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– January 2025 through March 2025***
Permit No.: 6-08-04-04-GML1
FILE: 1088190/1940113233/Docs

Dear **Ms. Minder:**

April 25, 2025

In accordance with the requirements of the above referenced discharge permit, we are providing you with the following discharge information for the period January 1, 2025 to March 31, 2025 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 March 5, 2025.
- Analytical Reports provided by Merit Laboratories, Inc. for samples from the on-Site, PFAS pretreatment system collected on March 26, 2025, and March 27, 2025, during the discharge of the liquids from the on-Site, above ground collection tank through the system.
- Copy of Chain-of-Custody forms.

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 vessel sample ports on March 26, 2025 and March 27, 2025 during the accumulation tank discharge. The influent sample had a detection of 5,300 ng/l for perfluorooctane sulfonic acid (PFOS).

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PFOS was detected at a concentration 140 ng/l from the primary GAC vessel sample collected at the start of the discharge on March 26, 2025. In the samples collected just before discharge was discontinued, PFOS was detected at a concentration of 120 ng/l in the primary GAC vessel, at a concentration of 17 ng/l in the secondary GAC vessel, at a concentration of 7.1 ng/l in the tertiary (third) GAC vessel, and at a concentration of 4.7 ng/l in the quaternary (fourth) GAC vessel.

In order to have an extremely high confidence level that PFOS concentrations do not exceed its water quality value during the next discharge event, the GAC within the primary and secondary vessels will be changed out prior to the next discharge event. New GAC will be placed in the primary and secondary vessels and the system components will be changed so that the existing quaternary (fourth), and tertiary (third) GAC vessels will be moved up in position making the current primary vessel the new quaternary vessel (last vessel before discharge) and the current secondary vessel the new tertiary vessel 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: January 1, 2025 through March 31, 2025

Average Volume of Daily Discharge (during reporting period): 2,781 gallons
(Two 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: 4/25/25

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
First Quarter - 2025 - 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	4.2	7.1	<2	7.90	0.03	15.5
Test Method	4500-NH3 G	10360	1664A	4500-H+ B	4500-PE	2540 D
Test Date	3/12/2025	3/6/2025	3/6/2025	3/5/2025	3/13/2025	3/7/2025
Sample Date	3/5/2025	3/5/2025	3/5/2025	3/5/2025	3/5/2025	3/5/2025
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
First Quarter - 2025 - 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	**0.007**	**0.085**	**0.594**	**<0.0002**	**0.122**	**0.016**	**<0.0020**
Test Method	E200.8	200.8	200.8	245.1	200.8	200.8	1677
Test Date	3/6/2025	3/6/2025	3/6/2025	3/6/2025	3/6/2025	3/6/2025	3/18/2025
Sample Date	3/5/2025	3/5/2025	3/5/2025	3/5/2025	3/5/2025	3/5/2025	3/5/2025
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
First Quarter - 2025 - 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	**<1.9**	**<1.9**	**<1.9**	**<1.9**	**<1.9**	**4.7**	**<9.7**
Test Method	ASTMD7979-19M	ASTMD7979-19M	ASTMD7979-19M	ASTMD7979-19M	ASTMD7979-19M	ASTMD7979-19M	ASTMD7979-19M
Test Date	3/28/2025	3/28/2025	3/28/2025	3/28/2025	3/28/2025	3/28/2025	3/28/2025
Sample Date	3/27/2025	3/27/2025	3/27/2025	3/27/2025	3/27/2025	3/27/2025	3/27/2025
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
First Quarter 2025
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
3/26/2025	0	--	--	8:52 a.m. (3/26/2025)	--	2.98	9.0	48.2	7.44
3/27/2025	--	5,562	**5,562**	--	4:00 p.m. (3/27/2025)	2.98	--	--	--

Total Discharge Volume: **5,562**
Average Discharge Volume (2 Days): **2,781**

NOTES : Accumulation tank discharged continuously from 8:52 a.m. on March 26, 2025 to 4:00 p.m. on March 27, 2025 (31 hours, 8 minutes).

TABLE 3
RACER Trust - Coldwater Road
Pre-and Polyfluroalkyl Substances (PFAS) Sampling Results - March 2025

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	01-PRCC-25-INF-20250326 (Influent Sample) 3/26/2025	01-PRCC-25-PRIM-20250326 (Primary GAC Vessel Sample) 3/26/2025	01-PRCC-25-PRIM-123-20250327 (Primary GAC Vessel Sample after 123 Bed Volumes) 3/27/2025	01-PRCC-25-MID-1-123-20250327 (Secondary GAC Vessel Sample after 123 Bed Volumes) 3/27/2025	01-PRCC-25-MID-2-123-20250327 (Tertiary GAC Vessel Sample after 123 Bed Volumes) 3/27/2025	01-PRCC-25-EFF-123-20250327 (Effluent Sample after 123 Bed Volumes) 3/27/2025
Perfluorobutanoic Acid (PFBA)		--	<45 X	<11 X	<17 X	<9.8	<10	<9.7
Perfluoropentanoic Acid (PFPeA)		--	<4.0	<4.0	<4.3	<3.9	<4.2	<3.9
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	<2.0	<2.0	<2.2	<2.0	<2.1	<1.9
Perfluorohexanoic Acid (PFHxA)		**400,000**	<52 X	<3.4 X	<6.5 X	<2.0	<2.1	<1.9
Perfluorobutane Sulfonic Acid (PFBS)		**420**	**54**	**3.8**	**2.7**	<2.0	<2.1	<1.9
Perfluoroheptanoic Acid (PFHpA)		--	**14**	**1.0 J**	<2.2	<2.0	<2.1	<1.9
Perfluoropentane Sulfonic Acid (PFPeS)		--	**100**	**4.5**	**3.6**	<2.0	<2.1	<1.9
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	<2.0	<2.0	<2.2	<2.0	<2.1	<1.9
Perfluorooctanoic Acid (**PFOA**)		**8**	**42**	**1.6 J**	**1.4 J**	<2.0	<2.1	<1.9
Perfluorohexane Sulfonic Acid (PFHxS)		**51**	**350**	**14**	**13**	<2.0	<2.1	<1.9
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	**290**	**9.9**	**10**	<2.0	<2.1	<1.9
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	**52**	**3.6**	**3.1**	<2.0	<2.1	<1.9
Perfluorononanoic Acid (PFNA)		**6**	<2.0	<2.0	<2.2	<2.0	<2.1	<1.9
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	<2.0	<2.0	<2.2	<2.0	<2.1	<1.9
Perfluoroheptane Sulfonic Acid (PFHpS)		--	**91**	**1.5 J**	**2.2**	<2.0	<2.1	<1.9
Perfluorodecanoic Acid (PFDA)		--	<2.0	<2.0	<2.2	<2.0	<2.1	<1.9
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	<2.0	<2.0	<2.2	<2.0	<2.1	<1.9
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	<4.0	<4.0	<4.3	<3.9	<4.2	<3.9
Perfluorooctane Sulfonic Acid (**PFOS**)		**16**	**5,300**	**140**	**120**	**17**	**7.1**	**4.7**
Perfluorooctane Sulfonic Acid (**PFOS**-LN)		--	**3,200**	**64**	**57**	**11**	**5.2**	**3.3**
Perfluorooctane Sulfonic Acid (**PFOS**-BR)		--	**2,100**	**72**	**62**	**4.9**	**1.3 J**	**1.0 J**
Perfluoroundecanoic Acid (PFUnDA)		--	<2.0	<2.0	<2.2	<2.0	<2.1	<1.9
Perfluorononane Sulfonic Acid (PFNS)		--	<2.1 X	<2.0	<2.2	<2.0	<2.1	<1.9
Perfluorododecanoic Acid (PFDoDA)		--	<2.0	<2.0	<2.2	<2.0	<2.1	<1.9
Perfluorodecane Sulfonic Acid (PFDS)		--	<2.0	<2.0	<2.2	<2.0	<2.1	<1.9
Perfluorotridecanoic Acid (PFTrDA)		--	<2.0	<2.0	<2.2	<2.0	<2.1	<1.9
Perfluorooctane Sulfonamide (FOSA)		--	<2.0	<2.0	<2.2	<2.0	<2.1	<1.9
Perfluorotetradecanoic Acid (PFTeDA)		--	<4.0	<4.0	<4.3	<3.9	<4.2	<3.9
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)		--	<2.0	<2.0	<2.2	<2.0	<2.1	<1.9
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)		--	<2.0	<2.0	<2.2	<2.0	<2.1	<1.9
4,8-dioxa-3H-perfluorononanoic acid (ADONA)		--	<2.0	<2.0	<2.2	<2.0	<2.1	<1.9
Hexafluoropropylene oxide dimer (HFPO-DA)		--	<10	<10	<11	<9.8	<10	<9.7
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))		--	<10	<10	<11	<9.8	<10	<9.7
3-Perfluoroheptyl propanoic acid (FPePA (5:3 FTCA))		--	<10	<10	<11	<9.8	<10	<9.7
3-Perfluoroheptyl propanoic acid (FPrPA (3:3 FTCA))		--	<10	<10	<11	<9.8	<10	<9.7
Perfluorobutanesulfonamide (PFBSA)		--	**0.66 J**	<2.0	<2.2	<2.0	<2.1	<1.9
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	**9,400**	**470**	**660**	**1.9 J**	<2.1	<1.9
Perfluorohexanesulfonamide (PFHxSA)		--	<2.0	<2.0	<2.2	<2.0	<2.1	<1.9
Total Per-and Polyfluoroalkyl Substances		--	**15,351.7**	**636.4**	**802.9**	**18.9**	**7.1**	**4.7**

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: S72011.01(01)
Generated on 03/19/2025

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): S72011.01
Project: RACER Coldwater Road
Collected Date(s): 03/05/2025
Submitted Date/Time: 03/05/2025 13:00
Sampled by: Kevin Schneider
P.O. #: 1940008845

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
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 2020
SM2550B	Standard Method 2550 B 2010
SM4500-H+ B	Standard Method 4500 H + B 2021
SM4500-NH3 G	Standard Method 4500 NH3 G 2021
SM4500-PE	Standard Method 4500 P E 2021 / 4500 P B(5) 2021
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
S72011.01	01-PRCC-25-20250305	Wastewater	03/05/25 10:45

Analytical Laboratory Report

Lab Sample ID: S72011.01
Sample Tag: 01-PRCC-25-20250305
Collected Date/Time: 03/05/2025 10:45
Matrix: Wastewater
COC Reference: 172718

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Plastic	None	Yes	4.3	IR
1	125mL Plastic	HNO3	Yes	4.3	IR
1	125mL Plastic	None	Yes	4.3	IR
1	125mL Amber	PbCO3/NaOH	Yes	4.3	IR
1	32oz Glass	HCL	Yes	4.3	IR
1	250mL Plastic	H2SO4	Yes	4.3	IR
1	250mL Amber	H2SO4	Yes	4.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Mercury Digestion	Completed	E245.1	03/06/25 11:35	CTV	
TBOD5 - Set*	Completed	SM5210B/HACH1036	03/06/25 16:15	MDG	
Metal Digestion	Completed	SW3015A	03/06/25 10:40	CCM	

Inorganics

Method: E1664A, Run Date: 03/06/25 12:00, 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: 03/07/25 15:00, Analyst: SRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Suspended Solids	15.5	4		mg/L	1.7		

Method: SM2550B, Run Date: 03/05/25 10:45, Analyst: KS

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Field Temperature*	48	1		oF	1		

Method: SM4500-H+ B, Run Date: 03/05/25 10:45, Analyst: KS

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Field pH*	7.90	0.01		STD Units	1		

Method: SM4500-NH3 G, Run Date: 03/12/25 14:20, Analyst: MJC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Ammonia-N (Undistilled)*	4.2	0.1		mg/L	5	7664-41-7	

Method: SM4500-PE, Run Date: 03/13/25 16:05, Analyst: MJC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Phosphorus*	0.03	0.01	0.009	mg/L	1	7723-14-0	

Method: SM5210B/HACH1036, Run Date: 03/11/25 17:06, Analyst: SSM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
TBOD5*	7.1	3		mg/L	3		

Lab Sample ID: S72011.01 (continued)

Sample Tag: 01-PRCC-25-20250305

Metals

Method: E200.8, Run Date: 03/06/25 12:50, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	0.007	0.002		mg/L	5	7440-38-2	
Chromium	0.085	0.005		mg/L	5	7440-47-3	
Copper	0.594	0.005		mg/L	5	7440-50-8	
Nickel	0.122	0.005		mg/L	5	7440-02-0	
Zinc	0.016	0.005		mg/L	5	7440-66-6	

Method: E245.1, Run Date: 03/06/25 16:30, 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: 03/18/25 14:40, Analyst: ASB

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: S72011
Client: RAMBOLL (Ramboll Americas)
Project: RACER Coldwater Road
Submitted: 03/05/2025 13:00 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 4.3
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: S72011 Submitted: 03/05/2025 13:00

Client: RAMBOLL (Ramboll Americas)

Project: RACER Coldwater Road

Initial Preservation Check: 03/05/2025 14:09 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
S72011.01	125mL Amber PbCO3/NaOH	>12			
S72011.01	125mL Plastic HNO3	<2			
S72011.01	250mL Amber H2SO4	<2			
S72011.01	250mL Plastic H2SO4	<2			
S72011.01	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

172718

CHAIN OF CUSTODY RECORD

REPORT TO

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

INVOICE TO

CONTACT NAME: ☒ 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

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

DELIVERABLES REQUIRED ☒ 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	Total Metals	Available Cyanide	BOD	TSS	Ammonia-Nitrogen	Total Phosphorus	FOG (Hex-Ext)	Special Instructions
72011.01	3/5/25	1045	01-PRCC-25-20250305	ww	8	3	1	1	2			1	X	X	X	X	X	X	X	Metals Are: As, Cr, Cu, Hg, Ni, Zn
																				Analysis Per City of Flint including QC Report
																				Field Temp 8.7°C
																				Field pH 7.90

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
	☒ Sampler	3/5/25	1200
RECEIVED BY: SIGNATURE/ORGANIZATION		3/5/25	1200
RELINQUISHED BY: SIGNATURE/ORGANIZATION		3/5/25	1710
RECEIVED BY: SIGNATURE/ORGANIZATION		3/5/25	1300

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME
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 4.3

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

Rev. 05/24

Quality Control Report

Report ID: QC-S72011-01
Generated on 03/20/2025

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): S72011.01
Project: RACER Coldwater Road
Submitted Date/Time: 03/05/2025 13:00
Sampled by: Kevin Schneider
P.O. #: 1940008845

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: S72011.01

Sample Tag: 01-PRCC-25-20250305

Collected Date/Time: 03/05/2025 10:45

Matrix: Wastewater

COC Reference: 172718

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Ammonia-N (Undistilled)	SM4500-NH3 G	03/12/25 14:20	AMN250312B	AMN250312B	No	BLK/LCS/MS/DUP
Oil & Grease n-Hexane Extract.	E1664A	03/06/25 12:00	OGHEX250306W1	OGHEX250306W1	No	BLK/LCS
TBOD5	SM5210B/HACH10360	03/11/25 17:06	BOD250306A	BOD250306A	No	BLK/LCS/DUP
Total Phosphorus	SM4500-PE	03/13/25 16:05	PHS250313QC	PHS250313QC	No	BLK/LCS/MS/DUP
Total Suspended Solids	SM2540D	03/07/25 15:00	TSS250307A	TSS250307A	No	BLK/LCS/DUP
Metals						
Arsenic	E200.8	03/06/25 12:50	MT4-25-0306A	MTD-030625-2	No	BLK/LCS/MS/MSD
Chromium	E200.8	03/06/25 12:50	MT4-25-0306A	MTD-030625-2	No	BLK/LCS/MS/MSD
Copper	E200.8	03/06/25 12:50	MT4-25-0306A	MTD-030625-2	No	BLK/LCS/MS/MSD
Mercury	E245.1	03/06/25 16:30	HG-25-0306A	HGD-030625-3	No	BLK/LCS/MS/MSD
Nickel	E200.8	03/06/25 12:50	MT4-25-0306A	MTD-030625-2	No	BLK/LCS/MS/MSD
Zinc	E200.8	03/06/25 12:50	MT4-25-0306A	MTD-030625-2	No	BLK/LCS/MS/MSD
Other / Misc.						
Available Cyanide	OIA-1677	03/18/25 14:40	ACN250318-W1	ACN250318-W1	No	BLK/LCS/MS/DUP

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: AMN250312B

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S72011.01	Ammonia-N (Undistilled)	SM4500-NH3 G	03/12/25 14:20	AMN250312B

Inorganics, Prep Batch ID: BOD250306A

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S72011.01	TBOD5	SM5210B/HACH10360	03/11/25 17:06	BOD250306A

Inorganics, Prep Batch ID: OGHEX250306W1

Surrogates: No, QC Types: BLK/LCS

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S72011.01	Oil & Grease n-Hexane Extract.	E1664A	03/06/25 12:00	OGHEX250306W1

Inorganics, Prep Batch ID: PHS250313QC

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S72011.01	Total Phosphorus	SM4500-PE	03/13/25 16:05	PHS250313QC

Inorganics, Prep Batch ID: TSS250307A

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S72011.01	Total Suspended Solids	SM2540D	03/07/25 15:00	TSS250307A

Metals, Prep Batch ID: HGD-030625-3

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S72011.01	Mercury	E245.1	03/06/25 16:30	HG-25-0306A

Metals, Prep Batch ID: MTD-030625-2

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S72011.01	Arsenic	E200.8	03/06/25 12:50	MT4-25-0306A
S72011.01	Chromium	E200.8	03/06/25 12:50	MT4-25-0306A
S72011.01	Copper	E200.8	03/06/25 12:50	MT4-25-0306A
S72011.01	Nickel	E200.8	03/06/25 12:50	MT4-25-0306A
S72011.01	Zinc	E200.8	03/06/25 12:50	MT4-25-0306A

Other / Misc., Prep Batch ID: ACN250318-W1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S72011.01	Available Cyanide	OIA-1677	03/18/25 14:40	ACN250318-W1

Inorganics, Prep Batch ID: AMN250312B

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

Blank (BLK)

Lab Sample ID: AMN250312B.LRB1

Run in Batch: AMN250312B, Run Date: 03/12/2025 12:16, Prep Date: 03/12/2025, Matrix: Liquid, Dilution: 1

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

Laboratory Control Sample (LCS)

Lab Sample ID: AMN250312B.LCS1

Run in Batch: AMN250312B, Run Date: 03/12/2025 12:20, Prep Date: 03/12/2025, Matrix: Liquid, Dilution: 1

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

Matrix Spike (MS)

Lab Sample ID: AMN250312B.MS1, Parent Sample ID: S72023.02

Run in Batch: AMN250312B, Run Date: 03/12/2025 12:36, Prep Date: 03/12/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Ammonia-N (Undistilled)		113.0	80	120

Duplicate (DUP)

Lab Sample ID: AMN250312B.DP1, Parent Sample ID: S71958.01

Run in Batch: AMN250312B, Run Date: 03/12/2025 12:48, Prep Date: 03/12/2025, Matrix: Liquid, Dilution: 50

Analyte	Flags	RPD	RPD CL
Ammonia-N (Undistilled)		1.8	20

Inorganics, Prep Batch ID: BOD250306A

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

Blank (BLK)

Lab Sample ID: BOD250306A.LRB1

Run in Batch: BOD250306A, Run Date: 03/11/2025 17:06, Prep Date: 03/11/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
TBOD5		ND	3	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: BOD250306A.LCS1

Run in Batch: BOD250306A, Run Date: 03/11/2025 17:06, Prep Date: 03/11/2025, Matrix: Liquid, Dilution: 30

Analyte	Flags	% Rec	LCL	UCL
TBOD5		96.6	51	166

Duplicate (DUP)

Lab Sample ID: BOD250306A.DP1, Parent Sample ID: S71955.02

Run in Batch: BOD250306A, Run Date: 03/11/2025 17:06, Prep Date: 03/11/2025, Matrix: Liquid, Dilution: 60

Analyte	Flags	RPD	RPD CL
TBOD5		0.0	20

Inorganics, Prep Batch ID: OGHEX250306W1

Surrogates: No, QC Types: BLK/LCS

Blank (BLK)

Lab Sample ID: OGHEX250306W1.LRB1

Run in Batch: OGHEX250306W1, Run Date: 03/06/2025 12:00, Prep Date: 03/06/2025, 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: OGHEX250306W1.LCS1

Run in Batch: OGHEX250306W1, Run Date: 03/06/2025 12:00, Prep Date: 03/06/2025, Matrix: Liquid, Dilution: 1

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

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX250306W1.LCS2

Run in Batch: OGHEX250306W1, Run Date: 03/06/2025 12:00, Prep Date: 03/06/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Oil & Grease n-Hexane Extract.		80	78	114

Inorganics, Prep Batch ID: PHS250313QC

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

Blank (BLK)

Lab Sample ID: PHS250313QC.LRB1

Run in Batch: PHS250313QC, Run Date: 03/13/2025 15:07, Prep Date: 03/13/2025, Matrix: Liquid, Dilution: 1

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

Blank (BLK)

Lab Sample ID: PHS250313QC.LRB2

Run in Batch: PHS250313QC, Run Date: 03/13/2025 15:53, Prep Date: 03/13/2025, Matrix: Liquid, Dilution: 1

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

Laboratory Control Sample (LCS)

Lab Sample ID: PHS250313QC.LCS1

Run in Batch: PHS250313QC, Run Date: 03/13/2025 16:01, Prep Date: 03/13/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Total Phosphorus		95	90	110

Matrix Spike (MS)

Lab Sample ID: PHS250313QC.MS1, Parent Sample ID: S22023.01

Run in Batch: PHS250313QC, Run Date: 03/13/2025 20:19, Prep Date: 03/13/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Total Phosphorus		99	80	120

Duplicate (DUP)

Lab Sample ID: PHS250313QC.DP1, Parent Sample ID: S72175.06

Run in Batch: PHS250313QC, Run Date: 03/13/2025 20:16, Prep Date: 03/13/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	RPD	RPD CL
Total Phosphorus		2.3	20

Inorganics, Prep Batch ID: TSS250307A

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

Blank (BLK)

Lab Sample ID: TSS250307A.LRB1

Run in Batch: TSS250307A, Run Date: 03/07/2025 15:00, Prep Date: 03/07/2025, Matrix: Liquid, Dilution: 1

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

Laboratory Control Sample (LCS)

Lab Sample ID: TSS250307A.LCS1

Run in Batch: TSS250307A, Run Date: 03/07/2025 15:00, Prep Date: 03/07/2025, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Total Suspended Solids		94.1	73.3	118

Duplicate (DUP)

Lab Sample ID: TSS250307A.DP1, Parent Sample ID: S72091.06

Run in Batch: TSS250307A, Run Date: 03/07/2025 15:00, Prep Date: 03/07/2025, Matrix: Liquid, Dilution: 5

Analyte	Flags	RPD	RPD CL
Total Suspended Solids		1.7	10

QC Report - Batch QC Results

Metals, Prep Batch ID: HGD-030625-3

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

Blank (BLK)

Lab Sample ID: HG-25-0306A.066.LRB

Run in Batch: HG-25-0306A, Run Date: 03/06/2025 16:11, Prep Date: 03/06/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Mercury		ND	0.05	ug/L

Laboratory Control Sample (LCS)

Lab Sample ID: HG-25-0306A.065.LCS

Run in Batch: HG-25-0306A, Run Date: 03/06/2025 16:07, Prep Date: 03/06/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Mercury		99	85	115

Matrix Spike (MS)

Lab Sample ID: HG-25-0306A.069.MS, Parent Sample ID: S71917.01

Run in Batch: HG-25-0306A, Run Date: 03/06/2025 16:21, Prep Date: 03/06/2025, Matrix: Liquid, Dilution: 2

Analyte	Flags	% Rec	LCL	UCL
Mercury		102	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG-25-0306A.070.MSD, Parent Sample ID: HG-25-0306A.069.MS

Run in Batch: HG-25-0306A, Run Date: 03/06/2025 16:24, Prep Date: 03/06/2025, Matrix: Liquid, Dilution: 2

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Mercury		103	80	120	1	20

Metals, Prep Batch ID: MTD-030625-2

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

Blank (BLK)

Lab Sample ID: MT4-25-0306A.023.LRB

Run in Batch: MT4-25-0306A, Run Date: 03/06/2025 12:02, Prep Date: 03/06/2025, 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: MT4-25-0306A.022.LCS

Run in Batch: MT4-25-0306A, Run Date: 03/06/2025 11:59, Prep Date: 03/06/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Arsenic		99	85	115
Chromium		100	85	115
Copper		107	85	115
Nickel		103	85	115
Zinc		101	85	115

Matrix Spike (MS)

Lab Sample ID: MT4-25-0306A.046.MS, Parent Sample ID: S71940.01

Run in Batch: MT4-25-0306A, Run Date: 03/06/2025 12:52, Prep Date: 03/06/2025, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		112	75	125
Chromium		117	75	125
Copper		106	75	125
Nickel		114	75	125
Zinc		108	75	125

Matrix Spike (MS)

Lab Sample ID: MT4-25-0306A.075.MS, Parent Sample ID: S72023.01

Run in Batch: MT4-25-0306A, Run Date: 03/06/2025 13:49, Prep Date: 03/06/2025, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		115	75	125
Chromium		113	75	125
Copper		109	75	125
Nickel		112	75	125
Zinc		108	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-25-0306A.047.MSD, Parent Sample ID: MT4-25-0306A.046.MS

Run in Batch: MT4-25-0306A, Run Date: 03/06/2025 12:54, Prep Date: 03/06/2025, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		114	75	125	1	20
Chromium		117	75	125	0	20
Copper		110	75	125	3	20
Nickel		115	75	125	1	20
Zinc		112	75	125	4	20

Metals, Prep Batch ID: MTD-030625-2 (continued)

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

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT4-25-0306A.076.MSD, Parent Sample ID: MT4-25-0306A.075.MS

Run in Batch: MT4-25-0306A, Run Date: 03/06/2025 13:50, Prep Date: 03/06/2025, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		116	75	125	1	20
Chromium		115	75	125	2	20
Copper		111	75	125	1	20
Nickel		114	75	125	2	20
Zinc		114	75	125	5	20

Other / Misc., Prep Batch ID: ACN250318-W1

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

Blank (BLK)

Lab Sample ID: ACN250318-W1.LRB1

Run in Batch: ACN250318-W1, Run Date: 03/18/2025 14:16, Prep Date: 03/18/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Available Cyanide		ND	0.002	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: ACN250318-W1.LCS1

Run in Batch: ACN250318-W1, Run Date: 03/18/2025 14:20, Prep Date: 03/18/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Available Cyanide		104.8	82	132

Laboratory Control Sample (LCS)

Lab Sample ID: ACN250318-W1.LCS2

Run in Batch: ACN250318-W1, Run Date: 03/18/2025 14:22, Prep Date: 03/18/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Available Cyanide		98.8	82	132

Matrix Spike (MS)

Lab Sample ID: ACN250318-W1.MS1, Parent Sample ID: S72005.05

Run in Batch: ACN250318-W1, Run Date: 03/18/2025 14:32, Prep Date: 03/18/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Available Cyanide		104.4	82	130

Duplicate (DUP)

Lab Sample ID: ACN250318-W1.DP1, Parent Sample ID: S72005.05

Run in Batch: ACN250318-W1, Run Date: 03/18/2025 14:34, Prep Date: 03/18/2025, Matrix: Liquid, Dilution: 1

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

172718

CHAIN OF CUSTODY RECORD

REPORT TO

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

INVOICE TO

CONTACT NAME: ☒ 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

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

DELIVERABLES REQUIRED ☒ 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	Total Metals	Available Cyanide	BOD	TSS	Ammonia-Nitrogen	Total Phosphorus	FOG (Hex-Ext)	Special Instructions
72011.01	3/5/25	1045	01-PRCC-25-20250305	ww	8	3	1	1	2			1	X	X	X	X	X	X	X	Metals Are: As, Cr, Cu, Hg, Ni, Zn
																				Analysis Per City of Flint including QC Report
																				Field Temp 8.7°C
																				Field pH 7.90

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
	☒ Sampler	3/5/25	1200
RECEIVED BY: SIGNATURE/ORGANIZATION		3/5/25	1200
RELINQUISHED BY: SIGNATURE/ORGANIZATION		3/5/25	1710
RECEIVED BY: SIGNATURE/ORGANIZATION		3/5/25	1300

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME
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 4.3

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

Rev. 05/24

Analytical Laboratory Report

Report ID: S72853.01(01)
Generated on 04/15/2025

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): S72853.01-S72853.06
Project: RACER - Coldwater Road
Collected Date(s): 03/26/2025 - 03/27/2025
Submitted Date/Time: 03/28/2025 08:15
Sampled by: Clifford Yantz
P.O. #: 194011180 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	80988-54-1
PFHxSA	Perfluorohexanesulfonamide	41997-13-1

Sample Summary (6 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S72853.01	01-PRCC-25-INF-20250326	Wastewater	03/26/25 08:55
S72853.02	01-PRCC-25-PRIM-20250326	Wastewater	03/26/25 09:05
S72853.03	01-PRCC-25-EFF-123-20250327	Wastewater	03/27/25 15:25
S72853.04	01-PRCC-25-MID-2-123-20250327	Wastewater	03/27/25 15:28
S72853.05	01-PRCC-25-MID-1-123-20250327	Wastewater	03/27/25 15:32
S72853.06	01-PRCC-25-PRIM-123-20250327	Wastewater	03/27/25 15:35

Analytical Laboratory Report

Lab Sample ID: S72853.01
Sample Tag: 01-PRCC-25-INF-20250326
Collected Date/Time: 03/26/2025 08:55
Matrix: Wastewater
COC Reference: 69302

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.49/6.48/10	ASTMD7979-19M	03/28/25 12:30	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 03/28/25 19:56, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	45	2.0	ng/L	2	375-22-4	X
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	52	1.2	ng/L	2	307-24-4	X
PFBS*	54	2.0	0.60	ng/L	2	375-73-5	
PFHpA*	14	2.0	0.80	ng/L	2	375-85-9	
PFPeS*	100	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*	42	2.0	0.80	ng/L	2	335-67-1	
PFHxS*	350	2.0	1.0	ng/L	2	355-46-4	
PFHxS-LN*	290	2.0	1.0	ng/L	2	355-46-4-LN	
PFHxS-BR*	52	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*	91	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*	5,300	2.0	0.80	ng/L	2	1763-23-1	
PFOS-LN*	3,200	2.0	0.80	ng/L	2	1763-23-1-LN	
PFOS-BR*	2,100	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	2.1	1.0	ng/L	2	68259-12-1	X
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*	0.66	2.0	0.60	ng/L	2	30334-69-1	J

X-Elevated reporting limit due to matrix interference

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

Lab Sample ID: S72853.01 (continued)

Sample Tag: 01-PRCC-25-INF-20250326

34 PFAs, Method: ASTMD7979-19M, Run Date: 03/28/25 19:56, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	9,400	2.0	0.80	ng/L	2	80988-54-1	
PFHxSA*	Not detected	2.0	0.60	ng/L	2	41997-13-1	

Analytical Laboratory Report

Lab Sample ID: S72853.02
Sample Tag: 01-PRCC-25-PRIM-20250326
Collected Date/Time: 03/26/2025 09:05
Matrix: Wastewater
COC Reference: 69302

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.51/6.48/10	ASTMD7979-19M	03/28/25 12:30	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 03/28/25 20:16, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	11	2.0	ng/L	1.99	375-22-4	X
PFPeA*	Not detected	4.0	1.2	ng/L	1.99	2706-90-3	
4:2 FTSA*	Not detected	2.0	0.20	ng/L	1.99	757124-72-4	
PFHxA*	Not detected	3.4	1.2	ng/L	1.99	307-24-4	X
PFBS*	3.8	2.0	0.60	ng/L	1.99	375-73-5	
PFHpA*	1.0	2.0	0.80	ng/L	1.99	375-85-9	J
PFPeS*	4.5	2.0	1.8	ng/L	1.99	2706-91-4	
6:2 FTSA*	Not detected	2.0	1.00	ng/L	1.99	27619-97-2	
PFOA*	1.6	2.0	0.80	ng/L	1.99	335-67-1	J
PFHxS*	14	2.0	1.00	ng/L	1.99	355-46-4	
PFHxS-LN*	9.9	2.0	1.00	ng/L	1.99	355-46-4-LN	
PFHxS-BR*	3.6	2.0	1.00	ng/L	1.99	355-46-4-BR	
PFNA*	Not detected	2.0	1.00	ng/L	1.99	375-95-1	
8:2 FTSA*	Not detected	2.0	1.2	ng/L	1.99	39108-34-4	
PFHpS*	1.5	2.0	0.80	ng/L	1.99	375-92-8	J
PFDA*	Not detected	2.0	1.2	ng/L	1.99	335-76-2	
N-MeFOSAA*	Not detected	2.0	1.00	ng/L	1.99	2355-31-9	
EtFOSAA*	Not detected	4.0	1.00	ng/L	1.99	2991-50-6	
PFOS*	140	2.0	0.80	ng/L	1.99	1763-23-1	
PFOS-LN*	64	2.0	0.80	ng/L	1.99	1763-23-1-LN	
PFOS-BR*	72	2.0	0.80	ng/L	1.99	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.80	ng/L	1.99	2058-94-8	
PFNS*	Not detected	2.0	1.00	ng/L	1.99	68259-12-1	
PFDoDA*	Not detected	2.0	0.60	ng/L	1.99	307-55-1	
PFDS*	Not detected	2.0	1.00	ng/L	1.99	335-77-3	
PFTrDA*	Not detected	2.0	0.80	ng/L	1.99	72629-94-8	
FOSA*	Not detected	2.0	0.80	ng/L	1.99	754-91-6	
PFTeDA*	Not detected	4.0	0.60	ng/L	1.99	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.00	ng/L	1.99	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.00	ng/L	1.99	756426-58-1	
ADONA*	Not detected	2.0	0.60	ng/L	1.99	919005-14-4	
HFPO-DA*	Not detected	10.0	2.0	ng/L	1.99	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10.0	8.0	ng/L	1.99	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10.0	4.0	ng/L	1.99	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10.0	4.0	ng/L	1.99	356-02-5	

X-Elevated reporting limit due to matrix interference
J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S72853.02 (continued)

Sample Tag: 01-PRCC-25-PRIM-20250326

34 PFAs, Method: ASTMD7979-19M, Run Date: 03/28/25 20:16, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBSA*	Not detected	2.0	0.60	ng/L	1.99	30334-69-1	
PFECHS*	470	2.0	0.80	ng/L	1.99	80988-54-1	
PFHxSA*	Not detected	2.0	0.60	ng/L	1.99	41997-13-1	

Analytical Laboratory Report

Lab Sample ID: S72853.03
Sample Tag: 01-PRCC-25-EFF-123-20250327
Collected Date/Time: 03/27/2025 15:25
Matrix: Wastewater
COC Reference: 69302

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.64/6.48/10	ASTMD7979-19M	03/28/25 12:30	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 03/28/25 20:36, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	9.7	1.9	ng/L	1.94	375-22-4	
PFPeA*	Not detected	3.9	1.2	ng/L	1.94	2706-90-3	
4:2 FTSA*	Not detected	1.9	0.19	ng/L	1.94	757124-72-4	
PFHxA*	Not detected	1.9	1.2	ng/L	1.94	307-24-4	
PFBS*	Not detected	1.9	0.58	ng/L	1.94	375-73-5	
PFHpA*	Not detected	1.9	0.78	ng/L	1.94	375-85-9	
PFPeS*	Not detected	1.9	1.7	ng/L	1.94	2706-91-4	
6:2 FTSA*	Not detected	1.9	0.97	ng/L	1.94	27619-97-2	
PFOA*	Not detected	1.9	0.78	ng/L	1.94	335-67-1	
PFHxS*	Not detected	1.9	0.97	ng/L	1.94	355-46-4	
PFHxS-LN*	Not detected	1.9	0.97	ng/L	1.94	355-46-4-LN	
PFHxS-BR*	Not detected	1.9	0.97	ng/L	1.94	355-46-4-BR	
PFNA*	Not detected	1.9	0.97	ng/L	1.94	375-95-1	
8:2 FTSA*	Not detected	1.9	1.2	ng/L	1.94	39108-34-4	
PFHpS*	Not detected	1.9	0.78	ng/L	1.94	375-92-8	
PFDA*	Not detected	1.9	1.2	ng/L	1.94	335-76-2	
N-MeFOSAA*	Not detected	1.9	0.97	ng/L	1.94	2355-31-9	
EtFOSAA*	Not detected	3.9	0.97	ng/L	1.94	2991-50-6	
PFOS*	4.7	1.9	0.78	ng/L	1.94	1763-23-1	
PFOS-LN*	3.3	1.9	0.78	ng/L	1.94	1763-23-1-LN	
PFOS-BR*	1.0	1.9	0.78	ng/L	1.94	1763-23-1-BR	J
PFUnDA*	Not detected	1.9	0.78	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	0.97	ng/L	1.94	335-77-3	
PFTrDA*	Not detected	1.9	0.78	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	0.58	ng/L	1.94	376-06-7	
11Cl-PF3OUdS*	Not detected	1.9	0.97	ng/L	1.94	763051-92-9	
9Cl-PF3ONS*	Not detected	1.9	0.97	ng/L	1.94	756426-58-1	
ADONA*	Not detected	1.9	0.58	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	7.8	ng/L	1.94	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.7	3.9	ng/L	1.94	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.7	3.9	ng/L	1.94	356-02-5	
PFBSA*	Not detected	1.9	0.58	ng/L	1.94	30334-69-1	

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

Lab Sample ID: S72853.03 (continued)

Sample Tag: 01-PRCC-25-EFF-123-20250327

34 PFAs, Method: ASTMD7979-19M, Run Date: 03/28/25 20:36, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	Not detected	1.9	0.78	ng/L	1.94	80988-54-1	
PFHxSA*	Not detected	1.9	0.58	ng/L	1.94	41997-13-1	

Analytical Laboratory Report

Lab Sample ID: S72853.04
Sample Tag: 01-PRCC-25-MID-2-123-20250327
Collected Date/Time: 03/27/2025 15:28
Matrix: Wastewater
COC Reference: 69302

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.75/6.48/11	ASTMD7979-19M	03/28/25 12:30	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 03/28/25 20:56, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	2.1	ng/L	2.09	375-22-4	
PFPeA*	Not detected	4.2	1.3	ng/L	2.09	2706-90-3	
4:2 FTSA*	Not detected	2.1	0.21	ng/L	2.09	757124-72-4	
PFHxA*	Not detected	2.1	1.3	ng/L	2.09	307-24-4	
PFBS*	Not detected	2.1	0.63	ng/L	2.09	375-73-5	
PFHpA*	Not detected	2.1	0.84	ng/L	2.09	375-85-9	
PFPeS*	Not detected	2.1	1.9	ng/L	2.09	2706-91-4	
6:2 FTSA*	Not detected	2.1	1.0	ng/L	2.09	27619-97-2	
PFOA*	Not detected	2.1	0.84	ng/L	2.09	335-67-1	
PFHxS*	Not detected	2.1	1.0	ng/L	2.09	355-46-4	
PFHxS-LN*	Not detected	2.1	1.0	ng/L	2.09	355-46-4-LN	
PFHxS-BR*	Not detected	2.1	1.0	ng/L	2.09	355-46-4-BR	
PFNA*	Not detected	2.1	1.0	ng/L	2.09	375-95-1	
8:2 FTSA*	Not detected	2.1	1.3	ng/L	2.09	39108-34-4	
PFHpS*	Not detected	2.1	0.84	ng/L	2.09	375-92-8	
PFDA*	Not detected	2.1	1.3	ng/L	2.09	335-76-2	
N-MeFOSAA*	Not detected	2.1	1.0	ng/L	2.09	2355-31-9	
EtFOSAA*	Not detected	4.2	1.0	ng/L	2.09	2991-50-6	
PFOS*	7.1	2.1	0.84	ng/L	2.09	1763-23-1	
PFOS-LN*	5.2	2.1	0.84	ng/L	2.09	1763-23-1-LN	
PFOS-BR*	1.3	2.1	0.84	ng/L	2.09	1763-23-1-BR	J
PFUnDA*	Not detected	2.1	0.84	ng/L	2.09	2058-94-8	
PFNS*	Not detected	2.1	1.0	ng/L	2.09	68259-12-1	
PFDoDA*	Not detected	2.1	0.63	ng/L	2.09	307-55-1	
PFDS*	Not detected	2.1	1.0	ng/L	2.09	335-77-3	
PFTrDA*	Not detected	2.1	0.84	ng/L	2.09	72629-94-8	
FOSA*	Not detected	2.1	0.84	ng/L	2.09	754-91-6	
PFTeDA*	Not detected	4.2	0.63	ng/L	2.09	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	1.0	ng/L	2.09	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	1.0	ng/L	2.09	756426-58-1	
ADONA*	Not detected	2.1	0.63	ng/L	2.09	919005-14-4	
HFPO-DA*	Not detected	10	2.1	ng/L	2.09	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10	8.4	ng/L	2.09	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	4.2	ng/L	2.09	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	4.2	ng/L	2.09	356-02-5	
PFBSA*	Not detected	2.1	0.63	ng/L	2.09	30334-69-1	

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

Lab Sample ID: S72853.04 (continued)

Sample Tag: 01-PRCC-25-MID-2-123-20250327

34 PFAs, Method: ASTMD7979-19M, Run Date: 03/28/25 20:56, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	Not detected	2.1	0.84	ng/L	2.09	80988-54-1	
PFHxSA*	Not detected	2.1	0.63	ng/L	2.09	41997-13-1	

Analytical Laboratory Report

Lab Sample ID: S72853.05
Sample Tag: 01-PRCC-25-MID-1-123-20250327
Collected Date/Time: 03/27/2025 15:32
Matrix: Wastewater
COC Reference: 69302

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.58/6.48/10	ASTMD7979-19M	03/28/25 12:30	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 03/28/25 21:16, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	9.8	2.0	ng/L	1.96	375-22-4	
PFPeA*	Not detected	3.9	1.2	ng/L	1.96	2706-90-3	
4:2 FTSA*	Not detected	2.0	0.20	ng/L	1.96	757124-72-4	
PFHxA*	Not detected	2.0	1.2	ng/L	1.96	307-24-4	
PFBS*	Not detected	2.0	0.59	ng/L	1.96	375-73-5	
PFHpA*	Not detected	2.0	0.78	ng/L	1.96	375-85-9	
PFPeS*	Not detected	2.0	1.8	ng/L	1.96	2706-91-4	
6:2 FTSA*	Not detected	2.0	0.98	ng/L	1.96	27619-97-2	
PFOA*	Not detected	2.0	0.78	ng/L	1.96	335-67-1	
PFHxS*	Not detected	2.0	0.98	ng/L	1.96	355-46-4	
PFHxS-LN*	Not detected	2.0	0.98	ng/L	1.96	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	0.98	ng/L	1.96	355-46-4-BR	
PFNA*	Not detected	2.0	0.98	ng/L	1.96	375-95-1	
8:2 FTSA*	Not detected	2.0	1.2	ng/L	1.96	39108-34-4	
PFHpS*	Not detected	2.0	0.78	ng/L	1.96	375-92-8	
PFDA*	Not detected	2.0	1.2	ng/L	1.96	335-76-2	
N-MeFOSAA*	Not detected	2.0	0.98	ng/L	1.96	2355-31-9	
EtFOSAA*	Not detected	3.9	0.98	ng/L	1.96	2991-50-6	
PFOS*	17	2.0	0.78	ng/L	1.96	1763-23-1	
PFOS-LN*	11	2.0	0.78	ng/L	1.96	1763-23-1-LN	
PFOS-BR*	4.9	2.0	0.78	ng/L	1.96	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.78	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	0.98	ng/L	1.96	335-77-3	
PFTrDA*	Not detected	2.0	0.78	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	0.59	ng/L	1.96	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	0.98	ng/L	1.96	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	0.98	ng/L	1.96	756426-58-1	
ADONA*	Not detected	2.0	0.59	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	7.8	ng/L	1.96	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.8	3.9	ng/L	1.96	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.8	3.9	ng/L	1.96	356-02-5	
PFBSA*	Not detected	2.0	0.59	ng/L	1.96	30334-69-1	
PFECHS*	1.9	2.0	0.78	ng/L	1.96	80988-54-1	J

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

Lab Sample ID: S72853.05 (continued)

Sample Tag: 01-PRCC-25-MID-1-123-20250327

34 PFAs, Method: ASTMD7979-19M, Run Date: 03/28/25 21:16, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxSA*	Not detected	2.0	0.59	ng/L	1.96	41997-13-1	

Analytical Laboratory Report

Lab Sample ID: S72853.06
Sample Tag: 01-PRCC-25-PRIM-123-20250327
Collected Date/Time: 03/27/2025 15:35
Matrix: Wastewater
COC Reference: 69302

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.07/6.48/12	ASTMD7979-19M	03/28/25 12:30	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 03/28/25 21:36, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	17	2.2	ng/L	2.15	375-22-4	X
PFPeA*	Not detected	4.3	1.3	ng/L	2.15	2706-90-3	
4:2 FTSA*	Not detected	2.2	0.22	ng/L	2.15	757124-72-4	
PFHxA*	Not detected	6.5	1.3	ng/L	2.15	307-24-4	X
PFBS*	2.7	2.2	0.65	ng/L	2.15	375-73-5	
PFHpA*	Not detected	2.2	0.86	ng/L	2.15	375-85-9	
PFPeS*	3.6	2.2	1.9	ng/L	2.15	2706-91-4	
6:2 FTSA*	Not detected	2.2	1.1	ng/L	2.15	27619-97-2	
PFOA*	1.4	2.2	0.86	ng/L	2.15	335-67-1	J
PFHxS*	13	2.2	1.1	ng/L	2.15	355-46-4	
PFHxS-LN*	10	2.2	1.1	ng/L	2.15	355-46-4-LN	
PFHxS-BR*	3.1	2.2	1.1	ng/L	2.15	355-46-4-BR	
PFNA*	Not detected	2.2	1.1	ng/L	2.15	375-95-1	
8:2 FTSA*	Not detected	2.2	1.3	ng/L	2.15	39108-34-4	
PFHpS*	2.2	2.2	0.86	ng/L	2.15	375-92-8	
PFDA*	Not detected	2.2	1.3	ng/L	2.15	335-76-2	
N-MeFOSAA*	Not detected	2.2	1.1	ng/L	2.15	2355-31-9	
EtFOSAA*	Not detected	4.3	1.1	ng/L	2.15	2991-50-6	
PFOS*	120	2.2	0.86	ng/L	2.15	1763-23-1	
PFOS-LN*	57	2.2	0.86	ng/L	2.15	1763-23-1-LN	
PFOS-BR*	62	2.2	0.86	ng/L	2.15	1763-23-1-BR	
PFUnDA*	Not detected	2.2	0.86	ng/L	2.15	2058-94-8	
PFNS*	Not detected	2.2	1.1	ng/L	2.15	68259-12-1	
PFDoDA*	Not detected	2.2	0.65	ng/L	2.15	307-55-1	
PFDS*	Not detected	2.2	1.1	ng/L	2.15	335-77-3	
PFTrDA*	Not detected	2.2	0.86	ng/L	2.15	72629-94-8	
FOSA*	Not detected	2.2	0.86	ng/L	2.15	754-91-6	
PFTeDA*	Not detected	4.3	0.65	ng/L	2.15	376-06-7	
11Cl-PF3OUdS*	Not detected	2.2	1.1	ng/L	2.15	763051-92-9	
9Cl-PF3ONS*	Not detected	2.2	1.1	ng/L	2.15	756426-58-1	
ADONA*	Not detected	2.2	0.65	ng/L	2.15	919005-14-4	
HFPO-DA*	Not detected	11	2.2	ng/L	2.15	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	11	8.6	ng/L	2.15	812-70-4	
FPePA (5:3 FTCA)*	Not detected	11	4.3	ng/L	2.15	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	11	4.3	ng/L	2.15	356-02-5	

X-Elevated reporting limit due to matrix interference
J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S72853.06 (continued)

Sample Tag: 01-PRCC-25-PRIM-123-20250327

34 PFAs, Method: ASTMD7979-19M, Run Date: 03/28/25 21:36, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBSA*	Not detected	2.2	0.65	ng/L	2.15	30334-69-1	
PFECHS*	660	2.2	0.86	ng/L	2.15	80988-54-1	
PFHxSA*	Not detected	2.2	0.65	ng/L	2.15	41997-13-1	

Merit Laboratories Login Checklist

Lab Set ID: S72853
Client: RAMBOLL (Ramboll Americas)
Project: RACER - Coldwater Road
Submitted: 03/28/2025 08:15 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 5.4
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

69302

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Clifford S. Yantz / Kevin Schneider
COMPANY: RAMBOLL
ADDRESS: 2090 Commonwealth Blvd
CITY: Ann Arbor STATE: MI ZIP CODE: 48105
PHONE NO.: 3133330211 FAX NO.:
P.O. NO.: 1940111801 Task 37
E-MAIL ADDRESS: Kevin.Schneider@ramboll.com; Clifford.Yantz@ramboll.com
QUOTE NO.:

INVOICE TO

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

PROJECT NO./NAME: RACER - Coldwater Road
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Clifford S. Yantz / [signature]
TURNAROUND TIME REQUIRED: ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER
DELIVERABLES REQUIRED: ☒ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=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)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	PFAS (29 FA)	Special Instructions
72853.01	3/26/25	08:55	01-PRCC-25-INF-20250326	WW	3	X							X	
.02	3/26/25	09:05	01-PRCC-25-PRIM-20250326	WW	3	X							X	
.03	3/27/25	15:25	01-PRCC-25-EFF-123-20250327	WW	3	X							X	
.04	3/27/25	15:28	01-PRCC-25-MID-2-123-20250327	WW	3	X							X	34 PFAS List
.05	3/27/25	15:32	01-PRCC-25-MID-1-123-20250327	WW	3	X							X	
.06	3/27/25	15:35	01-PRCC-25-PRIM-123-20250327	WW	3	X							X	
														Please provide EDD

		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	[signature] / Ramboll ☒ Sampler	3/27/25	19:11
RELINQUISHED BY: SIGNATURE/ORGANIZATION	MERIT DROP BOX	3/27/25	1917
RELINQUISHED BY: SIGNATURE/ORGANIZATION	Merit Drop BOX	3/27/25	1911
RELINQUISHED BY: SIGNATURE/ORGANIZATION	Merit Fridge	3/27/25	1911

		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	Merit Fridge	3/28/25	0815
RELINQUISHED BY: SIGNATURE/ORGANIZATION	JN Chilcote	3/28/25	0815

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

NOTES: TEMP. ON ARRIVAL
ICE 5.4

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

Rev. 1.15.12

Quality Control Report

Report ID: QC-S72853-01
Generated on 04/16/2025

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): S72853.01-S72853.06
Project: RACER - Coldwater Road
Submitted Date/Time: 03/28/2025 08:15
Sampled by: Clifford Yantz
P.O. #: 194011180 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: S72853.01
Sample Tag: 01-PRCC-25-INF-20250326
Collected Date/Time: 03/26/2025 08:55
Matrix: Wastewater
COC Reference: 69302

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	03/28/25 19:56	AK250328W1	PF250328W1	Yes	BLK/LCS/LCSD/MS/MS

Lab Sample ID: S72853.02

Sample Tag: 01-PRCC-25-PRIM-20250326

Collected Date/Time: 03/26/2025 09:05

Matrix: Wastewater

COC Reference: 69302

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	03/28/25 20:16	AK250328W1	PF250328W1	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S72853.03

Sample Tag: 01-PRCC-25-EFF-123-20250327

Collected Date/Time: 03/27/2025 15:25

Matrix: Wastewater

COC Reference: 69302

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	03/28/25 20:36	AK250328W1	PF250328W1	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S72853.04

Sample Tag: 01-PRCC-25-MID-2-123-20250327

Collected Date/Time: 03/27/2025 15:28

Matrix: Wastewater

COC Reference: 69302

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	03/28/25 20:56	AK250328W1	PF250328W1	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S72853.05

Sample Tag: 01-PRCC-25-MID-1-123-20250327

Collected Date/Time: 03/27/2025 15:32

Matrix: Wastewater

COC Reference: 69302

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	03/28/25 21:16	AK250328W1	PF250328W1	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S72853.06

Sample Tag: 01-PRCC-25-PRIM-123-20250327

Collected Date/Time: 03/27/2025 15:35

Matrix: Wastewater

COC Reference: 69302

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	03/28/25 21:36	AK250328W1	PF250328W1	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: PF250328W1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S72853.01	34 PFAs	ASTMD7979-19M	03/28/25 19:56	AK250328W1
S72853.02	34 PFAs	ASTMD7979-19M	03/28/25 20:16	AK250328W1
S72853.03	34 PFAs	ASTMD7979-19M	03/28/25 20:36	AK250328W1
S72853.04	34 PFAs	ASTMD7979-19M	03/28/25 20:56	AK250328W1
S72853.05	34 PFAs	ASTMD7979-19M	03/28/25 21:16	AK250328W1
S72853.06	34 PFAs	ASTMD7979-19M	03/28/25 21:36	AK250328W1

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S72853.01

Sample Tag: 01-PRCC-25-INF-20250326

Collected Date/Time: 03/26/2025 08:55

Matrix: Wastewater

COC Reference: 69302

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK250328W1, Run Date: 03/28/2025 19:56, Matrix: WW, Dilution: 2

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**144.8**	50.0	150.0
M2-6:2FTSA		**107.9**	50.0	150.0
M2-8:2FTSA		**76.6**	50.0	150.0
M2PFTeDA		**147.1**	12.0	218.0
M3PFBS		**113.0**	50.0	150.0
M3PFHxS		**109.4**	50.0	150.0
M4PFHpA		**120.7**	50.0	150.0
M5PFHxA		**99.0**	50.0	150.0
M5PFPeA		**103.1**	50.0	150.0
M6PFDA		**118.2**	50.0	150.0
M7PFUnDA		**97.6**	50.0	150.0
M8FOSA		**105.2**	50.0	150.0
M8PFOA		**111.9**	50.0	150.0
M8PFOS		**99.8**	50.0	150.0
M9-PFNA		**118.0**	50.0	150.0
MPFBA		**90.0**	50.0	150.0
MPFDoDA		**112.8**	50.0	150.0
d3N-MeFOSAA		**112.6**	50.0	150.0
d5EtFOSAA		**114.1**	50.0	150.0
MHFPO-DA		**101.3**	50.0	150.0
d-N-EtFOSA-M		**109.2**	50.0	150.0
d-N-MeFOSA-M		**111.2**	50.0	150.0
d7-N-MeFOSE-M		**115.5**	50.0	150.0
d9-N-EtFOSE-M		**110.3**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S72853.02

Sample Tag: 01-PRCC-25-PRIM-20250326

Collected Date/Time: 03/26/2025 09:05

Matrix: Wastewater

COC Reference: 69302

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK250328W1, Run Date: 03/28/2025 20:16, Matrix: WW, Dilution: 1.99

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**101.4**	50.0	150.0
M2-6:2FTSA		**95.3**	50.0	150.0
M2-8:2FTSA		**99.8**	50.0	150.0
M2PFTeDA		**94.8**	12.0	218.0
M3PFBS		**100.3**	50.0	150.0
M3PFHxS		**95.9**	50.0	150.0
M4PFHpA		**107.4**	50.0	150.0
M5PFHxA		**101.6**	50.0	150.0
M5PFPeA		**111.2**	50.0	150.0
M6PFDA		**115.2**	50.0	150.0
M7PFUnDA		**91.2**	50.0	150.0
M8FOSA		**100.5**	50.0	150.0
M8PFOA		**102.2**	50.0	150.0
M8PFOS		**105.9**	50.0	150.0
M9-PFNA		**108.5**	50.0	150.0
MPFBA		**110.2**	50.0	150.0
MPFDoDA		**87.2**	50.0	150.0
d3N-MeFOSAA		**111.9**	50.0	150.0
d5EtFOSAA		**101.8**	50.0	150.0
MHFPO-DA		**101.0**	50.0	150.0
d-N-EtFOSA-M		**105.4**	50.0	150.0
d-N-MeFOSA-M		**100.4**	50.0	150.0
d7-N-MeFOSE-M		**100.2**	50.0	150.0
d9-N-EtFOSE-M		**106.6**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S72853.03

Sample Tag: 01-PRCC-25-EFF-123-20250327

Collected Date/Time: 03/27/2025 15:25

Matrix: Wastewater

COC Reference: 69302

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK250328W1, Run Date: 03/28/2025 20:36, Matrix: WW, Dilution: 1.94

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**96.2**	50.0	150.0
M2-6:2FTSA		**90.6**	50.0	150.0
M2-8:2FTSA		**95.2**	50.0	150.0
M2PFTeDA		**111.2**	12.0	218.0
M3PFBS		**100.2**	50.0	150.0
M3PFHxS		**101.2**	50.0	150.0
M4PFHpA		**101.7**	50.0	150.0
M5PFHxA		**106.1**	50.0	150.0
M5PFPeA		**104.9**	50.0	150.0
M6PFDA		**111.9**	50.0	150.0
M7PFUnDA		**92.8**	50.0	150.0
M8FOSA		**111.9**	50.0	150.0
M8PFOA		**116.4**	50.0	150.0
M8PFOS		**120.3**	50.0	150.0
M9-PFNA		**104.9**	50.0	150.0
MPFBA		**106.3**	50.0	150.0
MPFDoDA		**97.5**	50.0	150.0
d3N-MeFOSAA		**103.4**	50.0	150.0
d5EtFOSAA		**104.8**	50.0	150.0
MHFPO-DA		**99.1**	50.0	150.0
d-N-EtFOSA-M		**102.3**	50.0	150.0
d-N-MeFOSA-M		**100.4**	50.0	150.0
d7-N-MeFOSE-M		**98.6**	50.0	150.0
d9-N-EtFOSE-M		**102.9**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S72853.04

Sample Tag: 01-PRCC-25-MID-2-123-20250327

Collected Date/Time: 03/27/2025 15:28

Matrix: Wastewater

COC Reference: 69302

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK250328W1, Run Date: 03/28/2025 20:56, Matrix: WW, Dilution: 2.09

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**105.2**	50.0	150.0
M2-6:2FTSA		**94.2**	50.0	150.0
M2-8:2FTSA		**113.4**	50.0	150.0
M2PFTeDA		**122.4**	12.0	218.0
M3PFBS		**118.5**	50.0	150.0
M3PFHxS		**104.6**	50.0	150.0
M4PFHpA		**114.1**	50.0	150.0
M5PFHxA		**108.7**	50.0	150.0
M5PFPeA		**117.7**	50.0	150.0
M6PFDA		**120.9**	50.0	150.0
M7PFUnDA		**99.3**	50.0	150.0
M8FOSA		**114.3**	50.0	150.0
M8PFOA		**115.9**	50.0	150.0
M8PFOS		**114.0**	50.0	150.0
M9-PFNA		**111.1**	50.0	150.0
MPFBA		**114.9**	50.0	150.0
MPFDoDA		**102.1**	50.0	150.0
d3N-MeFOSAA		**106.3**	50.0	150.0
d5EtFOSAA		**110.5**	50.0	150.0
MHFPO-DA		**99.0**	50.0	150.0
d-N-EtFOSA-M		**115.1**	50.0	150.0
d-N-MeFOSA-M		**118.0**	50.0	150.0
d7-N-MeFOSE-M		**104.9**	50.0	150.0
d9-N-EtFOSE-M		**113.7**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S72853.05

Sample Tag: 01-PRCC-25-MID-1-123-20250327

Collected Date/Time: 03/27/2025 15:32

Matrix: Wastewater

COC Reference: 69302

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK250328W1, Run Date: 03/28/2025 21:16, Matrix: WW, Dilution: 1.96

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**102.9**	50.0	150.0
M2-6:2FTSA		**91.8**	50.0	150.0
M2-8:2FTSA		**125.9**	50.0	150.0
M2PFTeDA		**114.0**	12.0	218.0
M3PFBS		**110.0**	50.0	150.0
M3PFHxS		**100.6**	50.0	150.0
M4PFHpA		**127.7**	50.0	150.0
M5PFHxA		**106.1**	50.0	150.0
M5PFPeA		**110.0**	50.0	150.0
M6PFDA		**106.3**	50.0	150.0
M7PFUnDA		**95.0**	50.0	150.0
M8FOSA		**104.8**	50.0	150.0
M8PFOA		**113.2**	50.0	150.0
M8PFOS		**114.0**	50.0	150.0
M9-PFNA		**103.8**	50.0	150.0
MPFBA		**110.5**	50.0	150.0
MPFDoDA		**97.4**	50.0	150.0
d3N-MeFOSAA		**101.8**	50.0	150.0
d5EtFOSAA		**102.7**	50.0	150.0
MHFPO-DA		**99.3**	50.0	150.0
d-N-EtFOSA-M		**105.5**	50.0	150.0
d-N-MeFOSA-M		**111.6**	50.0	150.0
d7-N-MeFOSE-M		**103.3**	50.0	150.0
d9-N-EtFOSE-M		**102.2**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S72853.06

Sample Tag: 01-PRCC-25-PRIM-123-20250327

Collected Date/Time: 03/27/2025 15:35

Matrix: Wastewater

COC Reference: 69302

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK250328W1, Run Date: 03/28/2025 21:36, Matrix: WW, Dilution: 2.15

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**96.6**	50.0	150.0
M2-6:2FTSA		**96.0**	50.0	150.0
M2-8:2FTSA		**110.0**	50.0	150.0
M2PFTeDA		**135.2**	12.0	218.0
M3PFBS		**120.6**	50.0	150.0
M3PFHxS		**107.5**	50.0	150.0
M4PFHpA		**115.4**	50.0	150.0
M5PFHxA		**119.2**	50.0	150.0
M5PFPeA		**118.0**	50.0	150.0
M6PFDA		**121.9**	50.0	150.0
M7PFUnDA		**97.8**	50.0	150.0
M8FOSA		**110.6**	50.0	150.0
M8PFOA		**110.9**	50.0	150.0
M8PFOS		**110.6**	50.0	150.0
M9-PFNA		**118.2**	50.0	150.0
MPFBA		**119.0**	50.0	150.0
MPFDoDA		**102.3**	50.0	150.0
d3N-MeFOSAA		**104.8**	50.0	150.0
d5EtFOSAA		**126.7**	50.0	150.0
MHFPO-DA		**109.6**	50.0	150.0
d-N-EtFOSA-M		**119.6**	50.0	150.0
d-N-MeFOSA-M		**114.9**	50.0	150.0
d7-N-MeFOSE-M		**109.2**	50.0	150.0
d9-N-EtFOSE-M		**119.9**	50.0	150.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: PF250328W1

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

Blank (BLK)

Lab Sample ID: AK250328W1.BLK250328

Run in Batch: AK250328W1, Run Date: 03/28/2025 15:15, Prep Date: 03/28/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**98.8**	50.0	150.0
M2-6:2FTSA		**89.5**	50.0	150.0
M2-8:2FTSA		**90.3**	50.0	150.0
M2PFTeDA		**75.0**	12.0	218.0
M3PFBS		**93.3**	50.0	150.0
M3PFHxS		**87.7**	50.0	150.0
M4PFHpA		**93.6**	50.0	150.0
M5PFHxA		**85.4**	50.0	150.0
M5PFPeA		**91.1**	50.0	150.0
M6PFDA		**95.6**	50.0	150.0
M7PFUnDA		**87.2**	50.0	150.0
M8FOSA		**88.1**	50.0	150.0
M8PFOA		**91.8**	50.0	150.0
M8PFOS		**92.0**	50.0	150.0
M9-PFNA		**86.0**	50.0	150.0
MPFBA		**96.0**	50.0	150.0
MPFDoDA		**70.1**	50.0	150.0
d3N-MeFOSAA		**92.7**	50.0	150.0
d5EtFOSAA		**87.6**	50.0	150.0
MHFPO-DA		**83.0**	50.0	150.0
d-N-EtFOSA-M		**79.3**	50.0	150.0
d-N-MeFOSA-M		**87.3**	50.0	150.0
d7-N-MeFOSE-M		**84.9**	50.0	150.0
d9-N-EtFOSE-M		**92.3**	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample (LCS)

Lab Sample ID: AK250328W1.LCS250328

Run in Batch: AK250328W1, Run Date: 03/28/2025 14:35, Prep Date: 03/28/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**109.8**	50.0	150.0
M2-6:2FTSA		**96.2**	50.0	150.0
M2-8:2FTSA		**99.4**	50.0	150.0
M2PFTeDA		**87.0**	12.0	218.0
M3PFBS		**102.8**	50.0	150.0
M3PFHxS		**92.8**	50.0	150.0
M4PFHpA		**104.2**	50.0	150.0
M5PFHxA		**92.6**	50.0	150.0
M5PFPeA		**103.2**	50.0	150.0
M6PFDA		**102.6**	50.0	150.0
M7PFUnDA		**84.5**	50.0	150.0
M8FOSA		**96.4**	50.0	150.0
M8PFOA		**91.8**	50.0	150.0
M8PFOS		**111.5**	50.0	150.0
M9-PFNA		**101.7**	50.0	150.0
MPFBA		**103.1**	50.0	150.0
MPFDoDA		**86.1**	50.0	150.0
d3N-MeFOSAA		**110.0**	50.0	150.0
d5EtFOSAA		**106.5**	50.0	150.0
MHFPO-DA		**89.6**	50.0	150.0
d-N-EtFOSA-M		**96.9**	50.0	150.0
d-N-MeFOSA-M		**96.1**	50.0	150.0
d7-N-MeFOSE-M		**100.2**	50.0	150.0
d9-N-EtFOSE-M		**92.2**	50.0	150.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK250328W1.LCSD250328, Parent Sample ID: AK250328W1.LCS250328

Run in Batch: AK250328W1, Run Date: 03/28/2025 14:55, Prep Date: 03/28/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**106.8**	50.0	150.0
M2-6:2FTSA		**88.0**	50.0	150.0
M2-8:2FTSA		**100.6**	50.0	150.0
M2PFTeDA		**91.7**	12.0	218.0
M3PFBS		**97.1**	50.0	150.0
M3PFHxS		**102.0**	50.0	150.0
M4PFHpA		**97.2**	50.0	150.0
M5PFHxA		**94.7**	50.0	150.0
M5PFPeA		**96.5**	50.0	150.0
M6PFDA		**99.7**	50.0	150.0
M7PFUnDA		**82.9**	50.0	150.0
M8FOSA		**93.4**	50.0	150.0
M8PFOA		**95.1**	50.0	150.0
M8PFOS		**97.2**	50.0	150.0
M9-PFNA		**97.8**	50.0	150.0
MPFBA		**101.4**	50.0	150.0
MPFDoDA		**83.0**	50.0	150.0
d3N-MeFOSAA		**98.1**	50.0	150.0
d5EtFOSAA		**99.6**	50.0	150.0
MHFPO-DA		**87.0**	50.0	150.0
d-N-EtFOSA-M		**99.3**	50.0	150.0
d-N-MeFOSA-M		**92.1**	50.0	150.0
d7-N-MeFOSE-M		**99.8**	50.0	150.0
d9-N-EtFOSE-M		**94.6**	50.0	150.0

Matrix Spike (MS)

Lab Sample ID: AK250328W1.7274815M, Parent Sample ID: S72748.14

Run in Batch: AK250328W1, Run Date: 03/28/2025 17:16, Prep Date: 03/28/2025, Matrix: WW, Dilution: 2.09

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**96.3**	50.0	150.0
M2-6:2FTSA		**82.0**	50.0	150.0
M2-8:2FTSA		**104.8**	50.0	150.0
M2PFTeDA		**104.1**	12.0	218.0
M3PFBS		**102.7**	50.0	150.0
M3PFHxS		**95.9**	50.0	150.0
M4PFHpA		**103.9**	50.0	150.0
M5PFHxA		**101.3**	50.0	150.0
M5PFPeA		**103.8**	50.0	150.0
M6PFDA		**99.8**	50.0	150.0
M7PFUnDA		**91.5**	50.0	150.0
M8FOSA		**99.6**	50.0	150.0
M8PFOA		**100.8**	50.0	150.0
M8PFOS		**99.4**	50.0	150.0
M9-PFNA		**103.7**	50.0	150.0
MPFBA		**104.5**	50.0	150.0
MPFDoDA		**94.8**	50.0	150.0
d3N-MeFOSAA		**102.5**	50.0	150.0
d5EtFOSAA		**109.7**	50.0	150.0
MHFPO-DA		**93.5**	50.0	150.0
d-N-EtFOSA-M		**108.7**	50.0	150.0
d-N-MeFOSA-M		**102.5**	50.0	150.0
d7-N-MeFOSE-M		**97.9**	50.0	150.0
d9-N-EtFOSE-M		**106.7**	50.0	150.0

QC Report - Internal Standards per QC Sample

Matrix Spike Duplicate (MSD)

Lab Sample ID: AK250328W1.7274816N, Parent Sample ID: AK250328W1.7274815M

Run in Batch: AK250328W1, Run Date: 03/28/2025 17:36, Prep Date: 03/28/2025, Matrix: WW, Dilution: 2.03

Internal Standard	Flags	**%Rec**	LCL	UCL
M2-4:2FTSA		**88.6**	50.0	150.0
M2-6:2FTSA		**93.1**	50.0	150.0
M2-8:2FTSA		**99.6**	50.0	150.0
M2PFTeDA		**82.1**	12.0	218.0
M3PFBS		**91.7**	50.0	150.0
M3PFHxS		**92.5**	50.0	150.0
M4PFHpA		**94.5**	50.0	150.0
M5PFHxA		**95.6**	50.0	150.0
M5PFPeA		**100.3**	50.0	150.0
M6PFDA		**99.6**	50.0	150.0
M7PFUnDA		**86.2**	50.0	150.0
M8FOSA		**96.5**	50.0	150.0
M8PFOA		**94.7**	50.0	150.0
M8PFOS		**98.6**	50.0	150.0
M9-PFNA		**103.6**	50.0	150.0
MPFBA		**100.4**	50.0	150.0
MPFDoDA		**81.5**	50.0	150.0
d3N-MeFOSAA		**94.9**	50.0	150.0
d5EtFOSAA		**99.4**	50.0	150.0
MHFPO-DA		**86.7**	50.0	150.0
d-N-EtFOSA-M		**99.0**	50.0	150.0
d-N-MeFOSA-M		**97.4**	50.0	150.0
d7-N-MeFOSE-M		**95.4**	50.0	150.0
d9-N-EtFOSE-M		**97.3**	50.0	150.0

Organics - Volatiles, Prep Batch ID: PF250328W1

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

Blank (BLK)

Lab Sample ID: AK250328W1.BLK250328

Run in Batch: AK250328W1, Run Date: 03/28/2025 15:15, Prep Date: 03/28/2025, 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
EtFOSAA		ND	4	ng/l
PFOS		ND	2	ng/l
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
PFDOS		ND	6	ng/l
NMeFOSE		ND	4	ng/l
NMeFOSAM		ND	2	ng/l

Organics - Volatiles, Prep Batch ID: PF250328W1 (continued)

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

Blank (BLK) (continued)

Lab Sample ID: AK250328W1.BLK250328

Run in Batch: AK250328W1, Run Date: 03/28/2025 15:15, Prep Date: 03/28/2025, Matrix: WW, Dilution: 1

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

Laboratory Control Sample (LCS)

Lab Sample ID: AK250328W1.LCS250328

Run in Batch: AK250328W1, Run Date: 03/28/2025 14:35, Prep Date: 03/28/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFBA		103.6	70.0	130.0
PFMPA		96.0	70.0	130.0
FPrPA (3:3 FTCA)		93.8	70.0	130.0
PFPrS		97.2	70.0	130.0
PFPeA		97.2	70.0	130.0
PFMBA		92.8	70.0	130.0
4:2 FTSA		105.2	70.0	130.0
NFDHA		99.2	70.0	130.0
PFHxA		111.8	70.0	130.0
PFBS		104.0	70.0	130.0
HFPO-DA		98.6	70.0	130.0
FPePA (5:3 FTCA)		106.8	70.0	130.0
PFEESA		98.2	70.0	130.0
PFHpA		102.2	70.0	130.0
PFPeS		94.0	70.0	130.0
ADONA		122.4	70.0	130.0
6:2 FTSA		87.0	70.0	130.0
PFBSA		105.6	70.0	130.0
PFOA		98.0	70.0	130.0
PFHxS		106.2	70.0	130.0
FHpPA (7:3 FTCA)		98.2	70.0	130.0
PFNA		89.2	70.0	130.0
PFECHS		87.8	70.0	130.0
8:2 FTSA		97.0	70.0	130.0
PFHpS		108.4	70.0	130.0
N-MeFOSAA		89.0	70.0	130.0
PFDA		94.2	70.0	130.0
EtFOSAA		90.4	70.0	130.0
PFOS		92.2	70.0	130.0
PFUnDA		115.0	70.0	130.0
PFHxSA		101.4	70.0	130.0
9CL-PF3ONS		83.2	70.0	130.0
PFNS		90.8	70.0	130.0
PFDoDA		100.2	70.0	130.0
PFDS		82.0	70.0	130.0
PFTrDA		95.8	70.0	130.0
11CL-PF3OUdS		90.0	70.0	130.0
FOSA		110.4	70.0	130.0
PFTeDA		114.0	70.0	130.0

Organics - Volatiles, Prep Batch ID: PF250328W1 (continued)

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

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: AK250328W1.LCS250328

Run in Batch: AK250328W1, Run Date: 03/28/2025 14:35, Prep Date: 03/28/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFDOS		93.8	70.0	130.0
NMeFOSE		99.0	70.0	130.0
NMeFOSAM		115.6	70.0	130.0
NEtFOSE		98.2	70.0	130.0
NEtFOSAM		102.0	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK250328W1.LCSD250328, Parent Sample ID: AK250328W1.LCS250328

Run in Batch: AK250328W1, Run Date: 03/28/2025 14:55, Prep Date: 03/28/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFBA		102.6	70.0	130.0	1.0	30.0
PFMPA		108.0	70.0	130.0	11.8	30.0
FPrPA (3:3 FTCA)		110.8	70.0	130.0	16.6	30.0
PFPrS		102.2	70.0	130.0	5.0	30.0
PFPeA		107.0	70.0	130.0	9.6	30.0
PFMBA		110.0	70.0	130.0	17.0	30.0
4:2 FTSA		95.8	70.0	130.0	9.4	30.0
NFDHA		122.2	70.0	130.0	20.8	30.0
PFHxA		102.8	70.0	130.0	8.4	30.0
PFBS		108.6	70.0	130.0	4.3	30.0
HFPO-DA		106.2	70.0	130.0	7.4	30.0
FPePA (5:3 FTCA)		101.0	70.0	130.0	5.6	30.0
PFEESA	*	133.2	70.0	130.0	30.3	30.0
PFHpA		109.0	70.0	130.0	6.4	30.0
PFPeS		97.2	70.0	130.0	3.3	30.0
ADONA		109.2	70.0	130.0	11.4	30.0
6:2 FTSA		94.4	70.0	130.0	8.2	30.0
PFBSA		109.2	70.0	130.0	3.4	30.0
PFOA		106.2	70.0	130.0	8.0	30.0
PFHxS		88.6	70.0	130.0	18.1	30.0
FHpPA (7:3 FTCA)		114.4	70.0	130.0	15.2	30.0
PFNA		96.6	70.0	130.0	8.0	30.0
PFECHS		112.2	70.0	130.0	24.4	30.0
8:2 FTSA		112.4	70.0	130.0	14.7	30.0
PFHpS		95.2	70.0	130.0	13.0	30.0
N-MeFOSAA		104.0	70.0	130.0	15.5	30.0
PFDA		111.6	70.0	130.0	16.9	30.0
EtFOSAA		98.2	70.0	130.0	8.3	30.0
PFOS		111.8	70.0	130.0	19.2	30.0
PFUnDA		111.8	70.0	130.0	2.8	30.0
PFHxSA		109.6	70.0	130.0	7.8	30.0
9CL-PF3ONS		105.6	70.0	130.0	23.7	30.0
PFNS		95.4	70.0	130.0	4.9	30.0
PFDoDA		104.0	70.0	130.0	3.7	30.0
PFDS		89.8	70.0	130.0	9.1	30.0
PFTrDA		108.4	70.0	130.0	12.3	30.0

Organics - Volatiles, Prep Batch ID: PF250328W1 (continued)

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

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: AK250328W1.LCSD250328, Parent Sample ID: AK250328W1.LCS250328

Run in Batch: AK250328W1, Run Date: 03/28/2025 14:55, Prep Date: 03/28/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
11CL-PF3OUdS		101.8	70.0	130.0	12.3	30.0
FOSA		109.8	70.0	130.0	0.5	30.0
PFTeDA		107.0	70.0	130.0	6.3	30.0
PFDOS		111.8	70.0	130.0	17.5	30.0
NMeFOSE		91.6	70.0	130.0	7.8	30.0
NMeFOSAM		120.6	70.0	130.0	4.2	30.0
NEtFOSE		100.8	70.0	130.0	2.6	30.0
NEtFOSAM		101.2	70.0	130.0	0.8	30.0

Matrix Spike (MS)

Lab Sample ID: AK250328W1.7274815M, Parent Sample ID: S72748.14

Run in Batch: AK250328W1, Run Date: 03/28/2025 17:16, Prep Date: 03/28/2025, Matrix: WW, Dilution: 2.09

Analyte	Flags	% Rec	LCL	UCL
PFBA		104.8	70.0	130.0
PFPeA		104.8	70.0	130.0
4:2 FTSA		94.3	70.0	130.0
PFHxA		104.8	70.0	130.0
PFBS		104.8	70.0	130.0
PFHpA		114.3	70.0	130.0
PFPeS		104.8	70.0	130.0
6:2 FTSA		123.8	70.0	130.0
PFOA		104.8	70.0	130.0
PFHxS		123.8	70.0	130.0
PFNA		104.8	70.0	130.0
8:2 FTSA		114.3	70.0	130.0
PFHpS		114.3	70.0	130.0
PFDA		104.8	70.0	130.0
N-MeFOSAA		95.2	70.0	130.0
EtFOSAA		95.2	70.0	130.0
PFOS		114.3	70.0	130.0
PFUnDA		114.3	70.0	130.0
PFNS		114.3	70.0	130.0
PFDoDA		104.8	70.0	130.0
PFDS		95.2	70.0	130.0
PFTrDA		104.8	70.0	130.0
FOSA		114.3	70.0	130.0
PFTeDA		114.3	70.0	130.0
11CL-PF3OUdS		114.3	70.0	130.0
9CL-PF3ONS		95.2	70.0	130.0
ADONA		104.8	70.0	130.0
HFPO-DA		93.3	70.0	130.0

Organics - Volatiles, Prep Batch ID: PF250328W1 (continued)

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

Matrix Spike Duplicate (MSD)

Lab Sample ID: AK250328W1.7274816N, Parent Sample ID: AK250328W1.7274815M

Run in Batch: AK250328W1, Run Date: 03/28/2025 17:36, Prep Date: 03/28/2025, Matrix: WW, Dilution: 2.03

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFBA		107.8	70.0	130.0	0.0	30.0
PFPeA		98.0	70.0	130.0	9.5	30.0
4:2 FTSA		117.6	70.0	130.0	19.2	30.0
PFHxA		107.8	70.0	130.0	0.0	30.0
PFBS		117.6	70.0	130.0	8.7	30.0
PFHpA		127.5	70.0	130.0	8.0	30.0
PFPeS		107.8	70.0	130.0	0.0	30.0
6:2 FTSA	*	86.3	70.0	130.0	38.5	30.0
PFOA		107.8	70.0	130.0	0.0	30.0
PFHxS		117.6	70.0	130.0	8.0	30.0
PFNA		89.2	70.0	130.0	18.9	30.0
8:2 FTSA		107.8	70.0	130.0	8.7	30.0
PFHpS		107.8	70.0	130.0	8.7	30.0
PFDA		117.6	70.0	130.0	8.7	30.0
N-MeFOSAA		98.0	70.0	130.0	0.0	30.0
EtFOSAA		107.8	70.0	130.0	9.5	30.0
PFOS		117.6	70.0	130.0	0.0	30.0
PFUnDA		107.8	70.0	130.0	8.7	30.0
PFNS		107.8	70.0	130.0	8.7	30.0
PFDoDA		107.8	70.0	130.0	0.0	30.0
PFDS		90.2	70.0	130.0	8.3	30.0
PFTrDA		98.0	70.0	130.0	9.5	30.0
FOSA		107.8	70.0	130.0	8.7	30.0
PFTeDA		107.8	70.0	130.0	8.7	30.0
11CL-PF3OUdS		107.8	70.0	130.0	8.7	30.0
9CL-PF3ONS		98.0	70.0	130.0	0.0	30.0
ADONA		117.6	70.0	130.0	8.7	30.0
HFPO-DA		107.8	70.0	130.0	11.5	30.0

Merit Laboratories, Inc.

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C.O.C. PAGE # 1 OF 1

69302

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Clifford S. Yantz / Kevin Schneider
COMPANY: RAMBOLL
ADDRESS: 2090 Commonwealth Blvd
CITY: Ann Arbor STATE: MI ZIP CODE: 48105
PHONE NO.: 3133330211 FAX NO.:
P.O. NO.: 1940111801 Task 37
E-MAIL ADDRESS: Kevin.Schneider@ramboll.com; Clifford.Yantz@ramboll.com
QUOTE NO.:

INVOICE TO

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

PROJECT NO./NAME: RACER - Coldwater Road
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Clifford S. Yantz / [signature]
TURNAROUND TIME REQUIRED: ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER
DELIVERABLES REQUIRED: ☒ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=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)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	PFAS (29 FA)	Special Instructions
72853.01	3/26/25	08:55	01-PRCC-25-INF-20250326	WW	3	X							X	
.02	3/26/25	09:05	01-PRCC-25-PRIM-20250326	WW	3	X							X	
.03	3/27/25	15:25	01-PRCC-25-EFF-123-20250327	WW	3	X							X	
.04	3/27/25	15:28	01-PRCC-25-MID-2-123-20250327	WW	3	X							X	34 PFAS List
.05	3/27/25	15:32	01-PRCC-25-MID-1-123-20250327	WW	3	X							X	
.06	3/27/25	15:35	01-PRCC-25-PRIM-123-20250327	WW	3	X							X	
														Please provide EDD

		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	[signature] / Ramboll ☒ Sampler	3/27/25	19:11
RELINQUISHED BY: SIGNATURE/ORGANIZATION	MERIT DROP BOX	3/27/25	1917
RELINQUISHED BY: SIGNATURE/ORGANIZATION	Merit Drop BOX	3/27/25	1911
RELINQUISHED BY: SIGNATURE/ORGANIZATION	Merit Fridge	3/27/25	1911

		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	Merit Fridge	3/28/25	0815
RELINQUISHED BY: SIGNATURE/ORGANIZATION	JN Chilcote	3/28/25	0815

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

NOTES: TEMP. ON ARRIVAL
ICE 5.4

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

Rev. 1.15.12