

ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-78962-1
Client Project/Site: PFAS Testing

For:
City of Eau Claire
1000 Ferry Street
Eau Claire, Wisconsin 54703

Attn: Ty Fadness



Authorized for release by:
9/17/2021 10:41:05 AM

Sandie Fredrick, Project Manager II
(920)261-1660
sandra.fredrick@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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.



Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	5
Client Sample Results	6
Isotope Dilution Summary	8
QC Sample Results	10
QC Association Summary	15
Lab Chronicle	16
Certification Summary	17
Method Summary	18
Sample Summary	19
Chain of Custody	20
Receipt Checklists	21

Definitions/Glossary

Client: City of Eau Claire
Project/Site: PFAS Testing

Job ID: 320-78962-1

Qualifiers

LCMS

Qualifier	Qualifier Description
J	Reported value was between the limit of detection and the limit of quantitation.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
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: City of Eau Claire
Project/Site: PFAS Testing

Job ID: 320-78962-1

Job ID: 320-78962-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative 320-78962-1

Comments

No additional comments.

Receipt

The sample was received on 9/16/2021 10:15 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.7° C.

LCMS

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte was outside of the established ratio limit. The qualitative identification of the analyte has some degree of uncertainty, and the reported value may have some high bias. However, analyst judgment was used to positively identify the analyte.(CCB 320-525739/9)

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

Organic Prep

Method 3535: The following sample was preserved with trizma: Entry Point Line 1 (320-78962-1). Thus, the MB, LCS and LCSD also contain trizma. 3535_PFC Aqueous preparation batch 320-525591

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-525591. 3535_PFC queous

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

Detection Summary

Client: City of Eau Claire
Project/Site: PFAS Testing

Job ID: 320-78962-1

Client Sample ID: Entry Point Line 1

Lab Sample ID: 320-78962-1

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4.4		4.3	2.1	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.9		1.7	0.42	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	3.2		1.7	0.50	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.97	J	1.7	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.9		1.7	0.74	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.3		1.7	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	3.1		1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	13		1.7	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.1		1.7	0.47	ng/L	1		537 (modified)	Total/NA
6:2 FTS	4.8		4.3	2.2	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento



Client Sample Results

Client: City of Eau Claire
Project/Site: PFAS Testing

Job ID: 320-78962-1

Client Sample ID: Entry Point Line 1

Lab Sample ID: 320-78962-1

Date Collected: 09/15/21 11:40

Matrix: Water

Date Received: 09/16/21 09:47

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.4		4.3	2.1	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluoropentanoic acid (PFPeA)	2.9		1.7	0.42	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluorohexanoic acid (PFHxA)	3.2		1.7	0.50	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluoroheptanoic acid (PFHpA)	0.97	J	1.7	0.22	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluorooctanoic acid (PFOA)	1.9		1.7	0.74	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluorononanoic acid (PFNA)	<0.23		1.7	0.23	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluorodecanoic acid (PFDA)	<0.27		1.7	0.27	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluoroundecanoic acid (PFUnA)	<0.95		1.7	0.95	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluorododecanoic acid (PFDoA)	<0.48		1.7	0.48	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluorotridecanoic acid (PFTTrDA)	<1.1		1.7	1.1	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluorotetradecanoic acid (PFTeA)	<0.63		1.7	0.63	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.77		1.7	0.77	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.81		1.7	0.81	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluorobutanesulfonic acid (PFBS)	3.3		1.7	0.17	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluoropentanesulfonic acid (PFPeS)	3.1		1.7	0.26	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluorohexanesulfonic acid (PFHxS)	13		1.7	0.49	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.16		1.7	0.16	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluorooctanesulfonic acid (PFOS)	4.1		1.7	0.47	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluorononanesulfonic acid (PFNS)	<0.32		1.7	0.32	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluorodecanesulfonic acid (PFDS)	<0.28		1.7	0.28	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluorododecanesulfonic acid (PFDoS)	<0.84		1.7	0.84	ng/L		09/16/21 11:51	09/17/21 05:57	1
Perfluorooctanesulfonamide (FOSA)	<0.85		1.7	0.85	ng/L		09/16/21 11:51	09/17/21 05:57	1
NEtFOSA	<0.75		1.7	0.75	ng/L		09/16/21 11:51	09/17/21 05:57	1
NMeFOSA	<0.37		1.7	0.37	ng/L		09/16/21 11:51	09/17/21 05:57	1
NMeFOSAA	<1.0		4.3	1.0	ng/L		09/16/21 11:51	09/17/21 05:57	1
NEtFOSAA	<1.1		4.3	1.1	ng/L		09/16/21 11:51	09/17/21 05:57	1
NMeFOSE	<1.2		3.5	1.2	ng/L		09/16/21 11:51	09/17/21 05:57	1
NEtFOSE	<0.74		1.7	0.74	ng/L		09/16/21 11:51	09/17/21 05:57	1
4:2 FTS	<0.21		1.7	0.21	ng/L		09/16/21 11:51	09/17/21 05:57	1
6:2 FTS	4.8		4.3	2.2	ng/L		09/16/21 11:51	09/17/21 05:57	1
8:2 FTS	<0.40		1.7	0.40	ng/L		09/16/21 11:51	09/17/21 05:57	1
10:2 FTS	<0.58		1.7	0.58	ng/L		09/16/21 11:51	09/17/21 05:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.35		1.7	0.35	ng/L		09/16/21 11:51	09/17/21 05:57	1
HFPO-DA (GenX)	<1.3		3.5	1.3	ng/L		09/16/21 11:51	09/17/21 05:57	1
9Cl-PF3ONS	<0.21		1.7	0.21	ng/L		09/16/21 11:51	09/17/21 05:57	1
11Cl-PF3OUdS	<0.28		1.7	0.28	ng/L		09/16/21 11:51	09/17/21 05:57	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	49		25 - 150				09/16/21 11:51	09/17/21 05:57	1
13C5 PFPeA	61		25 - 150				09/16/21 11:51	09/17/21 05:57	1
13C2 PFHxA	53		25 - 150				09/16/21 11:51	09/17/21 05:57	1
13C4 PFHpA	56		25 - 150				09/16/21 11:51	09/17/21 05:57	1
13C4 PFOA	57		25 - 150				09/16/21 11:51	09/17/21 05:57	1

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: City of Eau Claire
Project/Site: PFAS Testing

Job ID: 320-78962-1

Client Sample ID: Entry Point Line 1

Lab Sample ID: 320-78962-1

Date Collected: 09/15/21 11:40

Matrix: Water

Date Received: 09/16/21 09:47

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

<u>Isotope Dilution</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
13C5 PFNA	63		25 - 150	09/16/21 11:51	09/17/21 05:57	1
13C2 PFDA	59		25 - 150	09/16/21 11:51	09/17/21 05:57	1
13C2 PFUnA	54		25 - 150	09/16/21 11:51	09/17/21 05:57	1
13C2 PFDoA	55		25 - 150	09/16/21 11:51	09/17/21 05:57	1
13C2 PFTeDA	60		25 - 150	09/16/21 11:51	09/17/21 05:57	1
13C2 PFHxDA	67		25 - 150	09/16/21 11:51	09/17/21 05:57	1
13C3 PFBS	46		25 - 150	09/16/21 11:51	09/17/21 05:57	1
18O2 PFHxS	61		25 - 150	09/16/21 11:51	09/17/21 05:57	1
13C4 PFOS	58		25 - 150	09/16/21 11:51	09/17/21 05:57	1
13C8 FOSA	59		10 - 150	09/16/21 11:51	09/17/21 05:57	1
d3-NMeFOSAA	52		25 - 150	09/16/21 11:51	09/17/21 05:57	1
d5-NEtFOSAA	52		25 - 150	09/16/21 11:51	09/17/21 05:57	1
d-N-MeFOSA-M	48		10 - 150	09/16/21 11:51	09/17/21 05:57	1
d-N-EtFOSA-M	45		10 - 150	09/16/21 11:51	09/17/21 05:57	1
d7-N-MeFOSE-M	42		10 - 150	09/16/21 11:51	09/17/21 05:57	1
d9-N-EtFOSE-M	42		10 - 150	09/16/21 11:51	09/17/21 05:57	1
M2-4:2 FTS	47		25 - 150	09/16/21 11:51	09/17/21 05:57	1
M2-6:2 FTS	55		25 - 150	09/16/21 11:51	09/17/21 05:57	1
M2-8:2 FTS	63		25 - 150	09/16/21 11:51	09/17/21 05:57	1
13C3 HFPO-DA	56		25 - 150	09/16/21 11:51	09/17/21 05:57	1
13C2 10:2 FTS	54		25 - 150	09/16/21 11:51	09/17/21 05:57	1

Isotope Dilution Summary

Client: City of Eau Claire
Project/Site: PFAS Testing

Job ID: 320-78962-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-78962-1	Entry Point Line 1	49	61	53	56	57	63	59	54
LCS 320-525591/2-A	Lab Control Sample	66	63	55	58	61	63	57	59
LCSD 320-525591/3-A	Lab Control Sample Dup	53	49	48	49	52	53	48	48
MB 320-525591/1-A	Method Blank	64	64	53	58	60	62	58	56

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	PFHxDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (10-150)	d3NMFOS (25-150)
320-78962-1	Entry Point Line 1	55	60	67	46	61	58	59	52
LCS 320-525591/2-A	Lab Control Sample	62	63	71	48	64	57	59	55
LCSD 320-525591/3-A	Lab Control Sample Dup	51	53	56	40	51	49	48	46
MB 320-525591/1-A	Method Blank	61	62	68	46	64	56	57	54

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	d5NEFOS (25-150)	dMeFOSA (10-150)	dEtFOSA (10-150)	NMFM (10-150)	NEFM (10-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)
320-78962-1	Entry Point Line 1	52	48	45	42	42	47	55	63
LCS 320-525591/2-A	Lab Control Sample	56	47	48	44	49	46	55	62
LCSD 320-525591/3-A	Lab Control Sample Dup	48	40	40	40	42	39	44	51
MB 320-525591/1-A	Method Blank	56	48	45	48	49	47	59	61

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HFPODA (25-150)	M102FTS (25-150)
320-78962-1	Entry Point Line 1	56	54
LCS 320-525591/2-A	Lab Control Sample	56	53
LCSD 320-525591/3-A	Lab Control Sample Dup	48	46
MB 320-525591/1-A	Method Blank	58	57

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHxA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
PFHxDA = 13C2 PFHxDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
dMeFOSA = d-N-MeFOSA-M
dEtFOSA = d-N-EtFOSA-M
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
M242FTS = M2-4:2 FTS

Isotope Dilution Summary

Client: City of Eau Claire
Project/Site: PFAS Testing
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
M102FTS = 13C2 10:2 FTS

Job ID: 320-78962-1

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

QC Sample Results

Client: City of Eau Claire
Project/Site: PFAS Testing

Job ID: 320-78962-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-525591/1-A
Matrix: Water
Analysis Batch: 525739

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 525591

Analyte	MB	MB	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	<2.4		5.0	2.4	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluoropentanoic acid (PFPeA)	<0.49		2.0	0.49	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluorohexanoic acid (PFHxA)	<0.58		2.0	0.58	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluoroheptanoic acid (PFHpA)	<0.25		2.0	0.25	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluorooctanoic acid (PFOA)	<0.85		2.0	0.85	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluorononanoic acid (PFNA)	<0.27		2.0	0.27	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	0.31	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluoroundecanoic acid (PFUnA)	<1.1		2.0	1.1	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluorododecanoic acid (PFDoA)	<0.55		2.0	0.55	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluorotridecanoic acid (PFTrDA)	<1.3		2.0	1.3	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluorotetradecanoic acid (PFTeA)	<0.73		2.0	0.73	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.89		2.0	0.89	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.94		2.0	0.94	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluorobutanesulfonic acid (PFBS)	<0.20		2.0	0.20	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluoropentanesulfonic acid (PFPeS)	<0.30		2.0	0.30	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluorohexanesulfonic acid (PFHxS)	<0.57		2.0	0.57	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.19		2.0	0.19	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluorooctanesulfonic acid (PFOS)	<0.54		2.0	0.54	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluorononanesulfonic acid (PFNS)	<0.37		2.0	0.37	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluorodecanesulfonic acid (PFDS)	<0.32		2.0	0.32	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluorododecanesulfonic acid (PFDoS)	<0.97		2.0	0.97	ng/L		09/16/21 11:51	09/17/21 05:28	1
Perfluorooctanesulfonamide (FOSA)	<0.98		2.0	0.98	ng/L		09/16/21 11:51	09/17/21 05:28	1
NEtFOSA	<0.87		2.0	0.87	ng/L		09/16/21 11:51	09/17/21 05:28	1
NMeFOSA	<0.43		2.0	0.43	ng/L		09/16/21 11:51	09/17/21 05:28	1
NMeFOSAA	<1.2		5.0	1.2	ng/L		09/16/21 11:51	09/17/21 05:28	1
NEtFOSAA	<1.3		5.0	1.3	ng/L		09/16/21 11:51	09/17/21 05:28	1
NMeFOSE	<1.4		4.0	1.4	ng/L		09/16/21 11:51	09/17/21 05:28	1
NEtFOSE	<0.85		2.0	0.85	ng/L		09/16/21 11:51	09/17/21 05:28	1
4:2 FTS	<0.24		2.0	0.24	ng/L		09/16/21 11:51	09/17/21 05:28	1
6:2 FTS	<2.5		5.0	2.5	ng/L		09/16/21 11:51	09/17/21 05:28	1
8:2 FTS	<0.46		2.0	0.46	ng/L		09/16/21 11:51	09/17/21 05:28	1
10:2 FTS	<0.67		2.0	0.67	ng/L		09/16/21 11:51	09/17/21 05:28	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.40		2.0	0.40	ng/L		09/16/21 11:51	09/17/21 05:28	1
HFPO-DA (GenX)	<1.5		4.0	1.5	ng/L		09/16/21 11:51	09/17/21 05:28	1
9Cl-PF3ONS	<0.24		2.0	0.24	ng/L		09/16/21 11:51	09/17/21 05:28	1
11Cl-PF3OUdS	<0.32		2.0	0.32	ng/L		09/16/21 11:51	09/17/21 05:28	1
Isotope Dilution	MB	MB	Limits	Prepared	Analyzed	Dil Fac			
	%Recovery	Qualifier							
13C4 PFBA	64		25 - 150	09/16/21 11:51	09/17/21 05:28	1			
13C5 PFPeA	64		25 - 150	09/16/21 11:51	09/17/21 05:28	1			
13C2 PFHxA	53		25 - 150	09/16/21 11:51	09/17/21 05:28	1			
13C4 PFHpA	58		25 - 150	09/16/21 11:51	09/17/21 05:28	1			
13C4 PFOA	60		25 - 150	09/16/21 11:51	09/17/21 05:28	1			
13C5 PFNA	62		25 - 150	09/16/21 11:51	09/17/21 05:28	1			

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: City of Eau Claire
Project/Site: PFAS Testing

Job ID: 320-78962-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-525591/1-A
Matrix: Water
Analysis Batch: 525739

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 525591

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C2 PFDA	58		25 - 150	09/16/21 11:51	09/17/21 05:28	1
13C2 PFUnA	56		25 - 150	09/16/21 11:51	09/17/21 05:28	1
13C2 PFDoA	61		25 - 150	09/16/21 11:51	09/17/21 05:28	1
13C2 PFTeDA	62		25 - 150	09/16/21 11:51	09/17/21 05:28	1
13C2 PFHxDA	68		25 - 150	09/16/21 11:51	09/17/21 05:28	1
13C3 PFBS	46		25 - 150	09/16/21 11:51	09/17/21 05:28	1
18O2 PFHxS	64		25 - 150	09/16/21 11:51	09/17/21 05:28	1
13C4 PFOS	56		25 - 150	09/16/21 11:51	09/17/21 05:28	1
13C8 FOSA	57		10 - 150	09/16/21 11:51	09/17/21 05:28	1
d3-NMeFOSAA	54		25 - 150	09/16/21 11:51	09/17/21 05:28	1
d5-NEtFOSAA	56		25 - 150	09/16/21 11:51	09/17/21 05:28	1
d-N-MeFOSA-M	48		10 - 150	09/16/21 11:51	09/17/21 05:28	1
d-N-EtFOSA-M	45		10 - 150	09/16/21 11:51	09/17/21 05:28	1
d7-N-MeFOSE-M	48		10 - 150	09/16/21 11:51	09/17/21 05:28	1
d9-N-EtFOSE-M	49		10 - 150	09/16/21 11:51	09/17/21 05:28	1
M2-4:2 FTS	47		25 - 150	09/16/21 11:51	09/17/21 05:28	1
M2-6:2 FTS	59		25 - 150	09/16/21 11:51	09/17/21 05:28	1
M2-8:2 FTS	61		25 - 150	09/16/21 11:51	09/17/21 05:28	1
13C3 HFPO-DA	58		25 - 150	09/16/21 11:51	09/17/21 05:28	1
13C2 10:2 FTS	57		25 - 150	09/16/21 11:51	09/17/21 05:28	1

Lab Sample ID: LCS 320-525591/2-A
Matrix: Water
Analysis Batch: 525739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 525591

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanoic acid (PFBA)	40.0	40.9		ng/L		102	60 - 135
Perfluoropentanoic acid (PFPeA)	40.0	40.3		ng/L		101	60 - 135
Perfluorohexanoic acid (PFHxA)	40.0	39.9		ng/L		100	60 - 135
Perfluoroheptanoic acid (PFHpA)	40.0	42.9		ng/L		107	60 - 135
Perfluorooctanoic acid (PFOA)	40.0	45.9		ng/L		115	60 - 135
Perfluorononanoic acid (PFNA)	40.0	42.6		ng/L		107	60 - 135
Perfluorodecanoic acid (PFDA)	40.0	42.9		ng/L		107	60 - 135
Perfluoroundecanoic acid (PFUnA)	40.0	45.5		ng/L		114	60 - 135
Perfluorododecanoic acid (PFDoA)	40.0	45.3		ng/L		113	60 - 135
Perfluorotridecanoic acid (PFTTrDA)	40.0	45.3		ng/L		113	60 - 135
Perfluorotetradecanoic acid (PFTeA)	40.0	43.0		ng/L		108	60 - 135
Perfluoro-n-hexadecanoic acid (PFHxDA)	40.0	40.9		ng/L		102	60 - 135
Perfluoro-n-octadecanoic acid (PFODA)	40.0	39.4		ng/L		99	60 - 135
Perfluorobutanesulfonic acid (PFBS)	35.4	43.6		ng/L		123	60 - 135
Perfluoropentanesulfonic acid (PFPeS)	37.5	47.5		ng/L		127	60 - 135
Perfluorohexanesulfonic acid (PFHxS)	36.4	35.0		ng/L		96	60 - 135

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: City of Eau Claire
Project/Site: PFAS Testing

Job ID: 320-78962-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-525591/2-A
Matrix: Water
Analysis Batch: 525739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 525591

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	46.3		ng/L		122	60 - 135
Perfluorooctanesulfonic acid (PFOS)	37.1	48.0		ng/L		129	60 - 135
Perfluorononanesulfonic acid (PFNS)	38.4	44.7		ng/L		116	60 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	42.0		ng/L		109	60 - 135
Perfluorododecanesulfonic acid (PFDoS)	38.7	45.5		ng/L		118	60 - 135
Perfluorooctanesulfonamide (FOSA)	40.0	42.0		ng/L		105	60 - 135
NEtFOSA	40.0	43.8		ng/L		110	60 - 135
NMeFOSA	40.0	48.1		ng/L		120	60 - 135
NMeFOSAA	40.0	45.0		ng/L		112	60 - 135
NEtFOSAA	40.0	43.6		ng/L		109	60 - 135
NMeFOSE	40.0	49.8		ng/L		124	60 - 135
NEtFOSE	40.0	39.8		ng/L		99	60 - 135
4:2 FTS	37.4	40.2		ng/L		108	60 - 135
6:2 FTS	37.9	41.2		ng/L		109	60 - 135
8:2 FTS	38.3	40.8		ng/L		106	60 - 135
10:2 FTS	38.6	43.1		ng/L		112	60 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	45.8		ng/L		122	60 - 135
HFPO-DA (GenX)	40.0	40.7		ng/L		102	60 - 135
9CI-PF3ONS	37.3	43.0		ng/L		115	60 - 135
11CI-PF3OUdS	37.7	46.7		ng/L		124	60 - 135

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	66		25 - 150
13C5 PFPeA	63		25 - 150
13C2 PFHxA	55		25 - 150
13C4 PFHpA	58		25 - 150
13C4 PFOA	61		25 - 150
13C5 PFNA	63		25 - 150
13C2 PFDA	57		25 - 150
13C2 PFUnA	59		25 - 150
13C2 PFDoA	62		25 - 150
13C2 PFTeDA	63		25 - 150
13C2 PFHxDA	71		25 - 150
13C3 PFBS	48		25 - 150
18O2 PFHxS	64		25 - 150
13C4 PFOS	57		25 - 150
13C8 FOSA	59		10 - 150
d3-NMeFOSAA	55		25 - 150
d5-NEtFOSAA	56		25 - 150
d-N-MeFOSA-M	47		10 - 150
d-N-EtFOSA-M	48		10 - 150
d7-N-MeFOSE-M	44		10 - 150
d9-N-EtFOSE-M	49		10 - 150

QC Sample Results

Client: City of Eau Claire
Project/Site: PFAS Testing

Job ID: 320-78962-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-525591/2-A
Matrix: Water
Analysis Batch: 525739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 525591

<i>Isotope Dilution</i>	<i>LCS %Recovery</i>	<i>LCS Qualifier</i>	<i>Limits</i>
M2-4:2 FTS	46		25 - 150
M2-6:2 FTS	55		25 - 150
M2-8:2 FTS	62		25 - 150
13C3 HFPO-DA	56		25 - 150
13C2 10:2 FTS	53		25 - 150

Lab Sample ID: LCSD 320-525591/3-A
Matrix: Water
Analysis Batch: 525739

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 525591

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	44.1		ng/L		110	60 - 135	8	30
Perfluoropentanoic acid (PFPeA)	40.0	42.4		ng/L		106	60 - 135	5	30
Perfluorohexanoic acid (PFHxA)	40.0	38.3		ng/L		96	60 - 135	4	30
Perfluoroheptanoic acid (PFHpA)	40.0	43.4		ng/L		109	60 - 135	1	30
Perfluorooctanoic acid (PFOA)	40.0	45.1		ng/L		113	60 - 135	2	30
Perfluorononanoic acid (PFNA)	40.0	40.7		ng/L		102	60 - 135	5	30
Perfluorodecanoic acid (PFDA)	40.0	42.2		ng/L		105	60 - 135	2	30
Perfluoroundecanoic acid (PFUnA)	40.0	46.0		ng/L		115	60 - 135	1	30
Perfluorododecanoic acid (PFDoA)	40.0	45.6		ng/L		114	60 - 135	1	30
Perfluorotridecanoic acid (PFTrDA)	40.0	45.3		ng/L		113	60 - 135	0	30
Perfluorotetradecanoic acid (PFTeA)	40.0	43.7		ng/L		109	60 - 135	2	30
Perfluoro-n-hexadecanoic acid (PFHxDA)	40.0	42.4		ng/L		106	60 - 135	4	30
Perfluoro-n-octadecanoic acid (PFODA)	40.0	41.7		ng/L		104	60 - 135	6	30
Perfluorobutanesulfonic acid (PFBS)	35.4	45.3		ng/L		128	60 - 135	4	30
Perfluoropentanesulfonic acid (PFPeS)	37.5	48.3		ng/L		129	60 - 135	2	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	37.5		ng/L		103	60 - 135	7	30
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	45.5		ng/L		119	60 - 135	2	30
Perfluorooctanesulfonic acid (PFOS)	37.1	44.8		ng/L		121	60 - 135	7	30
Perfluorononanesulfonic acid (PFNS)	38.4	42.1		ng/L		110	60 - 135	6	30
Perfluorodecanesulfonic acid (PFDS)	38.6	42.3		ng/L		110	60 - 135	0	30
Perfluorododecanesulfonic acid (PFDoS)	38.7	45.5		ng/L		117	60 - 135	0	30
Perfluorooctanesulfonamide (FOSA)	40.0	43.2		ng/L		108	60 - 135	3	30
NEtFOSA	40.0	45.5		ng/L		114	60 - 135	4	30
NMeFOSA	40.0	46.6		ng/L		117	60 - 135	3	30
NMeFOSAA	40.0	45.7		ng/L		114	60 - 135	2	30
NEtFOSAA	40.0	46.4		ng/L		116	60 - 135	6	30
NMeFOSE	40.0	48.5		ng/L		121	60 - 135	3	30

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: City of Eau Claire
Project/Site: PFAS Testing

Job ID: 320-78962-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-525591/3-A
Matrix: Water
Analysis Batch: 525739

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 525591

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
NEtFOSE	40.0	41.9		ng/L		105	60 - 135	5	30
4:2 FTS	37.4	40.2		ng/L		108	60 - 135	0	30
6:2 FTS	37.9	42.1		ng/L		111	60 - 135	2	30
8:2 FTS	38.3	43.9		ng/L		115	60 - 135	7	30
10:2 FTS	38.6	42.3		ng/L		110	60 - 135	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	44.6		ng/L		118	60 - 135	3	30
HFPO-DA (GenX)	40.0	41.3		ng/L		103	60 - 135	1	30
9Cl-PF3ONS	37.3	41.2		ng/L		111	60 - 135	4	30
11Cl-PF3OUdS	37.7	42.8		ng/L		113	60 - 135	9	30

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
13C4 PFBA	53		25 - 150
13C5 PFPeA	49		25 - 150
13C2 PFHxA	48		25 - 150
13C4 PFHpA	49		25 - 150
13C4 PFOA	52		25 - 150
13C5 PFNA	53		25 - 150
13C2 PFDA	48		25 - 150
13C2 PFUnA	48		25 - 150
13C2 PFDoA	51		25 - 150
13C2 PFTeDA	53		25 - 150
13C2 PFHxDA	56		25 - 150
13C3 PFBS	40		25 - 150
18O2 PFHxS	51		25 - 150
13C4 PFOS	49		25 - 150
13C8 FOSA	48		10 - 150
d3-NMeFOSAA	46		25 - 150
d5-NEtFOSAA	48		25 - 150
d-N-MeFOSA-M	40		10 - 150
d-N-EtFOSA-M	40		10 - 150
d7-N-MeFOSE-M	40		10 - 150
d9-N-EtFOSE-M	42		10 - 150
M2-4:2 FTS	39		25 - 150
M2-6:2 FTS	44		25 - 150
M2-8:2 FTS	51		25 - 150
13C3 HFPO-DA	48		25 - 150
13C2 10:2 FTS	46		25 - 150

QC Association Summary

Client: City of Eau Claire
Project/Site: PFAS Testing

Job ID: 320-78962-1

LCMS

Prep Batch: 525591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78962-1	Entry Point Line 1	Total/NA	Water	3535	
MB 320-525591/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-525591/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-525591/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 525739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-78962-1	Entry Point Line 1	Total/NA	Water	537 (modified)	525591
MB 320-525591/1-A	Method Blank	Total/NA	Water	537 (modified)	525591
LCS 320-525591/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	525591
LCSD 320-525591/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	525591

Lab Chronicle

Client: City of Eau Claire
Project/Site: PFAS Testing

Job ID: 320-78962-1

Client Sample ID: Entry Point Line 1

Lab Sample ID: 320-78962-1

Date Collected: 09/15/21 11:40

Matrix: Water

Date Received: 09/16/21 09:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			288.5 mL	10.0 mL	525591	09/16/21 11:51	LN	TAL SAC
Total/NA	Analysis	537 (modified)		1			525739	09/17/21 05:57	MYV	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



Accreditation/Certification Summary

Client: City of Eau Claire
Project/Site: PFAS Testing

Job ID: 320-78962-1

Laboratory: Eurofins TestAmerica, Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	998204680	08-31-22

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Method Summary

Client: City of Eau Claire
Project/Site: PFAS Testing

Job ID: 320-78962-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



Sample Summary

Client: City of Eau Claire
Project/Site: PFAS Testing

Job ID: 320-78962-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-78962-1	Entry Point Line 1	Water	09/15/21 11:40	09/16/21 09:47

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Eurofins TestAmerica, Sacramento

890 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Chain of Custody Record



Environment Testing
America

Client Information

Client Contact
Tyler Faddess

Company
City of Eau Claire

Address
203 S Farwell

City
Eau Claire

State Zip
WI, 54701

Phone:

Email:
Tyler.Faddess@EauClaireWI.Gov

Project Name
PFAS Testing

Site

Sampler
Tyler Faddess
Phone: 715-839-6121
PWSID

Due Date Requested: 9/17/21
TAT Requested (days):
1-Day TAT

Compliance Project: Yes No
Purchase Order Requested

Project #
32012617

SSOW#

Field Filtered Sample (Yes or No)

Performs MS/MSD (Yes or No)

PFC_IDA - PFAS, Extended List (36 Analytes)

REC_IDA_WI - PFAS, Standard List (36 Analytes)

Analysis Requested

Carrier Trading No(s):

State of Origin:

Job #

COCC No
320-41250-10066.1

Page
Page 1 of 1

Special Instructions/Note:

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexamine
N - Nitro
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecylsulfate
U - Acetone
V - MCAA
W - pH 4.5
Z - other (specify)

Total Number of Containers

Sample Identification

Sample Date

Sample Time

Sample Type (G=Comp, G=Grab, B=Surface, A=Air)

Matrix (W=Water, S=Soil, O=Other, A=Air)

Preservation Code

Water

Water

Water

Water

Water

Water

Water

Entry Point Line 1

9/15/21

1140

G

Water

Water

Water

Water

Water

Water

Water

Water

Water

Water

Water

Water

Water

Water

Water



Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
Special Instructions/QC Requirements:

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: Michael Date/Time: 9/15/21 1230 Company: C. Foster & Co. Time: _____ Method of Shipment: _____

Relinquished by: _____ Date/Time: _____ Company: _____ Received by: Chad Date/Time: 9-16-21/10:15 Company: EFTASAC

Relinquished by: _____ Date/Time: _____ Company: _____ Received by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: 5.7

Login Sample Receipt Checklist

Client: City of Eau Claire

Job Number: 320-78962-1

Login Number: 78962
List Number: 1
Creator: Nelson, Kym D

List Source: Eurofins TestAmerica, Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are 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.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
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	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

