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ANALYTICAL REPORT

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Laboratory Job ID: 320-82057-1
Client Project/Site: PFAS, Wellington

For:
Colorado Oil&Gas Conservation Commision
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Attn: Rick Allison

Authorized for release by:
12/13/2021 12:48:35 PM

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

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Detection Summary 5
Client Sample Results 6
Isotope Dilution Summary 10
QC Sample Results 11
QC Association Summary 14
Lab Chronicle 15
Certification Summary 16
Method Summary 18
Sample Summary 19
Chain of Custody 20
Receipt Checklists 22

Definitions/Glossary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: PFAS, Wellington

Job ID: 320-82057-1

Qualifiers

LCMS

Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Job ID: 320-82057-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative
320-82057-1

Receipt
The samples were received on 11/22/2021 9:50 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.4º C.

Receipt Exceptions

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC): sample 1. The CoC list the samplle ID as "477135 FWKO", while the container labels lists it as "FWKO". Logged and labeled according to COC.477135 FWKO (320-82057-1).

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC): sample 2. The CoC list the samplle ID as "767700 OUTFALL 001A", while the container labels lists it as "001A". Logged and labeled according to COC.767700 OUTFALL 001A (320-82057-2).

LCMS
Method EPA 537(Mod): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following samples: 477135 FWKO (320-82057-1), 767700 OUTFALL 001A (320-82057-2), (280-155786-A-3-A) and (280-155786-A-3-C MSD). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method EPA 537(Mod): The matrix spike/ matrix spike duplicate (MS/MSD) recoveries for preparation batch 320-545627 and analytical batch 320-546209 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method EPA 537(Mod): The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with preparation batch 320-545627 and analytical batch 320-546209 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Perfluorooctanesulfonic acid (PFOS) in the MSD was above the instrument calibration range. The data have been reported and qualified.

Method ELLE SOP: Total fluorine was detected in the method blank associated with samples: 477135 FWKO (320-82057-1), 767700 OUTFALL 001A (320-82057-2) and FIELD BLANK (320-82057-3).

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

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

Detection Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: PFAS, Wellington

Job ID: 320-82057-1

Client Sample ID: 477135 FWKO — Lab Sample ID: 320-82057-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Fluorine (TF)	1.8	B	1.0	0.62	ug/L	1		ELLE SOP	Total/NA

Client Sample ID: 767700 OUTFALL 001A — Lab Sample ID: 320-82057-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Fluorine (TF)	1.4	B	1.0	0.62	ug/L	1		ELLE SOP	Total/NA
Perfluorooctanesulfonamide (FOSA)	2.6		1.9	0.94	ng/L	1		EPA 537(Mod)	Total/NA

Client Sample ID: FIELD BLANK — Lab Sample ID: 320-82057-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Fluorine (TF)	0.94	J B	1.0	0.62	ug/L	1		ELLE SOP	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Colorado Oil&Gas Conservation Commision
Project/Site: PFAS, Wellington

Job ID: 320-82057-1

Client Sample ID: 477135 FWKO

Date Collected: 11/18/21 11:10
Date Received: 11/22/21 09:50

Lab Sample ID: 320-82057-1

Matrix: Water

Method: ELLE SOP - Organic Fluorine (AOF) by Combustion Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Fluorine (TF)	1.8	B	1.0	0.62	ug/L		12/09/21 11:31	12/10/21 04:32	1

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.9	2.3	ng/L		11/24/21 12:30	11/27/21 23:21	1
Perfluoropentanoic acid (PFPeA)	ND		1.9	0.48	ng/L		11/24/21 12:30	11/27/21 23:21	1
Perfluorohexanoic acid (PFHxA)	ND		1.9	0.56	ng/L		11/24/21 12:30	11/27/21 23:21	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9	0.24	ng/L		11/24/21 12:30	11/27/21 23:21	1
Perfluorooctanoic acid (PFOA)	ND		1.9	0.83	ng/L		11/24/21 12:30	11/27/21 23:21	1
Perfluorononanoic acid (PFNA)	ND		1.9	0.26	ng/L		11/24/21 12:30	11/27/21 23:21	1
Perfluorodecanoic acid (PFDA)	ND		1.9	0.30	ng/L		11/24/21 12:30	11/27/21 23:21	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.1	ng/L		11/24/21 12:30	11/27/21 23:21	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.54	ng/L		11/24/21 12:30	11/27/21 23:21	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.3	ng/L		11/24/21 12:30	11/27/21 23:21	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.71	ng/L		11/24/21 12:30	11/27/21 23:21	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.19	ng/L		11/24/21 12:30	11/27/21 23:21	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.9	0.29	ng/L		11/24/21 12:30	11/27/21 23:21	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	0.55	ng/L		11/24/21 12:30	11/27/21 23:21	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18	ng/L		11/24/21 12:30	11/27/21 23:21	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.53	ng/L		11/24/21 12:30	11/27/21 23:21	1
Perfluorononanesulfonic acid (PFNS)	ND		1.9	0.36	ng/L		11/24/21 12:30	11/27/21 23:21	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.31	ng/L		11/24/21 12:30	11/27/21 23:21	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.95	ng/L		11/24/21 12:30	11/27/21 23:21	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.9	1.2	ng/L		11/24/21 12:30	11/27/21 23:21	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.9	1.3	ng/L		11/24/21 12:30	11/27/21 23:21	1
4:2 FTS	ND		1.9	0.23	ng/L		11/24/21 12:30	11/27/21 23:21	1
6:2 FTS	ND		4.9	2.4	ng/L		11/24/21 12:30	11/27/21 23:21	1
8:2 FTS	ND		1.9	0.45	ng/L		11/24/21 12:30	11/27/21 23:21	1
HFPO-DA (GenX)	ND		3.9	1.5	ng/L		11/24/21 12:30	11/27/21 23:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*61*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*
13C5 PFPeA	*72*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*
13C2 PFHxA	*72*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*
13C4 PFHpA	*87*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*
13C4 PFOA	*90*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*
13C5 PFNA	*94*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*
13C2 PFDA	*86*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*
13C2 PFUnA	*88*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*
13C2 PFDoA	*79*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*
13C2 PFTeDA	*78*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*
13C3 PFBS	*103*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*
18O2 PFHxS	*79*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*
13C4 PFOS	*76*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*
13C8 FOSA	*68*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*
d3-NMeFOSAA	*107*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*
d5-NEtFOSAA	*117*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*

Client Sample ID: 477135 FWKO
Lab Sample ID: 320-82057-1

Date Collected: 11/18/21 11:10
Date Received: 11/22/21 09:50
Matrix: Water

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-6:2 FTS	*380*	**5+*	*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*
M2-8:2 FTS	*331*	**5+*	*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*
M2-4:2 FTS	*357*	**5+*	*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*
13C3 HFPO-DA	*71*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:21*	*1*

Client Sample ID: 767700 OUTFALL 001A
Lab Sample ID: 320-82057-2

Date Collected: 11/18/21 10:55
Date Received: 11/22/21 09:50
Matrix: Water

Method: ELLE SOP - Organic Fluorine (AOF) by Combustion Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Fluorine (TF)	**1.4**	**B**	1.0	0.62	ug/L		12/09/21 11:31	12/10/21 06:18	1

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.8	2.3	ng/L		11/24/21 12:30	11/27/21 23:32	1
Perfluoropentanoic acid (PFPeA)	ND		1.9	0.47	ng/L		11/24/21 12:30	11/27/21 23:32	1
Perfluorohexanoic acid (PFHxA)	ND		1.9	0.56	ng/L		11/24/21 12:30	11/27/21 23:32	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9	0.24	ng/L		11/24/21 12:30	11/27/21 23:32	1
Perfluorooctanoic acid (PFOA)	ND		1.9	0.82	ng/L		11/24/21 12:30	11/27/21 23:32	1
Perfluorononanoic acid (PFNA)	ND		1.9	0.26	ng/L		11/24/21 12:30	11/27/21 23:32	1
Perfluorodecanoic acid (PFDA)	ND		1.9	0.30	ng/L		11/24/21 12:30	11/27/21 23:32	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.1	ng/L		11/24/21 12:30	11/27/21 23:32	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.53	ng/L		11/24/21 12:30	11/27/21 23:32	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.3	ng/L		11/24/21 12:30	11/27/21 23:32	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.70	ng/L		11/24/21 12:30	11/27/21 23:32	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.19	ng/L		11/24/21 12:30	11/27/21 23:32	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.9	0.29	ng/L		11/24/21 12:30	11/27/21 23:32	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	0.55	ng/L		11/24/21 12:30	11/27/21 23:32	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18	ng/L		11/24/21 12:30	11/27/21 23:32	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.52	ng/L		11/24/21 12:30	11/27/21 23:32	1
Perfluorononanesulfonic acid (PFNS)	ND		1.9	0.36	ng/L		11/24/21 12:30	11/27/21 23:32	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9	0.31	ng/L		11/24/21 12:30	11/27/21 23:32	1
Perfluorooctanesulfonamide (FOSA)	**2.6**		1.9	0.94	ng/L		11/24/21 12:30	11/27/21 23:32	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.8	1.2	ng/L		11/24/21 12:30	11/27/21 23:32	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.8	1.3	ng/L		11/24/21 12:30	11/27/21 23:32	1
4:2 FTS	ND		1.9	0.23	ng/L		11/24/21 12:30	11/27/21 23:32	1
6:2 FTS	ND		4.8	2.4	ng/L		11/24/21 12:30	11/27/21 23:32	1
8:2 FTS	ND		1.9	0.44	ng/L		11/24/21 12:30	11/27/21 23:32	1
HFPO-DA (GenX)	ND		3.8	1.4	ng/L		11/24/21 12:30	11/27/21 23:32	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*69*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*
13C5 PFPeA	*88*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*
13C2 PFHxA	*86*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*
13C4 PFHpA	*106*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*
13C4 PFOA	*101*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*

Client Sample ID: 767700 OUTFALL 001A
Lab Sample ID: 320-82057-2

Date Collected: 11/18/21 10:55
Matrix: Water
Date Received: 11/22/21 09:50

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C5 PFNA	*97*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*
13C2 PFDA	*86*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*
13C2 PFUnA	*97*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*
13C2 PFDoA	*87*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*
13C2 PFTeDA	*81*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*
13C3 PFBS	*114*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*
18O2 PFHxS	*99*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*
13C4 PFOS	*93*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*
13C8 FOSA	*89*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*
d3-NMeFOSAA	*90*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*
d5-NEtFOSAA	*102*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*
M2-6:2 FTS	*109*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*
M2-8:2 FTS	*91*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*
M2-4:2 FTS	*205*	**5+*	*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*
13C3 HFPO-DA	*73*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:32*	*1*

Client Sample ID: FIELD BLANK
Lab Sample ID: 320-82057-3

Date Collected: 11/18/21 11:00
Matrix: Water
Date Received: 11/22/21 09:50

Method: ELLE SOP - Organic Fluorine (AOF) by Combustion Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Fluorine (TF)	**0.94**	**J B**	1.0	0.62	ug/L		12/09/21 11:31	12/10/21 08:04	1

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0	2.4	ng/L		11/24/21 12:30	11/27/21 23:42	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		11/24/21 12:30	11/27/21 23:42	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58	ng/L		11/24/21 12:30	11/27/21 23:42	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25	ng/L		11/24/21 12:30	11/27/21 23:42	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.85	ng/L		11/24/21 12:30	11/27/21 23:42	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		11/24/21 12:30	11/27/21 23:42	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		11/24/21 12:30	11/27/21 23:42	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/24/21 12:30	11/27/21 23:42	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/24/21 12:30	11/27/21 23:42	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	1.3	ng/L		11/24/21 12:30	11/27/21 23:42	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.73	ng/L		11/24/21 12:30	11/27/21 23:42	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		11/24/21 12:30	11/27/21 23:42	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.30	ng/L		11/24/21 12:30	11/27/21 23:42	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.57	ng/L		11/24/21 12:30	11/27/21 23:42	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		11/24/21 12:30	11/27/21 23:42	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.54	ng/L		11/24/21 12:30	11/27/21 23:42	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.37	ng/L		11/24/21 12:30	11/27/21 23:42	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/24/21 12:30	11/27/21 23:42	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0	0.98	ng/L		11/24/21 12:30	11/27/21 23:42	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	1.2	ng/L		11/24/21 12:30	11/27/21 23:42	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	1.3	ng/L		11/24/21 12:30	11/27/21 23:42	1

Client Sample ID: FIELD BLANK

Lab Sample ID: 320-82057-3

Date Collected: 11/18/21 11:00

Matrix: Water

Date Received: 11/22/21 09:50

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4:2 FTS	ND		2.0	0.24	ng/L		11/24/21 12:30	11/27/21 23:42	1
6:2 FTS	ND		5.0	2.5	ng/L		11/24/21 12:30	11/27/21 23:42	1
8:2 FTS	ND		2.0	0.46	ng/L		11/24/21 12:30	11/27/21 23:42	1
HFPO-DA (GenX)	ND		4.0	1.5	ng/L		11/24/21 12:30	11/27/21 23:42	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*104*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
13C5 PFPeA	*98*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
13C2 PFHxA	*100*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
13C4 PFHpA	*103*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
13C4 PFOA	*109*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
13C5 PFNA	*104*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
13C2 PFDA	*109*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
13C2 PFUnA	*102*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
13C2 PFDoA	*109*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
13C2 PFTeDA	*110*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
13C3 PFBS	*120*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
18O2 PFHxS	*99*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
13C4 PFOS	*112*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
13C8 FOSA	*92*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
d3-NMeFOSAA	*112*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
d5-NEtFOSAA	*108*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
M2-6:2 FTS	*114*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
M2-8:2 FTS	*101*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
M2-4:2 FTS	*103*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*
13C3 HFPO-DA	*107*		*50 - 150*	*11/24/21 12:30*	*11/27/21 23:42*	*1*

Isotope Dilution Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: PFAS, Wellington

Job ID: 320-82057-1

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	PFHxA	C4PFHA	PFOA	PFNA	PFDA	PFUnA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
320-82057-1	477135 FWKO	61	72	72	87	90	94	86	88
320-82057-2	767700 OUTFALL 001A	69	88	86	106	101	97	86	97
320-82057-3	FIELD BLANK	104	98	100	103	109	104	109	102
LCS 320-545627/2-A	Lab Control Sample	94	84	90	95	97	96	87	103
MB 320-545627/1-A	Method Blank	98	99	106	103	100	102	95	106

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoA	PFTDA	C3PFBS	PFHxS	PFOS	PFOSA	d3NMFOS	d5NEFOS
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
320-82057-1	477135 FWKO	79	78	103	79	76	68	107	117
320-82057-2	767700 OUTFALL 001A	87	81	114	99	93	89	90	102
320-82057-3	FIELD BLANK	109	110	120	99	112	92	112	108
LCS 320-545627/2-A	Lab Control Sample	95	90	102	92	100	80	110	110
MB 320-545627/1-A	Method Blank	105	100	116	92	99	87	118	112

		Percent Isotope Dilution Recovery (Acceptance Limits)			
		M262FTS	M282FTS	M242FTS	HFPODA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)
320-82057-1	477135 FWKO	380 *5+	331 *5+	357 *5+	71
320-82057-2	767700 OUTFALL 001A	109	91	205 *5+	73
320-82057-3	FIELD BLANK	114	101	103	107
LCS 320-545627/2-A	Lab Control Sample	106	100	106	86
MB 320-545627/1-A	Method Blank	116	113	111	87

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
M242FTS = M2-4:2 FTS
HFPODA = 13C3 HFPO-DA

QC Sample Results

Client: Colorado Oil&Gas Conservation Commision
Project/Site: PFAS, Wellington

Job ID: 320-82057-1

Method: ELLE SOP - Organic Fluorine (AOF) by Combustion Ion Chromatography

Lab Sample ID: MB 410-203419/1-A
Matrix: Water
Analysis Batch: 203479

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 203419

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Fluorine (TF)	0.733	J	1.0	0.62	ug/L		12/09/21 11:31	12/09/21 23:13	1

Lab Sample ID: LCS 410-203419/2-A
Matrix: Water
Analysis Batch: 203479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 203419

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Fluorine (TF)	20.3	17.5		ug/L		86	50 - 150

Lab Sample ID: LCSD 410-203419/3-A
Matrix: Water
Analysis Batch: 203479

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 203419

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Fluorine (TF)	20.3	18.0		ug/L		89	50 - 150	3	20

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15

Lab Sample ID: MB 320-545627/1-A
Matrix: Water
Analysis Batch: 546209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 545627

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0	2.4	ng/L		11/24/21 12:30	11/27/21 20:24	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		11/24/21 12:30	11/27/21 20:24	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58	ng/L		11/24/21 12:30	11/27/21 20:24	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25	ng/L		11/24/21 12:30	11/27/21 20:24	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.85	ng/L		11/24/21 12:30	11/27/21 20:24	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		11/24/21 12:30	11/27/21 20:24	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		11/24/21 12:30	11/27/21 20:24	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		11/24/21 12:30	11/27/21 20:24	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		11/24/21 12:30	11/27/21 20:24	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	1.3	ng/L		11/24/21 12:30	11/27/21 20:24	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.73	ng/L		11/24/21 12:30	11/27/21 20:24	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		11/24/21 12:30	11/27/21 20:24	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0	0.30	ng/L		11/24/21 12:30	11/27/21 20:24	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.57	ng/L		11/24/21 12:30	11/27/21 20:24	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		11/24/21 12:30	11/27/21 20:24	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.54	ng/L		11/24/21 12:30	11/27/21 20:24	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0	0.37	ng/L		11/24/21 12:30	11/27/21 20:24	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		11/24/21 12:30	11/27/21 20:24	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0	0.98	ng/L		11/24/21 12:30	11/27/21 20:24	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	1.2	ng/L		11/24/21 12:30	11/27/21 20:24	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	1.3	ng/L		11/24/21 12:30	11/27/21 20:24	1
4:2 FTS	ND		2.0	0.24	ng/L		11/24/21 12:30	11/27/21 20:24	1
6:2 FTS	ND		5.0	2.5	ng/L		11/24/21 12:30	11/27/21 20:24	1

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Lab Sample ID: MB 320-545627/1-A
Matrix: Water
Analysis Batch: 546209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 545627

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 FTS	ND		2.0	0.46	ng/L		11/24/21 12:30	11/27/21 20:24	1
HFPO-DA (GenX)	ND		4.0	1.5	ng/L		11/24/21 12:30	11/27/21 20:24	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*98*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
13C5 PFPeA	*99*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
13C2 PFHxA	*106*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
13C4 PFHpA	*103*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
13C4 PFOA	*100*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
13C5 PFNA	*102*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
13C2 PFDA	*95*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
13C2 PFUnA	*106*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
13C2 PFDoA	*105*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
13C2 PFTeDA	*100*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
13C3 PFBS	*116*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
18O2 PFHxS	*92*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
13C4 PFOS	*99*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
13C8 FOSA	*87*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
d3-NMeFOSAA	*118*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
d5-NEtFOSAA	*112*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
M2-6:2 FTS	*116*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
M2-8:2 FTS	*113*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
M2-4:2 FTS	*111*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*
13C3 HFPO-DA	*87*		*50 - 150*	*11/24/21 12:30*	*11/27/21 20:24*	*1*

Lab Sample ID: LCS 320-545627/2-A
Matrix: Water
Analysis Batch: 546209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 545627

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	43.5		ng/L		109	73 - 129
Perfluoropentanoic acid (PFPeA)	40.0	42.5		ng/L		106	72 - 129
Perfluorohexanoic acid (PFHxA)	40.0	41.8		ng/L		104	72 - 129
Perfluoroheptanoic acid (PFHpA)	40.0	41.3		ng/L		103	72 - 130
Perfluorooctanoic acid (PFOA)	40.0	41.5		ng/L		104	71 - 133
Perfluorononanoic acid (PFNA)	40.0	42.0		ng/L		105	69 - 130
Perfluorodecanoic acid (PFDA)	40.0	40.6		ng/L		101	71 - 129
Perfluoroundecanoic acid (PFUnA)	40.0	36.9		ng/L		92	69 - 133
Perfluorododecanoic acid (PFDoA)	40.0	39.2		ng/L		98	72 - 134
Perfluorotridecanoic acid (PFTriA)	40.0	41.7		ng/L		104	65 - 144
Perfluorotetradecanoic acid (PFTeA)	40.0	40.8		ng/L		102	71 - 132
Perfluorobutanesulfonic acid (PFBS)	35.4	31.6		ng/L		89	72 - 130
Perfluoropentanesulfonic acid (PFPeS)	37.5	34.6		ng/L		92	71 - 127
Perfluorohexanesulfonic acid (PFHxS)	36.4	36.5		ng/L		100	68 - 131

Method: EPA 537(Mod) - PFAS for QSM 5.3, Table B-15 (Continued)

Lab Sample ID: LCS 320-545627/2-A
Matrix: Water
Analysis Batch: 546209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 545627

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	35.5		ng/L		93	69 - 134
Perfluorooctanesulfonic acid (PFOS)	37.1	34.3		ng/L		92	65 - 140
Perfluorononanesulfonic acid (PFNS)	38.4	35.4		ng/L		92	69 - 127
Perfluorodecanesulfonic acid (PFDS)	38.6	36.4		ng/L		94	53 - 142
Perfluorooctanesulfonamide (FOSA)	40.0	46.2		ng/L		116	67 - 137
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.7		ng/L		94	65 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	37.8		ng/L		95	61 - 135
4:2 FTS	37.4	35.7		ng/L		96	63 - 143
6:2 FTS	37.9	35.5		ng/L		94	64 - 140
8:2 FTS	38.3	39.5		ng/L		103	67 - 138
HFPO-DA (GenX)	40.0	43.9		ng/L		110	72 - 132

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*94*		*50 - 150*
13C5 PFPeA	*84*		*50 - 150*
13C2 PFHxA	*90*		*50 - 150*
13C4 PFHpA	*95*		*50 - 150*
13C4 PFOA	*97*		*50 - 150*
13C5 PFNA	*96*		*50 - 150*
13C2 PFDA	*87*		*50 - 150*
13C2 PFUnA	*103*		*50 - 150*
13C2 PFDoA	*95*		*50 - 150*
13C2 PFTeDA	*90*		*50 - 150*
13C3 PFBS	*102*		*50 - 150*
18O2 PFHxS	*92*		*50 - 150*
13C4 PFOS	*100*		*50 - 150*
13C8 FOSA	*80*		*50 - 150*
d3-NMeFOSAA	*110*		*50 - 150*
d5-NEtFOSAA	*110*		*50 - 150*
M2-6:2 FTS	*106*		*50 - 150*
M2-8:2 FTS	*100*		*50 - 150*
M2-4:2 FTS	*106*		*50 - 150*
13C3 HFPO-DA	*86*		*50 - 150*

QC Association Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: PFAS, Wellington

Job ID: 320-82057-1

LCMS

Prep Batch: 203419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-82057-1	477135 FWKO	Total/NA	Water	NONE	
320-82057-2	767700 OUTFALL 001A	Total/NA	Water	NONE	
320-82057-3	FIELD BLANK	Total/NA	Water	NONE	
MB 410-203419/1-A	Method Blank	Total/NA	Water	NONE	
LCS 410-203419/2-A	Lab Control Sample	Total/NA	Water	NONE	
LCSD 410-203419/3-A	Lab Control Sample Dup	Total/NA	Water	NONE	

Analysis Batch: 203479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-82057-1	477135 FWKO	Total/NA	Water	ELLE SOP	203419
320-82057-2	767700 OUTFALL 001A	Total/NA	Water	ELLE SOP	203419
320-82057-3	FIELD BLANK	Total/NA	Water	ELLE SOP	203419
MB 410-203419/1-A	Method Blank	Total/NA	Water	ELLE SOP	203419
LCS 410-203419/2-A	Lab Control Sample	Total/NA	Water	ELLE SOP	203419
LCSD 410-203419/3-A	Lab Control Sample Dup	Total/NA	Water	ELLE SOP	203419

Prep Batch: 545627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-82057-1	477135 FWKO	Total/NA	Water	3535	
320-82057-2	767700 OUTFALL 001A	Total/NA	Water	3535	
320-82057-3	FIELD BLANK	Total/NA	Water	3535	
MB 320-545627/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-545627/2-A	Lab Control Sample	Total/NA	Water	3535	

Analysis Batch: 546209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-82057-1	477135 FWKO	Total/NA	Water	EPA 537(Mod)	545627
320-82057-2	767700 OUTFALL 001A	Total/NA	Water	EPA 537(Mod)	545627
320-82057-3	FIELD BLANK	Total/NA	Water	EPA 537(Mod)	545627
MB 320-545627/1-A	Method Blank	Total/NA	Water	EPA 537(Mod)	545627
LCS 320-545627/2-A	Lab Control Sample	Total/NA	Water	EPA 537(Mod)	545627

Lab Chronicle

Client: Colorado Oil&Gas Conservation Commision
Project/Site: PFAS, Wellington

Job ID: 320-82057-1

Client Sample ID: 477135 FWKO

Lab Sample ID: 320-82057-1
Date Collected: 11/18/21 11:10
Matrix: Water
Date Received: 11/22/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	NONE			100 mL	1 mL	203419	12/09/21 11:31	W5MU	ELLE
Total/NA	Analysis	ELLE SOP		1			203479	12/10/21 04:32	W5MU	ELLE
Total/NA	Prep	3535			256.9 mL	10.0 mL	545627	11/24/21 12:30	KJW	TAL SAC
Total/NA	Analysis	EPA 537(Mod)		1			546209	11/27/21 23:21	S1M	TAL SAC

Client Sample ID: 767700 OUTFALL 001A

Lab Sample ID: 320-82057-2
Date Collected: 11/18/21 10:55
Matrix: Water
Date Received: 11/22/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	NONE			100 mL	1 mL	203419	12/09/21 11:31	W5MU	ELLE
Total/NA	Analysis	ELLE SOP		1			203479	12/10/21 06:18	W5MU	ELLE
Total/NA	Prep	3535			260 mL	10.0 mL	545627	11/24/21 12:30	KJW	TAL SAC
Total/NA	Analysis	EPA 537(Mod)		1			546209	11/27/21 23:32	S1M	TAL SAC

Client Sample ID: FIELD BLANK

Lab Sample ID: 320-82057-3
Date Collected: 11/18/21 11:00
Matrix: Water
Date Received: 11/22/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	NONE			100 mL	1 mL	203419	12/09/21 11:31	W5MU	ELLE
Total/NA	Analysis	ELLE SOP		1			203479	12/10/21 08:04	W5MU	ELLE
Total/NA	Prep	3535			251.1 mL	10.0 mL	545627	11/24/21 12:30	KJW	TAL SAC
Total/NA	Analysis	EPA 537(Mod)		1			546209	11/27/21 23:42	S1M	TAL SAC

Laboratory References:

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

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

Accreditation/Certification Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: PFAS, Wellington

Job ID: 320-82057-1

Laboratory: Eurofins TestAmerica, Sacramento

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

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4040	01-29-22

Laboratory: Eurofins Lancaster Laboratories Env, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	11-30-22
A2LA	ISO/IEC 17025	0001.01	11-30-22
Alaska	State	PA00009	06-30-22
Alaska (UST)	State	17-027	02-28-22
Arizona	State	AZ0780	03-12-22
Arkansas DEQ	State	88-0660	08-10-22
California	State	2792	02-02-22
Colorado	State	PA00009	06-30-22
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-22
Delaware (DW)	State	N/A	02-01-22
Florida	NELAP	E87997	06-30-22
Georgia (DW)	State	C048	01-31-22
Hawaii	State	N/A	01-31-22
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-22
Kentucky (DW)	State	KY90088	01-01-22
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	12-31-21
Louisiana	NELAP	02055	06-30-22
Maine	State	2019012	03-12-22
Maryland	State	100	06-30-22
Massachusetts	State	M-PA009	06-30-22
Michigan	State	9930	01-31-22
Minnesota	NELAP	042-999-487	12-31-22
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-22
Nebraska	State	NE-OS-32-17	01-31-22
New Hampshire	NELAP	2730	01-10-22
New Jersey	NELAP	PA011	06-30-22
New York	NELAP	10670	04-01-22
North Carolina (DW)	State	42705	07-31-22
North Carolina (WW/SW)	State	521	12-31-21
North Dakota	State	R-205	01-31-22
Oklahoma	NELAP	R-205	08-31-22
Oregon	NELAP	PA200001	09-11-22
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-31-22
Rhode Island	State	LAO00338	01-31-22
South Carolina	State	89002002	01-31-22
Tennessee	State	02838	01-31-22
Texas	NELAP	T104704194-21-40	08-31-22
Utah	NELAP	PA000092019-16	03-01-22

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Vermont	State	VT - 36037	10-28-22
Virginia	NELAP	460182	06-14-22
Washington	State	C457	04-12-22
West Virginia (DW)	State	9906 C	12-31-21
West Virginia DEP	State	055	12-31-21
Wyoming	State	8TMS-L	01-31-22
Wyoming (UST)	A2LA	1.01	11-30-22

Method Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: PFAS, Wellington

Job ID: 320-82057-1

Method	Method Description	Protocol	Laboratory
ELLE SOP	Organic Fluorine (AOF) by Combustion Ion Chromatography	ELLE - Lancaster	ELLE
EPA 537(Mod)	PFAS for QSM 5.3, Table B-15	EPA	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC
NONE	Preparation, Fluorine	ELLE - Lancaster	ELLE

Protocol References:

ELLE - Lancaster = Eurofins Lancaster, Facility Standard Operating Procedure.
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300
TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Colorado Oil&Gas Conservation Commision
Job ID: 320-82057-1
Project/Site: PFAS, Wellington

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-82057-1	477135 FWKO	Water	11/18/21 11:10	11/22/21 09:50
320-82057-2	767700 OUTFALL 001A	Water	11/18/21 10:55	11/22/21 09:50
320-82057-3	FIELD BLANK	Water	11/18/21 11:00	11/22/21 09:50

Chain of Custody Record 576520

eurofins | Environment Testing TestAmerica

Address: ~~[illegible]~~

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other: COGCC/WQCC

TAL-8210

Client Contact	Project Manager: RICK ALLISON	Site Contact: RICK ALLISON	Date:	COC No:
Company Name: COGCC	Tel/Email: 970-461-2970	Lab Contact:	Carrier:	____ of ____ COCs
Address: 1120 LINCOLN ST STE 801	Analysis Turnaround Time			Sampler: RICK ALLISON
City/State/Zip: DENVER CO 80203	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 970-461-2970	TAT if different from Below ____			Walk-in Client:
Fax: —	☒ 2 weeks			Lab Sampling:
Project Name: WELLINGTON	☐ 1 week			
Site: —	☐ 2 days			Job / SDG No.:
PO# QUOTE 32018966-3	☐ 1 day			

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PFAS PER QUOTE	TOF PER QUOTE	Sample Specific Notes:
1	477135 FWKO	11/18/21	1110	G	AQ		N	N	X	X	
★	767700 OUTFALL 001A	11/18/21	1055	G	AQ		N	N	X	X	
	FIELD BLANK	11/18/21	1100	G	AQ		N	N	X	X	

320-82057 Chain of Custody

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

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☒ Yes ☐ No | Custody Seal No.: 1707807 | Cooler Temp. (°C): Obs'd: 4.4 Corr'd: 4.4 | Therm ID No.: [illegible]

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	COGCC	11/18/21 16:00	[signature]	EETSAC	11-22-21 / 09:50
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

1 Containers do not list "477135" in the sample ID. Logged per [illegible] 11-22-21 ★ Containers do not list "767700 outfall" in [illegible] 11-22-21

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

Chain of Custody Record

eurofins Environment Testing America

320-82057 Chain of Custody

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Alltucker, David R	COC No: 320-250709.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: David.Alltucker@Eurofinset.com	State of Origin: Colorado	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): NELAP - Oregon	Job #: 320-82057-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 12/14/2021		
City: Lancaster	TAT Requested (days):		
State, Zip: PA, 17601			
Phone: 717-656-2300(Tel)	PO #:		
Email:	WO #:		
Project Name: PFAS, Wellington	Project #: 32019021		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	CIC_Fluorine/CIC_W_Prep default CIC fluorine list	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
477135 FWKO (320-82057-1)	11/18/21	11:10 Mountain		Water			X	2	
767700 OUTFALL 001A (320-82057-2)	11/18/21	10:55 Mountain		Water			X	2	
FIELD BLANK (320-82057-3)	11/18/21	11:00 Mountain		Water			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 11/23/21 - 1630	Company: EETSAC	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time: 11-26-21 953	Company: EEIS

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.0

AEH AEH

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Colorado Oil&Gas Conservation Commision

Job Number: 320-82057-1

Login Number: 82057
List Number: 1
Creator: Cahill, Nicholas P

List Source: Eurofins TestAmerica, Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	1707807
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Colorado Oil&Gas Conservation Commision

Job Number: 320-82057-1

Login Number: 82057
List Number: 2
Creator: Lugardo, Tamara

List Source: Eurofins Lancaster Laboratories Env, LLC
List Creation: 11/26/21 10:54 AM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	False	