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ENVIRONMENT
& HEALTH

Transmitted via email

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Lansing, MI 48909-7973

Mr. Kevin Forbes
Administrative Superintendent
Beecher Metropolitan District
G-1057 Louis Avenue
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August 30, 2024

Mr. Robert Ellis
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Genesee Township
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RE: **West of Site Sanitary Sewer Update**
RACER Trust – Coldwater Road Facility
FILE: 15388/1940107203/Corres

Dear **Ms. Sanabria, Ms. Hebert, Mr. Forbes, & Mr. Ellis:**

Ramboll Americas Engineering Solutions, Inc. (Ramboll), on behalf of the Revitalizing Auto Communities Environmental Response Trust (RACER Trust) is providing this letter to summarize the per- and polyfluoroalkyl substances (PFAS) sample results collected from the Beecher Metropolitan District sanitary sewers west of the RACER Trust Coldwater Road Facility (Site) located in Flint, Michigan.

The samples were collected on June 27, 2024, at sample locations SAN-06, SAN-12, and SAN-14. See **Figure 1** for sample locations.

Sanitary sewer sampling was performed in accordance with the methods specified in EGLE's Wastewater PFAS Sampling Guidance.

Analytical Results

The sewer samples were analyzed for PFAS by method ASTMD7979-19 (no preservative). The analytical results for the recent sewer samples and historical

samples are summarized in **Table 1**, and the analytical laboratory reports for the most recent sampling event are included in **Appendix A**.

- SAN-06 had a detection of 39 nanograms per liter (ng/l) for perfluorooctane sulfonic acid (PFOS) on June 27, 2024, which is the high end of the range of previously detected concentrations and is an increase compared to the previous result of 21 ng/l (12/19/2023) for PFOS.
- SAN-12 had a detection of 52 ng/l for PFOS on June 27, 2024, which is near the middle of the range of previously detected concentrations and is an increase compared to the previous result of 33 ng/l (12/19/2023) for PFOS.
- SAN-14 had a detection of 21 ng/l for PFOS on June 27, 2024, which is near the middle of the range of previously detected concentrations and is an increase compared to the previous result of 17 ng/l (12/19/2023) for PFOS.

The observed flow rates were similar to the reduced flow rates observed during previous post-lining (lining completed in February 2022) sampling events. PFOS concentrations appear to be variable at a given sampling location but are within a concentration range that is lower than before repairs were implemented.

Based on these results and to allow for continued evaluation of concentration variability and trends, we propose to collect another round of samples in December 2024 from sample locations SAN-06, SAN-12, and SAN-14. An update similar to this one will be provided within approximately four weeks of receipt of the analytical results from the laboratory.

Please contact me at 313-333-0211 or clifford.yantz@ramboll.com or Brendan Mullen at bmullen@racertrust.org or 201-247-4890, if you have any questions.

Very truly yours,

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.

Clifford S. Yantz
Project Manager

M 313.333.0211
Clifford.yantz@ramboll.com

ENCLOSURES:

Table 1 – Sanitary Sewer Analytical Results – West of Site
Figure 1 – Sanitary Sewer/Manhole Sample Locations
Attachment A – Laboratory Analytical Reports

cc: Mr. Daniel K Eashoo - Genesee Township Supervisor (via email)
Ms. Tiffany Minder – City of Flint (via email)
Ms. Carla Davidson – EGLE (via email)
Mr. Brian Zuber – EGLE (via email)
Mr. Brendan Mullen – RACER Trust (via email)
Mr. David Favero – RACER Trust (via email)
Mr. Kevin Schneider – Ramboll (via email)

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TABLES

TABLE 1
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results
Sanitary Sewer Samples - West of Site

Coldwater Rd - Sanitary Sewer Samples West of Site

Perfluorinated Compound / Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI	SAN-3 (Sanitary Sewer) 11/5/2019	SAN-3 (Sanitary Sewer) 6/25/2020	SAN-3 (Sanitary Sewer) 12/18/2020	SAN-3 (Sanitary Sewer) 3/11/2021	SAN-4 (Sanitary Sewer) 11/5/2019	SAN-5 (Sanitary Sewer) 11/5/2019
Perfluorobutanoic Acid (PFBA)	--	<19	25 U	<9.8	<10	<20	<20
Perfluoropentanoic Acid (PFPeA)	--	<9.7	**5.0**	**1.2 J**	**1.8 J**	<10	<10
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	<9.7	<2.0	<2.0	<2.0	<10	<10
Perfluorohexanoic Acid (PFHxA)	--	<9.7	**5.4**	**1.6 J**	**1.8 J**	<10	<10
Perfluorobutane Sulfonic Acid (PFBS)	**670,000**	<9.7	**9.3**	**8.6**	**8.3**	<10	<10
Perfluoroheptanoic Acid (PFHpA)	--	<9.7	**3.1**	<2.0	<2.0	<10	<10
Perfluoropentane Sulfonic Acid (PFPeS)	--	<9.7	**11**	**10**	**9.4**	<10	<10
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<9.7	<2.0	<2.0	<2.0	<10	<10
Perfluorooctanoic Acid (**PFOA**)	**170**	<9.7	**9.8**	**3.3**	**3.5**	<10	<10
Perfluorohexane Sulfonic Acid (PFHxS)	**210**	**40**	**63**	**52**	**42**	<10	**20**
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	**33**	**55**	**46**	**35**	<10	**16**
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<9.7	**7.9**	**6.5**	**6.5**	<10	<10
Perfluorononanoic Acid (PFNA)	**30**	<9.7	<2.0	<2.0	<2.0	<10	<10
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<9.7	<2.0	<2.0	<2.0	<10	<10
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<9.7	**9.9**	**9.4**	**4.4**	<10	<10
Perfluorodecanoic Acid (PFDA)	--	<9.7	<2.0	<2.0	<2.0	<10	<10
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<9.7	<2.0	<2.0	<2.0	<10	<10
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<9.7	<4.1	<3.9	<4.1	<10	<10
Perfluorooctane Sulfonic Acid (**PFOS**)	**12**	**110**	**230**	**210**	**96**	**61**	**170**
Perfluorooctane Sulfonic Acid (**PFOS**-LN)	--	**21**	**55**	**38**	**17**	**17**	**69**
Perfluorooctane Sulfonic Acid (**PFOS**-BR)	--	**85**	**170**	**170**	**79**	**33**	**100**
Perfluoroundecanoic Acid (PFUnDA)	--	<9.7	<2.0	<2.0	<2.0	<10	<10
Perfluorononane Sulfonic Acid (PFNS)	--	<9.7	<2.0	<2.0	<2.0	<10	<10
Perfluorododecanoic Acid (PFDoDA)	--	<9.7	<2.0	<2.0	<2.0	<10	<10
Perfluorodecane Sulfonic Acid (PFDS)	--	<9.7	<2.0	<2.0	<2.0	<10	<10
Perfluorotridecanoic Acid (PFTrDA)	--	<9.7	<2.0	<2.0	<2.0	<10	<10
Perfluorooctane Sulfonamide (FOSA)	--	<9.7	<2.0	<2.0	<2.0	<10	<10
Perfluorotetradecanoic Acid (PFTeDA)	--	<9.7	<4.1	<3.9	<4.1	<10	<10
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<9.7	<2.0	<2.0	<2.0	<10	<10
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<9.7	<2.0	<2.0	<2.0	<10	<10
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<9.7	<2.0	<2.0	<2.0	<10	<10
Hexafluoropropylene oxide dimer (HFPO-DA)	--	<9.7	<2.0	<2.0	<2.0	<10	<10
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	**150.0**	**371.5**	**296.1**	**167.2**	**61.0**	**190.0**

Notes
1) Detections in **bold**.
2) Concentrations in ng/L.
3) < = Not detected at specified reporting limit.
4) -- = Not analyzed/No criteria.
5) Dup = Duplicate sample.
6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023.
7) Concentration above the groundwater surface water interface (GSI) criteria are highlighted in yellow.
8) The detection of PFBA in Field Blank-062520 was caused from the centrifuge tubes leaching out PFBA during the extraction process. The 5X Rule was applied to PFBA detections. If the sample value(s) is less than 5 times the blank concentration (5X Rule), then positive results are qualified "U,"undetected.
9) 1 - Biased high -- matrix interference
10) B - Compound also found in associated method blank.
11) I - Matrix interference with internal standard.
12) J - Estimated value less than reporting limit, but greater than MDL.
13) X - Elevated reporting limit due to matrix interference.
14) Light gray header is most recent sampling event result.
15) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.

TABLE 1
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results
Sanitary Sewer Samples - West of Site

Coldwater Rd - Sanitary Sewer Samples West of Site

Perfluorinated Compound / Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI	SAN-06 (Sanitary Sewer) 3/17/2020	SAN-06 (Sanitary Sewer) 6/25/2020	SAN-06 (Sanitary Sewer) 12/18/2020	SAN-06 (Sanitary Sewer) 3/11/2021	SAN-06 (Sanitary Sewer) 3/31/2022	SAN-06 (Sanitary Sewer) 9/7/2022	SAN-06 (Sanitary Sewer) 12/13/2022	SAN-06 (Sanitary Sewer) 4/6/2023	SAN-06 (Sanitary Sewer) 6/27/2023	SAN-06 (Sanitary Sewer) 12/19/2023	SAN-06 (Sanitary Sewer) 6/27/2024
Perfluorobutanoic Acid (PFBA)	--	<21	13 U	<10	<11	<10	<10	<9.6	**2.8 J**	<11 x	<9.9	**8.0 J**
Perfluoropentanoic Acid (PFPeA)	--	<10	**1.3 J**	<4.0	**1.9 J**	**3.2 J**	<4.0	<3.8	**3.1 J**	**1.2 J**	**1.5 J**	**5.8**
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	<10	<2.0 I	<2.0 I	<2.1	<2.1	<2.0 I	<1.9	<2.0	<1.9 I	<2.0	<2.0
Perfluorohexanoic Acid (PFHxA)	--	<10	<2.0	<2.0	**1.9 J**	**3.1**	**3.4**	**2.1**	**3.2**	**2.2**	**1.6 J**	**5.9**
Perfluorobutane Sulfonic Acid (PFBS)	**670,000**	<10	**3.1**	**3.7**	**4.5**	**11**	<2.0	<1.9	**5.8**	<1.9	**5.2**	**6.7**
Perfluoroheptanoic Acid (PFHpA)	--	<10	<2.0	<2.0	<2.1	<2.1	<2.0	<1.9	**1.9 J**	<1.9	**1.3 J**	**1.3 J**
Perfluoropentane Sulfonic Acid (PFPeS)	--	<10	<2.0	<2.0	**2.3**	**6.7**	<2.0	<1.9	**3.3**	<1.9	**2.8**	**2.5**
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<10	<2.0 I	<2.0 I	<2.1	<2.1	<2.0 I	<1.9	<2.0	<1.9 I	<2.0	<2.0
Perfluorooctanoic Acid (**PFOA**)	**170**	<10	<2.0	<2.0	<2.1	**2.7**	<2.0	<1.9	**3.0**	<1.9	**1.8 J**	**5.3**
Perfluorohexane Sulfonic Acid (PFHxS)	**210**	<10	**11**	**6.3**	**10**	**18**	**5.6**	<1.9	**10**	**1.7 J**	**8.4**	**13**
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<10	**9.0**	**5.0**	**8.1**	**14**	**2.5**	<1.9	**8.2**	**1.7 J**	**6.8**	**9.0**
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<10	<2.0	<2.0	<2.1	**3.7**	**2.7**	<1.9	**2.6**	<1.9	**1.2 J**	**2.8**
Perfluorononanoic Acid (PFNA)	**30**	<10	<2.0	<2.0	<2.1	<2.1	<2.0	<1.9	**1.1 J**	<1.9	<2.0	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<10	<2.0	<2.0 I	<2.1	<2.1	<2.0 I	<1.9	<2.0	<1.9	<2.0	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<10	<2.0	<2.0	<2.1	<2.1	<2.0	<1.9	**1.4 J**	<1.9	**0.97 J**	**2.6**
Perfluorodecanoic Acid (PFDA)	--	<10	<2.0	<2.0	<2.1	<2.1	<2.0	<1.9	**0.76 J**	<1.9	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<10	<2.0	<2.0	<2.1	<2.1	<2.0	<1.9	**2.7**	<1.9	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<10	<3.9 I	<4.0 I	<4.2	<4.1	<4.0	<3.8	<4.0	<3.9 I	<3.9	<3.9
Perfluorooctane Sulfonic Acid (**PFOS**)	**12**	**14**	**21**	**26**	**34**	**38**	**13**	**4.5**	**32**	**11**	**21**	**39**
Perfluorooctane Sulfonic Acid (**PFOS**-LN)	--	<10	**5.7**	**5.0**	**5.7**	**5.7**	**3.6**	**2.0**	**7.0**	**3.1**	**4.3**	**10**
Perfluorooctane Sulfonic Acid (**PFOS**-BR)	--	<10	**16**	**19**	**27**	**31**	**9.1**	**2.4**	**25**	**8.0**	**17**	**28**
Perfluoroundecanoic Acid (PFUnDA)	--	<10	<2.0	<2.0	<2.1	<2.1	<2.0	<1.9	<2.0	<1.9	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	<10	<2.0	<2.0	<2.1	<2.1	<2.0	<1.9	<2.0	<1.9	<2.0	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	<10	<2.0 I	<2.0	<2.1	<2.1	<2.0	<1.9	**1.2 J**	<1.9	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	<10	<2.0	<2.0	<2.1	<2.1	<2.0	<1.9	<2.0	<1.9	<2.0	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	<10	<2.0 I	<2.0	<2.1	<2.1	<2.0	<1.9	<2.0	<1.9	<2.0	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	<10	<2.0	<2.0 I	<2.1	<2.1	<2.0	<1.9	<2.0	<1.9	<2.0	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	<10	<3.9	<4.0	<4.2	<4.1	<4.0	<3.8	<4.0	<3.9	<3.9	<3.9
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<10	<2.0	<2.0	<2.1	<2.1	<2.0	<1.9	<2.0	<1.9	<2.0	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<10	<2.0	<2.0	<2.1	<2.1	<2.0	<1.9	<2.0	<1.9	<2.0	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<10	<2.0	<2.0	<2.1	<2.1	<2.0	<1.9	<2.0	<1.9	<2.0	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	--	<10	<2.0	<2.0	<2.1	<4.1	<10	<9.6	<2.0	<1.9	<9.9	<9.9
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	--	<3.9	<9.9	<9.9
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	--	**5.0**	<9.9	<9.9
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	--	<3.9	<9.9	<9.9
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	--	<1.9	<2.0	<2.0
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	--	**64**	**120**	**190**
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	--	<1.9	<2.0	<2.0
Total Per-and Polyfluoroalkyl Substances	--	**14.0**	**49.4**	**36.0**	**54.6**	**82.7**	**22.0**	**6.6**	**72.3**	**85.1**	**164.6**	**280.1**

Notes
1) Detections in **bold**.
2) Concentrations in ng/L.
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4) -- = Not analyzed/No criteria.
5) Dup = Duplicate sample.
6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023.
7) Concentration above the groundwater surface water interface (GSI) criteria are highlighted in yellow.
8) The detection of PFBA in Field Blank-062520 was caused from the centrifuge tubes leaching out PFBA during the extraction process. The 5X Rule was applied to PFBA detections. If the sample value(s) is less than 5 times the blank concentration (5X Rule), then positive results are qualified "U,"undetected.
9) 1 - Biased high -- matrix interference
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14) Light gray header is most recent sampling event result.
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TABLE 1
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results
Sanitary Sewer Samples - West of Site

Coldwater Rd - Sanitary Sewer Samples West of Site

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI	SAN-07 (Sanitary Sewer)	SAN-10 (Sanitary Sewer)	SAN-10 (Sanitary Sewer)	SAN-10 (Sanitary Sewer)	SAN-DUP-121820 (SAN-10) Sanitary Sewer	SAN-10 (Sanitary Sewer)	SAN-DUP-031121 (SAN-10) Sanitary Sewer	SAN-11 (Sanitary Sewer)
	Sample Date:		*3/18/2020*	3/18/2020	6/25/2020	12/18/2020	12/18/2020	3/11/2021	3/11/2021	*3/18/2020*
Perfluorobutanoic Acid (PFBA)		--	<21	<20	10 U	<9.9	<10	<11	<10	<19
Perfluoropentanoic Acid (PFPeA)		--	<11	<10	<3.9	<4.0	<4.1	**2.2 J**	**1.8 J**	<9.7
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	<11	<10	<2.0 **I**	<2.0 **I**	<2.0 **I**	<2.1	<2.0	<9.7
Perfluorohexanoic Acid (PFHxA)		--	<11	<10	<2.0	<2.0	<2.0	**1.6 J**	**1.7 J**	<9.7
Perfluorobutane Sulfonic Acid (PFBS)		**670,000**	<11	<10	**5.2**	**5.0**	**4.0**	**6.2**	**6.9**	**9.9**
Perfluoroheptanoic Acid (PFHpA)		--	<11	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<9.7
Perfluoropentane Sulfonic Acid (PFPeS)		--	<11	<10	<2.0	**2.2**	**2.1**	**4.1**	**5.0**	<9.7
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	<11	<10	<2.0 **I**	<2.0	<2.0	<2.1	<2.0	<9.7
Perfluorooctanoic Acid (**PFOA**)		**170**	<11	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<9.7
Perfluorohexane Sulfonic Acid (PFHxS)		**210**	<11	<10	**9.5**	**9.4**	**9.1**	**13**	**15**	**25**
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	<11	<10	**7.7**	**7.7**	**7.2**	**11**	**11**	**21**
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	<11	<10	<2.0	<2.0	<2.0	**2.4**	**3.2**	<9.7
Perfluorononanoic Acid (PFNA)		**30**	<11	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<9.7
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	<11	<10	<2.0 **I**	<2.0 **I**	<2.0	<2.1	<2.0	<9.7
Perfluoroheptane Sulfonic Acid (PFHpS)		--	<11	<10	<2.0	<2.0	<2.0	<2.1	**2.3**	<9.7
Perfluorodecanoic Acid (PFDA)		--	<11	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<9.7
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	<11	<10	<2.0 **I**	<2.0	<2.0	<2.1	<2.0	<9.7
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	<11	<10	<3.9 **I**	<4.0 **I**	<4.0 **I**	<4.3	<4.1	<9.7
Perfluorooctane Sulfonic Acid (**PFOS**)		**12**	<11	**29**	**26**	**31**	**33**	**43**	**45**	**160**
Perfluorooctane Sulfonic Acid (**PFOS**-LN)		--	<11	<10	**6.2**	**4.7**	**4.9**	**7.2**	**8.2**	**62**
Perfluorooctane Sulfonic Acid (**PFOS**-BR)		--	<11	**24**	**19**	**25**	**26**	**34**	**36**	**100**
Perfluoroundecanoic Acid (PFUnDA)		--	<11	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<9.7
Perfluorononane Sulfonic Acid (PFNS)		--	<11	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<9.7
Perfluorododecanoic Acid (PFDoDA)		--	<11	<10	<2.0 **I**	<2.0	<2.0	<2.1	<2.0	<9.7
Perfluorodecane Sulfonic Acid (PFDS)		--	<11	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<9.7
Perfluorotridecanoic Acid (PFTrDA)		--	<11	<10	<2.0 **I**	<2.0	<2.0	<2.1	<2.0	<9.7
Perfluorooctane Sulfonamide (FOSA)		--	<11	<10	<2.0 **I**	<2.0 **I**	<2.0	<2.1	<2.0	<9.7
Perfluorotetradecanoic Acid (PFTeDA)		--	<11	<10	<3.9	<4.0	<4.1	<4.3	<4.1	<9.7
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)		--	<11	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<9.7
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)		--	<11	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<9.7
4,8-dioxa-3H-perfluorononanoic acid (ADONA)		--	<11	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<9.7
Hexafluoropropylene oxide dimer (HFPO-DA)		--	<11	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<9.7
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))		--	--	--	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))		--	--	--	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))		--	--	--	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)		--	--	--	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	--	--	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)		--	--	--	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances		--	**0.0**	**29.0**	**50.7**	**47.6**	**48.2**	**70.1**	**77.7**	**194.9**

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) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023.
7) Concentration above the groundwater surface water interface (GSI) criteria are highlighted in yellow.
8) The detection of PFBA in Field Blank-062520 was caused from the centrifuge tubes leaching out PFBA during the extraction process. The 5X Rule was applied to PFBA detections. If the sample value(s) is less than 5 times the blank concentration (5X Rule), then positive results are qualified "U,"undetected.
9) 1 - Biased high -- matrix interference
10) B - Compound also found in associated method blank.
11) I - Matrix interference with internal standard.
12) J - Estimated value less than reporting limit, but greater than MDL.
13) X - Elevated reporting limit due to matrix interference.
14) Light gray header is most recent sampling event result.
15) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.

RAMBOLL

TABLE 1
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results
Sanitary Sewer Samples - West of Site

Coldwater Rd - Sanitary Sewer Samples West of Site

Perfluorinated Compound / Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI	SAN-12 (Sanitary Sewer) 3/18/2020	SAN-12 (Sanitary Sewer) 6/25/2020	SAN-12 (Sanitary Sewer) 12/18/2020	SAN-12 (Sanitary Sewer) 3/11/2021	SAN-12 (Sanitary Sewer) 3/31/2022	SAN-12 (Sanitary Sewer) 9/7/2022	SAN-12 (Sanitary Sewer) 12/13/2022	SAN-12 (Sanitary Sewer) 4/6/2023	SAN-12 (Sanitary Sewer) 6/27/2023	SAN-12 (Sanitary Sewer) 12/19/2023	SAN-12 (Sanitary Sewer) 6/27/2024
Perfluorobutanoic Acid (PFBA)	--	<20	15 U	<9.8	<10	<10	<10	<9.8	**2.6 J**	<10	**6.7 J**	**6.9 J**
Perfluoropentanoic Acid (PFPeA)	--	<10	<4.1	<3.9	**7.3**	**7.1**	<4.1	**14**	**4.1**	<4.1	**9.9**	**18**
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	<10	<2.0 **I**	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0 **I**	<2.0	<1.9
Perfluorohexanoic Acid (PFHxA)	--	<10	<2.0	<2.0	**5.6**	**6.0**	**1.6 J**	**12**	**4.1**	**2.3**	**4.5**	**17**
Perfluorobutane Sulfonic Acid (PFBS)	**670,000**	<10	<2.0	**2.3**	**5.6**	**8.4**	<2.0	**2.0**	**5.4**	<2.0	**7.5**	**4.9**
Perfluoroheptanoic Acid (PFHpA)	--	<10	<2.0	<2.0	**1.9 J**	**2.0 J**	<2.0	<2.0	**2.4**	<2.0	**2.0**	**1.5 J**
Perfluoropentane Sulfonic Acid (PFPeS)	--	<10	<2.0	<2.0	<2.0	**5.0**	<2.0	<2.0	**2.2**	<2.0	**2.0 J**	<1.9
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<10	<2.0 **I**	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	**2.2 I**	<2.0	<1.9
Perfluorooctanoic Acid (**PFOA**)	**170**	<10	<2.0	<2.0	**5.0**	**7.0**	<2.0	**2.6**	**4.3**	<2.0	**4.3**	**4.9**
Perfluorohexane Sulfonic Acid (PFHxS)	**210**	**16**	**2.1**	**3.8**	**5.6**	**22**	<2.0	**2.3**	**15**	**3.4**	**7.6**	**7.2**
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	**12**	<2.0	**2.8**	**3.6**	**18**	<2.0	**1.7 J**	**12**	**3.4**	**5.9**	**5.2**
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<10	<2.0	<2.0	<2.0	**3.5**	<2.0	<2.0	**3.2**	<2.0	**1.4 J**	**1.3 J**
Perfluorononanoic Acid (PFNA)	**30**	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	**0.89 J**	<2.0	<2.0	<1.9
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<10	<2.0	<2.0	<2.0	<2.1	<2.0 **I**	<2.0	<2.0	<2.0 **I**	<2.0	<1.9
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<10	<2.0	<2.0	<2.0	**4.8**	<2.0	<2.0	**1.3 J**	<2.0	**1.2 J**	**1.1 J**
Perfluorodecanoic Acid (PFDA)	--	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<10	<4.1 **I**	<3.9	<4.1	<4.1	<4.1	<3.9	<3.9	<4.1	<4.0	<3.9
Perfluorooctane Sulfonic Acid (**PFOS**)	**12**	**110**	**55**	**55**	**48**	**120**	**19**	**18**	**31**	**36 I**	**33**	**52**
Perfluorooctane Sulfonic Acid (**PFOS**-LN)	--	**48**	**32**	**33**	**24**	**50**	**12**	**7.2**	**12**	**5.8**	**13**	**23**
Perfluorooctane Sulfonic Acid (**PFOS**-BR)	--	**66**	**21**	**21**	**22**	**69**	**4.8**	**10**	**19**	**29 I**	**20**	**26**
Perfluoroundecanoic Acid (PFUnDA)	--	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
Perfluorononane Sulfonic Acid (PFNS)	--	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
Perfluorododecanoic Acid (PFDoDA)	--	<10	<2.0 **I**	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
Perfluorodecane Sulfonic Acid (PFDS)	--	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
Perfluorotridecanoic Acid (PFTrDA)	--	<10	<2.0 **I**	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
Perfluorooctane Sulfonamide (FOSA)	--	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
Perfluorotetradecanoic Acid (PFTeDA)	--	<10	<4.1	<3.9	<4.1	<4.1	<4.1	<3.9	<3.9	<4.1	<4.0	<3.9
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<10	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
Hexafluoropropylene oxide dimer (HFPO-DA)	--	<10	<2.0	<2.0	<2.0	<4.1	<10	<9.8	<2.0	<2.0	<10	<9.7
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	--	<4.1	<10	<9.7
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	--	<4.1	<10	<9.7
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	--	<4.1	<10	<9.7
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	--	<2.0	**0.75 J**	<1.9
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	--	**18**	**85**	**88**
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	--	<2.0	<2.0	<1.9
Total Per-and Polyfluoroalkyl Substances	--	**126.0**	**72.1**	**61.1**	**79.0**	**182.3**	**20.6**	**50.9**	**73.3**	**61.9**	**164.5**	**201.5**

Notes
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TABLE 1
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results
Sanitary Sewer Samples - West of Site

Coldwater Rd - Sanitary Sewer Samples West of Site

Perfluorinated Compound	Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI	SAN-13 (Sanitary Sewer) 3/19/2020	SAN-14 (Sanitary Sewer) 3/19/2020	SAN-14 (Sanitary Sewer) 6/25/2020	SAN-14 (Sanitary Sewer) 12/18/2020	SAN-14 (Sanitary Sewer) 3/11/2021	SAN-14 (Sanitary Sewer) 3/31/2022	SAN-14 (Sanitary Sewer) 9/7/2022	SAN-14 (Sanitary Sewer) 12/13/2022	SAN-14 (Sanitary Sewer) 4/6/2023	SAN-14 (Sanitary Sewer) 6/27/2023	SAN-14 (Sanitary Sewer) 12/19/2023	SAN-14 (Sanitary Sewer) 6/27/2024
Perfluorobutanoic Acid (PFBA)		--	<100	<100	12 U	<10.0	<11	<11	<11	<9.9	**4.1 J**	<10.0	<10	<11
Perfluoropentanoic Acid (PFPeA)		--	<10	<10	**2.1 J**	**3.6 J**	**11**	**3.2 J**	<4.3	<3.9	**5.9**	<4.0	<4.1	**2.2 J**
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	<10	<10	<2.0	<2.0 I	<2.1	<2.1	<2.1	<2.0	<2.0	<2.0 I	<2.0	<2.1
Perfluorohexanoic Acid (PFHxA)		--	<10	<10	**1.8 J**	**3.8**	**8.0**	**2.8**	**2.5**	**1.5 J**	**7.4**	<2.0	**2.5**	**5.3**
Perfluorobutane Sulfonic Acid (PFBS)		**670,000**	<10	<10	**2.5**	**11**	**10.0**	**7.6**	**2.5**	**3.0**	**5.9**	<2.0	**6.8**	**4.2**
Perfluoroheptanoic Acid (PFHpA)		--	<10	<10	**1.6 J**	**2.8**	**5.5**	**1.6 J**	<2.1	<2.0	**4.3**	<2.0	**2.2**	<2.1
Perfluoropentane Sulfonic Acid (PFPeS)		--	<10	<10	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0	**1.5 J**	<2.0	<2.0	<2.1
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	<10	<10	<2.0	<2.0 I	<2.1	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorooctanoic Acid (**PFOA**)		**170**	<10	<10	**4.4**	**9.4**	**12**	**4.7**	**3.2**	<2.0	**12**	<2.0	**5.0**	**4.9**
Perfluorohexane Sulfonic Acid (PFHxS)		**210**	**19**	<10	**2.9**	**6.2**	**4.6**	**3.0**	**3.3**	**4.0**	**4.3**	<2.0	**3.1**	**2.1 J**
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	**16**	<10	**2.0**	**4.3**	**3.4**	**2.1**	**2.4**	**2.6**	**3.5**	<2.0	**3.1**	**2.1 J**
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	<10	<10	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0	**1.3 J**	<2.0	<2.0	<2.1
Perfluorononanoic Acid (PFNA)		**30**	<10	<10	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0	**1.3 J**	<2.0	<2.0	<2.1
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	<10	<10	<2.0	<2.0	<2.1	<2.1	<2.1 I	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluoroheptane Sulfonic Acid (PFHpS)		--	<10	<10	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorodecanoic Acid (PFDA)		--	<10	<10	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0	**0.65 J**	<2.0	<2.0	<2.1
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	<10	<10	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0	<2.0	<2.0 I	<2.0	<2.1
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	<10	<10	<4.0	<4.0 I	<4.2	<4.2	<4.3	<3.9	<4.0	<4.0	<4.1	<4.2
Perfluorooctane Sulfonic Acid (**PFOS**)		**12**	**150**	**29**	**23**	**52**	**40**	**15**	**14**	**6.3**	**28**	**8.4**	**17**	**21**
Perfluorooctane Sulfonic Acid (**PFOS**-LN)		--	**75**	<10	**9**	**21**	**17**	**3.7**	**6.6**	**2.4**	**9.9**	**3.4**	**6.3**	**8.1**
Perfluorooctane Sulfonic Acid (**PFOS**-BR)		--	**75**	**20**	**13**	**30**	**23**	**11**	**8.1**	**3.8**	**18**	**5.0**	**11**	**11**
Perfluoroundecanoic Acid (PFUnDA)		--	<10	<10	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorononane Sulfonic Acid (PFNS)		--	<10	<10	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorododecanoic Acid (PFDoDA)		--	<10	<10	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorodecane Sulfonic Acid (PFDS)		--	<10	<10	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0	<2.0	<2.0	**1.1 J**	<2.1
Perfluorotridecanoic Acid (PFTrDA)		--	<10	<10	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorooctane Sulfonamide (FOSA)		--	<10	<10	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorotetradecanoic Acid (PFTeDA)		--	<10	<10	<4.0	<4.0	<4.2	<4.2	<4.3	<3.9	<4.0	<4.0	<4.1	<4.2
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)		--	<10	<10	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)		--	<10	<10	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)		--	<10	<10	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1
Hexafluoropropylene oxide dimer (HFPO-DA)		--	<10	<10	<2.0	<2.0	<2.1	<4.2	<11	<9.9	<2.0	<2.0	<10	<11
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))		--	--	--	--	--	--	--	--	--	--	<4.0	<10	<11
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))		--	--	--	--	--	--	--	--	--	--	<4.0	<10	<11
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))		--	--	--	--	--	--	--	--	--	--	<4.0	<10	<11
Perfluorobutanesulfonamide (PFBSA)		--	--	--	--	--	--	--	--	--	--	<2.0	**0.77 J**	<2.1
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	--	--	--	--	--	--	--	--	--	**8.9**	**18**	**8.2**
Perfluorohexanesulfonamide (PFHxSA)		--	--	--	--	--	--	--	--	--	--	<2.0	<2.0	<2.1
Total Per-and Polyfluoroalkyl Substances		--	**169.0**	**29.0**	**50.3**	**88.8**	**91.1**	**37.9**	**25.5**	**14.8**	**75.4**	**17.3**	**56.5**	**47.9**

Notes
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11) I - Matrix interference with internal standard.
12) J - Estimated value less than reporting limit, but greater than MDL.
13) X - Elevated reporting limit due to matrix interference.
14) Light gray header is most recent sampling event result.
15) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.

TABLE 1
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results
Sanitary Sewer Samples - West of Site

Coldwater Rd - Sanitary Sewer Samples West of Site

Perfluorinated Compound / Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI	SAN-15 (Sanitary Sewer) 3/19/2020	SAN-16 (Sanitary Sewer) 3/19/2020	SAN-17 (Sanitary Sewer) 3/19/2020	SAN-DUP-1/ SAN-17 (Sanitary Sewer) 3/19/2020	SAN-19 (Sanitary Sewer) 3/19/2020	SAN-20 (Sanitary Sewer) 3/19/2020
Perfluorobutanoic Acid (PFBA)	--	<98	<100	<96	<99	<100	<100
Perfluoropentanoic Acid (PFPeA)	--	<9.8	<10	<9.6	<9.9	<10	<10
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	<9.8	<10	<9.6	<9.9	<10	<10
Perfluorohexanoic Acid (PFHxA)	--	<9.8	<10	<9.6	<9.9	<10	**10**
Perfluorobutane Sulfonic Acid (PFBS)	**670,000**	<9.8	**12**	<9.6	<9.9	<10	<10
Perfluoroheptanoic Acid (PFHpA)	--	<9.8	<10	<9.6	<9.9	<10	<10
Perfluoropentane Sulfonic Acid (PFPeS)	--	<9.8	<10	<9.6	<9.9	<10	<10
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<9.8	<10	<9.6	<9.9	<10	<10
Perfluorooctanoic Acid (**PFOA**)	**170**	<9.8	<10	<9.6	<9.9	<10	<10
Perfluorohexane Sulfonic Acid (PFHxS)	**210**	<9.8	<10	<9.6	<9.9	<10	<10
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<9.8	<10	<9.6	<9.9	<10	<10
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<9.8	<10	<9.6	<9.9	<10	<10
Perfluorononanoic Acid (PFNA)	**30**	<9.8	<10	<9.6	<9.9	<10	<10
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<9.8	<10	<9.6	<9.9	<10	<10
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<9.8	<10	<9.6	<9.9	<10	<10
Perfluorodecanoic Acid (PFDA)	--	<9.8	<10	<9.6	<9.9	<10	<10
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<9.8	<10	<9.6	<9.9	<10	<10
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<9.8	<10	<9.6	<9.9	<10	<10
Perfluorooctane Sulfonic Acid (**PFOS**)	**12**	**35**	**13**	<9.6	<9.9	<10	**11**
Perfluorooctane Sulfonic Acid (**PFOS**-LN)	--	**12**	<10	<9.6	<9.9	<10	<10
Perfluorooctane Sulfonic Acid (**PFOS**-BR)	--	**20**	<10	<9.6	<9.9	<10	<10
Perfluoroundecanoic Acid (PFUnDA)	--	<9.8	<10	<9.6	<9.9	<10	<10
Perfluorononane Sulfonic Acid (PFNS)	--	<9.8	<10	<9.6	<9.9	<10	<10
Perfluorododecanoic Acid (PFDoDA)	--	<9.8	<10	<9.6	<9.9	<10	<10
Perfluorodecane Sulfonic Acid (PFDS)	--	<9.8	<10	<9.6	<9.9	<10	<10
Perfluorotridecanoic Acid (PFTrDA)	--	<9.8	<10	<9.6	<9.9	<10	<10
Perfluorooctane Sulfonamide (FOSA)	--	<9.8	<10	<9.6	<9.9	<10	<10
Perfluorotetradecanoic Acid (PFTeDA)	--	<9.8	<10	<9.6	<9.9	<10	<10
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<9.8	<10	<9.6	<9.9	<10	<10
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<9.8	<10	<9.6	<9.9	<10	<10
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<9.8	<10	<9.6	<9.9	<10	<10
Hexafluoropropylene oxide dimer (HFPO-DA)	--	<9.8	<10	<9.6	<9.9	<10	<10
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	**35.0**	**25.0**	**0.0**	**0.0**	**0.0**	**21.0**

Notes
1) Detections in **bold**.
2) Concentrations in ng/L.
3) < = Not detected at specified reporting limit.
4) -- = Not analyzed/No criteria.
5) Dup = Duplicate sample.
6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023.
7) Concentration above the groundwater surface water interface (GSI) criteria are highlighted in yellow.
8) The detection of PFBA in Field Blank-062520 was caused from the centrifuge tubes leaching out PFBA during the extraction process. The 5X Rule was applied to PFBA detections. If the sample value(s) is less than 5 times the blank concentration (5X Rule), then positive results are qualified "U,"undetected.
9) 1 - Biased high -- matrix interference
10) B - Compound also found in associated method blank.
11) I - Matrix interference with internal standard.
12) J - Estimated value less than reporting limit, but greater than MDL.
13) X - Elevated reporting limit due to matrix interference.
14) Light gray header is most recent sampling event result.
15) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.

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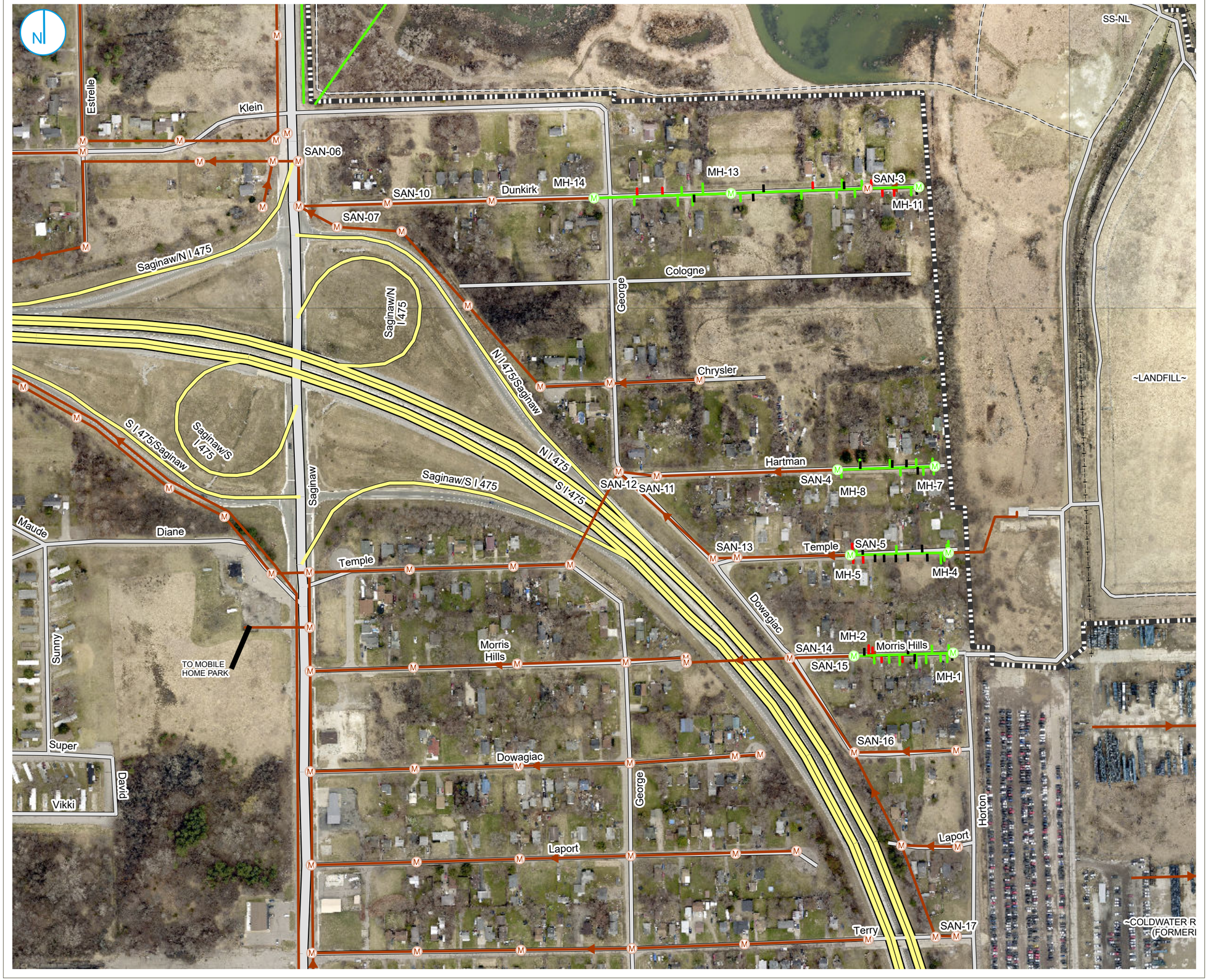
FIGURES



- SANITARY SEWER MANHOLE
- SANITARY SEWER MANHOLE LINED (FEBRUARY 2022)
- NOT LINED
- CIPP LINED
- CAPPED LATERAL

Note
Lining was completed in February 2022.

0 150 300 Feet

SANITARY SEWER / MANHOLE SAMPLE LOCATIONS

RACER TRUST
COLDWATER ROAD
FLINT, MICHIGAN

FIGURE 01

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.
A RAMBOLL COMPANY

RAMBOLL

I:\Racer-Trust.1088190\GIS\Coldwater_Road\ProRACER_ColdwaterRd\2022_Annual_LDS_GW_Figures\Figure 1 - Sanitary Sewer Manhole Sample Locations_06012023

PROJECT: 1940/1048 | DATED: 2/15/2024 | DESIGNER: MONETANT

APPENDIX A
LABORATORY ANALYTICAL REPORTS

Analytical Laboratory Report

Report ID: S63619.01(01)
Generated on 07/23/2024

Report to

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

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

Addtional Contacts: Kevin Schneider, Nicole Pitkorchemny

Report produced by

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

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

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

Report Summary

Lab Sample ID(s): S63619.01-S63619.03
Project: RACER Coldwater Road
Collected Date(s): 06/27/2024
Submitted Date/Time: 06/27/2024 14:05
Sampled by: Kevin Schneider
P.O. #: 1940008845 TASK 37

Table of Contents

Cover Page (Page 1)
General Report Notes (Page 2)
Report Narrative (Page 2)
Laboratory Accreditations (Page 3)
Qualifier Descriptions (Page 3)
Glossary of Abbreviations (Page 3)
Method Summary (Page 4)
Parameter Summary (Page 5)
Sample Summary (Page 6)

Maya Murshak
Technical Director

General Report Notes

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

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

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

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

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

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

Parameter Summary

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

Analytical Laboratory Report

Sample Summary (3 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S63619.01	SAN-06-06272024	Liquid	06/27/24 11:46
S63619.02	SAN-12-06272024	Liquid	06/27/24 12:04
S63619.03	SAN-14-06272024	Liquid	06/27/24 12:12

Analytical Laboratory Report

Lab Sample ID: S63619.01
Sample Tag: SAN-06-06272024
Collected Date/Time: 06/27/2024 11:46
Matrix: Liquid
COC Reference: 153315

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.81/6.44/10	ASTMD7979-19M	06/28/24 12:00	CED	
Initial wt. (g) / Final wt. (g) / Volume (ml) (Rep1)	12.60/6.50/12	ASTMD7979-19M	07/01/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 07/01/24 19:24, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	8.0	9.9	2.0	ng/L	1.97	375-22-4	J
PFPeA*	5.8	3.9	1.2	ng/L	1.97	2706-90-3	
4:2 FTSA*	Not detected	2.0	0.20	ng/L	1.97	757124-72-4	
PFHxA*	5.9	2.0	1.2	ng/L	1.97	307-24-4	
PFBS*	6.7	2.0	0.59	ng/L	1.97	375-73-5	
PFHpA*	1.3	2.0	0.79	ng/L	1.97	375-85-9	J
PFPeS*	2.5	2.0	1.8	ng/L	1.97	2706-91-4	
6:2 FTSA*	Not detected	2.0	0.99	ng/L	1.97	27619-97-2	
PFOA*	5.3	2.0	0.79	ng/L	1.97	335-67-1	
PFHxS*	13	2.0	0.99	ng/L	1.97	355-46-4	
PFHxS-LN*	9.0	2.0	0.99	ng/L	1.97	355-46-4-LN	
PFHxS-BR*	2.8	2.0	0.99	ng/L	1.97	355-46-4-BR	
PFNA*	Not detected	2.0	0.99	ng/L	1.97	375-95-1	
8:2 FTSA*	Not detected	2.0	1.2	ng/L	1.97	39108-34-4	
PFHpS*	2.6	2.0	0.79	ng/L	1.97	375-92-8	
PFDA*	Not detected	2.0	1.2	ng/L	1.97	335-76-2	
N-MeFOSAA*	Not detected	2.0	0.99	ng/L	1.97	2355-31-9	
EtFOSAA*	Not detected	3.9	0.99	ng/L	1.97	2991-50-6	
PFOS*	39	2.0	0.79	ng/L	1.97	1763-23-1	
PFOS-LN*	10	2.0	0.79	ng/L	1.97	1763-23-1-LN	
PFOS-BR*	28	2.0	0.79	ng/L	1.97	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.79	ng/L	1.97	2058-94-8	
PFNS*	Not detected	2.0	0.99	ng/L	1.97	68259-12-1	
PFDoDA*	Not detected	2.0	0.59	ng/L	1.97	307-55-1	
PFDS*	Not detected	2.0	0.99	ng/L	1.97	335-77-3	
PFTrDA*	Not detected	2.0	0.79	ng/L	1.97	72629-94-8	
FOSA*	Not detected	2.0	0.79	ng/L	1.97	754-91-6	
PFTeDA*	Not detected	3.9	0.59	ng/L	1.97	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	0.99	ng/L	1.97	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	0.99	ng/L	1.97	756426-58-1	
ADONA*	Not detected	2.0	0.59	ng/L	1.97	919005-14-4	
HFPO-DA*	Not detected	9.9	2.0	ng/L	1.97	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	9.9	7.9	ng/L	1.97	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.9	3.9	ng/L	1.97	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.9	3.9	ng/L	1.97	356-02-5	

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

Lab Sample ID: S63619.01 (continued)

Sample Tag: SAN-06-06272024

34 PFAs, Method: ASTMD7979-19M, Run Date: 07/01/24 19:24, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBSA*	Not detected	2.0	0.59	ng/L	1.97	30334-69-1	
PFECHS*	190	2.0	0.79	ng/L	1.97	67584-42-3	
PFHxSA*	Not detected	2.0	0.59	ng/L	1.97	41997-13-1	

Lab Sample ID: S63619.02
Sample Tag: SAN-12-06272024
Collected Date/Time: 06/27/2024 12:04
Matrix: Liquid
COC Reference: 153315

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.90/6.48/11	ASTMD7979-19M	06/28/24 12:00	CED	
Initial wt. (g) / Final wt. (g) / Volume (ml) (Rep1)	12.59/6.41/12	ASTMD7979-19M	07/01/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 07/01/24 19:44, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	6.9	9.7	1.9	ng/L	1.94	375-22-4	J
PFPeA*	18	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*	17	1.9	1.2	ng/L	1.94	307-24-4	
PFBS*	4.9	1.9	0.58	ng/L	1.94	375-73-5	
PFHpA*	1.5	1.9	0.78	ng/L	1.94	375-85-9	J
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*	4.9	1.9	0.78	ng/L	1.94	335-67-1	
PFHxS*	7.2	1.9	0.97	ng/L	1.94	355-46-4	
PFHxS-LN*	5.2	1.9	0.97	ng/L	1.94	355-46-4-LN	
PFHxS-BR*	1.3	1.9	0.97	ng/L	1.94	355-46-4-BR	J
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*	1.1	1.9	0.78	ng/L	1.94	375-92-8	J
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*	52	1.9	0.78	ng/L	1.94	1763-23-1	
PFOS-LN*	23	1.9	0.78	ng/L	1.94	1763-23-1-LN	
PFOS-BR*	26	1.9	0.78	ng/L	1.94	1763-23-1-BR	
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	

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

Lab Sample ID: S63619.02 (continued)

Sample Tag: SAN-12-06272024

34 PFAs, Method: ASTMD7979-19M, Run Date: 07/01/24 19:44, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBSA*	Not detected	1.9	0.58	ng/L	1.94	30334-69-1	
PFECHS*	88	1.9	0.78	ng/L	1.94	67584-42-3	
PFHxSA*	Not detected	1.9	0.58	ng/L	1.94	41997-13-1	

Analytical Laboratory Report

Lab Sample ID: S63619.03
Sample Tag: SAN-14-06272024
Collected Date/Time: 06/27/2024 12:12
Matrix: Liquid
COC Reference: 153315

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.25/6.44/12	ASTMD7979-19M	06/28/24 12:00	CED	
Initial wt. (g) / Final wt. (g) / Volume (ml) (Rep1)	12.17/6.45/12	ASTMD7979-19M	07/01/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 07/02/24 12:26, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	11	2.1	ng/L	2.1	375-22-4	
PFPeA*	2.2	4.2	1.3	ng/L	2.1	2706-90-3	J
4:2 FTSA*	Not detected	2.1	0.21	ng/L	2.1	757124-72-4	
PFHxA*	5.3	2.1	1.3	ng/L	2.1	307-24-4	
PFBS*	4.2	2.1	0.63	ng/L	2.1	375-73-5	
PFHpA*	Not detected	2.1	0.84	ng/L	2.1	375-85-9	
PFPeS*	Not detected	2.1	1.9	ng/L	2.1	2706-91-4	
6:2 FTSA*	Not detected	2.1	1.1	ng/L	2.1	27619-97-2	
PFOA*	4.9	2.1	0.84	ng/L	2.1	335-67-1	
PFHxS*	2.1	2.1	1.1	ng/L	2.1	355-46-4	J
PFHxS-LN*	2.1	2.1	1.1	ng/L	2.1	355-46-4-LN	J
PFHxS-BR*	Not detected	2.1	1.1	ng/L	2.1	355-46-4-BR	
PFNA*	Not detected	2.1	1.1	ng/L	2.1	375-95-1	
8:2 FTSA*	Not detected	2.1	1.3	ng/L	2.1	39108-34-4	
PFHpS*	Not detected	2.1	0.84	ng/L	2.1	375-92-8	
PFDA*	Not detected	2.1	1.3	ng/L	2.1	335-76-2	
N-MeFOSAA*	Not detected	2.1	1.1	ng/L	2.1	2355-31-9	
EtFOSAA*	Not detected	4.2	1.1	ng/L	2.1	2991-50-6	
PFOS*	21	2.1	0.84	ng/L	2.1	1763-23-1	
PFOS-LN*	8.1	2.1	0.84	ng/L	2.1	1763-23-1-LN	
PFOS-BR*	11	2.1	0.84	ng/L	2.1	1763-23-1-BR	
PFUnDA*	Not detected	2.1	0.84	ng/L	2.1	2058-94-8	
PFNS*	Not detected	2.1	1.1	ng/L	2.1	68259-12-1	
PFDoDA*	Not detected	2.1	0.63	ng/L	2.1	307-55-1	
PFDS*	Not detected	2.1	1.1	ng/L	2.1	335-77-3	
PFTrDA*	Not detected	2.1	0.84	ng/L	2.1	72629-94-8	
FOSA*	Not detected	2.1	0.84	ng/L	2.1	754-91-6	
PFTeDA*	Not detected	4.2	0.63	ng/L	2.1	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	1.1	ng/L	2.1	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	1.1	ng/L	2.1	756426-58-1	
ADONA*	Not detected	2.1	0.63	ng/L	2.1	919005-14-4	
HFPO-DA*	Not detected	11	2.1	ng/L	2.1	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	11	8.4	ng/L	2.1	812-70-4	
FPePA (5:3 FTCA)*	Not detected	11	4.2	ng/L	2.1	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	11	4.2	ng/L	2.1	356-02-5	

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

Lab Sample ID: S63619.03 (continued)

Sample Tag: SAN-14-06272024

34 PFAs, Method: ASTMD7979-19M, Run Date: 07/02/24 12:26, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBSA*	Not detected	2.1	0.63	ng/L	2.1	30334-69-1	
PFECHS*	8.2	2.1	0.84	ng/L	2.1	67584-42-3	
PFHxSA*	Not detected	2.1	0.63	ng/L	2.1	41997-13-1	

Merit Laboratories Login Checklist

Lab Set ID: S63619
Client: RAMBOLL (Ramboll Americas)
Project: RACER Coldwater Road
Submitted: 06/27/2024 14:05 Login User: MMC

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

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

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 4.0
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[ ] No	[X] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Merit Laboratories, Inc.

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

C.O.C. PAGE # 1 OF 1

153315

CHAIN OF CUSTODY RECORD

REPORT TO

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

INVOICE TO

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

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

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

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations
☐ Detroit ☐ New York
☐ Other

MERIT LAB NO. (FOR LAB USE ONLY)	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	PFAS (1979)	Special Instructions
63619.01	6/27/24	1146	SAN-06-06272024	L	3	X							X	Low level Reporting with estimated values
.02	↓	1204	SAN-12-06272024	↓	↓	↓							X	
.03	↓	1212	SAN-14-06272024	↓	↓	↓							X	34 PFAS List

RELINQUISHED BY: SIGNATURE/ORGANIZATION	☒ Sampler	DATE	TIME
Kevin Schneider		6/27/24	1241
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME
[illegible]		6/27/24	1240
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
[illegible]		6/27/24	1405
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME
M Olivato		6/27/24	1405

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 4.0

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

Rev. 1.26.22

Quality Control Report

Report ID: QC-S63619-01
Generated on 07/23/2024

Report to

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

Phone: 313-333-0211 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

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

Report Summary

Lab Sample ID(s): S63619.01-S63619.03
Project: RACER Coldwater Road
Submitted Date/Time: 06/27/2024 14:05
Sampled by: Kevin Schneider
P.O. #: 1940008845 TASK 37

QC Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-4)
Prep Batch Summary (Page 5)
Internal Standards per Lab Sample (Pages 6-8)
Internal Standards per QC Sample (Pages 9-13)
Batch QC Results (Pages 14-18)

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: S63619.01
Sample Tag: SAN-06-06272024
Collected Date/Time: 06/27/2024 11:46
Matrix: Liquid
COC Reference: 153315

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	07/01/24 19:24	AK240701RE	PF240701W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63619.02
Sample Tag: SAN-12-06272024
Collected Date/Time: 06/27/2024 12:04
Matrix: Liquid
COC Reference: 153315

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	07/01/24 19:44	AK240701RE	PF240701W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63619.03
Sample Tag: SAN-14-06272024
Collected Date/Time: 06/27/2024 12:12
Matrix: Liquid
COC Reference: 153315

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	07/02/24 12:26	AK240701	PF240701W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: PF240701W1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S63619.01	34 PFAs	ASTMD7979-19M	07/01/24 19:24	AK240701RE
S63619.02	34 PFAs	ASTMD7979-19M	07/01/24 19:44	AK240701RE
S63619.03	34 PFAs	ASTMD7979-19M	07/02/24 12:26	AK240701

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63619.01

Sample Tag: SAN-06-06272024

Collected Date/Time: 06/27/2024 11:46

Matrix: Liquid

COC Reference: 153315

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240701RE, Run Date: 07/01/2024 19:24, Matrix: WW, Dilution: 1.97

Internal Standard	Flags	**%Rec**	LCL	UCL
M2-4:2FTSA		**121.0**	50.0	150.0
M2-6:2FTSA		**139.3**	50.0	150.0
M2-8:2FTSA		**132.6**	50.0	150.0
M2PFTeDA		**90.4**	12.0	218.0
M3PFBS		**120.4**	50.0	150.0
M3PFHxS		**107.3**	50.0	150.0
M4PFHpA		**111.0**	50.0	150.0
M5PFHxA		**108.7**	50.0	150.0
M5PFPeA		**117.8**	50.0	150.0
M6PFDA		**110.4**	50.0	150.0
M7PFUnDA		**112.2**	50.0	150.0
M8FOSA		**126.7**	50.0	150.0
M8PFOA		**105.9**	50.0	150.0
M8PFOS		**119.8**	50.0	150.0
M9-PFNA		**130.8**	50.0	150.0
MPFBA		**128.3**	50.0	150.0
MPFDoDA		**132.0**	50.0	150.0
d3N-MeFOSAA		**109.2**	50.0	150.0
d5EtFOSAA		**144.6**	50.0	150.0
MHFPO-DA		**121.4**	50.0	150.0
d-N-EtFOSA-M		**109.1**	50.0	150.0
d-N-MeFOSA-M		**109.4**	50.0	150.0
d7-N-MeFOSE-M		**105.3**	50.0	150.0
d9-N-EtFOSE-M		**104.7**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63619.02

Sample Tag: SAN-12-06272024

Collected Date/Time: 06/27/2024 12:04

Matrix: Liquid

COC Reference: 153315

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240701RE, Run Date: 07/01/2024 19:44, Matrix: WW, Dilution: 1.94

Internal Standard	Flags	**%Rec**	LCL	UCL
M2-4:2FTSA		**109.0**	50.0	150.0
M2-6:2FTSA		**109.9**	50.0	150.0
M2-8:2FTSA		**113.5**	50.0	150.0
M2PFTeDA		**106.5**	12.0	218.0
M3PFBS		**123.0**	50.0	150.0
M3PFHxS		**117.9**	50.0	150.0
M4PFHpA		**103.8**	50.0	150.0
M5PFHxA		**113.8**	50.0	150.0
M5PFPeA		**109.0**	50.0	150.0
M6PFDA		**97.3**	50.0	150.0
M7PFUnDA		**117.4**	50.0	150.0
M8FOSA		**120.1**	50.0	150.0
M8PFOA		**98.7**	50.0	150.0
M8PFOS		**115.4**	50.0	150.0
M9-PFNA		**117.2**	50.0	150.0
MPFBA		**124.3**	50.0	150.0
MPFDoDA		**128.8**	50.0	150.0
d3N-MeFOSAA		**119.7**	50.0	150.0
d5EtFOSAA		**121.8**	50.0	150.0
MHFPO-DA		**102.9**	50.0	150.0
d-N-EtFOSA-M		**106.1**	50.0	150.0
d-N-MeFOSA-M		**107.0**	50.0	150.0
d7-N-MeFOSE-M		**103.2**	50.0	150.0
d9-N-EtFOSE-M		**102.0**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63619.03

Sample Tag: SAN-14-06272024

Collected Date/Time: 06/27/2024 12:12

Matrix: Liquid

COC Reference: 153315

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240701, Run Date: 07/02/2024 12:26, Matrix: WW, Dilution: 2.1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**140.6**	50.0	150.0
M2-6:2FTSA		**106.3**	50.0	150.0
M2-8:2FTSA		**129.2**	50.0	150.0
M2PFTeDA		**96.5**	12.0	218.0
M3PFBS		**105.1**	50.0	150.0
M3PFHxS		**102.3**	50.0	150.0
M4PFHpA		**102.0**	50.0	150.0
M5PFHxA		**89.9**	50.0	150.0
M5PFPeA		**102.2**	50.0	150.0
M6PFDA		**95.3**	50.0	150.0
M7PFUnDA		**108.4**	50.0	150.0
M8FOSA		**107.2**	50.0	150.0
M8PFOA		**90.1**	50.0	150.0
M8PFOS		**102.4**	50.0	150.0
M9-PFNA		**94.5**	50.0	150.0
MPFBA		**113.2**	50.0	150.0
MPFDoDA		**102.5**	50.0	150.0
d3N-MeFOSAA		**108.9**	50.0	150.0
d5EtFOSAA		**115.8**	50.0	150.0
MHFPO-DA		**92.0**	50.0	150.0
d-N-EtFOSA-M		**98.0**	50.0	150.0
d-N-MeFOSA-M		**95.0**	50.0	150.0
d7-N-MeFOSE-M		**107.6**	50.0	150.0
d9-N-EtFOSE-M		**103.8**	50.0	150.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: PF240701W1

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

Blank (BLK)

Lab Sample ID: AK240701RE.BLK240701

Run in Batch: AK240701RE, Run Date: 07/01/2024 18:03, Prep Date: 07/01/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**105.3**	50.0	150.0
M2-6:2FTSA		**110.2**	50.0	150.0
M2-8:2FTSA		**106.5**	50.0	150.0
M2PFTeDA		**86.7**	12.0	218.0
M3PFBS		**115.4**	50.0	150.0
M3PFHxS		**118.7**	50.0	150.0
M4PFHpA		**119.1**	50.0	150.0
M5PFHxA		**115.4**	50.0	150.0
M5PFPeA		**112.3**	50.0	150.0
M6PFDA		**97.6**	50.0	150.0
M7PFUnDA		**104.5**	50.0	150.0
M8FOSA		**118.3**	50.0	150.0
M8PFOA		**109.2**	50.0	150.0
M8PFOS		**106.2**	50.0	150.0
M9-PFNA		**128.9**	50.0	150.0
MPFBA		**119.5**	50.0	150.0
MPFDoDA		**122.9**	50.0	150.0
d3N-MeFOSAA		**110.1**	50.0	150.0
d5EtFOSAA		**112.8**	50.0	150.0
MHFPO-DA		**112.0**	50.0	150.0
d-N-EtFOSA-M		**117.4**	50.0	150.0
d-N-MeFOSA-M		**105.8**	50.0	150.0
d7-N-MeFOSE-M		**106.7**	50.0	150.0
d9-N-EtFOSE-M		**98.2**	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample (LCS)

Lab Sample ID: AK240701RE.LCS240701

Run in Batch: AK240701RE, Run Date: 07/01/2024 17:23, Prep Date: 07/01/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
M2-4:2FTSA		**105.3**	50.0	150.0
M2-6:2FTSA		**118.0**	50.0	150.0
M2-8:2FTSA		**93.5**	50.0	150.0
M2PFTeDA		**99.8**	12.0	218.0
M3PFBS		**118.4**	50.0	150.0
M3PFHxS		**115.7**	50.0	150.0
M4PFHpA		**113.9**	50.0	150.0
M5PFHxA		**124.9**	50.0	150.0
M5PFPeA		**107.7**	50.0	150.0
M6PFDA		**94.2**	50.0	150.0
M7PFUnDA		**98.7**	50.0	150.0
M8FOSA		**120.1**	50.0	150.0
M8PFOA		**106.5**	50.0	150.0
M8PFOS		**109.7**	50.0	150.0
M9-PFNA		**122.5**	50.0	150.0
MPFBA		**110.6**	50.0	150.0
MPFDoDA		**109.6**	50.0	150.0
d3N-MeFOSAA		**98.8**	50.0	150.0
d5EtFOSAA		**94.5**	50.0	150.0
MHFPO-DA		**109.2**	50.0	150.0
d-N-EtFOSA-M		**107.2**	50.0	150.0
d-N-MeFOSA-M		**102.7**	50.0	150.0
d7-N-MeFOSE-M		**99.8**	50.0	150.0
d9-N-EtFOSE-M		**100.5**	50.0	150.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK240701RE.LCSD240701, Parent Sample ID: AK240701RE.LCS240701

Run in Batch: AK240701RE, Run Date: 07/01/2024 17:43, Prep Date: 07/01/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**106.3**	50.0	150.0
M2-6:2FTSA		**113.7**	50.0	150.0
M2-8:2FTSA		**108.8**	50.0	150.0
M2PFTeDA		**89.4**	12.0	218.0
M3PFBS		**116.8**	50.0	150.0
M3PFHxS		**114.6**	50.0	150.0
M4PFHpA		**111.7**	50.0	150.0
M5PFHxA		**107.9**	50.0	150.0
M5PFPeA		**104.7**	50.0	150.0
M6PFDA		**88.6**	50.0	150.0
M7PFUnDA		**100.4**	50.0	150.0
M8FOSA		**120.2**	50.0	150.0
M8PFOA		**111.5**	50.0	150.0
M8PFOS		**105.0**	50.0	150.0
M9-PFNA		**122.8**	50.0	150.0
MPFBA		**116.3**	50.0	150.0
MPFDoDA		**119.3**	50.0	150.0
d3N-MeFOSAA		**103.9**	50.0	150.0
d5EtFOSAA		**113.3**	50.0	150.0
MHFPO-DA		**109.7**	50.0	150.0
d-N-EtFOSA-M		**115.3**	50.0	150.0
d-N-MeFOSA-M		**115.9**	50.0	150.0
d7-N-MeFOSE-M		**110.1**	50.0	150.0
d9-N-EtFOSE-M		**100.3**	50.0	150.0

Matrix Spike (MS)

Lab Sample ID: AK240701.6365401M, Parent Sample ID: S63654.01

Run in Batch: AK240701, Run Date: 07/01/2024 22:24, Prep Date: 07/01/2024, Matrix: WW, Dilution: 1.91

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA	*	**534.0**	50.0	150.0
M2-6:2FTSA	*	**561.6**	50.0	150.0
M2-8:2FTSA	*	**534.5**	50.0	150.0
M2PFTeDA		**119.8**	12.0	218.0
M3PFBS		**115.6**	50.0	150.0
M3PFHxS		**112.7**	50.0	150.0
M4PFHpA		**127.0**	50.0	150.0
M5PFHxA		**113.6**	50.0	150.0
M5PFPeA		**107.3**	50.0	150.0
M6PFDA		**114.8**	50.0	150.0
M7PFUnDA		**120.9**	50.0	150.0
M8FOSA	*	**161.2**	50.0	150.0
M8PFOA		**126.2**	50.0	150.0
M8PFOS		**118.2**	50.0	150.0
M9-PFNA		**110.5**	50.0	150.0
MPFBA		**102.3**	50.0	150.0
MPFDoDA		**142.0**	50.0	150.0
d3N-MeFOSAA		**102.9**	50.0	150.0
d5EtFOSAA	*	**293.4**	50.0	150.0
MHFPO-DA		**93.5**	50.0	150.0
d-N-EtFOSA-M		**120.0**	50.0	150.0
d-N-MeFOSA-M		**124.9**	50.0	150.0
d7-N-MeFOSE-M		**150.0**	50.0	150.0
d9-N-EtFOSE-M		**139.2**	50.0	150.0

Duplicate (DUP)

Lab Sample ID: AK240701.6364801D, Parent Sample ID: S63648.01

Run in Batch: AK240701, Run Date: 07/02/2024 01:04, Prep Date: 07/01/2024, Matrix: WW, Dilution: 2

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**134.4**	50.0	150.0
M2-6:2FTSA	*	**168.3**	50.0	150.0
M2-8:2FTSA	*	**183.3**	50.0	150.0
M2PFTeDA		**127.7**	12.0	218.0
M3PFBS		**137.0**	50.0	150.0
M3PFHxS		**126.2**	50.0	150.0
M4PFHpA		**111.1**	50.0	150.0
M5PFHxA		**126.4**	50.0	150.0
M5PFPeA		**119.7**	50.0	150.0
M6PFDA		**113.2**	50.0	150.0
M7PFUnDA		**121.9**	50.0	150.0
M8FOSA		**143.2**	50.0	150.0
M8PFOA		**110.4**	50.0	150.0
M8PFOS		**115.4**	50.0	150.0
M9-PFNA		**132.8**	50.0	150.0
MPFBA		**135.2**	50.0	150.0
MPFDoDA		**128.8**	50.0	150.0
d3N-MeFOSAA		**126.8**	50.0	150.0
d5EtFOSAA	*	**151.1**	50.0	150.0
MHFPO-DA		**105.8**	50.0	150.0
d-N-EtFOSA-M		**120.4**	50.0	150.0
d-N-MeFOSA-M		**135.3**	50.0	150.0
d7-N-MeFOSE-M		**125.7**	50.0	150.0
d9-N-EtFOSE-M		**109.6**	50.0	150.0

Organics - Volatiles, Prep Batch ID: PF240701W1

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

Blank (BLK)

Lab Sample ID: AK240701RE.BLK240701

Run in Batch: AK240701RE, Run Date: 07/01/2024 18:03, Prep Date: 07/01/2024, Matrix: WW, Dilution: 1

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

Organics - Volatiles, Prep Batch ID: PF240701W1 (continued)

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

Blank (BLK) (continued)

Lab Sample ID: AK240701RE.BLK240701

Run in Batch: AK240701RE, Run Date: 07/01/2024 18:03, Prep Date: 07/01/2024, 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: AK240701RE.LCS240701

Run in Batch: AK240701RE, Run Date: 07/01/2024 17:23, Prep Date: 07/01/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFBA		108.8	70.0	130.0
PFMPA		72.2	70.0	130.0
FPrPA (3:3 FTCA)		87.0	70.0	130.0
PFPeA		109.2	70.0	130.0
PFPrS		97.6	70.0	130.0
PFMBA		76.8	70.0	130.0
4:2 FTSA		100.4	70.0	130.0
NFDHA		85.8	70.0	130.0
PFHxA		84.2	70.0	130.0
PFBS		98.4	70.0	130.0
HFPO-DA		83.8	70.0	130.0
FPePA (5:3 FTCA)		77.0	70.0	130.0
PFEESA		83.0	70.0	130.0
PFHpA		104.4	70.0	130.0
ADONA		100.0	70.0	130.0
PFPeS		97.4	70.0	130.0
6:2 FTSA		94.8	70.0	130.0
PFBSA		99.4	70.0	130.0
PFOA		91.4	70.0	130.0
PFHxS		94.4	70.0	130.0
FHpPA (7:3 FTCA)		78.8	70.0	130.0
PFNA		98.6	70.0	130.0
8:2 FTSA		84.2	70.0	130.0
PFECHS		98.2	70.0	130.0
PFHpS		104.8	70.0	130.0
N-MeFOSAA		122.2	70.0	130.0
PFDA		106.4	70.0	130.0
EtFOSAA		117.4	70.0	130.0
PFOS		114.4	70.0	130.0
PFHxSA		87.4	70.0	130.0
PFUnDA		120.8	70.0	130.0
9CL-PF3ONS		108.8	70.0	130.0
PFNS		105.8	70.0	130.0
PFDoDA		117.8	70.0	130.0
PFDS		114.8	70.0	130.0
PFTrDA		119.8	70.0	130.0
FOSA		100.0	70.0	130.0
11CL-PF3OUdS		97.8	70.0	130.0
PFTeDA		98.4	70.0	130.0

Organics - Volatiles, Prep Batch ID: PF240701W1 (continued)

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

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: AK240701RE.LCS240701

Run in Batch: AK240701RE, Run Date: 07/01/2024 17:23, Prep Date: 07/01/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFDOS		110.6	70.0	130.0
NMeFOSE		107.6	70.0	130.0
NMeFOSAM		78.0	70.0	130.0
NEtFOSE		98.0	70.0	130.0
NEtFOSAM		90.4	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK240701RE.LCSD240701, Parent Sample ID: AK240701RE.LCS240701

Run in Batch: AK240701RE, Run Date: 07/01/2024 17:43, Prep Date: 07/01/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFBA		109.8	70.0	130.0	0.9	30.0
PFMPA		75.4	70.0	130.0	4.3	30.0
FPrPA (3:3 FTCA)		102.2	70.0	130.0	16.1	30.0
PFPeA		109.6	70.0	130.0	0.4	30.0
PFPrS		99.6	70.0	130.0	2.0	30.0
PFMBA		86.2	70.0	130.0	11.5	30.0
4:2 FTSA		101.6	70.0	130.0	1.2	30.0
NFDHA		105.2	70.0	130.0	20.3	30.0
PFHxA		113.2	70.0	130.0	29.4	30.0
PFBS		101.6	70.0	130.0	3.2	30.0
HFPO-DA		74.0	70.0	130.0	12.4	30.0
FPePA (5:3 FTCA)		99.6	70.0	130.0	25.6	30.0
PFEESA		89.4	70.0	130.0	7.4	30.0
PFHpA		115.6	70.0	130.0	10.2	30.0
ADONA		95.0	70.0	130.0	5.1	30.0
PFPeS		103.2	70.0	130.0	5.8	30.0
6:2 FTSA		110.8	70.0	130.0	15.6	30.0
PFBSA		92.8	70.0	130.0	6.9	30.0
PFOA		88.2	70.0	130.0	3.6	30.0
PFHxS		104.6	70.0	130.0	10.3	30.0
FHpPA (7:3 FTCA)		88.0	70.0	130.0	11.0	30.0
PFNA		105.2	70.0	130.0	6.5	30.0
8:2 FTSA		89.8	70.0	130.0	6.4	30.0
PFECHS		96.4	70.0	130.0	1.8	30.0
PFHpS		113.8	70.0	130.0	8.2	30.0
N-MeFOSAA		117.0	70.0	130.0	4.3	30.0
PFDA		119.6	70.0	130.0	11.7	30.0
EtFOSAA		111.4	70.0	130.0	5.2	30.0
PFOS		114.2	70.0	130.0	0.2	30.0
PFHxSA		84.4	70.0	130.0	3.5	30.0
PFUnDA		128.0	70.0	130.0	5.8	30.0
9CL-PF3ONS		107.0	70.0	130.0	1.7	30.0
PFNS		110.4	70.0	130.0	4.3	30.0
PFDoDA		110.8	70.0	130.0	6.1	30.0
PFDS		125.0	70.0	130.0	8.5	30.0
PFTrDA		116.6	70.0	130.0	2.7	30.0

Organics - Volatiles, Prep Batch ID: PF240701W1 (continued)

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

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: AK240701RE.LCSD240701, Parent Sample ID: AK240701RE.LCS240701

Run in Batch: AK240701RE, Run Date: 07/01/2024 17:43, Prep Date: 07/01/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
FOSA		106.8	70.0	130.0	6.6	30.0
11CL-PF3OUdS		108.0	70.0	130.0	9.9	30.0
PFTeDA		102.4	70.0	130.0	4.0	30.0
PFDOS		114.2	70.0	130.0	3.2	30.0
NMeFOSE		102.6	70.0	130.0	4.8	30.0
NMeFOSAM		71.8	70.0	130.0	8.3	30.0
NEtFOSE		103.4	70.0	130.0	5.4	30.0
NEtFOSAM		85.4	70.0	130.0	5.7	30.0

Matrix Spike (MS)

Lab Sample ID: AK240701.6365401M, Parent Sample ID: S63654.01

Run in Batch: AK240701, Run Date: 07/01/2024 22:24, Prep Date: 07/01/2024, Matrix: WW, Dilution: 1.91

Analyte	Flags	% Rec	LCL	UCL
PFBA		98.4	70.0	130.0
PFPeA		125.7	70.0	130.0
4:2 FTSA		91.1	70.0	130.0
PFHxA		115.2	70.0	130.0
PFBS		115.2	70.0	130.0
PFHpA		100.5	70.0	130.0
PFPeS		104.7	70.0	130.0
6:2 FTSA		91.1	70.0	130.0
PFOA		81.3	70.0	130.0
PFHxS		115.2	70.0	130.0
PFNA		115.2	70.0	130.0
8:2 FTSA		81.7	70.0	130.0
PFHpS		115.2	70.0	130.0
PFDA		98.4	70.0	130.0
N-MeFOSAA	*	178.0	70.0	130.0
EtFOSAA		104.7	70.0	130.0
PFOS		104.7	70.0	130.0
PFUnDA		125.7	70.0	130.0
PFNS		100.5	70.0	130.0
PFDoDA		115.2	70.0	130.0
PFDS		115.2	70.0	130.0
PFTrDA		125.7	70.0	130.0
FOSA		104.7	70.0	130.0
PFTeDA		93.2	70.0	130.0
11CL-PF3OUdS		97.4	70.0	130.0
9CL-PF3ONS		104.7	70.0	130.0
ADONA		89.0	70.0	130.0
HFPO-DA		83.8	70.0	130.0

Organics - Volatiles, Prep Batch ID: PF240701W1 (continued)

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

Duplicate (DUP)

Lab Sample ID: AK240701.6364801D, Parent Sample ID: S63648.01

Run in Batch: AK240701, Run Date: 07/02/2024 01:04, Prep Date: 07/01/2024, Matrix: WW, Dilution: 2

Analyte	Flags	RPD	RPD CL
PFBA		NC	30.0
PFPeA		10.5	30.0
4:2 FTSA		NC	30.0
PFHxA		16.9	30.0
PFBS		19.6	30.0
PFHpA		18.2	30.0
PFPeS		NC	30.0
6:2 FTSA		6.1	30.0
PFOA		5.8	30.0
PFHxS		NC	30.0
PFHxS-LN		NC	30.0
PFHxS-BR		NC	30.0
PFNA		NC	30.0
8:2 FTSA		NC	30.0
PFHpS		NC	30.0
PFDA		NC	30.0
N-MeFOSAA		NC	30.0
EtFOSAA		NC	30.0
PFOS		4.9	30.0
PFOS-LN		8.7	30.0
PFOS-BR		11.8	30.0
PFUnDA		NC	30.0
PFNS		NC	30.0
PFDoDA		NC	30.0
PFDS		NC	30.0
PFTrDA		NC	30.0
FOSA		NC	30.0
PFTeDA		NC	30.0
11CL-PF3OUdS		NC	30.0
9CL-PF3ONS		NC	30.0
ADONA		NC	30.0
HFPO-DA		NC	30.0

Merit Laboratories, Inc.

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www.meritlabs.com

C.O.C. PAGE # 1 OF 1

153315

CHAIN OF CUSTODY RECORD

REPORT TO

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

INVOICE TO

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

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

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

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations
☐ Detroit ☐ New York
☐ Other

MERIT LAB NO. (FOR LAB USE ONLY)	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	PFAS (1979)	Special Instructions
63619.01	6/27/24	1146	SAN-06-06272024	L	3	X							X	Low level Reporting with estimated values
.02	↓	1204	SAN-12-06272024	↓	↓	↓							X	
.03	↓	1212	SAN-14-06272024	↓	↓	↓							X	34 PFAS List

RELINQUISHED BY: SIGNATURE/ORGANIZATION	☒ Sampler	DATE	TIME
Kevin Schneider		6/27/24	1241
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME
[illegible]		6/27/24	1240
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
[illegible]		6/27/24	1405
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME
M Olivato		6/27/24	1405

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 4.0

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

Rev. 1.26.22