



Analytical Laboratory Report

Report ID: S25902.01(01)
Generated on 07/27/2021

Report to

Attention: Jeff Harris
Southwest Barry County Sewer Authority
11191 S. M-43 Hwy
Delton, MI 49046

Phone: 269-207-5325 FAX:
Email: swbcswa@yahoo.com

Report produced by

Merit Laboratories, Inc.
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East Lansing, MI 48823

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Contacts for report questions:

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Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S25902.01
Project: PFC Testing
Collected Date(s): 07/02/2021
Submitted Date/Time: 07/02/2021 13:00
Sampled by: Jeff Harris
P.O. #:

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A handwritten signature in black ink, appearing to read "Maya Murshak".

Maya Murshak
Technical Director



Analytical Laboratory Report

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).

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 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.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Report Narrative

There is no additional narrative for this analytical report



Analytical Laboratory Report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884

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
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

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



Analytical Laboratory Report

Method Summary

Method	Version
ASTM D7968-17M	ASTM Method D7968 - 17 Modified (Isotopic Dilution)
SM2540B	Standard Method 2540 B 2011

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
PFTTrDA	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



Analytical Laboratory Report

Sample Summary (1 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S25902.01	Composite Tanks 1,2,3,4	Sludge	07/02/21 09:30



Analytical Laboratory Report

Lab Sample ID: S25902.01

Sample Tag: Composite Tanks 1,2,3,4

Collected Date/Time: 07/02/2021 09:30

Matrix: Sludge

COC Reference: 143280

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	5.5	IR
1	250ml Plastic	None	Yes	5.5	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	8.87/6.98/10	ASTM D7968-17M	07/26/21 16:45	JGH	

Inorganics

Method: SM2540B, Run Date: 07/07/21 17:00, Analyst: PD/JS

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	1.3	1		%	1		

Organics

28 PFAs, Method: ASTM D7968-17M, Run Date: 07/27/21 02:51, Analyst: JGH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	4.1		ug/kg	407	375-22-4	
PFPaA*	Not detected	2		ug/kg	407	2706-90-3	
4:2 FTSA*	Not detected	2		ug/kg	407	757124-72-4	I
PFHxA*	Not detected	2		ug/kg	407	307-24-4	
PFBS*	Not detected	2		ug/kg	407	375-73-5	
PFHpA*	Not detected	2		ug/kg	407	375-85-9	
PFPeS*	Not detected	2		ug/kg	407	2706-91-4	
6:2 FTSA*	Not detected	2		ug/kg	407	27619-97-2	I
PFOA*	3.7	2		ug/kg	407	335-67-1	
PFHxS*	Not detected	2		ug/kg	407	355-46-4	
PFHxS-LN*	Not detected	2		ug/kg	407	355-46-4-LN	
PFHxS-BR*	Not detected	2		ug/kg	407	355-46-4-BR	
PFNA*	Not detected	2		ug/kg	407	375-95-1	
8:2 FTSA*	Not detected	2		ug/kg	407	39108-34-4	I
PFHpS*	Not detected	2		ug/kg	407	375-92-8	
PFDA*	6.8	2		ug/kg	407	335-76-2	
N-MeFOSAA*	9.9	2		ug/kg	407	2355-31-9	
EtFOSAA*	9	2		ug/kg	407	2991-50-6	I
PFOS*	6	2		ug/kg	407	1763-23-1	
PFOS-LN*	4.8	2		ug/kg	407	1763-23-1-LN	
PFOS-BR*	Not detected	2		ug/kg	407	1763-23-1-BR	
PFUnDA*	Not detected	2		ug/kg	407	2058-94-8	I
PFNS*	Not detected	2		ug/kg	407	68259-12-1	
PFDaDA*	Not detected	2		ug/kg	407	307-55-1	
PFDS*	Not detected	2		ug/kg	407	335-77-3	
PFTTrDA*	Not detected	2		ug/kg	407	72629-94-8	
FOSA*	Not detected	2		ug/kg	407	754-91-6	
PFTeDA*	Not detected	2		ug/kg	407	376-06-7	I
11Cl-PF3OUdS*	Not detected	2		ug/kg	407	763051-92-9	
9Cl-PF3ONS*	Not detected	2		ug/kg	407	756426-58-1	

I-Matrix interference with internal standard



Analytical Laboratory Report

Lab Sample ID: S25902.01 (continued)

Sample Tag: Composite Tanks 1,2,3,4

28 PFAs, Method: ASTM D7968-17M, Run Date: 07/27/21 02:51, Analyst: JGH (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
ADONA*	Not detected	2		ug/kg	407	919005-14-4	
HFPO-DA*	Not detected	2		ug/kg	407	13252-13-6	

Merit Laboratories Login Checklist

Lab Set ID: S25902

Client: MISCPFC (Southwest Barry County Sewer Authority)

Project: PFC Testing

Submitted: 07/02/2021 13:00 Login User: JAL

Attention: Jeff Harris

Address: Southwest Barry County Sewer Authority
11191 S. M-43 Hwy
Delton, MI 49046

Phone: 269-207-5325 FAX:
Email: swbcswa@yahoo.com

Selection	Description	Note
Sample Receiving		
01. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Samples are received at 4C +/- 2C Thermometer #	IR 5.5
02. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Received on ice/ cooling process begun	
03. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Samples shipped	
04. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Samples left in 24 hr. drop box	
05. <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody		
06. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	COC adequately filled out	
07. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	COC signed and relinquished to the lab	Client did not relinquish
08. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Sample tag on bottles match COC	
09. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Subcontracting needed? Subcontracted to:	
Preservation		
10. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Do sample have correct chemical preservation	
11. <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Completed pH checks on preserved samples? (no VOAs)	
12. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions		
13. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	All bottles intact	
14. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Appropriate analytical bottles are used	
15. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Merit bottles used	
16. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Sufficient sample volume received	
17. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Samples require laboratory filtration	
18. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Samples submitted within holding time	
19. <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Do water VOC or TOX bottles contain headspace	

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

Client Review By: _____ Date: _____



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Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # _____ OF _____

143280

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME JEFF HARRIS		COMPANY SOUTHWEST BARREY COUNTY SEWER AUTHORITY	
ADDRESS 1191 S. M-43 HWY		CITY DELTON	
PHONE NO. 269-623-3425	FAX NO. 269-623-3404	PO. NO. MI	ZIP CODE 49046
E-MAIL ADDRESS subcsa@ycabo.com		QUOTE NO.	
PROJECT NO./NAME PFC TESTING		SAMPLE(S) PLEASE PRINT/SIGN NAME JEFF HARRIS	
TURNAROUND TIME REQUIRED <input type="checkbox"/> 1 DAY <input type="checkbox"/> 2 DAYS <input type="checkbox"/> 3 DAYS <input type="checkbox"/> STANDARD <input type="checkbox"/> OTHER			
DELIVERABLES REQUIRED <input type="checkbox"/> STD <input type="checkbox"/> LEVEL II <input type="checkbox"/> LEVEL III <input type="checkbox"/> LEVEL IV <input type="checkbox"/> EDD <input type="checkbox"/> OTHER			
MATRIX GM=GROUNDWATER WM=WASTEWATER S=SOIL L=LIQUID SD=SOLID CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WPIE A=AIR W=WASTE		# Containers & Preservatives	
MERIT LAB NO. 25902.017-2-21	YEAR 9:30am	SAMPLE TAG IDENTIFICATION-DESCRIPTION COMPOSITE TANKS 1,2,3,4	
DATE 7-2-21	TIME 9:30am	MATRIX S	# OF BOTTLES 4

CONTACT NAME DENISE OSBORNE		COMPANY SOUTHWEST BARREY COUNTY SEWER AUTHORITY	
ADDRESS 1191 S. M-43 HWY		CITY DELTON	
PHONE NO. 269-623-3401	E-MAIL ADDRESS	STATE MI	ZIP CODE 49046
ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)			
CERTIFICATIONS <input type="checkbox"/> OHIO VAP <input type="checkbox"/> Drinking Water <input type="checkbox"/> DoD <input type="checkbox"/> NPDES Project Locations <input type="checkbox"/> Detroit <input type="checkbox"/> New York <input type="checkbox"/> Other Special Instructions			
RECEIVED BY: JEFF HARRIS DATE: 7-2-21 TIME: 9:30am			
RECEIVED BY: No Signature (SBCSA) DATE: 7/2/21 TIME: 1:50pm			
RECEIVED BY: No Signature (SBCSA) DATE: 7/2/21 TIME: 1:50pm			

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



Quality Control Report

Report ID: QC-S25902-01
Generated on 07/27/2021

Report to
Attention: Jeff Harris
Southwest Barry County Sewer Authority
11191 S. M-43 Hwy
Delton, MI 49046

Phone: 269-207-5325 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): S25902.01
Project: PFC Testing
Submitted Date/Time: 07/02/2021 13:00
Sampled by: Jeff Harris
P.O. #:

QC Report Sections
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Analysis Summary (Page 2)
Prep Batch Summary (Page 3)
Internal Standards per Lab Sample (Page 4)
Internal Standards per QC Sample (Pages 5-6)
Batch QC Results (Pages 7-10)

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: S25902.01

Sample Tag: Composite Tanks 1,2,3,4

Collected Date/Time: 07/02/2021 09:30

Matrix: Sludge

COC Reference: 143280

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	SM2540B	07/07/21 17:00	TS210707D	TS210707D	No	BLK/LCS/DUP
Organics - Volatiles						
28 PFAs	ASTM D7968-17M	07/27/21 02:51	AK210726B	PF210726S1	Yes	BLK/LCS/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: TS210707D

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S25902.01	Total Solids	SM2540B	07/07/21 17:00	TS210707D

Organics - Volatiles, Prep Batch ID: PF210726S1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S25902.01	28 PFAs	ASTM D7968-17M	07/27/21 02:51	AK210726B

Lab Sample ID: S25902.01

Sample Tag: Composite Tanks 1,2,3,4

Collected Date/Time: 07/02/2021 09:30

Matrix: Sludge

COC Reference: 143280

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK210726B, Run Date: 07/27/2021 02:51, Matrix: SO, Dilution: 407

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA	*	297.5	50.0	150.0
M2-6:2FTSA	*	429.9	50.0	150.0
M2-8:2FTSA	*	452.5	50.0	150.0
M2PFTeDA	*	221.1	12.0	218.0
M3PFBS		104.4	50.0	150.0
M3PFHxS		109.8	50.0	150.0
M4PFHpA		114.5	50.0	150.0
M5PFHxA		119.3	50.0	150.0
M5PFPeA		105.4	50.0	150.0
M6PFDA		121.0	50.0	150.0
M7PFUnDA	*	151.8	50.0	150.0
M8FOSA		124.9	50.0	150.0
M8PFOA		104.0	50.0	150.0
M8PFOS		111.3	50.0	150.0
M9-PFNA		109.5	50.0	150.0
MPFBA		116.6	50.0	150.0
MPFDoDA		144.0	50.0	150.0
d3N-MeFOSAA		146.6	50.0	150.0
d5EtFOSAA	*	163.5	50.0	150.0
MHFPO-DA		104.7	50.0	150.0

Organics - Volatiles, Prep Batch ID: PF210726S1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: AK210726B.BLKS2107261

Run in Batch: AK210726B, Run Date: 07/26/2021 22:18, Prep Date: 07/26/2021, Matrix: SO, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		97.6	50.0	150.0
M2-6:2FTSA		93.8	50.0	150.0
M2-8:2FTSA		101.3	50.0	150.0
M2PFTeDA		136.3	12.0	218.0
M3PFBS		94.8	50.0	150.0
M3PFHxS		106.5	50.0	150.0
M4PFHpA		110.0	50.0	150.0
M5PFHxA		102.6	50.0	150.0
M5PFPeA		104.2	50.0	150.0
M6PFDA		116.5	50.0	150.0
M7PFUnDA		105.2	50.0	150.0
M8FOSA		101.4	50.0	150.0
M8PFOA		101.6	50.0	150.0
M8PFOS		91.5	50.0	150.0
M9-PFNA		109.7	50.0	150.0
MPFBA		104.8	50.0	150.0
MPFDoDA		96.2	50.0	150.0
d3N-MeFOSAA		120.8	50.0	150.0
d5EtFOSAA		111.1	50.0	150.0
MHFPO-DA		106.5	50.0	150.0

Laboratory Control Sample (LCS)

Lab Sample ID: AK210726B.LCSS2107261

Run in Batch: AK210726B, Run Date: 07/26/2021 21:39, Prep Date: 07/26/2021, Matrix: SO, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		101.7	50.0	150.0
M2-6:2FTSA		98.5	50.0	150.0
M2-8:2FTSA		87.2	50.0	150.0
M2PFTeDA		157.2	12.0	218.0
M3PFBS		100.1	50.0	150.0
M3PFHxS		104.3	50.0	150.0
M4PFHpA		96.5	50.0	150.0
M5PFHxA		96.4	50.0	150.0
M5PFPeA		100.0	50.0	150.0
M6PFDA		116.2	50.0	150.0
M7PFUnDA		110.4	50.0	150.0
M8FOSA		104.0	50.0	150.0
M8PFOA		95.5	50.0	150.0
M8PFOS		90.3	50.0	150.0
M9-PFNA		101.4	50.0	150.0
MPFBA		101.2	50.0	150.0
MPFDoDA		104.7	50.0	150.0
d3N-MeFOSAA		123.1	50.0	150.0
d5EtFOSAA		109.2	50.0	150.0
MHFPO-DA		112.6	50.0	150.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK210726B.LCSDS2107261, Parent Sample ID: AK210726B.LCSS2107261

Run in Batch: AK210726B, Run Date: 07/26/2021 21:58, Prep Date: 07/26/2021, Matrix: SO, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		109.7	50.0	150.0
M2-6:2FTSA		98.7	50.0	150.0
M2-8:2FTSA		110.5	50.0	150.0
M2PFTeDA		162.6	12.0	218.0
M3PFBS		98.3	50.0	150.0
M3PFHxS		100.5	50.0	150.0
M4PFHpA		107.4	50.0	150.0
M5PFHxA		110.6	50.0	150.0
M5PFPeA		102.6	50.0	150.0
M6PFDA		111.0	50.0	150.0
M7PFUnDA		101.8	50.0	150.0
M8FOSA		99.9	50.0	150.0
M8PFOA		108.4	50.0	150.0
M8PFOS		99.2	50.0	150.0
M9-PFNA		98.6	50.0	150.0
MPFBA		102.9	50.0	150.0
MPFDoDA		110.6	50.0	150.0
d3N-MeFOSAA		116.2	50.0	150.0
d5EtFOSAA		113.3	50.0	150.0
MHFPO-DA		114.6	50.0	150.0

norganics, Prep Batch ID: TS210707D

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

Blank (BLK)

Lab Sample ID: TS210707D.LRB1

Run in Batch: TS210707D, Run Date: 07/07/2021 17:00, Prep Date: 07/07/2021, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Total Solids		ND	1	%

Laboratory Control Sample (LCS)

Lab Sample ID: TS210707D.LCS1

Run in Batch: TS210707D, Run Date: 07/07/2021 17:00, Prep Date: 07/07/2021, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Total Solids		100	90	110

Duplicate (DUP)

Lab Sample ID: TS210707D.DP1, Parent Sample ID: S25920.12

Run in Batch: TS210707D, Run Date: 07/07/2021 17:00, Prep Date: 07/07/2021, Matrix: Soil, Dilution: 1

Analyte	Flags	RPD	RPD CL
Total Solids		1	5

Duplicate (DUP)

Lab Sample ID: TS210707D.DP2, Parent Sample ID: S25923.03

Run in Batch: TS210707D, Run Date: 07/07/2021 17:00, Prep Date: 07/07/2021, Matrix: Soil, Dilution: 1

Analyte	Flags	RPD	RPD CL
Total Solids		0	5

Organics - Volatiles, Prep Batch ID: PF210726S1

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

Blank (BLK)

Lab Sample ID: AK210726B.BLKS2107261

Run in Batch: AK210726B, Run Date: 07/26/2021 22:18, Prep Date: 07/26/2021, Matrix: SO, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFA		ND	20	ng/kg
PFPeA		ND	10	ng/kg
4:2 FTSA		ND	10	ng/kg
PFHxA		ND	10	ng/kg
PFBS		ND	10	ng/kg
HFPO-DA		ND	10	ng/kg
PFHpA		ND	10	ng/kg
PFPeS		ND	10	ng/kg
ADONA		ND	10	ng/kg
3:2 FTSA		ND	10	ng/kg
PFOA		ND	10	ng/kg
PFHxS-BR		ND	10	ng/kg
PFHxS		ND	10	ng/kg
PFHxS-LN		ND	10	ng/kg
PFNA		ND	10	ng/kg
3:2 FTSA		ND	10	ng/kg
PFHpS		ND	10	ng/kg
N-MeFOSAA		ND	10	ng/kg
PFDA		ND	10	ng/kg
PFOS-BR		ND	10	ng/kg
EtFOSAA		ND	10	ng/kg
PFOS		ND	10	ng/kg
PFOS-LN		ND	10	ng/kg
PFUnDA		ND	10	ng/kg
3CL-PF3ONS		ND	10	ng/kg
PFNS		ND	10	ng/kg
PFDoDA		ND	10	ng/kg
PFDS		ND	10	ng/kg
PFTrDA		ND	10	ng/kg
11CL-PF3OUdS		ND	10	ng/kg
FOA		ND	10	ng/kg
PFTeDA		ND	10	ng/kg

Laboratory Control Sample (LCS)

Lab Sample ID: AK210726B.LCSS2107261

Run in Batch: AK210726B, Run Date: 07/26/2021 21:39, Prep Date: 07/26/2021, Matrix: SO, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFA		107.0	70.0	130.0
PFPeA		95.1	70.0	130.0
4:2 FTSA		101.0	70.0	130.0
PFHxA		107.0	70.0	130.0
PFBS		109.0	70.0	130.0
HFPO-DA		123.0	70.0	130.0
PFHpA		114.0	70.0	130.0
PFPeS		102.0	70.0	130.0
ADONA		98.6	70.0	130.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF210726S1 (continued)

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

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: AK210726B.LCSS2107261

Run in Batch: AK210726B, Run Date: 07/26/2021 21:39, Prep Date: 07/26/2021, Matrix: SO, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
3:2 FTSA		109.0	70.0	130.0
2FOA		97.8	70.0	130.0
2FHxS		109.0	70.0	130.0
2FNA		94.0	70.0	130.0
3:2 FTSA	*	139.0	70.0	130.0
2FHpS		83.1	70.0	130.0
N-MeFOSAA		95.1	70.0	130.0
2FDA		93.4	70.0	130.0
EtFOSAA		109.0	70.0	130.0
2FOS		87.5	70.0	130.0
2FUnDA		105.0	70.0	130.0
3CL-PF3ONS		110.0	70.0	130.0
2FNS		106.0	70.0	130.0
2FDoDA		96.2	70.0	130.0
2FDS		97.2	70.0	130.0
2FTrDA		110.0	70.0	130.0
11CL-PF3OUdS		126.0	70.0	130.0
2OSA		100.0	70.0	130.0
2FTeDA		84.2	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK210726B.LCSDS2107261, Parent Sample ID: AK210726B.LCSS2107261

Run in Batch: AK210726B, Run Date: 07/26/2021 21:58, Prep Date: 07/26/2021, Matrix: SO, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
2FBA		103.0	70.0	130.0	3.8	30.0
2FPeA		96.4	70.0	130.0	1.4	30.0
4:2 FTSA		93.0	70.0	130.0	8.2	30.0
2FHxA		83.6	70.0	130.0	24.6	30.0
2FBS		106.0	70.0	130.0	2.8	30.0
4FPO-DA		106.0	70.0	130.0	14.8	30.0
2FHpA		99.4	70.0	130.0	13.7	30.0
2FPeS		87.8	70.0	130.0	15.0	30.0
4DONA		90.6	70.0	130.0	8.5	30.0
3:2 FTSA		91.3	70.0	130.0	17.7	30.0
2FOA		81.1	70.0	130.0	18.7	30.0
2FHxS		102.0	70.0	130.0	6.6	30.0
2FNA		101.0	70.0	130.0	7.2	30.0
3:2 FTSA		103.0	70.0	130.0	29.8	30.0
2FHpS		94.8	70.0	130.0	13.2	30.0
N-MeFOSAA		95.9	70.0	130.0	0.8	30.0
2FDA		93.9	70.0	130.0	0.5	30.0
EtFOSAA		93.1	70.0	130.0	15.7	30.0
2FOS		74.9	70.0	130.0	15.5	30.0
2FUnDA		113.0	70.0	130.0	7.3	30.0
3CL-PF3ONS		93.6	70.0	130.0	16.1	30.0
2FNS		94.8	70.0	130.0	11.2	30.0

Organics - Volatiles, Prep Batch ID: PF210726S1 (continued)

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

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: AK210726B.LCSDS2107261, Parent Sample ID: AK210726B.LCSS2107261

Run in Batch: AK210726B, Run Date: 07/26/2021 21:58, Prep Date: 07/26/2021, Matrix: SO, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFDoDA		91.6	70.0	130.0	4.9	30.0
PFDS		98.4	70.0	130.0	1.2	30.0
PFTTrDA		113.0	70.0	130.0	2.7	30.0
11CL-PF3OUdS		112.0	70.0	130.0	11.8	30.0
FOSA		104.0	70.0	130.0	3.9	30.0
PFTeDA		97.1	70.0	130.0	14.2	30.0

