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: 644500001

Report To:

DNR DG PFAS GROUNDWATER STUDY

Invoice To:

ZANA SIJAN
WISCONSIN DNR

Customer ID: DG098

Field #: EJ981
Project No:

Collection End: 9/22/2022 10:15:00 AM
Collection Start:
Collected By: MATT SILVER
Date Received: 9/23/2022
Date Reported: 10/7/2022
Sample Reason:

ID#: EJ981
Sample Location: 4168 DEPOT RD, RHINELANDER WI 54501
Sample Description:
Sample Type: PO-PRIVATE WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

Data not reported for PFECHS due to chromatographic irregularities relative to standard/QC chromatography, significant transition ion ratio failure, and shifted/mismatching retention times between primary and secondary ion channels.

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 09/28/22 10:11	Analysis Date: 10/03/22 19:28				
PFBS (375-73-5)	WSLH PFAS in Ground Water	9.54	ng/L	0.222	0.960
4:2 FTSA (757124-72-4)	WSLH PFAS in Ground Water	<0.182	ng/L	0.182	0.960
PFPeS (2706-91-4)	WSLH PFAS in Ground Water	6.42	ng/L	0.131	0.960
HFPO-DA (13252-13-6)	WSLH PFAS in Ground Water	<0.184	ng/L	0.184	0.960
DONA (919005-14-4)	WSLH PFAS in Ground Water	<0.123	ng/L	0.123	0.960
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Ground Water	<0.175	ng/L	0.175	0.960
The internal standard QC limit has failed low.					
8:2 FTSA (39108-34-4)	WSLH PFAS in Ground Water	<0.252	ng/L	0.252	0.960
PFDA (335-76-2)	WSLH PFAS in Ground Water	6.21	ng/L	0.156	0.960
PFNS (68259-12-1)	WSLH PFAS in Ground Water	<0.175	ng/L	0.175	0.960

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Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 09/28/22 10:11	Analysis Date: 10/03/22 19:28				
N-MeFOSAA (2355-31-9)	WSLH PFAS in Ground Water	<0.210	ng/L	0.210	0.960
N-EtFOSAA (2991-50-6)	WSLH PFAS in Ground Water	<0.204	ng/L	0.204	0.960
FOSA (754-91-6)	WSLH PFAS in Ground Water	<0.149	ng/L	0.149	0.960
PFUnA (2058-94-8)	WSLH PFAS in Ground Water	<0.213	ng/L	0.213	0.960
PFDS (335-77-3)	WSLH PFAS in Ground Water	<0.247	ng/L	0.247	0.960
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Ground Water	<0.143	ng/L	0.143	0.960
PFDoA (307-55-1)	WSLH PFAS in Ground Water	<0.260	ng/L	0.260	0.960
PFDoS (79780-39-5)	WSLH PFAS in Ground Water	<0.382	ng/L	0.382	0.960
The internal standard QC limit has failed low.					
PFTrDA (72629-94-8)	WSLH PFAS in Ground Water	<0.185	ng/L	0.185	0.960
N-MeFOSA (31506-32-8)	WSLH PFAS in Ground Water	<0.960	ng/L	0.960	1.92
The internal standard QC limit has failed low.					
N-MeFOSE (24448-09-7)	WSLH PFAS in Ground Water	<0.270	ng/L	0.270	0.960
N-EtFOSA (4151-50-2)	WSLH PFAS in Ground Water	<0.666	ng/L	0.666	1.92
The internal standard QC limit has failed low.					
N-EtFOSE (1691-99-2)	WSLH PFAS in Ground Water	<0.204	ng/L	0.204	0.960
The internal standard QC limit has failed low.					
PFTeDA (376-06-7)	WSLH PFAS in Ground Water	<0.168	ng/L	0.168	0.960
The internal standard QC limit has failed low.					
10:2 FTSA (120226-60-0)	WSLH PFAS in Ground Water	<0.197	ng/L	0.197	0.960
PFPrS (423-41-6)	WSLH PFAS in Ground Water	3.00	ng/L	0.248	0.960
FPrPA (356-02-5)	WSLH PFAS in Ground Water	<0.240	ng/L	0.240	0.960
PFBSA (30334-69-1)	WSLH PFAS in Ground Water	<0.415	ng/L	0.415	0.960
FPePA (914637-49-3)	WSLH PFAS in Ground Water	<0.372	ng/L	0.372	0.960

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Environmental Health Division

WSLH Sample: 644500001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 09/28/22 10:11	Analysis Date: 10/03/22 19:28				
FHUEA (70887-88-6)	WSLH PFAS in Ground Water	<0.277	ng/L	0.277	0.960
PFHxSA (41997-13-1)	WSLH PFAS in Ground Water	<0.465	ng/L	0.465	0.960
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
FHpPA (812-70-4)	WSLH PFAS in Ground Water	<0.422	ng/L	0.422	0.960
FOUEA (70887-84-2)	WSLH PFAS in Ground Water	<0.209	ng/L	0.209	0.960
FDUEA (70887-94-4)	WSLH PFAS in Ground Water	<0.351	ng/L	0.351	0.960

Field Data

Analyte	Analysis Method	Result	Units
Sample Temp-field (C)	Field Data	11.7	Centigrade
DO field (mg/L)	Field Data	7.5	mg/L
pH (SU) field	Field Data	6.2	SU
Cond-fld (uS/CM@25C)	Field Data	110	UMHOS/CM

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 09/28/22 10:11	Analysis Date: 10/03/22 19:59				
PFBA (375-22-4)	WSLH PFAS in Ground Water	411	ng/L	3.46	10.0
PFHxS (355-46-4)	WSLH PFAS in Ground Water	134	ng/L	1.42	10.0
6:2 FTSA (27619-97-2)	WSLH PFAS in Ground Water	35.0	ng/L	2.72	10.0
PFHpS (375-92-8)	WSLH PFAS in Ground Water	202	ng/L	1.90	10.0
PFNA (375-95-1)	WSLH PFAS in Ground Water	492	ng/L	1.48	10.0
Prep Date: 09/28/22 10:11	Analysis Date: 10/03/22 22:03				
PFPeA (2706-90-3)	WSLH PFAS in Ground Water	1390	ng/L	30.0	200
PFHxA (307-24-4)	WSLH PFAS in Ground Water	1990	ng/L	40.8	200

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WSLH Sample: 644500001

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 09/28/22 10:11	Analysis Date: 10/03/22 22:03				
PFHpA (375-85-9)	WSLH PFAS in Ground Water	2730	ng/L	30.0	200
PFOA (335-67-1)	WSLH PFAS in Ground Water	11300	ng/L	21.6	200
PFOS (1763-23-1)	WSLH PFAS in Ground Water	3130	ng/L	28.6	200

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Laboratory Report

Environmental Health Division

WSLH Sample: 644500001

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
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

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: 644500002

Report To:

DNR DG PFAS GROUNDWATER STUDY

Invoice To:

ZANA SIJAN
WISCONSIN DNR

Customer ID: DG098

Field #: FRB2
Project No:

Collection End: 9/22/2022 10:15:00 AM
Collection Start:
Collected By: MATT SILVER
Date Received: 9/23/2022
Date Reported: 10/7/2022
Sample Reason:

ID#: EJ981
Sample Location: 4168 DEPOT RD, RHINELANDER WI 54501
Sample Description:
Sample Type: PO-PRIVATE WELL
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

FIELD REAGENT BLANK (FRB)

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 09/28/22 10:11	Analysis Date: 10/03/22 21:01				
PFBA (375-22-4)	WSLH PFAS in Ground Water	<0.343	ng/L	0.343	0.991
PFPeA (2706-90-3)	WSLH PFAS in Ground Water	<0.149	ng/L	0.149	0.991
PFBS (375-73-5)	WSLH PFAS in Ground Water	<0.229	ng/L	0.229	0.991
4:2 FTSA (757124-72-4)	WSLH PFAS in Ground Water	<0.188	ng/L	0.188	0.991
PFHxA (307-24-4)	WSLH PFAS in Ground Water	<0.202	ng/L	0.202	0.991
PFPeS (2706-91-4)	WSLH PFAS in Ground Water	<0.135	ng/L	0.135	0.991
HFPO-DA (13252-13-6)	WSLH PFAS in Ground Water	<0.190	ng/L	0.190	0.991
PFHpA (375-85-9)	WSLH PFAS in Ground Water	<0.149	ng/L	0.149	0.991
PFHxS (355-46-4)	WSLH PFAS in Ground Water	<0.141	ng/L	0.141	0.991
DONA (919005-14-4)	WSLH PFAS in Ground Water	<0.127	ng/L	0.127	0.991

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WSLH Sample: 644500002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 09/28/22 10:11	Analysis Date: 10/03/22 21:01				
6:2 FTSA (27619-97-2)	WSLH PFAS in Ground Water	<0.270	ng/L	0.270	0.991
PFOA (335-67-1)	WSLH PFAS in Ground Water	<0.107	ng/L	0.107	0.991
PFHpS (375-92-8)	WSLH PFAS in Ground Water	<0.188	ng/L	0.188	0.991
PFOS (1763-23-1)	WSLH PFAS in Ground Water	<0.142	ng/L	0.142	0.991
PFNA (375-95-1)	WSLH PFAS in Ground Water	<0.147	ng/L	0.147	0.991
9Cl-PF3ONS (756426-58-1)	WSLH PFAS in Ground Water	<0.180	ng/L	0.180	0.991
8:2 FTSA (39108-34-4)	WSLH PFAS in Ground Water	<0.260	ng/L	0.260	0.991
PFDA (335-76-2)	WSLH PFAS in Ground Water	<0.162	ng/L	0.162	0.991
PFNS (68259-12-1)	WSLH PFAS in Ground Water	<0.180	ng/L	0.180	0.991
N-MeFOSAA (2355-31-9)	WSLH PFAS in Ground Water	<0.217	ng/L	0.217	0.991
N-EtFOSAA (2991-50-6)	WSLH PFAS in Ground Water	<0.210	ng/L	0.210	0.991
FOSA (754-91-6)	WSLH PFAS in Ground Water	<0.154	ng/L	0.154	0.991
PFUnA (2058-94-8)	WSLH PFAS in Ground Water	<0.220	ng/L	0.220	0.991
PFDS (335-77-3)	WSLH PFAS in Ground Water	<0.255	ng/L	0.255	0.991
11Cl-PF3OUdS (763051-92-9)	WSLH PFAS in Ground Water	<0.148	ng/L	0.148	0.991
PFDoA (307-55-1)	WSLH PFAS in Ground Water	<0.269	ng/L	0.269	0.991
PFDoS (79780-39-5)	WSLH PFAS in Ground Water	<0.395	ng/L	0.395	0.991
PFTrDA (72629-94-8)	WSLH PFAS in Ground Water	<0.191	ng/L	0.191	0.991
N-MeFOSA (31506-32-8)	WSLH PFAS in Ground Water	<0.991	ng/L	0.991	1.98
N-MeFOSE (24448-09-7)	WSLH PFAS in Ground Water	<0.279	ng/L	0.279	0.991
N-EtFOSA (4151-50-2)	WSLH PFAS in Ground Water	<0.688	ng/L	0.688	1.98
N-EtFOSE (1691-99-2)	WSLH PFAS in Ground Water	<0.210	ng/L	0.210	0.991

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Laboratory Report

Environmental Health Division

WSLH Sample: 644500002

PFAS in Water

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date: 09/28/22 10:11	Analysis Date: 10/03/22 21:01				
PFTeDA (376-06-7)	WSLH PFAS in Ground Water	<0.173	ng/L	0.173	0.991
10:2 FTSA (120226-60-0)	WSLH PFAS in Ground Water	<0.203	ng/L	0.203	0.991
PFPrS (423-41-6)	WSLH PFAS in Ground Water	<0.256	ng/L	0.256	0.991
FPrPA (356-02-5)	WSLH PFAS in Ground Water	<0.248	ng/L	0.248	0.991
PFBSA (30334-69-1)	WSLH PFAS in Ground Water	<0.428	ng/L	0.428	0.991
FPePA (914637-49-3)	WSLH PFAS in Ground Water	<0.384	ng/L	0.384	0.991
FHUEA (70887-88-6)	WSLH PFAS in Ground Water	<0.286	ng/L	0.286	0.991
PFECHS (133201-07-7)	WSLH PFAS in Ground Water	<0.189	ng/L	0.189	0.991
PFHxSA (41997-13-1)	WSLH PFAS in Ground Water	<0.480	ng/L	0.480	0.991
The Laboratory Control Spike (LCS) does not meet the upper QC limit.					
FHpPA (812-70-4)	WSLH PFAS in Ground Water	<0.436	ng/L	0.436	0.991
FOUEA (70887-84-2)	WSLH PFAS in Ground Water	<0.216	ng/L	0.216	0.991
FDUEA (70887-94-4)	WSLH PFAS in Ground Water	<0.363	ng/L	0.363	0.991

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

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F next to result = Result is between LOD and LOQ
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