RAMBOLL

ENVIRONMENT
& HEALTH

Ms. Tiffany Minder
Environmental Compliance Supervisor
City of Flint Water Pollution
Water Pollution Control Facilities
G4652 Beecher Rd.
Flint, MI, 48532

RE: ***Discharge Permit Submittal– July 2024 through September 2024***
Permit No.: 6-08-04-04-GML1
FILE: 1088190/1940107203/Docs

Dear **Ms. Minder:**

October 28, 2024

In accordance with requirements of the above referenced discharge permit, we are providing you with the following discharge information for the period July 1, 2024, to September 30, 2024, for the Coldwater Road Landfill facility, located at 6220 Horton Avenue, Mount Morris, Michigan. In addition, we are reporting the performance of the per- and polyfluoroalkyl substances (PFAS) pretreatment system in this letter. This report includes the following information:

- Periodic Report on Continued Compliance, certification.
- Periodic Report on Continued Compliance Sample (Table 1).
- Daily Discharge Summary Table (Table 2).
- PFAS Sampling Results Table (Table 3).
- Analytical Reports provided by Merit Laboratories, Inc. for samples from the on-Site, above ground collection tank collected on August 30, 2024.
- Analytical Reports provided by Merit Laboratories, Inc. for samples from the on-Site, PFAS pretreatment system collected on September 18, 2024, and September 20, 2024, during the discharge of the liquids from the on-Site, above ground collection tank through the system.
- Copy of Chain-of-Custody forms.

Ramboll
2090 Commonwealth Blvd.
Ann Arbor, MI 48105
USA

T 734-761-4000
F 734-761-2050
https://ramboll.com

The laboratory analytical results indicate concentrations in the effluent were below the Sewer Use Permit limits for the required monitoring parameters during the discharge period.

In addition, the PFAS analytical results for the effluent sample were below the Sewer Use Permit limits and were below the current EGLE Part 4, Water Quality Standards, Rule 57 Water Quality Values. Therefore, the PFAS pretreatment system is operating as designed.

Influent and post-GAC vessel samples were collected from the four in-line GAC vessels on September 18, 2024, and September 20, 2024, during the accumulation tank discharge. The influent sample had a detection of 8,300 ng/L for perfluorooctane sulfonic acid (PFOS).

PFOS was detected at a concentration of 17 ng/l from the primary GAC vessel sample collected at the start of the discharge on September 18, 2024. In the samples collected just before discharge was discontinued, PFOS was detected at a concentration of 14 ng/l in the primary GAC vessel. PFOS was not detected above the reporting limit in the secondary, tertiary (third), and quaternary (fourth) GAC vessels.

Based on these data, the GAC vessels will continue to be utilized for the next discharge event, and we will evaluate whether changing out the GAC in the primary vessel will be necessary following that discharge event. If it is determined that the primary GAC vessel should be changed out, then new GAC would be placed in the primary vessel and the system components would be changed so that the existing quaternary (fourth), tertiary (third), and secondary GAC vessels would be moved up in position making the primary vessel the new quaternary vessel (last vessel before discharge) for the approved four-vessel pretreatment system.

Please call me at 313-333-0211 if you have any questions.

Yours sincerely,
RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.

Clifford S. Yantz
Project Manager

M 313.333.0211
Clifford.yantz@ramboll.com

cc: Mr. Kevin Forbes – Beecher Metropolitan District, Flint, MI
Ms. Nicole Sanabria – EGLE (via email)
Ms. Christina Hebert – EGLE (via email)
Mr. Brendan Mullen – RACER Trust (via email)
Mr. David Favero – RACER Trust (via email)
Mr. Kevin Schneider – Ramboll (via email)

City of Flint
Industrial Pretreatment Program

Periodic Report on Continued Compliance

Company Name: RACER Trust, Coldwater Road
Street Address: 6220 Horton Avenue, Flint, Michigan
Permit Number: 6-08-04-04-GML1
Outfall Number: 001

Reporting Period: July 1, 2024 through September 30, 2024

Average Volume of Daily Discharge (during reporting period): 2,975 gallons
(Three One Day Events)

Complete the following:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name of Authorized Representative: Clifford Yantz

Title of Authorized Representative: Project Manager, Ramboll Americas Engineering Solutions, Inc., As agent for the RACER Trust

Signature of Authorized Representative: Clifford Scott Yantz, as agent for RACER Trust

Date Signed by Authorized Representative: 10/28/24

If required to implement a Toxic Organics Management Plan (TOMP), complete the following:

"Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standard for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last Periodic Report on Continued Compliance. I further certify that, this facility is implementing the toxic organic management plan submitted to the control authority."

Name of Authorized Representative: N/A

Title of Authorized Representative: N/A

Signature of Authorized Representative: N/A

Date Signed by Authorized Representative: N/A

Table 1
Periodic Report on Continued Compliance
City of Flint Sewer User Self-Monitoring Report
Third Quarter - 2024 - GSWVR Sample

RACER Trust - Coldwater Road Landfill Facility
Permit Number 6-08-04-04-GML1
6220 Horton Avenue

Analytical Parameter	Ammonia-N	BOD5	HEM	pH @ 25°C	Phosphorus	TSS
Units	mg/L	mg/L	mg/L	SU	mg/L	mg/L
Sampling Frequency	Per Batch	Per Batch	Per Batch	Per Batch	Per Batch	Per Batch
Sampling Procedure	Grab sample	Grab sample	Grab sample	Grab sample	Grab sample	Grab sample
Daily Maximum Limit	110	1196	100	NA	14	570
Maximum Limit	NA	NA	NA	10.5	NA	NA
Minimum Limit	NA	NA	NA	6	NA	NA
Test Result	1.07	7.4	<2	7.00	0.02	7.1
Test Method	4500-NH3 G	10360	1664A	4500-H+ B	4500-PE	2540 D
Test Date	9/5/2024	8/30/2024	9/3/2024	8/30/2024	9/4/2024	9/4/2024
Sample Date	8/30/2024	8/30/2024	8/30/2024	8/30/2024	8/30/2024	8/30/2024
Sample Type	wastewater	wastewater	wastewater	wastewater	wastewater	wastewater
Test Result						
Test Method						
Test Date						
Sample Date						
Sample Type						
Test Result						
Test Method						
Test Date						
Sample Date						
Sample Type						
Average Daily Conc.						
No. of Samples						
Number of Limit Exceedances						

Table 1
Periodic Report on Continued Compliance
City of Flint Sewer User Self-Monitoring Report
Third Quarter - 2024 - GSWVR Sample

RACER Trust - Coldwater Road Landfill Facility
Permit Number 6-08-04-04-GML1
6220 Horton Avenue

Analytical Parameter	Arsenic	Chromium	Copper	Mercury	Nickel	Zinc	Cyanide, available
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sampling Frequency	Per Batch	Per Batch	Per Batch	Per Batch	Per Batch	Per Batch	Per Batch
Sampling Procedure	Grab sample	Grab sample	Grab sample	Grab sample	Grab sample	Grab sample	Grab sample
Daily Maximum Limit	0.051	1.273	1.714	0.000012	0.543	2.626	0.165
Maximum Limit	NA	NA	NA	NA	NA	NA	NA
Minimum Limit	NA	NA	NA	NA	NA	NA	NA
Test Result	0.004	0.039	0.219	<0.0002	0.064	0.020	<0.002
Test Method	E200.8	200.8	200.8	245.1	200.8	200.8	1677
Test Date	9/6/2024	9/6/2024	9/6/2024	9/3/2024	9/6/2024	9/6/2024	8/30/2024
Sample Date	8/30/2024	8/30/2024	8/30/2024	8/30/2024	8/30/2024	8/30/2024	8/30/2024
Sample Type	wastewater	wastewater	wastewater	wastewater	wastewater	wastewater	wastewater
Test Result							
Test Method							
Test Date							
Sample Date							
Sample Type							
Test Result							
Test Method							
Test Date							
Sample Date							
Sample Type							
Average Daily Conc.							
No. of Samples							
Number of Limit Exceedances							

Table 1
Periodic Report on Continued Compliance
City of Flint Sewer User Self-Monitoring Report
Third Quarter - 2024 - GSWVR Sample

RACER Trust - Coldwater Road Landfill Facility Permit Number 6-08-04-04-GML1 6220 Horton Avenue							
Analytical Parameter	**PFBS**	**PFHxS**	**PFHxA**	**PFNA**	**PFOA**	**PFOS**	**HFPO-DA**
Units	**ng/L**	**ng/L**	**ng/L**	**ng/L**	**ng/L**	**ng/L**	**ng/L**
Sampling Frequency	**Per Batch**	**Per Batch**	**Per Batch**	**Per Batch**	**Per Batch**	**Per Batch**	**Per Batch**
Sampling Procedure	**Grab Sample**	**Grab Sample**	**Grab Sample**	**Grab Sample**	**Grab Sample**	**Grab Sample**	**Grab Sample**
Daily Maximum Limit	**420**	**51**	**400000**	**6**	**8**	**16**	**370**
Maximum Limit	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Minimum Limit	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Test Result	**<2.1**	**<2.1**	**<2.1**	**<2.1**	**<2.1**	**<2.1**	**<10**
Test Method	ASTMD7979-19M	ASTMD7979-19M	ASTMD7979-19M	ASTMD7979-19M	ASTMD7979-19M	ASTMD7979-19M	ASTMD7979-19M
Test Date	9/26/2024	9/26/2024	9/26/2024	9/26/2024	9/26/2024	9/26/2024	9/26/2024
Sample Date	9/20/2024	9/20/2024	9/20/2024	9/20/2024	9/20/2024	9/20/2024	9/20/2024
Sample Type	wastewater	wastewater	wastewater	wastewater	wastewater	wastewater	wastewater
Test Result							
Test Method							
Test Date							
Sample Date							
Sample Type							
Test Result							
Test Method							
Test Date							
Sample Date							
Sample Type							
Average Daily Conc.							
No. of Samples							
Number of Limit Exceedances							

TABLE 2
RACER Trust - Coldwater Road
Daily Discharge Summary Table
Third Quarter 2024
6-08-04-04-GML1

Date	Beginning Flow Meter Reading	End Flow Meter Reading	Gallons Discharged	Begin Time of Discharge	End Time of Discharge	Average Flow (gal/min)	Temperature at Discharge (C)	(F)	pH
9/18/2024	0	--	--	9:50 a.m. (09/18/2024)	--	2.93	20.6	69.1	7.12
9/20/2024	--	8,924	**8,924**	--	12:30 p.m. (09/20/2024)	2.93	23.3	73.9	7.37

Total Discharge Volume: **8,924**
Average Discharge Volume (3 Days): **2,975**

NOTES : Accumulation tank discharged continuously from 9:50 a.m. on September 18, 2024 to 12:30 p.m. on September 20, 2024 (50 hours, 40 minutes).

TABLE 3
RACER Trust - Coldwater Road
Pre-and Polyfluroalkyl Substances (PFAS) Sampling Results - September 2024

Coldwater Road - PFAS Pretreatment System Samples

Perfluorinated Compound	Well/Sample ID: / Sample Date:	Beecher Metropolitan District Sewer Use Permit - Discharge Pollutant Limitations and Monitoring Requirements	03-PRCC-24-INF-09182024 (Influent Sample) 9/18/2024	03-PRCC-24-PRIM-09182024 (Primary GAC Vessel Sample) 9/18/2024	03-PRCC-24-PRIM-196-09202024 (Primary GAC Vessel Sample after 196 Bed Volumes) 9/20/2024	03-PRCC-24-MID-1-196-09202024 (Secondary GAC Vessel Sample after 196 Bed Volumes) 9/20/2024	03-PRCC-24-MID-2-196-09202024 (Tertiary GAC Vessel Sample after 196 Bed Volumes) 9/20/2024	03-PRCC-24-EFF-196-09202024 (Effluent Sample after 196 Bed Volumes) 9/20/2024
Perfluorobutanoic Acid (PFBA)		--	<62 X	<9.5	**4.9 J**	<9.9	<9.7	<10
Perfluoropentanoic Acid (PFPeA)		--	<6.0 X	<3.8	<3.9	<3.9	<3.9	<4.1
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	<2.1 I	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorohexanoic Acid (PFHxA)		**400,000**	**95**	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorobutane Sulfonic Acid (PFBS)		**420**	**89**	<1.9	**0.78 J**	<2.0	<1.9	<2.1
Perfluoroheptanoic Acid (PFHpA)		--	**21**	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluoropentane Sulfonic Acid (PFPeS)		--	**180**	<1.9	**1.00 J**	<2.0	<1.9	<2.1
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	<2.1 I	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorooctanoic Acid (**PFOA**)		**8**	**73**	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorohexane Sulfonic Acid (PFHxS)		**51**	**550**	<1.9	**2.0**	<2.0	<1.9	<2.1
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	**460**	<1.9	**1.3 J**	<2.0	<1.9	<2.1
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	**87**	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorononanoic Acid (PFNA)		**6**	<2.1	<1.9	<2.0	<2.0	<1.9	<2.1
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	<2.1	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluoroheptane Sulfonic Acid (PFHpS)		--	**140**	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorodecanoic Acid (PFDA)		--	<2.1	<1.9	<2.0	<2.0	<1.9	<2.1
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	<2.1	<1.9	<2.0	<2.0	<1.9	<2.1
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	<4.1	<3.8	<3.9	<3.9	<3.9	<4.1
Perfluorooctane Sulfonic Acid (**PFOS**)		**16**	**8,300**	**17**	**14**	<2.0	<1.9	<2.1
Perfluorooctane Sulfonic Acid (**PFOS**-LN)		--	**5,000**	**14**	**5.1**	<2.0	<1.9	<2.1
Perfluorooctane Sulfonic Acid (**PFOS**-BR)		--	**3,700**	**1.7 J**	**8.9**	<2.0	<1.9	<2.1
Perfluoroundecanoic Acid (PFUnDA)		--	<2.1	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorononane Sulfonic Acid (PFNS)		--	**2.8**	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorododecanoic Acid (PFDoDA)		--	<2.1	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorodecane Sulfonic Acid (PFDS)		--	<2.1	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorotridecanoic Acid (PFTrDA)		--	<2.1	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorooctane Sulfonamide (FOSA)		--	**3.3**	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorotetradecanoic Acid (PFTeDA)		--	<4.1	<3.8	<3.9	<3.9	<3.9	<4.1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)		--	<2.1	<1.9	<2.0	<2.0	<1.9	<2.1
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)		--	<2.1	<1.9	<2.0	<2.0	<1.9	<2.1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)		--	<2.1	<1.9	<2.0	<2.0	<1.9	<2.1
Hexafluoropropylene oxide dimer (HFPO-DA)		--	<10	<9.5	<9.8	<9.9	<9.7	<10
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))		--	<10	<9.5	<9.8	<9.9	<9.7	<10
3-Perfluoroheptyl propanoic acid (FPePA (5:3 FTCA))		--	<10	<9.5	<9.8	<9.9	<9.7	<10
3-Perfluoroheptyl propanoic acid (FPrPA (3:3 FTCA))		--	<10	<9.5	<9.8	<9.9	<9.7	<10
Perfluorobutanesulfonamide (PFBSA)		--	<2.1	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	**13,000**	**3.1**	**68**	<2.0	<1.9	<2.1
Perfluorohexanesulfonamide (PFHxSA)		--	**0.93 J**	<1.9	<2.0	<2.0	<1.9	<2.1
Total Per-and Polyfluoroalkyl Substances		--	**22,455.0**	**20.1**	**90.7**	**0.0**	**0.0**	**0.0**

Notes
1) Detections in **bold**.
2) Concentrations in ng/L.
3) < = Not detected at specified reporting limit.
4) -- = Not analyzed/No criteria.
5) Dup = Duplicate sample.
6) Beecher Metropolitan District Sewer Use Permit
Discharge Pollutant Limitations and Monitoring Requirements - October 15, 2021.
7) Concentrations above the discharge limit are highlighted in yellow.
8) Number after Prim (Primary GAC vessel), Mid (Secondary GAC vessel), and Eff (Effluent sample after tertiary GAC vessel) samples equals number of GAC Bed volumes discharged through the pretreatment system at the time of sample collection. One bed volume equals 45 gallons.
9) Branched and linear values for perfluorohexane sulfonic acid (PFHxS) and perfluorooctane sulfonic acid (PFOS) are reported in the table but are not inculded in the Total Per-and Polyfluoroalkyl Substances.
9) I - Matrix interference with internal standard.
10) J - Estimated value less than reporting limit, but greater than MDL.
11) X - Elevated reporting limit due to matrix interference.
12) QA/QC Samples were either not detected above the reporting limit or below the Beecher Metropolitan District Sewer Use Permit Discharge Limits.

Analytical Laboratory Report

Report ID: S65712.01(01)
Generated on 09/13/2024

Report to

Attention: Clifford Yantz
Ramboll
2090 Commonwealth Blvd.
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Addtional Contacts: Kevin Schneider

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S65712.01
Project: RACER Coldwater Road
Collected Date(s): 08/30/2024
Submitted Date/Time: 08/30/2024 11:00
Sampled by: Kevin Schneider
P.O. #: 1940008845 TASK 001

Table of Contents

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
o	Associated EIS outside of control limits
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
q	Qualifier ion ratio outside of control limits
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched

Method Summary

Method	Version
E1664A	EPA Method 1664 Revision A February 1999
E200.8	EPA Method 200.8 Revision 5.4
E245.1	EPA Method 245.1 Revision 3.0
OIA-1677	EPA Method OIA-1677-09
SM2540D	Standard Method 2540 D 2015
SM2550B	Standard Method 2550 B 2011
SM4500-H+ B	Standard Method 4500 H + B 2011
SM4500-NH3 G	Standard Method 4500 NH3 G 2017
SM4500-PE	Standard Method 4500 P E 2011 / 4500 P B(5) 2011
SM5210B/HACH1036	Standard Method 5210 B 2016 / HACH 10360
SW3015A	SW 846 Method 3015A Revision 1 February 2007

Analytical Laboratory Report

Sample Summary (1 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S65712.01	03-PRCC-24-08302024	Wastewater	08/30/24 08:30

Analytical Laboratory Report

Lab Sample ID: S65712.01
Sample Tag: 03-PRCC-24-08302024
Collected Date/Time: 08/30/2024 08:30
Matrix: Wastewater
COC Reference: 153322

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Plastic	None	Yes	5.8	IR
1	125mL Plastic	HNO3	Yes	5.8	IR
1	500mL Plastic	None	Yes	5.8	IR
1	125mL Amber	PbCO3/NaOH	Yes	5.8	IR
1	32oz Glass	HCL	Yes	5.8	IR
1	250mL Plastic	H2SO4	Yes	5.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Mercury Digestion	Completed	E245.1	09/03/24 11:07	CTV	
TBOD5 - Set*	Completed	SM5210B/HACH1036	08/30/24 12:15	MDG	
Metal Digestion	Completed	SW3015A	09/06/24 10:30	CCM	

Inorganics

Method: E1664A, Run Date: 09/03/24 14:00, Analyst: JW

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Oil & Grease n-Hexane Extract.	Not detected	2		mg/L	1		

Method: SM2540D, Run Date: 09/04/24 17:23, Analyst: MDG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Suspended Solids	7.1	3		mg/L	1		

Method: SM2550B, Run Date: 08/30/24 08:30, Analyst: KS

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Field Temperature*	71	1		oF	1		

Method: SM4500-H+ B, Run Date: 08/30/24 08:30, Analyst: KS

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Field pH*	7.00	0.01		STD Units	1		

Method: SM4500-NH3 G, Run Date: 09/05/24 20:17, Analyst: MJC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Ammonia-N (Undistilled)*	1.07	0.02		mg/L	1	7664-41-7	

Method: SM4500-PE, Run Date: 09/04/24 17:30, Analyst: MJC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Phosphorus	0.02	0.01	0.009	mg/L	1	7723-14-0	

Method: SM5210B/HACH1036, Run Date: 09/04/24 12:59, Analyst: SSM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TBOD5*	7.4	3		mg/L	3		

Metals

Method: E200.8, Run Date: 09/06/24 12:28, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	0.004	0.002		mg/L	5	7440-38-2	

Lab Sample ID: S65712.01 (continued)
Sample Tag: 03-PRCC-24-08302024

Method: E200.8, Run Date: 09/06/24 12:28, Analyst: CCM (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium	0.039	0.005		mg/L	5	7440-47-3	
Copper	0.219	0.005		mg/L	5	7440-50-8	
Nickel	0.064	0.005		mg/L	5	7440-02-0	
Zinc	0.020	0.005		mg/L	5	7440-66-6	

Method: E245.1, Run Date: 09/03/24 14:08, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.0002		mg/L	1	7439-97-6	

Other / Misc.

Method: OIA-1677, Run Date: 08/30/24 15:44, Analyst: MDG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Available Cyanide	Not detected	0.0020		mg/L	1	57-12-5	

Merit Laboratories Login Checklist

Lab Set ID: S65712
Client: RAMBOLL (Ramboll Americas)
Project: RACER Coldwater Road
Submitted: 08/30/2024 11:00 Login User: MMC

Attention: Clifford Yantz
Address: Ramboll
2090 Commonwealth Blvd.
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 5.8
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[X] Yes	[ ] No	[ ] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[ ] No	[X] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories Bottle Preservation Check

Lab Set ID: S65712 Submitted: 08/30/2024 11:00

Client: RAMBOLL (Ramboll Americas)

Project: RACER Coldwater Road

Initial Preservation Check: 08/30/2024 11:24 MMC

Preservation Recheck (E200.8): N/A

Attention: Clifford Yantz
Address: Ramboll
2090 Commonwealth Blvd.
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Sample ID	Bottle / Preservation	pH (Orig)	Add ml	pH (New)	Notes
S65712.01	125mL Amber PbCO3/NaOH	9	0.5	>12	Lot# 0623245N
S65712.01	125mL Plastic HNO3	<2			
S65712.01	250mL Plastic H2SO4	<2			
S65712.01	32oz Glass HCL	<2			

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1 153322

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Clifford Yantz / Kevin Schneider
COMPANY: Ramboll
ADDRESS: 2090 Commonwealth Blvd
CITY: Ann Arbor STATE: MI ZIP CODE: 48105
PHONE NO.: CELL NO.: 313-333-0211 P.O. NO.: 1940008845 Task 001
E-MAIL ADDRESS: clifford.yantz@ramboll.com kevin.schneider@ramboll.com QUOTE NO.:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: RACER Coldwater Road
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Schneider

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ STD ☒ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

MERIT LAB NO. FOR LAB USE ONLY	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	Total Metals	Available Cyanide	BOD	TSS	Ammonia-Nitrogen	Total Phosphorus	FOG (Hex-Ext)
65712.01	8/30/24	830	03-PRCC-24-08302024	WW	6	5	1	1	1			1	X	X	X	X	X	X	X

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

Metals ARE:
As, Cr, Cu, Hg, Ni, Zn

Analysis per City of Flint including QC Report

Field Temp 21.8°C
Field pH 7.00

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
	☒ Sampler	8/30/24	946
RECEIVED BY: SIGNATURE/ORGANIZATION		8/30/24	946
RELINQUISHED BY: SIGNATURE/ORGANIZATION		8/30/24	1100
RECEIVED BY: SIGNATURE/ORGANIZATION		8/30/24	1100

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 5.8

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.26.22

Quality Control Report

Report ID: QC-S65712-01
Generated on 09/16/2024

Report to

Attention: Clifford Yantz
Ramboll
2090 Commonwealth Blvd.
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S65712.01
Project: RACER Coldwater Road
Submitted Date/Time: 08/30/2024 11:00
Sampled by: Kevin Schneider
P.O. #: 1940008845 TASK 001

QC Report Sections

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S65712.01
Sample Tag: 03-PRCC-24-08302024
Collected Date/Time: 08/30/2024 08:30
Matrix: Wastewater
COC Reference: 153322

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Ammonia-N (Undistilled)	SM4500-NH3 G	09/05/24 20:17	AMN240905B	AMN240905B	No	BLK/LCS/MS/DUP
Oil & Grease n-Hexane Extract.	E1664A	09/03/24 14:00	OGHEX240903W1	OGHEX240903W1	No	BLK/LCS
TBOD5	SM5210B/HACH10360	09/04/24 12:59	BOD240830A	BOD240830A	No	BLK/LCS/DUP
Total Phosphorus	SM4500-PE	09/04/24 17:30	PHS240904QC	PHS240904QC	No	BLK/LCS/MS/DUP
Total Suspended Solids	SM2540D	09/04/24 17:23	TSS240904A	TSS240904A	No	BLK/LCS/DUP
Metals						
Arsenic	E200.8	09/06/24 12:28	MT4-24-0906A	MTD-090624-3	No	BLK/LCS/MS/MSD
Chromium	E200.8	09/06/24 12:28	MT4-24-0906A	MTD-090624-3	No	BLK/LCS/MS/MSD
Copper	E200.8	09/06/24 12:28	MT4-24-0906A	MTD-090624-3	No	BLK/LCS/MS/MSD
Mercury	E245.1	09/03/24 14:08	HG-24-0903A	HGD-090324-1	No	BLK/LCS/MS/MSD
Nickel	E200.8	09/06/24 12:28	MT4-24-0906A	MTD-090624-3	No	BLK/LCS/MS/MSD
Zinc	E200.8	09/06/24 12:28	MT4-24-0906A	MTD-090624-3	No	BLK/LCS/MS/MSD
Other / Misc.						
Available Cyanide	OIA-1677	08/30/24 15:44	ACN240830	ACN240830	No	BLK/LCS/MS/MSD/DU

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: AMN240905B

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S65712.01	Ammonia-N (Undistilled)	SM4500-NH3 G	09/05/24 20:17	AMN240905B

Inorganics, Prep Batch ID: BOD240830A

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S65712.01	TBOD5	SM5210B/HACH1038	09/04/24 12:59	BOD240830A

Inorganics, Prep Batch ID: OGHEX240903W1

Surrogates: No, QC Types: BLK/LCS

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S65712.01	Oil & Grease n-Hexane Extract.	E1664A	09/03/24 14:00	OGHEX240903W1

Inorganics, Prep Batch ID: PHS240904QC

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S65712.01	Total Phosphorus	SM4500-PE	09/04/24 17:30	PHS240904QC

Inorganics, Prep Batch ID: TSS240904A

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S65712.01	Total Suspended Solids	SM2540D	09/04/24 17:23	TSS240904A

Metals, Prep Batch ID: HGD-090324-1

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S65712.01	Mercury	E245.1	09/03/24 14:08	HG-24-0903A

Metals, Prep Batch ID: MTD-090624-3

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S65712.01	Arsenic	E200.8	09/06/24 12:28	MT4-24-0906A
S65712.01	Chromium	E200.8	09/06/24 12:28	MT4-24-0906A
S65712.01	Copper	E200.8	09/06/24 12:28	MT4-24-0906A
S65712.01	Nickel	E200.8	09/06/24 12:28	MT4-24-0906A
S65712.01	Zinc	E200.8	09/06/24 12:28	MT4-24-0906A

Other / Misc., Prep Batch ID: ACN240830

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S65712.01	Available Cyanide	OIA-1677	08/30/24 15:44	ACN240830

Inorganics, Prep Batch ID: AMN240905B

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: AMN240905B.LRB1

Run in Batch: AMN240905B, Run Date: 09/05/2024 18:03, Prep Date: 09/05/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Ammonia-N (Undistilled)		ND	0.02	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: AMN240905B.LCS1

Run in Batch: AMN240905B, Run Date: 09/05/2024 18:07, Prep Date: 09/05/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Ammonia-N (Undistilled)		100.0	90	110

Matrix Spike (MS)

Lab Sample ID: AMN240905B.MS1, Parent Sample ID: S65745.03

Run in Batch: AMN240905B, Run Date: 09/05/2024 18:25, Prep Date: 09/05/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Ammonia-N (Undistilled)		102.0	80	120

Duplicate (DUP)

Lab Sample ID: AMN240905B.DP1, Parent Sample ID: S65712.01

Run in Batch: AMN240905B, Run Date: 09/05/2024 20:19, Prep Date: 09/05/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	RPD	RPD CL
Ammonia-N (Undistilled)		0.0	20

Inorganics, Prep Batch ID: BOD240830A

Surrogates: No, QC Types: BLK/LCS/DUP

Blank (BLK)

Lab Sample ID: BOD240830A.LRB1

Run in Batch: BOD240830A, Run Date: 09/04/2024 12:59, Prep Date: 09/04/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
TBOD5		ND	3	mg/L

Blank (BLK)

Lab Sample ID: BOD240830A.LRB2

Run in Batch: BOD240830A, Run Date: 09/04/2024 12:59, Prep Date: 09/04/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
TBOD5		ND	3	mg/L

Blank (BLK)

Lab Sample ID: BOD240830A.LRB3

Run in Batch: BOD240830A, Run Date: 09/04/2024 12:59, Prep Date: 09/04/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
TBOD5		ND	3	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: BOD240830A.LCS1

Run in Batch: BOD240830A, Run Date: 09/04/2024 12:59, Prep Date: 09/04/2024, Matrix: Liquid, Dilution: 30

Analyte	Flags	% Rec	LCL	UCL
TBOD5		98.1	51	166

Laboratory Control Sample (LCS)

Lab Sample ID: BOD240830A.LCS2

Run in Batch: BOD240830A, Run Date: 09/04/2024 12:59, Prep Date: 09/04/2024, Matrix: Liquid, Dilution: 30

Analyte	Flags	% Rec	LCL	UCL
TBOD5		102.3	51	166

Laboratory Control Sample (LCS)

Lab Sample ID: BOD240830A.LCS3

Run in Batch: BOD240830A, Run Date: 09/04/2024 12:59, Prep Date: 09/04/2024, Matrix: Liquid, Dilution: 30

Analyte	Flags	% Rec	LCL	UCL
TBOD5		105.1	51	166

Duplicate (DUP)

Lab Sample ID: BOD240830A.DP1, Parent Sample ID: S65712.01

Run in Batch: BOD240830A, Run Date: 09/04/2024 12:59, Prep Date: 09/04/2024, Matrix: Liquid, Dilution: 3

Analyte	Flags	RPD	RPD CL
TBOD5		12.3	20

Inorganics, Prep Batch ID: OGHEX240903W1

Surrogates: No, QC Types: BLK/LCS

Blank (BLK)

Lab Sample ID: OGHEX240903W1.LRB1

Run in Batch: OGHEX240903W1, Run Date: 09/03/2024 14:00, Prep Date: 09/03/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Oil & Grease n-Hexane Extract.		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX240903W1.LCS1

Run in Batch: OGHEX240903W1, Run Date: 09/03/2024 14:00, Prep Date: 09/03/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Oil & Grease n-Hexane Extract.		85	78	114

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX240903W1.LCS2

Run in Batch: OGHEX240903W1, Run Date: 09/03/2024 14:00, Prep Date: 09/03/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Oil & Grease n-Hexane Extract.		83	78	114

Inorganics, Prep Batch ID: PHS240904QC

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: PHS240904QC.LRB1

Run in Batch: PHS240904QC, Run Date: 09/04/2024 13:02, Prep Date: 09/04/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Total Phosphorus		ND	0.01	mg/L

Blank (BLK)

Lab Sample ID: PHS240904QC.LRB2

Run in Batch: PHS240904QC, Run Date: 09/04/2024 13:09, Prep Date: 09/04/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Total Phosphorus		ND	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHS240904QC.LCS1

Run in Batch: PHS240904QC, Run Date: 09/04/2024 13:15, Prep Date: 09/04/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Total Phosphorus		101	90	110

Matrix Spike (MS)

Lab Sample ID: PHS240904QC.MS1, Parent Sample ID: S65644.01

Run in Batch: PHS240904QC, Run Date: 09/04/2024 17:55, Prep Date: 09/04/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Total Phosphorus		87	80	120

Duplicate (DUP)

Lab Sample ID: PHS240904QC.DP1, Parent Sample ID: S65628.05

Run in Batch: PHS240904QC, Run Date: 09/04/2024 17:51, Prep Date: 09/04/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	RPD	RPD CL
Total Phosphorus		0.7	20

Inorganics, Prep Batch ID: TSS240904A

Surrogates: No, QC Types: BLK/LCS/DUP

Blank (BLK)

Lab Sample ID: TSS240904A.LRB1

Run in Batch: TSS240904A, Run Date: 09/04/2024 17:23, Prep Date: 09/04/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Total Suspended Solids		ND	3	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: TSS240904A.LCS1

Run in Batch: TSS240904A, Run Date: 09/04/2024 17:23, Prep Date: 09/04/2024, Matrix: Liquid, Dilution: 10

Analyte	Flags	% Rec	LCL	UCL
Total Suspended Solids		89.4	78.7	114

Duplicate (DUP)

Lab Sample ID: TSS240904A.DP1, Parent Sample ID: S65660.01

Run in Batch: TSS240904A, Run Date: 09/04/2024 17:23, Prep Date: 09/04/2024, Matrix: Liquid, Dilution: 2.5

Analyte	Flags	RPD	RPD CL
Total Suspended Solids		0.0	10

QC Report - Batch QC Results

Metals, Prep Batch ID: HGD-090324-1

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Blank (BLK)

Lab Sample ID: HG-24-0903A.015.LRB

Run in Batch: HG-24-0903A, Run Date: 09/03/2024 13:45, Prep Date: 09/03/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Mercury		ND	0.05	ug/L

Laboratory Control Sample (LCS)

Lab Sample ID: HG-24-0903A.014.LCS

Run in Batch: HG-24-0903A, Run Date: 09/03/2024 13:42, Prep Date: 09/03/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Mercury		108	85	115

Matrix Spike (MS)

Lab Sample ID: HG-24-0903A.018.MS, Parent Sample ID: S65611.01

Run in Batch: HG-24-0903A, Run Date: 09/03/2024 13:55, Prep Date: 09/03/2024, Matrix: Liquid, Dilution: 2

Analyte	Flags	% Rec	LCL	UCL
Mercury		105	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG-24-0903A.019.MSD, Parent Sample ID: HG-24-0903A.018.MS

Run in Batch: HG-24-0903A, Run Date: 09/03/2024 13:58, Prep Date: 09/03/2024, Matrix: Liquid, Dilution: 2

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Mercury		107	80	120	2	20

Metals, Prep Batch ID: MTD-090624-3

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Blank (BLK)

Lab Sample ID: MT4-24-0906A.020.LRB

Run in Batch: MT4-24-0906A, Run Date: 09/06/2024 11:54, Prep Date: 09/06/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Arsenic		ND	0.0004	mg/L
Chromium		ND	0.001	mg/L
Copper		ND	0.001	mg/L
Nickel		ND	0.001	mg/L
Zinc		ND	0.001	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: MT4-24-0906A.019.LCS

Run in Batch: MT4-24-0906A, Run Date: 09/06/2024 11:47, Prep Date: 09/06/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Arsenic		99	85	115
Chromium		99	85	115
Copper		99	85	115
Nickel		99	85	115
Zinc		98	85	115

Matrix Spike (MS)

Lab Sample ID: MT4-24-0906A.044.MS, Parent Sample ID: S65736.01

Run in Batch: MT4-24-0906A, Run Date: 09/06/2024 12:32, Prep Date: 09/06/2024, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		105	75	125
Chromium		104	75	125
Copper		102	75	125
Nickel		102	75	125
Zinc		104	75	125

Matrix Spike (MS)

Lab Sample ID: MT4-24-0906A.070.MS, Parent Sample ID: S65816.01

Run in Batch: MT4-24-0906A, Run Date: 09/06/2024 13:21, Prep Date: 09/06/2024, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		107	75	125
Chromium		104	75	125
Copper		100	75	125
Nickel		102	75	125
Zinc		102	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-24-0906A.045.MSD, Parent Sample ID: MT4-24-0906A.044.MS

Run in Batch: MT4-24-0906A, Run Date: 09/06/2024 12:34, Prep Date: 09/06/2024, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		105	75	125	0	20
Chromium		102	75	125	2	20
Copper		100	75	125	2	20
Nickel		103	75	125	0	20
Zinc		108	75	125	3	20

Metals, Prep Batch ID: MTD-090624-3 (continued)

Surrogates: No, QC Types: BLK/LCS/MS/MSD

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-24-0906A.071.MSD, Parent Sample ID: MT4-24-0906A.070.MS

Run in Batch: MT4-24-0906A, Run Date: 09/06/2024 13:23, Prep Date: 09/06/2024, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		106	75	125	1	20
Chromium		105	75	125	0	20
Copper		99	75	125	1	20
Nickel		102	75	125	1	20
Zinc		102	75	125	1	20

QC Report - Batch QC Results

Other / Misc., Prep Batch ID: ACN240830

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: ACN240830.LRB1

Run in Batch: ACN240830, Run Date: 08/30/2024 15:38, Prep Date: 08/30/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Available Cyanide		ND	0.1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: ACN240830.LCS1

Run in Batch: ACN240830, Run Date: 08/30/2024 15:34, Prep Date: 08/30/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Available Cyanide		102	90	110

Matrix Spike (MS)

Lab Sample ID: ACN240830.MS1, Parent Sample ID: S65277.01

Run in Batch: ACN240830, Run Date: 08/30/2024 15:54, Prep Date: 08/30/2024, Matrix: Soil, Dilution: 20

Analyte	Flags	% Rec	LCL	UCL
Available Cyanide		89	80	120

Matrix Spike (MS)

Lab Sample ID: ACN240830.MS2, Parent Sample ID: S65296.03

Run in Batch: ACN240830, Run Date: 08/30/2024 16:06, Prep Date: 08/30/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Available Cyanide		89	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: ACN240830.MSD1, Parent Sample ID: ACN240830.MS1

Run in Batch: ACN240830, Run Date: 08/30/2024 15:56, Prep Date: 08/30/2024, Matrix: Soil, Dilution: 20

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Available Cyanide	*	77	80	120	14	15

Matrix Spike Duplicate (MSD)

Lab Sample ID: ACN240830.MSD2, Parent Sample ID: ACN240830.MS2

Run in Batch: ACN240830, Run Date: 08/30/2024 16:08, Prep Date: 08/30/2024, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Available Cyanide		95	80	120	7	15

Duplicate (DUP)

Lab Sample ID: ACN240830.DP1, Parent Sample ID: S65277.01

Run in Batch: ACN240830, Run Date: 08/30/2024 15:50, Prep Date: 08/30/2024, Matrix: Soil, Dilution: 20

Analyte	Flags	RPD	RPD CL
Available Cyanide		NC	15

Duplicate (DUP)

Lab Sample ID: ACN240830.DP2, Parent Sample ID: S65296.03

Run in Batch: ACN240830, Run Date: 08/30/2024 16:02, Prep Date: 08/30/2024, Matrix: Liquid, Dilution: 2

Analyte	Flags	RPD	RPD CL
Available Cyanide		NC	15

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1 153322

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Clifford Yantz / Kevin Schneider
COMPANY: Ramboll
ADDRESS: 2090 Commonwealth Blvd
CITY: Ann Arbor STATE: MI ZIP CODE: 48105
PHONE NO.: CELL NO.: 313-333-0211 P.O. NO.: 1940008845 Task 001
E-MAIL ADDRESS: clifford.yantz@ramboll.com kevin.schneider@ramboll.com QUOTE NO.:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: RACER Coldwater Road
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Schneider

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ STD ☒ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

MERIT LAB NO. FOR LAB USE ONLY	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	Total Metals	Available Cyanide	BOD	TSS	Ammonia-Nitrogen	Total Phosphorus	FOG (Hex-Ext)
65712.01	8/30/24	830	03-PRCC-24-08302024	WW	6	5	1	1	1			1	X	X	X	X	X	X	X

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

Metals ARE:
As, Cr, Cu, Hg, Ni, Zn

Analysis per City of Flint including QC Report

Field Temp 21.8°C
Field pH 7.00

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
	☒ Sampler	8/30/24	946
RECEIVED BY: SIGNATURE/ORGANIZATION		8/30/24	946
RELINQUISHED BY: SIGNATURE/ORGANIZATION		8/30/24	1100
RECEIVED BY: SIGNATURE/ORGANIZATION		8/30/24	1100

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 5.8

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.26.22

Analytical Laboratory Report

Report ID: S66426.01(01)
Generated on 10/10/2024

Report to

Attention: Clifford Yantz
Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Addtional Contacts: Kevin Schneider, Nicole Pitkorchemny

Report Summary

Lab Sample ID(s): S66426.01-S66426.03
Project: RACER Coldwater Road
Collected Date(s): 09/18/2024
Submitted Date/Time: 09/19/2024 13:20
Sampled by: Kevin Schneider
P.O. #: 1940008845 TASK37

Table of Contents

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
o	Associated EIS outside of control limits
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
q	Qualifier ion ratio outside of control limits
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched

Analytical Laboratory Report

Method Summary

Method	Version
ASTMD7979-19M	ASTM Method D7979 - 19 Modified (Isotopic Dilution)

Parameter Summary

Parameter	Synonym	Cas #
PFBA	Perfluorobutanoic Acid	375-22-4
PFPeA	Perfluoropentanoic Acid	2706-90-3
4:2 FTSA	4:2 Fluorotelomer Sulfonic Acid	757124-72-4
PFHxA	Perfluorohexanoic Acid	307-24-4
PFBS	Perfluorobutane sulfonic Acid	375-73-5
PFHpA	Perfluoroheptanoic Acid	375-85-9
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4
6:2 FTSA	6:2 Fluorotelomer Sulfonic Acid	27619-97-2
PFOA	Perfluorooctanoic Acid	335-67-1
PFHxS	Perfluorohexane Sulfonic Acid	355-46-4
PFHxS-LN	Perfluorohexane Sulfonic Acid - LN	355-46-4-LN
PFHxS-BR	Perfluorohexane Sulfonic Acid - BR	355-46-4-BR
PFNA	Perfluorononanoic Acid	375-95-1
8:2 FTSA	8:2 Fluorotelomer Sulfonic Acid	39108-34-4
PFHpS	Perfluoroheptane Sulfonic Acid	375-92-8
PFDA	Perfluorodecanoic Acid	335-76-2
N-MeFOSAA	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9
EtFOSAA	N-Ethyl Perfluorooctane Sulfonamidoacetic Acid	2991-50-6
PFOS	Perfluorooctane Sulfonic Acid	1763-23-1
PFOS-LN	Perfluorooctane Sulfonic Acid - LN	1763-23-1-LN
PFOS-BR	Perfluorooctane Sulfonic Acid - BR	1763-23-1-BR
PFUnDA	Perfluoroundecanoic Acid	2058-94-8
PFNS	Perfluorononane Sulfonic Acid	68259-12-1
PFDoDA	Perfluorododecanoic Acid	307-55-1
PFDS	Perfluorodecane Sulfonic Acid	335-77-3
PFTrDA	Perfluorotridecanoic Acid	72629-94-8
FOSA	Perfluorooctane Sulfonamide	754-91-6
PFTeDA	Perfluorotetradecanoic Acid	376-06-7
11Cl-PF3OUdS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9
9Cl-PF3ONS	9-chlorohexadecafluoro-3-oxanone1-sulfonic acid	756426-58-1
ADONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4
HFPO-DA	Hexafluoropropylene oxide dimer	13252-13-6
FHpPA (7:3 FTCA)	3-Perfluoroheptyl propanoic acid	812-70-4
FPePA (5:3 FTCA)	3-Perfluoropentyl propanoic acid	914637-49-3
FPrPA (3:3 FTCA)	3-Perfluoropropyl propanoic acid	356-02-5
PFBSA	Perfluorobutanesulfonamide	30334-69-1
PFECHS	Perfluoro-4-ethylcyclohexanesulfonate	67584-42-3
PFHxSA	Perfluorohexanesulfonamide	41997-13-1

Sample Summary (3 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S66426.01	Field Blank-09182024	Liquid	09/18/24 09:50
S66426.02	03-PRCC-24-INF-09182024	Liquid	09/18/24 09:55
S66426.03	03-PRCC-24-PRIM-09182024	Liquid	09/18/24 10:00

Analytical Laboratory Report

Lab Sample ID: S66426.01
Sample Tag: Field Blank-09182024
Collected Date/Time: 09/18/2024 09:50
Matrix: Liquid
COC Reference: 153365

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.42/6.43/10	ASTMD7979-19M	09/20/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 09/20/24 20:56, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	2.0	ng/L	2	375-22-4	
PFPeA*	Not detected	4.0	1.2	ng/L	2	2706-90-3	
4:2 FTSA*	Not detected	2.0	0.20	ng/L	2	757124-72-4	
PFHxA*	Not detected	2.0	1.2	ng/L	2	307-24-4	
PFBS*	Not detected	2.0	0.60	ng/L	2	375-73-5	
PFHpA*	Not detected	2.0	0.80	ng/L	2	375-85-9	
PFPeS*	Not detected	2.0	1.8	ng/L	2	2706-91-4	
6:2 FTSA*	Not detected	2.0	1.0	ng/L	2	27619-97-2	
PFOA*	Not detected	2.0	0.80	ng/L	2	335-67-1	
PFHxS*	Not detected	2.0	1.0	ng/L	2	355-46-4	
PFHxS-LN*	Not detected	2.0	1.0	ng/L	2	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	1.0	ng/L	2	355-46-4-BR	
PFNA*	Not detected	2.0	1.0	ng/L	2	375-95-1	
8:2 FTSA*	Not detected	2.0	1.2	ng/L	2	39108-34-4	
PFHpS*	Not detected	2.0	0.80	ng/L	2	375-92-8	
PFDA*	Not detected	2.0	1.2	ng/L	2	335-76-2	
N-MeFOSAA*	Not detected	2.0	1.0	ng/L	2	2355-31-9	
EtFOSAA*	Not detected	4.0	1.0	ng/L	2	2991-50-6	
PFOS*	Not detected	2.0	0.80	ng/L	2	1763-23-1	
PFOS-LN*	Not detected	2.0	0.80	ng/L	2	1763-23-1-LN	
PFOS-BR*	Not detected	2.0	0.80	ng/L	2	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.80	ng/L	2	2058-94-8	
PFNS*	Not detected	2.0	1.0	ng/L	2	68259-12-1	
PFDoDA*	Not detected	2.0	0.60	ng/L	2	307-55-1	
PFDS*	Not detected	2.0	1.0	ng/L	2	335-77-3	
PFTrDA*	Not detected	2.0	0.80	ng/L	2	72629-94-8	
FOSA*	Not detected	2.0	0.80	ng/L	2	754-91-6	
PFTeDA*	Not detected	4.0	0.60	ng/L	2	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.0	ng/L	2	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.0	ng/L	2	756426-58-1	
ADONA*	Not detected	2.0	0.60	ng/L	2	919005-14-4	
HFPO-DA*	Not detected	10	2.0	ng/L	2	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10	8.0	ng/L	2	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	4.0	ng/L	2	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	4.0	ng/L	2	356-02-5	
PFBSA*	Not detected	2.0	0.60	ng/L	2	30334-69-1	
PFECHS*	Not detected	2.0	0.80	ng/L	2	67584-42-3	

Lab Sample ID: S66426.01 (continued)

Sample Tag: Field Blank-09182024

34 PFAs, Method: ASTMD7979-19M, Run Date: 09/20/24 20:56, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxSA*	Not detected	2.0	0.60	ng/L	2	41997-13-1	

Analytical Laboratory Report

Lab Sample ID: S66426.02
Sample Tag: 03-PRCC-24-INF-09182024
Collected Date/Time: 09/18/2024 09:55
Matrix: Liquid
COC Reference: 153365

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.81/6.46/11	ASTMD7979-19M	09/20/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 09/20/24 21:16, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	62	2.1	ng/L	2.06	375-22-4	X
PFPeA*	Not detected	6.0	1.2	ng/L	2.06	2706-90-3	X
4:2 FTSA*	Not detected	2.1	0.21	ng/L	2.06	757124-72-4	I
PFHxA*	95	2.1	1.2	ng/L	2.06	307-24-4	
PFBS*	89	2.1	0.62	ng/L	2.06	375-73-5	
PFHpA*	21	2.1	0.82	ng/L	2.06	375-85-9	
PFPeS*	180	2.1	1.9	ng/L	2.06	2706-91-4	
6:2 FTSA*	Not detected	2.1	1.0	ng/L	2.06	27619-97-2	I
PFOA*	73	2.1	0.82	ng/L	2.06	335-67-1	
PFHxS*	550	2.1	1.0	ng/L	2.06	355-46-4	
PFHxS-LN*	460	2.1	1.0	ng/L	2.06	355-46-4-LN	
PFHxS-BR*	87	2.1	1.0	ng/L	2.06	355-46-4-BR	
PFNA*	Not detected	2.1	1.0	ng/L	2.06	375-95-1	
8:2 FTSA*	Not detected	2.1	1.2	ng/L	2.06	39108-34-4	
PFHpS*	140	2.1	0.82	ng/L	2.06	375-92-8	
PFDA*	Not detected	2.1	1.2	ng/L	2.06	335-76-2	
N-MeFOSAA*	Not detected	2.1	1.0	ng/L	2.06	2355-31-9	
EtFOSAA*	Not detected	4.1	1.0	ng/L	2.06	2991-50-6	
PFOS*	8,300	2.1	0.82	ng/L	2.06	1763-23-1	
PFOS-LN*	5,000	2.1	0.82	ng/L	2.06	1763-23-1-LN	
PFOS-BR*	3,700	2.1	0.82	ng/L	2.06	1763-23-1-BR	
PFUnDA*	Not detected	2.1	0.82	ng/L	2.06	2058-94-8	
PFNS*	2.8	2.1	1.0	ng/L	2.06	68259-12-1	
PFDoDA*	Not detected	2.1	0.62	ng/L	2.06	307-55-1	
PFDS*	Not detected	2.1	1.0	ng/L	2.06	335-77-3	
PFTrDA*	Not detected	2.1	0.82	ng/L	2.06	72629-94-8	
FOSA*	3.3	2.1	0.82	ng/L	2.06	754-91-6	
PFTeDA*	Not detected	4.1	0.62	ng/L	2.06	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	1.0	ng/L	2.06	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	1.0	ng/L	2.06	756426-58-1	
ADONA*	Not detected	2.1	0.62	ng/L	2.06	919005-14-4	
HFPO-DA*	Not detected	10	2.1	ng/L	2.06	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10	8.2	ng/L	2.06	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	4.1	ng/L	2.06	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	4.1	ng/L	2.06	356-02-5	

X-Elevated reporting limit due to matrix interference
I-Matrix interference with internal standard

Lab Sample ID: S66426.02 (continued)

Sample Tag: 03-PRCC-24-INF-09182024

34 PFAs, Method: ASTMD7979-19M, Run Date: 09/20/24 21:16, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBSA*	Not detected	2.1	0.62	ng/L	2.06	30334-69-1	
PFECHS*	13,000	2.1	0.82	ng/L	2.06	67584-42-3	
PFHxSA*	0.93	2.1	0.62	ng/L	2.06	41997-13-1	J

J-Estimated value less than reporting limit, but greater than MDL

Analytical Laboratory Report

Lab Sample ID: S66426.03
Sample Tag: 03-PRCC-24-PRIM-09182024
Collected Date/Time: 09/18/2024 10:00
Matrix: Liquid
COC Reference: 153365

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	5.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.76/6.51/10	ASTMD7979-19M	09/20/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 09/20/24 21:36, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	9.5	1.9	ng/L	1.9	375-22-4	
PFPeA*	Not detected	3.8	1.1	ng/L	1.9	2706-90-3	
4:2 FTSA*	Not detected	1.9	0.19	ng/L	1.9	757124-72-4	
PFHxA*	Not detected	1.9	1.1	ng/L	1.9	307-24-4	
PFBS*	Not detected	1.9	0.57	ng/L	1.9	375-73-5	
PFHpA*	Not detected	1.9	0.76	ng/L	1.9	375-85-9	
PFPeS*	Not detected	1.9	1.7	ng/L	1.9	2706-91-4	
6:2 FTSA*	Not detected	1.9	0.95	ng/L	1.9	27619-97-2	
PFOA*	Not detected	1.9	0.76	ng/L	1.9	335-67-1	
PFHxS*	Not detected	1.9	0.95	ng/L	1.9	355-46-4	
PFHxS-LN*	Not detected	1.9	0.95	ng/L	1.9	355-46-4-LN	
PFHxS-BR*	Not detected	1.9	0.95	ng/L	1.9	355-46-4-BR	
PFNA*	Not detected	1.9	0.95	ng/L	1.9	375-95-1	
8:2 FTSA*	Not detected	1.9	1.1	ng/L	1.9	39108-34-4	
PFHpS*	Not detected	1.9	0.76	ng/L	1.9	375-92-8	
PFDA*	Not detected	1.9	1.1	ng/L	1.9	335-76-2	
N-MeFOSAA*	Not detected	1.9	0.95	ng/L	1.9	2355-31-9	
EtFOSAA*	Not detected	3.8	0.95	ng/L	1.9	2991-50-6	
PFOS*	17	1.9	0.76	ng/L	1.9	1763-23-1	
PFOS-LN*	14	1.9	0.76	ng/L	1.9	1763-23-1-LN	
PFOS-BR*	1.7	1.9	0.76	ng/L	1.9	1763-23-1-BR	J
PFUnDA*	Not detected	1.9	0.76	ng/L	1.9	2058-94-8	
PFNS*	Not detected	1.9	0.95	ng/L	1.9	68259-12-1	
PFDoDA*	Not detected	1.9	0.57	ng/L	1.9	307-55-1	
PFDS*	Not detected	1.9	0.95	ng/L	1.9	335-77-3	
PFTrDA*	Not detected	1.9	0.76	ng/L	1.9	72629-94-8	
FOSA*	Not detected	1.9	0.76	ng/L	1.9	754-91-6	
PFTeDA*	Not detected	3.8	0.57	ng/L	1.9	376-06-7	
11Cl-PF3OUdS*	Not detected	1.9	0.95	ng/L	1.9	763051-92-9	
9Cl-PF3ONS*	Not detected	1.9	0.95	ng/L	1.9	756426-58-1	
ADONA*	Not detected	1.9	0.57	ng/L	1.9	919005-14-4	
HFPO-DA*	Not detected	9.5	1.9	ng/L	1.9	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	9.5	7.6	ng/L	1.9	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.5	3.8	ng/L	1.9	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.5	3.8	ng/L	1.9	356-02-5	
PFBSA*	Not detected	1.9	0.57	ng/L	1.9	30334-69-1	

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S66426.03 (continued)

Sample Tag: 03-PRCC-24-PRIM-09182024

34 PFAs, Method: ASTMD7979-19M, Run Date: 09/20/24 21:36, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	3.1	1.9	0.76	ng/L	1.9	67584-42-3	
PFHxSA*	Not detected	1.9	0.57	ng/L	1.9	41997-13-1	

Merit Laboratories Login Checklist

Lab Set ID: S66426
Client: RAMBOLL (Ramboll Americas)
Project: RACER Coldwater Road
Submitted: 09/19/2024 13:20 Login User: BJB

Attention: Clifford Yantz
Address: Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 5.0
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[ ] No	[X] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories, Inc.
2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

153365

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Clifford Yuntz / Kevin Schneider
COMPANY: Ramboll
ADDRESS: 2090 Commonwealth Blvd
CITY: Ann Arbor | STATE: MI | ZIP CODE: 48105
PHONE NO.: | CELL NO.: 313-333-0211 | P.O. NO.: 1940008845 Task 37
E-MAIL ADDRESS: clifford.yuntz@ramboll.com kevin.schneider@ramboll.com | QUOTE NO.:

INVOICE TO

CONTACT NAME: X SAME
COMPANY:
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO.: | E-MAIL ADDRESS:

PROJECT NO./NAME: RALER Coldwater Road
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Schneider X

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS X STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ STD X LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations
☐ Detroit ☐ New York
☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	PFAS (3971)	Special Instructions
66426.01	9/18/24	950	Field Blank-09182024	L	1	X							X	Low level Reporting
.02	9/18/24	955	03-PRCC-24-INF-09182024	L	3	X							X	with estimated
-03	9/18/24	1000	03-PRCC-24-PRIM-09182024	L	3	X							X	values
														34 PFAS List

RELINQUISHED BY: SIGNATURE/ORGANIZATION	X Sampler	DATE 9/18/24	TIME 11:42	
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 9/19/24	TIME 11:43	
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE 9/19/24	TIME 13:20	
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME	

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	Barbara Ball	DATE 9/19/2024	TIME 1320

SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS
SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS

NOTES: TEMP. ON ARRIVAL 5.0

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.26.22

Quality Control Report

Report ID: QC-S66426-01
Generated on 10/13/2024

Report to

Attention: Clifford Yantz
Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S66426.01-S66426.03
Project: RACER Coldwater Road
Submitted Date/Time: 09/19/2024 13:20
Sampled by: Kevin Schneider
P.O. #: 1940008845 TASK37

QC Report Sections

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S66426.01
Sample Tag: Field Blank-09182024
Collected Date/Time: 09/18/2024 09:50
Matrix: Liquid
COC Reference: 153365

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	09/20/24 20:56	AK240920	PF240920W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S66426.02
Sample Tag: 03-PRCC-24-INF-09182024
Collected Date/Time: 09/18/2024 09:55
Matrix: Liquid
COC Reference: 153365

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	09/20/24 21:16	AK240920	PF240920W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S66426.03

Sample Tag: 03-PRCC-24-PRIM-09182024

Collected Date/Time: 09/18/2024 10:00

Matrix: Liquid

COC Reference: 153365

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	09/20/24 21:36	AK240920	PF240920W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: PF240920W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S66426.01	34 PFAs	ASTMD7979-19M	09/20/24 20:56	AK240920
S66426.02	34 PFAs	ASTMD7979-19M	09/20/24 21:16	AK240920
S66426.03	34 PFAs	ASTMD7979-19M	09/20/24 21:36	AK240920

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S66426.01

Sample Tag: Field Blank-09182024

Collected Date/Time: 09/18/2024 09:50

Matrix: Liquid

COC Reference: 153365

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240920, Run Date: 09/20/2024 20:56, Matrix: WW, Dilution: 2

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**109.7**	50.0	150.0
M2-6:2FTSA		**101.1**	50.0	150.0
M2-8:2FTSA		**118.6**	50.0	150.0
M2PFTeDA		**129.0**	12.0	218.0
M3PFBS		**105.1**	50.0	150.0
M3PFHxS		**111.5**	50.0	150.0
M4PFHpA		**102.7**	50.0	150.0
M5PFHxA		**103.5**	50.0	150.0
M5PFPeA		**108.0**	50.0	150.0
M6PFDA		**116.9**	50.0	150.0
M7PFUnDA		**112.7**	50.0	150.0
M8FOSA		**100.5**	50.0	150.0
M8PFOA		**87.1**	50.0	150.0
M8PFOS		**109.2**	50.0	150.0
M9-PFNA		**108.8**	50.0	150.0
MPFBA		**103.3**	50.0	150.0
MPFDoDA		**102.2**	50.0	150.0
d3N-MeFOSAA		**100.7**	50.0	150.0
d5EtFOSAA		**95.1**	50.0	150.0
MHFPO-DA		**115.4**	50.0	150.0
d-N-EtFOSA-M		**113.1**	50.0	150.0
d-N-MeFOSA-M		**103.8**	50.0	150.0
d7-N-MeFOSE-M		**96.9**	50.0	150.0
d9-N-EtFOSE-M		**99.9**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S66426.02

Sample Tag: 03-PRCC-24-INF-09182024

Collected Date/Time: 09/18/2024 09:55

Matrix: Liquid

COC Reference: 153365

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240920, Run Date: 09/20/2024 21:16, Matrix: WW, Dilution: 2.06

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA	*	**266.7**	50.0	150.0
M2-6:2FTSA	*	**168.0**	50.0	150.0
M2-8:2FTSA		**89.2**	50.0	150.0
M2PFTeDA		**135.4**	12.0	218.0
M3PFBS		**94.8**	50.0	150.0
M3PFHxS		**107.2**	50.0	150.0
M4PFHpA		**113.4**	50.0	150.0
M5PFHxA		**91.5**	50.0	150.0
M5PFPeA		**72.8**	50.0	150.0
M6PFDA		**120.8**	50.0	150.0
M7PFUnDA		**111.6**	50.0	150.0
M8FOSA		**103.9**	50.0	150.0
M8PFOA		**99.1**	50.0	150.0
M8PFOS		**108.6**	50.0	150.0
M9-PFNA		**110.4**	50.0	150.0
MPFBA		**52.5**	50.0	150.0
MPFDoDA		**112.0**	50.0	150.0
d3N-MeFOSAA		**115.8**	50.0	150.0
d5EtFOSAA		**105.2**	50.0	150.0
MHFPO-DA		**88.4**	50.0	150.0
d-N-EtFOSA-M		**114.7**	50.0	150.0
d-N-MeFOSA-M		**103.5**	50.0	150.0
d7-N-MeFOSE-M		**93.9**	50.0	150.0
d9-N-EtFOSE-M		**102.3**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S66426.03

Sample Tag: 03-PRCC-24-PRIM-09182024

Collected Date/Time: 09/18/2024 10:00

Matrix: Liquid

COC Reference: 153365

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240920, Run Date: 09/20/2024 21:36, Matrix: WW, Dilution: 1.9

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**101.3**	50.0	150.0
M2-6:2FTSA		**100.3**	50.0	150.0
M2-8:2FTSA		**112.1**	50.0	150.0
M2PFTeDA		**118.1**	12.0	218.0
M3PFBS		**103.6**	50.0	150.0
M3PFHxS		**114.8**	50.0	150.0
M4PFHpA		**115.6**	50.0	150.0
M5PFHxA		**99.4**	50.0	150.0
M5PFPeA		**105.7**	50.0	150.0
M6PFDA		**108.8**	50.0	150.0
M7PFUnDA		**108.6**	50.0	150.0
M8FOSA		**97.9**	50.0	150.0
M8PFOA		**97.0**	50.0	150.0
M8PFOS		**105.7**	50.0	150.0
M9-PFNA		**103.5**	50.0	150.0
MPFBA		**102.1**	50.0	150.0
MPFDoDA		**103.3**	50.0	150.0
d3N-MeFOSAA		**95.8**	50.0	150.0
d5EtFOSAA		**101.4**	50.0	150.0
MHFPO-DA		**121.0**	50.0	150.0
d-N-EtFOSA-M		**110.8**	50.0	150.0
d-N-MeFOSA-M		**99.2**	50.0	150.0
d7-N-MeFOSE-M		**94.5**	50.0	150.0
d9-N-EtFOSE-M		**99.5**	50.0	150.0

Organics - Volatiles, Prep Batch ID: PF240920W1

QC Types: BLK/LCS/LCSD/MS/DUP

Blank (BLK)

Lab Sample ID: AK240920.BLK240920

Run in Batch: AK240920, Run Date: 09/20/2024 15:56, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**108.0**	50.0	150.0
M2-6:2FTSA		**95.2**	50.0	150.0
M2-8:2FTSA		**102.5**	50.0	150.0
M2PFTeDA		**109.1**	12.0	218.0
M3PFBS		**95.6**	50.0	150.0
M3PFHxS		**98.6**	50.0	150.0
M4PFHpA		**102.2**	50.0	150.0
M5PFHxA		**95.0**	50.0	150.0
M5PFPeA		**105.6**	50.0	150.0
M6PFDA		**106.3**	50.0	150.0
M7PFUnDA		**101.1**	50.0	150.0
M8FOSA		**101.4**	50.0	150.0
M8PFOA		**88.7**	50.0	150.0
M8PFOS		**100.3**	50.0	150.0
M9-PFNA		**98.1**	50.0	150.0
MPFBA		**99.5**	50.0	150.0
MPFDoDA		**97.8**	50.0	150.0
d3N-MeFOSAA		**93.6**	50.0	150.0
d5EtFOSAA		**104.1**	50.0	150.0
MHFPO-DA		**108.9**	50.0	150.0
d-N-EtFOSA-M		**107.9**	50.0	150.0
d-N-MeFOSA-M		**102.6**	50.0	150.0
d7-N-MeFOSE-M		**98.2**	50.0	150.0
d9-N-EtFOSE-M		**97.8**	50.0	150.0

Blank (BLK)

Lab Sample ID: AK240923R.BLK240920

Run in Batch: AK240923R, Run Date: 09/23/2024 13:30, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**98.9**	50.0	150.0
M2-6:2FTSA		**96.8**	50.0	150.0
M2-8:2FTSA		**104.3**	50.0	150.0
M2PFTeDA		**105.1**	12.0	218.0
M3PFBS		**107.8**	50.0	150.0
M3PFHxS		**100.0**	50.0	150.0
M4PFHpA		**103.9**	50.0	150.0
M5PFHxA		**98.3**	50.0	150.0
M5PFPeA		**107.6**	50.0	150.0
M6PFDA		**92.7**	50.0	150.0
M7PFUnDA		**114.7**	50.0	150.0
M8FOSA		**97.5**	50.0	150.0
M8PFOA		**107.7**	50.0	150.0
M8PFOS		**99.8**	50.0	150.0
M9-PFNA		**119.8**	50.0	150.0
MPFBA		**102.9**	50.0	150.0
MPFDoDA		**87.7**	50.0	150.0
d3N-MeFOSAA		**92.1**	50.0	150.0
d5EtFOSAA		**102.0**	50.0	150.0
MHFPO-DA		**103.4**	50.0	150.0
d-N-EtFOSA-M		**107.9**	50.0	150.0
d-N-MeFOSA-M		**97.6**	50.0	150.0
d7-N-MeFOSE-M		**88.0**	50.0	150.0
d9-N-EtFOSE-M		**79.8**	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample (LCS)

Lab Sample ID: AK240920.LCS240920

Run in Batch: AK240920, Run Date: 09/20/2024 15:16, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
M2-4:2FTSA		**103.5**	50.0	150.0
M2-6:2FTSA		**94.9**	50.0	150.0
M2-8:2FTSA		**109.5**	50.0	150.0
M2PFTeDA		**85.6**	12.0	218.0
M3PFBS		**95.7**	50.0	150.0
M3PFHxS		**101.1**	50.0	150.0
M4PFHpA		**99.6**	50.0	150.0
M5PFHxA		**93.2**	50.0	150.0
M5PFPeA		**99.7**	50.0	150.0
M6PFDA		**106.2**	50.0	150.0
M7PFUnDA		**95.5**	50.0	150.0
M8FOSA		**97.7**	50.0	150.0
M8PFOA		**86.6**	50.0	150.0
M8PFOS		**98.3**	50.0	150.0
M9-PFNA		**106.6**	50.0	150.0
MPFBA		**97.3**	50.0	150.0
MPFDoDA		**89.6**	50.0	150.0
d3N-MeFOSAA		**91.3**	50.0	150.0
d5EtFOSAA		**96.3**	50.0	150.0
MHFPO-DA		**105.7**	50.0	150.0
d-N-EtFOSA-M		**103.2**	50.0	150.0
d-N-MeFOSA-M		**102.5**	50.0	150.0
d7-N-MeFOSE-M		**95.4**	50.0	150.0
d9-N-EtFOSE-M		**98.8**	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample (LCS)

Lab Sample ID: AK240923R.LCS240920

Run in Batch: AK240923R, Run Date: 09/23/2024 12:50, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
M2-4:2FTSA		**96.8**	50.0	150.0
M2-6:2FTSA		**98.5**	50.0	150.0
M2-8:2FTSA		**82.0**	50.0	150.0
M2PFTeDA		**87.6**	12.0	218.0
M3PFBS		**93.8**	50.0	150.0
M3PFHxS		**99.9**	50.0	150.0
M4PFHpA		**105.1**	50.0	150.0
M5PFHxA		**97.5**	50.0	150.0
M5PFPeA		**102.4**	50.0	150.0
M6PFDA		**98.6**	50.0	150.0
M7PFUnDA		**101.7**	50.0	150.0
M8FOSA		**101.8**	50.0	150.0
M8PFOA		**97.5**	50.0	150.0
M8PFOS		**102.1**	50.0	150.0
M9-PFNA		**107.5**	50.0	150.0
MPFBA		**101.5**	50.0	150.0
MPFDoDA		**87.6**	50.0	150.0
d3N-MeFOSAA		**97.8**	50.0	150.0
d5EtFOSAA		**98.1**	50.0	150.0
MHFPO-DA		**99.3**	50.0	150.0
d-N-EtFOSA-M		**105.4**	50.0	150.0
d-N-MeFOSA-M		**94.7**	50.0	150.0
d7-N-MeFOSE-M		**89.4**	50.0	150.0
d9-N-EtFOSE-M		**74.6**	50.0	150.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK240920.LCSD240920, Parent Sample ID: AK240920.LCS240920

Run in Batch: AK240920, Run Date: 09/20/2024 15:36, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**101.8**	50.0	150.0
M2-6:2FTSA		**103.2**	50.0	150.0
M2-8:2FTSA		**102.1**	50.0	150.0
M2PFTeDA		**101.4**	12.0	218.0
M3PFBS		**97.6**	50.0	150.0
M3PFHxS		**99.6**	50.0	150.0
M4PFHpA		**105.6**	50.0	150.0
M5PFHxA		**101.1**	50.0	150.0
M5PFPeA		**95.2**	50.0	150.0
M6PFDA		**99.7**	50.0	150.0
M7PFUnDA		**98.3**	50.0	150.0
M8FOSA		**96.2**	50.0	150.0
M8PFOA		**96.9**	50.0	150.0
M8PFOS		**101.5**	50.0	150.0
M9-PFNA		**90.4**	50.0	150.0
MPFBA		**98.1**	50.0	150.0
MPFDoDA		**94.6**	50.0	150.0
d3N-MeFOSAA		**96.0**	50.0	150.0
d5EtFOSAA		**98.9**	50.0	150.0
MHFPO-DA		**105.2**	50.0	150.0
d-N-EtFOSA-M		**102.4**	50.0	150.0
d-N-MeFOSA-M		**98.2**	50.0	150.0
d7-N-MeFOSE-M		**88.3**	50.0	150.0
d9-N-EtFOSE-M		**92.6**	50.0	150.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK240923R.LCSD240920, Parent Sample ID: AK240923R.LCS240920

Run in Batch: AK240923R, Run Date: 09/23/2024 13:10, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**103.0**	50.0	150.0
M2-6:2FTSA		**88.2**	50.0	150.0
M2-8:2FTSA		**85.1**	50.0	150.0
M2PFTeDA		**99.5**	12.0	218.0
M3PFBS		**99.5**	50.0	150.0
M3PFHxS		**86.0**	50.0	150.0
M4PFHpA		**105.1**	50.0	150.0
M5PFHxA		**98.1**	50.0	150.0
M5PFPeA		**100.4**	50.0	150.0
M6PFDA		**97.3**	50.0	150.0
M7PFUnDA		**101.6**	50.0	150.0
M8FOSA		**92.2**	50.0	150.0
M8PFOA		**102.8**	50.0	150.0
M8PFOS		**99.5**	50.0	150.0
M9-PFNA		**99.6**	50.0	150.0
MPFBA		**99.6**	50.0	150.0
MPFDoDA		**92.2**	50.0	150.0
d3N-MeFOSAA		**88.9**	50.0	150.0
d5EtFOSAA		**91.7**	50.0	150.0
MHFPO-DA		**96.4**	50.0	150.0
d-N-EtFOSA-M		**106.3**	50.0	150.0
d-N-MeFOSA-M		**89.1**	50.0	150.0
d7-N-MeFOSE-M		**84.3**	50.0	150.0
d9-N-EtFOSE-M		**77.1**	50.0	150.0

Matrix Spike (MS)

Lab Sample ID: AK240920.6641401M, Parent Sample ID: S66414.01

Run in Batch: AK240920, Run Date: 09/20/2024 18:16, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1.92

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**106.6**	50.0	150.0
M2-6:2FTSA		**95.8**	50.0	150.0
M2-8:2FTSA		**100.5**	50.0	150.0
M2PFTeDA		**109.8**	12.0	218.0
M3PFBS		**92.0**	50.0	150.0
M3PFHxS		**105.1**	50.0	150.0
M4PFHpA		**93.5**	50.0	150.0
M5PFHxA		**101.2**	50.0	150.0
M5PFPeA		**100.1**	50.0	150.0
M6PFDA		**109.3**	50.0	150.0
M7PFUnDA		**100.7**	50.0	150.0
M8FOSA		**97.0**	50.0	150.0
M8PFOA		**93.9**	50.0	150.0
M8PFOS		**103.0**	50.0	150.0
M9-PFNA		**99.2**	50.0	150.0
MPFBA		**96.9**	50.0	150.0
MPFDoDA		**94.7**	50.0	150.0
d3N-MeFOSAA		**98.1**	50.0	150.0
d5EtFOSAA		**91.7**	50.0	150.0
MHFPO-DA		**112.8**	50.0	150.0
d-N-EtFOSA-M		**107.5**	50.0	150.0
d-N-MeFOSA-M		**95.9**	50.0	150.0
d7-N-MeFOSE-M		**87.4**	50.0	150.0
d9-N-EtFOSE-M		**100.2**	50.0	150.0

Duplicate (DUP)

Lab Sample ID: AK240920.6641501D, Parent Sample ID: S66415.01

Run in Batch: AK240920, Run Date: 09/20/2024 18:56, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1.98

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**99.9**	50.0	150.0
M2-6:2FTSA		**106.0**	50.0	150.0
M2-8:2FTSA		**102.3**	50.0	150.0
M2PFTeDA		**125.6**	12.0	218.0
M3PFBS		**111.3**	50.0	150.0
M3PFHxS		**115.6**	50.0	150.0
M4PFHpA		**111.8**	50.0	150.0
M5PFHxA		**107.3**	50.0	150.0
M5PFPeA		**105.2**	50.0	150.0
M6PFDA		**102.9**	50.0	150.0
M7PFUnDA		**111.0**	50.0	150.0
M8FOSA		**102.3**	50.0	150.0
M8PFOA		**101.3**	50.0	150.0
M8PFOS		**111.1**	50.0	150.0
M9-PFNA		**103.1**	50.0	150.0
MPFBA		**101.1**	50.0	150.0
MPFDoDA		**106.2**	50.0	150.0
d3N-MeFOSAA		**98.8**	50.0	150.0
d5EtFOSAA		**100.5**	50.0	150.0
MHFPO-DA		**109.1**	50.0	150.0
d-N-EtFOSA-M		**115.0**	50.0	150.0
d-N-MeFOSA-M		**108.4**	50.0	150.0
d7-N-MeFOSE-M		**102.6**	50.0	150.0
d9-N-EtFOSE-M		**100.9**	50.0	150.0

Organics - Volatiles, Prep Batch ID: PF240920W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Blank (BLK)

Lab Sample ID: AK240920.BLK240920

Run in Batch: AK240920, Run Date: 09/20/2024 15:56, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFBA		ND	10	ng/l
PFMPA		ND	2	ng/l
FPrPA (3:3 FTCA)		ND	10	ng/l
PFPrS		ND	2	ng/l
PFPeA		ND	4	ng/l
PFMBA		ND	2	ng/l
4:2 FTSA		ND	2	ng/l
NFDHA		ND	2	ng/l
PFHxA		ND	2	ng/l
PFBS		ND	2	ng/l
HFPO-DA		ND	10	ng/l
FPePA (5:3 FTCA)		ND	10	ng/l
PFEESA		ND	2	ng/l
PFHpA		ND	2	ng/l
ADONA		ND	2	ng/l
PFPeS		ND	2	ng/l
6:2 FTSA		ND	2	ng/l
PFBSA		ND	2	ng/l
PFOA		ND	2	ng/l
PFHxS-BR		ND	2	ng/l
PFHxS		ND	2	ng/l
PFHxS-LN		ND	2	ng/l
FHpPA (7:3 FTCA)		ND	10	ng/l
PFNA		ND	2	ng/l
8:2 FTSA		ND	2	ng/l
PFECHS		ND	2	ng/l
PFHpS		ND	2	ng/l
N-MeFOSAA		ND	2	ng/l
PFDA		ND	2	ng/l
EtFOSAA		ND	4	ng/l
PFOS-BR		ND	2	ng/l
PFOS		ND	2	ng/l
PFOS-LN		ND	2	ng/l
PFHxSA		ND	2	ng/l
PFUnDA		ND	2	ng/l
9CL-PF3ONS		ND	2	ng/l
PFNS		ND	2	ng/l
PFDoDA		ND	2	ng/l
PFDS		ND	2	ng/l
PFTrDA		ND	2	ng/l
FOSA		ND	2	ng/l
11CL-PF3OUdS		ND	2	ng/l
PFTeDA		ND	4	ng/l
PFDOS		ND	6	ng/l
NMeFOSE		ND	4	ng/l
NMeFOSAM		ND	2	ng/l

Organics - Volatiles, Prep Batch ID: PF240920W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Blank (BLK) (continued)

Lab Sample ID: AK240920.BLK240920

Run in Batch: AK240920, Run Date: 09/20/2024 15:56, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
NEtFOSE		ND	4	ng/l
NEtFOSAM		ND	2	ng/l

Blank (BLK)

Lab Sample ID: AK240923R.BLK240920

Run in Batch: AK240923R, Run Date: 09/23/2024 13:30, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFBA		ND	10	ng/l
PFMPA		ND	2	ng/l
FPrPA (3:3 FTCA)		ND	10	ng/l
PFPrS		ND	2	ng/l
PFPeA		ND	4	ng/l
PFMBA		ND	2	ng/l
4:2 FTSA		ND	2	ng/l
NFDHA		ND	2	ng/l
PFHxA		ND	2	ng/l
PFBS		ND	2	ng/l
HFPO-DA		ND	10	ng/l
FPePA (5:3 FTCA)		ND	10	ng/l
PFEESA		ND	2	ng/l
PFHpA		ND	2	ng/l
ADONA		ND	2	ng/l
PFPeS		ND	2	ng/l
6:2 FTSA		ND	2	ng/l
PFBSA		ND	2	ng/l
PFOA		ND	2	ng/l
PFHxS-BR		ND	2	ng/l
PFHxS		ND	2	ng/l
PFHxS-LN		ND	2	ng/l
FHpPA (7:3 FTCA)		ND	10	ng/l
PFNA		ND	2	ng/l
8:2 FTSA		ND	2	ng/l
PFECHS		ND	2	ng/l
PFHpS		ND	2	ng/l
N-MeFOSAA		ND	2	ng/l
PFDA		ND	2	ng/l
PFOS-BR		ND	2	ng/l
EtFOSAA		ND	4	ng/l
PFOS		ND	2	ng/l
PFOS-LN		ND	2	ng/l
PFHxSA		ND	2	ng/l
PFUnDA		ND	2	ng/l
9CL-PF3ONS		ND	2	ng/l
PFNS		ND	2	ng/l
PFDoDA		ND	2	ng/l
PFDS		ND	2	ng/l

Organics - Volatiles, Prep Batch ID: PF240920W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Blank (BLK) (continued)

Lab Sample ID: AK240923R.BLK240920

Run in Batch: AK240923R, Run Date: 09/23/2024 13:30, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFTrDA		ND	2	ng/l
11CL-PF3OUdS		ND	2	ng/l
FOSA		ND	2	ng/l
PFTeDA		ND	4	ng/l
PFDOS		ND	6	ng/l
NMeFOSE		ND	4	ng/l
NMeFOSAM		ND	2	ng/l
NEtFOSE		ND	4	ng/l
NEtFOSAM		ND	2	ng/l

Laboratory Control Sample (LCS)

Lab Sample ID: AK240920.LCS240920

Run in Batch: AK240920, Run Date: 09/20/2024 15:16, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFBA		109.0	70.0	130.0
PFMPA		90.2	70.0	130.0
FPrPA (3:3 FTCA)		107.8	70.0	130.0
PFPrS		104.8	70.0	130.0
PFPeA		99.2	70.0	130.0
PFMBA		92.6	70.0	130.0
4:2 FTSA		94.4	70.0	130.0
NFDHA		79.8	70.0	130.0
PFHxA		94.0	70.0	130.0
PFBS		93.6	70.0	130.0
HFPO-DA		108.0	70.0	130.0
FPePA (5:3 FTCA)		118.4	70.0	130.0
PFEESA		90.6	70.0	130.0
PFHpA		107.8	70.0	130.0
ADONA		95.0	70.0	130.0
PFPeS		110.4	70.0	130.0
6:2 FTSA		114.8	70.0	130.0
PFBSA		105.4	70.0	130.0
PFOA		89.8	70.0	130.0
PFHxS		101.4	70.0	130.0
FHpPA (7:3 FTCA)		105.0	70.0	130.0
PFNA		91.8	70.0	130.0
8:2 FTSA		103.2	70.0	130.0
PFECHS		98.8	70.0	130.0
PFHpS		96.6	70.0	130.0
N-MeFOSAA	*	133.2	70.0	130.0
PFDA		105.2	70.0	130.0
EtFOSAA	*	130.4	70.0	130.0
PFOS		113.2	70.0	130.0
PFHxSA		94.4	70.0	130.0
PFUnDA		117.4	70.0	130.0
9CL-PF3ONS		115.4	70.0	130.0

Organics - Volatiles, Prep Batch ID: PF240920W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: AK240920.LCS240920

Run in Batch: AK240920, Run Date: 09/20/2024 15:16, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFNS		106.0	70.0	130.0
PFDoDA		115.4	70.0	130.0
PFDS		120.8	70.0	130.0
PFTrDA		109.6	70.0	130.0
FOSA		93.8	70.0	130.0
11CL-PF3OUdS		113.0	70.0	130.0
PFTeDA		99.2	70.0	130.0
PFDOS		102.4	70.0	130.0
NMeFOSE		101.0	70.0	130.0
NMeFOSAM		86.8	70.0	130.0
NEtFOSE		102.0	70.0	130.0
NEtFOSAM		93.0	70.0	130.0

Laboratory Control Sample (LCS)

Lab Sample ID: AK240923R.LCS240920

Run in Batch: AK240923R, Run Date: 09/23/2024 12:50, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFBA		109.6	70.0	130.0
PFMPA		79.8	70.0	130.0
FPrPA (3:3 FTCA)		97.2	70.0	130.0
PFPrS		111.2	70.0	130.0
PFPeA		103.2	70.0	130.0
PFMBA		77.6	70.0	130.0
4:2 FTSA		108.0	70.0	130.0
NFDHA		81.2	70.0	130.0
PFHxA		88.0	70.0	130.0
PFBS		105.4	70.0	130.0
HFPO-DA		104.0	70.0	130.0
FPePA (5:3 FTCA)		98.0	70.0	130.0
PFEESA		85.0	70.0	130.0
PFHpA		107.2	70.0	130.0
ADONA		98.0	70.0	130.0
PFPeS		106.0	70.0	130.0
6:2 FTSA		94.8	70.0	130.0
PFBSA		91.8	70.0	130.0
PFOA		91.4	70.0	130.0
PFHxS		99.2	70.0	130.0
FHpPA (7:3 FTCA)		86.8	70.0	130.0
PFNA		109.0	70.0	130.0
8:2 FTSA		118.0	70.0	130.0
PFECHS		99.6	70.0	130.0
PFHpS		101.2	70.0	130.0
N-MeFOSAA		113.4	70.0	130.0
PFDA		103.2	70.0	130.0
EtFOSAA	*	139.4	70.0	130.0
PFOS		108.8	70.0	130.0

Organics - Volatiles, Prep Batch ID: PF240920W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: AK240923R.LCS240920

Run in Batch: AK240923R, Run Date: 09/23/2024 12:50, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFHxSA		78.8	70.0	130.0
PFUnDA		115.2	70.0	130.0
9CL-PF3ONS		106.4	70.0	130.0
PFNS		105.2	70.0	130.0
PFDoDA		114.6	70.0	130.0
PFDS		116.8	70.0	130.0
PFTrDA		118.8	70.0	130.0
11CL-PF3OUdS		110.6	70.0	130.0
FOSA		90.2	70.0	130.0
PFTeDA		106.4	70.0	130.0
PFDOS		102.2	70.0	130.0
NMeFOSE		100.0	70.0	130.0
NMeFOSAM		94.8	70.0	130.0
NEtFOSE		100.4	70.0	130.0
NEtFOSAM		95.4	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK240920.LCSD240920, Parent Sample ID: AK240920.LCS240920

Run in Batch: AK240920, Run Date: 09/20/2024 15:36, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFBA		103.8	70.0	130.0	4.9	30.0
PFMPA		90.4	70.0	130.0	0.2	30.0
FPrPA (3:3 FTCA)	*	130.6	70.0	130.0	19.1	30.0
PFPrS		104.4	70.0	130.0	0.4	30.0
PFPeA		108.8	70.0	130.0	9.2	30.0
PFMBA		88.4	70.0	130.0	4.6	30.0
4:2 FTSA		101.0	70.0	130.0	6.8	30.0
NFDHA		90.2	70.0	130.0	12.2	30.0
PFHxA		92.8	70.0	130.0	1.3	30.0
PFBS		90.8	70.0	130.0	3.0	30.0
HFPO-DA		114.0	70.0	130.0	5.4	30.0
FPePA (5:3 FTCA)		105.0	70.0	130.0	12.0	30.0
PFEESA		94.2	70.0	130.0	3.9	30.0
PFHpA		107.6	70.0	130.0	0.2	30.0
ADONA		93.8	70.0	130.0	1.3	30.0
PFPeS		105.6	70.0	130.0	4.4	30.0
6:2 FTSA		107.0	70.0	130.0	7.0	30.0
PFBSA		118.6	70.0	130.0	11.8	30.0
PFOA		80.0	70.0	130.0	11.5	30.0
PFHxS		105.4	70.0	130.0	3.9	30.0
FHpPA (7:3 FTCA)		102.2	70.0	130.0	2.7	30.0
PFNA		113.2	70.0	130.0	20.9	30.0
8:2 FTSA		97.8	70.0	130.0	5.4	30.0
PFECHS		117.0	70.0	130.0	16.9	30.0
PFHpS		108.4	70.0	130.0	11.5	30.0
N-MeFOSAA		128.2	70.0	130.0	3.8	30.0

Organics - Volatiles, Prep Batch ID: PF240920W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: AK240920.LCSD240920, Parent Sample ID: AK240920.LCS240920

Run in Batch: AK240920, Run Date: 09/20/2024 15:36, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFDA		118.6	70.0	130.0	12.0	30.0
EtFOSAA		117.2	70.0	130.0	10.7	30.0
PFOS		109.6	70.0	130.0	3.2	30.0
PFHxSA		89.4	70.0	130.0	5.4	30.0
PFUnDA		119.2	70.0	130.0	1.5	30.0
9CL-PF3ONS		116.0	70.0	130.0	0.5	30.0
PFNS		104.8	70.0	130.0	1.1	30.0
PFDoDA		106.8	70.0	130.0	7.7	30.0
PFDS		110.4	70.0	130.0	9.0	30.0
PFTrDA		111.2	70.0	130.0	1.4	30.0
FOSA		99.0	70.0	130.0	5.4	30.0
11CL-PF3OUdS		111.8	70.0	130.0	1.1	30.0
PFTeDA		102.0	70.0	130.0	2.8	30.0
PFDOS		100.4	70.0	130.0	2.0	30.0
NMeFOSE		109.6	70.0	130.0	8.2	30.0
NMeFOSAM		97.6	70.0	130.0	11.7	30.0
NEtFOSE		110.4	70.0	130.0	7.9	30.0
NEtFOSAM		97.6	70.0	130.0	4.8	30.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK240923R.LCSD240920, Parent Sample ID: AK240923R.LCS240920

Run in Batch: AK240923R, Run Date: 09/23/2024 13:10, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFBA		110.4	70.0	130.0	0.7	30.0
PFMPA		85.2	70.0	130.0	6.5	30.0
FPrPA (3:3 FTCA)		93.0	70.0	130.0	4.4	30.0
PFPrS		102.4	70.0	130.0	8.2	30.0
PFPeA		108.4	70.0	130.0	4.9	30.0
PFMBA		85.6	70.0	130.0	9.8	30.0
4:2 FTSA		92.6	70.0	130.0	15.4	30.0
NFDHA		86.2	70.0	130.0	6.0	30.0
PFHxA		91.2	70.0	130.0	3.6	30.0
PFBS		96.0	70.0	130.0	9.3	30.0
HFPO-DA		111.4	70.0	130.0	6.9	30.0
FPePA (5:3 FTCA)		81.0	70.0	130.0	19.0	30.0
PFEESA		82.2	70.0	130.0	3.3	30.0
PFHpA		102.4	70.0	130.0	4.6	30.0
ADONA		92.0	70.0	130.0	6.3	30.0
PFPeS		101.2	70.0	130.0	4.6	30.0
6:2 FTSA		114.8	70.0	130.0	19.1	30.0
PFBSA		107.6	70.0	130.0	15.8	30.0
PFOA		92.4	70.0	130.0	1.1	30.0
PFHxS		113.6	70.0	130.0	13.5	30.0
FHpPA (7:3 FTCA)		94.0	70.0	130.0	8.0	30.0
PFNA		122.2	70.0	130.0	11.4	30.0
8:2 FTSA		110.4	70.0	130.0	6.7	30.0

Organics - Volatiles, Prep Batch ID: PF240920W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: AK240923R.LCSD240920, Parent Sample ID: AK240923R.LCS240920

Run in Batch: AK240923R, Run Date: 09/23/2024 13:10, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFECHS		107.0	70.0	130.0	7.2	30.0
PFHpS		107.4	70.0	130.0	5.9	30.0
N-MeFOSAA	*	137.0	70.0	130.0	18.8	30.0
PFDA		106.2	70.0	130.0	2.9	30.0
EtFOSAA	*	142.4	70.0	130.0	2.1	30.0
PFOS		119.4	70.0	130.0	9.3	30.0
PFHxSA		93.6	70.0	130.0	17.2	30.0
PFUnDA		125.8	70.0	130.0	8.8	30.0
9CL-PF3ONS		109.2	70.0	130.0	2.6	30.0
PFNS		104.6	70.0	130.0	0.6	30.0
PFDoDA		113.0	70.0	130.0	1.4	30.0
PFDS		118.0	70.0	130.0	1.0	30.0
PFTrDA		113.6	70.0	130.0	4.5	30.0
11CL-PF3OUdS		122.8	70.0	130.0	10.5	30.0
FOSA		102.0	70.0	130.0	12.3	30.0
PFTeDA		105.4	70.0	130.0	0.9	30.0
PFDOS		100.6	70.0	130.0	1.6	30.0
NMeFOSE		104.6	70.0	130.0	4.5	30.0
NMeFOSAM		100.2	70.0	130.0	5.5	30.0
NEtFOSE		104.8	70.0	130.0	4.3	30.0
NEtFOSAM		95.4	70.0	130.0	0.0	30.0

Matrix Spike (MS)

Lab Sample ID: AK240920.6641401M, Parent Sample ID: S66414.01

Run in Batch: AK240920, Run Date: 09/20/2024 18:16, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1.92

Analyte	Flags	% Rec	LCL	UCL
PFBA		107.3	70.0	130.0
PFPeA		102.1	70.0	130.0
4:2 FTSA		95.8	70.0	130.0
PFHxA		92.7	70.0	130.0
PFBS		109.3	70.0	130.0
PFHpA		125.0	70.0	130.0
PFPeS		104.2	70.0	130.0
6:2 FTSA		114.6	70.0	130.0
PFOA		76.6	70.0	130.0
PFHxS		93.5	70.0	130.0
PFNA		102.1	70.0	130.0
8:2 FTSA		104.2	70.0	130.0
PFHpS		101.0	70.0	130.0
PFDA		114.6	70.0	130.0
N-MeFOSAA		114.6	70.0	130.0
EtFOSAA	*	135.4	70.0	130.0
PFOS		114.6	70.0	130.0
PFUnDA		114.6	70.0	130.0
PFNS		102.1	70.0	130.0
PFDoDA		125.0	70.0	130.0

Organics - Volatiles, Prep Batch ID: PF240920W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Matrix Spike (MS) (continued)

Lab Sample ID: AK240920.6641401M, Parent Sample ID: S66414.01

Run in Batch: AK240920, Run Date: 09/20/2024 18:16, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1.92

Analyte	Flags	% Rec	LCL	UCL
PFDS		114.6	70.0	130.0
PFTrDA		125.0	70.0	130.0
FOSA		94.8	70.0	130.0
PFTeDA		102.1	70.0	130.0
11CL-PF3OUdS		104.2	70.0	130.0
9CL-PF3ONS		114.6	70.0	130.0
ADONA		85.4	70.0	130.0
HFPO-DA		99.0	70.0	130.0

Duplicate (DUP)

Lab Sample ID: AK240920.6641501D, Parent Sample ID: S66415.01

Run in Batch: AK240920, Run Date: 09/20/2024 18:56, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1.98

Analyte	Flags	RPD	RPD CL
PFBA		NC	30.0
PFPeA		NC	30.0
4:2 FTSA		NC	30.0
PFHxA		NC	30.0
PFBS		NC	30.0
PFHpA		NC	30.0
PFPeS		NC	30.0
6:2 FTSA		NC	30.0
PFOA		NC	30.0
PFHxS		NC	30.0
PFHxS-LN		NC	30.0
PFHxS-BR		NC	30.0
PFNA		NC	30.0
8:2 FTSA		NC	30.0
PFHpS		NC	30.0
PFDA		NC	30.0
N-MeFOSAA		NC	30.0
EtFOSAA		NC	30.0
PFOS		NC	30.0
PFOS-LN		NC	30.0
PFOS-BR		NC	30.0
PFUnDA		NC	30.0
PFNS		NC	30.0
PFDoDA		NC	30.0
PFDS		NC	30.0
PFTrDA		NC	30.0
FOSA		NC	30.0
PFTeDA		NC	30.0
11CL-PF3OUdS		NC	30.0
9CL-PF3ONS		NC	30.0
ADONA		NC	30.0
HFPO-DA		NC	30.0
FHpPA (7:3 FTCA)		NC	30.0

Organics - Volatiles, Prep Batch ID: PF240920W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Duplicate (DUP) (continued)

Lab Sample ID: AK240920.6641501D, Parent Sample ID: S66415.01

Run in Batch: AK240920, Run Date: 09/20/2024 18:56, Prep Date: 09/20/2024, Matrix: WW, Dilution: 1.98

Analyte	Flags	RPD	RPD CL
FPePA (5:3 FTCA)		NC	30.0
FPrPA (3:3 FTCA)		NC	30.0
PFBSA		NC	30.0
PFECHS		9.5	30.0
PFHxSA		NC	30.0

Merit Laboratories, Inc.
2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

153365

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Clifford Yuntz / Kevin Schneider
COMPANY: Ramboll
ADDRESS: 2090 Commonwealth Blvd
CITY: Ann Arbor | STATE: MI | ZIP CODE: 48105
PHONE NO.: | CELL NO.: 313-333-0211 | P.O. NO.: 1940008845 Task 37
E-MAIL ADDRESS: clifford.yuntz@ramboll.com kevin.schneider@ramboll.com | QUOTE NO.:

INVOICE TO

CONTACT NAME: X SAME
COMPANY:
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO.: | E-MAIL ADDRESS:

PROJECT NO./NAME: RALER Coldwater Road
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Schneider X

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS X STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ STD X LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations
☐ Detroit ☐ New York
☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	PFAS (3971)	Special Instructions
66426.01	9/18/24	950	Field Blank-09182024	L	1	X							X	Low level Reporting
.02	9/18/24	955	03-PRCC-24-INF-09182024	L	3	X							X	with estimated
-03	9/18/24	1000	03-PRCC-24-PRIM-09182024	L	3	X							X	values
														34 PFAS List

RELINQUISHED BY: SIGNATURE/ORGANIZATION	X Sampler	DATE 9/18/24	TIME 11:42	
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 9/19/24	TIME 11:43	
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE 9/19/24	TIME 13:20	
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME	

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	Barbara Ball	DATE 9/19/2024	TIME 1320

SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS
SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS

NOTES: TEMP. ON ARRIVAL 5.0

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.26.22

Analytical Laboratory Report

Report ID: S66506.01(01)
Generated on 10/11/2024

Report to

Attention: Clifford Yantz
Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Addtional Contacts: Kevin Schneider, Nicole Pitkorchemny

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S66506.01-S66506.05
Project: RACER Coldwater Road
Collected Date(s): 09/20/2024
Submitted Date/Time: 09/20/2024 12:50
Sampled by: Kevin Schneider
P.O. #: 1940008845 TASK37

Table of Contents

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
o	Associated EIS outside of control limits
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
q	Qualifier ion ratio outside of control limits
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched

Method Summary

Method	Version
ASTMD7979-19M	ASTM Method D7979 - 19 Modified (Isotopic Dilution)

Parameter Summary

Parameter	Synonym	Cas #
PFBA	Perfluorobutanoic Acid	375-22-4
PFPeA	Perfluoropentanoic Acid	2706-90-3
4:2 FTSA	4:2 Fluorotelomer Sulfonic Acid	757124-72-4
PFHxA	Perfluorohexanoic Acid	307-24-4
PFBS	Perfluorobutane sulfonic Acid	375-73-5
PFHpA	Perfluoroheptanoic Acid	375-85-9
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4
6:2 FTSA	6:2 Fluorotelomer Sulfonic Acid	27619-97-2
PFOA	Perfluorooctanoic Acid	335-67-1
PFHxS	Perfluorohexane Sulfonic Acid	355-46-4
PFHxS-LN	Perfluorohexane Sulfonic Acid - LN	355-46-4-LN
PFHxS-BR	Perfluorohexane Sulfonic Acid - BR	355-46-4-BR
PFNA	Perfluorononanoic Acid	375-95-1
8:2 FTSA	8:2 Fluorotelomer Sulfonic Acid	39108-34-4
PFHpS	Perfluoroheptane Sulfonic Acid	375-92-8
PFDA	Perfluorodecanoic Acid	335-76-2
N-MeFOSAA	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9
EtFOSAA	N-Ethyl Perfluorooctane Sulfonamidoacetic Acid	2991-50-6
PFOS	Perfluorooctane Sulfonic Acid	1763-23-1
PFOS-LN	Perfluorooctane Sulfonic Acid - LN	1763-23-1-LN
PFOS-BR	Perfluorooctane Sulfonic Acid - BR	1763-23-1-BR
PFUnDA	Perfluoroundecanoic Acid	2058-94-8
PFNS	Perfluorononane Sulfonic Acid	68259-12-1
PFDoDA	Perfluorododecanoic Acid	307-55-1
PFDS	Perfluorodecane Sulfonic Acid	335-77-3
PFTrDA	Perfluorotridecanoic Acid	72629-94-8
FOSA	Perfluorooctane Sulfonamide	754-91-6
PFTeDA	Perfluorotetradecanoic Acid	376-06-7
11Cl-PF3OUdS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9
9Cl-PF3ONS	9-chlorohexadecafluoro-3-oxanone1-sulfonic acid	756426-58-1
ADONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4
HFPO-DA	Hexafluoropropylene oxide dimer	13252-13-6
FHpPA (7:3 FTCA)	3-Perfluoroheptyl propanoic acid	812-70-4
FPePA (5:3 FTCA)	3-Perfluoropentyl propanoic acid	914637-49-3
FPrPA (3:3 FTCA)	3-Perfluoropropyl propanoic acid	356-02-5
PFBSA	Perfluorobutanesulfonamide	30334-69-1
PFECHS	Perfluoro-4-ethylcyclohexanesulfonate	67584-42-3
PFHxSA	Perfluorohexanesulfonamide	41997-13-1

Sample Summary (5 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S66506.01	Field Blank-09202024	Liquid	09/20/24 11:10
S66506.02	03-PRCC-24-EFF-196-09202024	Wastewater	09/20/24 11:16
S66506.03	03-PRCC-24-MID-2-196-09202024	Wastewater	09/20/24 11:18
S66506.04	03-PRCC-24-MID-1-196-09202024	Wastewater	09/20/24 11:20
S66506.05	03-PRCC-24-PRIM-196-09202024	Wastewater	09/20/24 11:22

Analytical Laboratory Report

Lab Sample ID: S66506.01
Sample Tag: Field Blank-09202024
Collected Date/Time: 09/20/2024 11:10
Matrix: Liquid
COC Reference: 153364

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	10.77/6.42/9	ASTMD7979-19M	09/23/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 09/26/24 19:05, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	1.7	ng/L	2.07	375-22-4	
PFPeA*	Not detected	4.1	0.83	ng/L	2.07	2706-90-3	
4:2 FTSA*	Not detected	2.1	0.83	ng/L	2.07	757124-72-4	
PFHxA*	Not detected	2.1	0.41	ng/L	2.07	307-24-4	
PFBS*	Not detected	2.1	0.83	ng/L	2.07	375-73-5	
PFHpA*	Not detected	2.1	1.0	ng/L	2.07	375-85-9	
PFPeS*	Not detected	2.1	0.83	ng/L	2.07	2706-91-4	
6:2 FTSA*	Not detected	2.1	1.2	ng/L	2.07	27619-97-2	
PFOA*	Not detected	2.1	1.7	ng/L	2.07	335-67-1	
PFHxS*	Not detected	2.1	1.2	ng/L	2.07	355-46-4	
PFHxS-LN*	Not detected	2.1	1.2	ng/L	2.07	355-46-4-LN	
PFHxS-BR*	Not detected	2.1	1.2	ng/L	2.07	355-46-4-BR	
PFNA*	Not detected	2.1	0.83	ng/L	2.07	375-95-1	
8:2 FTSA*	Not detected	2.1	1.0	ng/L	2.07	39108-34-4	
PFHpS*	Not detected	2.1	1.2	ng/L	2.07	375-92-8	
PFDA*	Not detected	2.1	0.62	ng/L	2.07	335-76-2	
N-MeFOSAA*	Not detected	2.1	1.4	ng/L	2.07	2355-31-9	
EtFOSAA*	Not detected	4.1	2.1	ng/L	2.07	2991-50-6	
PFOS*	Not detected	2.1	1.2	ng/L	2.07	1763-23-1	
PFOS-LN*	Not detected	2.1	1.2	ng/L	2.07	1763-23-1-LN	
PFOS-BR*	Not detected	2.1	1.2	ng/L	2.07	1763-23-1-BR	
PFUnDA*	Not detected	2.1	1.0	ng/L	2.07	2058-94-8	
PFNS*	Not detected	2.1	1.0	ng/L	2.07	68259-12-1	
PFDoDA*	Not detected	2.1	0.62	ng/L	2.07	307-55-1	
PFDS*	Not detected	2.1	1.2	ng/L	2.07	335-77-3	
PFTrDA*	Not detected	2.1	1.0	ng/L	2.07	72629-94-8	
FOSA*	Not detected	2.1	0.83	ng/L	2.07	754-91-6	
PFTeDA*	Not detected	4.1	0.41	ng/L	2.07	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	0.83	ng/L	2.07	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	0.83	ng/L	2.07	756426-58-1	
ADONA*	Not detected	2.1	1.0	ng/L	2.07	919005-14-4	
HFPO-DA*	Not detected	10	2.1	ng/L	2.07	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10	2.1	ng/L	2.07	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	2.1	ng/L	2.07	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	1.0	ng/L	2.07	356-02-5	
PFBSA*	Not detected	2.1	1.2	ng/L	2.07	30334-69-1	
PFECHS*	Not detected	2.1	1.0	ng/L	2.07	67584-42-3	

Lab Sample ID: S66506.01 (continued)

Sample Tag: Field Blank-09202024

34 PFAs, Method: ASTMD7979-19M, Run Date: 09/26/24 19:05, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxSA*	Not detected	2.1	0.83	ng/L	2.07	41997-13-1	

Lab Sample ID: S66506.02
Sample Tag: 03-PRCC-24-EFF-196-09202024
Collected Date/Time: 09/20/2024 11:16
Matrix: Wastewater
COC Reference: 153364

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.28/6.42/10	ASTMD7979-19M	09/23/24 11:00	CED	
Initial wt. (g) / Final wt. (g) / Volume (ml) (Rep)	12.31/6.45/12	ASTMD7979-19M	09/26/24 12:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 09/26/24 19:25, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	1.6	ng/L	2.06	375-22-4	
PFPeA*	Not detected	4.1	0.82	ng/L	2.06	2706-90-3	
4:2 FTSA*	Not detected	2.1	0.82	ng/L	2.06	757124-72-4	
PFHxA*	Not detected	2.1	0.41	ng/L	2.06	307-24-4	
PFBS*	Not detected	2.1	0.82	ng/L	2.06	375-73-5	
PFHpA*	Not detected	2.1	1.0	ng/L	2.06	375-85-9	
PFPeS*	Not detected	2.1	0.82	ng/L	2.06	2706-91-4	
6:2 FTSA*	Not detected	2.1	1.2	ng/L	2.06	27619-97-2	
PFOA*	Not detected	2.1	1.6	ng/L	2.06	335-67-1	
PFHxS*	Not detected	2.1	1.2	ng/L	2.06	355-46-4	
PFHxS-LN*	Not detected	2.1	1.2	ng/L	2.06	355-46-4-LN	
PFHxS-BR*	Not detected	2.1	1.2	ng/L	2.06	355-46-4-BR	
PFNA*	Not detected	2.1	0.82	ng/L	2.06	375-95-1	
8:2 FTSA*	Not detected	2.1	1.0	ng/L	2.06	39108-34-4	
PFHpS*	Not detected	2.1	1.2	ng/L	2.06	375-92-8	
PFDA*	Not detected	2.1	0.62	ng/L	2.06	335-76-2	
N-MeFOSAA*	Not detected	2.1	1.4	ng/L	2.06	2355-31-9	
EtFOSAA*	Not detected	4.1	2.1	ng/L	2.06	2991-50-6	
PFOS*	Not detected	2.1	1.2	ng/L	2.06	1763-23-1	
PFOS-LN*	Not detected	2.1	1.2	ng/L	2.06	1763-23-1-LN	
PFOS-BR*	Not detected	2.1	1.2	ng/L	2.06	1763-23-1-BR	
PFUnDA*	Not detected	2.1	1.0	ng/L	2.06	2058-94-8	
PFNS*	Not detected	2.1	1.0	ng/L	2.06	68259-12-1	
PFDoDA*	Not detected	2.1	0.62	ng/L	2.06	307-55-1	
PFDS*	Not detected	2.1	1.2	ng/L	2.06	335-77-3	
PFTrDA*	Not detected	2.1	1.0	ng/L	2.06	72629-94-8	
FOSA*	Not detected	2.1	0.82	ng/L	2.06	754-91-6	
PFTeDA*	Not detected	4.1	0.41	ng/L	2.06	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	0.82	ng/L	2.06	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	0.82	ng/L	2.06	756426-58-1	
ADONA*	Not detected	2.1	1.0	ng/L	2.06	919005-14-4	
HFPO-DA*	Not detected	10	2.1	ng/L	2.06	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10	2.1	ng/L	2.06	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	2.1	ng/L	2.06	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	1.0	ng/L	2.06	356-02-5	
PFBSA*	Not detected	2.1	1.2	ng/L	2.06	30334-69-1	

Lab Sample ID: S66506.02 (continued)

Sample Tag: 03-PRCC-24-EFF-196-09202024

34 PFAs, Method: ASTMD7979-19M, Run Date: 09/26/24 19:25, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	Not detected	2.1	1.0	ng/L	2.06	67584-42-3	
PFHxSA*	Not detected	2.1	0.82	ng/L	2.06	41997-13-1	

Lab Sample ID: S66506.03
Sample Tag: 03-PRCC-24-MID-2-196-09202024
Collected Date/Time: 09/20/2024 11:18
Matrix: Wastewater
COC Reference: 153364

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.16/6.48/11	ASTMD7979-19M	09/23/24 11:00	CED	
Initial wt. (g) / Final wt. (g) / Volume (ml) (Rep1)	12.25/6.44/12	ASTMD7979-19M	09/26/24 12:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 09/26/24 19:45, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	9.7	1.6	ng/L	1.94	375-22-4	
PFPeA*	Not detected	3.9	0.78	ng/L	1.94	2706-90-3	
4:2 FTSA*	Not detected	1.9	0.78	ng/L	1.94	757124-72-4	
PFHxA*	Not detected	1.9	0.39	ng/L	1.94	307-24-4	
PFBS*	Not detected	1.9	0.78	ng/L	1.94	375-73-5	
PFHpA*	Not detected	1.9	0.97	ng/L	1.94	375-85-9	
PFPeS*	Not detected	1.9	0.78	ng/L	1.94	2706-91-4	
6:2 FTSA*	Not detected	1.9	1.2	ng/L	1.94	27619-97-2	
PFOA*	Not detected	1.9	1.6	ng/L	1.94	335-67-1	
PFHxS*	Not detected	1.9	1.2	ng/L	1.94	355-46-4	
PFHxS-LN*	Not detected	1.9	1.2	ng/L	1.94	355-46-4-LN	
PFHxS-BR*	Not detected	1.9	1.2	ng/L	1.94	355-46-4-BR	
PFNA*	Not detected	1.9	0.78	ng/L	1.94	375-95-1	
8:2 FTSA*	Not detected	1.9	0.97	ng/L	1.94	39108-34-4	
PFHpS*	Not detected	1.9	1.2	ng/L	1.94	375-92-8	
PFDA*	Not detected	1.9	0.58	ng/L	1.94	335-76-2	
N-MeFOSAA*	Not detected	1.9	1.4	ng/L	1.94	2355-31-9	
EtFOSAA*	Not detected	3.9	1.9	ng/L	1.94	2991-50-6	
PFOS*	Not detected	1.9	1.2	ng/L	1.94	1763-23-1	
PFOS-LN*	Not detected	1.9	1.2	ng/L	1.94	1763-23-1-LN	
PFOS-BR*	Not detected	1.9	1.2	ng/L	1.94	1763-23-1-BR	
PFUnDA*	Not detected	1.9	0.97	ng/L	1.94	2058-94-8	
PFNS*	Not detected	1.9	0.97	ng/L	1.94	68259-12-1	
PFDoDA*	Not detected	1.9	0.58	ng/L	1.94	307-55-1	
PFDS*	Not detected	1.9	1.2	ng/L	1.94	335-77-3	
PFTrDA*	Not detected	1.9	0.97	ng/L	1.94	72629-94-8	
FOSA*	Not detected	1.9	0.78	ng/L	1.94	754-91-6	
PFTeDA*	Not detected	3.9	0.39	ng/L	1.94	376-06-7	
11Cl-PF3OUdS*	Not detected	1.9	0.78	ng/L	1.94	763051-92-9	
9Cl-PF3ONS*	Not detected	1.9	0.78	ng/L	1.94	756426-58-1	
ADONA*	Not detected	1.9	0.97	ng/L	1.94	919005-14-4	
HFPO-DA*	Not detected	9.7	1.9	ng/L	1.94	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	9.7	1.9	ng/L	1.94	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.7	1.9	ng/L	1.94	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.7	0.97	ng/L	1.94	356-02-5	
PFBSA*	Not detected	1.9	1.2	ng/L	1.94	30334-69-1	

Lab Sample ID: S66506.03 (continued)

Sample Tag: 03-PRCC-24-MID-2-196-09202024

34 PFAs, Method: ASTMD7979-19M, Run Date: 09/26/24 19:45, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	Not detected	1.9	0.97	ng/L	1.94	67584-42-3	
PFHxSA*	Not detected	1.9	0.78	ng/L	1.94	41997-13-1	

Lab Sample ID: S66506.04
Sample Tag: 03-PRCC-24-MID-1-196-09202024
Collected Date/Time: 09/20/2024 11:20
Matrix: Wastewater
COC Reference: 153364

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.01/6.42/11	ASTMD7979-19M	09/23/24 11:00	CED	
Initial wt. (g) / Final wt. (g) / Volume (ml) (Rep)	12.46/6.45/12	ASTMD7979-19M	09/26/24 12:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 09/26/24 20:05, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	9.9	1.6	ng/L	1.97	375-22-4	
PFPeA*	Not detected	3.9	0.79	ng/L	1.97	2706-90-3	
4:2 FTSA*	Not detected	2.0	0.79	ng/L	1.97	757124-72-4	
PFHxA*	Not detected	2.0	0.39	ng/L	1.97	307-24-4	
PFBS*	Not detected	2.0	0.79	ng/L	1.97	375-73-5	
PFHpA*	Not detected	2.0	0.99	ng/L	1.97	375-85-9	
PFPeS*	Not detected	2.0	0.79	ng/L	1.97	2706-91-4	
6:2 FTSA*	Not detected	2.0	1.2	ng/L	1.97	27619-97-2	
PFOA*	Not detected	2.0	1.6	ng/L	1.97	335-67-1	
PFHxS*	Not detected	2.0	1.2	ng/L	1.97	355-46-4	
PFHxS-LN*	Not detected	2.0	1.2	ng/L	1.97	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	1.2	ng/L	1.97	355-46-4-BR	
PFNA*	Not detected	2.0	0.79	ng/L	1.97	375-95-1	
8:2 FTSA*	Not detected	2.0	0.99	ng/L	1.97	39108-34-4	
PFHpS*	Not detected	2.0	1.2	ng/L	1.97	375-92-8	
PFDA*	Not detected	2.0	0.59	ng/L	1.97	335-76-2	
N-MeFOSAA*	Not detected	2.0	1.4	ng/L	1.97	2355-31-9	
EtFOSAA*	Not detected	3.9	2.0	ng/L	1.97	2991-50-6	
PFOS*	Not detected	2.0	1.2	ng/L	1.97	1763-23-1	
PFOS-LN*	Not detected	2.0	1.2	ng/L	1.97	1763-23-1-LN	
PFOS-BR*	Not detected	2.0	1.2	ng/L	1.97	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.99	ng/L	1.97	2058-94-8	
PFNS*	Not detected	2.0	0.99	ng/L	1.97	68259-12-1	
PFDoDA*	Not detected	2.0	0.59	ng/L	1.97	307-55-1	
PFDS*	Not detected	2.0	1.2	ng/L	1.97	335-77-3	
PFTrDA*	Not detected	2.0	0.99	ng/L	1.97	72629-94-8	
FOSA*	Not detected	2.0	0.79	ng/L	1.97	754-91-6	
PFTeDA*	Not detected	3.9	0.39	ng/L	1.97	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	0.79	ng/L	1.97	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	0.79	ng/L	1.97	756426-58-1	
ADONA*	Not detected	2.0	0.99	ng/L	1.97	919005-14-4	
HFPO-DA*	Not detected	9.9	2.0	ng/L	1.97	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	9.9	2.0	ng/L	1.97	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.9	2.0	ng/L	1.97	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.9	0.99	ng/L	1.97	356-02-5	
PFBSA*	Not detected	2.0	1.2	ng/L	1.97	30334-69-1	

Lab Sample ID: S66506.04 (continued)

Sample Tag: 03-PRCC-24-MID-1-196-09202024

34 PFAs, Method: ASTMD7979-19M, Run Date: 09/26/24 20:05, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	Not detected	2.0	0.99	ng/L	1.97	67584-42-3	
PFHxSA*	Not detected	2.0	0.79	ng/L	1.97	41997-13-1	

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S66506.05
Sample Tag: 03-PRCC-24-PRIM-196-09202024
Collected Date/Time: 09/20/2024 11:22
Matrix: Wastewater
COC Reference: 153364

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.51/6.42/10	ASTMD7979-19M	09/23/24 11:00	CED	
Initial wt. (g) / Final wt. (g) / Volume (ml) (Rep1)	11.66/6.43/10	ASTMD7979-19M	09/26/24 12:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 09/26/24 20:25, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	4.9	9.8	1.6	ng/L	1.96	375-22-4	J
PFPeA*	Not detected	3.9	0.78	ng/L	1.96	2706-90-3	
4:2 FTSA*	Not detected	2.0	0.78	ng/L	1.96	757124-72-4	
PFHxA*	Not detected	2.0	0.39	ng/L	1.96	307-24-4	
PFBS*	0.78	2.0	0.78	ng/L	1.96	375-73-5	J
PFHpA*	Not detected	2.0	0.98	ng/L	1.96	375-85-9	
PFPeS*	1.00	2.0	0.78	ng/L	1.96	2706-91-4	J
6:2 FTSA*	Not detected	2.0	1.2	ng/L	1.96	27619-97-2	
PFOA*	Not detected	2.0	1.6	ng/L	1.96	335-67-1	
PFHxS*	2.0	2.0	1.2	ng/L	1.96	355-46-4	
PFHxS-LN*	1.3	2.0	1.2	ng/L	1.96	355-46-4-LN	J
PFHxS-BR*	Not detected	2.0	1.2	ng/L	1.96	355-46-4-BR	
PFNA*	Not detected	2.0	0.78	ng/L	1.96	375-95-1	
8:2 FTSA*	Not detected	2.0	0.98	ng/L	1.96	39108-34-4	
PFHpS*	Not detected	2.0	1.2	ng/L	1.96	375-92-8	
PFDA*	Not detected	2.0	0.59	ng/L	1.96	335-76-2	
N-MeFOSAA*	Not detected	2.0	1.4	ng/L	1.96	2355-31-9	
EtFOSAA*	Not detected	3.9	2.0	ng/L	1.96	2991-50-6	
PFOS*	14	2.0	1.2	ng/L	1.96	1763-23-1	
PFOS-LN*	5.1	2.0	1.2	ng/L	1.96	1763-23-1-LN	
PFOS-BR*	8.9	2.0	1.2	ng/L	1.96	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.98	ng/L	1.96	2058-94-8	
PFNS*	Not detected	2.0	0.98	ng/L	1.96	68259-12-1	
PFDoDA*	Not detected	2.0	0.59	ng/L	1.96	307-55-1	
PFDS*	Not detected	2.0	1.2	ng/L	1.96	335-77-3	
PFTrDA*	Not detected	2.0	0.98	ng/L	1.96	72629-94-8	
FOSA*	Not detected	2.0	0.78	ng/L	1.96	754-91-6	
PFTeDA*	Not detected	3.9	0.39	ng/L	1.96	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	0.78	ng/L	1.96	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	0.78	ng/L	1.96	756426-58-1	
ADONA*	Not detected	2.0	0.98	ng/L	1.96	919005-14-4	
HFPO-DA*	Not detected	9.8	2.0	ng/L	1.96	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	9.8	2.0	ng/L	1.96	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.8	2.0	ng/L	1.96	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.8	0.98	ng/L	1.96	356-02-5	

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S66506.05 (continued)

Sample Tag: 03-PRCC-24-PRIM-196-09202024

34 PFAs, Method: ASTMD7979-19M, Run Date: 09/26/24 20:25, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBSA*	Not detected	2.0	1.2	ng/L	1.96	30334-69-1	
PFECHS*	68	2.0	0.98	ng/L	1.96	67584-42-3	
PFHxSA*	Not detected	2.0	0.78	ng/L	1.96	41997-13-1	

Merit Laboratories Login Checklist

Lab Set ID: S66506
Client: RAMBOLL (Ramboll Americas)
Project: RACER Coldwater Road
Submitted: 09/20/2024 12:50 Login User: MMC

Attention: Clifford Yantz
Address: Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 4.4
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[ ] No	[X] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1 153364

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Clifford Yantz / Kevin Schneider
COMPANY: Ramboll
ADDRESS: 2090 Commonwealth Blvd
CITY: Ann Arbor STATE: MI ZIP CODE: 48105
PHONE NO.: CELL NO.: 313-333-0211 P.O. NO.: 1940008845 Task 37
E-MAIL ADDRESS: clifford.yantz@ramboll.com kevin.schneider@ramboll.com QUOTE NO.:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: RAER Coldwater Road
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Schneider

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ STD ☒ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations
☐ Detroit ☐ New York
☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	PFAS (1976)	Special Instructions
665061.01	9/20/24	1110	Field Blank - 09202024	L	1	X							X	Low level Reporting with estimated values
.02	↓	1116	03-PRCC-24-EFF-196-09202024	ww	3	X							X	
.03		1118	03-PRCC-24-MID-2-196-09202024	ww	3	X							X	
.04		1120	03-PRCC-24-MID-1-196-09202024	ww	3	X							X	
.05	↓	1122	03-PRCC-24-PRIM-196-09202024	ww	3	X							X	34 PFAS List

RELINQUISHED BY: SIGNATURE/ORGANIZATION	☒ Sampler	DATE 9/20/24	TIME 1200
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 9/20/24	TIME 1200
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE 9/20/24	TIME 1315
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 9/20/24	TIME 1250

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 4.4

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.26.22

Quality Control Report

Report ID: QC-S66506-01
Generated on 10/13/2024

Report to

Attention: Clifford Yantz
Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S66506.01-S66506.05
Project: RACER Coldwater Road
Submitted Date/Time: 09/20/2024 12:50
Sampled by: Kevin Schneider
P.O. #: 1940008845 TASK37

QC Report Sections

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S66506.01
Sample Tag: Field Blank-09202024
Collected Date/Time: 09/20/2024 11:10
Matrix: Liquid
COC Reference: 153364

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	09/26/24 19:05	SE240926	PF240923W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S66506.02

Sample Tag: 03-PRCC-24-EFF-196-09202024

Collected Date/Time: 09/20/2024 11:16

Matrix: Wastewater

COC Reference: 153364

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	09/26/24 19:25	SE240926	PF240923W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S66506.03

Sample Tag: 03-PRCC-24-MID-2-196-09202024

Collected Date/Time: 09/20/2024 11:18

Matrix: Wastewater

COC Reference: 153364

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	09/26/24 19:45	SE240926	PF240923W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S66506.04

Sample Tag: 03-PRCC-24-MID-1-196-09202024

Collected Date/Time: 09/20/2024 11:20

Matrix: Wastewater

COC Reference: 153364

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	09/26/24 20:05	SE240926	PF240923W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S66506.05

Sample Tag: 03-PRCC-24-PRIM-196-09202024

Collected Date/Time: 09/20/2024 11:22

Matrix: Wastewater

COC Reference: 153364

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	09/26/24 20:25	SE240926	PF240923W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: PF240923W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S66506.01	34 PFAs	ASTMD7979-19M	09/26/24 19:05	SE240926
S66506.02	34 PFAs	ASTMD7979-19M	09/26/24 19:25	SE240926
S66506.03	34 PFAs	ASTMD7979-19M	09/26/24 19:45	SE240926
S66506.04	34 PFAs	ASTMD7979-19M	09/26/24 20:05	SE240926
S66506.05	34 PFAs	ASTMD7979-19M	09/26/24 20:25	SE240926

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S66506.01

Sample Tag: Field Blank-09202024

Collected Date/Time: 09/20/2024 11:10

Matrix: Liquid

COC Reference: 153364

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: SE240926, Run Date: 09/26/2024 19:05, Matrix: WW, Dilution: 2.07

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**106.6**	50.0	150.0
M2-6:2FTSA		**99.4**	50.0	150.0
M2-8:2FTSA		**116.1**	50.0	150.0
M2PFTeDA		**130.1**	12.0	218.0
M3PFBS		**104.1**	50.0	150.0
M3PFHxS		**111.2**	50.0	150.0
M4PFHpA		**98.9**	50.0	150.0
M5PFHxA		**105.0**	50.0	150.0
M5PFPeA		**109.8**	50.0	150.0
M6PFDA		**111.0**	50.0	150.0
M7PFUnDA		**108.0**	50.0	150.0
M8FOSA		**106.0**	50.0	150.0
M8PFOA		**117.3**	50.0	150.0
M8PFOS		**105.2**	50.0	150.0
M9-PFNA		**109.2**	50.0	150.0
MPFBA		**104.4**	50.0	150.0
MPFDoDA		**110.3**	50.0	150.0
d3N-MeFOSAA		**110.1**	50.0	150.0
d5EtFOSAA		**112.9**	50.0	150.0
MHFPO-DA		**104.4**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S66506.02

Sample Tag: 03-PRCC-24-EFF-196-09202024

Collected Date/Time: 09/20/2024 11:16

Matrix: Wastewater

COC Reference: 153364

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: SE240926, Run Date: 09/26/2024 19:25, Matrix: WW, Dilution: 2.06

Internal Standard	Flags	**%Rec**	LCL	UCL
M2-4:2FTSA		**99.1**	50.0	150.0
M2-6:2FTSA		**91.9**	50.0	150.0
M2-8:2FTSA		**108.9**	50.0	150.0
M2PFTeDA		**128.5**	12.0	218.0
M3PFBS		**103.8**	50.0	150.0
M3PFHxS		**107.5**	50.0	150.0
M4PFHpA		**101.6**	50.0	150.0
M5PFHxA		**111.1**	50.0	150.0
M5PFPeA		**110.4**	50.0	150.0
M6PFDA		**112.9**	50.0	150.0
M7PFUnDA		**103.9**	50.0	150.0
M8FOSA		**106.9**	50.0	150.0
M8PFOA		**114.4**	50.0	150.0
M8PFOS		**104.0**	50.0	150.0
M9-PFNA		**102.7**	50.0	150.0
MPFBA		**106.2**	50.0	150.0
MPFDoDA		**112.2**	50.0	150.0
d3N-MeFOSAA		**100.1**	50.0	150.0
d5EtFOSAA		**108.5**	50.0	150.0
MHFPO-DA		**109.6**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S66506.03

Sample Tag: 03-PRCC-24-MID-2-196-09202024

Collected Date/Time: 09/20/2024 11:18

Matrix: Wastewater

COC Reference: 153364

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: SE240926, Run Date: 09/26/2024 19:45, Matrix: WW, Dilution: 1.94

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**90.5**	50.0	150.0
M2-6:2FTSA		**92.4**	50.0	150.0
M2-8:2FTSA		**100.0**	50.0	150.0
M2PFTeDA		**111.9**	12.0	218.0
M3PFBS		**93.8**	50.0	150.0
M3PFHxS		**100.7**	50.0	150.0
M4PFHpA		**97.9**	50.0	150.0
M5PFHxA		**98.8**	50.0	150.0
M5PFPeA		**104.2**	50.0	150.0
M6PFDA		**94.3**	50.0	150.0
M7PFUnDA		**99.6**	50.0	150.0
M8FOSA		**99.8**	50.0	150.0
M8PFOA		**105.3**	50.0	150.0
M8PFOS		**101.0**	50.0	150.0
M9-PFNA		**98.7**	50.0	150.0
MPFBA		**100.9**	50.0	150.0
MPFDoDA		**100.5**	50.0	150.0
d3N-MeFOSAA		**88.9**	50.0	150.0
d5EtFOSAA		**96.7**	50.0	150.0
MHFPO-DA		**104.7**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S66506.04

Sample Tag: 03-PRCC-24-MID-1-196-09202024

Collected Date/Time: 09/20/2024 11:20

Matrix: Wastewater

COC Reference: 153364

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: SE240926, Run Date: 09/26/2024 20:05, Matrix: WW, Dilution: 1.97

Internal Standard	Flags	**%Rec**	LCL	UCL
M2-4:2FTSA		**99.4**	50.0	150.0
M2-6:2FTSA		**93.6**	50.0	150.0
M2-8:2FTSA		**100.7**	50.0	150.0
M2PFTeDA		**126.7**	12.0	218.0
M3PFBS		**104.5**	50.0	150.0
M3PFHxS		**101.7**	50.0	150.0
M4PFHpA		**101.5**	50.0	150.0
M5PFHxA		**104.6**	50.0	150.0
M5PFPeA		**108.8**	50.0	150.0
M6PFDA		**108.0**	50.0	150.0
M7PFUnDA		**108.6**	50.0	150.0
M8FOSA		**101.7**	50.0	150.0
M8PFOA		**103.9**	50.0	150.0
M8PFOS		**101.0**	50.0	150.0
M9-PFNA		**95.2**	50.0	150.0
MPFBA		**104.0**	50.0	150.0
MPFDoDA		**104.6**	50.0	150.0
d3N-MeFOSAA		**96.4**	50.0	150.0
d5EtFOSAA		**104.4**	50.0	150.0
MHFPO-DA		**105.2**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S66506.05

Sample Tag: 03-PRCC-24-PRIM-196-09202024

Collected Date/Time: 09/20/2024 11:22

Matrix: Wastewater

COC Reference: 153364

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: SE240926, Run Date: 09/26/2024 20:25, Matrix: WW, Dilution: 1.96

Internal Standard	Flags	**%Rec**	LCL	UCL
M2-4:2FTSA		**101.3**	50.0	150.0
M2-6:2FTSA		**97.1**	50.0	150.0
M2-8:2FTSA		**91.4**	50.0	150.0
M2PFTeDA		**135.7**	12.0	218.0
M3PFBS		**107.6**	50.0	150.0
M3PFHxS		**113.5**	50.0	150.0
M4PFHpA		**104.0**	50.0	150.0
M5PFHxA		**108.8**	50.0	150.0
M5PFPeA		**109.4**	50.0	150.0
M6PFDA		**107.0**	50.0	150.0
M7PFUnDA		**109.1**	50.0	150.0
M8FOSA		**107.8**	50.0	150.0
M8PFOA		**112.4**	50.0	150.0
M8PFOS		**108.6**	50.0	150.0
M9-PFNA		**108.0**	50.0	150.0
MPFBA		**108.3**	50.0	150.0
MPFDoDA		**108.7**	50.0	150.0
d3N-MeFOSAA		**100.4**	50.0	150.0
d5EtFOSAA		**106.3**	50.0	150.0
MHFPO-DA		**113.6**	50.0	150.0

Organics - Volatiles, Prep Batch ID: PF240923W1

QC Types: BLK/LCS/LCSD/MS/DUP

Blank (BLK)

Lab Sample ID: AK240923.BLK240923

Run in Batch: AK240923, Run Date: 09/23/2024 17:53, Prep Date: 09/23/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**104.6**	50.0	150.0
M2-6:2FTSA		**104.0**	50.0	150.0
M2-8:2FTSA		**95.0**	50.0	150.0
M2PFTeDA		**96.5**	12.0	218.0
M3PFBS		**104.1**	50.0	150.0
M3PFHxS		**88.9**	50.0	150.0
M4PFHpA		**86.9**	50.0	150.0
M5PFHxA		**89.4**	50.0	150.0
M5PFPeA		**99.6**	50.0	150.0
M6PFDA		**104.1**	50.0	150.0
M7PFUnDA		**96.2**	50.0	150.0
M8FOSA		**95.4**	50.0	150.0
M8PFOA		**91.8**	50.0	150.0
M8PFOS		**99.8**	50.0	150.0
M9-PFNA		**89.9**	50.0	150.0
MPFBA		**91.0**	50.0	150.0
MPFDoDA		**107.4**	50.0	150.0
d3N-MeFOSAA		**103.2**	50.0	150.0
d5EtFOSAA		**105.1**	50.0	150.0
MHFPO-DA		**99.7**	50.0	150.0
d-N-EtFOSA-M		**115.1**	50.0	150.0
d-N-MeFOSA-M		**104.0**	50.0	150.0
d7-N-MeFOSE-M		**93.8**	50.0	150.0
d9-N-EtFOSE-M		**97.8**	50.0	150.0

Blank (BLK)

Lab Sample ID: AK241008RERUNS.BLK240923

Run in Batch: AK241008RERUNS, Run Date: 10/08/2024 15:43, Prep Date: 09/23/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**91.9**	50.0	150.0
M2-6:2FTSA		**93.0**	50.0	150.0
M2-8:2FTSA		**82.5**	50.0	150.0
M2PFTeDA		**91.8**	12.0	218.0
M3PFBS		**93.0**	50.0	150.0
M3PFHxS		**84.8**	50.0	150.0
M4PFHpA		**100.7**	50.0	150.0
M5PFHxA		**92.4**	50.0	150.0
M5PFPeA		**106.9**	50.0	150.0
M6PFDA		**88.3**	50.0	150.0
M7PFUnDA		**96.2**	50.0	150.0
M8FOSA		**99.7**	50.0	150.0
M8PFOA		**89.3**	50.0	150.0
M8PFOS		**93.0**	50.0	150.0
M9-PFNA		**82.8**	50.0	150.0
MPFBA		**91.9**	50.0	150.0
MPFDoDA		**91.0**	50.0	150.0
d3N-MeFOSAA		**88.8**	50.0	150.0
d5EtFOSAA		**86.2**	50.0	150.0
MHFPO-DA		**89.4**	50.0	150.0
d-N-EtFOSA-M		**90.1**	50.0	150.0
d-N-MeFOSA-M		**92.6**	50.0	150.0
d7-N-MeFOSE-M		**87.0**	50.0	150.0
d9-N-EtFOSE-M		**87.3**	50.0	150.0

Blank (BLK)

Lab Sample ID: SE240926.BLK240923

Run in Batch: SE240926, Run Date: 09/26/2024 18:25, Prep Date: 09/23/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**89.3**	50.0	150.0
M2-6:2FTSA		**84.8**	50.0	150.0
M2-8:2FTSA		**102.9**	50.0	150.0
M2PFTeDA		**85.6**	12.0	218.0
M3PFBS		**93.9**	50.0	150.0
M3PFHxS		**92.9**	50.0	150.0
M4PFHpA		**87.4**	50.0	150.0
M5PFHxA		**92.2**	50.0	150.0
M5PFPeA		**93.8**	50.0	150.0
M6PFDA		**98.4**	50.0	150.0
M7PFUnDA		**87.4**	50.0	150.0
M8FOSA		**93.7**	50.0	150.0
M8PFOA		**96.7**	50.0	150.0
M8PFOS		**99.2**	50.0	150.0
M9-PFNA		**92.1**	50.0	150.0
MPFBA		**90.1**	50.0	150.0
MPFDoDA		**90.0**	50.0	150.0
d3N-MeFOSAA		**81.6**	50.0	150.0
d5EtFOSAA		**89.7**	50.0	150.0
MHFPO-DA		**93.2**	50.0	150.0

Laboratory Control Sample (LCS)

Lab Sample ID: AK240923.LCS240923R

Run in Batch: AK240923, Run Date: 09/24/2024 11:33, Prep Date: 09/23/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**88.4**	50.0	150.0
M2-6:2FTSA		**80.2**	50.0	150.0
M2-8:2FTSA		**86.2**	50.0	150.0
M2PFTeDA		**120.8**	12.0	218.0
M3PFBS		**83.7**	50.0	150.0
M3PFHxS		**93.3**	50.0	150.0
M4PFHpA		**89.6**	50.0	150.0
M5PFHxA		**97.5**	50.0	150.0
M5PFPeA		**91.4**	50.0	150.0
M6PFDA		**87.6**	50.0	150.0
M7PFUnDA		**97.3**	50.0	150.0
M8FOSA		**94.8**	50.0	150.0
M8PFOA		**85.2**	50.0	150.0
M8PFOS		**86.5**	50.0	150.0
M9-PFNA		**92.9**	50.0	150.0
MPFBA		**89.1**	50.0	150.0
MPFDoDA		**99.9**	50.0	150.0
d3N-MeFOSAA		**92.5**	50.0	150.0
d5EtFOSAA		**90.9**	50.0	150.0
MHFPO-DA		**101.2**	50.0	150.0
d-N-EtFOSA-M		**108.7**	50.0	150.0
d-N-MeFOSA-M		**100.2**	50.0	150.0
d7-N-MeFOSE-M		**96.7**	50.0	150.0
d9-N-EtFOSE-M		**100.1**	50.0	150.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK240923.LCSD240923R, Parent Sample ID: AK240923.LCS240923R

Run in Batch: AK240923, Run Date: 09/24/2024 11:54, Prep Date: 09/23/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**87.1**	50.0	150.0
M2-6:2FTSA		**84.6**	50.0	150.0
M2-8:2FTSA		**87.0**	50.0	150.0
M2PFTeDA		**132.8**	12.0	218.0
M3PFBS		**83.8**	50.0	150.0
M3PFHxS		**98.7**	50.0	150.0
M4PFHpA		**94.7**	50.0	150.0
M5PFHxA		**94.5**	50.0	150.0
M5PFPeA		**93.3**	50.0	150.0
M6PFDA		**87.6**	50.0	150.0
M7PFUnDA		**100.7**	50.0	150.0
M8FOSA		**93.2**	50.0	150.0
M8PFOA		**86.7**	50.0	150.0
M8PFOS		**86.7**	50.0	150.0
M9-PFNA		**97.7**	50.0	150.0
MPFBA		**90.9**	50.0	150.0
MPFDoDA		**103.3**	50.0	150.0
d3N-MeFOSAA		**100.1**	50.0	150.0
d5EtFOSAA		**97.6**	50.0	150.0
MHFPO-DA		**86.0**	50.0	150.0
d-N-EtFOSA-M		**116.9**	50.0	150.0
d-N-MeFOSA-M		**95.6**	50.0	150.0
d7-N-MeFOSE-M		**89.2**	50.0	150.0
d9-N-EtFOSE-M		**101.4**	50.0	150.0

Matrix Spike (MS)

Lab Sample ID: AK240923.6649001M, Parent Sample ID: S66490.01

Run in Batch: AK240923, Run Date: 09/23/2024 19:33, Prep Date: 09/23/2024, Matrix: WW, Dilution: 1.95

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**122.8**	50.0	150.0
M2-6:2FTSA		**106.9**	50.0	150.0
M2-8:2FTSA		**110.6**	50.0	150.0
M2PFTeDA		**107.9**	12.0	218.0
M3PFBS		**99.4**	50.0	150.0
M3PFHxS		**104.3**	50.0	150.0
M4PFHpA		**97.9**	50.0	150.0
M5PFHxA		**106.6**	50.0	150.0
M5PFPeA		**102.6**	50.0	150.0
M6PFDA		**97.2**	50.0	150.0
M7PFUnDA		**107.7**	50.0	150.0
M8FOSA		**101.6**	50.0	150.0
M8PFOA		**92.8**	50.0	150.0
M8PFOS		**105.7**	50.0	150.0
M9-PFNA		**99.0**	50.0	150.0
MPFBA		**99.0**	50.0	150.0
MPFDoDA		**109.6**	50.0	150.0
d3N-MeFOSAA		**102.4**	50.0	150.0
d5EtFOSAA		**121.0**	50.0	150.0
MHFPO-DA		**89.9**	50.0	150.0
d-N-EtFOSA-M		**126.9**	50.0	150.0
d-N-MeFOSA-M		**110.7**	50.0	150.0
d7-N-MeFOSE-M		**94.8**	50.0	150.0
d9-N-EtFOSE-M		**104.9**	50.0	150.0

Duplicate (DUP)

Lab Sample ID: AK241008RERUNS.6649402D, Parent Sample ID: S66494.02

Run in Batch: AK241008RERUNS, Run Date: 10/08/2024 16:23, Prep Date: 09/23/2024, Matrix: WW, Dilution: 2.03

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**96.7**	50.0	150.0
M2-6:2FTSA		**86.8**	50.0	150.0
M2-8:2FTSA		**95.3**	50.0	150.0
M2PFTeDA		**117.2**	12.0	218.0
M3PFBS		**109.9**	50.0	150.0
M3PFHxS		**107.4**	50.0	150.0
M4PFHpA		**110.0**	50.0	150.0
M5PFHxA		**100.0**	50.0	150.0
M5PFPeA		**116.8**	50.0	150.0
M6PFDA		**104.9**	50.0	150.0
M7PFUnDA		**103.2**	50.0	150.0
M8FOSA		**114.5**	50.0	150.0
M8PFOA		**96.7**	50.0	150.0
M8PFOS		**119.7**	50.0	150.0
M9-PFNA		**93.4**	50.0	150.0
MPFBA		**106.9**	50.0	150.0
MPFDoDA		**102.8**	50.0	150.0
d3N-MeFOSAA		**99.7**	50.0	150.0
d5EtFOSAA		**101.0**	50.0	150.0
MHFPO-DA		**100.8**	50.0	150.0
d-N-EtFOSA-M		**111.9**	50.0	150.0
d-N-MeFOSA-M		**97.8**	50.0	150.0
d7-N-MeFOSE-M		**95.7**	50.0	150.0
d9-N-EtFOSE-M		**98.1**	50.0	150.0

Organics - Volatiles, Prep Batch ID: PF240923W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Blank (BLK)

Lab Sample ID: AK240923.BLK240923

Run in Batch: AK240923, Run Date: 09/23/2024 17:53, Prep Date: 09/23/2024, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFBA		ND	10	ng/l
PFMPA		ND	2	ng/l
FPrPA (3:3 FTCA)		ND	10	ng/l
PFPrS		ND	2	ng/l
PFPeA		ND	4	ng/l
PFMBA		ND	2	ng/l
4:2 FTSA		ND	2	ng/l
NFDHA		ND	2	ng/l
PFHxA		ND	2	ng/l
PFBS		ND	2	ng/l
HFPO-DA		ND	10	ng/l
FPePA (5:3 FTCA)		ND	10	ng/l
PFEESA		ND	2	ng/l
PFHpA		ND	2	ng/l
PFPeS		ND	2	ng/l
ADONA		ND	2	ng/l
6:2 FTSA		ND	2	ng/l
PFBSA		ND	2	ng/l
PFOA		ND	2	ng/l
PFHxS-BR		ND	2	ng/l
PFHxS		ND	2	ng/l
PFHxS-LN		ND	2	ng/l
FHpPA (7:3 FTCA)		ND	10	ng/l
PFNA		ND	2	ng/l
8:2 FTSA		ND	2	ng/l
PFECHS		ND	2	ng/l
PFHpS		ND	2	ng/l
N-MeFOSAA		ND	2	ng/l
PFDA		ND	2	ng/l
PFOS-BR		ND	2	ng/l
EtFOSAA		ND	4	ng/l
PFOS		ND	2	ng/l
PFOS-LN		ND	2	ng/l
PFHxSA		ND	2	ng/l
PFUnDA		ND	2	ng/l
9CL-PF3ONS		ND	2	ng/l
PFNS		ND	2	ng/l
PFDoDA		ND	2	ng/l
PFDS		ND	2	ng/l
PFTrDA		ND	2	ng/l
11CL-PF3OUdS		ND	2	ng/l
FOSA		ND	2	ng/l
PFTeDA		ND	4	ng/l
PFDOS		ND	6	ng/l
NMeFOSE		ND	4	ng/l
NMeFOSAM		ND	2	ng/l

Organics - Volatiles, Prep Batch ID: PF240923W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Blank (BLK) (continued)

Lab Sample ID: AK240923.BLK240923

Run in Batch: AK240923, Run Date: 09/23/2024 17:53, Prep Date: 09/23/2024, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
NEtFOSE		ND	4	ng/l
NEtFOSAM		ND	2	ng/l

Blank (BLK)

Lab Sample ID: AK241008RERUNS.BLK240923

Run in Batch: AK241008RERUNS, Run Date: 10/08/2024 15:43, Prep Date: 09/23/2024, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFBA		ND	10	ng/l
PFMPA		ND	2	ng/l
FPrPA (3:3 FTCA)		ND	10	ng/l
PFPrS		ND	2	ng/l
PFPeA		ND	4	ng/l
PFMBA		ND	2	ng/l
4:2 FTSA		ND	2	ng/l
NFDHA		ND	2	ng/l
PFHxA		ND	2	ng/l
PFBS		ND	2	ng/l
HFPO-DA		ND	10	ng/l
FPePA (5:3 FTCA)		ND	10	ng/l
PFEESA		ND	2	ng/l
PFHpA		ND	2	ng/l
PFPeS		ND	2	ng/l
ADONA		ND	2	ng/l
6:2 FTSA		ND	2	ng/l
PFBSA		ND	2	ng/l
PFOA		ND	2	ng/l
PFHxS-BR		ND	2	ng/l
PFHxS		ND	2	ng/l
PFHxS-LN		ND	2	ng/l
FHpPA (7:3 FTCA)		ND	10	ng/l
PFNA		ND	2	ng/l
PFECHS		ND	2	ng/l
8:2 FTSA		ND	2	ng/l
PFHpS		ND	2	ng/l
N-MeFOSAA		ND	2	ng/l
PFDA		ND	2	ng/l
PFOS-BR		ND	2	ng/l
PFOS		ND	2	ng/l
EtFOSAA		ND	4	ng/l
PFOS-LN		ND	2	ng/l
PFHxSA		ND	2	ng/l
PFUnDA		ND	2	ng/l
9CL-PF3ONS		ND	2	ng/l
PFNS		ND	2	ng/l
PFDoDA		ND	2	ng/l
PFDS		ND	2	ng/l

Organics - Volatiles, Prep Batch ID: PF240923W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Blank (BLK) (continued)

Lab Sample ID: AK241008RERUNS.BLK240923

Run in Batch: AK241008RERUNS, Run Date: 10/08/2024 15:43, Prep Date: 09/23/2024, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFTrDA		ND	2	ng/l
11CL-PF3OUdS		ND	2	ng/l
FOSA		ND	2	ng/l
PFTeDA		ND	4	ng/l
PFDOS		ND	6	ng/l
NMeFOSE		ND	4	ng/l
NMeFOSAM		ND	2	ng/l
NEtFOSE		ND	4	ng/l
NEtFOSAM		ND	2	ng/l

Blank (BLK)

Lab Sample ID: SE240926.BLK240923

Run in Batch: SE240926, Run Date: 09/26/2024 18:25, Prep Date: 09/23/2024, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFBA		ND	10	ng/l
PFMPA		ND	2	ng/l
FPrPA (3:3 FTCA)		ND	10	ng/l
PFPrS		ND	2	ng/l
PFPeA		ND	4	ng/l
PFMBA		ND	2	ng/l
4:2 FTSA		ND	2	ng/l
NFDHA		ND	2	ng/l
PFHxA		ND	2	ng/l
PFBS		ND	2	ng/l
HFPO-DA		ND	10	ng/l
FPePA (5:3 FTCA)		ND	10	ng/l
PFEESA		ND	2	ng/l
PFHpA		ND	2	ng/l
PFPeS		ND	2	ng/l
ADONA		ND	2	ng/l
6:2 FTSA		ND	2	ng/l
PFBSA		ND	2	ng/l
PFOA		ND	2	ng/l
PFHxS-BR		ND	2	ng/l
PFHxS		ND	2	ng/l
PFHxS-LN		ND	2	ng/l
FHpPA (7:3 FTCA)		ND	10	ng/l
PFNA		ND	2	ng/l
PFECHS		ND	2	ng/l
8:2 FTSA		ND	2	ng/l
PFHpS		ND	2	ng/l
N-MeFOSAA		ND	2	ng/l
PFDA		ND	2	ng/l
PFOS-BR		ND	2	ng/l
PFOS		ND	2	ng/l
EtFOSAA		ND	4	ng/l

Organics - Volatiles, Prep Batch ID: PF240923W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Blank (BLK) (continued)

Lab Sample ID: SE240926.BLK240923

Run in Batch: SE240926, Run Date: 09/26/2024 18:25, Prep Date: 09/23/2024, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFOS-LN		ND	2	ng/l
PFUnDA		ND	2	ng/l
PFHxSA		ND	2	ng/l
9CL-PF3ONS		ND	2	ng/l
PFNS		ND	2	ng/l
PFDoDA		ND	2	ng/l
PFDS		ND	2	ng/l
PFTrDA		ND	2	ng/l
11CL-PF3OUdS		ND	2	ng/l
FOSA		ND	2	ng/l
PFTeDA		ND	4	ng/l

Laboratory Control Sample (LCS)

Lab Sample ID: AK240923.LCS240923R

Run in Batch: AK240923, Run Date: 09/24/2024 11:33, Prep Date: 09/23/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFBA		111.2	70.0	130.0
PFMPA		95.0	70.0	130.0
FPrPA (3:3 FTCA)		100.4	70.0	130.0
PFPrS		107.0	70.0	130.0
PFPeA		112.0	70.0	130.0
PFMBA		103.6	70.0	130.0
4:2 FTSA		113.4	70.0	130.0
NFDHA		87.0	70.0	130.0
PFHxA		85.6	70.0	130.0
PFBS		102.4	70.0	130.0
HFPO-DA		100.4	70.0	130.0
FPePA (5:3 FTCA)		95.6	70.0	130.0
PFEESA		100.0	70.0	130.0
PFHpA		102.2	70.0	130.0
PFPeS		110.2	70.0	130.0
ADONA		92.8	70.0	130.0
6:2 FTSA		118.8	70.0	130.0
PFBSA		97.4	70.0	130.0
PFOA		98.6	70.0	130.0
PFHxS		104.8	70.0	130.0
FHpPA (7:3 FTCA)		94.2	70.0	130.0
PFNA		124.0	70.0	130.0
8:2 FTSA		113.8	70.0	130.0
PFECHS		120.4	70.0	130.0
PFHpS		109.8	70.0	130.0
N-MeFOSAA	*	138.8	70.0	130.0
PFDA		120.0	70.0	130.0
EtFOSAA	*	146.8	70.0	130.0
PFOS		124.8	70.0	130.0
PFHxSA		90.6	70.0	130.0

Organics - Volatiles, Prep Batch ID: PF240923W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: AK240923.LCS240923R

Run in Batch: AK240923, Run Date: 09/24/2024 11:33, Prep Date: 09/23/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFUnDA	*	132.6	70.0	130.0
9CL-PF3ONS		110.0	70.0	130.0
PFNS		106.4	70.0	130.0
PFDoDA		115.2	70.0	130.0
PFDS		116.8	70.0	130.0
PFTrDA	*	136.2	70.0	130.0
11CL-PF3OUdS		125.4	70.0	130.0
FOSA		99.0	70.0	130.0
PFTeDA		106.4	70.0	130.0
PFDOS		118.6	70.0	130.0
NMeFOSE		104.4	70.0	130.0
NMeFOSAM		90.4	70.0	130.0
NEtFOSE		106.6	70.0	130.0
NEtFOSAM		98.6	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK240923.LCSD240923R, Parent Sample ID: AK240923.LCS240923R

Run in Batch: AK240923, Run Date: 09/24/2024 11:54, Prep Date: 09/23/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFBA		109.2	70.0	130.0	1.8	30.0
PFMPA		91.4	70.0	130.0	3.9	30.0
FPrPA (3:3 FTCA)		97.4	70.0	130.0	3.0	30.0
PFPrS		114.0	70.0	130.0	6.3	30.0
PFPeA		106.4	70.0	130.0	5.1	30.0
PFMBA		94.6	70.0	130.0	9.1	30.0
4:2 FTSA		113.6	70.0	130.0	0.2	30.0
NFDHA		100.4	70.0	130.0	14.3	30.0
PFHxA		100.4	70.0	130.0	15.9	30.0
PFBS		103.8	70.0	130.0	1.4	30.0
HFPO-DA	*	136.2	70.0	130.0	30.3	30.0
FPePA (5:3 FTCA)		102.6	70.0	130.0	7.1	30.0
PFEESA		95.0	70.0	130.0	5.1	30.0
PFHpA		104.2	70.0	130.0	1.9	30.0
PFPeS		114.8	70.0	130.0	4.1	30.0
ADONA		96.8	70.0	130.0	4.2	30.0
6:2 FTSA		117.0	70.0	130.0	1.5	30.0
PFBSA		97.8	70.0	130.0	0.4	30.0
PFOA		98.0	70.0	130.0	0.6	30.0
PFHxS		96.4	70.0	130.0	8.3	30.0
FHpPA (7:3 FTCA)		86.2	70.0	130.0	8.9	30.0
PFNA		99.8	70.0	130.0	21.6	30.0
8:2 FTSA		105.0	70.0	130.0	8.0	30.0
PFECHS		122.4	70.0	130.0	1.6	30.0
PFHpS		95.8	70.0	130.0	13.6	30.0
N-MeFOSAA	*	136.0	70.0	130.0	2.0	30.0
PFDA		126.2	70.0	130.0	5.0	30.0

Organics - Volatiles, Prep Batch ID: PF240923W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: AK240923.LCSD240923R, Parent Sample ID: AK240923.LCS240923R

Run in Batch: AK240923, Run Date: 09/24/2024 11:54, Prep Date: 09/23/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
EtFOSAA	*	136.4	70.0	130.0	7.3	30.0
PFOS		121.6	70.0	130.0	2.6	30.0
PFHxSA		93.4	70.0	130.0	3.0	30.0
PFUnDA		126.2	70.0	130.0	4.9	30.0
9CL-PF3ONS		124.6	70.0	130.0	12.4	30.0
PFNS		102.6	70.0	130.0	3.6	30.0
PFDoDA		125.6	70.0	130.0	8.6	30.0
PFDS		114.4	70.0	130.0	2.1	30.0
PFTrDA		127.0	70.0	130.0	7.0	30.0
11CL-PF3OUdS		127.0	70.0	130.0	1.3	30.0
FOSA		106.6	70.0	130.0	7.4	30.0
PFTeDA		108.0	70.0	130.0	1.5	30.0
PFDOS		111.2	70.0	130.0	6.4	30.0
NMeFOSE		112.6	70.0	130.0	7.6	30.0
NMeFOSAM		105.4	70.0	130.0	15.3	30.0
NEtFOSE		102.2	70.0	130.0	4.2	30.0
NEtFOSAM		92.2	70.0	130.0	6.7	30.0

Matrix Spike (MS)

Lab Sample ID: AK240923.6649001M, Parent Sample ID: S66490.01

Run in Batch: AK240923, Run Date: 09/23/2024 19:33, Prep Date: 09/23/2024, Matrix: WW, Dilution: 1.95

Analyte	Flags	% Rec	LCL	UCL
PFBA		112.8	70.0	130.0
PFPeA		112.8	70.0	130.0
4:2 FTSA		123.1	70.0	130.0
PFHxA		83.7	70.0	130.0
PFBS		92.7	70.0	130.0
PFHpA		102.6	70.0	130.0
PFPeS		102.6	70.0	130.0
6:2 FTSA	*	133.3	70.0	130.0
PFOA		93.3	70.0	130.0
PFHxS		94.5	70.0	130.0
PFNA		112.8	70.0	130.0
8:2 FTSA		112.8	70.0	130.0
PFHpS		91.3	70.0	130.0
PFDA		123.1	70.0	130.0
N-MeFOSAA	*	133.3	70.0	130.0
EtFOSAA		112.8	70.0	130.0
PFOS		110.8	70.0	130.0
PFUnDA		112.8	70.0	130.0
PFNS		112.8	70.0	130.0
PFDoDA		112.8	70.0	130.0
PFDS	*	133.3	70.0	130.0
PFTrDA		123.1	70.0	130.0
FOSA		102.6	70.0	130.0
PFTeDA		112.8	70.0	130.0

Organics - Volatiles, Prep Batch ID: PF240923W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Matrix Spike (MS) (continued)

Lab Sample ID: AK240923.6649001M, Parent Sample ID: S66490.01

Run in Batch: AK240923, Run Date: 09/23/2024 19:33, Prep Date: 09/23/2024, Matrix: WW, Dilution: 1.95

Analyte	Flags	% Rec	LCL	UCL
11CL-PF3OUdS		112.8	70.0	130.0
9CL-PF3ONS		102.6	70.0	130.0
ADONA		86.2	70.0	130.0
HFPO-DA	*	133.3	70.0	130.0
FHpPA (7:3 FTCA)		86.2	70.0	130.0
FPePA (5:3 FTCA)		92.3	70.0	130.0
FPrPA (3:3 FTCA)		96.4	70.0	130.0
PFBSA		100.3	70.0	130.0
PFECHS		112.8	70.0	130.0
PFHxSA		89.2	70.0	130.0

Duplicate (DUP)

Lab Sample ID: AK241008RERUNS.6649402D, Parent Sample ID: S66494.02

Run in Batch: AK241008RERUNS, Run Date: 10/08/2024 16:23, Prep Date: 09/23/2024, Matrix: WW, Dilution: 2.03

Analyte	Flags	RPD	RPD CL
PFBA		NC	30.0
PFPeA		NC	30.0
4:2 FTSA		NC	30.0
PFHxA		NC	30.0
PFBS		NC	30.0
PFHpA		NC	30.0
PFPeS		NC	30.0
6:2 FTSA	*	200.0	30.0
PFOA		NC	30.0
PFHxS		NC	30.0
PFHxS-LN		NC	30.0
PFHxS-BR		NC	30.0
PFNA		NC	30.0
8:2 FTSA		NC	30.0
PFHpS		NC	30.0
PFDA		NC	30.0
N-MeFOSAA		NC	30.0
EtFOSAA		NC	30.0
PFOS	*	200.0	30.0
PFOS-LN		NC	30.0
PFOS-BR		NC	30.0
PFUnDA		NC	30.0
PFNS		NC	30.0
PFDoDA		NC	30.0
PFDS		NC	30.0
PFTrDA		NC	30.0
FOSA		NC	30.0
PFTeDA		NC	30.0
11CL-PF3OUdS		NC	30.0
9CL-PF3ONS		NC	30.0
ADONA		NC	30.0

Organics - Volatiles, Prep Batch ID: PF240923W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Duplicate (DUP) (continued)

Lab Sample ID: AK241008RERUNS.6649402D, Parent Sample ID: S66494.02

Run in Batch: AK241008RERUNS, Run Date: 10/08/2024 16:23, Prep Date: 09/23/2024, Matrix: WW, Dilution: 2.03

Analyte	Flags	RPD	RPD CL
HFPO-DA		NC	30.0

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1 153364

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Clifford Yantz / Kevin Schneider
COMPANY: Ramboll
ADDRESS: 2090 Commonwealth Blvd
CITY: Ann Arbor STATE: MI ZIP CODE: 48105
PHONE NO.: CELL NO.: 313-333-0211 P.O. NO.: 1940008845 Task 37
E-MAIL ADDRESS: clifford.yantz@ramboll.com kevin.schneider@ramboll.com QUOTE NO.:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: RAER Coldwater Road
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Schneider

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ STD ☒ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations
☐ Detroit ☐ New York
☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	PFAS (1976)	Special Instructions
665061.01	9/20/24	1110	Field Blank - 09202024	L	1	X							X	Low level Reporting with estimated values
.02	↓	1116	03-PRCC-24-EFF-196-09202024	ww	3	X							X	
.03		1118	03-PRCC-24-MID-2-196-09202024	ww	3	X							X	
.04		1120	03-PRCC-24-MID-1-196-09202024	ww	3	X							X	
.05	↓	1122	03-PRCC-24-PRIM-196-09202024	ww	3	X							X	34 PFAS List

RELINQUISHED BY: SIGNATURE/ORGANIZATION	☒ Sampler	DATE 9/20/24	TIME 1200
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 9/20/24	TIME 1200
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE 9/20/24	TIME 1315
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 9/20/24	TIME 1250

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 4.4

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.26.22