3M Environment,
Health, and Safety

3M Menomonie 1425 Stokke Parkway
Menomonie, WI 54751

March 12, 2025

ELECTRONIC MAIL

Re: Firewater Loop Release Response
SERTS ID 20240926WC17; BRRTS ID: 0217590808
3M Menomonie

Dear Mr. Zeichert:

3M Company (3M) hereby submits this letter as a narrative summary for the September 26, 2024 firewater loop release that occurred at the 3M Menomonie facility. Per the direction of the previously assigned Wisconsin Department of Natural Resources (WDNR) regional spills coordinator, Mr. Jayson Schrank, this response is being submitted to you along with the analytical data report of the sampling taken on September 26th.

Release summary-

The site's Plant Engineering team reported unexpected pressure drops in the firewater system. A facility employee investigating a potential leak observed wet ground adjacent to one of the site's fire hydrants at the southern end of the facility. The technician immediately closed valves on both sides of the observed flow location. This stopped the flow, and the system pressure returned to normal. The release was determined to be fire suppression water with low/residual concentrations of per- and poly-fluoroalkyl substances (PFAS) materials due to an historic aqueous film forming foam (AFFF) system release into the facility's main fire water loop. Due to the nature of the leak, an exact volume of water released to the environment could not be determined. The incident was reported to WDNR at 12:05 PM on 9/26/2024

Response actions-

3M contracted an excavation company to excavate visually wetted soils and the top layer of soil where there was obvious overground flow. During the soil removal, the cause of the release was revealed to be a pinhole gap on one of the butt welds of the hydrant connection and the hydrant was repaired. The extent of wetted soils was estimated to be approximately 5,400 square feet near the fire hydrant. Soil was excavated to approximately 20 feet below grade and in an approximately 10-foot radius around the point of origin. In total, 283 tons of material was removed and disposed of at an appropriately licensed facility. Additionally, a contractor was hired to remove water from the fire loop via a vac-truck as well as cleaning a nearby concrete culvert that the water had flowed through.

Prior to excavation, water samples were collected from standing water noted around the fire hydrant and the nearby culvert which had captured the discharge. Water samples were submitted to Pace Analytical Services (Pace) for laboratory analysis of PFAS via EPA

Modified Method 537. Following excavation, confirmatory soil samples were collected from the base of the excavation and submitted to Pace for laboratory analysis of PFAS by EPA Modified Method 537 to determine whether soil impacts remain. The laboratory analytical report is attached. Results indicate that PFAS was present in the water samples and trace PFAS concentrations were present in soils.

Transition to active spill to remediation project-

The release occurred at the location of a historical fire training area which utilized AFFF containing fire extinguishers. Soil samples and groundwater samples collected as part of the ongoing Remedial Investigation have confirmed that the historical use of AFFF is a source of PFAS impacts in groundwater and soil in this area. As such, it is difficult to discern localized environmental impacts due to the September 2024 fire loop release versus those due to historical AFFF usage.

The site is currently engaged in a Remedial Investigation under the WDNR Remediation & Redevelopment program. The BRRTS ID assigned to the project is # 0217590808. Per discussions with the WDNR, it is recommended that potential environmental impacts due to the September 2024 release of fire suppression water be investigated as part of the ongoing remedial investigation. The spill incident is recommended to be closed, and follow-up environmental investigations and/or remediation will be transferred to the Remediation project.

Thank you for the opportunity to provide this response to WDNR, and 3M looks forward to working with WDNR on this project. 3M will reach out to set up a meeting with the WDNR to discuss this letter and 3M's questions in the coming days. In the meantime, if you have any questions or comments on this response, please do not hesitate to contact me via phone at (715) 578-2318 or by email at bdluedtke@mmm.com.

Sincerely,

Brad Luedtke
Environmental Engineer
3M Menomonie

CC: Britta Chambers
LiJane Brunner
Janice Neitzel

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

November 27, 2024

Amanda Albrecht
3M Environmental
3M Center, 260-05-N-17
Saint Paul, MN 551441000

RE: Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Dear Amanda Albrecht:

Enclosed are the analytical results for sample(s) received by the laboratory on October 02, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

This report was revised on November 27, 2024, to add a qualifier regarding EIS/surrogate recovery on sample 10710098001.

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

Sincerely,

Carolynne Trout

Carolynne Trout
carolynne.trout@pacelabs.com
1(612)607-6351
Project Manager

Enclosures

cc: 3M Environmental Laboratory, 3M Environmental

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Pace Analytical Services, LLC
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CERTIFICATIONS

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

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SAMPLE SUMMARY

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10710098001	**Ditch Water Sample 1**	Water	09/26/24 10:14	10/02/24 08:50
10710098002	**Ditch Water Sample 2**	Water	09/26/24 10:19	10/02/24 08:50
10710098003	**Soil Adjacent to Hydrant**	Solid	09/26/24 10:25	10/02/24 08:50
10710098004	**East ditch Soil**	Solid	09/26/24 10:31	10/02/24 08:50
10710098005	**West ditch Soil**	Solid	09/26/24 10:36	10/02/24 08:50

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SAMPLE ANALYTE COUNT

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10710098001	**Ditch Water Sample 1**	ENV-SOP-MIN4-0178	NBH	57	PASI-M
10710098002	**Ditch Water Sample 2**	ENV-SOP-MIN4-0178	NBH	57	PASI-M
10710098003	**Soil Adjacent to Hydrant**	ASTM D2974	NJ1	1	PASI-M
		ENV-SOP-MIN4-0178	NBH	57	PASI-M
10710098004	**East ditch Soil**	ASTM D2974	NJ1	1	PASI-M
		ENV-SOP-MIN4-0178	NBH	57	PASI-M
10710098005	**West ditch Soil**	ASTM D2974	NJ1	1	PASI-M
		ENV-SOP-MIN4-0178	NBH	57	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

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SUMMARY OF DETECTION

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
10710098001	**Ditch Water Sample 1**					
ENV-SOP-MIN4-0178	PFBS	0.00055J	ug/L	0.0019	10/16/24 12:08	
ENV-SOP-MIN4-0178	PFHxA	0.0071	ug/L	0.0021	10/16/24 12:08	
ENV-SOP-MIN4-0178	PFBA	0.0011J	ug/L	0.0021	10/16/24 12:08	
ENV-SOP-MIN4-0178	PFHpS	0.0010J	ug/L	0.0020	10/16/24 12:08	
ENV-SOP-MIN4-0178	PFOSA	0.0015J	ug/L	0.0021	10/16/24 12:08	
ENV-SOP-MIN4-0178	PFPeA	0.00090J	ug/L	0.0021	10/16/24 12:08	
ENV-SOP-MIN4-0178	PFPeS	0.00061J	ug/L	0.0020	10/16/24 12:08	
ENV-SOP-MIN4-0178	PFHpA	0.00048J	ug/L	0.0021	10/16/24 12:08	
ENV-SOP-MIN4-0178	PFHxS	0.0086	ug/L	0.0019	10/16/24 12:08	
ENV-SOP-MIN4-0178	PFOS	0.24	ug/L	0.019	10/16/24 12:22	
ENV-SOP-MIN4-0178	PFOA	0.0019J	ug/L	0.0021	10/16/24 12:08	
10710098002	**Ditch Water Sample 2**					
ENV-SOP-MIN4-0178	PFBS	0.00067J	ug/L	0.0035	10/15/24 19:24	
ENV-SOP-MIN4-0178	PFHxA	0.0084	ug/L	0.0039	10/15/24 19:24	
ENV-SOP-MIN4-0178	PFBA	0.00068J	ug/L	0.0039	10/15/24 19:24	
ENV-SOP-MIN4-0178	PFNS	0.0025J	ug/L	0.0038	10/15/24 19:24	
ENV-SOP-MIN4-0178	PFOSA	0.0026J	ug/L	0.0039	10/15/24 19:24	
ENV-SOP-MIN4-0178	PFPeA	0.0011J	ug/L	0.0039	10/15/24 19:24	
ENV-SOP-MIN4-0178	PFPeS	0.00072J	ug/L	0.0037	10/15/24 19:24	
ENV-SOP-MIN4-0178	PFHpA	0.00049J	ug/L	0.0039	10/15/24 19:24	
ENV-SOP-MIN4-0178	PFHxS	0.010	ug/L	0.0036	10/15/24 19:24	
ENV-SOP-MIN4-0178	PFOS	0.29	ug/L	0.0036	10/15/24 19:24	
ENV-SOP-MIN4-0178	PFOA	0.0022J	ug/L	0.0039	10/15/24 19:24	
10710098003	**Soil Adjacent to Hydrant**					
ASTM D2974	Percent Moisture	11.8	%	0.10	10/09/24 13:58	N2
ENV-SOP-MIN4-0178	PFDA	0.041J	ug/kg	0.11	10/16/24 01:10	
ENV-SOP-MIN4-0178	PFHxA	0.099J	ug/kg	0.11	10/16/24 01:10	
ENV-SOP-MIN4-0178	PFDS	0.82	ug/kg	0.11	10/16/24 01:10	
ENV-SOP-MIN4-0178	PFDoS	0.86	ug/kg	0.11	10/16/24 01:10	
ENV-SOP-MIN4-0178	PFNS	0.51	ug/kg	0.11	10/16/24 01:10	
ENV-SOP-MIN4-0178	PFOSA	0.20	ug/kg	0.11	10/16/24 01:10	
ENV-SOP-MIN4-0178	PFPeA	0.021J	ug/kg	0.11	10/16/24 01:10	
ENV-SOP-MIN4-0178	PFPeS	0.020J	ug/kg	0.11	10/16/24 01:10	
ENV-SOP-MIN4-0178	PFDoA	0.35	ug/kg	0.11	10/16/24 01:10	
ENV-SOP-MIN4-0178	PFHxS	0.32	ug/kg	0.10	10/16/24 01:10	
ENV-SOP-MIN4-0178	PFOS	7.3	ug/kg	0.10	10/16/24 01:10	
ENV-SOP-MIN4-0178	PFOA	0.063J	ug/kg	0.11	10/16/24 01:10	
ENV-SOP-MIN4-0178	PFTrDA	0.028J	ug/kg	0.11	10/16/24 01:10	
ENV-SOP-MIN4-0178	PFUnA	0.12	ug/kg	0.11	10/16/24 01:10	
10710098004	**East ditch Soil**					
ASTM D2974	Percent Moisture	25.5	%	0.10	10/09/24 13:59	N2
ENV-SOP-MIN4-0178	PFHxA	0.042J	ug/kg	0.13	10/11/24 21:32	
ENV-SOP-MIN4-0178	PFDS	0.45	ug/kg	0.12	10/11/24 21:32	
ENV-SOP-MIN4-0178	PFDoS	0.56	ug/kg	0.12	10/11/24 21:32	
ENV-SOP-MIN4-0178	PFNS	0.18	ug/kg	0.12	10/11/24 21:32	
ENV-SOP-MIN4-0178	PFOSA	0.10J	ug/kg	0.13	10/11/24 21:32	

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Minneapolis, MN 55414
(612)607-1700

SUMMARY OF DETECTION

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
10710098004	**East ditch Soil**					
ENV-SOP-MIN4-0178	PFDoA	0.15	ug/kg	0.13	10/11/24 21:32	
ENV-SOP-MIN4-0178	PFHxS	0.33	ug/kg	0.12	10/11/24 21:32	
ENV-SOP-MIN4-0178	PFOS	3.8	ug/kg	0.12	10/11/24 21:32	
ENV-SOP-MIN4-0178	PFOA	0.027J	ug/kg	0.13	10/11/24 21:32	
10710098005	**West ditch Soil**					
ASTM D2974	Percent Moisture	18.4	%	0.10	10/09/24 14:02	N2
ENV-SOP-MIN4-0178	PFBS	0.56	ug/kg	0.10	10/11/24 21:39	
ENV-SOP-MIN4-0178	PFDA	0.13	ug/kg	0.12	10/11/24 21:39	
ENV-SOP-MIN4-0178	PFHxA	2.7	ug/kg	0.12	10/11/24 21:39	
ENV-SOP-MIN4-0178	PFBA	0.59	ug/kg	0.12	10/11/24 21:39	
ENV-SOP-MIN4-0178	PFDS	3.0	ug/kg	0.11	10/11/24 21:39	
ENV-SOP-MIN4-0178	PFDoS	3.5	ug/kg	0.11	10/11/24 21:39	
ENV-SOP-MIN4-0178	PFHpS	2.0	ug/kg	0.11	10/11/24 21:39	
ENV-SOP-MIN4-0178	PFNS	0.92	ug/kg	0.11	10/11/24 21:39	
ENV-SOP-MIN4-0178	PFOSA	1.5	ug/kg	0.12	10/11/24 21:39	
ENV-SOP-MIN4-0178	PFPeA	0.65	ug/kg	0.12	10/11/24 21:39	
ENV-SOP-MIN4-0178	PFPeS	2.0	ug/kg	0.11	10/11/24 21:39	
ENV-SOP-MIN4-0178	PFDoA	0.61	ug/kg	0.12	10/11/24 21:39	
ENV-SOP-MIN4-0178	PFHpA	0.52	ug/kg	0.12	10/11/24 21:39	
ENV-SOP-MIN4-0178	PFHxS	53.4	ug/kg	1.1	10/16/24 00:27	
ENV-SOP-MIN4-0178	PFNA	0.17	ug/kg	0.12	10/11/24 21:39	
ENV-SOP-MIN4-0178	PFOS	26.2	ug/kg	1.1	10/16/24 00:27	
ENV-SOP-MIN4-0178	PFOA	1.1	ug/kg	0.12	10/11/24 21:39	
ENV-SOP-MIN4-0178	PFTeDA	0.027J	ug/kg	0.12	10/11/24 21:39	
ENV-SOP-MIN4-0178	PFTrDA	0.060J	ug/kg	0.12	10/11/24 21:39	
ENV-SOP-MIN4-0178	PFUnA	0.22	ug/kg	0.12	10/11/24 21:39	

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

PROJECT NARRATIVE

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Date: November 27, 2024

L4 PFAS

The quality system for Pace Analytical Services, LLC in Minneapolis, MN (Pace-MN) has been audited and was found to be in conformance with ISO/IEC 17025:2017 by an independent assessment (A2LA Certificate # 2926). The PFAS test results in non-drinking water for this project are not covered by this accreditation.Pace-MN maintains accreditation with the state of Wisconsin for their isotope dilution analysis as defined in ENV-SOP-MIN4-0178 under certificate number999407970. All of the test results for this project are covered by the Wisconsin accreditation.

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PROJECT NARRATIVE

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Method: **ENV-SOP-MIN4-0178**
Description: WI ID NPW
Client: 3M Environmental
Date: November 27, 2024

General Information:
2 samples were analyzed for ENV-SOP-MIN4-0178 by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with ENV-SOP-MIN4-0178 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 972825

S0: Surrogate recovery outside laboratory control limits.

- Ditch Water Sample 1 (Lab ID: 10710098001)
  - 13C28:2FTS (S)
- LCS (Lab ID: 5083867)
  - 13C28:2FTS (S)
- LCSD (Lab ID: 5083868)
  - 13C28:2FTS (S)

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

- BLANK (Lab ID: 5083866)
  - 13C28:2FTS (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

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PROJECT NARRATIVE

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Method: **ENV-SOP-MIN4-0178**
Description: WI ID NPW
Client: 3M Environmental
Date: November 27, 2024

Additional Comments:

Analyte Comments:

QC Batch: 972825

2M: All narrated results associated with this sample confirmed through secondary analysis. Extracted Internal Standards (EIS) with 0% recovery are confirmed based on their low detections meeting signal to noise criteria described in the laboratories SOP.

- Ditch Water Sample 1 (Lab ID: 10710098001)
  - 13C4-PFBA (S)

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PROJECT NARRATIVE

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Method: **ENV-SOP-MIN4-0178**
Description: WI ID SL
Client: 3M Environmental
Date: November 27, 2024

General Information:
3 samples were analyzed for ENV-SOP-MIN4-0178 by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with ENV-SOP-MIN4-0178 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 972819

S0: Surrogate recovery outside laboratory control limits.

- East ditch Soil (Lab ID: 10710098004)
  - 13C28:2FTS (S)
  - d3-NMeFOSA (S)
  - d5-NEtFOSA (S)
- West ditch Soil (Lab ID: 10710098005)
  - 13C28:2FTS (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Method: **ENV-SOP-MIN4-0178**
Description: WI ID SL
Client: 3M Environmental
Date: November 27, 2024

Analyte Comments:

QC Batch: 972819

1M: All narrated results associated with this sample confirmed through secondary analysis.

- East ditch Soil (Lab ID: 10710098004)
  - 13C2-PFDoA (S)
- West ditch Soil (Lab ID: 10710098005)
  - 13C2-PFDoA (S)

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Sample: Ditch Water Sample 1 **Lab ID: 10710098001** Collected: 09/26/24 10:14 Received: 10/02/24 08:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WI ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Initial Volume/Weight: 237.443 mL Final Volume/Weight: 1 mL								
	Pace Analytical Services - Minneapolis								
11Cl-PF3OUdS	**<0.00043**	ug/L	0.0020	0.00043	1	10/11/24 14:00	10/16/24 12:08	763051-92-9	
4:2 FTS	**<0.00038**	ug/L	0.0020	0.00038	1	10/11/24 14:00	10/16/24 12:08	757124-72-4	
6:2 FTS	**<0.00060**	ug/L	0.0020	0.00060	1	10/11/24 14:00	10/16/24 12:08	27619-97-2	
8:2 FTS	**<0.00083**	ug/L	0.0020	0.00083	1	10/11/24 14:00	10/16/24 12:08	39108-34-4	
9Cl-PF3ONS	**<0.00037**	ug/L	0.0020	0.00037	1	10/11/24 14:00	10/16/24 12:08	756426-58-1	
ADONA	**<0.00034**	ug/L	0.0020	0.00034	1	10/11/24 14:00	10/16/24 12:08	919005-14-4	
HFPO-DA	**<0.00027**	ug/L	0.0021	0.00027	1	10/11/24 14:00	10/16/24 12:08	13252-13-6	
NEtFOSAA	**<0.00060**	ug/L	0.0021	0.00060	1	10/11/24 14:00	10/16/24 12:08	2991-50-6	
NEtFOSA	**<0.00048**	ug/L	0.0021	0.00048	1	10/11/24 14:00	10/16/24 12:08	4151-50-2	
NEtFOSE	**<0.00063**	ug/L	0.0021	0.00063	1	10/11/24 14:00	10/16/24 12:08	1691-99-2	
NMeFOSAA	**<0.00082**	ug/L	0.0021	0.00082	1	10/11/24 14:00	10/16/24 12:08	2355-31-9	
NMeFOSA	**<0.00066**	ug/L	0.0021	0.00066	1	10/11/24 14:00	10/16/24 12:08	31506-32-8	
NMeFOSE	**<0.00051**	ug/L	0.0021	0.00051	1	10/11/24 14:00	10/16/24 12:08	24448-09-7	
PFBS	**0.00055J**	ug/L	0.0019	0.00021	1	10/11/24 14:00	10/16/24 12:08	375-73-5	
PFDA	**<0.00026**	ug/L	0.0021	0.00026	1	10/11/24 14:00	10/16/24 12:08	335-76-2	
PFHxA	**0.0071**	ug/L	0.0021	0.00040	1	10/11/24 14:00	10/16/24 12:08	307-24-4	
PFBA	**0.0011J**	ug/L	0.0021	0.00029	1	10/11/24 14:00	10/16/24 12:08	375-22-4	
PFDS	**<0.00060**	ug/L	0.0020	0.00060	1	10/11/24 14:00	10/16/24 12:08	335-77-3	
PFDoS	**<0.00056**	ug/L	0.0020	0.00056	1	10/11/24 14:00	10/16/24 12:08	79780-39-5	
PFHpS	**0.0010J**	ug/L	0.0020	0.00066	1	10/11/24 14:00	10/16/24 12:08	375-92-8	
PFNS	**<0.00050**	ug/L	0.0020	0.00050	1	10/11/24 14:00	10/16/24 12:08	68259-12-1	
PFOSA	**0.0015J**	ug/L	0.0021	0.00042	1	10/11/24 14:00	10/16/24 12:08	754-91-6	
PFPeA	**0.00090J**	ug/L	0.0021	0.00019	1	10/11/24 14:00	10/16/24 12:08	2706-90-3	
PFPeS	**0.00061J**	ug/L	0.0020	0.00027	1	10/11/24 14:00	10/16/24 12:08	2706-91-4	
PFDoA	**<0.00045**	ug/L	0.0021	0.00045	1	10/11/24 14:00	10/16/24 12:08	307-55-1	
PFHpA	**0.00048J**	ug/L	0.0021	0.00025	1	10/11/24 14:00	10/16/24 12:08	375-85-9	
PFHxS	**0.0086**	ug/L	0.0019	0.00025	1	10/11/24 14:00	10/16/24 12:08	355-46-4	
PFNA	**<0.00022**	ug/L	0.0021	0.00022	1	10/11/24 14:00	10/16/24 12:08	375-95-1	
PFOS	**0.24**	ug/L	0.019	0.0054	10	10/11/24 14:00	10/16/24 12:22	1763-23-1	
PFOA	**0.0019J**	ug/L	0.0021	0.00028	1	10/11/24 14:00	10/16/24 12:08	335-67-1	
PFTeDA	**<0.00038**	ug/L	0.0021	0.00038	1	10/11/24 14:00	10/16/24 12:08	376-06-7	
PFTrDA	**<0.00030**	ug/L	0.0021	0.00030	1	10/11/24 14:00	10/16/24 12:08	72629-94-8	
PFUnA	**<0.00067**	ug/L	0.0021	0.00067	1	10/11/24 14:00	10/16/24 12:08	2058-94-8	
Surrogates									
13C4-PFBA (S)	92	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		2M
13C5-PFPeA (S)	90	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		
13C3-PFBS (S)	105	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		
13C24:2FTS (S)	94	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		
13C3HFPO-DA (S)	90	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		
13C4-PFHpA (S)	108	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		
13C3-PFHxS (S)	110	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		
13C26:2FTS (S)	94	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		
13C8-PFOA (S)	112	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		
13C8-PFOS (S)	105	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Sample: Ditch Water Sample 1 **Lab ID: 10710098001** Collected: 09/26/24 10:14 Received: 10/02/24 08:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WI ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Initial Volume/Weight: 237.443 mL Final Volume/Weight: 1 mL								
	Pace Analytical Services - Minneapolis								
Surrogates									
13C9-PFNA (S)	108	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		
13C6-PFDA (S)	126	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		
13C28:2FTS (S)	248	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		S0
d3-MeFOSAA (S)	100	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		
13C7-PFUdA (S)	113	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		
13C8-PFOSA (S)	85	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		
d5-EtFOSAA (S)	103	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		
13C2-PFDoA (S)	101	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		
d3-NMeFOSA (S)	23	%.	10-150		1	10/11/24 14:00	10/16/24 12:08		
d7-NMeFOSE (S)	64	%.	10-150		1	10/11/24 14:00	10/16/24 12:08		
13C2-PFTA (S)	74	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		
d9-NEtFOSE (S)	55	%.	10-150		1	10/11/24 14:00	10/16/24 12:08		
d5-NEtFOSA (S)	21	%.	10-150		1	10/11/24 14:00	10/16/24 12:08		
13C5-PFHxA (S)	112	%.	25-150		1	10/11/24 14:00	10/16/24 12:08		

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ANALYTICAL RESULTS

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Sample: Ditch Water Sample 2 **Lab ID: 10710098002** Collected: 09/26/24 10:19 Received: 10/02/24 08:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WI ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Initial Volume/Weight: 127.967 mL Final Volume/Weight: 1 mL								
	Pace Analytical Services - Minneapolis								
11Cl-PF3OUdS	**<0.00079**	ug/L	0.0037	0.00079	1	10/11/24 14:00	10/15/24 19:24	763051-92-9	
4:2 FTS	**<0.00071**	ug/L	0.0037	0.00071	1	10/11/24 14:00	10/15/24 19:24	757124-72-4	
6:2 FTS	**<0.0011**	ug/L	0.0037	0.0011	1	10/11/24 14:00	10/15/24 19:24	27619-97-2	
8:2 FTS	**<0.0015**	ug/L	0.0038	0.0015	1	10/11/24 14:00	10/15/24 19:24	39108-34-4	
9Cl-PF3ONS	**<0.00069**	ug/L	0.0036	0.00069	1	10/11/24 14:00	10/15/24 19:24	756426-58-1	
ADONA	**<0.00063**	ug/L	0.0037	0.00063	1	10/11/24 14:00	10/15/24 19:24	919005-14-4	
HFPO-DA	**<0.00049**	ug/L	0.0039	0.00049	1	10/11/24 14:00	10/15/24 19:24	13252-13-6	
NEtFOSAA	**<0.0011**	ug/L	0.0039	0.0011	1	10/11/24 14:00	10/15/24 19:24	2991-50-6	
NEtFOSA	**<0.00089**	ug/L	0.0039	0.00089	1	10/11/24 14:00	10/15/24 19:24	4151-50-2	
NEtFOSE	**<0.0012**	ug/L	0.0039	0.0012	1	10/11/24 14:00	10/15/24 19:24	1691-99-2	
NMeFOSAA	**<0.0015**	ug/L	0.0039	0.0015	1	10/11/24 14:00	10/15/24 19:24	2355-31-9	
NMeFOSA	**<0.0012**	ug/L	0.0039	0.0012	1	10/11/24 14:00	10/15/24 19:24	31506-32-8	
NMeFOSE	**<0.00094**	ug/L	0.0039	0.00094	1	10/11/24 14:00	10/15/24 19:24	24448-09-7	
PFBS	**0.00067J**	ug/L	0.0035	0.00040	1	10/11/24 14:00	10/15/24 19:24	375-73-5	
PFDA	**<0.00049**	ug/L	0.0039	0.00049	1	10/11/24 14:00	10/15/24 19:24	335-76-2	
PFHxA	**0.0084**	ug/L	0.0039	0.00074	1	10/11/24 14:00	10/15/24 19:24	307-24-4	
PFBA	**0.00068J**	ug/L	0.0039	0.00055	1	10/11/24 14:00	10/15/24 19:24	375-22-4	
PFDS	**<0.0011**	ug/L	0.0038	0.0011	1	10/11/24 14:00	10/15/24 19:24	335-77-3	
PFDoS	**<0.0010**	ug/L	0.0038	0.0010	1	10/11/24 14:00	10/15/24 19:24	79780-39-5	
PFHpS	**<0.0012**	ug/L	0.0037	0.0012	1	10/11/24 14:00	10/15/24 19:24	375-92-8	
PFNS	**0.0025J**	ug/L	0.0038	0.00093	1	10/11/24 14:00	10/15/24 19:24	68259-12-1	
PFOSA	**0.0026J**	ug/L	0.0039	0.00078	1	10/11/24 14:00	10/15/24 19:24	754-91-6	
PFPeA	**0.0011J**	ug/L	0.0039	0.00036	1	10/11/24 14:00	10/15/24 19:24	2706-90-3	
PFPeS	**0.00072J**	ug/L	0.0037	0.00050	1	10/11/24 14:00	10/15/24 19:24	2706-91-4	
PFDoA	**<0.00084**	ug/L	0.0039	0.00084	1	10/11/24 14:00	10/15/24 19:24	307-55-1	
PFHpA	**0.00049J**	ug/L	0.0039	0.00046	1	10/11/24 14:00	10/15/24 19:24	375-85-9	
PFHxS	**0.010**	ug/L	0.0036	0.00046	1	10/11/24 14:00	10/15/24 19:24	355-46-4	
PFNA	**<0.00041**	ug/L	0.0039	0.00041	1	10/11/24 14:00	10/15/24 19:24	375-95-1	
PFOS	**0.29**	ug/L	0.0036	0.0010	1	10/11/24 14:00	10/15/24 19:24	1763-23-1	
PFOA	**0.0022J**	ug/L	0.0039	0.00052	1	10/11/24 14:00	10/15/24 19:24	335-67-1	
PFTeDA	**<0.00071**	ug/L	0.0039	0.00071	1	10/11/24 14:00	10/15/24 19:24	376-06-7	
PFTrDA	**<0.00055**	ug/L	0.0039	0.00055	1	10/11/24 14:00	10/15/24 19:24	72629-94-8	
PFUnA	**<0.0012**	ug/L	0.0039	0.0012	1	10/11/24 14:00	10/15/24 19:24	2058-94-8	
Surrogates									
13C4-PFBA (S)	103	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		
13C5-PFPeA (S)	105	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		
13C3-PFBS (S)	117	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		
13C24:2FTS (S)	75	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		
13C3HFPO-DA (S)	101	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		
13C4-PFHpA (S)	117	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		
13C3-PFHxS (S)	120	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		
13C26:2FTS (S)	79	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		
13C8-PFOA (S)	120	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		
13C8-PFOS (S)	112	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		

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ANALYTICAL RESULTS

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Sample: Ditch Water Sample 2 **Lab ID: 10710098002** Collected: 09/26/24 10:19 Received: 10/02/24 08:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WI ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Initial Volume/Weight: 127.967 mL Final Volume/Weight: 1 mL								
	Pace Analytical Services - Minneapolis								
Surrogates									
13C9-PFNA (S)	114	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		
13C6-PFDA (S)	133	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		
13C28:2FTS (S)	106	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		
d3-MeFOSAA (S)	88	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		
13C7-PFUdA (S)	113	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		
13C8-PFOSA (S)	96	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		
d5-EtFOSAA (S)	100	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		
13C2-PFDoA (S)	106	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		
d3-NMeFOSA (S)	35	%.	10-150		1	10/11/24 14:00	10/15/24 19:24		
d7-NMeFOSE (S)	81	%.	10-150		1	10/11/24 14:00	10/15/24 19:24		
13C2-PFTA (S)	106	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		
d9-NEtFOSE (S)	71	%.	10-150		1	10/11/24 14:00	10/15/24 19:24		
d5-NEtFOSA (S)	32	%.	10-150		1	10/11/24 14:00	10/15/24 19:24		
13C5-PFHxA (S)	120	%.	25-150		1	10/11/24 14:00	10/15/24 19:24		

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ANALYTICAL RESULTS

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Sample: Soil Adjacent to Hydrant **Lab ID: 10710098003** Collected: 09/26/24 10:25 Received: 10/02/24 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**11.8**	%	0.10	0.10	1		10/09/24 13:58		N2
WI ID SL	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Initial Volume/Weight: 5.037 g Final Volume/Weight: 1 mL								
	Pace Analytical Services - Minneapolis								
11Cl-PF3OUdS	**<0.019**	ug/kg	0.11	0.019	1	10/10/24 13:08	10/16/24 01:10	763051-92-9	
4:2 FTS	**<0.014**	ug/kg	0.11	0.014	1	10/10/24 13:08	10/16/24 01:10	757124-72-4	
6:2 FTS	**<0.023**	ug/kg	0.11	0.023	1	10/10/24 13:08	10/16/24 01:10	27619-97-2	
8:2 FTS	**<0.045**	ug/kg	0.11	0.045	1	10/10/24 13:08	10/16/24 01:10	39108-34-4	
9Cl-PF3ONS	**<0.020**	ug/kg	0.10	0.020	1	10/10/24 13:08	10/16/24 01:10	756426-58-1	
ADONA	**<0.012**	ug/kg	0.11	0.012	1	10/10/24 13:08	10/16/24 01:10	919005-14-4	
HFPO-DA	**<0.020**	ug/kg	0.11	0.020	1	10/10/24 13:08	10/16/24 01:10	13252-13-6	
NEtFOSAA	**<0.019**	ug/kg	0.11	0.019	1	10/10/24 13:08	10/16/24 01:10	2991-50-6	
NEtFOSA	**<0.026**	ug/kg	0.11	0.026	1	10/10/24 13:08	10/16/24 01:10	4151-50-2	
NEtFOSE	**<0.023**	ug/kg	0.11	0.023	1	10/10/24 13:08	10/16/24 01:10	1691-99-2	
NMeFOSAA	**<0.048**	ug/kg	0.11	0.048	1	10/10/24 13:08	10/16/24 01:10	2355-31-9	
NMeFOSA	**<0.041**	ug/kg	0.11	0.041	1	10/10/24 13:08	10/16/24 01:10	31506-32-8	
NMeFOSE	**<0.022**	ug/kg	0.11	0.022	1	10/10/24 13:08	10/16/24 01:10	24448-09-7	
PFBS	**<0.015**	ug/kg	0.10	0.015	1	10/10/24 13:08	10/16/24 01:10	375-73-5	
PFDA	**0.041J**	ug/kg	0.11	0.019	1	10/10/24 13:08	10/16/24 01:10	335-76-2	
PFHxA	**0.099J**	ug/kg	0.11	0.016	1	10/10/24 13:08	10/16/24 01:10	307-24-4	
PFBA	**<0.034**	ug/kg	0.11	0.034	1	10/10/24 13:08	10/16/24 01:10	375-22-4	
PFDS	**0.82**	ug/kg	0.11	0.033	1	10/10/24 13:08	10/16/24 01:10	335-77-3	
PFDoS	**0.86**	ug/kg	0.11	0.027	1	10/10/24 13:08	10/16/24 01:10	79780-39-5	
PFHpS	**<0.027**	ug/kg	0.11	0.027	1	10/10/24 13:08	10/16/24 01:10	375-92-8	
PFNS	**0.51**	ug/kg	0.11	0.031	1	10/10/24 13:08	10/16/24 01:10	68259-12-1	
PFOSA	**0.20**	ug/kg	0.11	0.017	1	10/10/24 13:08	10/16/24 01:10	754-91-6	
PFPeA	**0.021J**	ug/kg	0.11	0.020	1	10/10/24 13:08	10/16/24 01:10	2706-90-3	
PFPeS	**0.020J**	ug/kg	0.11	0.013	1	10/10/24 13:08	10/16/24 01:10	2706-91-4	
PFDoA	**0.35**	ug/kg	0.11	0.026	1	10/10/24 13:08	10/16/24 01:10	307-55-1	
PFHpA	**<0.011**	ug/kg	0.11	0.011	1	10/10/24 13:08	10/16/24 01:10	375-85-9	
PFHxS	**0.32**	ug/kg	0.10	0.012	1	10/10/24 13:08	10/16/24 01:10	355-46-4	
PFNA	**<0.020**	ug/kg	0.11	0.020	1	10/10/24 13:08	10/16/24 01:10	375-95-1	
PFOS	**7.3**	ug/kg	0.10	0.049	1	10/10/24 13:08	10/16/24 01:10	1763-23-1	
PFOA	**0.063J**	ug/kg	0.11	0.014	1	10/10/24 13:08	10/16/24 01:10	335-67-1	
PFTeDA	**<0.018**	ug/kg	0.11	0.018	1	10/10/24 13:08	10/16/24 01:10	376-06-7	
PFTrDA	**0.028J**	ug/kg	0.11	0.024	1	10/10/24 13:08	10/16/24 01:10	72629-94-8	
PFUnA	**0.12**	ug/kg	0.11	0.038	1	10/10/24 13:08	10/16/24 01:10	2058-94-8	
Surrogates									
13C2-PFDoA (S)	98	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
13C2-PFTA (S)	101	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
13C24:2FTS (S)	71	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
13C26:2FTS (S)	80	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
13C28:2FTS (S)	136	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		

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ANALYTICAL RESULTS

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Sample: Soil Adjacent to Hydrant **Lab ID: 10710098003** Collected: 09/26/24 10:25 Received: 10/02/24 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WI ID SL	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Initial Volume/Weight: 5.037 g Final Volume/Weight: 1 mL Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFBS (S)	105	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
13C3-PFHxS (S)	101	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
13C3HFPO-DA (S)	86	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
13C4-PFBA (S)	96	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
13C4-PFHpA (S)	99	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
13C5-PFHxA (S)	100	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
13C5-PFPeA (S)	96	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
13C6-PFDA (S)	110	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
13C7-PFUdA (S)	104	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
13C8-PFOA (S)	100	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
13C8-PFOS (S)	102	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
13C8-PFOSA (S)	94	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
13C9-PFNA (S)	97	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
d3-MeFOSAA (S)	91	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
d3-NMeFOSA (S)	81	%.	10-150		1	10/10/24 13:08	10/16/24 01:10		
d5-EtFOSAA (S)	102	%.	25-150		1	10/10/24 13:08	10/16/24 01:10		
d5-NEtFOSA (S)	79	%.	10-150		1	10/10/24 13:08	10/16/24 01:10		
d7-NMeFOSE (S)	80	%.	10-150		1	10/10/24 13:08	10/16/24 01:10		
d9-NEtFOSE (S)	75	%.	10-150		1	10/10/24 13:08	10/16/24 01:10		

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1700 Elm Street
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(612)607-1700

ANALYTICAL RESULTS

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Sample: East ditch Soil **Lab ID: 10710098004** Collected: 09/26/24 10:31 Received: 10/02/24 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**25.5**	%	0.10	0.10	1		10/09/24 13:59		N2
WI ID SL	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Initial Volume/Weight: 5.223 g Final Volume/Weight: 1 mL								
	Pace Analytical Services - Minneapolis								
11Cl-PF3OUdS	**<0.022**	ug/kg	0.12	0.022	1	10/10/24 13:08	10/11/24 21:32	763051-92-9	
4:2 FTS	**<0.016**	ug/kg	0.12	0.016	1	10/10/24 13:08	10/11/24 21:32	757124-72-4	
6:2 FTS	**<0.026**	ug/kg	0.12	0.026	1	10/10/24 13:08	10/11/24 21:32	27619-97-2	
8:2 FTS	**<0.052**	ug/kg	0.12	0.052	1	10/10/24 13:08	10/11/24 21:32	39108-34-4	
9Cl-PF3ONS	**<0.023**	ug/kg	0.12	0.023	1	10/10/24 13:08	10/11/24 21:32	756426-58-1	
ADONA	**<0.014**	ug/kg	0.12	0.014	1	10/10/24 13:08	10/11/24 21:32	919005-14-4	
HFPO-DA	**<0.022**	ug/kg	0.13	0.022	1	10/10/24 13:08	10/11/24 21:32	13252-13-6	
NEtFOSAA	**<0.022**	ug/kg	0.13	0.022	1	10/10/24 13:08	10/11/24 21:32	2991-50-6	
NEtFOSA	**<0.029**	ug/kg	0.13	0.029	1	10/10/24 13:08	10/11/24 21:32	4151-50-2	
NEtFOSE	**<0.027**	ug/kg	0.13	0.027	1	10/10/24 13:08	10/11/24 21:32	1691-99-2	
NMeFOSAA	**<0.054**	ug/kg	0.13	0.054	1	10/10/24 13:08	10/11/24 21:32	2355-31-9	
NMeFOSA	**<0.046**	ug/kg	0.13	0.046	1	10/10/24 13:08	10/11/24 21:32	31506-32-8	
NMeFOSE	**<0.025**	ug/kg	0.13	0.025	1	10/10/24 13:08	10/11/24 21:32	24448-09-7	
PFBS	**<0.017**	ug/kg	0.11	0.017	1	10/10/24 13:08	10/11/24 21:32	375-73-5	
PFDA	**<0.022**	ug/kg	0.13	0.022	1	10/10/24 13:08	10/11/24 21:32	335-76-2	
PFHxA	**0.042J**	ug/kg	0.13	0.018	1	10/10/24 13:08	10/11/24 21:32	307-24-4	
PFBA	**<0.039**	ug/kg	0.13	0.039	1	10/10/24 13:08	10/11/24 21:32	375-22-4	
PFDS	**0.45**	ug/kg	0.12	0.037	1	10/10/24 13:08	10/11/24 21:32	335-77-3	
PFDoS	**0.56**	ug/kg	0.12	0.031	1	10/10/24 13:08	10/11/24 21:32	79780-39-5	
PFHpS	**<0.031**	ug/kg	0.12	0.031	1	10/10/24 13:08	10/11/24 21:32	375-92-8	
PFNS	**0.18**	ug/kg	0.12	0.035	1	10/10/24 13:08	10/11/24 21:32	68259-12-1	
PFOSA	**0.10J**	ug/kg	0.13	0.019	1	10/10/24 13:08	10/11/24 21:32	754-91-6	
PFPeA	**<0.023**	ug/kg	0.13	0.023	1	10/10/24 13:08	10/11/24 21:32	2706-90-3	
PFPeS	**<0.015**	ug/kg	0.12	0.015	1	10/10/24 13:08	10/11/24 21:32	2706-91-4	
PFDoA	**0.15**	ug/kg	0.13	0.030	1	10/10/24 13:08	10/11/24 21:32	307-55-1	
PFHpA	**<0.013**	ug/kg	0.13	0.013	1	10/10/24 13:08	10/11/24 21:32	375-85-9	
PFHxS	**0.33**	ug/kg	0.12	0.014	1	10/10/24 13:08	10/11/24 21:32	355-46-4	
PFNA	**<0.023**	ug/kg	0.13	0.023	1	10/10/24 13:08	10/11/24 21:32	375-95-1	
PFOS	**3.8**	ug/kg	0.12	0.056	1	10/10/24 13:08	10/11/24 21:32	1763-23-1	
PFOA	**0.027J**	ug/kg	0.13	0.016	1	10/10/24 13:08	10/11/24 21:32	335-67-1	
PFTeDA	**<0.020**	ug/kg	0.13	0.020	1	10/10/24 13:08	10/11/24 21:32	376-06-7	
PFTrDA	**<0.027**	ug/kg	0.13	0.027	1	10/10/24 13:08	10/11/24 21:32	72629-94-8	
PFUnA	**<0.043**	ug/kg	0.13	0.043	1	10/10/24 13:08	10/11/24 21:32	2058-94-8	
Surrogates									
13C2-PFDoA (S)	114	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		1M
13C2-PFTA (S)	113	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		
13C24:2FTS (S)	90	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		
13C26:2FTS (S)	112	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		
13C28:2FTS (S)	210	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		S0

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ANALYTICAL RESULTS

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Sample: East ditch Soil **Lab ID: 10710098004** Collected: 09/26/24 10:31 Received: 10/02/24 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WI ID SL	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Initial Volume/Weight: 5.223 g Final Volume/Weight: 1 mL Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFBS (S)	111	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		
13C3-PFHxS (S)	111	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		
13C3HFPO-DA (S)	97	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		
13C4-PFBA (S)	93	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		
13C4-PFHpA (S)	107	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		
13C5-PFHxA (S)	109	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		
13C5-PFPeA (S)	92	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		
13C6-PFDA (S)	126	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		
13C7-PFUdA (S)	118	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		
13C8-PFOA (S)	108	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		
13C8-PFOS (S)	108	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		
13C8-PFOSA (S)	49	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		
13C9-PFNA (S)	108	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		
d3-MeFOSAA (S)	129	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		
d3-NMeFOSA (S)	8	%.	10-150		1	10/10/24 13:08	10/11/24 21:32		S0
d5-EtFOSAA (S)	128	%.	25-150		1	10/10/24 13:08	10/11/24 21:32		
d5-NEtFOSA (S)	6	%.	10-150		1	10/10/24 13:08	10/11/24 21:32		S0
d7-NMeFOSE (S)	20	%.	10-150		1	10/10/24 13:08	10/11/24 21:32		
d9-NEtFOSE (S)	16	%.	10-150		1	10/10/24 13:08	10/11/24 21:32		

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ANALYTICAL RESULTS

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Sample: West ditch Soil **Lab ID: 10710098005** Collected: 09/26/24 10:36 Received: 10/02/24 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974								
	Pace Analytical Services - Minneapolis								
Percent Moisture	**18.4**	%	0.10	0.10	1		10/09/24 14:02		N2
WI ID SL	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Initial Volume/Weight: 5.194 g Final Volume/Weight: 1 mL								
	Pace Analytical Services - Minneapolis								
11Cl-PF3OUdS	**<0.020**	ug/kg	0.11	0.020	1	10/10/24 13:08	10/11/24 21:39	763051-92-9	
4:2 FTS	**<0.015**	ug/kg	0.11	0.015	1	10/10/24 13:08	10/11/24 21:39	757124-72-4	
6:2 FTS	**<0.024**	ug/kg	0.11	0.024	1	10/10/24 13:08	10/11/24 21:39	27619-97-2	
8:2 FTS	**<0.048**	ug/kg	0.11	0.048	1	10/10/24 13:08	10/11/24 21:39	39108-34-4	
9Cl-PF3ONS	**<0.021**	ug/kg	0.11	0.021	1	10/10/24 13:08	10/11/24 21:39	756426-58-1	
ADONA	**<0.013**	ug/kg	0.11	0.013	1	10/10/24 13:08	10/11/24 21:39	919005-14-4	
HFPO-DA	**<0.021**	ug/kg	0.12	0.021	1	10/10/24 13:08	10/11/24 21:39	13252-13-6	
NEtFOSAA	**<0.020**	ug/kg	0.12	0.020	1	10/10/24 13:08	10/11/24 21:39	2991-50-6	
NEtFOSA	**<0.027**	ug/kg	0.12	0.027	1	10/10/24 13:08	10/11/24 21:39	4151-50-2	
NEtFOSE	**<0.024**	ug/kg	0.12	0.024	1	10/10/24 13:08	10/11/24 21:39	1691-99-2	
NMeFOSAA	**<0.050**	ug/kg	0.12	0.050	1	10/10/24 13:08	10/11/24 21:39	2355-31-9	
NMeFOSA	**<0.042**	ug/kg	0.12	0.042	1	10/10/24 13:08	10/11/24 21:39	31506-32-8	
NMeFOSE	**<0.023**	ug/kg	0.12	0.023	1	10/10/24 13:08	10/11/24 21:39	24448-09-7	
PFBS	**0.56**	ug/kg	0.10	0.015	1	10/10/24 13:08	10/11/24 21:39	375-73-5	
PFDA	**0.13**	ug/kg	0.12	0.020	1	10/10/24 13:08	10/11/24 21:39	335-76-2	
PFHxA	**2.7**	ug/kg	0.12	0.017	1	10/10/24 13:08	10/11/24 21:39	307-24-4	
PFBA	**0.59**	ug/kg	0.12	0.036	1	10/10/24 13:08	10/11/24 21:39	375-22-4	
PFDS	**3.0**	ug/kg	0.11	0.034	1	10/10/24 13:08	10/11/24 21:39	335-77-3	
PFDoS	**3.5**	ug/kg	0.11	0.028	1	10/10/24 13:08	10/11/24 21:39	79780-39-5	
PFHpS	**2.0**	ug/kg	0.11	0.028	1	10/10/24 13:08	10/11/24 21:39	375-92-8	
PFNS	**0.92**	ug/kg	0.11	0.033	1	10/10/24 13:08	10/11/24 21:39	68259-12-1	
PFOSA	**1.5**	ug/kg	0.12	0.018	1	10/10/24 13:08	10/11/24 21:39	754-91-6	
PFPeA	**0.65**	ug/kg	0.12	0.021	1	10/10/24 13:08	10/11/24 21:39	2706-90-3	
PFPeS	**2.0**	ug/kg	0.11	0.013	1	10/10/24 13:08	10/11/24 21:39	2706-91-4	
PFDoA	**0.61**	ug/kg	0.12	0.028	1	10/10/24 13:08	10/11/24 21:39	307-55-1	
PFHpA	**0.52**	ug/kg	0.12	0.012	1	10/10/24 13:08	10/11/24 21:39	375-85-9	
PFHxS	**53.4**	ug/kg	1.1	0.13	10	10/10/24 13:08	10/16/24 00:27	355-46-4	
PFNA	**0.17**	ug/kg	0.12	0.021	1	10/10/24 13:08	10/11/24 21:39	375-95-1	
PFOS	**26.2**	ug/kg	1.1	0.51	10	10/10/24 13:08	10/16/24 00:27	1763-23-1	
PFOA	**1.1**	ug/kg	0.12	0.014	1	10/10/24 13:08	10/11/24 21:39	335-67-1	
PFTeDA	**0.027J**	ug/kg	0.12	0.018	1	10/10/24 13:08	10/11/24 21:39	376-06-7	
PFTrDA	**0.060J**	ug/kg	0.12	0.025	1	10/10/24 13:08	10/11/24 21:39	72629-94-8	
PFUnA	**0.22**	ug/kg	0.12	0.040	1	10/10/24 13:08	10/11/24 21:39	2058-94-8	
Surrogates									
13C2-PFDoA (S)	101	%.	25-150		1	10/10/24 13:08	10/11/24 21:39		1M
13C2-PFTA (S)	98	%.	25-150		1	10/10/24 13:08	10/11/24 21:39		
13C24:2FTS (S)	94	%.	25-150		1	10/10/24 13:08	10/11/24 21:39		
13C26:2FTS (S)	130	%.	25-150		1	10/10/24 13:08	10/11/24 21:39		
13C28:2FTS (S)	193	%.	25-150		1	10/10/24 13:08	10/11/24 21:39		S0

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ANALYTICAL RESULTS

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Sample: West ditch Soil **Lab ID: 10710098005** Collected: 09/26/24 10:36 Received: 10/02/24 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WI ID SL	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Initial Volume/Weight: 5.194 g Final Volume/Weight: 1 mL Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFBS (S)	98	%.	25-150		1	10/10/24 13:08	10/11/24 21:39		
13C3-PFHxS (S)	94	%.	25-150		10	10/10/24 13:08	10/16/24 00:27		
13C3HFPO-DA (S)	84	%.	25-150		1	10/10/24 13:08	10/11/24 21:39		
13C4-PFBA (S)	81	%.	25-150		1	10/10/24 13:08	10/11/24 21:39		
13C4-PFHpA (S)	94	%.	25-150		1	10/10/24 13:08	10/11/24 21:39		
13C5-PFHxA (S)	98	%.	25-150		1	10/10/24 13:08	10/11/24 21:39		
13C5-PFPeA (S)	77	%.	25-150		1	10/10/24 13:08	10/11/24 21:39		
13C6-PFDA (S)	108	%.	25-150		1	10/10/24 13:08	10/11/24 21:39		
13C7-PFUdA (S)	109	%.	25-150		1	10/10/24 13:08	10/11/24 21:39		
13C8-PFOA (S)	98	%.	25-150		1	10/10/24 13:08	10/11/24 21:39		
13C8-PFOS (S)	95	%.	25-150		10	10/10/24 13:08	10/16/24 00:27		
13C8-PFOSA (S)	81	%.	25-150		1	10/10/24 13:08	10/11/24 21:39		
13C9-PFNA (S)	92	%.	25-150		1	10/10/24 13:08	10/11/24 21:39		
d3-MeFOSAA (S)	124	%.	25-150		1	10/10/24 13:08	10/11/24 21:39		
d3-NMeFOSA (S)	33	%.	10-150		1	10/10/24 13:08	10/11/24 21:39		
d5-EtFOSAA (S)	125	%.	25-150		1	10/10/24 13:08	10/11/24 21:39		
d5-NEtFOSA (S)	29	%.	10-150		1	10/10/24 13:08	10/11/24 21:39		
d7-NMeFOSE (S)	61	%.	10-150		1	10/10/24 13:08	10/11/24 21:39		
d9-NEtFOSE (S)	44	%.	10-150		1	10/10/24 13:08	10/11/24 21:39		

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QUALITY CONTROL DATA

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

QC Batch: 972581
QC Batch Method: ASTM D2974
Analysis Method: ASTM D2974
Analysis Description: Dry Weight / %M by ASTM D2974
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10710098003, 10710098004, 10710098005

SAMPLE DUPLICATE: 5082540

Parameter	Units	10710868001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	26.4	25.7	3	30	N2

SAMPLE DUPLICATE: 5082541

Parameter	Units	10710868011 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	21.8	21.0	4	30	N2

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QUALITY CONTROL DATA

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

QC Batch: 972825
QC Batch Method: ENV-SOP-MIN4-0178
Analysis Method: ENV-SOP-MIN4-0178
Analysis Description: WI ID NPW
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10710098001, 10710098002

METHOD BLANK: 5083866
Matrix: Water
Associated Lab Samples: 10710098001, 10710098002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
11Cl-PF3OUdS	ug/L	<0.00041	0.0019	10/15/24 17:14	
4:2 FTS	ug/L	<0.00037	0.0019	10/15/24 17:14	
6:2 FTS	ug/L	0.00064J	0.0019	10/15/24 17:14	
8:2 FTS	ug/L	<0.00080	0.0020	10/15/24 17:14	
9Cl-PF3ONS	ug/L	<0.00036	0.0019	10/15/24 17:14	
ADONA	ug/L	<0.00032	0.0019	10/15/24 17:14	
HFPO-DA	ug/L	<0.00025	0.0020	10/15/24 17:14	
NEtFOSA	ug/L	<0.00046	0.0020	10/15/24 17:14	
NEtFOSAA	ug/L	<0.00057	0.0020	10/15/24 17:14	
NEtFOSE	ug/L	<0.00061	0.0020	10/15/24 17:14	
NMeFOSA	ug/L	<0.00063	0.0020	10/15/24 17:14	
NMeFOSAA	ug/L	<0.00079	0.0020	10/15/24 17:14	
NMeFOSE	ug/L	<0.00049	0.0020	10/15/24 17:14	
PFBA	ug/L	<0.00028	0.0020	10/15/24 17:14	
PFBS	ug/L	<0.00021	0.0018	10/15/24 17:14	
PFDA	ug/L	<0.00025	0.0020	10/15/24 17:14	
PFDoA	ug/L	<0.00044	0.0020	10/15/24 17:14	
PFDoS	ug/L	<0.00054	0.0020	10/15/24 17:14	
PFDS	ug/L	<0.00057	0.0020	10/15/24 17:14	
PFHpA	ug/L	<0.00024	0.0020	10/15/24 17:14	
PFHpS	ug/L	<0.00064	0.0019	10/15/24 17:14	
PFHxA	ug/L	<0.00038	0.0020	10/15/24 17:14	
PFHxS	ug/L	<0.00024	0.0018	10/15/24 17:14	
PFNA	ug/L	<0.00021	0.0020	10/15/24 17:14	
PFNS	ug/L	<0.00048	0.0019	10/15/24 17:14	
PFOA	ug/L	<0.00027	0.0020	10/15/24 17:14	
PFOS	ug/L	<0.00052	0.0019	10/15/24 17:14	
PFOSA	ug/L	<0.00040	0.0020	10/15/24 17:14	
PFPeA	ug/L	<0.00018	0.0020	10/15/24 17:14	
PFPeS	ug/L	<0.00026	0.0019	10/15/24 17:14	
PFTeDA	ug/L	<0.00036	0.0020	10/15/24 17:14	
PFTrDA	ug/L	<0.00029	0.0020	10/15/24 17:14	
PFUnA	ug/L	<0.00065	0.0020	10/15/24 17:14	
13C2-PFDoA (S)	%.	120	25-150	10/15/24 17:14	
13C2-PFTA (S)	%.	113	25-150	10/15/24 17:14	
13C24:2FTS (S)	%.	126	25-150	10/15/24 17:14	
13C26:2FTS (S)	%.	126	25-150	10/15/24 17:14	
13C28:2FTS (S)	%.	272	25-150	10/15/24 17:14	S3
13C2PFHxDA (S)	%.	88	25-150	10/15/24 17:14	
13C3-PFBS (S)	%.	129	25-150	10/15/24 17:14	

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QUALITY CONTROL DATA

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

METHOD BLANK: 5083866 Matrix: Water
Associated Lab Samples: 10710098001, 10710098002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
13C3-PFHxS (S)	%.	123	25-150	10/15/24 17:14	
13C3HFPO-DA (S)	%.	107	25-150	10/15/24 17:14	
13C4-PFBA (S)	%.	123	25-150	10/15/24 17:14	
13C4-PFHpA (S)	%.	122	25-150	10/15/24 17:14	
13C5-PFHxA (S)	%.	121	25-150	10/15/24 17:14	
13C5-PFPeA (S)	%.	125	25-150	10/15/24 17:14	
13C6-PFDA (S)	%.	135	25-150	10/15/24 17:14	
13C7-PFUdA (S)	%.	123	25-150	10/15/24 17:14	
13C8-PFOA (S)	%.	124	25-150	10/15/24 17:14	
13C8-PFOS (S)	%.	121	25-150	10/15/24 17:14	
13C8-PFOSA (S)	%.	116	25-150	10/15/24 17:14	
13C9-PFNA (S)	%.	120	25-150	10/15/24 17:14	
d3-MeFOSAA (S)	%.	110	25-150	10/15/24 17:14	
d3-NMeFOSA (S)	%.	91	20-150	10/15/24 17:14	
d5-EtFOSAA (S)	%.	112	25-150	10/15/24 17:14	
d5-NEtFOSA (S)	%.	94	20-150	10/15/24 17:14	
d7-NMeFOSE (S)	%.	104	20-150	10/15/24 17:14	
d9-NEtFOSE (S)	%.	102	20-150	10/15/24 17:14	

LABORATORY CONTROL SAMPLE & LCSD: 5083867 5083868

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
11Cl-PF3OUdS	ug/L	0.0038	0.0031	0.0032	81	85	50-150	3	30	
4:2 FTS	ug/L	0.0038	0.0035	0.0033	92	88	50-150	7	30	
6:2 FTS	ug/L	0.0039	0.0034	0.0035	89	94	50-150	3	30	
8:2 FTS	ug/L	0.0039	0.0034	0.0033	88	88	50-150	2	30	
9Cl-PF3ONS	ug/L	0.0038	0.0033	0.0033	87	90	50-150	1	30	
ADONA	ug/L	0.0038	0.0034	0.0032	88	85	50-150	6	30	
HFPO-DA	ug/L	0.0041	0.0036	0.0033	89	83	50-150	9	30	
NEtFOSA	ug/L	0.0041	0.0036	0.0035	90	88	50-150	4	30	
NEtFOSAA	ug/L	0.0041	0.0035	0.0036	86	91	50-150	3	30	
NEtFOSE	ug/L	0.0041	0.0035	0.0038	85	95	50-150	9	30	
NMeFOSA	ug/L	0.0041	0.0035	0.0036	85	91	50-150	4	30	
NMeFOSAA	ug/L	0.0041	0.0042	0.0036	103	91	50-150	15	30	
NMeFOSE	ug/L	0.0041	0.0036	0.0036	90	90	50-150	2	30	
PFBA	ug/L	0.0041	0.0037	0.0035	91	89	50-150	5	30	
PFBS	ug/L	0.0036	0.0034	0.0031	94	89	50-150	8	30	
PFDA	ug/L	0.0041	0.0037	0.0035	90	88	50-150	5	30	
PFDoA	ug/L	0.0041	0.0037	0.0037	90	93	50-150	1	30	
PFDoS	ug/L	0.0039	0.0028	0.0028	71	74	50-150	1	30	
PFDS	ug/L	0.0039	0.0031	0.0033	78	86	50-150	8	30	
PFHpA	ug/L	0.0041	0.0036	0.0035	88	87	50-150	3	30	
PFHpS	ug/L	0.0039	0.0038	0.0036	97	96	50-150	3	30	
PFHxA	ug/L	0.0041	0.0037	0.0035	92	89	50-150	6	30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

LABORATORY CONTROL SAMPLE & LCSD: 5083867 5083868

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
PFHxS	ug/L	0.0037	0.0033	0.0033	90	91	50-150	2	30	
PFNA	ug/L	0.0041	0.0037	0.0036	91	92	50-150	1	30	
PFNS	ug/L	0.0039	0.0035	0.0034	90	91	50-150	2	30	
PFOA	ug/L	0.0041	0.0037	0.0035	91	88	50-150	6	30	
PFOS	ug/L	0.0038	0.0034	0.0035	90	94	50-150	2	30	
PFOSA	ug/L	0.0041	0.0039	0.0034	96	85	50-150	14	30	
PFPeA	ug/L	0.0041	0.0036	0.0035	89	88	50-150	4	30	
PFPeS	ug/L	0.0038	0.0034	0.0033	88	89	50-150	2	30	
PFTeDA	ug/L	0.0041	0.0035	0.0035	87	89	50-150	0	30	
PFTrDA	ug/L	0.0041	0.0035	0.0033	87	84	50-150	6	30	
PFUnA	ug/L	0.0041	0.0038	0.0033	93	84	50-150	13	30	
13C2-PFDoA (S)	%.				113	123	25-150			
13C2-PFTA (S)	%.				114	107	25-150			
13C24:2FTS (S)	%.				117	130	25-150			
13C26:2FTS (S)	%.				132	129	25-150			
13C28:2FTS (S)	%.				200	235	25-150			S0
13C2PFHxDA (S)	%.				76	71	25-150			
13C3-PFBS (S)	%.				124	132	25-150			
13C3-PFHxS (S)	%.				123	124	25-150			
13C3HFPO-DA (S)	%.				105	118	25-150			
13C4-PFBA (S)	%.				117	122	25-150			
13C4-PFHpA (S)	%.				118	125	25-150			
13C5-PFHxA (S)	%.				117	124	25-150			
13C5-PFPeA (S)	%.				121	124	25-150			
13C6-PFDA (S)	%.				129	140	25-150			
13C7-PFUdA (S)	%.				119	129	25-150			
13C8-PFOA (S)	%.				121	129	25-150			
13C8-PFOS (S)	%.				120	121	25-150			
13C8-PFOSA (S)	%.				111	118	25-150			
13C9-PFNA (S)	%.				122	128	25-150			
d3-MeFOSAA (S)	%.				109	116	25-150			
d3-NMeFOSA (S)	%.				65	76	20-150			
d5-EtFOSAA (S)	%.				121	120	25-150			
d5-NEtFOSA (S)	%.				66	73	20-150			
d7-NMeFOSE (S)	%.				91	102	20-150			
d9-NEtFOSE (S)	%.				93	101	20-150			

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QUALITY CONTROL DATA

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

QC Batch: 972819
QC Batch Method: ENV-SOP-MIN4-0178
Analysis Method: ENV-SOP-MIN4-0178
Analysis Description: WI ID SL
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10710098003, 10710098004, 10710098005

METHOD BLANK: 5083844
Matrix: Solid
Associated Lab Samples: 10710098003, 10710098004, 10710098005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
11Cl-PF3OUdS	ug/kg	<0.017	0.094	10/11/24 18:53	
4:2 FTS	ug/kg	<0.012	0.094	10/11/24 18:53	
6:2 FTS	ug/kg	<0.020	0.095	10/11/24 18:53	
8:2 FTS	ug/kg	<0.040	0.097	10/11/24 18:53	
9Cl-PF3ONS	ug/kg	<0.018	0.093	10/11/24 18:53	
ADONA	ug/kg	<0.011	0.095	10/11/24 18:53	
HFPO-DA	ug/kg	<0.018	0.10	10/11/24 18:53	
NEtFOSA	ug/kg	<0.023	0.10	10/11/24 18:53	
NEtFOSAA	ug/kg	<0.017	0.10	10/11/24 18:53	
NEtFOSE	ug/kg	<0.021	0.10	10/11/24 18:53	
NMeFOSA	ug/kg	<0.036	0.10	10/11/24 18:53	
NMeFOSAA	ug/kg	<0.042	0.10	10/11/24 18:53	
NMeFOSE	ug/kg	<0.020	0.10	10/11/24 18:53	
PFBA	ug/kg	<0.030	0.10	10/11/24 18:53	
PFBS	ug/kg	<0.013	0.089	10/11/24 18:53	
PFDA	ug/kg	<0.017	0.10	10/11/24 18:53	
PFDoA	ug/kg	<0.024	0.10	10/11/24 18:53	
PFDoS	ug/kg	<0.024	0.097	10/11/24 18:53	
PFDS	ug/kg	<0.029	0.097	10/11/24 18:53	
PFHpA	ug/kg	<0.010	0.10	10/11/24 18:53	
PFHpS	ug/kg	<0.024	0.095	10/11/24 18:53	
PFHxA	ug/kg	<0.014	0.10	10/11/24 18:53	
PFHxS	ug/kg	<0.011	0.091	10/11/24 18:53	
PFNA	ug/kg	<0.018	0.10	10/11/24 18:53	
PFNS	ug/kg	<0.028	0.096	10/11/24 18:53	
PFOA	ug/kg	<0.012	0.10	10/11/24 18:53	
PFOS	ug/kg	<0.043	0.093	10/11/24 18:53	
PFOSA	ug/kg	<0.015	0.10	10/11/24 18:53	
PFPeA	ug/kg	<0.018	0.10	10/11/24 18:53	
PFPeS	ug/kg	<0.011	0.094	10/11/24 18:53	
PFTeDA	ug/kg	<0.016	0.10	10/11/24 18:53	
PFTrDA	ug/kg	<0.021	0.10	10/11/24 18:53	
PFUnA	ug/kg	<0.034	0.10	10/11/24 18:53	
13C2-PFDoA (S)	%.	107	25-150	10/11/24 18:53	
13C2-PFTA (S)	%.	100	25-150	10/11/24 18:53	
13C24:2FTS (S)	%.	93	25-150	10/11/24 18:53	
13C26:2FTS (S)	%.	109	25-150	10/11/24 18:53	
13C28:2FTS (S)	%.	130	25-150	10/11/24 18:53	
13C2PFHxDA (S)	%.	95	25-150	10/11/24 18:53	
13C3-PFBS (S)	%.	107	25-150	10/11/24 18:53	

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QUALITY CONTROL DATA

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

METHOD BLANK: 5083844 Matrix: Solid
Associated Lab Samples: 10710098003, 10710098004, 10710098005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
13C3-PFHxS (S)	%.	103	25-150	10/11/24 18:53	
13C3HFPO-DA (S)	%.	95	25-150	10/11/24 18:53	
13C4-PFBA (S)	%.	92	25-150	10/11/24 18:53	
13C4-PFHpA (S)	%.	101	25-150	10/11/24 18:53	
13C5-PFHxA (S)	%.	101	25-150	10/11/24 18:53	
13C5-PFPeA (S)	%.	94	25-150	10/11/24 18:53	
13C6-PFDA (S)	%.	111	25-150	10/11/24 18:53	
13C7-PFUdA (S)	%.	106	25-150	10/11/24 18:53	
13C8-PFOA (S)	%.	100	25-150	10/11/24 18:53	
13C8-PFOS (S)	%.	107	25-150	10/11/24 18:53	
13C8-PFOSA (S)	%.	94	25-150	10/11/24 18:53	
13C9-PFNA (S)	%.	103	25-150	10/11/24 18:53	
d3-MeFOSAA (S)	%.	101	25-150	10/11/24 18:53	
d3-NMeFOSA (S)	%.	45	20-150	10/11/24 18:53	
d5-EtFOSAA (S)	%.	105	25-150	10/11/24 18:53	
d5-NEtFOSA (S)	%.	47	20-150	10/11/24 18:53	
d7-NMeFOSE (S)	%.	58	20-150	10/11/24 18:53	
d9-NEtFOSE (S)	%.	58	20-150	10/11/24 18:53	

LABORATORY CONTROL SAMPLE & LCSD: 5083845 5083846

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
11Cl-PF3OUdS	ug/kg	0.19	0.16	0.15	84	81	50-150	4	30	
4:2 FTS	ug/kg	0.19	0.17	0.16	89	84	50-150	6	30	
6:2 FTS	ug/kg	0.19	0.16	0.17	85	87	50-150	3	30	
8:2 FTS	ug/kg	0.19	0.16	0.15	85	77	50-150	11	30	
9Cl-PF3ONS	ug/kg	0.19	0.15	0.17	82	88	50-150	7	30	
ADONA	ug/kg	0.19	0.16	0.16	87	87	50-150	0	30	
HFPO-DA	ug/kg	0.2	0.17	0.16	86	81	50-150	6	30	
NEtFOSA	ug/kg	0.2	0.19	0.18	95	89	50-150	6	30	
NEtFOSAA	ug/kg	0.2	0.18	0.20	91	99	50-150	9	30	
NEtFOSE	ug/kg	0.2	0.19	0.18	93	89	50-150	4	30	
NMeFOSA	ug/kg	0.2	0.16	0.17	78	84	50-150	7	30	
NMeFOSAA	ug/kg	0.2	0.17	0.16	86	79	50-150	8	30	
NMeFOSE	ug/kg	0.2	0.21	0.17	104	86	50-150	18	30	
PFBA	ug/kg	0.2	0.19	0.18	93	90	50-150	3	30	
PFBS	ug/kg	0.18	0.16	0.15	90	87	50-150	4	30	
PFDA	ug/kg	0.2	0.16	0.17	81	85	50-150	4	30	
PFDoA	ug/kg	0.2	0.18	0.18	89	91	50-150	1	30	
PFDoS	ug/kg	0.19	0.15	0.17	79	86	50-150	9	30	
PFDS	ug/kg	0.19	0.17	0.17	87	88	50-150	0	30	
PFHpA	ug/kg	0.2	0.17	0.17	87	86	50-150	1	30	
PFHpS	ug/kg	0.19	0.19	0.15	98	81	50-150	19	30	
PFHxA	ug/kg	0.2	0.18	0.17	91	87	50-150	5	30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

LABORATORY CONTROL SAMPLE & LCSD: 5083845 5083846

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
PFHxS	ug/kg	0.18	0.16	0.17	89	92	50-150	4	30	
PFNA	ug/kg	0.2	0.18	0.16	92	82	50-150	12	30	
PFNS	ug/kg	0.19	0.17	0.19	86	99	50-150	14	30	
PFOA	ug/kg	0.2	0.19	0.19	95	95	50-150	0	30	
PFOS	ug/kg	0.19	0.16	0.16	87	87	50-150	0	30	
PFOSA	ug/kg	0.2	0.19	0.19	94	97	50-150	3	30	
PFPeA	ug/kg	0.2	0.18	0.17	89	87	50-150	3	30	
PFPeS	ug/kg	0.19	0.17	0.16	88	88	50-150	0	30	
PFTeDA	ug/kg	0.2	0.19	0.17	94	86	50-150	9	30	
PFTrDA	ug/kg	0.2	0.18	0.18	88	90	50-150	2	30	
PFUnA	ug/kg	0.2	0.18	0.17	91	83	50-150	9	30	
13C2-PFDoA (S)	%.				99	99	25-150			
13C2-PFTA (S)	%.				94	98	25-150			
13C24:2FTS (S)	%.				85	94	25-150			
13C26:2FTS (S)	%.				104	99	25-150			
13C28:2FTS (S)	%.				120	133	25-150			
13C2PFHxDA (S)	%.				93	94	25-150			
13C3-PFBS (S)	%.				102	105	25-150			
13C3-PFHxS (S)	%.				99	100	25-150			
13C3HFPO-DA (S)	%.				87	94	25-150			
13C4-PFBA (S)	%.				87	91	25-150			
13C4-PFHpA (S)	%.				94	98	25-150			
13C5-PFHxA (S)	%.				95	98	25-150			
13C5-PFPeA (S)	%.				89	93	25-150			
13C6-PFDA (S)	%.				109	110	25-150			
13C7-PFUdA (S)	%.				99	101	25-150			
13C8-PFOA (S)	%.				95	98	25-150			
13C8-PFOS (S)	%.				105	103	25-150			
13C8-PFOSA (S)	%.				73	89	25-150			
13C9-PFNA (S)	%.				94	101	25-150			
d3-MeFOSAA (S)	%.				96	104	25-150			
d3-NMeFOSA (S)	%.				64	93	20-150			
d5-EtFOSAA (S)	%.				99	102	25-150			
d5-NEtFOSA (S)	%.				63	93	20-150			
d7-NMeFOSE (S)	%.				63	85	20-150			
d9-NEtFOSE (S)	%.				67	84	20-150			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - The reported result is an estimated value.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

DL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Analyte was not detected and is reported as less than the LOD or as defined by the customer.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

WORKORDER QUALIFIERS

WO: 10710098

[1] L4 PFAS

[2] The quality system for Pace Analytical Services, LLC in Minneapolis, MN (Pace-MN) has been audited and was found to be in conformance with ISO/IEC 17025:2017 by an independent assessment (A2LA Certificate # 2926). The PFAS test results in non-drinking water for this project are not covered by this accreditation.Pace-MN maintains accreditation with the state of Wisconsin for their isotope dilution analysis as defined in ENV-SOP-MIN4-0178 under certificate number999407970. All of the test results for this project are covered by the Wisconsin accreditation.

ANALYTE QUALIFIERS

1M	All narrated results associated with this sample confirmed through secondary analysis.
2M	All narrated results associated with this sample confirmed through secondary analysis. Extracted Internal Standards (EIS) with 0% recovery are confirmed based on their low detections meeting signal to noise criteria described in the laboratories SOP.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
S0	Surrogate recovery outside laboratory control limits.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: E24-0544 3M Menomonie Soil&GW-Revised Report
Pace Project No.: 10710098

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10710098003	**Soil Adjacent to Hydrant**	ASTM D2974	972581		
10710098004	**East ditch Soil**	ASTM D2974	972581		
10710098005	**West ditch Soil**	ASTM D2974	972581		
10710098001	**Ditch Water Sample 1**	ENV-SOP-MIN4-0178	972825	ENV-SOP-MIN4-0178	974062
10710098002	**Ditch Water Sample 2**	ENV-SOP-MIN4-0178	972825	ENV-SOP-MIN4-0178	974062
10710098003	**Soil Adjacent to Hydrant**	ENV-SOP-MIN4-0178	972819	ENV-SOP-MIN4-0178	973495
10710098004	**East ditch Soil**	ENV-SOP-MIN4-0178	972819	ENV-SOP-MIN4-0178	973495
10710098005	**West ditch Soil**	ENV-SOP-MIN4-0178	972819	ENV-SOP-MIN4-0178	973495

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3M Global EHS Laboratory

Chain of Custody / Request for Analytical

Project: E24-0544

Sample Shipping Address
Pace Analytical Services, LLC - Minneapolis

1700 Elm St SE
Minneapolis, MN 55414
Attn: Martha Hansen

Project Description: 3M Menomonie Soil & GW Release

Project Requester
Chambers, Britta (MAPLEWOOD-3MUS-MN 3M CENTER)
Department: 530711 Site Source: 01J9C020
Project Created: 10/1/2024

3M Project Lead
Amanda Albrecht
Email Address: aalbrecht2@mmm.com
Phone Number: 651-736-9414

Item	3M Sample Number	Sample Description	Date/Time Sampled	Matrix	Type of Sample	Sample Comment	Number of Containers: Record each container type/ preservative collected: U				
1	E24-0544-001	Ditch Water Sample 1	9-26-24 10:14	WT	☒ Grab ☐ Comp		1				001
2	E24-0544-002	Ditch Water Sample 2	9-26-24 10:19	WT	☒ Grab ☐ Comp		1				002
3	E24-0544-003	Soil Adjacent to Hydrant	9-26-24 10:25	SOIL	☒ Grab ☐ Comp		1				003
4	E24-0544-004	East ditch soil	9-26-24 10:31	SOIL	☒ Grab ☐ Comp		1				004
5	E24-0544-005	West ditch soil	9-26-24 10:36	SOIL	☒ Grab ☐ Comp		1				005

WO# : 10710098

10710098

Collected by (print): L Jane Ballard Collector's signature:

Item	Relinquished by:	Date	Time	Shipped Via	Received by:	Date	Time
1-5	3M	10-1-24	13:15	FedEx		10/2/24	850

Comments

Contact EHS Lab project lead or refer to GPO for project details, including requested tests and target analytes, if not specified.

Page 1 of 1

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: 3M Global EHS Laboratory **PROJECT #:**

WO#: 10710098
PM: CT1 **Due Date: 10/30/24**
CLIENT: 3M ENV

COURIER: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: _____ ☐ See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: ☑ YES ☐ NO **Seals Intact:** ☑ YES ☐ NO **Biological Tissue Frozen:** ☐ YES ☐ NO ☑ N/A

Packing Material: ☐ Bubble Bags ☑ Bubble Wrap ☐ None ☐ Other **Temp Blank:** ☐ YES ☑ NO **Type of Ice:** ☐ Blue ☐ Dry ☑ Wet ☐ Melted ☐ None

Thermometer: ☐ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☑ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☑ NO	**Were All Container Temps taken:** ☐ YES ☐ NO ☑ N/A
Correction Factor: -0.2 **Cooler Temp Read w/Temp Blank:** _____ °C **Cooler Temp Corrected w/Temp Blank:** _____ °C	**Average Corrected Temp (no Temp Blank Only):** 1.3 °C
NOTE: *Temp should be above freezing to 6°C.*	☑ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☐ N/A – Water Sample/Other (describe): _____	**Initials & Date of Person Examining Contents:** JMW 10/2/24
Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☑ NO	Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☑ NO

NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	**YES**	**NO**	**N/A**	**COMMENT(S)**
Chain of Custody Present and Filled Out?	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☑	☐	☐	3.
Samples Arrived within Hold Time?	☑	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____
Rush Turn Around Time Requested?	☐	☑		6.
Sufficient Sample Volume?	☑	☐		7.
Correct Containers Used?	☑	☐	☐	8.
– Pace Containers Used?	☐	☑		
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☑	10. Is sediment visible in the dissolved container: ☐ YES ☐ NO
Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☑ Soil ☑ Water ☐ Other	☑ JMW	☑ 10/2/24		11. **If NO, write ID/Date/Time of container below:** sample id does not match the COC except time and date ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☐	☐	☑	12. Sample #:
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☐	☐	☑	☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS	☐	☐	☑	Positive for Residual Chlorine: ☐ YES ☐ NO
NOTE: If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs.				**pH Paper Lot #** (Residual Chlorine / 0-6 Roll / 0-6 Strip / 0-14 Strip) ☐ See Exceptions form ENV-FRM-MIN4-0142
Headspace in Methyl Mercury Container?	☐	☐	☑	13.
Extra labels present on soil VOA or WIDRO containers?	☐	☐	☑	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☑	☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present?	☐	☑	☐	15.
Trip Blank Custody Seals Present?	☐	☐	☑	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION / RESOLUTION **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

Project Manager Review: Carolynne Trout **Date:** 10/3/24

NOTE: *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

Labeled By: JMW **Line:** 2

Workorder #: _____

No Temp Blank		
Read Temp	Corrected Temp	Average temp
0.9	0.7	
0.7	0.5	1.3
0.9	0.7	
3.4	3.2	

PM Notified of Out of Temp Cooler? ☐ YES ☐ NO
If yes, indicate who was contacted, date and time. If no, indicate reason why. _____
Multiple Cooler Project? ☐ YES ☐ NO

If anything is OVER 6.0°C, you MUST document containers in this section HERE

Tracking Number	Temperature

Out of Temp Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples										
Sample ID	Type Of Preserve	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance After Addition?		Initials
								YES	NO	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	

Comments:

_____

_____

_____

Workorder #: _____

No Temp Blank		
Read Temp	Corrected Temp	Average temp

PM Notified of Out of Temp Cooler? ☐ YES ☐ NO
If yes, indicate who was contacted, date and time. If no, indicate reason why.
_____
Multiple Cooler Project? ☐ YES ☐ NO

If anything is OVER 6.0°C, you MUST document containers in this section HERE

Tracking Number	Temperature

~~Out of Temp~~ Sample ID	~~Container Type~~ Date	~~# of Containers~~ Time
South Stormwater Spill	9/26/24	10:14
South Stormwater Ditch Dup		10:19
Hydrant le leak Soil		1025
Soil South Ditch Start		1031 Am
Soil South Stormwater End		1036 Am

pH Adjustment Log for Preserved Samples										
Sample ID	Type Of Preserve	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance After Addition?		Initials
								YES	NO	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	

Comments:

_____

_____

_____