
 OTHER _____



NO.

ANALYZE PER ORDER OF ANALYSIS		DATE	COLLECTION TIME	MATRIX (See above)	COLLECTION REMARKS (i.e. DNR Well ID #)
1.	EP 200	8/6/24	0905	DW	
2.	EP 200	8/6/24	0905	DW	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

REPORT TO: John Richmond
Marshfield Utilities

INVOICE TO: Marshfield Utilities


COLLECTED BY (signature): Aaron Pann DATE/TIME: 8/6/24 0905
 RELINQUISHED BY (signature): _____ RECEIVED BY (signature): _____
 DISPATCHED BY (signature): [Signature] METHOD OF TRANSPORT: UPS 588 DATE/TIME: _____
 RECEIVED AT NLS BY (signature): [Signature] DATE/TIME: 8/7/24 TEMP: 30
 COOLER # _____ CONDITION: open
 PRESERVATIVE: N = nitric acid OH = sodium hydroxide
 NP = no preservative Z = zinc acetate HA = hydrochloric & ascorbic acid
 M = methanol H = hydrochloric acid
 REMARKS & OTHER INFORMATION: Removal of # verification
 WORK FACILITY NUMBER: _____ E-MAIL ADDRESS: _____

IMPORTANT:
 1. TO MEET REGULATORY REQUIREMENTS, THIS FORM MUST BE COMPLETED IN DETAIL AND INCLUDED IN THE COOLER CONTAINING THE SAMPLES DESCRIBED.
 2. PLEASE USE ONE LINE PER SAMPLE, NOT PER BOTTLE.
 3. RETURN THIS FORM WITH SAMPLES - CLIENT MAY KEEP PINK COPY.
 4. PARTIES COLLECTING SAMPLE, LISTED AS REPORT TO AND LISTED AS INVOICED TO AGREE TO STANDARD TERMS & CONDITIONS ON REVERSE.

PFAS ANALYSIS

(ENCLOSE FORM WHEN SENDING SAMPLE TO LAB)

Section I: System Information (to be completed by Department of Natural Resources/SAMPLER)

System Name: **MARSHFIELD UTILITIES** PWS ID: **77201652**
DNR Contact: **BRIAN PIETZ (715)284-1425** Region: **6** Type: **MC** 
System Address: **2000 S CENTRAL AVE** City: **MARSHFIELD** County: **WOOD**
Entry Point ID: **200** WI Unique Well No: Note: **System Chlorinates.**

Sampler Contact Info: (Notify DNR Contact of Corrections) (715)898-2171 JOHN RICHMOND 2000 S CENTRAL AVE MARSHFIELD WI 54449	Sampler: (Leave Blank If You Don't Use These Services) Provide information to have results faxed or emailed or to change a billing address, if your lab offers these services Fax Number: Email: Billing Address:
Sample Source: (Location) W - Well Source X E - Entry Point D - Distribution System	Sample Type: (Check Only One) X D - Compliance Sample C - Confirmation Sample I - Investigation Sample W - Raw Water Sample

Special Instructions:

Collect Sample between: **7/1/2024** and **9/30/2024**

Section II: Sample Information (to be completed by SAMPLER – ALL ITEMS REQUIRED)

Sample Collection Date: **8/6/2024** (mm/dd/yyyy) Time: **08:50** a.m. p.m.
Address where sample was collected: **E. 29TH STREET**
Monitoring Site ID: **EP200** Sample Tap Location (e.g. kitchen sink): **SMOOTH FAUCET AFTER TREATMENT**
First Initial and Last Name of Sampler: **A - PAUN** Sampler Phone: **(715)387-1195**

Section III: To be completed by LAB. Report results on back for PWS and electronically to DNR within 10 days per NR 809.80

Check here if some or all of the parameters were analyzed by a subcontracted lab.
NOTE: A separate form must be completed by each lab with data for only the parameters which that lab analyzed.
Laboratory ID: _____ Laboratory Name: _____
Date Sample Received: / / Time: : Lab Sample ID: _____
Signature of Receiving Lab Official: _____ Date Reported to PWS: / /
Condition of Sample Upon Receipt:

Notice: This form must be submitted with laboratory samples analyzed to determine compliance with ch. NR 809, Wis. Adm. Code, Safe Drinking Water. Completion of this form or a similar form approved by the Department is mandatory. Failure to submit a completed form to the Department is a violation punishable by a forfeiture of no less than \$10 nor more than \$5000, or by a fine of not less than \$10 nor more than \$100 or imprisonment of not less than 30 days, or both. Each day of continued violation is a separate offense (ss. 144.99, Wis. Stats.). Authorization for these requirement is under s. 280.13(d), Wis. Stats. and ch. NR 809.80. Personally identifiable information on this form will be used for no other purpose. Reference Requirement #107987954.

PFAS ANALYSIS System Name: **MARSHFIELD UTILITIES**

To be completed by the laboratory performing analysis. PWS ID: **77201652** Lab Sample ID:

Storet Code	Parameter	SDWA Method	MDL	Results	MCL	Units
* 99597 X	PFOA					NG/L
* 99598 X	PFOS					NG/L
97433	11-CHLOROEICOSAFLUORO-3-OXAUNDECANE-1-SULFONIC ACID					NG/L
97434	4,8-DIOXA-3H-PERFLUORONONANOIC ACID					NG/L
97415	4:2 FLUOROTELOMER SULFONIC ACID					NG/L
97414	6:2 FLUOROTELOMER SULFONIC ACID					NG/L
97413	8:2 FLUOROTELOMER SULFONIC ACID					NG/L
97432	9-CHLOROHEXADECAFLUORO-3-OXANONANE-1-SULFONIC ACID					NG/L
97435	HEXAFLUOROPROPYLENE OXIDE DIMER ACID					NG/L
97436	N-ETHYL PERFLUOROOCETANESULFONAMIDO-ACETIC ACID					NG/L
97437	N-METHYL PERFLUOROOCETANESULFONAMIDO-ACETIC ACID					NG/L
99987	PERFLUORO-N-BUTANESULFONIC ACID					NG/L
99991	PERFLUORO-N-BUTANOIC ACID					NG/L
99996	PERFLUORO-N-DECANOIC ACID					NG/L
99998	PERFLUORO-N-DODECANOIC ACID					NG/L
99989	PERFLUORO-N-HEPTANESULFONIC ACID					NG/L
99994	PERFLUORO-N-HEPTANOIC ACID					NG/L
99988	PERFLUORO-N-HEXANESULFONIC ACID					NG/L
99993	PERFLUORO-N-HEXANOIC ACID					NG/L
99995	PERFLUORO-N-NONANOIC ACID					NG/L
99992	PERFLUORO-N-PENTANOIC ACID					NG/L
99924	PERFLUORO-N-TETRADECANOIC ACID					NG/L
99923	PERFLUORO-N-TRIDECANOIC ACID					NG/L
99997	PERFLUORO-N-UNDECANOIC ACID					NG/L
97425	PERFLUOROPENTANESULFONIC ACID					NG/L
95507	NONAFLUORO-3,6-DIOXAPHEPTANOIC ACID					NG/L
95504	PERFLUORO(2-ETHOXYETHANE)SULFONIC ACID					NG/L
95501	PERFLUORO-4-METHOXYBUTANOIC ACID					NG/L
95498	PERFLUORO-3-METHOXYPROPANOIC ACID					NG/L

***The full suite of PFAS contaminants listed under EPA Method 537.1 or EPA Method 533 must be analyzed as part of the perfluoro-n-octanoic acid (PFOA) and perfluoro-n-octanesulfonic acid (PFOS) analysis. Any detection of any other PFAS contaminant identified as part of the analysis must also be reported to the DNR as specified under NR 809.207(2), Safe Drinking Water, Wis. Adm. Code.**

Approved By: QA Officer:

Laboratory Manager:

Comments:

Date:

Date:



Northern Lake Service Inc.

ENVIRONMENTAL ANALYTICAL LABORATORY

400 N Lake Ave | Crandon, WI 54520 | 800-278-1254 | www.nlslab.com

BOTTLE ORDER/PACKING LIST

Ship To:

John Richmond
Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Bottle Order Number: C007592

Date Submitted: 07/31/2024

Date Needed: 08/01/2024

Phone: (715) 387-1195

Fax: (715) 389-2016

Email: john.richmond@marshfieldutilities.org

Shipping Method: Speedee (NC)

Tracking Number:

Shipping Comments:

PWS ID: 77201652

Project: 2024 Quarterly DW

Order

Comments: 3rd Quarter Recollection due to laboratory error

Container	Qty	Analysis	Matrix	Comments
EP200 (PFAS)				
P 250 Trizma	1	537.1 Perfluorinated Chemicals by LC/MS/MS	DW	
P 250 Trizma	1	537.1 Perfluorinated Chemicals by LC/MS/MS	DW	
EP200 Field Blank				
P 250 Trizma	1	537.1 Perfluorinated Chemicals Field Blank	DW	



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

January 22, 2025

John Richmond
Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: 2025 Quarterly Drinking Water
Project Number: 2025 WDNR Drinking Water Requirements
Work Order: CD00188
Received: 01/08/25
PWS ID: 77201652

Enclosed are the results of analyses for samples received by our laboratory on 1/8/2025. If you have any questions concerning this report, please feel free to contact a client service representative at clientservices@nlslab.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven M. Hefter".

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



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: 2025 Quarterly Drinking Water
Project Number: 2025 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
1/22/25 12:43

Work Order:
CD00188

Sample Summary

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

Lab ID	Sample	Matrix	Qualifiers	Date Sampled	Date Received
CD00188-01	EP200 (PFAS)	DW		1/7/25 8:14	1/8/25 8:30
CD00188-02	EP200 Field Blank	DW		1/7/25 8:14	1/8/25 8:30
CD00188-03	EP200 (VOC)	DW		1/7/25 8:14	1/8/25 8:30
CD00188-04	Trip Blank	DW		1/7/25 0:00	1/8/25 8:30



Marshfield Electric & Water Utilities 2000 South Central Avenue Marshfield, WI 54449	Project: 2025 Quarterly Drinking Water Project Number: 2025 WDNR Drinking Water Requirements Project Manager: John Richmond	Reported: 1/22/25 12:43	Work Order: CD00188
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Sample Results

Sample: EP200 (PFAS)
CD00188-01 (DW) Sampled: 01/07/25 08:14

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles											
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.30	1.0		ng/L	1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.46	1.5		ng/L	1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.40	1.3		ng/L	1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		0.91	3.0		ng/L	1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.7	5.7		ng/L	1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.9	6.3		ng/L	1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
perfluorobutanesulfonic acid (PFBS)	ND		0.71	2.4		ng/L	1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
perfluorodecanoic acid (PFDA)	ND		0.53	1.8		ng/L	1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
perfluorododecanoic acid (PFDoA)	ND		0.61	2.0		ng/L	1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
perfluoroheptanoic acid (PFHpA)	1.1	J	0.53	1.8		ng/L	1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
perfluorohexanoic acid (PFHxA)	9.1		0.55	1.8		ng/L	1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
perfluorohexanesulfonic acid (PFHxS)	ND		0.62	2.1		ng/L	1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
perfluorononanoic acid (PFNA)	ND		0.51	1.7		ng/L	1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
perfluorooctanoic acid (PFOA)	0.65	J	0.46	1.5		ng/L	1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
perfluorooctanesulfonic acid (PFOS)	ND		0.47	1.6		ng/L	1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
perfluorotetradecanoic acid (PFTA)	ND		0.53	1.8		ng/L	1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
perfluorotridecanoic acid (PFTTrDA)	ND		0.53	1.8		ng/L	1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
perfluoroundecanoic acid (PFUnA)	ND		0.51	1.7		ng/L	1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFHxA	91%		Limits: 70-130%				1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-HFPODA	84%		Limits: 70-130%				1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) C13-PFDA	87%		Limits: 70-130%				1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2
Surrogate: (SURR) d5-NEtFOSAA	84%		Limits: 70-130%				1/13/25 5:39	1/13/25 17:43	JPW	EPA 537.1, Rev 2.0	2



Marshfield Electric & Water Utilities
 2000 South Central Avenue
 Marshfield, WI 54449

Project: 2025 Quarterly Drinking Water
 Project Number: 2025 WDNR Drinking Water Requirements
 Project Manager: John Richmond

Reported:
 1/22/25 12:43

Work Order:
 CD00188

Sample: EP200 Field Blank

CD00188-02 (DW) Sampled: 01/07/25 08:14

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Semi-Volatiles											
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		0.32	1.1		ng/L	1/20/25 6:24	1/20/25 21:51	JPW	EPA 537.1, Rev 2.0	2
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND		0.49	1.6		ng/L	1/20/25 6:24	1/20/25 21:51	JPW	EPA 537.1, Rev 2.0	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		0.43	1.4		ng/L	1/20/25 6:24	1/20/25 21:51	JPW	EPA 537.1, Rev 2.0	2
hexafluoropropylene oxide dimer acid (HFPO DA)	ND		0.97	3.2		ng/L	1/20/25 6:24	1/20/25 21:51	JPW	EPA 537.1, Rev 2.0	2
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.8	6.1		ng/L	1/20/25 6:24	1/20/25 21:51	JPW	EPA 537.1, Rev 2.0	2
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0	6.7		ng/L	1/20/25 6:24	1/20/25 21:51	JPW	EPA 537.1, Rev 2.0	2
perfluorobutanesulfonic acid (PFBS)	ND		0.76	2.6		ng/L	1/20/25 6:24	1/20/25 21:51	JPW	EPA 537.1, Rev 2.0	2
perfluorodecanoic acid (PFDA)	ND		0.56	1.9		ng/L	1/20/25 6:24	1/20/25 21:51	JPW	EPA 537.1, Rev 2.0	2
perfluorododecanoic acid (PFDoA)	ND		0.65	2.1		ng/L	1/20/25 6:24	1/20/25 21:51	JPW	EPA 537.1, Rev 2.0	2
perfluoroheptanoic acid (PFHpA)	ND		0.56	1.9		ng/L	1/20/25 6:24	1/20/25 21:51	JPW	EPA 537.1, Rev 2.0	2
perfluorohexanoic acid (PFHxA)	ND		0.59	1.9		ng/L	1/20/25 6:24	1/20/25 21:51	JPW	EPA 537.1, Rev 2.0	2
perfluorohexanesulfonic acid (PFHxS)	ND		0.66	2.2		ng/L	1/20/25 6:24	1/20/25 21:51	JPW	EPA 537.1, Rev 2.0	2
perfluorononanoic acid (PFNA)	ND		0.54	1.8		ng/L	1/20/25 6:24	1/20/25 21:51	JPW	EPA 537.1, Rev 2.0	2
perfluorooctanoic acid (PFOA)	ND		0.49	1.6		ng/L	1/20/25 6:24	1/20/25 21:51	JPW	EPA 537.1, Rev 2.0	2
perfluorooctanesulfonic acid (PFOS)	ND		0.50	1.7		ng/L	1/20/25 6:24	1/20/25 21:51	JPW	EPA 537.1, Rev 2.0	2
perfluorotetradecanoic acid (PFTA)	ND		0.56	1.9		ng/L	1/20/25 6:24	1/20/25 21:51	JPW	EPA 537.1, Rev 2.0	2
perfluorotridecanoic acid (PFTTrDA)	ND		0.56	1.9		ng/L	1/20/25 6:24	1/20/25 21:51	JPW	EPA 537.1, Rev 2.0	2
perfluoroundecanoic acid (PFUnA)	ND		0.54	1.8		ng/L	1/20/25 6:24	1/20/25 21:51	JPW	EPA 537.1, Rev 2.0	2
<i>Surrogate: (SURR) C13-PFHxA</i>	<i>99%</i>						<i>1/20/25 6:24</i>	<i>1/20/25 21:51</i>	<i>JPW</i>	<i>EPA 537.1, Rev 2.0</i>	<i>2</i>
<i>Surrogate: (SURR) C13-HFPODA</i>	<i>97%</i>						<i>1/20/25 6:24</i>	<i>1/20/25 21:51</i>	<i>JPW</i>	<i>EPA 537.1, Rev 2.0</i>	<i>2</i>
<i>Surrogate: (SURR) C13-PFDA</i>	<i>102%</i>						<i>1/20/25 6:24</i>	<i>1/20/25 21:51</i>	<i>JPW</i>	<i>EPA 537.1, Rev 2.0</i>	<i>2</i>
<i>Surrogate: (SURR) d5-NEtFOSAA</i>	<i>92%</i>						<i>1/20/25 6:24</i>	<i>1/20/25 21:51</i>	<i>JPW</i>	<i>EPA 537.1, Rev 2.0</i>	<i>2</i>



Marshfield Electric & Water Utilities 2000 South Central Avenue Marshfield, WI 54449	Project: 2025 Quarterly Drinking Water Project Number: 2025 WDNR Drinking Water Requirements Project Manager: John Richmond	Reported: 1/22/25 12:43	Work Order: CD00188
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Sample: EP200 (VOC)

CD00188-03 (DW) Sampled: 01/07/25 08:14

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Volatiles											
Benzene	ND		0.11	0.37	5	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Bromobenzene	ND		0.19	0.63		ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Bromodichloromethane	1.0		0.17	0.57	80	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Bromoform	0.29	J	0.24	0.80	80	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Bromomethane	ND		0.30	1.0		ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Carbon Tetrachloride	ND		0.19	0.63	5	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Chloroethane	ND		0.13	0.43		ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Chloroform	0.33	J	0.14	0.47	80	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Chloromethane	ND		0.27	0.90		ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
2-Chlorotoluene	ND		0.21	0.70		ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
4-Chlorotoluene	ND		0.19	0.63		ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Dibromochloromethane	1.4		0.24	0.80	80	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Dibromomethane	ND		0.22	0.73		ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
1,3-Dichlorobenzene	ND		0.28	0.93		ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
1,2-Dichlorobenzene	ND		0.32	1.1	600	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
1,4-Dichlorobenzene	ND		0.29	0.97	75	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
1,1-Dichloroethane	ND		0.083	0.28		ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
1,2-Dichloroethane	ND		0.13	0.43	5	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
1,1-Dichloroethene	ND		0.14	0.47	7	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
cis-1,2-Dichloroethene	ND		0.15	0.50	70	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
trans-1,2-Dichloroethene	ND		0.11	0.37	100	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Dichloromethane	ND		0.38	1.3	5	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
1,2-Dichloropropane	ND		0.16	0.53	5	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
1,3-Dichloropropane	ND		0.24	0.80		ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
2,2-Dichloropropane	ND		0.19	0.63		ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
1,1-Dichloropropene	ND		0.18	0.60		ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
1,3-Dichloropropene (Total cis+trans)	ND		0.51	1.7		ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Ethyl Benzene	ND		0.21	0.70	700	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Chlorobenzene	ND		0.20	0.67	100	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Styrene	ND		0.19	0.63	100	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
1,1,1,2-Tetrachloroethane	ND		0.19	0.63		ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
1,1,2,2-Tetrachloroethane	ND		0.28	0.93		ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document. No duplication of this report is allowed, except in its entirety.



Marshfield Electric & Water Utilities
 2000 South Central Avenue
 Marshfield, WI 54449

Project: 2025 Quarterly Drinking Water
 Project Number: 2025 WDNR Drinking Water Requirements
 Project Manager: John Richmond

Reported:
 1/22/25 12:43

Work Order:
 CD00188

Sample: EP200 (VOC) (Continued)

CD00188-03 (DW) Sampled: 01/07/25 08:14

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Volatiles (Continued)											
Tetrachloroethene	0.63	J	0.49	1.6	5	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Toluene	ND		0.17	0.57	1000	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
1,2,4-Trichlorobenzene	ND		0.28	0.93	70	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
1,1,1-Trichloroethane	ND		0.15	0.50	200	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
1,1,2-Trichloroethane	ND		0.21	0.70	5	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Trichloroethene	0.21	J	0.17	0.57	5	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
1,2,3-Trichloropropane	ND		0.42	1.4		ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Vinyl Chloride	ND		0.086	0.29	0.2	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Xylene (Total)	ND		0.24	0.80	10000	ug/L	1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
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Surrogate: (SURR) 4-Bromofluorobenzene	68%		Limits: 36-122%				1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2
Surrogate: (SURR) 1,2-Dichlorobenzene-d4	79%		Limits: 42-127%				1/9/25 12:39	1/9/25 20:30	JLG	EPA 524.2, Rev 4.1	2



Marshfield Electric & Water Utilities
 2000 South Central Avenue
 Marshfield, WI 54449

Project: 2025 Quarterly Drinking Water
 Project Number: 2025 WDNR Drinking Water Requirements
 Project Manager: John Richmond

Reported:
 1/22/25 12:43

Work Order:
 CD00188

Sample: Trip Blank

CD00188-04 (DW) Sampled: 01/07/25 00:00

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Volatiles											
Benzene	ND		0.11	0.37	5	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Bromobenzene	ND		0.19	0.63		ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Bromodichloromethane	ND		0.17	0.57	80	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Bromoform	ND		0.24	0.80	80	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Bromomethane	ND		0.30	1.0		ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Carbon Tetrachloride	ND		0.19	0.63	5	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Chloroethane	ND		0.13	0.43		ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Chloroform	ND		0.14	0.47	80	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Chloromethane	ND		0.27	0.90		ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
2-Chlorotoluene	ND		0.21	0.70		ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
4-Chlorotoluene	ND		0.19	0.63		ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Dibromochloromethane	ND		0.24	0.80	80	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Dibromomethane	ND		0.22	0.73		ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
1,3-Dichlorobenzene	ND		0.28	0.93		ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
1,2-Dichlorobenzene	ND		0.32	1.1	600	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
1,4-Dichlorobenzene	ND		0.29	0.97	75	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
1,1-Dichloroethane	ND		0.083	0.28		ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
1,2-Dichloroethane	ND		0.13	0.43	5	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
1,1-Dichloroethene	ND		0.14	0.47	7	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
cis-1,2-Dichloroethene	ND		0.15	0.50	70	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
trans-1,2-Dichloroethene	ND		0.11	0.37	100	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Dichloromethane	ND		0.38	1.3	5	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
1,2-Dichloropropane	ND		0.16	0.53	5	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
1,3-Dichloropropane	ND		0.24	0.80		ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
2,2-Dichloropropane	ND		0.19	0.63		ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
1,1-Dichloropropene	ND		0.18	0.60		ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
1,3-Dichloropropene (Total cis+trans)	ND		0.51	1.7		ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Ethyl Benzene	ND		0.21	0.70	700	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Chlorobenzene	ND		0.20	0.67	100	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Styrene	ND		0.19	0.63	100	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
1,1,1,2-Tetrachloroethane	ND		0.19	0.63		ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
1,1,1,2-Tetrachloroethane	ND		0.28	0.93		ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2

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Marshfield Electric & Water Utilities
 2000 South Central Avenue
 Marshfield, WI 54449

Project: 2025 Quarterly Drinking Water
 Project Number: 2025 WDNR Drinking Water Requirements
 Project Manager: John Richmond

Reported:
 1/22/25 12:43

Work Order:
 CD00188

Sample: Trip Blank (Continued)

CD00188-04 (DW) Sampled: 01/07/25 00:00

Analyte	Result	Qualifier	LOD	LOQ	MCL	Units	Date Prepared	Date Analyzed	Analyst	Method	Lab Cert Code
Volatiles (Continued)											
Tetrachloroethene	ND		0.49	1.6	5	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
1,2,4-Trichlorobenzene	ND		0.28	0.93	70	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
1,1,1-Trichloroethane	ND		0.15	0.50	200	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
1,1,2-Trichloroethane	ND		0.21	0.70	5	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Trichloroethene	ND		0.17	0.57	5	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
1,2,3-Trichloropropane	ND		0.42	1.4		ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Vinyl Chloride	ND		0.086	0.29	0.2	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Xylene (Total)	ND		0.24	0.80	10000	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Toluene	ND		0.17	0.57	1000	ug/L	1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
<hr/>											
Surrogate: (SURR) 4-Bromofluorobenzene	68%		Limits: 36-122%				1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2
Surrogate: (SURR) 1,2-Dichlorobenzene-d4	78%		Limits: 42-127%				1/10/25 12:39	1/10/25 15:43	JLG	EPA 524.2, Rev 4.1	2



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: 2025 Quarterly Drinking Water
Project Number: 2025 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
1/22/25 12:43

Work Order:
CD00188

List of Certifications

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



Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Project: 2025 Quarterly Drinking Water
Project Number: 2025 WDNR Drinking Water Requirements
Project Manager: John Richmond

Reported:
1/22/25 12:43

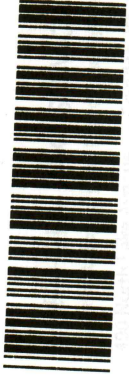
Work Order:
CD00188

Qualifiers and Definitions

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

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

CD00188



SAMPLE COLLECTION AND CHAIN OF CUSTODY RECORD
 Wisconsin Lab Cert. No. 721026
 WI DATCP 103-000330

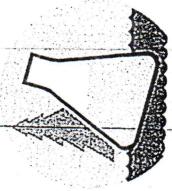
CLIENT: Marshfield Utilities
 ADDRESS: 2000 S. Central Ave STATE: WI ZIP: 54449
 CITY: MARSHFIELD QUOTATION NO.
 PROJECT DESCRIPTION / NO.
 DNR FID # _____ DNR LICENSE # _____
 CONTACT: JOHN RICHMOND PHONE: 715-387-1195
 PURCHASE ORDER NO. _____ FAX _____

MATRIX:
 SW = surface water
 WW = waste water
 GW = groundwater
 DW = drinking water
 TIS = tissue
 AIR = air
 SOIL = soil
 SED = sediment
 PROD = product
 SL = sludge
 OTHER _____

USE BOXES BELOW: Indicate Y or N if GW Sample is field filtered.
 Indicate G or C if WW Sample is Grab or Composite.

ANALYZE PER ORDER OF ANALYSIS

NO.	COLLECTION DATE	TIME	MATRIX (see above)	COLLECTION REMARKS (i.e. DNR Well ID #)
1.	01-07-25	0814	DW	
2.	01-07-25	0814	DW	
3.	01-07-25	0814	DW	
4.				
5.				
6.				
7.				
8.				
9.				
10.				



COLLECTED BY (signature) _____ DATE/TIME _____
 CUSTODY SEAL NO. (IF ANY) _____
 RELINQUISHED BY (signature) _____ DATE/TIME _____
 DISPATCHED BY (signature) _____ DATE/TIME _____

METHOD OF TRANSPORT: BY TRUCK

RECEIVED AT NLS BY (signature) _____ DATE/TIME: 1/8/25 830 TEMP: 0.0
 REMARKS & OTHER INFORMATION: CONDITON
 WONR FACILITY NUMBER: Illigona lot # verified E-MAIL ADDRESS _____

COOLER # _____ PRESERVATIVE: N = nitric acid OH = sodium hydroxide
 NP = no preservative Z = zinc acetate HA = hydrochloric & ascorbic acid
 S = sulfuric acid M = methanol H = hydrochloric acid


IMPORTANT:
 1. TO MEET REGULATORY REQUIREMENTS, THIS FORM MUST BE COMPLETED IN DETAIL AND INCLUDED IN THE COOLER CONTAINING THE SAMPLES DESCRIBED.
 2. PLEASE USE ONE LINE PER SAMPLE, NOT PER BOTTLE.
 3. RETURN THIS FORM WITH SAMPLES - CLIENT MAY KEEP PINK COPY.
 4. PARTIES COLLECTING SAMPLE, LISTED AS REPORT TO AND LISTED AS INVOICED TO AGREE TO STANDARD TERMS & CONDITIONS ON REVERSE.

REPORT TO: JOHN RICHMOND
MARSHFIELD UTILITIES
 INVOICE TO: MARSHFIELD UTILITIES

PFAS ANALYSIS

(ENCLOSE FORM WHEN SENDING SAMPLE TO LAB)

Section I: System Information (to be completed by Department of Natural Resources/SAMPLER)

System Name: **MARSHFIELD UTILITIES** PWS ID: **77201652**
DNR Contact: **JESSICA MINICH (715)797-5360** Region: **6** Type: **MC** 
System Address: **2000 S CENTRAL AVE** City: **MARSHFIELD** County: **WOOD**
Entry Point ID: **200** WI Unique Well No: _____ Note: **System Chlorinates.**

Sampler Contact Info: (Notify DNR Contact of Corrections) (715)898-2171 JOHN RICHMOND 2000 S CENTRAL AVE MARSHFIELD WI 54449	Sampler: (Leave Blank If You Don't Use These Services) Provide information to have results faxed or emailed or to change a billing address, if your lab offers these services Fax Number: _____ Email: _____ Billing Address: _____
---	--

Sample Source: (Location)	Sample Type: (Check Only One)
<input type="checkbox"/> W - Well Source	<input checked="" type="checkbox"/> D - Compliance Sample
<input checked="" type="checkbox"/> E - Entry Point	<input type="checkbox"/> C - Confirmation Sample
<input type="checkbox"/> D - Distribution System	<input type="checkbox"/> I - Investigation Sample
	<input type="checkbox"/> W - Raw Water Sample

Special Instructions: _____

Collect Sample between: **1/1/2025** and **3/31/2025**

Section II: Sample Information (to be completed by SAMPLER -- ALL ITEMS REQUIRED)

Sample Collection Date: **1/07/25** (mm/dd/yyyy) Time: **08 : 14** a.m. p.m.
Address where sample was collected: **710 E. 29th ST**
Monitoring Site ID: **200** Sample Tap Location (e.g. kitchen sink): **SMOOTH FAUCET**
First Initial and Last Name of Sampler: **A - PAUN** Sampler Phone: **(715) 387-1195**

Section III: To be completed by LAB. Report results on back for PWS and electronically to DNR within 10 days per NR 809.80

Check here if some or all of the parameters were analyzed by a subcontracted lab.

NOTE: A separate form must be completed by each lab with data for only the parameters which that lab analyzed.

Laboratory ID: _____ Laboratory Name: _____
Date Sample Received: **/ /** Time: **:** Lab Sample ID: _____
Signature of Receiving Lab Official: _____ Date Reported to PWS: **/ /**
Condition of Sample Upon Receipt: _____

Notice: This form must be submitted with laboratory samples analyzed to determine compliance with ch. NR 809, Wis. Adm. Code, Safe Drinking Water. Completion of this form or a similar form approved by the Department is mandatory. Failure to submit a completed form to the Department is a violation punishable by a forfeiture of no less than \$10 nor more than \$5000, or by a fine of not less than \$10 nor more than \$100 or imprisonment of not less than 30 days, or both. Each day of continued violation is a separate offense (ss. 144.99, Wis. Stats.). Authorization for these requirement is under s. 280.13(d), Wis. Stats. and ch. NR 809.80. Personally identifiable information on this form will be used for no other purpose. Reference Requirement #111406975.

VOLATILE ORGANIC ANALYSES

(ENCLOSE FORM WHEN SENDING SAMPLE TO LAB)

Section I: System Information (to be completed by Department of Natural Resources/SAMPLER)

System Name: MARSHFIELD UTILITIES PWS ID: 77201652

DNR Contact: JESSICA MINICH (715)797-5360 Region: 6 Type: MC 

System Address: 2000 S CENTRAL AVE City: MARSHFIELD County: WOOD

Entry Point ID: 200 WI Unique Well No: _____ Note: System Chlorinates.

Sampler Contact Info: (Notify DNR Contact of Corrections) (715)898-2171 JOHN RICHMOND 2000 S CENTRAL AVE MARSHFIELD WI 54449		Sampler: (Leave Blank If You Don't Use These Services) Provide information to have results faxed or emailed or to change a billing address, if your lab offers these services Fax Number: _____ Email: _____ Billing Address: _____	
Sample Source: (Location) <input type="checkbox"/> W - Well Source <input checked="" type="checkbox"/> E - Entry Point <input type="checkbox"/> D - Distribution System	Sample Type: (Check Only One) <input checked="" type="checkbox"/> D - Compliance Sample <input type="checkbox"/> C - Confirmation Sample <input type="checkbox"/> I - Investigation Sample <input type="checkbox"/> W - Raw Water Sample		

Special Instructions:

Collect Sample between: 1/1/2025 and 3/31/2025

Section II: Sample Information (to be completed by SAMPLER -- ALL ITEMS REQUIRED)

Sample Collection Date: 1/07/25 (mm/dd/yyyy) Time: 08 : 14 a.m. p.m.

Address where sample was collected: 710 E. 29TH ST

Monitoring Site ID: 200 Sample Tap Location (e.g. kitchen sink): SMOOTH FAUCET

First Initial and Last Name of Sampler: A - PAVN Sampler Phone: (715)387-1195

Section III: To be completed by LAB. Report results on back for PWS and electronically to DNR within 10 days per NR 809.80

Check here if some or all of the parameters were analyzed by a subcontracted lab.

NOTE: A separate form must be completed by each lab with data for only the parameters which that lab analyzed.

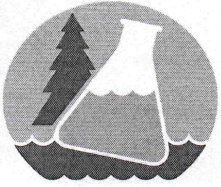
Laboratory ID: _____ Laboratory Name: _____

Date Sample Received: / / Time: : : Lab Sample ID: _____

Signature of Receiving Lab Official: _____ Date Reported to PWS: / /

Condition of Sample Upon Receipt: _____

Notice: This form must be submitted with laboratory samples analyzed to determine compliance with ch. NR 809, Wis. Adm. Code, Safe Drinking Water. Completion of this form or a similar form approved by the Department is mandatory. Failure to submit a completed form to the Department is a violation punishable by a forfeiture of no less than \$10 nor more than \$5000, or by a fine of not less than \$10 nor more than \$100 or imprisonment of not less than 30 days, or both. Each day of continued violation is a separate offense (ss. 144.99, Wis. Stats.). Authorization for these requirement is under s. 280.13(d), Wis. Stats. and ch. NR 809.80. Personally identifiable information on this form will be used for no other purpose. Reference Requirement #112323543.



Northern Lake Service Inc.
ENVIRONMENTAL ANALYTICAL LABORATORY
400 N Lake Ave | Crandon, WI 54520 | 800-278-1254 | www.nlslab.com

BOTTLE ORDER/PACKING LIST

Ship To:

John Richmond
Marshfield Electric & Water Utilities
2000 South Central Avenue
Marshfield, WI 54449

Phone: (715) 387-1195
Fax: (715) 389-2016
Email: john.richmond@marshfieldutilities.org

PWS ID: 77201652
Project: 2025 Quarterly Drinking Water

Order
Comments:

Bottle Order Number: C010505

Date Submitted: 12/05/2024

Date Needed: 01/01/2025

Shipping Method: Speedee (C)

Tracking Number:

Shipping Comments:

Quarterly

Container	Qty	Analysis	Matrix	Comments
EP200 (PFAS)				
P 250 Trizma	1	537.1 Perfluorinated Chemicals by LC/MS/MS	DW	
P 250 Trizma	1	537.1 Perfluorinated Chemicals by LC/MS/MS	DW	
EP200 (VOC)				
Vial CG 40/0.025g AA	1	524.2 VOCs by GC/MS	DW	
Vial CG 40/0.025g AA	1	524.2 VOCs by GC/MS	DW	
EP200 Field Blank				
P 250 Trizma	1	537.1 Perfluorinated Chemicals Field Blank	DW	
Trip Blank				
Vial CG 40 HCl	1	524.2 VOCs by GC/MS Trip Blank	DW	