

Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 410-37773-1

Client Project/Site: City of Wyoming - PFAS

For:

City of Wyoming 2350 Ivanrest Ave SW Wyoming, Michigan 49418

Attn: Jaime Fleming

Elizabeth M. Zanav

Authorized for release by: 5/12/2021 9:28:23 PM

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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.

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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.

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Elizabeth Zanar

Project Manager

5/12/2021 9:28:23 PM

Elizabeth M. Zanav

Client: City of Wyoming Project/Site: City of Wyoming - PFAS Laboratory Job ID: 410-37773-1

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	10
Isotope Dilution Summary	26
QC Sample Results	29
QC Association Summary	41
Lab Chronicle	43
Certification Summary	46
Method Summary	48
Sample Summary	49
Chain of Custody	50
Receipt Checklists	52

3

4

6

8

10

12

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Definitions/Glossary

Client: City of Wyoming Job ID: 410-37773-1

Project/Site: City of Wyoming - PFAS

Qualifiers

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Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
E	Result exceeded calibration range.
1	Value is EMPC (estimated maximum possible concentration).
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.
T .	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)
Oil 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)
_OD	Limit of Detection (DoD/DOE)
_OQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
/IDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ΛL	Minimum Level (Dioxin)
//PN	Most Probable Number
ИQL	Method Quantitation 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

Presumptive **PRES** QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points RPD

TEF Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) TEQ

Too Numerous To Count TNTC

Case Narrative

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Job ID: 410-37773-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-37773-1

Receipt

The samples were received on 4/29/2021 11:03 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 time was 1.0°C

LCMS

Method PFC_IDA: The recovery for target analyte Perfluorooctadecanoic acid is outside the QC acceptance limits in the closing continuing calibration verification standard. Since the result is high and target Perfluorooctadecanoic acid is not detected in the following samples: Influent (410-37773-2), Padnos (410-37773-3), EC2 (410-37773-4), Porter (410-37773-5), PES (410-37773-6), Field Blank (410-37773-7) and SKLF (410-37773-8), the data is reported.

Method PFC_IDA: The sample injection standard peak areas in the following samples: Influent (410-37773-2), SKLF (410-37773-8), Kentwood Landfill (410-37773-9) and Kentwood Landfill DUP (410-37773-10), are outside of the QC limits for both the initial injection and the re-injection. The values here are from the initial injection of the sample.

Method PFC_IDA: The recovery for the labeled isotope(s) in the following sample: Padnos (410-37773-3) and Effluent (410-37773-11) is outside the QC acceptance limits. The following action was taken: This sample was re-extracted within the required holding time and the recovery for the labeled isotope(s) is again outside the QC acceptance limits.

Method PFC IDA: The recovery for target analyte Perfluorooctadecanoic acid is outside the QC acceptance limits in the opening continuing calibration verification standard. Since the result is high and target Perfluorooctadecanoic acid is not detected in the following samples: Kentwood Landfill (410-37773-9), Kentwood Landfill DUP (410-37773-10), Effluent (410-37773-11) and BASF (410-37773-12), the data is reported.

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

General Chemistry

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

Job ID: 410-37773-1

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Lab Sample ID: 410-37773-1

Lab Sample ID: 410-37773-2

Lab Sample ID: 410-37773-3

Lab Sample ID: 410-37773-4

Job ID: 410-37773-1

Client	Sample	ID: Biosolids	
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Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
NMeFOSAA	8.4	J	22	2.2	ng/g	1	₽	537 IDA	Total/NA
Perfluorododecanesulfonic acid (PFDoS)	10	J *1	22	2.2	ng/g	1	₽	537 IDA	Total/NA
Perfluorohexanoic acid	5.3	J	6.6	2.2	ng/g	1	₽	537 IDA	Total/NA
Perfluorooctanesulfonic acid	13		6.6	2.2	ng/g	1	₽	537 IDA	Total/NA
Perfluoropentanoic acid	2.2	J	6.6	2.2	ng/g	1	₽	537 IDA	Total/NA

Client Sample ID: Influent

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid	5.8		1.7	0.43	ng/L		_	EPA 537 (Mod)	Total/NA
Perfluoroheptanoic acid	1.9		1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanoic acid	15		1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorononanoic acid	0.47	J	1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanesulfonic acid	2.2		1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorohexanesulfonic acid	3.1		1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonic acid	8.5	I	1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
NEtFOSAA	0.47	J	2.6	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorodecanesulfonic acid	11	1	1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanoic acid	3.9	J	4.3	1.7	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoropentanoic acid	3.6		1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
NMeFOSE	1.1	J	2.6	0.86	ng/L	1		EPA 537 (Mod)	Total/NA
4:2 Fluorotelomer sulfonic acid	0.90	J	1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
6:2 Fluorotelomer sulfonic acid	8.8		4.3	1.7	ng/L	1		EPA 537 (Mod)	Total/NA

Client Sample ID: Padnos

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid	9.8	I	2.1	0.53	ng/L	1	_	EPA 537 (Mod)	Total/NA
Perfluoroheptanoic acid	1.4	J	2.1	0.53	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanoic acid	4.3		2.1	0.53	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorononanoic acid	0.65	J	2.1	0.53	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorodecanoic acid	0.55	JI	2.1	0.53	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanesulfonic acid	1.8	J	2.1	0.53	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorohexanesulfonic acid	3.7		2.1	0.53	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonic acid	8.7		2.1	0.53	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanoic acid	23		5.3	2.1	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoropentanoic acid	3.0		2.1	0.53	ng/L	1		EPA 537 (Mod)	Total/NA
NEtFOSE	4.8		3.2	1.1	ng/L	1		EPA 537 (Mod)	Total/NA
6:2 Fluorotelomer sulfonic acid	8.6		5.3	2.1	ng/L	1		EPA 537 (Mod)	Total/NA

Client Sample ID: EC2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid	4.6		1.8	0.44	ng/L	1	_	EPA 537 (Mod)	Total/NA
Perfluoroheptanoic acid	2.0		1.8	0.44	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanoic acid	4.6		1.8	0.44	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorononanoic acid	0.75	J	1.8	0.44	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanesulfonic acid	2.1		1.8	0.44	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorohexanesulfonic acid	1.6	J	1.8	0.44	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonic acid	39		1.8	0.44	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonamide	1.6	J	1.8	0.44	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanoic acid	4.7		4.4	1.8	ng/L	1		EPA 537 (Mod)	Total/NA

This Detection Summary does not include radiochemical test results.

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5/12/2021

Detection Summary

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Client Sample ID: EC2 (Continued)

Job ID: 410-37773-1

Lab Sample ID: 410-37773-4

Analyte	Result Qualifier	RL	MDL U	Unit	Dil Fac	D Method	Prep Type
Perfluoropentanoic acid	3.8	1.8	0.44 r	ng/L	1	EPA 537 (Mod)	Total/NA
4:2 Fluorotelomer sulfonic acid	3.9	1.8	0.44 r	ng/L	1	EPA 537 (Mod)	Total/NA
6:2 Fluorotelomer sulfonic acid	93	4.4	1.8 r	ng/L	1	EPA 537 (Mod)	Total/NA
8:2 Fluorotelomer sulfonic acid	0.88 J	2.6	0.88 r	ng/L	1	EPA 537 (Mod)	Total/NA

Client Sample ID: Porter Lab Sample ID: 410-37773-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid	4.2	I	1.8	0.44	ng/L	1	_	EPA 537 (Mod)	Total/NA
Perfluoroheptanoic acid	0.91	J	1.8	0.44	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanoic acid	2.8		1.8	0.44	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanesulfonic acid	0.48	J	1.8	0.44	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonic acid	3.1		1.8	0.44	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorodecanesulfonic acid	5.8	1	1.8	0.44	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanoic acid	2.1	J	4.4	1.8	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoropentanoic acid	1.6	J	1.8	0.44	ng/L	1		EPA 537 (Mod)	Total/NA
NMeFOSE	7.3		2.7	0.89	ng/L	1		EPA 537 (Mod)	Total/NA

Client Sample ID: PES Lab Sample ID: 410-37773-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid	6.2	<u> </u>	1.8	0.45	ng/L	1	_	EPA 537 (Mod)	Total/NA
Perfluoroheptanoic acid	1.4	J	1.8	0.45	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanoic acid	7.4		1.8	0.45	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanesulfonic acid	2.4		1.8	0.45	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorohexanesulfonic acid	2.1		1.8	0.45	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonic acid	9.0		1.8	0.45	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoropentanesulfonic acid	0.86	JI	1.8	0.45	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoroheptanesulfonic acid	2.3	I	1.8	0.45	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanoic acid	30		4.5	1.8	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoropentanoic acid	6.4		1.8	0.45	ng/L	1		EPA 537 (Mod)	Total/NA
NMeFOSE	16		2.7	0.90	ng/L	1		EPA 537 (Mod)	Total/NA
6:2 Fluorotelomer sulfonic acid	39		4.5	1.8	ng/L	1		EPA 537 (Mod)	Total/NA

Client Sample ID: Field Blank Lab Sample ID: 410-37773-7

No Detections.

Client Sample ID: SKLF Lab Sample ID: 410-37773-8

Analyte	Result C	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid	1500		20	5.0	ng/L	1	_	EPA 537 (Mod)	Total/NA
Perfluoroheptanoic acid	410		20	5.0	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanoic acid	660		20	5.0	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorononanoic acid	35		20	5.0	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorodecanoic acid	14 J	J	20	5.0	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanesulfonic acid	180		20	5.0	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorohexanesulfonic acid	590		20	5.0	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonic acid	240		20	5.0	ng/L	1		EPA 537 (Mod)	Total/NA
NMeFOSAA	89		20	6.0	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoropentanesulfonic acid	38		20	5.0	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonamide	7.9 J	J	20	5.0	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanoic acid	930		50	20	ng/L	1		EPA 537 (Mod)	Total/NA

This Detection Summary does not include radiochemical test results.

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5/12/2021

Page 7 of 52

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Client Sample ID: SKLF (Continued)

Lab Sample ID: 410-37773-8

Job ID: 410-37773-1

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac D	Method	Prep Type
Perfluoropentanoic acid	350	20	5.0	ng/L	1	EPA 537 (Mod)	Total/NA
NMeFOSE	580	30	10	ng/L	1	EPA 537 (Mod)	Total/NA
NEtFOSE	200	30	10	ng/L	1	EPA 537 (Mod)	Total/NA
4:2 Fluorotelomer sulfonic acid	13 JI	20	5.0	ng/L	1	EPA 537 (Mod)	Total/NA
6:2 Fluorotelomer sulfonic acid	570	50	20	ng/L	1	EPA 537 (Mod)	Total/NA
8:2 Fluorotelomer sulfonic acid	20 J	30	10	ng/L	1	EPA 537 (Mod)	Total/NA

Client Sample ID: Kentwood Landfill

	Lab	Sample	ID:	410-37773-9
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Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid	120		1.6	0.41	ng/L	1	_	EPA 537 (Mod)	Total/NA
Perfluoroheptanoic acid	40		1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorononanoic acid	8.5	1	1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanesulfonic acid	21		1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorohexanesulfonic acid	49		1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonic acid	200		1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
NEtFOSAA	29		2.4	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
NMeFOSAA	2.4		1.6	0.49	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoropentanesulfonic acid	17		1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoroheptanesulfonic acid	4.9		1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonamide	1.3	J	1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanoic acid	57		4.1	1.6	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoropentanoic acid	32		1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
NEtFOSE	5.4		2.4	0.81	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoroundecanoic acid	4.0	1	1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
6:2 Fluorotelomer sulfonic acid	3.8	J	4.1	1.6	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanoic acid - DL	45		16	4.1	ng/L	10		EPA 537 (Mod)	Total/NA

Client Sample ID: Kentwood Landfill DUP

Lab Sample ID: 410-37773-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid	110		1.7	0.42	ng/L	1	_	EPA 537 (Mod)	Total/NA
Perfluoroheptanoic acid	39		1.7	0.42	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanoic acid	330		1.7	0.42	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorononanoic acid	1.2	J	1.7	0.42	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorodecanoic acid	1.4	JI	1.7	0.42	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanesulfonic acid	21		1.7	0.42	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorohexanesulfonic acid	51		1.7	0.42	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonic acid	130		1.7	0.42	ng/L	1		EPA 537 (Mod)	Total/NA
NEtFOSAA	22		2.5	0.42	ng/L	1		EPA 537 (Mod)	Total/NA
NMeFOSAA	1.9		1.7	0.50	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoropentanesulfonic acid	16		1.7	0.42	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoroheptanesulfonic acid	3.9		1.7	0.42	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonamide	0.83	J	1.7	0.42	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanoic acid	43		4.2	1.7	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoropentanoic acid	30		1.7	0.42	ng/L	1		EPA 537 (Mod)	Total/NA
NEtFOSE	4.4		2.5	0.84	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoroundecanoic acid	2.6	1	1.7	0.42	ng/L	1		EPA 537 (Mod)	Total/NA
6:2 Fluorotelomer sulfonic acid	3.8	J	4.2	1.7	ng/L	1		EPA 537 (Mod)	Total/NA

This Detection Summary does not include radiochemical test results.

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5/12/2021

Page 8 of 52

Detection Summary

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Job ID: 410-37773-1

Client Sample ID: Effluent

Lab Sample ID: 410-37773-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac D	Method	Prep Type
Perfluorohexanoic acid	33		1.7	0.41	ng/L		EPA 537 (Mod)	Total/NA
Perfluoroheptanoic acid	3.2		1.7	0.41	ng/L	1	EPA 537 (Mod)	Total/NA
Perfluorooctanoic acid	8.6		1.7	0.41	ng/L	1	EPA 537 (Mod)	Total/NA
Perfluorononanoic acid	0.63	J	1.7	0.41	ng/L	1	EPA 537 (Mod)	Total/NA
Perfluorodecanoic acid	0.99	J	1.7	0.41	ng/L	1	EPA 537 (Mod)	Total/NA
Perfluorobutanesulfonic acid	2.8		1.7	0.41	ng/L	1	EPA 537 (Mod)	Total/NA
Perfluorohexanesulfonic acid	3.8		1.7	0.41	ng/L	1	EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonic acid	9.1		1.7	0.41	ng/L	1	EPA 537 (Mod)	Total/NA
NEtFOSAA	0.48	J	2.5	0.41	ng/L	1	EPA 537 (Mod)	Total/NA
NMeFOSAA	1.5	J	1.7	0.50	ng/L	1	EPA 537 (Mod)	Total/NA
Perfluoropentanesulfonic acid	0.42	J	1.7	0.41	ng/L	1	EPA 537 (Mod)	Total/NA
Perfluorobutanoic acid	9.2		4.1	1.7	ng/L	1	EPA 537 (Mod)	Total/NA
Perfluoropentanoic acid	15		1.7	0.41	ng/L	1	EPA 537 (Mod)	Total/NA
6:2 Fluorotelomer sulfonic acid	8.1		4.1	1.7	ng/L	1	EPA 537 (Mod)	Total/NA

Client Sample ID: BASF

Lab Sample ID: 410-37773-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D Method		Prep Type
Perfluorohexanoic acid	130		1.7	0.42	ng/L	1	EPA 537 (I	Mod)	Total/NA
Perfluoroheptanoic acid	12		1.7	0.42	ng/L	1	EPA 537 (I	Mod)	Total/NA
Perfluorooctanoic acid	29		1.7	0.42	ng/L	1	EPA 537 (I	Mod)	Total/NA
Perfluorononanoic acid	0.64	J	1.7	0.42	ng/L	1	EPA 537 (I	Mod)	Total/NA
Perfluorobutanesulfonic acid	27		1.7	0.42	ng/L	1	EPA 537 (I	Mod)	Total/NA
Perfluorohexanesulfonic acid	200		1.7	0.42	ng/L	1	EPA 537 (I	Mod)	Total/NA
Perfluoropentanesulfonic acid	27		1.7	0.42	ng/L	1	EPA 537 (I	Mod)	Total/NA
Perfluoroheptanesulfonic acid	8.2		1.7	0.42	ng/L	1	EPA 537 (I	Mod)	Total/NA
Perfluorooctanesulfonamide	0.69	J	1.7	0.42	ng/L	1	EPA 537 (I	Mod)	Total/NA
Perfluorobutanoic acid	14		4.2	1.7	ng/L	1	EPA 537 (I	Mod)	Total/NA
Perfluoropentanoic acid	22		1.7	0.42	ng/L	1	EPA 537 (I	Mod)	Total/NA
6:2 Fluorotelomer sulfonic acid	2.2	J	4.2	1.7	ng/L	1	EPA 537 (I	Mod)	Total/NA
Perfluorooctanesulfonic acid - DL	210		17	4.2	ng/L	10	EPA 537 (I	Mod)	Total/NA

This Detection Summary does not include radiochemical test results.

5/12/2021

Page 9 of 52

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Client Sample ID: Biosolids Lab Sample ID: 410-37773-1

Date Collected: 04/27/21 13:15

Matrix: Solid
Date Received: 04/29/21 11:03

Matrix: Solids: 4.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
10:2 Fluorotelomer sulfonic acid	ND		22	6.6	ng/g		04/30/21 11:18	05/03/21 13:47	
4:2 Fluorotelomer sulfonic acid	ND		22	6.6	ng/g	₽	04/30/21 11:18	05/03/21 13:47	
6:2 Fluorotelomer sulfonic acid	ND		22	6.6	ng/g	₽	04/30/21 11:18	05/03/21 13:47	
8:2 Fluorotelomer sulfonic acid	ND		33	6.6	ng/g	₽	04/30/21 11:18	05/03/21 13:47	
NEtFOSAA	ND		22	2.2	ng/g	₽	04/30/21 11:18	05/03/21 13:47	
NEtFOSA	ND		22	5.5	ng/g	₩	04/30/21 11:18	05/03/21 13:47	
NEtFOSE	ND		22	5.5	ng/g		04/30/21 11:18	05/03/21 13:47	
NMeFOSAA	8.4	J	22	2.2	ng/g	₩	04/30/21 11:18	05/03/21 13:47	
NMeFOSA	ND		22	5.5	ng/g	₩	04/30/21 11:18	05/03/21 13:47	
NMeFOSE	ND		22	5.5	ng/g	₽	04/30/21 11:18	05/03/21 13:47	
Perfluorobutanesulfonic acid	ND		22	4.4	ng/g	₽	04/30/21 11:18	05/03/21 13:47	
Perfluorobutanoic acid	ND		22	8.7	ng/g	₽	04/30/21 11:18	05/03/21 13:47	
Perfluorodecanesulfonic acid	ND		6.6	2.2	ng/g		04/30/21 11:18	05/03/21 13:47	
Perfluorodecanoic acid	ND		6.6		ng/g	₽	04/30/21 11:18	05/03/21 13:47	
Perfluorododecanesulfonic acid	10	J *1	22		ng/g	₽	04/30/21 11:18	05/03/21 13:47	
(PFDoS)									
Perfluorododecanoic acid	ND		6.6	2.2	ng/g	₽	04/30/21 11:18	05/03/21 13:47	
Perfluoroheptanesulfonic acid	ND		6.6	2.2	ng/g	₽	04/30/21 11:18	05/03/21 13:47	
Perfluoroheptanoic acid	ND		6.6	2.2	ng/g	₩	04/30/21 11:18	05/03/21 13:47	
Perfluorohexadecanoic acid	ND		6.6	2.2	ng/g	₽	04/30/21 11:18	05/03/21 13:47	
Perfluorohexanesulfonic acid	ND		6.6	2.2	ng/g	₽	04/30/21 11:18	05/03/21 13:47	
Perfluorohexanoic acid	5.3	J	6.6	2.2	ng/g	₽	04/30/21 11:18	05/03/21 13:47	
Perfluorononanesulfonic acid	ND		6.6	2.2	ng/g		04/30/21 11:18	05/03/21 13:47	
Perfluorononanoic acid	ND		6.6		ng/g	₩	04/30/21 11:18	05/03/21 13:47	
Perfluorooctadecanoic acid	ND	*1	6.6		ng/g	₩	04/30/21 11:18	05/03/21 13:47	
Perfluorooctanesulfonamide	ND		6.6		ng/g		04/30/21 11:18	05/03/21 13:47	
Perfluorooctanesulfonic acid	13		6.6		ng/g	₩	04/30/21 11:18	05/03/21 13:47	
Perfluorooctanoic acid	ND		6.6		ng/g	₽	04/30/21 11:18	05/03/21 13:47	
Perfluoropentanesulfonic acid	ND		6.6		ng/g		04/30/21 11:18	05/03/21 13:47	
Perfluoropentanoic acid	2.2	J	6.6		ng/g	₽	04/30/21 11:18	05/03/21 13:47	
Perfluorotetradecanoic acid	ND		6.6		ng/g	₽	04/30/21 11:18	05/03/21 13:47	
Perfluorotridecanoic acid	ND		6.6		ng/g		04/30/21 11:18	05/03/21 13:47	
Perfluoroundecanoic acid	ND		6.6		ng/g	₩.	04/30/21 11:18	05/03/21 13:47	
		0 ""			9.9				5.7.5
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared 04/20/04 44:40	Analyzed	Dil Fa
M2-4:2 FTS	127		10 - 169				04/30/21 11:18	05/03/21 13:47	
M2-6:2 FTS	135		10 - 182				04/30/21 11:18	05/03/21 13:47	
M2-8:2 FTS	123		10 - 178				04/30/21 11:18	05/03/21 13:47	
13C2 PFTeDA	76		10 - 138				04/30/21 11:18	05/03/21 13:47	
13C3 PFBS	107		23 - 130				04/30/21 11:18	05/03/21 13:47	
13C4 PFBA	98		12 - 137				04/30/21 11:18	05/03/21 13:47	
13C4 PFHpA	97		15 - 139				04/30/21 11:18	05/03/21 13:47	
13C5 PFPeA	98		12 - 135				04/30/21 11:18	05/03/21 13:47	
13C8 PFOA	101		21 - 133				04/30/21 11:18	05/03/21 13:47	
13C8 PFOS	92		31 - 130				04/30/21 11:18	05/03/21 13:47	
d3-NMeFOSAA	118		10 - 172				04/30/21 11:18	05/03/21 13:47	
d5-NEtFOSAA	105		10 - 176				04/30/21 11:18	05/03/21 13:47	
d7-N-MeFOSE-M	51		10 - 152				04/30/21 11:18	05/03/21 13:47	

Eurofins Lancaster Laboratories Env, LLC

Page 10 of 52

Job ID: 410-37773-1

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12

14

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Client Sample ID: Biosolids Lab Sample ID: 410-37773-1

Date Collected: 04/27/21 13:15

Date Received: 04/29/21 11:03

Matrix: Solid
Percent Solids: 4.6

Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFHxA	91		11 - 138				04/30/21 11:18	05/03/21 13:47	1
13C6 PFDA	94		21 - 134				04/30/21 11:18	05/03/21 13:47	1
13C7 PFUnA	96		15 - 138				04/30/21 11:18	05/03/21 13:47	1
d3-NMePFOSA	29		10 - 148				04/30/21 11:18	05/03/21 13:47	1
d5-NEtPFOSA	21		10 - 151				04/30/21 11:18	05/03/21 13:47	1
13C8 FOSA	86		25 - 135				04/30/21 11:18	05/03/21 13:47	1
13C2-PFDoDA	83		28 - 126				04/30/21 11:18	05/03/21 13:47	1
13C9 PFNA	98		15 - 145				04/30/21 11:18	05/03/21 13:47	1
- General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	95.4		1.0	1.0	%			04/30/21 00:43	1
Percent Solids	4.6		1.0	1.0	%			04/30/21 00:43	1

Client Sample ID: Influent

Lab Sample ID: 410-37773-2

Date Collected: 04/27/21 09:38

Matrix: Water

Date Received: 04/29/21 11:03

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	5.8		1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluoroheptanoic acid	1.9		1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluorooctanoic acid	15		1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluorononanoic acid	0.47	J	1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluorodecanoic acid	ND		1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluorotridecanoic acid	ND		1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluorotetradecanoic acid	ND		1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluorobutanesulfonic acid	2.2		1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluorohexanesulfonic acid	3.1		1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluorooctanesulfonic acid	8.5	1	1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
NEtFOSAA	0.47	J	2.6	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
NMeFOSAA	ND		1.7	0.52	ng/L		05/02/21 16:54	05/05/21 15:20	1
10:2 FTS	ND		4.3	0.86	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluoropentanesulfonic acid	ND		1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluoroheptanesulfonic acid	ND		1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluorononanesulfonic acid	ND		1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluorodecanesulfonic acid	11	1	1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.6	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluorooctanesulfonamide	ND		1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluorohexadecanoic acid	ND		2.6	0.86	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluorooctadecanoic acid	ND		2.6	0.86	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluorobutanoic acid	3.9	J	4.3	1.7	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluoropentanoic acid	3.6		1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
NMeFOSE	1.1	J	2.6	0.86	ng/L		05/02/21 16:54	05/05/21 15:20	1
NMeFOSA	ND		2.6	0.86	ng/L		05/02/21 16:54	05/05/21 15:20	1
NEtFOSE	ND		2.6	0.86	ng/L		05/02/21 16:54	05/05/21 15:20	1
NEtFOSA	ND		4.3	0.86	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluorododecanoic acid	ND		1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
Perfluoroundecanoic acid	ND		1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1

Eurofins Lancaster Laboratories Env, LLC

Page 11 of 52

Job ID: 410-37773-1

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15

5/12/2021

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Date Received: 04/29/21 11:03

Client Sample ID: Influent Lab Sample ID: 410-37773-2

Date Collected: 04/27/21 09:38 Matrix: Water
Date Received: 04/29/21 11:03

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4:2 Fluorotelomer sulfonic acid	0.90	J	1.7	0.43	ng/L		05/02/21 16:54	05/05/21 15:20	1
6:2 Fluorotelomer sulfonic acid	8.8		4.3	1.7	ng/L		05/02/21 16:54	05/05/21 15:20	1
8:2 Fluorotelomer sulfonic acid	ND		2.6	0.86	ng/L		05/02/21 16:54	05/05/21 15:20	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-4:2 FTS	69		20 - 187				05/02/21 16:54	05/05/21 15:20	1
M2-8:2 FTS	148		34 - 182				05/02/21 16:54	05/05/21 15:20	1
M2-6:2 FTS	211	*5+	29 - 189				05/02/21 16:54	05/05/21 15:20	1
13C5 PFHxA	31		31 - 142				05/02/21 16:54	05/05/21 15:20	1
13C4 PFHpA	68		30 - 144				05/02/21 16:54	05/05/21 15:20	1
13C8 PFOA	90		49 - 127				05/02/21 16:54	05/05/21 15:20	1
13C9 PFNA	93		47 - 136				05/02/21 16:54	05/05/21 15:20	1
13C6 PFDA	73		47 - 128				05/02/21 16:54	05/05/21 15:20	1
13C7 PFUnA	64		40 - 135				05/02/21 16:54	05/05/21 15:20	1
13C2-PFDoDA	27	*5-	28 - 136				05/02/21 16:54	05/05/21 15:20	1
13C2 PFTeDA	16		10 - 144				05/02/21 16:54	05/05/21 15:20	1
13C3 PFBS	95		19 - 178				05/02/21 16:54	05/05/21 15:20	1
13C3 PFHxS	73		32 - 145				05/02/21 16:54	05/05/21 15:20	1
13C8 PFOS	75		49 - 126				05/02/21 16:54	05/05/21 15:20	1
d3-NMeFOSAA	111		32 - 151				05/02/21 16:54	05/05/21 15:20	1
d5-NEtFOSAA	118		37 - 164				05/02/21 16:54	05/05/21 15:20	1
13C8 FOSA	23		10 - 143				05/02/21 16:54	05/05/21 15:20	1
13C4 PFBA	43		41 - 132				05/02/21 16:54	05/05/21 15:20	1
13C5 PFPeA	65		33 - 155				05/02/21 16:54	05/05/21 15:20	1
d7-N-MeFOSE-M	13		10 - 143				05/02/21 16:54	05/05/21 15:20	1
d3-NMePFOSA	3	*5-	10 - 107				05/02/21 16:54	05/05/21 15:20	1
d9-N-EtFOSE-M	20		10 - 142				05/02/21 16:54	05/05/21 15:20	1
d5-NEtPFOSA	4	*5-	10 - 108				05/02/21 16:54	05/05/21 15:20	1

Client Sample ID: Padnos

Lab Sample ID: 410-37773-3

Date Collected: 04/27/21 10:50

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	9.8	1	2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluoroheptanoic acid	1.4	J	2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluorooctanoic acid	4.3		2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluorononanoic acid	0.65	J	2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluorodecanoic acid	0.55	JI	2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluorotridecanoic acid	ND		2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluorotetradecanoic acid	ND		2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluorobutanesulfonic acid	1.8	J	2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluorohexanesulfonic acid	3.7		2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluorooctanesulfonic acid	8.7		2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
NEtFOSAA	ND		3.2	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
NMeFOSAA	ND		2.1	0.63	ng/L		05/10/21 16:45	05/11/21 17:50	1
10:2 FTS	ND		5.3	1.1	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluoropentanesulfonic acid	ND		2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluoroheptanesulfonic acid	ND		2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluorononanesulfonic acid	ND		2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1

Eurofins Lancaster Laboratories Env, LLC

Page 12 of 52

2

Job ID: 410-37773-1

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12

14

Project/Site: City of Wyoming - PFAS

Client Sample ID: Padnos

Client: City of Wyoming

Date Collected: 04/27/21 10:50 Date Received: 04/29/21 11:03

Lab Sample ID: 410-37773-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid	ND		2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluorododecanesulfonic acid (PFDoS)	ND		3.2	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluorooctanesulfonamide	ND		2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluorohexadecanoic acid	ND		3.2	1.1	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluorooctadecanoic acid	ND		3.2	1.1	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluorobutanoic acid	23		5.3	2.1	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluoropentanoic acid	3.0		2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
NMeFOSE	ND		3.2	1.1	ng/L		05/10/21 16:45	05/11/21 17:50	1
NMeFOSA	ND		3.2	1.1	ng/L		05/10/21 16:45	05/11/21 17:50	1
NEtFOSE	4.8		3.2	1.1	ng/L		05/10/21 16:45	05/11/21 17:50	1
NEtFOSA	ND		5.3	1.1	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluorododecanoic acid	ND		2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
Perfluoroundecanoic acid	ND		2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
4:2 Fluorotelomer sulfonic acid	ND		2.1	0.53	ng/L		05/10/21 16:45	05/11/21 17:50	1
6:2 Fluorotelomer sulfonic acid	8.6		5.3	2.1	ng/L		05/10/21 16:45	05/11/21 17:50	1
8:2 Fluorotelomer sulfonic acid	ND		3.2	1.1	ng/L		05/10/21 16:45	05/11/21 17:50	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-4:2 FTS			20 - 187				05/10/21 16:45	05/11/21 17:50	1
M2-8:2 FTS	74		34 - 182				05/10/21 16:45	05/11/21 17:50	1
M2-6:2 FTS	134		29 - 189				05/10/21 16:45	05/11/21 17:50	1
13C5 PFHxA	46		31 - 142				05/10/21 16:45	05/11/21 17:50	1
13C4 PFHpA	70		30 - 144				05/10/21 16:45	05/11/21 17:50	1
13C8 PFOA	70		49 - 127				05/10/21 16:45	05/11/21 17:50	1
13C9 PFNA	93		47 - 136				05/10/21 16:45	05/11/21 17:50	1
13C6 PFDA	49		47 - 128				05/10/21 16:45	05/11/21 17:50	1
13C7 PFUnA	39	*5-	40 - 135				05/10/21 16:45	05/11/21 17:50	1
13C2-PFDoDA	11	*5-	28 - 136				05/10/21 16:45	05/11/21 17:50	1
13C2 PFTeDA	17		10 - 144				05/10/21 16:45	05/11/21 17:50	1
13C3 PFBS	88		19 - 178				05/10/21 16:45	05/11/21 17:50	1
13C3 PFHxS	72		32 - 145				05/10/21 16:45	05/11/21 17:50	1
13C8 PFOS	79		49 - 126				05/10/21 16:45	05/11/21 17:50	1
d3-NMeFOSAA	47		32 - 151				05/10/21 16:45	05/11/21 17:50	1
d5-NEtFOSAA	47		37 - 164				05/10/21 16:45	05/11/21 17:50	1
13C8 FOSA	34		10 - 143				05/10/21 16:45	05/11/21 17:50	1
13C4 PFBA	23	*5-	41 - 132				05/10/21 16:45	05/11/21 17:50	1
13C5 PFPeA	46		33 _ 155				05/10/21 16:45	05/11/21 17:50	1
d7-N-MeFOSE-M	8	*5-	10 - 143				05/10/21 16:45	05/11/21 17:50	1

Client Sample ID: EC2

d9-N-EtFOSE-M

d5-NEtPFOSA

Date Collected: 04/27/21 09:56

Date Received: 04/29/21 11:03

Lab Sample ID: 410-37773-4

05/11/21 17:50

05/11/21 17:50

05/10/21 16:45

05/10/21 16:45

Matrix: Water

Method: EPA 537 (Mod) - EPA 53	7 Isotope Dilution	l						
Analyte	Result Qu	alifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	4.6	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:42	1
Perfluoroheptanoic acid	2.0	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:42	1

10 - 142

10 - 108

1 *5-

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Page 13 of 52

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Lab Sample ID: 410-37773-4

Matrix: Water

Job ID: 410-37773-1

Client Sample ID: EC2

Date Collected: 04/27/21 09:56 Date Received: 04/29/21 11:03

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Perfluorooctanoic acid	4.6		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:42	
Perfluorononanoic acid	0.75	J	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:42	
Perfluorodecanoic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:42	
Perfluorotridecanoic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:42	
Perfluorotetradecanoic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:42	
Perfluorobutanesulfonic acid	2.1		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:42	
Perfluorohexanesulfonic acid	1.6	J	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:42	
Perfluorooctanesulfonic acid	39		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:42	
NEtFOSAA	ND		2.6		ng/L		05/02/21 16:54	05/05/21 15:42	
NMeFOSAA	ND		1.8		ng/L		05/02/21 16:54	05/05/21 15:42	
10:2 FTS	ND		4.4		ng/L		05/02/21 16:54	05/05/21 15:42	
Perfluoropentanesulfonic acid	ND		1.8		ng/L		05/02/21 16:54	05/05/21 15:42	
Perfluoroheptanesulfonic acid	ND		1.8		ng/L		05/02/21 16:54	05/05/21 15:42	
Perfluorononanesulfonic acid	ND		1.8		ng/L		05/02/21 16:54	05/05/21 15:42	
Perfluorodecanesulfonic acid	ND		1.8		ng/L		05/02/21 16:54	05/05/21 15:42	
Perfluorodecanesulfonic acid	ND ND		2.6		ng/L		05/02/21 16:54	05/05/21 15:42	
(PFDoS)	ND.		2.0	U. 44	119/L		03/02/21 10:04	03/03/21 13.42	
Perfluorooctanesulfonamide	1.6	J	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:42	
Perfluorohexadecanoic acid	ND		2.6	0.88	ng/L		05/02/21 16:54	05/05/21 15:42	
Perfluorooctadecanoic acid	ND		2.6	0.88	ng/L		05/02/21 16:54	05/05/21 15:42	
Perfluorobutanoic acid	4.7		4.4	1.8	ng/L		05/02/21 16:54	05/05/21 15:42	
Perfluoropentanoic acid	3.8		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:42	
NMeFOSE	ND		2.6	0.88	ng/L		05/02/21 16:54	05/05/21 15:42	
NMeFOSA	ND		2.6	0.88	ng/L		05/02/21 16:54	05/05/21 15:42	
NEtFOSE	ND		2.6	0.88	ng/L		05/02/21 16:54	05/05/21 15:42	
NEtFOSA	ND		4.4	0.88	ng/L		05/02/21 16:54	05/05/21 15:42	
Perfluorododecanoic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:42	
Perfluoroundecanoic acid	ND		1.8		ng/L		05/02/21 16:54	05/05/21 15:42	
4:2 Fluorotelomer sulfonic acid	3.9		1.8		ng/L		05/02/21 16:54	05/05/21 15:42	
6:2 Fluorotelomer sulfonic acid	93		4.4		ng/L		05/02/21 16:54	05/05/21 15:42	
8:2 Fluorotelomer sulfonic acid	0.88	J	2.6		ng/L		05/02/21 16:54	05/05/21 15:42	
sotope Dilution	%Recovery	Qualifier	Limits		J		Prepared	Analyzed	Dil F
M2-4:2 FTS	96		20 - 187				05/02/21 16:54	05/05/21 15:42	
M2-8:2 FTS	111		34 - 182				05/02/21 16:54	05/05/21 15:42	
M2-6:2 FTS	107		29 - 189				05/02/21 16:54	05/05/21 15:42	
13C5 PFHxA	80		31 - 142				05/02/21 16:54	05/05/21 15:42	
13C4 PFHpA	86		30 - 144				05/02/21 16:54	05/05/21 15:42	
13C8 PFOA	91		49 - 127				05/02/21 16:54	05/05/21 15:42	
13C9 PFNA	98		47 - 136				05/02/21 16:54	05/05/21 15:42	
13C6 PFDA	93		47 - 130 47 - 128				05/02/21 16:54	05/05/21 15:42	
13C7 PFUnA	93		47 - 126 40 - 135				05/02/21 16:54	05/05/21 15:42	
13C2-PFDoDA	91						05/02/21 16:54	05/05/21 15:42	
13C2-PFD0DA 13C2 PFTeDA	97		28 ₋ 136 10 ₋ 144				05/02/21 16:54		
								05/05/21 15:42	
13C3 PFBS	117		19 - 178				05/02/21 16:54	05/05/21 15:42	
13C3 PFHxS	83		32 - 145				05/02/21 16:54	05/05/21 15:42	
13C8 PFOS	91		49 - 126				05/02/21 16:54	05/05/21 15:42	
d3-NMeFOSAA	87		32 - 151				05/02/21 16:54	05/05/21 15:42	
d5-NEtFOSAA	97		37 - 164				05/02/21 16:54	05/05/21 15:42	

Eurofins Lancaster Laboratories Env, LLC

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Client Sample ID: EC2 Lab Sample ID: 410-37773-4

Job ID: 410-37773-1

Date Collected: 04/27/21 09:56 Matrix: Water Date Received: 04/29/21 11:03

Method: EPA 537 (Mod) - EF	A 537 Isotope Dilution ((Continued)
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Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	81		41 - 132	05/02/21 16:54	05/05/21 15:42	1
13C5 PFPeA	97		33 - 155	05/02/21 16:54	05/05/21 15:42	1
d7-N-MeFOSE-M	54		10 - 143	05/02/21 16:54	05/05/21 15:42	1
d3-NMePFOSA	6	*5-	10 - 107	05/02/21 16:54	05/05/21 15:42	1
d9-N-EtFOSE-M	52		10 - 142	05/02/21 16:54	05/05/21 15:42	1
d5-NEtPFOSA	7	*5-	10 - 108	05/02/21 16:54	05/05/21 15:42	1

Lab Sample ID: 410-37773-5 **Client Sample ID: Porter**

Date Collected: 04/27/21 10:11 Matrix: Water

Date Received: 04/29/21 11:03

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	4.2	I	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluoroheptanoic acid	0.91	J	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluorooctanoic acid	2.8		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluorononanoic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluorodecanoic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluorotridecanoic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluorotetradecanoic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluorobutanesulfonic acid	0.48	J	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluorohexanesulfonic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluorooctanesulfonic acid	3.1		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
NEtFOSAA	ND		2.7	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
NMeFOSAA	ND		1.8	0.53	ng/L		05/02/21 16:54	05/05/21 15:53	1
10:2 FTS	ND		4.4	0.89	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluoropentanesulfonic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluoroheptanesulfonic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluorononanesulfonic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluorodecanesulfonic acid	5.8	1	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.7	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluorooctanesulfonamide	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluorohexadecanoic acid	ND		2.7	0.89	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluorooctadecanoic acid	ND		2.7	0.89	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluorobutanoic acid	2.1	J	4.4	1.8	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluoropentanoic acid	1.6	J	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
NMeFOSE	7.3		2.7	0.89	ng/L		05/02/21 16:54	05/05/21 15:53	1
NMeFOSA	ND		2.7	0.89	ng/L		05/02/21 16:54	05/05/21 15:53	1
NEtFOSE	ND		2.7	0.89	ng/L		05/02/21 16:54	05/05/21 15:53	1
NEtFOSA	ND		4.4	0.89	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluorododecanoic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
Perfluoroundecanoic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
4:2 Fluorotelomer sulfonic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 15:53	1
6:2 Fluorotelomer sulfonic acid	ND		4.4	1.8	ng/L		05/02/21 16:54	05/05/21 15:53	1
8:2 Fluorotelomer sulfonic acid	ND		2.7	0.89	ng/L		05/02/21 16:54	05/05/21 15:53	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-4:2 FTS	143		20 - 187				05/02/21 16:54	05/05/21 15:53	1
M2-8:2 FTS	122		34 - 182				05/02/21 16:54	05/05/21 15:53	1
M2-6:2 FTS	217	*5+	29 - 189				05/02/21 16:54	05/05/21 15:53	1

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Page 15 of 52

5/12/2021

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Client Sample ID: Porter Lab Sample ID: 410-37773-5

Date Collected: 04/27/21 10:11 Matrix: Water Date Received: 04/29/21 11:03

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFHxA	71		31 - 142	05/02/21 16:54	05/05/21 15:53	1
13C4 PFHpA	71		30 - 144	05/02/21 16:54	05/05/21 15:53	1
13C8 PFOA	93		49 - 127	05/02/21 16:54	05/05/21 15:53	1
13C9 PFNA	106		47 - 136	05/02/21 16:54	05/05/21 15:53	1
13C6 PFDA	80		47 - 128	05/02/21 16:54	05/05/21 15:53	1
13C7 PFUnA	52		40 - 135	05/02/21 16:54	05/05/21 15:53	1
13C2-PFDoDA	29		28 - 136	05/02/21 16:54	05/05/21 15:53	1
13C2 PFTeDA	23		10 - 144	05/02/21 16:54	05/05/21 15:53	1
13C3 PFBS	111		19 - 178	05/02/21 16:54	05/05/21 15:53	1
13C3 PFHxS	73		32 - 145	05/02/21 16:54	05/05/21 15:53	1
13C8 PFOS	88		49 - 126	05/02/21 16:54	05/05/21 15:53	1
d3-NMeFOSAA	78		32 - 151	05/02/21 16:54	05/05/21 15:53	1
d5-NEtFOSAA	75		37 - 164	05/02/21 16:54	05/05/21 15:53	1
13C8 FOSA	31		10 - 143	05/02/21 16:54	05/05/21 15:53	1
13C4 PFBA	65		41 - 132	05/02/21 16:54	05/05/21 15:53	1
13C5 PFPeA	75		33 - 155	05/02/21 16:54	05/05/21 15:53	1
d7-N-MeFOSE-M	21		10 - 143	05/02/21 16:54	05/05/21 15:53	1
d3-NMePFOSA	10		10 - 107	05/02/21 16:54	05/05/21 15:53	1
d9-N-EtFOSE-M	15		10 - 142	05/02/21 16:54	05/05/21 15:53	1
d5-NEtPFOSA	6	*5-	10 - 108	05/02/21 16:54	05/05/21 15:53	1

Client Sample ID: PES

Lab Sample ID: 410-37773-6 Date Collected: 04/27/21 10:15 **Matrix: Water** Date Received: 04/29/21 11:03

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	6.2	I	1.8	0.45	ng/L		05/10/21 16:45	05/11/21 18:22	1
Perfluoroheptanoic acid	1.4	J	1.8	0.45	ng/L		05/10/21 16:45	05/11/21 18:22	1
Perfluorooctanoic acid	7.4		1.8	0.45	ng/L		05/10/21 16:45	05/11/21 18:22	1
Perfluorononanoic acid	ND		1.8	0.45	ng/L		05/10/21 16:45	05/11/21 18:22	1
Perfluorodecanoic acid	ND		1.8	0.45	ng/L		05/10/21 16:45	05/11/21 18:22	1
Perfluorotridecanoic acid	ND		1.8	0.45	ng/L		05/10/21 16:45	05/11/21 18:22	1
Perfluorotetradecanoic acid	ND		1.8	0.45	ng/L		05/10/21 16:45	05/11/21 18:22	1
Perfluorobutanesulfonic acid	2.4		1.8	0.45	ng/L		05/10/21 16:45	05/11/21 18:22	1
Perfluorohexanesulfonic acid	2.1		1.8	0.45	ng/L		05/10/21 16:45	05/11/21 18:22	1
Perfluorooctanesulfonic acid	9.0		1.8	0.45	ng/L		05/10/21 16:45	05/11/21 18:22	1
NEtFOSAA	ND		2.7	0.45	ng/L		05/10/21 16:45	05/11/21 18:22	1
NMeFOSAA	ND		1.8	0.54	ng/L		05/10/21 16:45	05/11/21 18:22	1
10:2 FTS	ND		4.5	0.90	ng/L		05/10/21 16:45	05/11/21 18:22	1
Perfluoropentanesulfonic acid	0.86	JI	1.8	0.45	ng/L		05/10/21 16:45	05/11/21 18:22	1
Perfluoroheptanesulfonic acid	2.3	I .	1.8	0.45	ng/L		05/10/21 16:45	05/11/21 18:22	1
Perfluorononanesulfonic acid	ND		1.8	0.45	ng/L		05/10/21 16:45	05/11/21 18:22	1
Perfluorodecanesulfonic acid	ND		1.8	0.45	ng/L		05/10/21 16:45	05/11/21 18:22	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.7	0.45	ng/L		05/10/21 16:45	05/11/21 18:22	1
Perfluorooctanesulfonamide	ND		1.8	0.45	ng/L		05/10/21 16:45	05/11/21 18:22	1
Perfluorohexadecanoic acid	ND		2.7	0.90	ng/L		05/10/21 16:45	05/11/21 18:22	1
Perfluorooctadecanoic acid	ND		2.7	0.90	ng/L		05/10/21 16:45	05/11/21 18:22	1
Perfluorobutanoic acid	30		4.5	1.8	ng/L		05/10/21 16:45	05/11/21 18:22	1

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Page 16 of 52

Job ID: 410-37773-1

Project/Site: City of Wyoming - PFAS

Client Sample ID: PES

Date Received: 04/29/21 11:03

Client: City of Wyoming

Lab Sample ID: 410-37773-6 Date Collected: 04/27/21 10:15

Matrix: Water

Method: EPA 537 (Mod) - EPA 537 Isotope Dilution (Continued) Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac 1.8 05/10/21 16:45 Perfluoropentanoic acid 6.4 0.45 ng/L 05/11/21 18:22 **NMeFOSE** 2.7 0.90 ng/L 05/10/21 16:45 05/11/21 18:22 16 **NMeFOSA** ND 2.7 0.90 ng/L 05/10/21 16:45 05/11/21 18:22 **NEtFOSE** ND 2.7 0.90 ng/L 05/10/21 16:45 05/11/21 18:22 **NEtFOSA** ND 4.5 0.90 ng/L 05/10/21 16:45 05/11/21 18:22 ND 05/11/21 18:22 Perfluorododecanoic acid 1.8 0.45 ng/L 05/10/21 16:45 Perfluoroundecanoic acid ND 1.8 0.45 ng/L 05/10/21 16:45 05/11/21 18:22 ND 05/10/21 16:45 05/11/21 18:22 4:2 Fluorotelomer sulfonic acid 1.8 0.45 ng/L 6:2 Fluorotelomer sulfonic acid 39 4.5 1.8 ng/L 05/10/21 16:45 05/11/21 18:22 8:2 Fluorotelomer sulfonic acid ND 0.90 ng/L 05/10/21 16:45 05/11/21 18:22 2.7 Isotope Dilution %Recovery Qualifier Dil Fac Limits Prepared Analyzed M2-4:2 FTS 10 20 - 187 05/10/21 16:45 05/11/21 18:22 M2-8:2 FTS 124 34 - 182 05/10/21 16:45 05/11/21 18:22 M2-6:2 FTS 99 29 - 189 05/10/21 16:45 05/11/21 18:22 13C5 PFHxA 3 *5-31 - 142 05/10/21 16:45 05/11/21 18:22 13C4 PFHpA 29 *5-30 - 144 05/10/21 16:45 05/11/21 18:22 13C8 PFOA 50 49 - 127 05/10/21 16:45 05/11/21 18:22 72 13C9 PFNA 47 - 136 05/10/21 16:45 05/11/21 18:22 *5-13C6 PFDA 39 47 - 128 05/10/21 16:45 05/11/21 18:22 13C7 PFUnA 21 *5-40 - 135 05/10/21 16:45 05/11/21 18:22 13C2-PFDoDA *5-28 - 136 05/11/21 18:22 14 05/10/21 16:45 13C2 PFTeDA *5-6 10 - 144 05/10/21 16:45 05/11/21 18:22 37 13C3 PFBS 19 - 178 05/10/21 16:45 05/11/21 18:22 13C3 PFHxS 05/11/21 18:22 104 32 - 145 05/10/21 16:45 13C8 PFOS 84 49 - 126 05/10/21 16:45 05/11/21 18:22 d3-NMeFOSAA 24 *5-32 - 151 05/10/21 16:45 05/11/21 18:22 d5-NEtFOSAA *5-15 37 - 164 05/10/21 16:45 05/11/21 18:22 13C8 FOSA 8 *5-10 - 143 05/10/21 16:45 05/11/21 18:22 13C4 PFBA 2 05/11/21 18:22 *5-41 - 132 05/10/21 16:45 13C5 PFPeA 2 *5-33 - 155 05/10/21 16:45 05/11/21 18:22 d7-N-MeFOSE-M 6 *5-10 - 143 05/10/21 16:45 05/11/21 18:22 d3-NMePFOSA 3 *5-10 - 107 05/10/21 16:45 05/11/21 18:22

Client Sample ID: Field Blank

Date Collected: 04/27/21 10:17

2 *5-

6 *5-

Date Received: 04/29/21 11:03

d9-N-EtFOSE-M

d5-NEtPFOSA

Lab Sample	ID: 410-37773-7
	Matrix: Water

05/11/21 18:22

05/11/21 18:22

05/10/21 16:45

05/10/21 16:45

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND ND	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluoroheptanoic acid	ND	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluorooctanoic acid	ND	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluorononanoic acid	ND	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluorodecanoic acid	ND	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluorotridecanoic acid	ND	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluorotetradecanoic acid	ND	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluorobutanesulfonic acid	ND	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluorohexanesulfonic acid	ND	1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1

10 - 142

10 - 108

Eurofins Lancaster Laboratories Env, LLC

Page 17 of 52

Client: City of Wyoming

13C8 PFOA

13C9 PFNA

13C6 PFDA

13C7 PFUnA

13C2-PFDoDA

13C2 PFTeDA

13C3 PFBS

13C3 PFHxS

13C8 PFOS

d3-NMeFOSAA

d5-NEtFOSAA

13C8 FOSA

13C4 PFBA

13C5 PFPeA

d7-N-MeFOSE-M

d3-NMePFOSA

d9-N-EtFOSE-M

d5-NEtPFOSA

Project/Site: City of Wyoming - PFAS

Client Sample ID: Field Blank

Date Collected: 04/27/21 10:17 Date Received: 04/29/21 11:03

Lab Sample ID: 410-37773-7

Matrix: Water

Job ID: 410-37773-1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
NEtFOSAA	ND		2.6	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
NMeFOSAA	ND		1.8	0.53	ng/L		05/02/21 16:54	05/05/21 16:15	1
10:2 FTS	ND		4.4	0.88	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluoropentanesulfonic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluoroheptanesulfonic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluorononanesulfonic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluorodecanesulfonic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.6	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluorooctanesulfonamide	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluorohexadecanoic acid	ND		2.6	0.88	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluorooctadecanoic acid	ND		2.6	0.88	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluorobutanoic acid	ND		4.4	1.8	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluoropentanoic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
NMeFOSE	ND		2.6	0.88	ng/L		05/02/21 16:54	05/05/21 16:15	1
NMeFOSA	ND		2.6	0.88	ng/L		05/02/21 16:54	05/05/21 16:15	1
NEtFOSE	ND		2.6	0.88	ng/L		05/02/21 16:54	05/05/21 16:15	1
NEtFOSA	ND		4.4	0.88	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluorododecanoic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
Perfluoroundecanoic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
4:2 Fluorotelomer sulfonic acid	ND		1.8	0.44	ng/L		05/02/21 16:54	05/05/21 16:15	1
6:2 Fluorotelomer sulfonic acid	ND		4.4	1.8	ng/L		05/02/21 16:54	05/05/21 16:15	1
8:2 Fluorotelomer sulfonic acid	ND		2.6	0.88	ng/L		05/02/21 16:54	05/05/21 16:15	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-4:2 FTS	127		20 - 187				05/02/21 16:54	05/05/21 16:15	1
M2-8:2 FTS	135		34 - 182				05/02/21 16:54	05/05/21 16:15	1
M2-6:2 FTS	125		29 - 189				05/02/21 16:54	05/05/21 16:15	1
13C5 PFHxA	91		31 - 142				05/02/21 16:54	05/05/21 16:15	1
13C4 PFHpA	93		30 - 144				05/02/21 16:54	05/05/21 16:15	1

49 - 127

47 - 136

47 - 128

40 - 135

28 - 136

10 - 144

19 - 178

32 - 145

49 - 126

32 - 151

37 - 164

10 - 143

41 - 132

33 - 155

10 - 143

10 - 107

10 - 142

10 - 108

99

104

93

103

108

126

100

87

95

106

123

73

95

91

81

36

82

36

Eurofins Lancaster Laboratories Env, LLC

Page 18 of 52

05/02/21 16:54

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05/05/21 16:15

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Client Sample ID: SKLF

Date Collected: 04/27/21 10:30

Lab Sample ID: 410-37773-8

Matrix: Water

Date Received: 04/29/21 11:03

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Perfluorohexanoic acid	1500		20	5.0	ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluoroheptanoic acid	410		20	5.0	ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluorooctanoic acid	660		20	5.0	ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluorononanoic acid	35		20	5.0	ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluorodecanoic acid	14	J	20	5.0	ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluorotridecanoic acid	ND		20	5.0	ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluorotetradecanoic acid	ND		20	5.0	ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluorobutanesulfonic acid	180		20	5.0	ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluorohexanesulfonic acid	590		20	5.0	ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluorooctanesulfonic acid	240		20	5.0	ng/L		05/02/21 16:54	05/05/21 16:26	
NEtFOSAA	ND		30	5.0	ng/L		05/02/21 16:54	05/05/21 16:26	
NMeFOSAA	89		20	6.0	ng/L		05/02/21 16:54	05/05/21 16:26	
10:2 FTS	ND		50	10	ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluoropentanesulfonic acid	38		20		ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluoroheptanesulfonic acid	ND		20	5.0	ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluorononanesulfonic acid	ND		20		ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluorodecanesulfonic acid	ND		20		ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluorododecanesulfonic acid PFDoS)	ND		30	5.0	ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluorooctanesulfonamide	7.9	J	20	5.0	ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluorohexadecanoic acid	ND		30	10	ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluorooctadecanoic acid	ND		30	10	ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluorobutanoic acid	930		50	20	ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluoropentanoic acid	350		20		ng/L		05/02/21 16:54	05/05/21 16:26	
NMeFOSE	580		30		ng/L		05/02/21 16:54	05/05/21 16:26	
NMeFOSA	ND		30		ng/L		05/02/21 16:54	05/05/21 16:26	
NEtFOSE	200		30		ng/L		05/02/21 16:54	05/05/21 16:26	
NEtFOSA	ND		50		ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluorododecanoic acid	ND		20		ng/L		05/02/21 16:54	05/05/21 16:26	
Perfluoroundecanoic acid	ND		20		ng/L		05/02/21 16:54	05/05/21 16:26	
4:2 Fluorotelomer sulfonic acid	13	JI	20		ng/L		05/02/21 16:54	05/05/21 16:26	
5:2 Fluorotelomer sulfonic acid	570		50		ng/L		05/02/21 16:54	05/05/21 16:26	
3:2 Fluorotelomer sulfonic acid	20	i.	30		ng/L		05/02/21 16:54	05/05/21 16:26	
									5".5
sotope Dilution		Qualifier	Limits				Prepared	Analyzed	Dil Fa
M2-4:2 FTS			20 - 187				05/02/21 16:54	05/05/21 16:26	
M2-8:2 FTS	131	*5.	34 - 182				05/02/21 16:54		
M2-6:2 FTS		*5+	29 - 189				05/02/21 16:54	05/05/21 16:26	
13C5 PFHxA	46		31 - 142				05/02/21 16:54	05/05/21 16:26	
13C4 PFHpA	72		30 - 144				05/02/21 16:54	05/05/21 16:26	
13C8 PFOA	92		49 - 127				05/02/21 16:54	05/05/21 16:26	
13C9 PFNA	90		47 - 136				05/02/21 16:54	05/05/21 16:26	
13C6 PFDA	82		47 - 128				05/02/21 16:54	05/05/21 16:26	
13C7 PFUnA	88		40 - 135				05/02/21 16:54	05/05/21 16:26	
13C2-PFDoDA	77		28 - 136				05/02/21 16:54	05/05/21 16:26	
13C2 PFTeDA	59		10 - 144				05/02/21 16:54	05/05/21 16:26	
13C3 PFBS	139		19 - 178				05/02/21 16:54	05/05/21 16:26	
13C3 PFHxS	89		32 - 145				05/02/21 16:54	05/05/21 16:26	
13C8 PFOS	89		49 - 126				05/02/21 16:54	05/05/21 16:26	

Eurofins Lancaster Laboratories Env, LLC

Page 19 of 52

5

Job ID: 410-37773-1

3

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6

9

11

13

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Client Sample ID: SKLF Lab Sample ID: 410-37773-8

Date Collected: 04/27/21 10:30 Matrix: Water

Date Received: 04/29/21 11:03

Method: EPA 537 (Mod) - EF	A 537 Isotope Dilution ((Continued)
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Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	114		37 - 164	05/02/21 16:54	05/05/21 16:26	1
13C8 FOSA	46		10 - 143	05/02/21 16:54	05/05/21 16:26	1
13C4 PFBA	27	*5-	41 - 132	05/02/21 16:54	05/05/21 16:26	1
13C5 PFPeA	67		33 - 155	05/02/21 16:54	05/05/21 16:26	1
d7-N-MeFOSE-M	28		10 - 143	05/02/21 16:54	05/05/21 16:26	1
d3-NMePFOSA	1	*5-	10 - 107	05/02/21 16:54	05/05/21 16:26	1
d9-N-EtFOSE-M	25		10 - 142	05/02/21 16:54	05/05/21 16:26	1
d5-NEtPFOSA	1	*5-	10 - 108	05/02/21 16:54	05/05/21 16:26	1

Client Sample ID: Kentwood Landfill

Lab Sample ID: 410-37773-9 Date Collected: 04/27/21 10:43 Matrix: Water

Date Received: 04/29/21 11:03

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	120		1.6	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluoroheptanoic acid	40		1.6	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluorononanoic acid	8.5	T.	1.6	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluorodecanoic acid	ND		1.6	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluorotridecanoic acid	ND		1.6	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluorotetradecanoic acid	ND		1.6	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluorobutanesulfonic acid	21		1.6	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluorohexanesulfonic acid	49		1.6	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluorooctanesulfonic acid	200		1.6	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
NEtFOSAA	29		2.4	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
NMeFOSAA	2.4		1.6	0.49	ng/L		05/02/21 16:54	05/05/21 16:48	1
10:2 FTS	ND		4.1	0.81	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluoropentanesulfonic acid	17		1.6	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluoroheptanesulfonic acid	4.9		1.6	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluorononanesulfonic acid	ND		1.6	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluorodecanesulfonic acid	ND		1.6	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.4	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluorooctanesulfonamide	1.3	J	1.6	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluorohexadecanoic acid	ND		2.4	0.81	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluorooctadecanoic acid	ND		2.4	0.81	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluorobutanoic acid	57		4.1	1.6	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluoropentanoic acid	32		1.6	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
NMeFOSE	ND		2.4	0.81	ng/L		05/02/21 16:54	05/05/21 16:48	1
NMeFOSA	ND		2.4	0.81	ng/L		05/02/21 16:54	05/05/21 16:48	1
NEtFOSE	5.4		2.4	0.81	ng/L		05/02/21 16:54	05/05/21 16:48	1
NEtFOSA	ND		4.1	0.81	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluorododecanoic acid	ND		1.6	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
Perfluoroundecanoic acid	4.0	1	1.6	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
4:2 Fluorotelomer sulfonic acid	ND		1.6	0.41	ng/L		05/02/21 16:54	05/05/21 16:48	1
6:2 Fluorotelomer sulfonic acid	3.8	J	4.1	1.6	ng/L		05/02/21 16:54	05/05/21 16:48	1
8:2 Fluorotelomer sulfonic acid	ND		2.4	0.81	ng/L		05/02/21 16:54	05/05/21 16:48	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-4:2 FTS	115		20 - 187				05/02/21 16:54	05/05/21 16:48	1
M2-8:2 FTS	150		34 - 182				05/02/21 16:54	05/05/21 16:48	1

Eurofins Lancaster Laboratories Env, LLC

Page 20 of 52

Job ID: 410-37773-1

Project/Site: City of Wyoming - PFAS

Client Sample ID: Kentwood Landfill

Date Collected: 04/27/21 10:43 Date Received: 04/29/21 11:03

Client: City of Wyoming

Lab Sample ID: 410-37773-9

Matrix: Water

Method: EPA 537 (Mod) - EPA 53	7 Isotope Dilution (Continue	d)
Isotone Dilution	%Pacovery Qualifier	l i

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	184		29 - 189	05/02/21 16:54	05/05/21 16:48	1
13C5 PFHxA	58		31 - 142	05/02/21 16:54	05/05/21 16:48	1
13C4 PFHpA	83		30 - 144	05/02/21 16:54	05/05/21 16:48	1
13C8 PFOA	92		49 - 127	05/02/21 16:54	05/05/21 16:48	1
13C9 PFNA	105		47 - 136	05/02/21 16:54	05/05/21 16:48	1
13C6 PFDA	84		47 - 128	05/02/21 16:54	05/05/21 16:48	1
13C7 PFUnA	98		40 - 135	05/02/21 16:54	05/05/21 16:48	1
13C2-PFDoDA	81		28 - 136	05/02/21 16:54	05/05/21 16:48	1
13C2 PFTeDA	91		10 - 144	05/02/21 16:54	05/05/21 16:48	1
13C3 PFBS	205	*5+	19 - 178	05/02/21 16:54	05/05/21 16:48	1
13C3 PFHxS	94		32 - 145	05/02/21 16:54	05/05/21 16:48	1
13C8 PFOS	90		49 - 126	05/02/21 16:54	05/05/21 16:48	1
d3-NMeFOSAA	107		32 - 151	05/02/21 16:54	05/05/21 16:48	1
d5-NEtFOSAA	128		37 - 164	05/02/21 16:54	05/05/21 16:48	1
13C8 FOSA	53		10 - 143	05/02/21 16:54	05/05/21 16:48	1
13C4 PFBA	70		41 - 132	05/02/21 16:54	05/05/21 16:48	1
13C5 PFPeA	118		33 - 155	05/02/21 16:54	05/05/21 16:48	1
d7-N-MeFOSE-M	41		10 - 143	05/02/21 16:54	05/05/21 16:48	1
d3-NMePFOSA	6	*5-	10 - 107	05/02/21 16:54	05/05/21 16:48	1
d9-N-EtFOSE-M	46		10 - 142	05/02/21 16:54	05/05/21 16:48	1
d5-NEtPFOSA	7	*5-	10 - 108	05/02/21 16:54	05/05/21 16:48	1

Method: EPA 537 (Mod) - EPA 537 Isotope Diluti	on - DL
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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid	45		16	4.1	ng/L		05/02/21 16:54	05/08/21 06:50	10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C8 PFOA	59		49 _ 127				05/02/21 16:54	05/08/21 06:50	10

Client Sample ID: Kentwood Landfill DUP

Date Collected: 04/27/21 10:43

Date Received: 04/29/21 11:03

Lab Sample ID: 410-37773-10

Matrix: Water

Analyte	Result Qu	ualifier R	L MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	110	1.	7 0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluoroheptanoic acid	39	1.	7 0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluorooctanoic acid	330	1.	7 0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluorononanoic acid	1.2 J	1	7 0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluorodecanoic acid	1.4 JI	1	7 0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluorotridecanoic acid	ND	1.	7 0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluorotetradecanoic acid	ND	1	7 0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluorobutanesulfonic acid	21	1.	7 0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluorohexanesulfonic acid	51	1	7 0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluorooctanesulfonic acid	130	1	7 0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
NEtFOSAA	22	2	5 0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
NMeFOSAA	1.9	1	7 0.50	ng/L		05/02/21 16:54	05/05/21 16:59	1
10:2 FTS	ND	4	2 0.84	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluoropentanesulfonic acid	16	1	7 0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluoroheptanesulfonic acid	3.9	1	7 0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluorononanesulfonic acid	ND	1.	7 0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1

Eurofins Lancaster Laboratories Env, LLC

Page 21 of 52

Project/Site: City of Wyoming - PFAS

Client Sample ID: Kentwood Landfill DUP

Date Collected: 04/27/21 10:43 Date Received: 04/29/21 11:03

Client: City of Wyoming

Lab Sample ID: 410-37773-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid	ND		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.5	0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluorooctanesulfonamide	0.83	J	1.7	0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluorohexadecanoic acid	ND		2.5	0.84	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluorooctadecanoic acid	ND		2.5	0.84	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluorobutanoic acid	43		4.2	1.7	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluoropentanoic acid	30		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
NMeFOSE	ND		2.5	0.84	ng/L		05/02/21 16:54	05/05/21 16:59	1
NMeFOSA	ND		2.5	0.84	ng/L		05/02/21 16:54	05/05/21 16:59	1
NEtFOSE	4.4		2.5	0.84	ng/L		05/02/21 16:54	05/05/21 16:59	1
NEtFOSA	ND		4.2	0.84	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluorododecanoic acid	ND		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
Perfluoroundecanoic acid	2.6	T.	1.7	0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
4:2 Fluorotelomer sulfonic acid	ND		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 16:59	1
6:2 Fluorotelomer sulfonic acid	3.8	J	4.2	1.7	ng/L		05/02/21 16:54	05/05/21 16:59	1
8:2 Fluorotelomer sulfonic acid	ND		2.5	0.84	ng/L		05/02/21 16:54	05/05/21 16:59	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

8:2 Fluorotelomer sulfonic acid	ND	2.5	0.84 ng/L	05/02/21 16:54	05/05/21 16:59	1
Isotope Dilution	%Recovery Q	Qualifier Limits		Prepared	Analyzed	Dil Fac
M2-4:2 FTS	109	20 - 187		05/02/21 16:54	05/05/21 16:59	1
M2-8:2 FTS	133	34 - 182		05/02/21 16:54	05/05/21 16:59	1
M2-6:2 FTS	175	29 - 189		05/02/21 16:54	05/05/21 16:59	1
13C5 PFHxA	59	31 - 142		05/02/21 16:54	05/05/21 16:59	1
13C4 PFHpA	83	30 - 144		05/02/21 16:54	05/05/21 16:59	1
13C8 PFOA	91	49 - 127		05/02/21 16:54	05/05/21 16:59	1
13C9 PFNA	98	47 - 136		05/02/21 16:54	05/05/21 16:59	1
13C6 PFDA	79	47 - 128		05/02/21 16:54	05/05/21 16:59	1
13C7 PFUnA	87	40 - 135		05/02/21 16:54	05/05/21 16:59	1
13C2-PFDoDA	72	28 - 136		05/02/21 16:54	05/05/21 16:59	1
13C2 PFTeDA	68	10 - 144		05/02/21 16:54	05/05/21 16:59	1
13C3 PFBS	204 *5	5+ 19 - 178		05/02/21 16:54	05/05/21 16:59	1
13C3 PFHxS	94	32 - 145		05/02/21 16:54	05/05/21 16:59	1
13C8 PFOS	86	49 - 126		05/02/21 16:54	05/05/21 16:59	1
d3-NMeFOSAA	95	32 - 151		05/02/21 16:54	05/05/21 16:59	1
d5-NEtFOSAA	108	37 - 164		05/02/21 16:54	05/05/21 16:59	1
13C8 FOSA	37	10 - 143		05/02/21 16:54	05/05/21 16:59	1
13C4 PFBA	71	41 - 132		05/02/21 16:54	05/05/21 16:59	1
13C5 PFPeA	116	33 - 155		05/02/21 16:54	05/05/21 16:59	1
d7-N-MeFOSE-M	18	10 - 143		05/02/21 16:54	05/05/21 16:59	1
d3-NMePFOSA	1 *5	5- 10 - 107		05/02/21 16:54	05/05/21 16:59	1
d9-N-EtFOSE-M	22	10 - 142		05/02/21 16:54	05/05/21 16:59	1
d5-NEtPFOSA	1 *5	5- 10 - 108		05/02/21 16:54	05/05/21 16:59	1

Client Sample ID: Effluent

Date Collected: 04/28/21 07:40

Date Received: 04/29/21 11:03

Lab Sample ID: 410-37773-11

Matrix: Water

Method: EPA 537 (Mod) - EPA 537 Isotope Dilution								
	Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
	Perfluorohexanoic acid	33	1.7	0.41 ng/L		05/02/21 16:54	05/05/21 17:11	1
	Perfluoroheptanoic acid	3.2	1.7	0.41 ng/L		05/02/21 16:54	05/05/21 17:11	1

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Page 22 of 52

5/12/2021

Client: City of Wyoming

13C3 PFHxS

13C8 PFOS

d3-NMeFOSAA

d5-NEtFOSAA

13C8 FOSA

Project/Site: City of Wyoming - PFAS

Client Sample ID: Effluent Lab Sample ID: 410-37773-11 Date Collected: 04/28/21 07:40

Date Received: 04/29/21 11:03

Matrix: Water

Job ID: 410-37773-1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid	8.6		1.7	0.41	ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluorononanoic acid	0.63	J	1.7	0.41	ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluorodecanoic acid	0.99	J	1.7	0.41	ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluorotridecanoic acid	ND		1.7	0.41	ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluorotetradecanoic acid	ND		1.7	0.41	ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluorobutanesulfonic acid	2.8		1.7	0.41	ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluorohexanesulfonic acid	3.8		1.7	0.41	ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluorooctanesulfonic acid	9.1		1.7	0.41	ng/L		05/02/21 16:54	05/05/21 17:11	1
NEtFOSAA	0.48	J	2.5	0.41	ng/L		05/02/21 16:54	05/05/21 17:11	1
NMeFOSAA	1.5	J	1.7	0.50	ng/L		05/02/21 16:54	05/05/21 17:11	1
10:2 FTS	ND		4.1	0.83	ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluoropentanesulfonic acid	0.42	J	1.7	0.41	ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluoroheptanesulfonic acid	ND		1.7	0.41	ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluorononanesulfonic acid	ND		1.7	0.41	ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluorodecanesulfonic acid	ND		1.7		ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.5	0.41	ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluorooctanesulfonamide	ND		1.7	0.41	ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluorohexadecanoic acid	ND		2.5	0.83	ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluorooctadecanoic acid	ND		2.5	0.83	ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluorobutanoic acid	9.2		4.1	1.7	ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluoropentanoic acid	15		1.7	0.41	ng/L		05/02/21 16:54	05/05/21 17:11	1
NMeFOSE	ND		2.5	0.83	ng/L		05/02/21 16:54	05/05/21 17:11	1
NMeFOSA	ND		2.5	0.83	ng/L		05/02/21 16:54	05/05/21 17:11	1
NEtFOSE	ND		2.5	0.83	ng/L		05/02/21 16:54	05/05/21 17:11	1
NEtFOSA	ND		4.1	0.83	ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluorododecanoic acid	ND		1.7	0.41	ng/L		05/02/21 16:54	05/05/21 17:11	1
Perfluoroundecanoic acid	ND		1.7	0.41	ng/L		05/02/21 16:54	05/05/21 17:11	1
4:2 Fluorotelomer sulfonic acid	ND		1.7	0.41	ng/L		05/02/21 16:54	05/05/21 17:11	1
6:2 Fluorotelomer sulfonic acid	8.1		4.1	1.7	ng/L		05/02/21 16:54	05/05/21 17:11	1
8:2 Fluorotelomer sulfonic acid	ND		2.5	0.83	ng/L		05/02/21 16:54	05/05/21 17:11	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-4:2 FTS		·	20 - 187				05/02/21 16:54	05/05/21 17:11	1
M2-8:2 FTS	129		34 - 182				05/02/21 16:54	05/05/21 17:11	1
M2-6:2 FTS	144		29 _ 189				05/02/21 16:54	05/05/21 17:11	1
13C5 PFHxA	71		31 - 142				05/02/21 16:54	05/05/21 17:11	1
13C4 PFHpA	82		30 - 144				05/02/21 16:54	05/05/21 17:11	1
13C8 PFOA	92		49 - 127				05/02/21 16:54	05/05/21 17:11	1
13C9 PFNA	99		47 - 136				05/02/21 16:54	05/05/21 17:11	1
13C6 PFDA	87		47 - 128				05/02/21 16:54	05/05/21 17:11	1
13C7 PFUnA	91		40 - 135				05/02/21 16:54	05/05/21 17:11	1
13C2-PFDoDA	90		28 - 136				05/02/21 16:54	05/05/21 17:11	1
13C2 PFTeDA	69		10 - 144				05/02/21 16:54	05/05/21 17:11	1
	129								

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05/02/21 16:54

05/02/21 16:54

05/02/21 16:54

05/02/21 16:54

05/02/21 16:54

Page 23 of 52

32 - 145

49 - 126

32 - 151

37 - 164

10 - 143

80

87

100

116

51

5/12/2021

05/05/21 17:11

05/05/21 17:11

05/05/21 17:11

05/05/21 17:11

05/05/21 17:11

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Client Sample ID: Effluent Lab Sample ID: 410-37773-11

Date Collected: 04/28/21 07:40 Date Received: 04/29/21 11:03

Matrix: Water

Job ID: 410-37773-1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	84		41 - 132	05/02/21 16:54	05/05/21 17:11	1
13C5 PFPeA	95		33 - 155	05/02/21 16:54	05/05/21 17:11	1
d7-N-MeFOSE-M	36		10 - 143	05/02/21 16:54	05/05/21 17:11	1
d3-NMePFOSA	7	*5-	10 - 107	05/02/21 16:54	05/05/21 17:11	1
d9-N-EtFOSE-M	39		10 - 142	05/02/21 16:54	05/05/21 17:11	1
d5-NEtPFOSA	8	*5-	10 - 108	05/02/21 16:54	05/05/21 17:11	1

Client Sample ID: BASF Lab Sample ID: 410-37773-12 Date Collected: 04/28/21 08:35

Date Received: 04/29/21 11:03

	Matrix:	Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	130		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluoroheptanoic acid	12		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluorooctanoic acid	29		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluorononanoic acid	0.64	J	1.7	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluorodecanoic acid	ND		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluorotridecanoic acid	ND		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluorotetradecanoic acid	ND		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluorobutanesulfonic acid	27		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluorohexanesulfonic acid	200		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
NEtFOSAA	ND		2.5	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
NMeFOSAA	ND		1.7	0.50	ng/L		05/02/21 16:54	05/05/21 17:22	1
10:2 FTS	ND		4.2	0.83	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluoropentanesulfonic acid	27		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluoroheptanesulfonic acid	8.2		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluorononanesulfonic acid	ND		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluorodecanesulfonic acid	ND		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluorododecanesulfonic acid	ND		2.5	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
(PFDoS)									
Perfluorooctanesulfonamide	0.69	J	1.7	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluorohexadecanoic acid	ND		2.5	0.83	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluorooctadecanoic acid	ND		2.5	0.83	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluorobutanoic acid	14		4.2	1.7	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluoropentanoic acid	22		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
NMeFOSE	ND		2.5	0.83	ng/L		05/02/21 16:54	05/05/21 17:22	1
NMeFOSA	ND		2.5	0.83	ng/L		05/02/21 16:54	05/05/21 17:22	1
NEtFOSE	ND		2.5	0.83	ng/L		05/02/21 16:54	05/05/21 17:22	1
NEtFOSA	ND		4.2	0.83	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluorododecanoic acid	ND		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
Perfluoroundecanoic acid	ND		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
4:2 Fluorotelomer sulfonic acid	ND		1.7	0.42	ng/L		05/02/21 16:54	05/05/21 17:22	1
6:2 Fluorotelomer sulfonic acid	2.2	J	4.2	1.7	ng/L		05/02/21 16:54	05/05/21 17:22	1
8:2 Fluorotelomer sulfonic acid	ND		2.5	0.83	ng/L		05/02/21 16:54	05/05/21 17:22	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-4:2 FTS	102		20 - 187				05/02/21 16:54	05/05/21 17:22	1
M2-8:2 FTS	115		34 - 182				05/02/21 16:54	05/05/21 17:22	1
M2-6:2 FTS	113		29 - 189				05/02/21 16:54	05/05/21 17:22	1
13C5 PFHxA	75		31 - 142				05/02/21 16:54	05/05/21 17:22	1

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Page 24 of 52

5/12/2021

Client: City of Wyoming

Job ID: 410-37773-1 Project/Site: City of Wyoming - PFAS

Client Sample ID: BASF Lab Sample ID: 410-37773-12 Date Collected: 04/28/21 08:35

Matrix: Water

Date Received: 04/29/21 11:03

Isotope Dilution	%Recovery	Qualifier L	imits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	83	30) ₋ 144	05/02/21 16:54	05/05/21 17:22	1
13C8 PFOA	88	49	9 - 127	05/02/21 16:54	05/05/21 17:22	1
13C9 PFNA	88	4	7 - 136	05/02/21 16:54	05/05/21 17:22	1
13C6 PFDA	81	47	7 - 128	05/02/21 16:54	05/05/21 17:22	1
13C7 PFUnA	84	40	0 - 135	05/02/21 16:54	05/05/21 17:22	1
13C2-PFDoDA	86	28	3 - 136	05/02/21 16:54	05/05/21 17:22	1
13C2 PFTeDA	96	10	0 - 144	05/02/21 16:54	05/05/21 17:22	1
13C3 PFBS	112	19	9 - 178	05/02/21 16:54	05/05/21 17:22	1
13C3 PFHxS	78	32	2 - 145	05/02/21 16:54	05/05/21 17:22	1
13C8 PFOS	82	49	9 - 126	05/02/21 16:54	05/05/21 17:22	1
d3-NMeFOSAA	89	32	2 - 151	05/02/21 16:54	05/05/21 17:22	1
d5-NEtFOSAA	91	3	7 - 164	05/02/21 16:54	05/05/21 17:22	1
13C8 FOSA	70	10	0 - 143	05/02/21 16:54	05/05/21 17:22	1
13C4 PFBA	85	4	1 - 132	05/02/21 16:54	05/05/21 17:22	1
13C5 PFPeA	90	3:	3 - 155	05/02/21 16:54	05/05/21 17:22	1
d7-N-MeFOSE-M	67	10	0 - 143	05/02/21 16:54	05/05/21 17:22	1
d3-NMePFOSA	30	10	0 - 107	05/02/21 16:54	05/05/21 17:22	1
d9-N-EtFOSE-M	72	10	0 - 142	05/02/21 16:54	05/05/21 17:22	1
d5-NEtPFOSA	33	10	0 - 108	05/02/21 16:54	05/05/21 17:22	1

Method: EPA 537 (Mod) - EPA 537 Isotope Dilution - DL											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Perfluorooctanesulfonic acid	210		17	4.2	ng/L		05/02/21 16:54	05/08/21 07:01	10		
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac		
13C8 PFOS	96		49 - 126				05/02/21 16:54	05/08/21 07:01	10		

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Page 25 of 52

Isotope Dilution Summary

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Solid Prep Type: Total/NA

			P	ercent Isotop	e Dilution Re	covery (Acc	eptance Limi	ts)	
		M242FTS	M262FTS	M282FTS	PFTDA	C3PFBS	PFBA	C4PFHA	PFPeA
Lab Sample ID	Client Sample ID	(10-169)	(10-182)	(10-178)	(10-138)	(23-130)	(12-137)	(15-139)	(12-135)
410-37773-1	Biosolids	127	135	123	76	107	98	97	98
LCS 410-121075/2-B	Lab Control Sample	103	103	107	89	111	101	96	95
LCSD 410-121075/3-B	Lab Control Sample Dup	106	110	101	53	109	101	94	96
MB 410-121075/1-B	Method Blank	95	106	92	65	103	93	84	92
		Percent Isotope Dilution Recovery (Acceptance Limits)							
		C8PFOA	C8PFOS	d3NMFOS	d5NEFOS	NMFM	NEFM	C3PFHS	13C5PH
Lab Sample ID	Client Sample ID	(21-133)	(31-130)	(10-172)	(10-176)	(10-152)	(10-157)	(24-136)	(11-138)
410-37773-1	Biosolids	101	92	118	105	51	57	91	91
LCS 410-121075/2-B	Lab Control Sample	104	99	105	98	43	35	101	100
LCSD 410-121075/3-B	Lab Control Sample Dup	104	98	81	78	26	20	98	103
MB 410-121075/1-B	Method Blank	96	92	81	82	36	30	84	92
			Р	ercent Isotop	e Dilution Re	covery (Acc	eptance Limi	ts)	
		C6PFDA	13C7PUA	d3NMFSA	d5NPFSA	PFOSA	PFDoDA	C9PFNA	
Lab Sample ID	Client Sample ID	(21-134)	(15-138)	(10-148)	(10-151)	(25-135)	(28-126)	(15-145)	
410-37773-1	Biosolids	94	96	29	21	86	83	98	
LCS 410-121075/2-B	Lab Control Sample	98	101	88	69	105	98	102	
LCSD 410-121075/3-B	Lab Control Sample Dup	97	94	83	60	99	81	99	
MB 410-121075/1-B	Method Blank	90	87	70	53	94	78	95	

Surrogate	Legend
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M242FTS = M2-4:2 FTS

M262FTS = M2-6:2 FTS

M282FTS = M2-8:2 FTS

PFTDA = 13C2 PFTeDA

C3PFBS = 13C3 PFBS

PFBA = 13C4 PFBA

C4PFHA = 13C4 PFHpA

PFPeA = 13C5 PFPeA

C8PFOA = 13C8 PFOA

C8PFOS = 13C8 PFOS d3NMFOS = d3-NMeFOSAA

d5NEFOS = d5-NEtFOSAA

NMFM = d7-N-MeFOSE-M

NEFM = d9-N-EtFOSE-M

C3PFHS = 13C3 PFHxS

13C5PHA = 13C5 PFHxA

C6PFDA = 13C6 PFDA 13C7PUA = 13C7 PFUnA

d3NMFSA = d3-NMePFOSA

d5NPFSA = d5-NEtPFOSA

PFOSA = 13C8 FOSA

PFDoDA = 13C2-PFDoDA

C9PFNA = 13C9 PFNA

Job ID: 410-37773-1

Client: City of Wyoming Project/Site: City of Wyoming - PFAS

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

Matrix: Water Prep Type: Total/NA

				ercent Isotop		• '	•	•	
		M242FTS	M282FTS	M262FTS	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA
Lab Sample ID	Client Sample ID	(20-187)	(34-182)	(29-189)	(31-142)	(30-144)	(49-127)	(47-136)	(47-128)
410-37773-2	Influent	69	148	211 *5+	31	68	90	93	73
410-37773-3	Padnos	112	74	134	46	70	70	93	49
410-37773-4	EC2	96	111	107		86	91	98	93
410-37773-5	Porter	143	122	217 *5+	71	71	93	106	80
410-37773-6	PES	10 *5-	124	99	3 *5-	29 *5-	50	72	39 *5-
410-37773-7	Field Blank	127	135	125	91	93	99	104	93
410-37773-8	SKLF	93	131	249 *5+	46	72	92	90	82
410-37773-9	Kentwood Landfill	115	150	184	58	83	92	105	84
410-37773-9 - DL	Kentwood Landfill						59		
410-37773-10	Kentwood Landfill DUP	109	133	175	59	83	91	98	79
410-37773-11	Effluent	112	129	144	71	82	92	99	87
410-37773-12	BASF	102	115	113	75	83	88	88	81
410-37773-12 - DL	BASF								
LCS 410-121460/2-A	Lab Control Sample	102	97	109	92	94	102	111	96
LCS 410-124552/2-A	Lab Control Sample	106	117	117	92	90	100	91	91
LCSD 410-121460/3-A	Lab Control Sample Dup	101	97	110	89	91	97	105	93
LCSD 410-124552/3-A	Lab Control Sample Dup	118	129	131	99	98	107	98	94
MB 410-121460/1-A	Method Blank	109	95	106	100	99	102	106	101
MB 410-124552/1-A	Method Blank	100	117	107	92	88	92	88	92
			ь	ercent Isotop	o Dilution Bo	covery (Acce	ntanco Limi	te)	
		13C7PUA	PFDoDA	PFTDA	C3PFBS	C3PFHS	C8PFOS	d3NMFOS	d5NEFO
	011 40 4 10								
Lab Sample ID 410-37773-2	Client Sample ID Influent	(40-135)	27 *5-	(10-144)	(19-178)	(32-145)	(49-126)	(32-151)	(37-164)
		64		16	95	73 70	75 70	111	118
410-37773-3	Padnos	39 *5-	11 *5-	17	88	72	79 01	47	47
410-37773-4	EC2	92	91	93	117	83	91	87	97
410-37773-5	Porter	52	29	23	111	73	88	78	75
410-37773-6	PES	21 *5-	14 *5-	6 *5-	37	104	84	24 *5-	15 *5-
410-37773-7	Field Blank	103	108	126	100	87	95	106	123
410-37773-8	SKLF	88	77	59	139	89	89	110	114
410-37773-9	Kentwood Landfill	98	81	91	205 *5+	94	90	107	128
410-37773-9 - DL	Kentwood Landfill								
410-37773-10	Kentwood Landfill DUP	87	72	68	204 *5+	94	86	95	108
410-37773-11	Effluent	91	90	69	129	80	87	100	116
410-37773-12	BASF	84	86	96	112	78	82	89	91
410-37773-12 - DL	BASF						96		
LCS 410-121460/2-A	Lab Control Sample	94	96	97	105	86	98	103	93
LCS 410-124552/2-A	Lab Control Sample	89	93	90	103	90	91	91	95
	Lab Ocalado Caralla D	91	94	94	102	86	95	97	89
LCSD 410-121460/3-A	Lab Control Sample Dup	91				07	07	99	97
	Lab Control Sample Dup Lab Control Sample Dup	104	99	97	112	97	97	55	
LCSD 410-124552/3-A			99 98	97 95	112 107	97	100	101	101
LCSD 410-124552/3-A MB 410-121460/1-A	Lab Control Sample Dup	104							101 96
LCSD 410-124552/3-A MB 410-121460/1-A	Lab Control Sample Dup Method Blank	104 102	98 84	95	107 97	92 90	100 85	101 83	
LCSD 410-121460/3-A LCSD 410-124552/3-A MB 410-121460/1-A MB 410-124552/1-A	Lab Control Sample Dup Method Blank	104 102	98 84	95 87	107 97	92 90	100 85	101 83	
LCSD 410-124552/3-A MB 410-121460/1-A MB 410-124552/1-A	Lab Control Sample Dup Method Blank	104 102 94	98 84 P	95 87 ercent Isotop	107 97 e Dilution Re	92 90 covery (Acce	100 85 eptance Limi	101 83	
LCSD 410-124552/3-A MB 410-121460/1-A MB 410-124552/1-A Lab Sample ID	Lab Control Sample Dup Method Blank Method Blank	104 102 94 PFOSA	98 84 P PFBA	95 87 ercent Isotop PFPeA	107 97 e Dilution Re NMFM	92 90 covery (Acce d3NMFSA	100 85 eptance Limi NEFM	101 83 ts) d5NPFSA	
LCSD 410-124552/3-A MB 410-121460/1-A MB 410-124552/1-A Lab Sample ID 410-37773-2	Lab Control Sample Dup Method Blank Method Blank Client Sample ID	104 102 94 PFOSA (10-143)	98 84 P PFBA (41-132)	95 87 ercent Isotop PFPeA (33-155)	107 97 ne Dilution Re NMFM (10-143)	92 90 covery (Acce d3NMFSA (10-107)	100 85 eptance Limi NEFM (10-142)	101 83 ts) d5NPFSA (10-108)	
LCSD 410-124552/3-A MB 410-121460/1-A MB 410-124552/1-A Lab Sample ID 410-37773-2 410-37773-3	Lab Control Sample Dup Method Blank Method Blank Client Sample ID Influent	104 102 94 PFOSA (10-143) 23	98 84 P PFBA (41-132) 43	95 87 ercent Isotop PFPeA (33-155) 65	107 97 se Dilution Re NMFM (10-143) 13	92 90 scovery (Acced d3NMFSA (10-107) 3 *5-	100 85 eptance Limi NEFM (10-142) 20	101 83 ts) d5NPFSA (10-108) 4 *5-	
LCSD 410-124552/3-A MB 410-121460/1-A	Lab Control Sample Dup Method Blank Method Blank Client Sample ID Influent Padnos	104 102 94 PFOSA (10-143) 23 34	98 84 P PFBA (41-132) 43 23 *5-	95 87 ercent Isotop PFPeA (33-155) 65 46	107 97 e Dilution Re NMFM (10-143) 13 8 *5-	92 90 covery (Acced d3NMFSA (10-107) 3 *5- 2 *5-	100 85 eptance Limi NEFM (10-142) 20 13	101 83 ts) d5NPFSA (10-108) 4 *5- 1 *5-	

Eurofins Lancaster Laboratories Env, LLC

Page 27 of 52

Isotope Dilution Summary

Client: City of Wyoming Job ID: 410-37773-1

Project/Site: City of Wyoming - PFAS

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

Matrix: Water Prep Type: Total/NA

			Р	ercent Isotop	e Dilution R	ecovery (Acce	ptance Limi	ts)
		PFOSA	PFBA	PFPeA	NMFM	d3NMFSA	NEFM	d5NPFSA
Lab Sample ID	Client Sample ID	(10-143)	(41-132)	(33-155)	(10-143)	(10-107)	(10-142)	(10-108)
410-37773-7	Field Blank	73	95	91	81	36	82	36
410-37773-8	SKLF	46	27 *5-	67	28	1 *5-	25	1 *5-
410-37773-9	Kentwood Landfill	53	70	118	41	6 *5-	46	7 *5-
410-37773-9 - DL	Kentwood Landfill							
410-37773-10	Kentwood Landfill DUP	37	71	116	18	1 *5-	22	1 *5-
410-37773-11	Effluent	51	84	95	36	7 *5-	39	8 *5-
410-37773-12	BASF	70	85	90	67	30	72	33
410-37773-12 - DL	BASF							
LCS 410-121460/2-A	Lab Control Sample	73	97	95	80	58	80	60
LCS 410-124552/2-A	Lab Control Sample	79	89	92	74	47	77	47
LCSD 410-121460/3-A	Lab Control Sample Dup	68	92	92	73	52	73	57
LCSD 410-124552/3-A	Lab Control Sample Dup	83	97	100	77	49	77	50
MB 410-121460/1-A	Method Blank	86	102	100	85	57	84	59
MB 410-124552/1-A	Method Blank	80	88	88	81	57	81	59

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

PFPeA = 13C5 PFPeA

NMFM = d7-N-MeFOSE-M

d3NMFSA = d3-NMePFOSA NEFM = d9-N-EtFOSE-M

d5NPFSA = d5-NEtPFOSA

Project/Site: City of Wyoming - PFAS

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-121075/1-B

Matrix: Solid

Analysis Batch: 121732

Client: City of Wyoming

Client Sample ID: Method Blank **Prep Type: Total/NA**

Prep Batch: 121075

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NEtFOSAA	ND		1.0	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluorobutanesulfonic acid	ND		1.0	0.20	ng/g		04/30/21 11:18	05/03/21 13:04	1
NMeFOSAA	ND		1.0	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluorodecanoic acid	ND		0.30	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
10:2 Fluorotelomer sulfonic acid	ND		1.0	0.30	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluoroheptanesulfonic acid	ND		0.30	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluoroheptanoic acid	ND		0.30	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluorodecanesulfonic acid	ND		0.30	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluorohexanesulfonic acid	ND		0.30	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluorododecanesulfonic acid	ND		1.0	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
(PFDoS)									
Perfluorohexanoic acid	ND		0.30		ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluorononanesulfonic acid	ND		0.30		ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluorohexadecanoic acid	ND		0.30	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluorononanoic acid	ND		0.30	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluorooctadecanoic acid	ND		0.30	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluorobutanoic acid	ND		1.0	0.40	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluorooctanesulfonamide	ND		0.30	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluorooctanesulfonic acid	ND		0.30	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
NMeFOSE	ND		1.0	0.25	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluorooctanoic acid	ND		0.30	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
NMeFOSA	ND		1.0	0.25	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluoropentanesulfonic acid	ND		0.30	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
NEtFOSE	ND		1.0	0.25	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluoropentanoic acid	ND		0.30	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
NEtFOSA	ND		1.0	0.25	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluorotetradecanoic acid	ND		0.30	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluorotridecanoic acid	ND		0.30	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluorododecanoic acid	ND		0.30	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
Perfluoroundecanoic acid	ND		0.30	0.10	ng/g		04/30/21 11:18	05/03/21 13:04	1
4:2 Fluorotelomer sulfonic acid	ND		1.0	0.30	ng/g		04/30/21 11:18	05/03/21 13:04	1
6:2 Fluorotelomer sulfonic acid	ND		1.0	0.30	ng/g		04/30/21 11:18	05/03/21 13:04	1
8:2 Fluorotelomer sulfonic acid	ND		1.5	0.30	ng/g		04/30/21 11:18	05/03/21 13:04	1
	MB	МВ							
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	95		10 - 169	04/30/21 11:18	05/03/21 13:04	1
M2-6:2 FTS	106		10 - 182	04/30/21 11:18	05/03/21 13:04	1
M2-8:2 FTS	92		10 - 178	04/30/21 11:18	05/03/21 13:04	1
13C2 PFTeDA	65		10 - 138	04/30/21 11:18	05/03/21 13:04	1
13C3 PFBS	103		23 - 130	04/30/21 11:18	05/03/21 13:04	1
13C4 PFHpA	84		15 - 139	04/30/21 11:18	05/03/21 13:04	1
13C8 PFOA	96		21 - 133	04/30/21 11:18	05/03/21 13:04	1
13C8 PFOS	92		31 - 130	04/30/21 11:18	05/03/21 13:04	1
d3-NMeFOSAA	81		10 - 172	04/30/21 11:18	05/03/21 13:04	1
d5-NEtFOSAA	82		10 - 176	04/30/21 11:18	05/03/21 13:04	1
13C4 PFBA	93		12 - 137	04/30/21 11:18	05/03/21 13:04	1
13C5 PFPeA	92		12 - 135	04/30/21 11:18	05/03/21 13:04	1
13C3 PFHxS	84		24 - 136	04/30/21 11:18	05/03/21 13:04	1
d7-N-MeFOSE-M	36		10 - 152	04/30/21 11:18	05/03/21 13:04	1

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Page 29 of 52

QC Sample Results

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Job ID: 410-37773-1

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

MR MR

Lab Sample ID: MB 410-121075/1-B

Matrix: Solid

Analysis Batch: 121732

Client Sample ID: Method Blank **Prep Type: Total/NA**

Prep Batch: 121075

	IVID	IVID				
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFHxA	92		11 - 138	04/30/21 11:18	05/03/21 13:04	1
13C6 PFDA	90		21 - 134	04/30/21 11:18	05/03/21 13:04	1
d9-N-EtFOSE-M	30		10 - 157	04/30/21 11:18	05/03/21 13:04	1
13C7 PFUnA	87		15 - 138	04/30/21 11:18	05/03/21 13:04	1
d3-NMePFOSA	70		10 - 148	04/30/21 11:18	05/03/21 13:04	1
d5-NEtPFOSA	53		10 - 151	04/30/21 11:18	05/03/21 13:04	1
13C8 FOSA	94		25 - 135	04/30/21 11:18	05/03/21 13:04	1
13C2-PFDoDA	78		28 - 126	04/30/21 11:18	05/03/21 13:04	1
13C9 PFNA	95		15 - 145	04/30/21 11:18	05/03/21 13:04	1

Lab Sample ID: LCS 410-121075/2-B

Matrix: Solid

Analysis Batch: 121732

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 121075

Analyte Added Result Cualifier Unify b %Rec Limits NEIFOSAA 25.0 24.1 ng/g 98.9 50.140 Perfluorobutanesulfonic acid 22.1 19.8 ng/g 88.9 62.137 NMEFOSAA 25.0 22.2 ng/g 89.9 62.142 Perfluorodecancic acid 25.0 25.2 ng/g 89.3 14.2 10.2 Fluorotelomer sulfonic acid 24.1 20.0 ng/g 83.0 12.6 Perfluorodecanesulfonic acid 28.8 23.0 ng/g 96.0 60.142 Perfluorodecanesulfonic acid 22.8 22.1 ng/g 96.0 60.142 Perfluorodecanesulfonic acid 22.8 22.1 ng/g 96.0 60.142 Perfluorodecanesulfonic acid 22.8 22.1 ng/g 97.5 7.35 Perfluorodecanesulfonic acid 22.8 22.1 ng/g 97.0 7.7135 Perfluorodecanesulfonic acid 25.0 23.4 ng/g	Analysis Batch. 121702							Trep Baten: 12107
NEIFOSAA 25.0 24.1 ng/g 96 50.140 Perflucrobutanesulfonic acid 22.1 18.8 ng/g 89 62.137 18.8 NEIFOSAA 26.0 22.2 ng/g 89 62.137 18.8 NEIFOSAA 25.0 22.2 ng/g 89 63.149 18.8		•						** **
Perfluorobutanesulfonic acid 22.1 19.8 ng/g 89 62.137 NMeFOSAA 25.0 22.2 ng/g 88 53.149 Perfluorobecanoic acid 25.0 25.2 ng/g 101 62.142 10.2 Fluorobener sulfonic acid 24.1 20.0 ng/g 83 42.142 Perfluorobeptanesulfonic acid 23.8 23.0 ng/g 97 67.138 Perfluorobeptanesulfonic acid 24.1 23.2 ng/g 96 60.142 Perfluorododecanesulfonic acid 24.1 23.2 ng/g 97 57.135 Perfluorododecanesulfonic acid 24.1 23.2 ng/g 96 60.142 Perfluorododecanesulfonic acid 24.0 22.3 ng/g 97 57.135 Perfluoronananesulfonic acid 25.0 23.4 ng/g 94 81.147 Perfluoronananesulfonic acid 25.0 23.4 ng/g 96 62.148 Perfluorobadecanoic acid 25.0 23.8 ng/g 95 <th></th> <th></th> <th></th> <th>Qualifier</th> <th></th> <th> D</th> <th></th> <th></th>				Qualifier		D		
NMEFOSAA 25.0 22.2 ng/g 89 53.14g Perfluorodecanoic acid 25.0 25.2 ng/g 101 62.142 10.2 Fluorotelome sulfonic acid 24.1 20.0 ng/g 83 42.142 Perfluoroheptanesulfonic acid 23.8 23.0 ng/g 97 67.138 Perfluorohepanesulfonic acid 25.0 26.3 ng/g 96 60.142 Perfluorohexanesulfonic acid 22.8 22.1 ng/g 97 67.135 Perfluorohexanesulfonic acid 22.8 22.1 ng/g 97 67.135 Perfluorohexanesulfonic acid 22.0 23.4 ng/g 97 67.135 Perfluorohexanecaulfonic acid 25.0 23.4 ng/g 94 61.147 Perfluoronanaesulfonic acid 25.0 23.1 ng/g 65 44.161 Perfluorochaexadecanoic acid 25.0 23.8 ng/g 65 24.4 Perfluorochaexadecanoic acid 25.0 23.5 ng/g 86								
Perfluorodecanoic acid 25.0 25.2 ng/g 10.1 62.142 10.2 Fluorotelomer sulfonic acid 24.1 20.0 ng/g 83 42.142 Perfluoroheptanesulfonic acid 23.8 23.0 ng/g 97 67.138 Perfluoroheptaneic acid 25.0 26.3 ng/g 10.5 61.151 Perfluorotexanesulfonic acid 24.1 23.2 ng/g 96 60.142 Perfluorotexanesulfonic acid 22.8 22.1 ng/g 97 57.135 Perfluorotexanesulfonic acid 28.0 22.1 ng/g 92 52.145 (PFDOS) 7 78.7 78.7 78.7 78.7 78.7 78.7 78.7 79.7 79.135 79.7 </td <td>Perfluorobutanesulfonic acid</td> <td>22.1</td> <td>19.8</td> <td></td> <td>ng/g</td> <td></td> <td>89</td> <td>62 ₋ 137</td>	Perfluorobutanesulfonic acid	22.1	19.8		ng/g		89	62 ₋ 137
10.2 Fluorotelomer sulfonic acid 24.1 20.0 ng/g 8.3 42.142 Perfluoroheptanesulfonic acid 23.8 23.0 ng/g 97 67.138 Perfluoroheptanesulfonic acid 25.0 26.3 ng/g 96 60.142 Perfluorodecanesulfonic acid 24.1 23.2 ng/g 96 60.142 Perfluorodecanesulfonic acid 22.8 22.1 ng/g 97 57.135 Perfluorodecanesulfonic acid 22.8 22.1 ng/g 97 57.135 Perfluorodecanesulfonic acid 25.0 23.4 ng/g 97 57.135 Perfluoronanesulfonic acid 25.0 23.4 ng/g 94 61.147 Perfluoronanesulfonic acid 25.0 23.4 ng/g 96 65 44.161 Perfluoronanesulfonic acid 25.0 23.4 ng/g 95 62.148 Perfluoronanesulfonic acid 25.0 23.8 ng/g 95 62.148 Perfluoronanesulfonic acid 25.0 23.8 ng/g 95 62.148 Perfluoronanoic acid 25.0 23.8 ng/g 95 62.148 Perfluoroctanesulfonic acid 25.0 23.8 ng/g 95 62.148 Perfluoroctanesulfonic acid 25.0 23.8 ng/g 95 62.148 Perfluoroctanesulfonic acid 25.0 23.8 ng/g 95 48.134 Perfluoroctanesulfonic acid 25.0 23.2 ng/g 98 48.134 Perfluoroctanesulfonic acid 25.0 23.2 ng/g 98 48.134 NMeFOSE 25.0 23.2 ng/g 98 48.134 Perfluoroctanesulfonic acid 25.0 23.2 ng/g 98 48.134 Perfluoroctanesulfonic acid 25.0 23.4 ng/g 99 46.134 Perfluoroctanesulfonic acid 25.0 23.4 ng/g 99 46.134 Perfluoropentanesulfonic acid 25.0 24.8 ng/g 99 60.147 Perfluoroctanesulfonic acid 25.0 24.8 ng/g 99 60.147 Perfluoroctanecic acid 25.0 24.5 ng/g 98 60.147 Perfluoroctanecic acid 25.0 24.8 ng/g 98 60.147 Perfluoroctan	NMeFOSAA	25.0	22.2		ng/g		89	53 - 149
Perfluoroheptanesulfonic acid 23.8 23.0 ng/g 97 67-138 Perfluoroheptanoic acid 25.0 26.3 ng/g 105 61-151 Perfluoroheptanoic acid 24.1 23.2 ng/g 96 60-142 Perfluorobexanesulfonic acid 22.8 22.1 ng/g 97 57-135 Perfluorobexanesulfonic acid 25.0 23.4 ng/g 92 52-145 Perfluorohexanoic acid 25.0 23.4 ng/g 94 61-147 Perfluoronanaesulfonic acid 25.0 23.4 ng/g 65 44-161 Perfluorohexadecanoic acid 25.0 16.3 ng/g 65 44-161 Perfluorochadecanoic acid 25.0 23.8 ng/g 95 62-148 Perfluorochadecanoic acid 25.0 23.8 ng/g 95 62-148 Perfluorochadecanoic acid 25.0 23.2 ng/g 95 52-132 Perfluorochadecanoic acid 25.0 23.2 ng/g 98	Perfluorodecanoic acid	25.0	25.2		ng/g		101	62 - 142
Perfluoroheptanoic acid 25.0 26.3 ng/g 105 61.151 Perfluorodecanesulfonic acid 24.1 23.2 ng/g 96 60.142 Perfluorohexanesulfonic acid 22.8 22.1 ng/g 97 57.135 Perfluorohexanesulfonic acid 24.2 22.3 ng/g 97 57.135 Perfluorohexanesulfonic acid 24.2 22.3 ng/g 98 60.142 Perfluorohexanoic acid 25.0 23.4 ng/g 94 61.147 Perfluorononanesulfonic acid 25.0 23.4 ng/g 101 63.143 Perfluorononanesulfonic acid 25.0 16.3 ng/g 65 44.161 Perfluorononanoic acid 25.0 23.8 ng/g 65 44.161 Perfluoronoctanesulfonic acid 25.0 13.3 ng/g 65 62.148 Perfluoroctanesulfonic acid 25.0 23.8 ng/g 66 50.185 Perfluoroctanesulfonic acid 25.0 21.5 ng/g 66 50.185 Perfluoroctanesulfonic acid 25.0 23.2 ng/g 38 48.134 Perfluoroctanesulfonic acid 25.0 23.2 ng/g 38 48.134 Perfluoroctanesulfonic acid 25.0 23.2 ng/g 38 48.134 Perfluoroctanesulfonic acid 25.0 22.2 ng/g 38 48.134 Perfluoroctanesulfonic acid 25.0 22.2 ng/g 38 65.145 Perfluoroctanesulfonic acid 25.0 22.2 ng/g 39 43.134 Perfluoroctanesulfonic acid 25.0 22.2 ng/g 39 43.134 Perfluoroctanesulfonic acid 25.0 22.8 ng/g 39 43.134 Perfluoropentanesulfonic acid 25.0 22.8 ng/g 39 45.134 Perfluoropentanoic acid 25.0 24.8 ng/g 39 60.147 Perfluorodecanoic acid 25.0 24.8 ng/g 39 60.147 Perfluorotectomer sulfonic acid 25.0 24.8 ng/g 39 60.147 Perfluorotectomer sulfonic acid 25.0 24.5 ng/g 39 60.147 Perfluorotectomer sulfonic acid 25.0 24.5 ng/g 39 60.147 Perfluorotectomer sulfonic acid 25.0 24.8 ng/g	10:2 Fluorotelomer sulfonic acid	24.1	20.0		ng/g		83	42 - 142
Perfluorodecanesulfonic acid 24.1 23.2 ng/g 96 60 - 142 Perfluorodexanesulfonic acid 22.8 22.1 ng/g 97 57 - 135 Perfluorododecanesulfonic acid 24.2 22.3 ng/g 92 52 - 145 (PFDOS) Perfluorone acid 25.0 23.4 ng/g 94 61 - 147 Perfluorone acid 25.0 23.4 ng/g 95 65 - 143 Perfluorone acid 25.0 16.3 ng/g 65 44 - 161 Perfluorononancia caid 25.0 13.3 ng/g 65 44 - 161 Perfluorocatadecanoic acid 25.0 13.3 ng/g 53 16 - 175 Perfluorocatancia caid 25.0 23.2 ng/g 86 50 - 185 Perfluorocatanesulfonamide 25.0 23.2 ng/g 93 52 - 132 Perfluorocatanesulfonamide 25.0 23.2 ng/g 93 62 - 144 NMeFOSE 25.0 23.2 ng/g 93	Perfluoroheptanesulfonic acid	23.8	23.0		ng/g		97	67 ₋ 138
Perfluorohexanesulfonic acid 22.8 22.1 ng/g 97 57.135 Perfluorododecanesulfonic acid (PFDoS) 22.2 22.3 ng/g 92 52.145 Perfluorohexanoic acid 24.2 22.3 ng/g 92 52.145 Perfluorohexanoic acid 25.0 23.4 ng/g 94 61.147 Perfluoronanesulfonic acid 24.0 24.1 ng/g 101 63.143 Perfluorohexadecanoic acid 25.0 16.3 ng/g 95 62.148 Perfluoroncanic acid 25.0 23.8 ng/g 95 62.148 Perfluorocatadecanoic acid 25.0 23.8 ng/g 95 62.148 Perfluorocatadecanoic acid 25.0 23.8 ng/g 95 62.148 Perfluorocatadecanoic acid 25.0 23.2 ng/g 96 50.185 Perfluorocatanesulfonic acid 25.0 23.2 ng/g 98 48.134 Perfluorocatanesulfonic acid 25.0 23.2 ng/g 98 48.134 NMeFOSE 25.0 23.2 ng/g 98 47.138 Perfluorocatanesulfonic acid 25.0 22.2 E ng/g 89 43.134 Perfluoropentanesulfonic acid 25.0 22.2 E ng/g 89 43.134 Perfluoropentanesulfonic acid 25.0 22.6 ng/g 90 46.134 Perfluoropentanesulfonic acid 25.0 22.6 ng/g 90 46.134 Perfluoropentanesulfonic acid 25.0 22.8 ng/g 91 48.130 Perfluorotatadecanoic acid 25.0 24.8 ng/g 99 60.147 Perfluorotacanoic acid 25.0 24.6 ng/g 98 67.162 Perfluorotacanoic acid 25.0 24.6 ng/g 98 60.147 Perfluorotacanoic acid 25.0 24.6 ng/g 98 60.147 Perfluorotacanoic acid 25.0 24.5 ng/g 98 60.147 Perfluorotacanoic acid 25.0 24.5 ng/g 98 60.147 Perfluorotacanoic acid 25.0 24.7 ng/g 98 60.147 Perfluorotacanoic acid 25.0 24.8 ng/g 98 60.147 Perfluorotacanoic acid 25.0 25.0 25.	Perfluoroheptanoic acid	25.0	26.3		ng/g		105	61 ₋ 151
Perfluorododecanesulfonic acid (PFDOS) 24.2 22.3 ng/g 92 52 - 145 Perfluorohexanoic acid 25.0 23.4 ng/g 101 63 - 143 Perfluoronoanesulfonic acid 24.0 24.1 ng/g 101 63 - 143 Perfluorohexadecanoic acid 25.0 16.3 ng/g 65 44 - 161 Perfluoronanoic acid 25.0 23.8 ng/g 95 62 - 148 Perfluorocatadecanoic acid 25.0 23.8 ng/g 95 62 - 148 Perfluorocatadecanoic acid 25.0 21.5 ng/g 86 50 - 185 Perfluorocatanesulfonamide 25.0 21.5 ng/g 98 48 - 134 NMeFOSE 25.0 22.2 ng/g 98 48 - 134 NMeFOSE 25.0 22.2 ng/g 98 45 - 144 NMeFOSA 25.0 22.2 ng/g 98 45 - 144 NetFOSE 25.0 22.5 ng/g 98 65 - 144	Perfluorodecanesulfonic acid	24.1	23.2		ng/g		96	60 - 142
Perfluorohexanoic acid 25.0 23.4 ng/g 94 61.147 Perfluorohexanoic acid 25.0 23.4 ng/g 61 63.143 Perfluorohexadecanoic acid 25.0 16.3 ng/g 65 44.161 Perfluorononanoic acid 25.0 23.8 ng/g 95 62.148 Perfluorocatadecanoic acid 25.0 23.8 ng/g 95 62.148 Perfluorocatadecanoic acid 25.0 23.8 ng/g 95 62.148 Perfluorocatadecanoic acid 25.0 23.8 ng/g 86 50.185 Perfluorocatanesulfonanide 25.0 21.5 ng/g 86 50.185 Perfluorocatanesulfonanide 25.0 23.2 ng/g 93 52.132 Perfluorocatanesulfonic acid 25.0 23.2 ng/g 98 48.134 NMeFOSE 25.0 20.2 ng/g 81 47.138 Perfluorocatanesulfonic acid 25.0 23.2 ng/g 89 43.134 Perfluorocatanesulfonic acid 25.0 23.2 ng/g 89 43.134 Perfluoropentanesulfonic acid 25.0 22.2 E ng/g 88 65.145 NEIFOSA 25.0 22.6 ng/g 90 46.134 Perfluoropentanoic acid 25.0 23.4 ng/g 91 48.130 Perfluorotenacid 25.0 24.8 ng/g 99 60.147 Perfluorotenacid 25.0 24.8 ng/g 98 67.162 Perfluorotenacid 25.0 24.6 ng/g 98 67.162 Perfluorotenacid 25.0 24.6 ng/g 98 67.162 Perfluorotenacid 25.0 24.6 ng/g 98 60.147 Perfluorotenacid 25.0 24.6 ng/g 98 60.147 Perfluorotenacid 25.0 24.5 ng/g 91 62.144 4.2 Fluorotelomer sulfonic acid 25.0 22.7 ng/g 91 62.144 4.2 Fluorotelomer sulfonic acid 23.4 24.1 ng/g 91 62.144 4.2 Fluorotelomer sulfonic acid 23.4 24.1 ng/g 91 62.144 4.2 Fluorotelomer sulfonic acid 23.4 24.1 ng/g 91 62.144 4.2 Fluorotelomer sulfonic acid 23.4 24.1 ng/g 91 63.137	Perfluorohexanesulfonic acid	22.8	22.1		ng/g		97	57 ₋ 135
Perfluor on hexanoic acid 25.0 23.4 ng/g 94 61 - 147 Perfluor on nanesulfonic acid 24.0 24.1 ng/g 101 63 - 143 Perfluor on nanesulfonic acid 25.0 16.3 ng/g 65 44 - 161 Perfluor on nanoic acid 25.0 23.8 ng/g 95 62 - 148 Perfluor octadecanoic acid 25.0 23.3 ng/g 53 16 - 175 Perfluor octadecanoic acid 25.0 21.5 ng/g 86 50 - 185 Perfluor octanesulfonamide 25.0 23.2 ng/g 93 52 - 132 Perfluor octanesulfonic acid 23.1 22.6 ng/g 81 47 - 138 Perfluor octanesulfonic acid 25.0 20.2 ng/g 81 47 - 138 Perfluor octanesulfonic acid 25.0 22.2 19/g 81 47 - 138 Perfluor octanesulfonic acid 25.0 22.2 19/g 81 47 - 138 Perfluor octanesulfonic acid 25.0 22.2 <	Perfluorododecanesulfonic acid	24.2	22.3		ng/g		92	52 - 145
Perfluorononanesulfonic acid 24.0 24.1 ng/g 101 63.143 Perfluoronexadecanoic acid 25.0 16.3 ng/g 65 44.161 Perfluorononanoic acid 25.0 23.8 ng/g 95 62.148 Perfluoroctadecanoic acid 25.0 23.1 ng/g 86 50.185 Perfluoroctanesulfonamide 25.0 23.2 ng/g 93 52.132 Perfluoroctanesulfonic acid 23.1 22.6 ng/g 98 48.134 NMeFOSE 25.0 20.2 ng/g 81 47.138 Perfluoroctanoic acid 25.0 22.2 eng/g 89 43.134 NMeFOSA 25.0 22.2 eng/g 89 43.134 Perfluoropentanesulfonic acid 25.0 22.2 eng/g 89 43.134 Perfluoropentanesulfonic acid 25.0 22.2 eng/g 99 46.134 Perfluoropentanesulfonic acid 25.0 22.8 ng/g 94 69.144	,							
Perfluoronexadecanoic acid 25.0 16.3 ng/g 65 44.161 Perfluorononanoic acid 25.0 23.8 ng/g 95 62.148 Perfluoroctadecanoic acid 25.0 13.3 ng/g 53 16.175 Perfluorobutanoic acid 25.0 21.5 ng/g 86 50.185 Perfluoroctanesulfonamide 25.0 23.2 ng/g 93 52.132 Perfluoroctanesulfonic acid 23.1 22.6 ng/g 81 48.134 NMeFOSE 25.0 20.2 ng/g 81 47.138 Perfluoroctanoic acid 25.0 23.2 ng/g 83 48.134 NMeFOSA 25.0 22.2 E ng/g 89 43.134 Perfluoropentanesulfonic acid 23.5 20.7 ng/g 88 65.145 NEIFOSE 25.0 22.6 ng/g 90 46.134 Perfluoropentanoic acid 25.0 22.8 ng/g 91 48.130 <td< td=""><td>Perfluorohexanoic acid</td><td>25.0</td><td>23.4</td><td></td><td>ng/g</td><td></td><td>94</td><td>61 ₋ 147</td></td<>	Perfluorohexanoic acid	25.0	23.4		ng/g		94	61 ₋ 147
Perfluorononanoic acid 25.0 23.8 ng/g 95 62-148 Perfluoroctadecanoic acid 25.0 13.3 ng/g 53 16-175 Perfluorobutanoic acid 25.0 21.5 ng/g 86 50-185 Perfluoroctanesulfonamide 25.0 23.2 ng/g 93 52-132 Perfluoroctanesulfonic acid 23.1 22.6 ng/g 98 48-134 NMeFOSE 25.0 20.2 ng/g 81 47-138 Perfluoroctanoic acid 25.0 20.2 ng/g 93 62-144 NMeFOSA 25.0 22.2 E ng/g 89 43-134 Perfluoropentanesulfonic acid 23.5 20.7 ng/g 88 65-145 NEtFOSE 25.0 22.2 E ng/g 90 46-134 Perfluoropentanoic acid 25.0 22.8 ng/g 91 48-134 NEtFOSE 25.0 22.8 ng/g 91 48-134 <td< td=""><td>Perfluorononanesulfonic acid</td><td>24.0</td><td>24.1</td><td></td><td>ng/g</td><td></td><td>101</td><td>63 - 143</td></td<>	Perfluorononanesulfonic acid	24.0	24.1		ng/g		101	63 - 143
Perfluoroctadecanoic acid 25.0 13.3 ng/g 53 16.175 Perfluorobutanoic acid 25.0 21.5 ng/g 86 50.185 Perfluoroctanesulfonamide 25.0 23.2 ng/g 93 52.132 Perfluoroctanesulfonic acid 23.1 22.6 ng/g 88 48.134 NMeFOSE 25.0 20.2 ng/g 81 47.138 Perfluoroctanoic acid 25.0 23.2 ng/g 93 62.144 NMeFOSA 25.0 22.2 E ng/g 88 65.145 NEtFOSE 25.0 22.2 E ng/g 88 65.145 Perfluoropentanesulfonic acid 23.5 20.7 ng/g 90 46.134 NEtFOSE 25.0 22.6 ng/g 91 48.130 Perfluoropentanesulfonic acid 25.0 22.8 ng/g 91 48.130 NetFOSA 25.0 22.8 ng/g 91 48.130 Perfluor	Perfluorohexadecanoic acid	25.0	16.3		ng/g		65	44 - 161
Perfluorobutanoic acid 25.0 21.5 ng/g 86 50 - 185 Perfluorocotanesulfonamide 25.0 23.2 ng/g 93 52 - 132 Perfluorocotanesulfonic acid 23.1 22.6 ng/g 98 48 - 134 NMeFOSE 25.0 20.2 ng/g 81 47 - 138 Perfluorocotanoic acid 25.0 23.2 ng/g 93 62 - 144 NMeFOSA 25.0 22.2 E ng/g 89 43 - 134 Perfluoropentanesulfonic acid 23.5 20.7 ng/g 88 65 - 145 NEtFOSE 25.0 22.6 ng/g 90 46 - 134 Perfluoropentanoic acid 25.0 23.4 ng/g 94 69 - 144 NEtFOSA 25.0 22.8 ng/g 91 48 - 130 Perfluorotetradecanoic acid 25.0 24.8 ng/g 99 60 - 147 Perfluorododecanoic acid 25.0 24.5 ng/g 98 67 - 152	Perfluorononanoic acid	25.0	23.8		ng/g		95	62 - 148
Perfluorooctanesulfonamide 25.0 23.2 ng/g 93 52 - 132 Perfluorooctanesulfonic acid 23.1 22.6 ng/g 98 48 - 134 NMeFOSE 25.0 20.2 ng/g 81 47 - 138 Perfluorooctanoic acid 25.0 23.2 ng/g 93 62 - 144 NMeFOSA 25.0 22.2 E ng/g 89 43 - 134 Perfluoropentanesulfonic acid 23.5 20.7 ng/g 88 65 - 145 NEtFOSE 25.0 22.6 ng/g 90 46 - 134 Perfluoropentanoic acid 25.0 23.4 ng/g 94 69 - 144 NEtFOSA 25.0 23.4 ng/g 94 69 - 144 NEtFOSA 25.0 22.8 ng/g 99 60 - 147 Perfluorotetradecanoic acid 25.0 24.8 ng/g 98 57 - 152 Perfluorododecanoic acid 25.0 24.6 ng/g 98 60 - 147 Pe	Perfluorooctadecanoic acid	25.0	13.3		ng/g		53	16 - 175
Perfluorooctanesulfonic acid 23.1 22.6 ng/g 98 48 - 134 NMeFOSE 25.0 20.2 ng/g 81 47 - 138 Perfluorooctanoic acid 25.0 23.2 ng/g 93 62 - 144 NMeFOSA 25.0 22.2 E ng/g 89 43 - 134 Perfluoropentanesulfonic acid 23.5 20.7 ng/g 88 65 - 145 NEtFOSE 25.0 22.6 ng/g 90 46 - 134 Perfluoropentanoic acid 25.0 22.8 ng/g 94 69 - 144 NEtFOSA 25.0 22.8 ng/g 91 48 - 130 Perfluorotetradecanoic acid 25.0 24.8 ng/g 99 60 - 147 Perfluorotidecanoic acid 25.0 24.6 ng/g 98 57 - 152 Perfluoroundecanoic acid 25.0 24.5 ng/g 98 60 - 147 Perfluoroundecanoic acid 25.0 22.7 ng/g 91 62 - 144	Perfluorobutanoic acid	25.0	21.5		ng/g		86	50 - 185
NMeFOSE 25.0 20.2 ng/g 81 47 - 138 Perfluorooctanoic acid 25.0 23.2 ng/g 93 62 - 144 NMeFOSA 25.0 22.2 E ng/g 89 43 - 134 Perfluoropentanesulfonic acid 23.5 20.7 ng/g 88 65 - 145 NEtFOSE 25.0 22.6 ng/g 90 46 - 134 Perfluoropentanoic acid 25.0 23.4 ng/g 94 69 - 144 NEtFOSA 25.0 22.8 ng/g 91 48 - 130 Perfluorotetradecanoic acid 25.0 24.8 ng/g 99 60 - 147 Perfluorotridecanoic acid 25.0 24.6 ng/g 98 57 - 152 Perfluoroundecanoic acid 25.0 24.5 ng/g 98 60 - 147 Perfluoroundecanoic acid 25.0 22.7 ng/g 91 62 - 144 4:2 Fluorotelomer sulfonic acid 23.4 24.1 ng/g 103 55 - 132 6:2 Fluorotelomer sulfonic acid 23.7 22.8 ng/g 96	Perfluorooctanesulfonamide	25.0	23.2		ng/g		93	52 - 132
Perfluoroctanoic acid 25.0 23.2 ng/g 93 62 - 144 NMeFOSA 25.0 22.2 E ng/g 89 43 - 134 Perfluoropentanesulfonic acid 23.5 20.7 ng/g 88 65 - 145 NEtFOSE 25.0 22.6 ng/g 90 46 - 134 Perfluoropentanoic acid 25.0 23.4 ng/g 94 69 - 144 NEtFOSA 25.0 22.8 ng/g 91 48 - 130 Perfluorotetradecanoic acid 25.0 24.8 ng/g 99 60 - 147 Perfluorotridecanoic acid 25.0 24.6 ng/g 98 57 - 152 Perfluoroundecanoic acid 25.0 24.5 ng/g 98 60 - 147 Perfluoroundecanoic acid 25.0 22.7 ng/g 91 62 - 144 4:2 Fluorotelomer sulfonic acid 23.4 24.1 ng/g 103 55 - 132 6:2 Fluorotelomer sulfonic acid 23.7 22.8 ng/g 96 53 - 137	Perfluorooctanesulfonic acid	23.1	22.6		ng/g		98	48 _ 134
NMeFOSA 25.0 22.2 E ng/g 89 43 - 134 Perfluoropentanesulfonic acid 23.5 20.7 ng/g 88 65 - 145 NEtFOSE 25.0 22.6 ng/g 90 46 - 134 Perfluoropentanoic acid 25.0 23.4 ng/g 94 69 - 144 NEtFOSA 25.0 22.8 ng/g 91 48 - 130 Perfluorotetradecanoic acid 25.0 24.8 ng/g 99 60 - 147 Perfluorotridecanoic acid 25.0 24.6 ng/g 98 57 - 152 Perfluoroundecanoic acid 25.0 24.5 ng/g 98 60 - 147 Perfluoroundecanoic acid 25.0 22.7 ng/g 91 62 - 144 4:2 Fluorotelomer sulfonic acid 23.4 24.1 ng/g 103 55 - 132 6:2 Fluorotelomer sulfonic acid 23.7 22.8 ng/g 96 53 - 137	NMeFOSE	25.0	20.2		ng/g		81	47 - 138
Perfluoropentanesulfonic acid 23.5 20.7 ng/g 88 65 - 145 NEtFOSE 25.0 22.6 ng/g 90 46 - 134 Perfluoropentanoic acid 25.0 23.4 ng/g 94 69 - 144 NEtFOSA 25.0 22.8 ng/g 91 48 - 130 Perfluorotetradecanoic acid 25.0 24.8 ng/g 99 60 - 147 Perfluorotridecanoic acid 25.0 24.6 ng/g 98 57 - 152 Perfluoroundecanoic acid 25.0 24.5 ng/g 98 60 - 147 Perfluoroundecanoic acid 25.0 22.7 ng/g 91 62 - 144 4:2 Fluorotelomer sulfonic acid 23.4 24.1 ng/g 103 55 - 132 6:2 Fluorotelomer sulfonic acid 23.7 22.8 ng/g 96 53 - 137	Perfluorooctanoic acid	25.0	23.2		ng/g		93	62 - 144
NEtFOSE 25.0 22.6 ng/g 90 46 - 134 Perfluoropentanoic acid 25.0 23.4 ng/g 94 69 - 144 NEtFOSA 25.0 22.8 ng/g 91 48 - 130 Perfluorotetradecanoic acid 25.0 24.8 ng/g 99 60 - 147 Perfluorotridecanoic acid 25.0 24.6 ng/g 98 57 - 152 Perfluorododecanoic acid 25.0 24.5 ng/g 98 60 - 147 Perfluoroundecanoic acid 25.0 22.7 ng/g 91 62 - 144 4:2 Fluorotelomer sulfonic acid 23.4 24.1 ng/g 103 55 - 132 6:2 Fluorotelomer sulfonic acid 23.7 22.8 ng/g 96 53 - 137	NMeFOSA	25.0	22.2	E	ng/g		89	43 _ 134
Perfluoropentanoic acid 25.0 23.4 ng/g 94 69 - 144 NEtFOSA 25.0 22.8 ng/g 91 48 - 130 Perfluorotetradecanoic acid 25.0 24.8 ng/g 99 60 - 147 Perfluorotridecanoic acid 25.0 24.6 ng/g 98 57 - 152 Perfluorododecanoic acid 25.0 24.5 ng/g 98 60 - 147 Perfluoroundecanoic acid 25.0 22.7 ng/g 91 62 - 144 4:2 Fluorotelomer sulfonic acid 23.4 24.1 ng/g 103 55 - 132 6:2 Fluorotelomer sulfonic acid 23.7 22.8 ng/g 96 53 - 137	Perfluoropentanesulfonic acid	23.5	20.7		ng/g		88	65 - 145
NEtFOSA 25.0 22.8 ng/g 91 48 - 130 Perfluorotetradecanoic acid 25.0 24.8 ng/g 99 60 - 147 Perfluorotridecanoic acid 25.0 24.6 ng/g 98 57 - 152 Perfluorododecanoic acid 25.0 24.5 ng/g 98 60 - 147 Perfluoroundecanoic acid 25.0 22.7 ng/g 91 62 - 144 4:2 Fluorotelomer sulfonic acid 23.4 24.1 ng/g 103 55 - 132 6:2 Fluorotelomer sulfonic acid 23.7 22.8 ng/g 96 53 - 137	NEtFOSE	25.0	22.6		ng/g		90	46 - 134
Perfluorotetradecanoic acid 25.0 24.8 ng/g 99 60 - 147 Perfluorotridecanoic acid 25.0 24.6 ng/g 98 57 - 152 Perfluorododecanoic acid 25.0 24.5 ng/g 98 60 - 147 Perfluoroundecanoic acid 25.0 22.7 ng/g 91 62 - 144 4:2 Fluorotelomer sulfonic acid 23.4 24.1 ng/g 103 55 - 132 6:2 Fluorotelomer sulfonic acid 23.7 22.8 ng/g 96 53 - 137	Perfluoropentanoic acid	25.0	23.4		ng/g		94	69 - 144
Perfluorotridecanoic acid 25.0 24.6 ng/g 98 57 - 152 Perfluorododecanoic acid 25.0 24.5 ng/g 98 60 - 147 Perfluoroundecanoic acid 25.0 22.7 ng/g 91 62 - 144 4:2 Fluorotelomer sulfonic acid 23.4 24.1 ng/g 103 55 - 132 6:2 Fluorotelomer sulfonic acid 23.7 22.8 ng/g 96 53 - 137	NEtFOSA	25.0	22.8		ng/g		91	48 - 130
Perfluorododecanoic acid 25.0 24.5 ng/g 98 60 - 147 Perfluoroundecanoic acid 25.0 22.7 ng/g 91 62 - 144 4:2 Fluorotelomer sulfonic acid 23.4 24.1 ng/g 103 55 - 132 6:2 Fluorotelomer sulfonic acid 23.7 22.8 ng/g 96 53 - 137	Perfluorotetradecanoic acid	25.0	24.8		ng/g		99	60 - 147
Perfluoroundecanoic acid 25.0 22.7 ng/g 91 62 - 144 4:2 Fluorotelomer sulfonic acid 23.4 24.1 ng/g 103 55 - 132 6:2 Fluorotelomer sulfonic acid 23.7 22.8 ng/g 96 53 - 137	Perfluorotridecanoic acid	25.0	24.6		ng/g		98	57 ₋ 152
Perfluoroundecanoic acid 25.0 22.7 ng/g 91 62 - 144 4:2 Fluorotelomer sulfonic acid 23.4 24.1 ng/g 103 55 - 132 6:2 Fluorotelomer sulfonic acid 23.7 22.8 ng/g 96 53 - 137	Perfluorododecanoic acid	25.0	24.5		ng/g		98	60 - 147
4:2 Fluorotelomer sulfonic acid 23.4 24.1 ng/g 103 55 - 132 6:2 Fluorotelomer sulfonic acid 23.7 22.8 ng/g 96 53 - 137	Perfluoroundecanoic acid	25.0	22.7				91	62 - 144
6:2 Fluorotelomer sulfonic acid 23.7 22.8 ng/g 96 53 - 137	4:2 Fluorotelomer sulfonic acid	23.4	24.1				103	55 ₋ 132
	6:2 Fluorotelomer sulfonic acid	23.7	22.8				96	53 - 137
	8:2 Fluorotelomer sulfonic acid	24.0	19.8				83	50 - 147

5/12/2021

Client: City of Wyoming Project/Site: City of Wyoming - PFAS

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

	LCS	LCS	
Isotope Dilution	%Recovery	Qualifier	Limits
M2-4:2 FTS	103		10 - 169
M2-6:2 FTS	103		10 - 182
M2-8:2 FTS	107		10 - 178
13C2 PFTeDA	89		10 - 138
13C3 PFBS	111		23 - 130
13C4 PFHpA	96		15 - 139
13C8 PFOA	104		21 - 133
13C8 PFOS	99		31 - 130
d3-NMeFOSAA	105		10 - 172
d5-NEtFOSAA	98		10 - 176
13C4 PFBA	101		12 - 137
13C5 PFPeA	95		12 - 135
13C3 PFHxS	101		24 - 136
d7-N-MeFOSE-M	43		10 - 152
13C5 PFHxA	100		11 - 138
13C6 PFDA	98		21 - 134
d9-N-EtFOSE-M	35		10 - 157
13C7 PFUnA	101		15 - 138
d3-NMePFOSA	88		10 - 148
d5-NEtPFOSA	69		10 - 151
13C8 FOSA	105		25 - 135
13C2-PFDoDA	98		28 - 126
13C9 PFNA	102		15 ₋ 145

Lab Sample ID: LCSD 410-121075/3-B

Matrix: Solid

Analysis Batch: 121732

Client Sample II	: Lab Control Sample D)up
	Pron Type: Total	/ΝΔ

Prep Batch: 121075

Analysis Batch: 121/32						Prepi	satcn: 1	210/5	
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
NEtFOSAA	25.0	24.0		ng/g		96	50 - 140	0	30
Perfluorobutanesulfonic acid	22.1	20.3		ng/g		92	62 - 137	3	30
NMeFOSAA	25.0	26.1		ng/g		104	53 - 149	16	30
Perfluorodecanoic acid	25.0	25.2		ng/g		101	62 - 142	0	30
10:2 Fluorotelomer sulfonic acid	24.1	18.3		ng/g		76	42 - 142	9	30
Perfluoroheptanesulfonic acid	23.8	23.8		ng/g		100	67 - 138	4	30
Perfluoroheptanoic acid	25.0	26.6		ng/g		106	61 - 151	1	30
Perfluorodecanesulfonic acid	24.1	20.1		ng/g		83	60 - 142	14	30
Perfluorohexanesulfonic acid	22.8	22.9		ng/g		100	57 - 135	4	30
Perfluorododecanesulfonic acid (PFDoS)	24.2	14.6	*1	ng/g		60	52 _ 145	42	30
Perfluorohexanoic acid	25.0	23.8		ng/g		95	61 - 147	2	30
Perfluorononanesulfonic acid	24.0	22.6		ng/g		94	63 - 143	7	30
Perfluorohexadecanoic acid	25.0	12.9		ng/g		51	44 - 161	24	30
Perfluorononanoic acid	25.0	24.2		ng/g		97	62 - 148	2	30
Perfluorooctadecanoic acid	25.0	9.34	*1	ng/g		37	16 - 175	35	30
Perfluorobutanoic acid	25.0	22.0		ng/g		88	50 ₋ 185	2	30
Perfluorooctanesulfonamide	25.0	24.0		ng/g		96	52 - 132	4	30
Perfluorooctanesulfonic acid	23.1	22.8		ng/g		98	48 - 134	1	30
NMeFOSE	25.0	20.7		ng/g		83	47 - 138	2	30
Perfluorooctanoic acid	25.0	23.8		ng/g		95	62 - 144	3	30
NMeFOSA	25.0	23.5	E	ng/g		94	43 - 134	6	30
Perfluoropentanesulfonic acid	23.5	21.3		ng/g		91	65 - 145	3	30

Page 31 of 52

Project/Site: City of Wyoming - PFAS

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

Lab Sample	ID: LCSD	410-12107	75/3-B
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Matrix: Solid

Analysis Batch: 121732

Client: City of Wyoming

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 121075

Spike	LCSD	LCSD				%Rec.		RPD
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
25.0	21.6		ng/g		86	46 - 134	5	30
25.0	24.6		ng/g		98	69 - 144	5	30
25.0	23.6		ng/g		94	48 - 130	3	30
25.0	26.1		ng/g		105	60 - 147	5	30
25.0	23.4		ng/g		94	57 - 152	5	30
25.0	24.8		ng/g		99	60 - 147	1	30
25.0	23.6		ng/g		94	62 - 144	4	30
23.4	23.8		ng/g		102	55 - 132	1	30
23.7	22.1		ng/g		93	53 - 137	3	30
24.0	21.7		ng/g		91	50 - 147	9	30
	25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0	Added Result 25.0 21.6 25.0 24.6 25.0 23.6 25.0 26.1 25.0 23.4 25.0 24.8 25.0 23.6 23.4 23.8 23.7 22.1	Added Result Qualifier 25.0 21.6 25.0 24.6 25.0 23.6 25.0 26.1 25.0 23.4 25.0 24.8 25.0 23.6 23.4 23.8 23.7 22.1	Added Result Qualifier Unit 25.0 21.6 ng/g 25.0 24.6 ng/g 25.0 23.6 ng/g 25.0 26.1 ng/g 25.0 23.4 ng/g 25.0 24.8 ng/g 25.0 23.6 ng/g 23.4 23.8 ng/g 23.7 22.1 ng/g	Added Result Qualifier Unit D 25.0 21.6 ng/g ng/g 25.0 24.6 ng/g ng/g 25.0 23.6 ng/g ng/g 25.0 23.4 ng/g ng/g 25.0 24.8 ng/g 25.0 23.6 ng/g 23.4 23.8 ng/g 23.7 22.1 ng/g	Added Result Qualifier Unit D %Rec 25.0 21.6 ng/g 86 25.0 24.6 ng/g 98 25.0 23.6 ng/g 94 25.0 26.1 ng/g 105 25.0 23.4 ng/g 94 25.0 24.8 ng/g 99 25.0 23.6 ng/g 94 23.4 23.8 ng/g 102 23.7 22.1 ng/g 93	Added Result Qualifier Unit D %Rec Limits 25.0 21.6 ng/g 86 46 - 134 25.0 24.6 ng/g 98 69 - 144 25.0 23.6 ng/g 94 48 - 130 25.0 26.1 ng/g 105 60 - 147 25.0 23.4 ng/g 94 57 - 152 25.0 24.8 ng/g 99 60 - 147 25.0 23.6 ng/g 94 62 - 144 23.4 23.8 ng/g 102 55 - 132 23.7 22.1 ng/g 93 53 - 137	Added Result Qualifier Unit D %Rec Limits RPD 25.0 21.6 ng/g 86 46 - 134 5 25.0 24.6 ng/g 98 69 - 144 5 25.0 23.6 ng/g 94 48 - 130 3 25.0 26.1 ng/g 105 60 - 147 5 25.0 23.4 ng/g 94 57 - 152 5 25.0 24.8 ng/g 99 60 - 147 1 25.0 23.6 ng/g 94 62 - 144 4 23.4 23.8 ng/g 102 55 - 132 1 23.7 22.1 ng/g 93 53 - 137 3

LCSD LCSD Isotope Dilution %Recovery Qualifier Limits M2-4:2 FTS 10 - 169 106 M2-6:2 FTS 110 10 - 182 M2-8:2 FTS 101 10 - 178 13C2 PFTeDA 53 10 - 138 13C3 PFBS 109 23 - 130 13C4 PFHpA 94 15 - 139 13C8 PFOA 104 21 - 133 13C8 PFOS 98 31 - 130 d3-NMeFOSAA 81 10 - 172 d5-NEtFOSAA 78 10 - 176 13C4 PFBA 101 12 - 137 13C5 PFPeA 12 - 135 96 13C3 PFHxS 24 - 136 98 d7-N-MeFOSE-M 10 - 152 26 13C5 PFHxA 11 - 138 103 13C6 PFDA 97 21 - 134 d9-N-EtFOSE-M 10 - 157 20 13C7 PFUnA 15 - 138 d3-NMePFOSA 83 10 - 148 d5-NEtPFOSA 60 10 - 151 13C8 FOSA 99 25 - 135

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

81

99

Lab Sample ID: MB 410-121460/1-A

Matrix: Water

13C2-PFDoDA

13C9 PFNA

Analysis Batch: 122730

Client Sample ID: Method Blank

Prep Type: Total/NA

5/12/2021

Prep Batch: 121460

-	MB	MB						-	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NEtFOSAA	ND		3.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluorobutanesulfonic acid	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
NMeFOSAA	ND		2.0	0.60	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluorodecanoic acid	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
10:2 FTS	ND		5.0	1.0	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluoroheptanesulfonic acid	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1

28 - 126

15 - 145

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Page 32 of 52

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Job ID: 410-37773-1

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

Lab Sample ID: MB 410-121460/1-A

Matrix: Water

d3-NMePFOSA

d5-NEtPFOSA

Analysis Batch: 122730

Client Sample ID: Method Blank

Frep	Type. Total/NA
Prep	Batch: 121460

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluorodecanesulfonic acid	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluorohexanesulfonic acid	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluorododecanesulfonic acid (PFDoS)	ND		3.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluorohexanoic acid	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluorononanesulfonic acid	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluorohexadecanoic acid	ND		3.0	1.0	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluorononanoic acid	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluorooctadecanoic acid	ND		3.0	1.0	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluorobutanoic acid	ND		5.0	2.0	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluorooctanesulfonamide	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluorooctanesulfonic acid	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
NMeFOSE	ND		3.0	1.0	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluorooctanoic acid	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
NMeFOSA	ND		3.0	1.0	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluoropentanesulfonic acid	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
NEtFOSE	ND		3.0	1.0	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluoropentanoic acid	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
NEtFOSA	ND		5.0	1.0	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluorotetradecanoic acid	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluorotridecanoic acid	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluorododecanoic acid	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
Perfluoroundecanoic acid	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
4:2 Fluorotelomer sulfonic acid	ND		2.0	0.50	ng/L		05/02/21 16:54	05/05/21 14:13	1
6:2 Fluorotelomer sulfonic acid	ND		5.0	2.0	ng/L		05/02/21 16:54	05/05/21 14:13	1
8:2 Fluorotelomer sulfonic acid	ND		3.0	1.0	ng/L		05/02/21 16:54	05/05/21 14:13	1
	MB	MB							
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-4:2 FTS	109		20 - 187				05/02/21 16:54	05/05/21 14:13	1
M2 6:2 FTC	106		20 400				05/00/01 16:51	05/05/04 44:40	1

	MB MB				
Isotope Dilution	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	109	20 - 187	05/02/21 16:54	05/05/21 14:13	1
M2-6:2 FTS	106	29 - 189	05/02/21 16:54	05/05/21 14:13	1
M2-8:2 FTS	95	34 - 182	05/02/21 16:54	05/05/21 14:13	1
13C2 PFTeDA	95	10 - 144	05/02/21 16:54	05/05/21 14:13	1
13C3 PFBS	107	19 - 178	05/02/21 16:54	05/05/21 14:13	1
13C4 PFHpA	99	30 - 144	05/02/21 16:54	05/05/21 14:13	1
13C8 PFOA	102	49 - 127	05/02/21 16:54	05/05/21 14:13	1
13C8 PFOS	100	49 - 126	05/02/21 16:54	05/05/21 14:13	1
d3-NMeFOSAA	101	32 - 151	05/02/21 16:54	05/05/21 14:13	1
d5-NEtFOSAA	101	37 - 164	05/02/21 16:54	05/05/21 14:13	1
13C4 PFBA	102	41 - 132	05/02/21 16:54	05/05/21 14:13	1
13C5 PFPeA	100	33 - 155	05/02/21 16:54	05/05/21 14:13	1
13C3 PFHxS	92	32 - 145	05/02/21 16:54	05/05/21 14:13	1
d7-N-MeFOSE-M	85	10 - 143	05/02/21 16:54	05/05/21 14:13	1
13C5 PFHxA	100	31 - 142	05/02/21 16:54	05/05/21 14:13	1
13C6 PFDA	101	47 - 128	05/02/21 16:54	05/05/21 14:13	1
d9-N-EtFOSE-M	84	10 - 142	05/02/21 16:54	05/05/21 14:13	1
13C7 PFUnA	102	40 - 135	05/02/21 16:54	05/05/21 14:13	1

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05/05/21 14:13

05/05/21 14:13

05/02/21 16:54

05/02/21 16:54

Page 33 of 52

10 - 107

10 - 108

Client: City of Wyoming

MR MR

Project/Site: City of Wyoming - PFAS

Job ID: 410-37773-1

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

Lab Sample ID: MB 410-121460/1-A

Matrix: Water

Analysis Batch: 122730

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 121460

Isotope Dilution	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	86	10 - 143	05/02/21 16:54	05/05/21 14:13	1
13C2-PFDoDA	98	28 - 136	05/02/21 16:54	05/05/21 14:13	1
13C9 PFNA	106	47 - 136	05/02/21 16:54	05/05/21 14:13	1

Lab Sample ID: LCS 410-121460/2-A

Matrix: Water

Analysis Batch: 123801

Client Sample ID:	Lab	Contr	ol Sample
	Pre	Type	: Total/NA

Prep Batch: 121460

Alialysis Batcii. 123001	Spike	LCS	LCS		%Rec.	+0
Analyte	Added		Qualifier Unit	D %Rec	Limits	
NEtFOSAA	25.6	26.4	ng/L	103	54 - 134	_
Perfluorobutanesulfonic acid	22.7	20.8	ng/L	92	65 - 132	
NMeFOSAA	25.6	23.2	ng/L	91	58 - 143	
Perfluorodecanoic acid	25.6	26.6	ng/L	104	63 - 137	
10:2 FTS	24.7	27.5	ng/L	111	44 _ 141	
Perfluoroheptanesulfonic acid	24.4	23.4	ng/L	96	67 ₋ 135	
Perfluoroheptanoic acid	25.6	26.5	ng/L	103	66 _ 141	
Perfluorodecanesulfonic acid	24.7	21.0	ng/L	85	61 - 134	
Perfluorohexanesulfonic acid	23.3	23.5	ng/L	101	60 - 128	
Perfluorododecanesulfonic acid (PFDoS)	24.8	24.4	ng/L	98	54 - 136	
Perfluorohexanoic acid	25.6	26.3	ng/L	103	66 - 137	
Perfluorononanesulfonic acid	24.6	24.0	ng/L	97	67 _ 137	
Perfluorohexadecanoic acid	25.6	22.5	ng/L	88	52 _ 149	
Perfluorononanoic acid	25.6	26.4	ng/L	103	65 _ 140	
Perfluorooctadecanoic acid	25.6	25.6	ng/L	100	32 - 167	
Perfluorobutanoic acid	25.6	23.9	ng/L	94	62 _ 156	
Perfluorooctanesulfonamide	25.6	26.4	ng/L	103	55 ₋ 130	
Perfluorooctanesulfonic acid	23.7	24.7	ng/L	104	51 ₋ 126	
NMeFOSE	25.6	23.2	ng/L	91	52 ₋ 131	
Perfluorooctanoic acid	25.6	25.6	ng/L	100	65 - 136	
NMeFOSA	25.6	24.1	ng/L	94	49 - 141	
Perfluoropentanesulfonic acid	24.0	21.2	ng/L	88	71 - 136	
NEtFOSE	25.6	23.8	ng/L	93	49 - 128	
Perfluoropentanoic acid	25.6	25.0	ng/L	98	72 _ 139	
NEtFOSA	25.6	23.3	ng/L	91	50 - 136	
Perfluorotetradecanoic acid	25.6	26.4	ng/L	103	64 _ 141	
Perfluorotridecanoic acid	25.6	27.7	ng/L	108	58 - 146	
Perfluorododecanoic acid	25.6	26.7	ng/L	104	63 - 140	
Perfluoroundecanoic acid	25.6	25.7	ng/L	100	62 _ 138	
4:2 Fluorotelomer sulfonic acid	23.9	26.5	ng/L	111	59 - 130	
6:2 Fluorotelomer sulfonic acid	24.3	25.9	ng/L	107	57 ₋ 137	
8:2 Fluorotelomer sulfonic acid	24.5	29.6	ng/L	121	56 - 140	
LCS	S LCS					

Isotope Dilution	%Recovery	Qualifier	Limits
M2-4:2 FTS	102		20 - 187
M2-6:2 FTS	109		29 - 189
M2-8:2 FTS	97		34 - 182
13C2 PFTeDA	97		10 - 144
13C3 PFBS	105		19 - 178

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Page 34 of 52

5/12/2021

Project/Site: City of Wyoming - PFAS

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

LCS LCS

Lab Sample ID: LCS 410-121460/2-A

Matrix: Water

Analysis Batch: 123801

Client: City of Wyoming

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 121460

Isotope Dilution	%Recovery	Qualifier	Limits
13C4 PFHpA	94		30 - 144
13C8 PFOA	102		49 - 127
13C8 PFOS	98		49 - 126
d3-NMeFOSAA	103		32 _ 151
d5-NEtFOSAA	93		37 - 164
13C4 PFBA	97		41 - 132
13C5 PFPeA	95		33 - 155
13C3 PFHxS	86		32 ₋ 145
d7-N-MeFOSE-M	80		10 - 143
13C5 PFHxA	92		31 - 142
13C6 PFDA	96		47 - 128
d9-N-EtFOSE-M	80		10 - 142
13C7 PFUnA	94		40 - 135
d3-NMePFOSA	58		10 - 107
d5-NEtPFOSA	60		10 - 108
13C8 FOSA	73		10 - 143
13C2-PFDoDA	96		28 - 136
13C9 PFNA	111		47 - 136

Lab Sample ID: LCSD 410-121460/3-A

Matrix: Water

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

Analysis Batch: 123801							Prep I	Batch: 1	21460
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
NEtFOSAA	25.6	26.4		ng/L		103	54 - 134	0	30
Perfluorobutanesulfonic acid	22.7	21.2		ng/L		94	65 - 132	2	30
NMeFOSAA	25.6	26.8		ng/L		105	58 - 143	15	30
Perfluorodecanoic acid	25.6	25.6		ng/L		100	63 - 137	4	30
10:2 FTS	24.7	25.9		ng/L		105	44 - 141	6	30
Perfluoroheptanesulfonic acid	24.4	23.2		ng/L		95	67 - 135	1	30
Perfluoroheptanoic acid	25.6	26.8		ng/L		105	66 - 141	1	30
Perfluorodecanesulfonic acid	24.7	23.0		ng/L		93	61 - 134	9	30
Perfluorohexanesulfonic acid	23.3	23.5		ng/L		101	60 - 128	0	30
Perfluorododecanesulfonic acid	24.8	24.4		ng/L		99	54 - 136	0	30
(PFDoS)									
Perfluorohexanoic acid	25.6	26.6		ng/L		104	66 - 137	1	30
Perfluorononanesulfonic acid	24.6	24.0		ng/L		98	67 - 137	0	30
Perfluorohexadecanoic acid	25.6	22.7		ng/L		89	52 - 149	1	30
Perfluorononanoic acid	25.6	26.9		ng/L		105	65 - 140	2	30
Perfluorooctadecanoic acid	25.6	27.1		ng/L		106	32 - 167	6	30
Perfluorobutanoic acid	25.6	24.1		ng/L		94	62 - 156	1	30
Perfluorooctanesulfonamide	25.6	26.4		ng/L		103	55 - 130	0	30
Perfluorooctanesulfonic acid	23.7	24.6		ng/L		104	51 - 126	1	30
NMeFOSE	25.6	23.8		ng/L		93	52 - 131	2	30
Perfluorooctanoic acid	25.6	25.8		ng/L		101	65 - 136	1	30
NMeFOSA	25.6	24.3		ng/L		95	49 - 141	1	30
Perfluoropentanesulfonic acid	24.0	20.9		ng/L		87	71 - 136	2	30
NEtFOSE	25.6	24.0		ng/L		94	49 - 128	1	30
Perfluoropentanoic acid	25.6	24.7		ng/L		96	72 - 139	1	30

Eurofins Lancaster Laboratories Env, LLC

Page 35 of 52

Project/Site: City of Wyoming - PFAS

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

Lal	o Samp	le ID:	LCSD	410-12	1460/3-A
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Matrix: Water

Analysis Batch: 123801

Client: City of Wyoming

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

Prep Batch: 121460

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
NEtFOSA	25.6	22.9		ng/L		89	50 - 136	2	30
Perfluorotetradecanoic acid	25.6	27.1		ng/L		106	64 - 141	3	30
Perfluorotridecanoic acid	25.6	27.2		ng/L		106	58 - 146	2	30
Perfluorododecanoic acid	25.6	26.6		ng/L		104	63 - 140	1	30
Perfluoroundecanoic acid	25.6	26.9		ng/L		105	62 - 138	4	30
4:2 Fluorotelomer sulfonic acid	23.9	26.2		ng/L		110	59 - 130	1	30
6:2 Fluorotelomer sulfonic acid	24.3	25.1		ng/L		104	57 - 137	3	30
8:2 Fluorotelomer sulfonic acid	24.5	28.0		ng/L		114	56 - 140	5	30

	LCSD	LCSD	
Isotope Dilution	%Recovery	Qualifier	Limits
M2-4:2 FTS	101		20 - 187
M2-6:2 FTS	110		29 - 189
M2-8:2 FTS	97		34 - 182
13C2 PFTeDA	94		10 - 144
13C3 PFBS	102		19 - 178
13C4 PFHpA	91		30 - 144
13C8 PFOA	97		49 - 127
13C8 PFOS	95		49 - 126
d3-NMeFOSAA	97		32 - 151
d5-NEtFOSAA	89		37 - 164
13C4 PFBA	92		41 - 132
13C5 PFPeA	92		33 - 155
13C3 PFHxS	86		32 - 145
d7-N-MeFOSE-M	73		10 - 143
13C5 PFHxA	89		31 - 142
13C6 PFDA	93		47 - 128
d9-N-EtFOSE-M	73		10 - 142
13C7 PFUnA	91		40 - 135
d3-NMePFOSA	52		10 - 107
d5-NEtPFOSA	57		10 - 108
13C8 FOSA	68		10 - 143
13C2-PFDoDA	94		28 - 136
13C9 PFNA	105		47 - 136

Lab Sample ID: MB 410-124552/1-A

Matrix: Water

Analysis Batch: 125092

Client Sample ID: Method Blank

Prep Type: Total/NA **Prep Batch: 124552**

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NEtFOSAA	ND		3.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluorobutanesulfonic acid	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
NMeFOSAA	ND		2.0	0.60	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluorodecanoic acid	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
10:2 FTS	ND		5.0	1.0	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluoroheptanesulfonic acid	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluoroheptanoic acid	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluorodecanesulfonic acid	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluorohexanesulfonic acid	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluorobutanesulfonic acid NMeFOSAA Perfluorodecanoic acid 10:2 FTS Perfluoroheptanesulfonic acid Perfluoroheptanoic acid Perfluorodecanesulfonic acid	ND ND ND ND ND		2.0 2.0 2.0 5.0 2.0 2.0 2.0	0.50 0.60 0.50 1.0 0.50 0.50	ng/L ng/L ng/L ng/L ng/L ng/L		05/10/21 16:45 05/10/21 16:45 05/10/21 16:45 05/10/21 16:45 05/10/21 16:45 05/10/21 16:45 05/10/21 16:45	05/11/21 17:08 05/11/21 17:08 05/11/21 17:08 05/11/21 17:08 05/11/21 17:08 05/11/21 17:08 05/11/21 17:08	1 1 1 1 1 1

Eurofins Lancaster Laboratories Env, LLC

Page 36 of 52

Project/Site: City of Wyoming - PFAS

Job ID: 410-37773-1

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

Lab Sample ID: MB 410-124552/1-A

Matrix: Water

Analysis Batch: 125092

Client Sample ID: Method Blank **Prep Type: Total/NA Prep Batch: 124552**

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanesulfonic acid	ND		3.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
(PFDoS)									
Perfluorohexanoic acid	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluorononanesulfonic acid	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluorohexadecanoic acid	ND		3.0	1.0	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluorononanoic acid	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluorooctadecanoic acid	ND		3.0	1.0	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluorobutanoic acid	ND		5.0	2.0	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluorooctanesulfonamide	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluorooctanesulfonic acid	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
NMeFOSE	ND		3.0	1.0	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluorooctanoic acid	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
NMeFOSA	ND		3.0	1.0	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluoropentanesulfonic acid	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
NEtFOSE	ND		3.0	1.0	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluoropentanoic acid	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
NEtFOSA	ND		5.0	1.0	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluorotetradecanoic acid	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluorotridecanoic acid	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluorododecanoic acid	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
Perfluoroundecanoic acid	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
4:2 Fluorotelomer sulfonic acid	ND		2.0	0.50	ng/L		05/10/21 16:45	05/11/21 17:08	1
6:2 Fluorotelomer sulfonic acid	ND		5.0	2.0	ng/L		05/10/21 16:45	05/11/21 17:08	1
8:2 Fluorotelomer sulfonic acid	ND		3.0	1.0	ng/L		05/10/21 16:45	05/11/21 17:08	1
	MB	МВ							

	MB	MB				
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	100		20 - 187	05/10/21 16:45	05/11/21 17:08	1
M2-6:2 FTS	107		29 - 189	05/10/21 16:45	05/11/21 17:08	1
M2-8:2 FTS	117		34 - 182	05/10/21 16:45	05/11/21 17:08	1
13C2 PFTeDA	87		10 - 144	05/10/21 16:45	05/11/21 17:08	1
13C3 PFBS	97		19 - 178	05/10/21 16:45	05/11/21 17:08	1
13C4 PFHpA	88		30 - 144	05/10/21 16:45	05/11/21 17:08	1
13C8 PFOA	92		49 - 127	05/10/21 16:45	05/11/21 17:08	1
13C8 PFOS	85		49 - 126	05/10/21 16:45	05/11/21 17:08	1
d3-NMeFOSAA	83		32 - 151	05/10/21 16:45	05/11/21 17:08	1
d5-NEtFOSAA	96		37 - 164	05/10/21 16:45	05/11/21 17:08	1
13C4 PFBA	88		41 - 132	05/10/21 16:45	05/11/21 17:08	1
13C5 PFPeA	88		33 - 155	05/10/21 16:45	05/11/21 17:08	1
13C3 PFHxS	90		32 - 145	05/10/21 16:45	05/11/21 17:08	1
d7-N-MeFOSE-M	81		10 - 143	05/10/21 16:45	05/11/21 17:08	1
13C5 PFHxA	92		31 - 142	05/10/21 16:45	05/11/21 17:08	1
13C6 PFDA	92		47 - 128	05/10/21 16:45	05/11/21 17:08	1
d9-N-EtFOSE-M	81		10 - 142	05/10/21 16:45	05/11/21 17:08	1
13C7 PFUnA	94		40 - 135	05/10/21 16:45	05/11/21 17:08	1
d3-NMePFOSA	57		10 - 107	05/10/21 16:45	05/11/21 17:08	1
d5-NEtPFOSA	59		10 - 108	05/10/21 16:45	05/11/21 17:08	1
13C8 FOSA	80		10 - 143	05/10/21 16:45	05/11/21 17:08	1
13C2-PFDoDA	84		28 - 136	05/10/21 16:45	05/11/21 17:08	1
13C9 PFNA	88		47 - 136	05/10/21 16:45	05/11/21 17:08	1
13C9 PFNA	88		47 - 136			

Eurofins Lancaster Laboratories Env, LLC

Page 37 of 52

Job ID: 410-37773-1

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

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

Lab Sample ID: LCS 410-124552/2-A			Client Sample ID: Lab Control Sample
Matrix: Water			Prep Type: Total/NA
Analysis Batch: 125092			Prep Batch: 124552
	Spike	LCS LCS	%Rec.

	Spike	LCS	LCS			%Rec.	
Analyte	Added	Result	Qualifier Unit	D	%Rec	Limits	
NEtFOSAA	25.6	24.4	ng/L		95	54 - 134	
Perfluorobutanesulfonic acid	22.7	19.2	ng/L		85	65 _ 132	
NMeFOSAA	25.6	22.8	ng/L		89	58 - 143	
Perfluorodecanoic acid	25.6	23.4	ng/L		91	63 _ 137	
10:2 FTS	24.7	25.8	ng/L		105	44 - 141	
Perfluoroheptanesulfonic acid	24.4	25.4	ng/L		104	67 - 135	
Perfluoroheptanoic acid	25.6	26.7	ng/L		104	66 - 141	
Perfluorodecanesulfonic acid	24.7	25.6	ng/L		104	61 - 134	
Perfluorohexanesulfonic acid	23.3	21.5	ng/L		92	60 _ 128	
Perfluorododecanesulfonic acid	24.8	25.0	ng/L		101	54 - 136	
(PFDoS)							
Perfluorohexanoic acid	25.6	24.0	ng/L		94	66 ₋ 137	
Perfluorononanesulfonic acid	24.6	26.9	ng/L		109	67 - 137	
Perfluorohexadecanoic acid	25.6	24.8	ng/L		97	52 _ 149	
Perfluorononanoic acid	25.6	25.4	ng/L		99	65 _ 140	
Perfluorooctadecanoic acid	25.6	25.4	ng/L		99	32 _ 167	
Perfluorobutanoic acid	25.6	27.3	ng/L		107	62 - 156	
Perfluorooctanesulfonamide	25.6	31.1	ng/L		122	55 - 130	
Perfluorooctanesulfonic acid	23.7	21.8	ng/L		92	51 - 126	
NMeFOSE	25.6	27.1	ng/L		106	52 _ 131	
Perfluorooctanoic acid	25.6	22.2	ng/L		87	65 _ 136	
NMeFOSA	25.6	27.4	ng/L		107	49 _ 141	
Perfluoropentanesulfonic acid	24.0	21.2	ng/L		88	71 - 136	
NEtFOSE	25.6	22.7	ng/L		89	49 _ 128	
Perfluoropentanoic acid	25.6	26.5	ng/L		103	72 _ 139	
NEtFOSA	25.6	26.1	ng/L		102	50 _ 136	
Perfluorotetradecanoic acid	25.6	25.1	ng/L		98	64 - 141	
Perfluorotridecanoic acid	25.6	24.4	ng/L		95	58 - 146	
Perfluorododecanoic acid	25.6	24.6	ng/L		96	63 - 140	
Perfluoroundecanoic acid	25.6	27.2	ng/L		106	62 _ 138	
4:2 Fluorotelomer sulfonic acid	23.9	26.6	ng/L		111	59 _ 130	
6:2 Fluorotelomer sulfonic acid	24.3	23.9	ng/L		99	57 _ 137	
8:2 Fluorotelomer sulfonic acid	24.5	26.1	ng/L		106	56 - 140	
			=				

	LCS	LCS	
Isotope Dilution	%Recovery	Qualifier	Limits
M2-4:2 FTS	106		20 - 187
M2-6:2 FTS	117		29 - 189
M2-8:2 FTS	117		34 - 182
13C2 PFTeDA	90		10 - 144
13C3 PFBS	103		19 - 178
13C4 PFHpA	90		30 - 144
13C8 PFOA	100		49 - 127
13C8 PFOS	91		49 - 126
d3-NMeFOSAA	91		32 - 151
d5-NEtFOSAA	95		37 - 164
13C4 PFBA	89		41 - 132
13C5 PFPeA	92		33 - 155
13C3 PFHxS	90		32 - 145
d7-N-MeFOSE-M	74		10 - 143

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QC Sample Results

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Job ID: 410-37773-1

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

LCS LCS

Lab Sample ID: LCS 410-124552/2-A

Matrix: Water

Analysis Batch: 125092

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 124552

Isotope Dilution	%Recovery	Qualifier	Limits
13C5 PFHxA	92		31 - 142
13C6 PFDA	91		47 - 128
d9-N-EtFOSE-M	77		10 - 142
13C7 PFUnA	89		40 - 135
d3-NMePFOSA	47		10 - 107
d5-NEtPFOSA	47		10 - 108
13C8 FOSA	79		10 - 143
13C2-PFDoDA	93		28 - 136
13C9 PFNA	91		47 - 136

Lab Sample ID: LCSD 410-124552/3-A

Matrix: Water

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

Analysis Batch: 125092 **Prep Batch: 124552**

-	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
NEtFOSAA	25.6	24.6		ng/L		96	54 - 134	1	30
Perfluorobutanesulfonic acid	22.7	19.1		ng/L		84	65 - 132	1	30
NMeFOSAA	25.6	22.2		ng/L		87	58 - 143	3	30
Perfluorodecanoic acid	25.6	27.0		ng/L		105	63 - 137	14	30
10:2 FTS	24.7	26.8		ng/L		108	44 - 141	3	30
Perfluoroheptanesulfonic acid	24.4	26.3		ng/L		108	67 - 135	4	30
Perfluoroheptanoic acid	25.6	25.7		ng/L		100	66 - 141	4	30
Perfluorodecanesulfonic acid	24.7	23.9		ng/L		97	61 - 134	7	30
Perfluorohexanesulfonic acid	23.3	22.0		ng/L		94	60 - 128	2	30
Perfluorododecanesulfonic acid	24.8	22.1		ng/L		89	54 - 136	12	30
(PFDoS)									
Perfluorohexanoic acid	25.6	24.5		ng/L		96	66 - 137	2	30
Perfluorononanesulfonic acid	24.6	24.8		ng/L		101	67 _ 137	8	30
Perfluorohexadecanoic acid	25.6	25.4		ng/L		99	52 - 149	2	30
Perfluorononanoic acid	25.6	25.0		ng/L		98	65 - 140	2	30
Perfluorooctadecanoic acid	25.6	25.6		ng/L		100	32 - 167	1	30
Perfluorobutanoic acid	25.6	27.5		ng/L		108	62 - 156	1	30
Perfluorooctanesulfonamide	25.6	32.8		ng/L		128	55 - 130	5	30
Perfluorooctanesulfonic acid	23.7	22.5		ng/L		95	51 - 126	3	30
NMeFOSE	25.6	25.6		ng/L		100	52 - 131	5	30
Perfluorooctanoic acid	25.6	23.3		ng/L		91	65 - 136	5	30
NMeFOSA	25.6	28.4		ng/L		111	49 - 141	4	30
Perfluoropentanesulfonic acid	24.0	22.1		ng/L		92	71 - 136	4	30
NEtFOSE	25.6	24.0		ng/L		94	49 - 128	5	30
Perfluoropentanoic acid	25.6	28.4		ng/L		111	72 - 139	7	30
NEtFOSA	25.6	27.0		ng/L		105	50 ₋ 136	3	30
Perfluorotetradecanoic acid	25.6	25.7		ng/L		100	64 - 141	2	30
Perfluorotridecanoic acid	25.6	23.9		ng/L		93	58 - 146	2	30
Perfluorododecanoic acid	25.6	24.9		ng/L		97	63 - 140	1	30
Perfluoroundecanoic acid	25.6	27.2		ng/L		106	62 - 138	0	30
4:2 Fluorotelomer sulfonic acid	23.9	27.9		ng/L		117	59 ₋ 130	5	30
6:2 Fluorotelomer sulfonic acid	24.3	26.7				110		44	30
	24.3	20.7		ng/L		110	57 - 137	11	30

5/12/2021

QC Sample Results

Client: City of Wyoming Job ID: 410-37773-1

Project/Site: City of Wyoming - PFAS

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

	LCSD L	LCSD	
Isotope Dilution	%Recovery (Qualifier	Limits
M2-4:2 FTS	118		20 - 187
M2-6:2 FTS	131		29 - 189
M2-8:2 FTS	129		34 - 182
13C2 PFTeDA	97		10 - 144
13C3 PFBS	112		19 - 178
13C4 PFHpA	98		30 - 144
13C8 PFOA	107		49 - 127
13C8 PFOS	97		49 - 126
d3-NMeFOSAA	99		32 - 151
d5-NEtFOSAA	97		37 - 164
13C4 PFBA	97		41 - 132
13C5 PFPeA	100		33 - 155
13C3 PFHxS	97		32 - 145
d7-N-MeFOSE-M	77		10 - 143
13C5 PFHxA	99		31 - 142
13C6 PFDA	94		47 - 128
d9-N-EtFOSE-M	77		10 - 142
13C7 PFUnA	104		40 - 135
d3-NMePFOSA	49		10 - 107
d5-NEtPFOSA	50		10 - 108
13C8 FOSA	83		10 - 143
13C2-PFDoDA	99		28 - 136
13C9 PFNA	98		47 - 136

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QC Association Summary

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Job ID: 410-37773-1

LCMS

Prep Batch: 121075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
410-37773-1	Biosolids	Total/NA	Solid	EPA 537 (Mod)
MB 410-121075/1-B	Method Blank	Total/NA	Solid	EPA 537 (Mod)
LCS 410-121075/2-B	Lab Control Sample	Total/NA	Solid	EPA 537 (Mod)
LCSD 410-121075/3-B	Lab Control Sample Dup	Total/NA	Solid	EPA 537 (Mod)

Cleanup Batch: 121140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37773-1	Biosolids	Total/NA	Solid	Extract Aliquot	121075
MB 410-121075/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	121075
LCS 410-121075/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	121075
LCSD 410-121075/3-B	Lab Control Sample Dup	Total/NA	Solid	Extract Aliquot	121075

Prep Batch: 121460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37773-2	Influent	Total/NA	Water	EPA 537 (mod)	
410-37773-3 - RE	Padnos	Total/NA	Water	EPA 537 (mod)	
410-37773-4	EC2	Total/NA	Water	EPA 537 (mod)	
410-37773-5	Porter	Total/NA	Water	EPA 537 (mod)	
410-37773-6 - RE	PES	Total/NA	Water	EPA 537 (mod)	
410-37773-7	Field Blank	Total/NA	Water	EPA 537 (mod)	
410-37773-8	SKLF	Total/NA	Water	EPA 537 (mod)	
410-37773-9	Kentwood Landfill	Total/NA	Water	EPA 537 (mod)	
410-37773-9 - DL	Kentwood Landfill	Total/NA	Water	EPA 537 (mod)	
410-37773-10	Kentwood Landfill DUP	Total/NA	Water	EPA 537 (mod)	
410-37773-11	Effluent	Total/NA	Water	EPA 537 (mod)	
410-37773-12	BASF	Total/NA	Water	EPA 537 (mod)	
410-37773-12 - DL	BASF	Total/NA	Water	EPA 537 (mod)	
MB 410-121460/1-A	Method Blank	Total/NA	Water	EPA 537 (mod)	
LCS 410-121460/2-A	Lab Control Sample	Total/NA	Water	EPA 537 (mod)	
LCSD 410-121460/3-A	Lab Control Sample Dup	Total/NA	Water	EPA 537 (mod)	

Analysis Batch: 121732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37773-1	Biosolids	Total/NA	Solid	537 IDA	121140
MB 410-121075/1-B	Method Blank	Total/NA	Solid	537 IDA	121140
LCS 410-121075/2-B	Lab Control Sample	Total/NA	Solid	537 IDA	121140
LCSD 410-121075/3-B	Lab Control Sample Dup	Total/NA	Solid	537 IDA	121140

Analysis Batch: 122730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37773-2	Influent	Total/NA	Water	EPA 537 (Mod)	121460
410-37773-3 - RE	Padnos	Total/NA	Water	EPA 537 (Mod)	121460
410-37773-4	EC2	Total/NA	Water	EPA 537 (Mod)	121460
410-37773-5	Porter	Total/NA	Water	EPA 537 (Mod)	121460
410-37773-6 - RE	PES	Total/NA	Water	EPA 537 (Mod)	121460
410-37773-7	Field Blank	Total/NA	Water	EPA 537 (Mod)	121460
410-37773-8	SKLF	Total/NA	Water	EPA 537 (Mod)	121460
410-37773-9	Kentwood Landfill	Total/NA	Water	EPA 537 (Mod)	121460
410-37773-10	Kentwood Landfill DUP	Total/NA	Water	EPA 537 (Mod)	121460
410-37773-11	Effluent	Total/NA	Water	EPA 537 (Mod)	121460
410-37773-12	BASF	Total/NA	Water	EPA 537 (Mod)	121460

Eurofins Lancaster Laboratories Env, LLC

QC Association Summary

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Job ID: 410-37773-1

LCMS (Continued)

Analysis Batch: 122730 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-121460/1-A	Method Blank	Total/NA	Water	EPA 537 (Mod)	121460

Analysis Batch: 123801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37773-9 - DL	Kentwood Landfill	Total/NA	Water	EPA 537 (Mod)	121460
410-37773-12 - DL	BASF	Total/NA	Water	EPA 537 (Mod)	121460
LCS 410-121460/2-A	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	121460
LCSD 410-121460/3-A	Lab Control Sample Dup	Total/NA	Water	EPA 537 (Mod)	121460

Prep Batch: 124552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
410-37773-2 - RE	Influent	Total/NA	Water	EPA 537 (mod)	
410-37773-3	Padnos	Total/NA	Water	EPA 537 (mod)	
410-37773-4 - RE	EC2	Total/NA	Water	EPA 537 (mod)	
410-37773-5 - RE	Porter	Total/NA	Water	EPA 537 (mod)	
410-37773-6	PES	Total/NA	Water	EPA 537 (mod)	
410-37773-8 - RE	SKLF	Total/NA	Water	EPA 537 (mod)	
410-37773-9 - RE	Kentwood Landfill	Total/NA	Water	EPA 537 (mod)	
410-37773-10 - RE	Kentwood Landfill DUP	Total/NA	Water	EPA 537 (mod)	
410-37773-11 - RE	Effluent	Total/NA	Water	EPA 537 (mod)	
MB 410-124552/1-A	Method Blank	Total/NA	Water	EPA 537 (mod)	
LCS 410-124552/2-A	Lab Control Sample	Total/NA	Water	EPA 537 (mod)	
LCSD 410-124552/3-A	Lab Control Sample Dup	Total/NA	Water	EPA 537 (mod)	

Analysis Batch: 125092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37773-2 - RE	Influent	Total/NA	Water	EPA 537 (Mod)	124552
410-37773-3	Padnos	Total/NA	Water	EPA 537 (Mod)	124552
410-37773-4 - RE	EC2	Total/NA	Water	EPA 537 (Mod)	124552
410-37773-5 - RE	Porter	Total/NA	Water	EPA 537 (Mod)	124552
410-37773-6	PES	Total/NA	Water	EPA 537 (Mod)	124552
410-37773-8 - RE	SKLF	Total/NA	Water	EPA 537 (Mod)	124552
410-37773-9 - RE	Kentwood Landfill	Total/NA	Water	EPA 537 (Mod)	124552
410-37773-10 - RE	Kentwood Landfill DUP	Total/NA	Water	EPA 537 (Mod)	124552
410-37773-11 - RE	Effluent	Total/NA	Water	EPA 537 (Mod)	124552
MB 410-124552/1-A	Method Blank	Total/NA	Water	EPA 537 (Mod)	124552
LCS 410-124552/2-A	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	124552
LCSD 410-124552/3-A	Lab Control Sample Dup	Total/NA	Water	EPA 537 (Mod)	124552

General Chemistry

Analysis Batch: 120854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37773-1	Biosolids	Total/NA	Solid	Moisture	

Eurofins Lancaster Laboratories Env, LLC

Project/Site: City of Wyoming - PFAS

Client Sample ID: Biosolids

Date Collected: 04/27/21 13:15 Date Received: 04/29/21 11:03

Lab Sample ID: 410-37773-1

Matrix: Solid

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	120854	04/30/21 00:43	X4C8	ELLE

Client Sample ID: Biosolids Lab Sample ID: 410-37773-1

Date Collected: 04/27/21 13:15 Date Received: 04/29/21 11:03

Matrix: Solid Percent Solids: 4.6

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	EPA 537 (Mod)			121075	04/30/21 11:18	RDL8	ELLE
Total/NA	Cleanup	Extract Aliquot			121140	04/30/21 14:08	RDL8	ELLE
Total/NA	Analysis	537 IDA		1	121732	05/03/21 13:47	UUV6	ELLE

Lab Sample ID: 410-37773-2 **Client Sample ID: Influent**

Date Collected: 04/27/21 09:38 Date Received: 04/29/21 11:03

Matrix: Water

Batch		Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	EPA 537 (mod)	RE		124552	05/10/21 16:45	K9VR	ELLE
Total/NA	Analysis	EPA 537 (Mod)	RE	1	125092	05/11/21 17:40	DIJ6	ELLE
Total/NA	Prep	EPA 537 (mod)			121460	05/02/21 16:54	D5VP	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	122730	05/05/21 15:20	JVK6	ELLE

Client Sample ID: Padnos Lab Sample ID: 410-37773-3

Date Collected: 04/27/21 10:50 Date Received: 04/29/21 11:03

Matrix: Water

Batch		Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	EPA 537 (mod)			124552	05/10/21 16:45	K9VR	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	125092	05/11/21 17:50	DIJ6	ELLE
Total/NA	Prep	EPA 537 (mod)	RE		121460	05/02/21 16:54	D5VP	ELLE
Total/NA	Analysis	EPA 537 (Mod)	RE	1	122730	05/05/21 15:31	JVK6	ELLE

Client Sample ID: EC2 Lab Sample ID: 410-37773-4

Date Collected: 04/27/21 09:56 **Matrix: Water** Date Received: 04/29/21 11:03

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	EPA 537 (mod)	RE		124552	05/10/21 16:45	K9VR	ELLE
Total/NA	Analysis	EPA 537 (Mod)	RE	1	125092	05/11/21 18:01	DIJ6	ELLE
Total/NA	Prep	EPA 537 (mod)			121460	05/02/21 16:54	D5VP	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	122730	05/05/21 15:42	JVK6	ELLE

Project/Site: City of Wyoming - PFAS

Client Sample ID: Porter

Date Collected: 04/27/21 10:11 Date Received: 04/29/21 11:03 Lab Sample ID: 410-37773-5

Matrix: Water

Batch		Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	EPA 537 (mod)	RE		124552	05/10/21 16:45	K9VR	ELLE
Total/NA	Analysis	EPA 537 (Mod)	RE	1	125092	05/11/21 18:11	DIJ6	ELLE
Total/NA	Prep	EPA 537 (mod)			121460	05/02/21 16:54	D5VP	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	122730	05/05/21 15:53	JVK6	ELLE

Client Sample ID: PES

Date Collected: 04/27/21 10:15 Date Received: 04/29/21 11:03 Lab Sample ID: 410-37773-6

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	EPA 537 (mod)			124552	05/10/21 16:45	K9VR	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	125092	05/11/21 18:22	DIJ6	ELLE
Total/NA	Prep	EPA 537 (mod)	RE		121460	05/02/21 16:54	D5VP	ELLE
Total/NA	Analysis	EPA 537 (Mod)	RE	1	122730	05/05/21 16:04	JVK6	ELLE

Client Sample ID: Field Blank

Date Collected: 04/27/21 10:17

Lab Sample ID: 410-37773-7

Matrix: Water

Date Received: 04/29/21 11:03

Batch Batch Dilution Batch Prepared **Prep Type** Туре Method Run Factor Number or Analyzed Analyst Lab Total/NA Prep EPA 537 (mod) 121460 05/02/21 16:54 D5VP ELLE Total/NA Analysis EPA 537 (Mod) 122730 05/05/21 16:15 JVK6 **ELLE** 1

Client Sample ID: SKLF

Date Collected: 04/27/21 10:30

Date Received: 04/29/21 11:03

Lab	Sample	ID: 410-37773-8
		Matrix: Water

Batch Batch Dilution Batch Prepared Method Number **Prep Type** Type Run Factor or Analyzed Analyst Lab Total/NA ELLE Prep EPA 537 (mod) RE 124552 05/10/21 16:45 K9VR 125092 Total/NA Analysis EPA 537 (Mod) RE 05/11/21 18:33 DIJ6 ELLE 1 Total/NA Prep EPA 537 (mod) 121460 05/02/21 16:54 D5VP ELLE Total/NA Analysis EPA 537 (Mod) 122730 05/05/21 16:26 JVK6 ELLE 1

Client Sample ID: Kentwood Landfill

Date Collected: 04/27/21 10:43

Date Received: 04/29/21 11:03

Lab Sample ID: 410-3	37773-9
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Matrix: Water

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	EPA 537 (mod)	RE		124552	05/10/21 16:45	K9VR	ELLE
Total/NA	Analysis	EPA 537 (Mod)	RE	1	125092	05/11/21 18:43	DIJ6	ELLE
Total/NA	Prep	EPA 537 (mod)			121460	05/02/21 16:54	D5VP	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	122730	05/05/21 16:48	JVK6	ELLE
Total/NA	Prep	EPA 537 (mod)	DL		121460	05/02/21 16:54	D5VP	ELLE
Total/NA	Analysis	EPA 537 (Mod)	DL	10	123801	05/08/21 06:50	QD9Y	ELLE

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Lab Chronicle

Client: City of Wyoming Job ID: 410-37773-1

Project/Site: City of Wyoming - PFAS

Client Sample ID: Kentwood Landfill DUP

Lab Sample ID: 410-37773-10 Date Collected: 04/27/21 10:43

Matrix: Water

Date Received: 04/29/21 11:03

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	EPA 537 (mod)	RE		124552	05/10/21 16:45	K9VR	ELLE
Total/NA	Analysis	EPA 537 (Mod)	RE	1	125092	05/11/21 19:04	DIJ6	ELLE
Total/NA	Prep	EPA 537 (mod)			121460	05/02/21 16:54	D5VP	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	122730	05/05/21 16:59	JVK6	ELLE

Client Sample ID: Effluent

Lab Sample ID: 410-37773-11

Matrix: Water

Date Collected: 04/28/21 07:40 Date Received: 04/29/21 11:03

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	EPA 537 (mod)	RE		124552	05/10/21 16:45	K9VR	ELLE
Total/NA	Analysis	EPA 537 (Mod)	RE	1	125092	05/11/21 19:15	DIJ6	ELLE
Total/NA	Prep	EPA 537 (mod)			121460	05/02/21 16:54	D5VP	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	122730	05/05/21 17:11	JVK6	ELLE

Client Sample ID: BASF

Lab Sample ID: 410-37773-12

Date Collected: 04/28/21 08:35

Matrix: Water

Date Received: 04/29/21 11:03

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	EPA 537 (mod)			121460	05/02/21 16:54	D5VP	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	122730	05/05/21 17:22	JVK6	ELLE
Total/NA	Prep	EPA 537 (mod)	DL		121460	05/02/21 16:54	D5VP	ELLE
Total/NA	Analysis	EPA 537 (Mod)	DL	10	123801	05/08/21 07:01	QD9Y	ELLE

Laboratory References:

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

Accreditation/Certification Summary

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

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

537 IDA EP,	ep Method A 537 (Mod) A 537 (Mod) A 537 (Mod) A 537 (Mod)	Matrix Solid	Analyte
537 IDA EP,	, ,		10:2 Fluorotelomer sulfonic acid
537 IDA EP,	Λ 537 (Mod)	Solid	4:2 Fluorotelomer sulfonic acid
537 IDA EP,	A 337 (IVIOU)	Solid	6:2 Fluorotelomer sulfonic acid
537 IDA EP,	A 537 (Mod)	Solid	8:2 Fluorotelomer sulfonic acid
537 IDA EP,	A 537 (Mod)	Solid	NEtFOSA
537 IDA EP,	A 537 (Mod)	Solid	NEtFOSAA
537 IDA EP,	A 537 (Mod)	Solid	NEtFOSE
537 IDA EP,	A 537 (Mod)	Solid	NMeFOSA
537 IDA EP,	A 537 (Mod)	Solid	NMeFOSAA
537 IDA EP,	A 537 (Mod)	Solid	NMeFOSE
537 IDA EP,	A 537 (Mod)	Solid	Perfluorobutanesulfonic acid
537 IDA EP,	A 537 (Mod)	Solid	Perfluorobutanoic acid
537 IDA EP,	A 537 (Mod)	Solid	Perfluorodecanesulfonic acid
537 IDA EP,	A 537 (Mod)	Solid	Perfluorodecanoic acid
537 IDA EP,	A 537 (Mod)	Solid	Perfluorododecanesulfonic acid (PFDoS)
537 IDA EP,	A 537 (Mod)	Solid	Perfluorododecanoic acid
537 IDA EP,	A 537 (Mod)	Solid	Perfluoroheptanesulfonic acid
537 IDA EP.	A 537 (Mod)	Solid	Perfluoroheptanoic acid
537 IDA EP, 537 IDA EP, 537 IDA EP, 537 IDA EP,	A 537 (Mod)	Solid	Perfluorohexadecanoic acid
537 IDA EP. 537 IDA EP. 537 IDA EP. 537 IDA EP.	A 537 (Mod)	Solid	Perfluorohexanesulfonic acid
537 IDA EP. 537 IDA EP.	A 537 (Mod)	Solid	Perfluorohexanoic acid
537 IDA EPA 537 IDA EPA	A 537 (Mod)	Solid	Perfluorononanesulfonic acid
537 IDA EP	A 537 (Mod)	Solid	Perfluorononanoic acid
	A 537 (Mod)	Solid	Perfluorooctadecanoic acid
537 IDA EP	A 537 (Mod)	Solid	Perfluorooctanesulfonamide
	A 537 (Mod)	Solid	Perfluorooctanesulfonic acid
537 IDA EP	A 537 (Mod)	Solid	Perfluorooctanoic acid
537 IDA EP	A 537 (Mod)	Solid	Perfluoropentanesulfonic acid
537 IDA EP	A 537 (Mod)	Solid	Perfluoropentanoic acid
537 IDA EP	A 537 (Mod)	Solid	Perfluorotetradecanoic acid
537 IDA EP	A 537 (Mod)	Solid	Perfluorotridecanoic acid
537 IDA EPA	A 537 (Mod)	Solid	Perfluoroundecanoic acid
EPA 537 (Mod) EPA	A 537 (mod)	Water	10:2 FTS
EPA 537 (Mod) EPA	A 537 (mod)	Water	4:2 Fluorotelomer sulfonic acid
EPA 537 (Mod) EPA	A 537 (mod)	Water	6:2 Fluorotelomer sulfonic acid
EPA 537 (Mod) EPA	A 537 (mod)	Water	8:2 Fluorotelomer sulfonic acid
EPA 537 (Mod) EPA	A 537 (mod)	Water	NEtFOSA
EPA 537 (Mod) EPA	A 537 (mod)	Water	NEtFOSAA
EPA 537 (Mod) EPA	A 537 (mod)	Water	NEtFOSE
EPA 537 (Mod) EPA	A 537 (mod)	Water	NMeFOSA
EPA 537 (Mod) EPA	A 537 (mod)	Water	NMeFOSAA
EPA 537 (Mod) EPA	A 537 (mod)	Water	NMeFOSE
EPA 537 (Mod) EPA	A 537 (mod)	Water	Perfluorobutanesulfonic acid
EPA 537 (Mod) EPA	A 537 (mod)	Water	Perfluorobutanoic acid

Eurofins Lancaster Laboratories Env, LLC

Job ID: 410-37773-1

Accreditation/Certification Summary

Client: City of Wyoming Job ID: 410-37773-1

Project/Site: City of Wyoming - PFAS

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	Perfluorodecanoic acid	
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluorododecanesulfonic ac	id (PFDoS)
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	Perfluorohexadecanoic acid	
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluorohexanesulfonic acid	
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	Perfluorooctadecanoic acid	
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluorooctanesulfonamide	
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluorooctanesulfonic acid	
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluorooctanoic 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	
EPA 537 (Mod)	EPA 537 (mod)	Water	Perfluoroundecanoic acid	
Moisture		Solid	Percent Moisture	
Moisture		Solid	Percent Solids	

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Method Summary

Client: City of Wyoming

Project/Site: City of Wyoming - PFAS

Job ID: 410-37773-1

Method	Method Description	Protocol	Laboratory
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
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

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Sample Summary

Project/Site: City of Wyoming - PFAS

Client: City of Wyoming Job ID: 410-37773-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-37773-1	Biosolids	Solid	04/27/21 13:15	04/29/21 11:03
410-37773-2	Influent	Water	04/27/21 09:38	04/29/21 11:03
410-37773-3	Padnos	Water	04/27/21 10:50	04/29/21 11:03
410-37773-4	EC2	Water	04/27/21 09:56	04/29/21 11:03
410-37773-5	Porter	Water	04/27/21 10:11	04/29/21 11:03
410-37773-6	PES	Water	04/27/21 10:15	04/29/21 11:03
410-37773-7	Field Blank	Water	04/27/21 10:17	04/29/21 11:03
410-37773-8	SKLF	Water	04/27/21 10:30	04/29/21 11:03
410-37773-9	Kentwood Landfill	Water	04/27/21 10:43	04/29/21 11:03
410-37773-10	Kentwood Landfill DUP	Water	04/27/21 10:43	04/29/21 11:03
410-37773-11	Effluent	Water	04/28/21 07:40	04/29/21 11:03
410-37773-12	BASF	Water	04/28/21 08:35	04/29/21 11:03

Chain of Custody Record

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Environment Testing

	Camples			Ti ah O	114				Ic	Samina Teo	ulion Nata	,		COC No		
10-37773 Chain of Custody	Sampler Lisc Bartum Say Van Dike Lab PM Zanar, Elizabeth Zan Phone C16-261-3572 E-Mail Elizabeth Zan PWSID										cking No(s)		410-18771-6626.1		
Jaime Fleming	Phone CIG-6	061-3	572	E-Mai Eliza	il beth.Zan	ar@eur	ofinset.c	com	5	state of On	gin M	I		Page Page 1 of 2		
Company	1 3,0		PWSID					nalysis	Pogu	ioctod				Job#		
City of Wyoming Address	Due Date Reques	ted:						Mialysis	requ	lested			1900	Preservation Codes:		
2350 Ivanrest Ave SW														A - HCL M - Hexane		
City. Wyoming	TAT Requested (c													B - NaOH N - None		
State, Zip.		dard												D - Nitric Acid P - Na2O4S		
MI, 49418	Compliance Proje	ct: A Yes	ΔNo		2 :									E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3		
Phone 616-261-3572(Tel)	PO# 2021-00000404	1												G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrat		
Email	WO#				2									I - Ice U - Acetone		
FlemingJ@wyomingmi.gov	Desired #				Yos or No								5	J - DI Water V - MCAA K - EDTA W - pH 4-5		
Project Name. City of Wyoming - PFAS	Project #: 41002401												e je	L - EDA Z - other (specify)		
Site	SSOW#.		Sampl	o o							Con	Other:				
					d Sa	32 PFAS							or of			
			Sample	Matrix	tors.								d E			
		Sample	Type (C=comp	S=solid,		PFC_IDA							N I W			
Sample Identification	Sample Date	Time	G=grab)	Matrix (W=water, S=solid, O=waste/oll, BT=Tissue, A=Air)	9	PFC PFC							Total	Special Instructions/Note:		
(#K-64)995 1	$\bigcirc \!$	$\geq \leq$	Preserva	tion Code:	XX	N	Te. 30				W. 20	變變	\bowtie	なけれる		
Biosolids	4/27/21	13:15	G	Solid	>	(X							150			
BPL Influent	1	9:38	Ī	Water		X										
Padnos		10'.50		Water		X										
ECQ		9:56		Water		X										
Porter		10:11		Water		×										
PES		10:15		Water		4										
Field Blank		10:17		Water		X										
SKLF		12:30		Water		*										
Kentwood Landfill		10:43		Water		*										
Kentwood Landfill Dup	4	10:43		Water		X										
Effluent	4/28/21	7:40	1	Water		1										
Possible Hazard Identification					Samp	ole Disp	osal (A	4 fee ma	y be as	s essed	if samp			ed longer than 1 month)		
	Poison B Unkr	nown - F	Radiologica	1			To Clie			sposal E	y Lab		Archi	ive For Months		
Deliverable Requested: I, II, III, IV, Other (specify)					Spec	ial Instru	uctions/0	QC Requi	irement	S:		-				
Empty Kit Relinquished by:		Date			Time:		^			Meth	od of Ship	ment				
Relinquished by	Date/Time	1/	: 45	Company ELLE	R	Received by					Date/Time			r.SS Company		
Relinquished by	Date/Time 4/28/21	13.	.10	Company		eceived b		,				e/Time	_	Company		
Relinquished by Salary	Date/Time	13	.,,	Colo		eceived b	у		00	Ω_{-}	Date	e/Times A	1-1	Company Company		
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T. P. P.

Chain of Custody Record

Environment Testing
America

City of Wyoming Address 2350 Ivanrest Ave SW City Wyoming State, Zip: MI, 49418 Phone 616-261-3572(Tet) Email FlemingJ@wyomingmi.gov Project Name City of Wyoming - PFAS Site	Due Date Requeste TAT Requested (da Compliance Project PO# 2021-00000404 WO# Project # 41002401 SSOW#	ed:	1	E-Ma Eliza	abeth.Za	nar@	eurofins	Analy:	sis Re		ed	MJ		The second secon	Page Page 2 of 2 Job# Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Ntric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3
City of Wyoming Address: 2350 I vanrest Ave SW City Wyoming State, Zip MI, 49418 Phone 616-261-3572(Tel) Email FlemingJ@wyomingmi.gov Project Name City of Wyoming - PFAS Site	Due Date Requested (da San Compliance Project # 41002401	ed:	1	Eliza	(Yes or No)	nar@	euronns		sis Re	quest	ed			The state of the s	Job# Preservation Codes: A - HCL
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State, Zip: MI, 49418 Phone 616-261-3572(Tel) Email FlemingJ@wyomingmi.gov Project Name City of Wyoming - PFAS Site	Compliance Project PO # 2021-00000404 WO # Project # 41002401 SSOW#				(Yes or No)										D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3
MI, 49418 Phone 616-261-3572(Tel) Email FlemingJ@wyomingmi.gov Project Name City of Wyoming - PFAS Site	Compliance Project PO # 2021-00000404 WO # Project # 41002401 SSOW#				(Yes or No) or No)										E - NaHSO4 Q - Na2SO3
Phone 616-261-3572(Tel) Email FlemingJ@wyomingmi. gov Project Name. City of Wyoming - PFAS Site	2021-00000404 WO # Project # 41002401 SSOW#				(Yes or No) or No)									86	
Email: FlemingJ@wyomingmi.gov Project Name: City of Wyoming - PFAS Site Sample Identification	W0 # Project # 41002401 SSOW#			_	(Yes or No)				1	1 1	1				F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4
FlemingJ@wyomingmi.gov Project Name. City of Wyoming - PFAS Site Sample Identification	Project # 41002401 SSOW#				(Yes or										H - Ascorbic Acid T - TSP Dodecahyo I - Ice U - Acetone
City of Wyoming - PFAS Site Sample Identification	41002401 \$SOW#				3					1					J - DI Water V - MCAA K - EDTA W - pH 4-5
Sample Identification	\$SOW#													alno	L - EDIA Z - other (specify)
A STATE OF THE STA	Sample Date				old!									conta	Other:
March 1985	Sample Date													6	
A STATE OF THE STA	Sample Date	Sample	Sample Type (C=comp,	Matrix (W=water, S=solid, O=waste/oil,	Id Filtered form MS//	ž	PFC_IDA - 32 PFAS							Total Number	
A STATE OF THE PARTY OF THE PAR		Time	G=grab)	BT=Tissue, A=Air	2 2									P	Special Instructions/Note
		><	Preserva	tion Code:	XX	N N	16 88	34 83				807 8	3 988	X	STATE OF THE PARTY
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Possible Hazard Identification					Sai	nple L	Disposa	(A fee i	nay be	ass ess	ed if s	amples	are ret	ain	ed longer than 1 month)
Non-Hazard Flammable Skin Irritant Poiso	on B Unkn	own 🗀 F	Radiologica				turn To			Dispos	al By La	ab	A	\rch	ive For Months
Deliverable Requested: I, II, III, IV, Other (specify)					Spe	ecial Ir	structio	ns/QC Re	quirem	ents:					
Empty Kit Relinquished by		Date	-		Time:						Method o	Shipmen	t.		
Relinquished by	Date/Time 4/28/21	12:	1.5	Company		Receiv	ed by					Date/Tir	me		Company
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Custody Seals Intact: Custody Seal No.:			_			Coole			1 Y 1			LHU	עויע	-	1100 IEVVE

JAC

Job Number: 410-37773-1

Login Number: 37773

List Source: Eurofins Lancaster Laboratories Env

List Number: 1 Creator: Bryan, Debra A

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal is intact.	True	
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).</td <td>True</td> <td></td>	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (=6C, not frozen).</td <td>N/A</td> <td></td>	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.	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	
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?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	

N/A

Eurofins Lancaster Laboratories Env

Sample custody seals are intact.