

WHITE WATER ASSOCIATES, INC.

429 River Lane • PO Box 27 Amasa, MI 49903 • Ph (906) 822-7889 • Fax -7977

Client: Ishpeming Area Wst. Trt.

WWA Job #: 94098

Project: Monitoring

Date Received: 4/15/2021

Date Reported: 5/3/2021

Sample Number	Client Sample ID	Date/Time Sampled	Sample Matrix
94098-001	Bio Solids	4/14/2021 9:45	Solid
94098-002	Field Blank	4/14/2021 9:45	Drinking water



429 River Lane • PO Box 27 Amasa, MI 49903 • Ph (906) 822-7889 • Fax -7977

Client: Ishpeming Area Wst. Trt.

WWA Job #: 94098

Comments (if any):

Key to Laboratory Flags:

- *: RPD/RSD exceeds limits.
- B: The analyte was found in the associated blank as well as in the sample.
- J: The quantitation is an estimated value because the result is less than the sample quantitation limit but greater than the detection limit.
- M: A matrix effect was present.
- Q: Batch QC data associated with the analysis does not meet the stated objectives
- H: Indicates analytical holding time exceedance.

ND = Not Detected, MDL = Method Detection Limit, MQL = Method Quantitation Limit

ppm = mg/L (liquid) or mg/kg (solid), ppb = ug/L (liquid) or ug/kg (solid)

For coliform, Negative = No coliform bacteria detected, Positive = Coliform bacteria detected

Sample Types:

S = Solids, DW = Drinking water, D = Dissolved, T = Total, TC = TCLP extract, SP = SPLP extract

All samples were received intact and properly preserved unless otherwise noted. The results reported relate only to the samples tested. This report shall not be reproduced, except in full, without the written approval of this laboratory. The Chain of Custody is attached.

This report satisfies the requirements of your project but has not been prepared to comply with NELAP reporting requirements.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and White Water Associates Standard Operating Procedures. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this Final Report is authorized by White Water Associates management, as is verified by the following signature.

Approved By: Electronically signed by Bette J. Premo

WI DNR Lab Certification Number: 999971280
MI EGLE Certification Number: 9306
DoD-ELAP Accreditation Number: 65802 by PJLA
for Environmental Testing
ISO/IEC 17025:2005 Accredited

Client Sample Results

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Client Sample ID: 94098-001

Date Collected: 04/14/21 09:45

Date Received: 04/16/21 11:38

Lab Sample ID: 410-36262-1

Matrix: Solid

Percent Solids: 11.7

Method: EPA 537 (Mod) - EPA 537 Isotope Dilution										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Perfluorohexanoic acid	0.0024	J	0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Perfluoroheptanoic acid	ND		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Perfluoroctanoic acid	0.0036		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Perfluorononanoic acid	0.0010	J	0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Perfluorodecanoic acid	0.0035		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Perfluorotridecanoic acid	ND		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Perfluorotetradecanoic acid	ND		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Perfluorobutanesulfonic acid	ND		0.0086	0.0017	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Perfluorohexamersulfonic acid	0.0010	J	0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Perfluoroctanesulfonic acid	0.015		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
NEtFOSAA	0.0065	J	0.0086	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
NMeFOSAA	0.0071	J	0.0086	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Perfluoropentanesulfonic acid	ND		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Perfluoroheptanesulfonic acid	ND		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Perfluorononanesulfonic acid	ND		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Perfluorodecanesulfonic acid	0.0016	J	0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Perfluorooctanesulfonamide	ND		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Perfluorobutanoic acid	ND		0.0086	0.0034	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Perfluoropentanoic acid	0.0027		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
HFPoDA	ND		0.0086	0.0017	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
DONA	ND		0.013	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
9Cl-PF3ONS	ND		0.0086	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
11Cl-PF3OUdS	ND		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Perfluoroundecanoic acid	ND		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Perfluorododecanoic acid	0.00095	J	0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
8:2 Fluorotelomer sulfonic acid	ND		0.013	0.0026	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
4:2 Fluorotelomer sulfonic acid	ND		0.0086	0.0026	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
6:2 Fluorotelomer sulfonic acid	ND		0.0086	0.0026	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1	
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac		
M2-4:2 FTS	185	*5+	10 - 169			04/19/21 20:52	04/23/21 22:11	1		
M2-8:2 FTS	133		10 - 178			04/19/21 20:52	04/23/21 22:11	1		
M2-6:2 FTS	166		10 - 182			04/19/21 20:52	04/23/21 22:11	1		
13C5 PFHxA	97		11 - 138			04/19/21 20:52	04/23/21 22:11	1		
13C4 PFHpA	108		15 - 139			04/19/21 20:52	04/23/21 22:11	1		
13C8 PFOA	106		21 - 133			04/19/21 20:52	04/23/21 22:11	1		
13C9 PFNA	115		15 - 145			04/19/21 20:52	04/23/21 22:11	1		
13C6 PFDA	95		21 - 134			04/19/21 20:52	04/23/21 22:11	1		
13C7 PFUnA	79		15 - 138			04/19/21 20:52	04/23/21 22:11	1		
13C2-PFDODA	66		28 - 126			04/19/21 20:52	04/23/21 22:11	1		
13C2 PFTeDA	87		10 - 138			04/19/21 20:52	04/23/21 22:11	1		
13C3 PFBS	100		23 - 130			04/19/21 20:52	04/23/21 22:11	1		
13C3 PFHxS	97		24 - 136			04/19/21 20:52	04/23/21 22:11	1		
13C8 PFOS	99		31 - 130			04/19/21 20:52	04/23/21 22:11	1		
d3-NMeFOSAA	110		10 - 172			04/19/21 20:52	04/23/21 22:11	1		
d5-NEtFOSAA	91		10 - 176			04/19/21 20:52	04/23/21 22:11	1		
13C8 FOSA	91		25 - 135			04/19/21 20:52	04/23/21 22:11	1		
13C4 PFBA	98		12 - 137			04/19/21 20:52	04/23/21 22:11	1		
13C5 PFPoA	98		12 - 135			04/19/21 20:52	04/23/21 22:11	1		
13C3 HFPO-DA	103		10 - 152			04/19/21 20:52	04/23/21 22:11	1		

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Client Sample ID: 94098-001

Date Collected: 04/14/21 09:45

Date Received: 04/16/21 11:38

Lab Sample ID: 410-36262-1

Matrix: Solid

Percent Solids: 11.7

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	88.3		1.0	1.0	%		04/17/21 12:09		1

Client Sample ID: 94098-002

Date Collected: 04/15/21 09:45

Date Received: 04/16/21 11:38

Lab Sample ID: 410-36262-2

Matrix: Water

Method: EPA 537 (Mod) - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluoroheptanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluoroctanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorononanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorodecanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorotridecanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorotetradecanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorobutanesulfonic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorohexanesulfonic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluoroctanesulfonic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
NEtFOSAA	ND		2.8	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
NMeFOSAA	ND		1.9	0.56	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluoropentanesulfonic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluoroheptanesulfonic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluoronananesulfonic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorodecanesulfonic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorooctanesulfonamide	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorobutanoic acid	ND		4.7	1.9	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluoropentanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
HFPDA	ND		2.8	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
DONA	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
9Cl-PF3ONS	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
11Cl-PF3OUDS	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluoroundecanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorododecanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
8:2 Fluorotelomer sulfonic acid	ND		2.8	0.93	ng/L		04/20/21 16:29	04/23/21 04:53	1
4:2 Fluorotelomer sulfonic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
6:2 Fluorotelomer sulfonic acid	ND		4.7	1.9	ng/L		04/20/21 16:29	04/23/21 04:53	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	81		20.-187		04/20/21 16:29	04/23/21 04:53
M2-8:2 FTS	91		34.-182		04/20/21 16:29	04/23/21 04:53
M2-6:2 FTS	94		29.-189		04/20/21 16:29	04/23/21 04:53
13C5 PFHxA	79		31.-142		04/20/21 16:29	04/23/21 04:53
13C4 PFHpA	82		30.-144		04/20/21 16:29	04/23/21 04:53
13C8 PFOA	85		49.-127		04/20/21 16:29	04/23/21 04:53
13C9 PFNA	87		47.-136		04/20/21 16:29	04/23/21 04:53
13C6 PFDA	79		47.-128		04/20/21 16:29	04/23/21 04:53
13C7 PFUnA	82		40.-135		04/20/21 16:29	04/23/21 04:53
13C2-PFDODA	83		28.-136		04/20/21 16:29	04/23/21 04:53
13C2 PFTeDA	88		10.-144		04/20/21 16:29	04/23/21 04:53
13C3 PFBS	94		19.-178		04/20/21 16:29	04/23/21 04:53
13C3 PFHxS	77		32.-145		04/20/21 16:29	04/23/21 04:53

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Client Sample ID: 94098-002

Lab Sample ID: 410-36262-2

Matrix: Water

Date Collected: 04/15/21 09:45

Date Received: 04/16/21 11:38

Method: EPA 537 (Mod) - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	84		49 . 126	04/20/21 16:29	04/23/21 04:53	1
d3-NMeFOSAA	78		32 . 151	04/20/21 16:29	04/23/21 04:53	1
d5-NEtFOSAA	83		37 . 164	04/20/21 16:29	04/23/21 04:53	1
13C8 FOSA	74		10 . 143	04/20/21 16:29	04/23/21 04:53	1
13C4 PFBA	82		41 . 132	04/20/21 16:29	04/23/21 04:53	1
13C5 PFPoA	88		33 . 155	04/20/21 16:29	04/23/21 04:53	1
13C3 HFPO-DA	83		20 . 153	04/20/21 16:29	04/23/21 04:53	1



Project No.: 94098 **Date logged in.:** 4/15/2021 **Login person's initials:** JT

Client: Ishpeming Area Wst. Trt. **Number of coolers:** 1

Project name: Monitoring **Courier/shipper:** FedEx

- 1. Custody seals/original packing tape were intact (if applicable).
- 2. Samples are in good condition, i.e. not broken or leaking.
- 3. Samples were received within holding times.
- 4. Samples were received on ice (in direct contact with the samples).
- 5. Temperature of the samples was between 0-6°C. Temp.:

NOTES on #4:

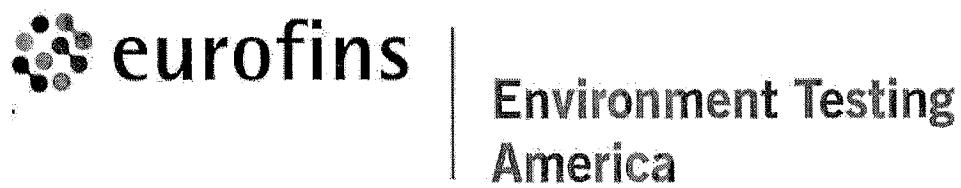
NOTE: Samples not between 0-6°C that are received at the laboratory on the day of sample collections do not require client notification.

- 6. Samples matched the Chain of Custody (COC).
- 7. Proper containers were used.
- 8. Samples were collected in White Water lab containers.
- 9. There is adequate sample volume for requested analyses and QC.
- 10. For water VOC samples, headspace is less than the size of a pea.
- 11. Samples are preserved to the proper pH. Sample bottles and preservation are noted in LIMS Sample Container Section.
- 12. The COC is signed. (either Sampler or Relinquished by)
- 13. Sub-sampling (SS) is required. Bottles created are noted in sample containers section of log-in form.
- 14. For Dissolved Analysis (when applicable), samples were filtered in the lab.
- 15. For soil VOCs, methanol preserved samples were received.
- 16. For Soil VOCs, samples were preserved with methanol in the lab.
- 17. Client contact is necessary. Provide documentation below.

COMMENTS/CORRECTIVE ACTION

CLIENT RESPONSE

Note: If hold time, volume, and received on ice or temperature criteria are not met when required by the method, results may not be able to be used for regulatory purposes. Check with your reporting agency for more information.



ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-36262-1
Client Project/Site: 94098
Revision: 1

For:
White Water Associates
429 River Lane
PO BOX 27
Amasa, Michigan 49903

Attn: Bette J Premo

A handwritten signature in cursive ink that reads "Elizabeth M. Zanar".

Authorized for release by:
4/30/2021 4:26:23 PM

Elizabeth Zanar, Project Manager
(717)556-7290
Elizabeth.Zanar@eurofinset.com

LINKS

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The
Expert

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



Elizabeth Zanar
Project Manager
4/30/2021 4:26:23 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Isotope Dilution Summary	10
QC Sample Results	12
QC Association Summary	18
Lab Chronicle	19
Certification Summary	20
Method Summary	22
Sample Summary	23
Chain of Custody	24
Receipt Checklists	25

Definitions/Glossary

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Qualifiers

LCMS

Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
%	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Job ID: 410-36262-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-36262-1

Comments

No additional comments.

Revision

The report being provided is a revision of the original report sent on 4/28/2021. The report (revision 1) is being revised due to: project name correction to match COC.

Receipt

The samples were received on 4/16/2021 11:38 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.3° C.

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): 94098-002 (410-36262-2). The container labels list 94098-001, while the COC lists 094098-002. The client was contacted, and the lab will follow the information listed on the COC.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): 94098-001 (410-36262-1). The container labels lists for 1 of the containers 94098-002 , while the COC lists 94098-001. The client was contacted, and the lab will follow the information listed on the COC.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): 94098-002 (410-36262-2). The container labels list 04/14/2021, while the COC lists 04/15/2021. The client was contacted, and the lab will follow the information listed on the COC.

LCMS

Method 537 (modified): The recovery for the labeled isotope in the following sample: 94098-001 (410-36262-1) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Client Sample ID: 94098-001

Lab Sample ID: 410-36262-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid	0.0024	J	0.0026	0.00086	mg/Kg	1	*	EPA 537 (Mod)	Total/NA
Perfluorooctanoic acid	0.0036		0.0026	0.00086	mg/Kg	1	*	EPA 537 (Mod)	Total/NA
Perfluorononanoic acid	0.0010	J	0.0026	0.00086	mg/Kg	1	*	EPA 537 (Mod)	Total/NA
Perfluorodecanoic acid	0.0035		0.0026	0.00086	mg/Kg	1	*	EPA 537 (Mod)	Total/NA
Perfluorohexanesulfonic acid	0.0010	J	0.0026	0.00086	mg/Kg	1	*	EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonic acid	0.015		0.0026	0.00086	mg/Kg	1	*	EPA 537 (Mod)	Total/NA
NEtFOSAA	0.0065	J	0.0086	0.00086	mg/Kg	1	*	EPA 537 (Mod)	Total/NA
NMeFOSAA	0.0071	J	0.0086	0.00086	mg/Kg	1	*	EPA 537 (Mod)	Total/NA
Perfluorodecanesulfonic acid	0.0016	J	0.0026	0.00086	mg/Kg	1	*	EPA 537 (Mod)	Total/NA
Perfluoropentanoic acid	0.0027		0.0026	0.00086	mg/Kg	1	*	EPA 537 (Mod)	Total/NA
Perfluorododecanoic acid	0.00095	J	0.0026	0.00086	mg/Kg	1	*	EPA 537 (Mod)	Total/NA

Client Sample ID: 94098-002

Lab Sample ID: 410-36262-2

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Client Sample ID: 94098-001

Lab Sample ID: 410-36262-1

Date Collected: 04/14/21 09:45

Matrix: Solid

Date Received: 04/16/21 11:38

Percent Solids: 11.7

Method: EPA 537 (Mod) - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.0024	J	0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
Perfluoroheptanoic acid	ND		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
Perfluoroctanoic acid	0.0036		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
Perfluorononanoic acid	0.0010	J	0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
Perfluorodecanoic acid	0.0035		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
Perfluorotridecanoic acid	ND		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
Perfluorotetradecanoic acid	ND		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
Perfluorobutanesulfonic acid	ND		0.0086	0.0017	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
Perfluorohexanesulfonic acid	0.0010	J	0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
Perfluoroctanesulfonic acid	0.015		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
NEtFOSAA	0.0065	J	0.0086	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
NMeFOSAA	0.0071	J	0.0086	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
Perfluoropentanesulfonic acid	ND		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
Perfluoroheptanesulfonic acid	ND		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
Perfluorononanesulfonic acid	ND		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
Perfluorodecanesulfonic acid	0.0016	J	0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
Perfluorooctanesulfonamide	ND		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
Perfluorobutanoic acid	ND		0.0086	0.0034	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
Perfluoropentanoic acid	0.0027		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
HFPoDA	ND		0.0086	0.0017	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
DONA	ND		0.013	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
9Cl-PF3ONS	ND		0.0086	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
11Cl-PF3OUdS	ND		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
Perfluoroundecanoic acid	ND		0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
Perfluorododecanoic acid	0.00095	J	0.0026	0.00086	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
8:2 Fluorotelomer sulfonic acid	ND		0.013	0.0026	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
4:2 Fluorotelomer sulfonic acid	ND		0.0086	0.0026	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1
6:2 Fluorotelomer sulfonic acid	ND		0.0086	0.0026	mg/Kg	*	04/19/21 20:52	04/23/21 22:11	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	185	*5+	10 - 169	04/19/21 20:52	04/23/21 22:11	1
M2-8:2 FTS	133		10 - 178	04/19/21 20:52	04/23/21 22:11	1
M2-6:2 FTS	166		10 - 182	04/19/21 20:52	04/23/21 22:11	1
13C5 PFHxA	97		11 - 138	04/19/21 20:52	04/23/21 22:11	1
13C4 PFHxA	108		15 - 139	04/19/21 20:52	04/23/21 22:11	1
13C8 PFOA	106		21 - 133	04/19/21 20:52	04/23/21 22:11	1
13C9 PFNA	115		15 - 145	04/19/21 20:52	04/23/21 22:11	1
13C6 PFDA	95		21 - 134	04/19/21 20:52	04/23/21 22:11	1
13C7 PFUra	79		15 - 138	04/19/21 20:52	04/23/21 22:11	1
13C2-PFDADA	66		28 - 126	04/19/21 20:52	04/23/21 22:11	1
13C2 PFTeDA	87		10 - 138	04/19/21 20:52	04/23/21 22:11	1
13C3 PFBS	100		23 - 130	04/19/21 20:52	04/23/21 22:11	1
13C3 PFHxs	97		24 - 136	04/19/21 20:52	04/23/21 22:11	1
13C8 PFOS	99		31 - 130	04/19/21 20:52	04/23/21 22:11	1
d3-NMeFOSAA	110		10 - 172	04/19/21 20:52	04/23/21 22:11	1
d5-NEtFOSAA	91		10 - 176	04/19/21 20:52	04/23/21 22:11	1
13C8 FOSA	91		25 - 135	04/19/21 20:52	04/23/21 22:11	1
13C4 PFBA	98		12 - 137	04/19/21 20:52	04/23/21 22:11	1
13C5 PFPoA	98		12 - 135	04/19/21 20:52	04/23/21 22:11	1
13C3 HFPO-DA	103		10 - 152	04/19/21 20:52	04/23/21 22:11	1

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Client Sample Results

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Client Sample ID: 94098-001

Lab Sample ID: 410-36262-1

Date Collected: 04/14/21 09:45

Matrix: Solid

Date Received: 04/16/21 11:38

Percent Solids: 11.7

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	88.3		1.0	1.0	%			04/17/21 12:09	1

Client Sample ID: 94098-002

Lab Sample ID: 410-36262-2

Date Collected: 04/15/21 09:45

Matrix: Water

Date Received: 04/16/21 11:38

Method: EPA 537 (Mod) - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluoroheptanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluoroctanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorononanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorodecanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorotridecanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorotetradecanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorobutanesulfonic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorohexanesulfonic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluoroctanesulfonic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
NEtFOSAA	ND		2.8	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
NMeFOSAA	ND		1.9	0.56	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluoropentanesulfonic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluoroheptanesulfonic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorononanesulfonic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorodecanesulfonic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorooctanesulfonamide	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorobutanoic acid	ND		4.7	1.9	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluoropentanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
HFPODA	ND		2.8	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
DONA	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
9Cl-PF3ONS	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
11Cl-PF3OUdS	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluoroundecanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
Perfluorododecanoic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
8:2 Fluorotelomer sulfonic acid	ND		2.8	0.93	ng/L		04/20/21 16:29	04/23/21 04:53	1
4:2 Fluorotelomer sulfonic acid	ND		1.9	0.47	ng/L		04/20/21 16:29	04/23/21 04:53	1
6:2 Fluorotelomer sulfonic acid	ND		4.7	1.9	ng/L		04/20/21 16:29	04/23/21 04:53	1

Isotope Dilution

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	81		20 - 187	04/20/21 16:29	04/23/21 04:53	1
M2-8:2 FTS	91		34 - 182	04/20/21 16:29	04/23/21 04:53	1
M2-6:2 FTS	94		29 - 189	04/20/21 16:29	04/23/21 04:53	1
13C5 PFHxA	79		31 - 142	04/20/21 16:29	04/23/21 04:53	1
13C4 PFHpA	82		30 - 144	04/20/21 16:29	04/23/21 04:53	1
13C8 PFOA	85		49 - 127	04/20/21 16:29	04/23/21 04:53	1
13C9 PFNA	87		47 - 136	04/20/21 16:29	04/23/21 04:53	1
13C6 PFDA	79		47 - 128	04/20/21 16:29	04/23/21 04:53	1
13C7 PFUnA	82		40 - 135	04/20/21 16:29	04/23/21 04:53	1
13C2-PFD _n DA	83		28 - 136	04/20/21 16:29	04/23/21 04:53	1
13C2 PFTeDA	88		10 - 144	04/20/21 16:29	04/23/21 04:53	1
13C3 PFBS	94		19 - 178	04/20/21 16:29	04/23/21 04:53	1
13C3 PFHxS	77		32 - 145	04/20/21 16:29	04/23/21 04:53	1

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Client Sample Results

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Client Sample ID: 94098-002

Lab Sample ID: 410-36262-2

Date Collected: 04/15/21 09:45

Matrix: Water

Date Received: 04/16/21 11:38

Method: EPA 537 (Mod) - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	84		49 - 126	04/20/21 16:29	04/23/21 04:53	1
d3-NMeFOSAA	78		32 - 151	04/20/21 16:29	04/23/21 04:53	1
d5-NEtFOSAA	83		37 - 164	04/20/21 16:29	04/23/21 04:53	1
13C8 FOSA	74		10 - 143	04/20/21 16:29	04/23/21 04:53	1
13C4 PFBA	82		41 - 132	04/20/21 16:29	04/23/21 04:53	1
13C5 PFPeA	88		33 - 155	04/20/21 16:29	04/23/21 04:53	1
13C3 HFPO-DA	83		20 - 153	04/20/21 16:29	04/23/21 04:53	1



Isotope Dilution Summary

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Method: EPA 537 (Mod) - EPA 537 Isotope Dilution

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS (10-169)	M282FTS (10-178)	M262FTS (10-182)	13C5PHA (11-138)	C4PFHA (15-139)	C8PFOA (21-133)	C9PFNA (15-145)	C6PFDA (21-134)
410-36262-1	94098-001	185 *5+	133	166	97	108	106	115	95
LCS 410-116501/2-B	Lab Control Sample	104	106	110	108	107	110	106	101
LCSD 410-116501/3-B	Lab Control Sample Dup	90	94	99	96	94	102	101	105
MB 410-116501/1-B	Method Blank	92	118	110	97	94	98	103	96
Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		13C7PUA (15-138)	PFDoDA (28-126)	PFTDA (10-138)	C3PFBS (23-130)	C3PFHS (24-136)	C8PFOS (31-130)	d3NMFOS (10-172)	d5NEFOS (10-176)
410-36262-1	94098-001	79	66	87	100	97	99	110	91
LCS 410-116501/2-B	Lab Control Sample	101	102	99	110	115	104	104	98
LCSD 410-116501/3-B	Lab Control Sample Dup	101	98	100	104	97	99	93	96
MB 410-116501/1-B	Method Blank	100	98	100	104	95	103	93	98
Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFOSA (25-135)	PFBA (12-137)	PPPeA (12-135)	HFPODA (10-152)				
410-36262-1	94098-001	91	98	98	103				
LCS 410-116501/2-B	Lab Control Sample	114	106	103	110				
LCSD 410-116501/3-B	Lab Control Sample Dup	107	103	108	103				
MB 410-116501/1-B	Method Blank	108	102	97	103				

Surrogate Legend

M242FTS = M2-4:2 FTS
 M282FTS = M2-8:2 FTS
 M262FTS = M2-6:2 FTS
 13C5PHA = 13C5 PFHxA
 C4PFHA = 13C4 PFHpA
 C8PFOA = 13C8 PFOA
 C9PFNA = 13C9 PFNA
 C6PFDA = 13C6 PFDA
 13C7PUA = 13C7 PFUnA
 PFDoDA = 13C2-PFDoDA
 PFTDA = 13C2 PFTeDA
 C3PFBS = 13C3 PFBS
 C3PFHS = 13C3 PFHxS
 C8PFOS = 13C8 PFOS
 d3NMFOS = d3-NMeFOSAA
 d5NEFOS = d5-NEtFOSAA
 PFOSA = 13C8 FOSA
 PFBA = 13C4 PFBA
 PPPeA = 13C5 PPPeA
 HFPODA = 13C3 HFPO-DA

Method: EPA 537 (Mod) - EPA 537 Isotope Dilution

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS (20-187)	M282FTS (34-182)	M262FTS (29-189)	13C5PHA (31-142)	C4PFHA (30-144)	C8PFOA (49-127)	C9PFNA (47-136)	C6PFDA (47-128)
410-36262-2	94098-002	81	91	94	79	82	85	87	79
LCS 410-116936/2-A	Lab Control Sample	88	93	95	89	89	92	94	80
MB 410-116936/1-A	Method Blank	90	97	106	86	89	97	98	87

Eurofins Lancaster Laboratories Env, LLC

Isotope Dilution Summary

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Method: EPA 537 (Mod) - EPA 537 Isotope Dilution (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	13C7PUA (40-135)	PFDoDA (28-136)	PFTDA (10-144)	C3PFBS (19-178)	C3PFHS (32-145)	C8PFOS (49-126)	d3NMFOS (32-151)	d5NEFOS (37-164)
410-36262-2	94098-002	82	83	88	94	77	84	78	83
LCS 410-116936/2-A	Lab Control Sample	82	83	91	99	87	87	82	81
MB 410-116936/1-A	Method Blank	92	89	97	95	86	90	90	88
		Percent Isotopo Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFOSA (10-143)	PFBA (41-132)	PPPeA (33-155)	HFPODA (20-153)				
410-36262-2	94098-002	74	82	88	83				
LCS 410-116936/2-A	Lab Control Sample	80	86	87	87				
MB 410-116936/1-A	Method Blank	87	87	82	87				

Surrogate Legend

M242FTS = M2-4:2 FTS
M282FTS = M2-8:2 FTS
M262FTS = M2-6:2 FTS
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFOSA = 13C8 FOSA
PFBA = 13C4 PFBA
PPPeA = 13C5 PPPeA
HFPODA = 13C3 HFPO-DA

QC Sample Results

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Method: EPA 537 (Mod) - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-116501/1-B							Client Sample ID: Method Blank			
Matrix: Solid							Prep Type: Total/NA			
Analysis Batch: 118312							Prep Batch: 116501			
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Perfluorohexanoic acid	ND		0.00030	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Perfluoroheptanoic acid	ND		0.00030	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Perfluorooctanoic acid	ND		0.00030	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Perfluorononanoic acid	ND		0.00030	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Perfluorodecanoic acid	ND		0.00030	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Perfluorotridecanoic acid	ND		0.00030	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Perfluorotetradecanoic acid	ND		0.00030	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Perfluorobutanesulfonic acid	ND		0.0010	0.00020	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Perfluorohexanesulfonic acid	ND		0.00030	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Perfluoroctanesulfonic acid	ND		0.00030	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
NEtFOSAA	ND		0.0010	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
NMeFOSAA	ND		0.0010	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Perfluoropentanesulfonic acid	ND		0.00030	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Perfluoroheptanesulfonic acid	ND		0.00030	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Perfluorononanesulfonic acid	ND		0.00030	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Perfluorodecanesulfonic acid	ND		0.00030	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Perfluoroctanesulfonamide	ND		0.00030	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Perfluorobutanoic acid	ND		0.0010	0.00040	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Perfluoropentanoic acid	ND		0.00030	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
HFPODA	ND		0.0010	0.00020	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
DONA	ND		0.0015	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
9Cl-PF3ONS	ND		0.0010	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
11Cl-PF3OJdS	ND		0.00030	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Perfluoroundecanoic acid	ND		0.00030	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Perfluorododecanoic acid	ND		0.00030	0.00010	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
8:2 Fluorotelomer sulfonic acid	ND		0.0015	0.00030	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
4:2 Fluorotelomer sulfonic acid	ND		0.0010	0.00030	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
6:2 Fluorotelomer sulfonic acid	ND		0.0010	0.00030	mg/Kg	04/19/21 20:52	04/23/21 21:39		1	
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
M2-4:2 FTS	92		10 - 169				04/19/21 20:52	04/23/21 21:39		1
M2-8:2 FTS	118		10 - 178				04/19/21 20:52	04/23/21 21:39		1
M2-6:2 FTS	110		10 - 182				04/19/21 20:52	04/23/21 21:39		1
13C5 PFHxA	97		11 - 138				04/19/21 20:52	04/23/21 21:39		1
13C4 PFHpA	94		15 - 139				04/19/21 20:52	04/23/21 21:39		1
13C8 PFOA	98		21 - 133				04/19/21 20:52	04/23/21 21:39		1
13C9 PFNA	103		15 - 145				04/19/21 20:52	04/23/21 21:39		1
13C6 PFDA	96		21 - 134				04/19/21 20:52	04/23/21 21:39		1
13C7 PFUnA	100		15 - 138				04/19/21 20:52	04/23/21 21:39		1
13C2-PFD _n DA	98		28 - 126				04/19/21 20:52	04/23/21 21:39		1
13C2 PFTeDA	100		10 - 138				04/19/21 20:52	04/23/21 21:39		1
13C3 PFBS	104		23 - 130				04/19/21 20:52	04/23/21 21:39		1
13C3 PFHxS	95		24 - 136				04/19/21 20:52	04/23/21 21:39		1
13C8 PFOS	103		31 - 130				04/19/21 20:52	04/23/21 21:39		1
d3-NMeFOSAA	93		10 - 172				04/19/21 20:52	04/23/21 21:39		1
d5-NEtFOSAA	98		10 - 176				04/19/21 20:52	04/23/21 21:39		1
13C8 FOSA	108		25 - 135				04/19/21 20:52	04/23/21 21:39		1
13C4 PFBA	102		12 - 137				04/19/21 20:52	04/23/21 21:39		1

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QC Sample Results

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Method: EPA 537 (Mod) - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-116501/1-B

Matrix: Solid

Analysis Batch: 118312

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 116501

	Prepared	Analyzed	Dil Fac
13C5 PFPeA	04/19/21 20:52	04/23/21 21:39	1
13C3 HFPO-DA	04/19/21 20:52	04/23/21 21:39	1

Lab Sample ID: LCS 410-116501/2-B

Matrix: Solid

Analysis Batch: 118312

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 116501

	%Rec.
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Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorohexanoic acid	0.0250	0.0236		mg/Kg	95	61 - 147	
Perfluoroheptanoic acid	0.0250	0.0216	E	mg/Kg	86	61 - 151	
Perfluoroctanoic acid	0.0250	0.0245		mg/Kg	98	62 - 144	
Perfluorononanoic acid	0.0250	0.0252		mg/Kg	101	62 - 148	
Perfluorodecanoic acid	0.0250	0.0223	E	mg/Kg	89	62 - 142	
Perfluorotridecanoic acid	0.0250	0.0218	E	mg/Kg	87	57 - 152	
Perfluorotetradecanoic acid	0.0250	0.0211	E	mg/Kg	84	60 - 147	
Perfluorobutanesulfonic acid	0.0221	0.0218		mg/Kg	99	62 - 137	
Perfluorooctanesulfonic acid	0.0228	0.0220		mg/Kg	96	57 - 135	
Perfluorooctanesulfonic acid	0.0231	0.0224		mg/Kg	97	48 - 134	
NEtFOSAA	0.0250	0.0233	E	mg/Kg	93	50 - 140	
NMeFOSAA	0.0250	0.0222	E	mg/Kg	89	53 - 149	
Perfluoropentanesulfonic acid	0.0235	0.0224		mg/Kg	95	65 - 145	
Perfluoroheptanesulfonic acid	0.0238	0.0230		mg/Kg	96	67 - 138	
Perfluorononanesulfonic acid	0.0240	0.0222		mg/Kg	93	63 - 143	
Perfluorodecanesulfonic acid	0.0241	0.0237		mg/Kg	98	60 - 142	
Perfluorooctanesulfonamide	0.0250	0.0209		mg/Kg	84	52 - 132	
Perfluorobutanoic acid	0.0250	0.0236		mg/Kg	95	50 - 185	
Perfluoropentanoic acid	0.0250	0.0250		mg/Kg	100	69 - 144	
HFPODA	0.0250	0.0219		mg/Kg	87	29 - 162	
DONA	0.0236	0.0237		mg/Kg	100	48 - 155	
9Cl-PF3ONS	0.0233	0.0228		mg/Kg	98	48 - 146	
11Cl-PF3OuDS	0.0233	0.0217		mg/Kg	93	45 - 145	
Perfluoroundecanoic acid	0.0250	0.0230	E	mg/Kg	92	62 - 144	
Perfluorododecanoic acid	0.0250	0.0250		mg/Kg	100	60 - 147	
8:2 Fluorotelomer sulfonic acid	0.0240	0.0212		mg/Kg	89	50 - 147	
4:2 Fluorotelomer sulfonic acid	0.0234	0.0218		mg/Kg	93	55 - 132	
6:2 Fluorotelomer sulfonic acid	0.0237	0.0223		mg/Kg	94	53 - 137	

Isotope Dilution	%Recovery	Qualifier	Limits
M2-4:2 FTS	104		10 - 169
M2-8:2 FTS	106		10 - 178
M2-6:2 FTS	110		10 - 182
13C5 PFHxA	108		11 - 138
13C4 PFHpa	107		15 - 139
13C8 PFOA	110		21 - 133
13C9 PFNA	106		15 - 145
13C6 PFDA	101		21 - 134
13C7 PFUnA	101		15 - 138
13C2-PFDoda	102		28 - 126
13C2 PFTeDA	99		10 - 138



QC Sample Results

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Method: EPA 537 (Mod) - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-116501/2-B
Matrix: Solid
Analysis Batch: 118312

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 116501

Isotope Dilution	LCS	LCS	%Recovery	Qualifier	Limits
13C3 PFBS			110		23 - 130
13C3 PFHxS			115		24 - 136
13C8 PFOS			104		31 - 130
d3-NMeFOSAA			104		10 - 172
d5-NEtFOSAA			98		10 - 176
13C8 FOSA			114		25 - 135
13C4 PFBA			106		12 - 137
13C5 PFPeA			103		12 - 135
13C3 HFPO-DA			110		10 - 152

Lab Sample ID: LCSD 410-116501/3-B
Matrix: Solid
Analysis Batch: 118312

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 116501

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	Limit
Perfluorohexanoic acid	0.0250	0.0240		mg/Kg	96	61 - 147	2	30	
Perfluoroheptanoic acid	0.0250	0.0209	E	mg/Kg	83	61 - 151	3	30	
Perfluoroctanoic acid	0.0250	0.0245		mg/Kg	98	62 - 144	0	30	
Perfluorononanoic acid	0.0250	0.0253		mg/Kg	101	62 - 148	1	30	
Perfluorodecanoic acid	0.0250	0.0211	E	mg/Kg	84	62 - 142	6	30	
Perfluorotridecanoic acid	0.0250	0.0221	E	mg/Kg	89	57 - 152	2	30	
Perfluorotetradecanoic acid	0.0250	0.0213	E	mg/Kg	85	60 - 147	1	30	
Perfluorobutanesulfonic acid	0.0221	0.0222		mg/Kg	100	62 - 137	2	30	
Perfluorohexanesulfonic acid	0.0228	0.0230		mg/Kg	101	57 - 135	4	30	
Perfluoroctanesulfonic acid	0.0231	0.0230		mg/Kg	99	48 - 134	3	30	
NEtFOSAA	0.0250	0.0231	E	mg/Kg	92	50 - 140	1	30	
NMeFOSAA	0.0250	0.0235	E	mg/Kg	94	53 - 149	6	30	
Perfluoropentanesulfonic acid	0.0235	0.0226		mg/Kg	96	65 - 145	1	30	
Perfluoroheptanesulfonic acid	0.0238	0.0240		mg/Kg	101	67 - 138	4	30	
Perfluorononanesulfonic acid	0.0240	0.0234		mg/Kg	98	63 - 143	5	30	
Perfluorodecanesulfonic acid	0.0241	0.0254		mg/Kg	105	60 - 142	7	30	
Perfluoroctanesulfonamide	0.0250	0.0214		mg/Kg	86	52 - 132	2	30	
Perfluorobutanoic acid	0.0250	0.0241		mg/Kg	96	50 - 185	2	30	
Perfluoropentanoic acid	0.0250	0.0245		mg/Kg	98	69 - 144	2	30	
HFPODA	0.0250	0.0217		mg/Kg	87	29 - 162	1	30	
DONA	0.0236	0.0242		mg/Kg	103	48 - 155	2	30	
9CI-PF3ONS	0.0233	0.0234		mg/Kg	101	48 - 146	3	30	
11CI-PF3OUDS	0.0233	0.0226		mg/Kg	97	45 - 145	4	30	
Perfluoroundecanoic acid	0.0250	0.0223	E	mg/Kg	89	62 - 144	3	30	
Perfluorododecanoic acid	0.0250	0.0243		mg/Kg	97	60 - 147	3	30	
8:2 Fluorotelomer sulfonic acid	0.0240	0.0253		mg/Kg	106	50 - 147	18	30	
4:2 Fluorotelomer sulfonic acid	0.0234	0.0232		mg/Kg	99	55 - 132	6	30	
6:2 Fluorotelomer sulfonic acid	0.0237	0.0230		mg/Kg	97	53 - 137	3	30	

Isotope Dilution	LCS	LCS	%Recovery	Qualifier	Limits
M2-4:2 FTS			90		10 - 169
M2-8:2 FTS			94		10 - 178
M2-6:2 FTS			99		10 - 182
13C5 PFHxA			96		11 - 138

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Method: EPA 537 (Mod) - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-116501/3-B

Matrix: Solid

Analysis Batch: 118312

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 116501

<i>Isotope Dilution</i>	<i>LCSD</i>	<i>LCSD</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
13C4 PFHpA	94				15 - 139
13C8 PFOA	102				21 - 133
13C9 PFNA	101				15 - 145
13C6 PFDA	105				21 - 134
13C7 PFUnA	101				15 - 138
13C2-PFDoDA	98				28 - 126
13C2 PFTeDA	100				10 - 138
13C3 PFBS	104				23 - 130
13C3 PFHxS	97				24 - 136
13C8 PFOS	99				31 - 130
d3-NMeFOSAA	93				10 - 172
d5-NEtFOSAA	96				10 - 176
13C8 FOSA	107				25 - 135
13C4 PFBA	103				12 - 137
13C5 PFPeA	108				12 - 135
13C3 HFPO-DA	103				10 - 152

Lab Sample ID: MB 410-116936/1-A

Matrix: Water

Analysis Batch: 117921

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 116936

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
Perfluoroheptanoic acid	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
Perfluorooctanoic acid	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
Perfluorononanoic acid	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
Perfluorodecanoic acid	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
Perfluorotridecanoic acid	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
Perfluorotetradecanoic acid	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
Perfluorobutanesulfonic acid	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
Perfluorohexanesulfonic acid	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
Perfluorooctanesulfonic acid	0.727	J	2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
NETFOSAA	ND		3.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
NMeFOSAA	ND		2.0	0.60	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
Perfluoropentanesulfonic acid	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
Perfluoroheptanesulfonic acid	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
Perfluoronananesulfonic acid	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
Perfluorodecanesulfonic acid	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
Perfluorooctanesulfonamide	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
Perfluorobutanoic acid	ND		5.0	2.0	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
Perfluoropentanoic acid	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
HFPoDA	ND		3.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
DONA	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
9CI-PF3ONS	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
11CI-PF3OUDS	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
Perfluoroundecanoic acid	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
Perfluorododecanoic acid	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
8:2 Fluorotelomer sulfonic acid	ND		3.0	1.0	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1
4:2 Fluorotelomer sulfonic acid	ND		2.0	0.50	ng/L	04/20/21 16:29	04/23/21 02:26	04/23/21 02:26	1

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QC Sample Results

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Method: EPA 537 (Mod) - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-116936/1-A
Matrix: Water
Analysis Batch: 117921

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 116936

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	ND	5.0									
6:2 Fluorotelomer sulfonic acid											1
Isotope Dilution											
M2-4:2 FTS	90	MB	90	MB	20 - 187				04/20/21 16:29	04/23/21 02:26	1
M2-8:2 FTS	97	MB	97	MB	34 - 182				04/20/21 16:29	04/23/21 02:26	1
M2-6:2 FTS	106	MB	106	MB	29 - 189				04/20/21 16:29	04/23/21 02:26	1
13C5 PFHxA	86	MB	86	MB	31 - 142				04/20/21 16:29	04/23/21 02:26	1
13C4 PFHpA	89	MB	89	MB	30 - 144				04/20/21 16:29	04/23/21 02:26	1
13C8 PFOA	97	MB	97	MB	49 - 127				04/20/21 16:29	04/23/21 02:26	1
13C9 PFNA	98	MB	98	MB	47 - 136				04/20/21 16:29	04/23/21 02:26	1
13C6 PFDA	87	MB	87	MB	47 - 128				04/20/21 16:29	04/23/21 02:26	1
13C7 PFUnA	92	MB	92	MB	40 - 135				04/20/21 16:29	04/23/21 02:26	1
13C2-PFDoDA	89	MB	89	MB	28 - 136				04/20/21 16:29	04/23/21 02:26	1
13C2 PFTeDA	97	MB	97	MB	10 - 144				04/20/21 16:29	04/23/21 02:26	1
13C3 PFBS	95	MB	95	MB	19 - 178				04/20/21 16:29	04/23/21 02:26	1
13C3 PFHxS	86	MB	86	MB	32 - 145				04/20/21 16:29	04/23/21 02:26	1
13C8 PFOS	90	MB	90	MB	49 - 126				04/20/21 16:29	04/23/21 02:26	1
d3-NMeFOSAA	90	MB	90	MB	32 - 151				04/20/21 16:29	04/23/21 02:26	1
d5-NEtFOSAA	88	MB	88	MB	37 - 164				04/20/21 16:29	04/23/21 02:26	1
13C8 FOSA	87	MB	87	MB	10 - 143				04/20/21 16:29	04/23/21 02:26	1
13C4 PFBA	87	MB	87	MB	41 - 132				04/20/21 16:29	04/23/21 02:26	1
13C5 PFPeA	82	MB	82	MB	33 - 155				04/20/21 16:29	04/23/21 02:26	1
13C3 HFPO-DA	87	MB	87	MB	20 - 153				04/20/21 16:29	04/23/21 02:26	1

Lab Sample ID: LCS 410-116936/2-A

Matrix: Water
Analysis Batch: 117921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 116936

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec.	%Rec.	
	Added	Result	Qualifier						Limits	
Perfluorohexanoic acid	25.6	28.5				ng/L		111	66 - 137	
Perfluoroheptanoic acid	25.6	25.0				ng/L		98	66 - 141	
Perfluorooctanoic acid	25.6	29.0				ng/L		113	65 - 136	
Perfluorononanoic acid	25.6	30.2				ng/L		118	65 - 140	
Perfluorodecanoic acid	25.6	28.4				ng/L		111	63 - 137	
Perfluorotridecanoic acid	25.6	28.7				ng/L		112	58 - 146	
Perfluorotetradecanoic acid	25.6	26.6				ng/L		104	64 - 141	
Perfluorobutanesulfonic acid	22.7	23.5				ng/L		104	65 - 132	
Perfluorohexamethanesulfonic acid	23.3	27.2				ng/L		116	60 - 128	
Perfluorooctanesulfonic acid	23.7	28.7				ng/L		121	51 - 126	
NETFOSAA	25.6	27.1				ng/L		106	54 - 134	
NMeFOSAA	25.6	26.8				ng/L		105	58 - 143	
Perfluoropentanesulfonic acid	24.0	23.7				ng/L		99	71 - 136	
Perfluoroheptanesulfonic acid	24.4	28.1				ng/L		115	67 - 135	
Perfluorononanesulfonic acid	24.6	28.6				ng/L		116	67 - 137	
Perfluorodecanesulfonic acid	24.7	32.1				ng/L		130	61 - 134	
Perfluorooctanesulfonamide	25.6	27.1				ng/L		106	55 - 130	
Perfluorobutanoic acid	25.6	29.4				ng/L		115	62 - 156	
Perfluoropentanoic acid	25.6	30.7				ng/L		120	72 - 139	
HFPDA	25.6	25.6				ng/L		100	37 - 147	

Eurofins Lancaster Laboratories Env, LLC



QC Sample Results

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Method: EPA 537 (Mod) - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-116936/2-A			Client Sample ID: Lab Control Sample					
Matrix: Water			Prep Type: Total/NA					
Analysis Batch: 117921			Prep Batch: 116936					
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
DONA	24.2	27.7		ng/L	114	49 - 158		
9CI-PF3ONS	23.8	29.6		ng/L	124	52 - 135		
11CI-PF3OUdS	23.8	28.4		ng/L	119	45 - 134		
Perfluoroundecanoic acid	25.6	28.6		ng/L	112	62 - 138		
Perfluorododecanoic acid	25.6	29.8		ng/L	117	63 - 140		
8:2 Fluorotelomer sulfonic acid	24.5	27.0		ng/L	110	56 - 140		
4:2 Fluorotelomer sulfonic acid	23.9	29.1		ng/L	122	59 - 130		
6:2 Fluorotelomer sulfonic acid	24.3	28.3		ng/L	117	57 - 137		
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits					
M2-4:2 FTS	88		20 - 187					
M2-8:2 FTS	93		34 - 182					
M2-6:2 FTS	95		29 - 189					
13C5 PFHxA	89		31 - 142					
13C4 PFHpA	89		30 - 144					
13C8 PFOA	92		49 - 127					
13C9 PFNA	94		47 - 136					
13C6 PFDA	80		47 - 128					
13C7 PFUnA	82		40 - 135					
13C2-PFDoDA	83		28 - 136					
13C2 PFTeDA	91		10 - 144					
13C3 PFBS	99		19 - 178					
13C3 PFHxS	87		32 - 145					
13C8 PFOS	87		49 - 126					
d3-NMeFOSAA	82		32 - 151					
d5-NEtFOSAA	81		37 - 164					
13C8 FOSA	80		10 - 143					
13C4 PFBA	86		41 - 132					
13C5 PPPeA	87		33 - 155					
13C3 HFPO-DA	87		20 - 153					

QC Association Summary

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

LCMS

Prep Batch: 116501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-36262-1	94098-001	Total/NA	Solid	EPA 537 (Mod)	
MB 410-116501/1-B	Method Blank	Total/NA	Solid	EPA 537 (Mod)	
LCS 410-116501/2-B	Lab Control Sample	Total/NA	Solid	EPA 537 (Mod)	
LCSD 410-116501/3-B	Lab Control Sample Dup	Total/NA	Solid	EPA 537 (Mod)	

Cleanup Batch: 116525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-36262-1	94098-001	Total/NA	Solid	Extract Aliquot	116501
MB 410-116501/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	116501
LCS 410-116501/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	116501
LCSD 410-116501/3-B	Lab Control Sample Dup	Total/NA	Solid	Extract Aliquot	116501

Prep Batch: 116936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-36262-2	94098-002	Total/NA	Water	EPA 537 (mod)	
MB 410-116936/1-A	Method Blank	Total/NA	Water	EPA 537 (mod)	
LCS 410-116936/2-A	Lab Control Sample	Total/NA	Water	EPA 537 (mod)	

Analysis Batch: 117921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-36262-2	94098-002	Total/NA	Water	EPA 537 (Mod)	116936
MB 410-116936/1-A	Method Blank	Total/NA	Water	EPA 537 (Mod)	116936
LCS 410-116936/2-A	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	116936

Analysis Batch: 118312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-36262-1	94098-001	Total/NA	Solid	EPA 537 (Mod)	116525
MB 410-116501/1-B	Method Blank	Total/NA	Solid	EPA 537 (Mod)	116525
LCS 410-116501/2-B	Lab Control Sample	Total/NA	Solid	EPA 537 (Mod)	116525
LCSD 410-116501/3-B	Lab Control Sample Dup	Total/NA	Solid	EPA 537 (Mod)	116525

General Chemistry

Analysis Batch: 115870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-36262-1	94098-001	Total/NA	Solid	Moisture	

Lab Chronicle

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Client Sample ID: 94098-001

Date Collected: 04/14/21 09:45

Date Received: 04/16/21 11:38

Lab Sample ID: 410-36262-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	115870	04/17/21 12:09	UGCW	ELLE

Client Sample ID: 94098-001

Date Collected: 04/14/21 09:45

Date Received: 04/16/21 11:38

Lab Sample ID: 410-36262-1

Matrix: Solid

Percent Solids: 11.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	EPA 537 (Mod)			116501	04/19/21 20:52	QLP7	ELLE
Total/NA	Cleanup	Extract Aliquot			116525	04/19/21 22:02	QLP7	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	118312	04/23/21 22:11	OLN7	ELLE

Client Sample ID: 94098-002

Date Collected: 04/15/21 09:45

Date Received: 04/16/21 11:38

Lab Sample ID: 410-36262-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	EPA 537 (mod)			116936	04/20/21 16:29	D5VP	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	117921	04/23/21 04:53	UVU6	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Michigan	State	9930	01-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
EPA 537 (Mod)	EPA 537 (Mod)	Solid	11CI-PF3OUdS
EPA 537 (Mod)	EPA 537 (Mod)	Solid	4:2 Fluorotelomer sulfonic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	6:2 Fluorotelomer sulfonic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	8:2 Fluorotelomer sulfonic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	9CI-PF3ONS
EPA 537 (Mod)	EPA 537 (Mod)	Solid	DONA
EPA 537 (Mod)	EPA 537 (Mod)	Solid	HFFPODA
EPA 537 (Mod)	EPA 537 (Mod)	Solid	NETFOSAA
EPA 537 (Mod)	EPA 537 (Mod)	Solid	NMeFOSAA
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluorobutanesulfonic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluorobutanoic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluorodecanesulfonic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluorodecanoic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluorododecanoic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluoroheptanesulfonic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluoroheptanoic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluorohexanesulfonic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluorohexanoic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluorononanesulfonic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluorononanoic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluorooctanesulfonamide
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluorooctanesulfonic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluorooctanoic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluoropentanesulfonic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluoropentanoic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluorotetradecanoic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluorotridecanoic acid
EPA 537 (Mod)	EPA 537 (Mod)	Solid	Perfluoroundecanoic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	11CI-PF3OUdS
EPA 537 (Mod)	EPA 537 (mod)	Water	4:2 Fluorotelomer sulfonic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	6:2 Fluorotelomer sulfonic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	8:2 Fluorotelomer sulfonic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	9CI-PF3ONS
EPA 537 (Mod)	EPA 537 (mod)	Water	DONA
EPA 537 (Mod)	EPA 537 (mod)	Water	HFFPODA
EPA 537 (Mod)	EPA 537 (mod)	Water	NETFOSAA
EPA 537 (Mod)	EPA 537 (mod)	Water	NMeFOSAA
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluorobutanesulfonic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluorobutanoic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluorodecanesulfonic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluorodecanoic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluorododecanoic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluoroheptanesulfonic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluoroheptanoic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluorohexanesulfonic acid

Accreditation/Certification Summary

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Michigan	State	9930	01-31-22
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluorohexanoic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluorononanesulfonic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluorononanoic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluoroctanesulfonamide
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluoroctanesulfonic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluoroctanoic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluoropentanesulfonic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluoropentanoic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluorotetradecanoic acid
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluorotridecanoic acid
Moisture		Solid	Perfluoroundecanoic acid Percent Moisture

Method Summary

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

Method	Method Description	Protocol	Laboratory
EPA 537 (Mod)	EPA 537 Isotope Dilution	EPA	ELLE
Moisture	Percent Moisture	EPA	ELLE
EPA 537 (mod)	EPA 537 Isotope Dilution	EPA	ELLE
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300



Sample Summary

Client: White Water Associates
Project/Site: 94098

Job ID: 410-36262-1

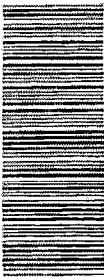
Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-36262-1	94098-001	Solid	04/14/21 09:45	04/16/21 11:38	
410-36262-2	94098-002	Water	04/15/21 09:45	04/16/21 11:38	



TestAmerica Buffalo
10 Hazelwood Drive

Athens, NY 14228
phone 716.691.2600 fax 716.691...

410-362822 Chain of Custody



Chain of Custody Record

210415 - EnviroLine Lancaster

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Other:

IRCA INDUS Lab Other:

Project Manager: Oriette Johnson

Tel/Fax: 484.685.0864

Analysis Turnaround Time

CALENDAR DAYS WORKING DAYS

TAT if different from Below _____

2 weeks

1 week

2 days

P.O. #

Preferred Sample (Y/N)

Perform MS/MSD (Y/N)

Preferred Sample (Y/N)

Sample Date

Sample Time

Sample Type (C-Comp, G-Grab)

Matrix

of Cont.

BioSolids

Field Blank

Other:

Return to Client

Disposal by Lab

Archive for _____ Months

Other:

Comments Section if the lab is to dispose of the sample

Non-Hazard

Flammable

Skin Irritant

Poison B

Unknown

Other:

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification:

Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the

Comments Section if the lab is to dispose of the sample

Non-Hazard

Flammable

Skin Irritant

Poison B

Unknown

Other:

Special Instructions/QC Requirements & Comments:

<input type="checkbox"/> Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Received by:	Date/Time:	Company:	Therm ID No.:
Retain/Released by: <i>Bobbie Brown</i>	Company: <i>HHS</i>	Received by: <i>Lisa</i>	Date/Time: <i>1400</i>	Company: <i></i>	Date/Time: <i></i>
Retain/Released by: <i></i>	Company: <i></i>	Received by: <i></i>	Date/Time: <i></i>	Company: <i></i>	Date/Time: <i></i>
Retain/Released by: <i></i>	Company: <i></i>	Received in Laboratory by: <i>Bob</i>	Date/Time: <i>1130</i>	Company: <i>HHS</i>	Date/Time: <i>1130</i>

Form No. CA-C-MI-002, Rev. 4.2, dated 04/02/2013

14

Login Sample Receipt Checklist

Client: White Water Associates

Job Number: 410-36262-1

Login Number: 36262

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Rivera-Santa, Julissa

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	