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ANALYTICAL REPORT

PREPARED FOR

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City & County of Honolulu
630 South Beretania Street
Public Service Bldg. Room 310
Honolulu, Hawaii 96843

Generated 10/29/2025 5:01:25 PM

JOB DESCRIPTION

RED-HILL
PFAS: Ka'amilo Wells P1/P2

JOB NUMBER

380-178586-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

Eurofins Eaton Analytical Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization

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Authorized for release by
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Table of Contents

Definitions/Glossary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-178586-1
SDG: PFAS: Ka'amilo Wells P1/P2

Qualifiers

LCMS

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
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 Narrative
380-178586-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 10/22/2025 10:08 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 1.5°C, 1.9°C, 2.2°C, 3.3°C, 5.3°C and 5.7°C.

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

Detection Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-178586-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: Ka'amilo Wells P1 — Lab Sample ID: 380-178586-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	3.2		2.0		ng/L	1		533	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.0		2.0		ng/L	1		533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.5		2.0		ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	4.1		2.0		ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.8		2.0		ng/L	1		533	Total/NA
Perfluorooctanoic acid (PFOA)	4.1		2.0		ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	4.2		2.0		ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.0		2.0		ng/L	1		537.1	Total/NA
Perfluorohexanoic acid (PFHxA)	3.8		2.0		ng/L	1		537.1	Total/NA
Perfluorooctanoic acid (PFOA)	4.2		2.0		ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.8		2.0		ng/L	1		537.1	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.1		2.0		ng/L	1		537.1	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.0		2.0		ng/L	1		537.1	Total/NA

Client Sample ID: Ka'amilo Wells P2 — Lab Sample ID: 380-178586-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	2.8		2.0		ng/L	1		533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.3		2.0		ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	3.6		2.0		ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.2		2.0		ng/L	1		533	Total/NA
Perfluorooctanoic acid (PFOA)	3.9		2.0		ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	4.3		2.0		ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.5		2.0		ng/L	1		537.1	Total/NA
Perfluorohexanoic acid (PFHxA)	3.4		2.0		ng/L	1		537.1	Total/NA
Perfluorooctanoic acid (PFOA)	3.9		2.0		ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.6		2.0		ng/L	1		537.1	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.1		2.0		ng/L	1		537.1	Total/NA

Client Sample ID: FB: Ka'amilo Wells P1 — Lab Sample ID: 380-178586-3

No Detections.

Client Sample ID: FB: Ka'amilo Wells P2 — Lab Sample ID: 380-178586-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: Ka'amilo Wells P1

Date Collected: 10/20/25 12:03
Date Received: 10/22/25 10:08

Lab Sample ID: 380-178586-1

Matrix: Water

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
9-Chlorohexadecafluoro-3-oxanonane--sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Perfluorobutanesulfonic acid (PFBS)	**3.2**		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Perfluoroheptanoic acid (PFHpA)	**2.0**		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Perfluorohexanesulfonic acid (PFHxS)	**3.5**		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Perfluorohexanoic acid (PFHxA)	**4.1**		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Perfluorooctanesulfonic acid (PFOS)	**4.8**		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Perfluorooctanoic acid (PFOA)	**4.1**		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Perfluoro (2-ethoxyethane) sulfonic aci (PFEESA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Perfluoropentanoic acid (PFPeA)	**4.2**		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:36	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*94*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:36*	*1*
13C6 PFDA	*99*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:36*	*1*
13C5 PFHxA	*94*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:36*	*1*
13C4 PFHpA	*97*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:36*	*1*
13C8 PFOA	*96*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:36*	*1*
13C9 PFNA	*98*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:36*	*1*
13C7 PFUnA	*96*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:36*	*1*
13C2 PFDoA	*98*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:36*	*1*
13C4 PFBA	*102*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:36*	*1*
13C5 PFPeA	*95*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:36*	*1*
13C3 PFBS	*103*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:36*	*1*
13C3 PFHxS	*104*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:36*	*1*
13C8 PFOS	*101*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:36*	*1*
13C2-4:2-FTS	*110*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:36*	*1*
13C2-6:2-FTS	*103*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:36*	*1*

Client Sample ID: Ka'amilo Wells P1

Lab Sample ID: 380-178586-1
Matrix: Water
Date Collected: 10/20/25 12:03
Date Received: 10/22/25 10:08

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2-8:2-FTS	*105*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:36*	*1*

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		10/24/25 09:14	10/24/25 21:58	1
Perfluorooctanesulfonic acid (PFOS)	**5.0**		2.0	ng/L		10/24/25 09:14	10/24/25 21:58	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		10/24/25 09:14	10/24/25 21:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		10/24/25 09:14	10/24/25 21:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		10/24/25 09:14	10/24/25 21:58	1
Perfluorohexanoic acid (PFHxA)	**3.8**		2.0	ng/L		10/24/25 09:14	10/24/25 21:58	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		10/24/25 09:14	10/24/25 21:58	1
Perfluorooctanoic acid (PFOA)	**4.2**		2.0	ng/L		10/24/25 09:14	10/24/25 21:58	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		10/24/25 09:14	10/24/25 21:58	1
Perfluorohexanesulfonic acid (PFHxS)	**3.8**		2.0	ng/L		10/24/25 09:14	10/24/25 21:58	1
Perfluorobutanesulfonic acid (PFBS)	**3.1**		2.0	ng/L		10/24/25 09:14	10/24/25 21:58	1
Perfluoroheptanoic acid (PFHpA)	**2.0**		2.0	ng/L		10/24/25 09:14	10/24/25 21:58	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		10/24/25 09:14	10/24/25 21:58	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		10/24/25 09:14	10/24/25 21:58	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		10/24/25 09:14	10/24/25 21:58	1
9-Chlorohexadecafluoro-3-oxanonane--sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		10/24/25 09:14	10/24/25 21:58	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		10/24/25 09:14	10/24/25 21:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		10/24/25 09:14	10/24/25 21:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*105*		*70 - 130*	*10/24/25 09:14*	*10/24/25 21:58*	*1*
13C2 PFHxA	*103*		*70 - 130*	*10/24/25 09:14*	*10/24/25 21:58*	*1*
13C2 PFDA	*104*		*70 - 130*	*10/24/25 09:14*	*10/24/25 21:58*	*1*
13C3-GenX	*99*		*70 - 130*	*10/24/25 09:14*	*10/24/25 21:58*	*1*

Client Sample ID: Ka'amilo Wells P2

Lab Sample ID: 380-178586-2
Matrix: Water
Date Collected: 10/20/25 12:46
Date Received: 10/22/25 10:08

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		10/24/25 18:03	10/26/25 03:58	1
9-Chlorohexadecafluoro-3-oxanonane--sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		10/24/25 18:03	10/26/25 03:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		10/24/25 18:03	10/26/25 03:58	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		10/24/25 18:03	10/26/25 03:58	1
Perfluorobutanesulfonic acid (PFBS)	**2.8**		2.0	ng/L		10/24/25 18:03	10/26/25 03:58	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		10/24/25 18:03	10/26/25 03:58	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		10/24/25 18:03	10/26/25 03:58	1

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-178586-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: Ka'amilo Wells P2

Date Collected: 10/20/25 12:46
Date Received: 10/22/25 10:08

Lab Sample ID: 380-178586-2

Matrix: Water

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:58	1
Perfluorohexanesulfonic acid (PFHxS)	**3.3**		2.0		ng/L		10/24/25 18:03	10/26/25 03:58	1
Perfluorohexanoic acid (PFHxA)	**3.6**		2.0		ng/L		10/24/25 18:03	10/26/25 03:58	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:58	1
Perfluorooctanesulfonic acid (PFOS)	**4.2**		2.0		ng/L		10/24/25 18:03	10/26/25 03:58	1
Perfluorooctanoic acid (PFOA)	**3.9**		2.0		ng/L		10/24/25 18:03	10/26/25 03:58	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:58	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:58	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:58	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:58	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:58	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:58	1
Perfluoro (2-ethoxyethane) sulfonic aci (PFEESA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:58	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:58	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:58	1
Perfluoropentanoic acid (PFPeA)	**4.3**		2.0		ng/L		10/24/25 18:03	10/26/25 03:58	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:58	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 03:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*66*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:58*	*1*
13C6 PFDA	*74*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:58*	*1*
13C5 PFHxA	*70*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:58*	*1*
13C4 PFHpA	*71*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:58*	*1*
13C8 PFOA	*71*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:58*	*1*
13C9 PFNA	*71*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:58*	*1*
13C7 PFUnA	*76*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:58*	*1*
13C2 PFDoA	*84*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:58*	*1*
13C4 PFBA	*76*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:58*	*1*
13C5 PFPeA	*67*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:58*	*1*
13C3 PFBS	*105*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:58*	*1*
13C3 PFHxS	*106*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:58*	*1*
13C8 PFOS	*105*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:58*	*1*
13C2-4:2-FTS	*110*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:58*	*1*
13C2-6:2-FTS	*103*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:58*	*1*
13C2-8:2-FTS	*105*		*50 - 200*	*10/24/25 18:03*	*10/26/25 03:58*	*1*

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:07	1
Perfluorooctanesulfonic acid (PFOS)	**4.5**		2.0		ng/L		10/24/25 09:14	10/24/25 22:07	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:07	1
N-methylperfluorooctanesulfonamidoac etic acid (NMeFOSAA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:07	1

Client Sample ID: Ka'amilo Wells P2

Date Collected: 10/20/25 12:46
Date Received: 10/22/25 10:08

Lab Sample ID: 380-178586-2

Matrix: Water

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:07	1
Perfluorohexanoic acid (PFHxA)	**3.4**		2.0		ng/L		10/24/25 09:14	10/24/25 22:07	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:07	1
Perfluorooctanoic acid (PFOA)	**3.9**		2.0		ng/L		10/24/25 09:14	10/24/25 22:07	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:07	1
Perfluorohexanesulfonic acid (PFHxS)	**3.6**		2.0		ng/L		10/24/25 09:14	10/24/25 22:07	1
Perfluorobutanesulfonic acid (PFBS)	**3.1**		2.0		ng/L		10/24/25 09:14	10/24/25 22:07	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:07	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:07	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:07	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:07	1
9-Chlorohexadecafluoro-3-oxanonane--sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:07	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*100*		*70 - 130*	*10/24/25 09:14*	*10/24/25 22:07*	*1*
13C2 PFHxA	*98*		*70 - 130*	*10/24/25 09:14*	*10/24/25 22:07*	*1*
13C2 PFDA	*104*		*70 - 130*	*10/24/25 09:14*	*10/24/25 22:07*	*1*
13C3-GenX	*95*		*70 - 130*	*10/24/25 09:14*	*10/24/25 22:07*	*1*

Client Sample ID: FB: Ka'amilo Wells P1

Date Collected: 10/20/25 12:03
Date Received: 10/22/25 10:08

Lab Sample ID: 380-178586-3

Matrix: Water

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
9-Chlorohexadecafluoro-3-oxanonane--sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1

Client Sample ID: FB: Ka'amilo Wells P1

Date Collected: 10/20/25 12:03
Date Received: 10/22/25 10:08

Lab Sample ID: 380-178586-3

Matrix: Water

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Perfluoro (2-ethoxyethane) sulfonic aci (PFEESA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:08	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*83*		*50 - 200*	*10/24/25 18:03*	*10/26/25 04:08*	*1*
13C6 PFDA	*99*		*50 - 200*	*10/24/25 18:03*	*10/26/25 04:08*	*1*
13C5 PFHxA	*94*		*50 - 200*	*10/24/25 18:03*	*10/26/25 04:08*	*1*
13C4 PFHpA	*93*		*50 - 200*	*10/24/25 18:03*	*10/26/25 04:08*	*1*
13C8 PFOA	*94*		*50 - 200*	*10/24/25 18:03*	*10/26/25 04:08*	*1*
13C9 PFNA	*98*		*50 - 200*	*10/24/25 18:03*	*10/26/25 04:08*	*1*
13C7 PFUnA	*99*		*50 - 200*	*10/24/25 18:03*	*10/26/25 04:08*	*1*
13C2 PFDoA	*101*		*50 - 200*	*10/24/25 18:03*	*10/26/25 04:08*	*1*
13C4 PFBA	*91*		*50 - 200*	*10/24/25 18:03*	*10/26/25 04:08*	*1*
13C5 PFPeA	*88*		*50 - 200*	*10/24/25 18:03*	*10/26/25 04:08*	*1*
13C3 PFBS	*102*		*50 - 200*	*10/24/25 18:03*	*10/26/25 04:08*	*1*
13C3 PFHxS	*102*		*50 - 200*	*10/24/25 18:03*	*10/26/25 04:08*	*1*
13C8 PFOS	*103*		*50 - 200*	*10/24/25 18:03*	*10/26/25 04:08*	*1*
13C2-4:2-FTS	*109*		*50 - 200*	*10/24/25 18:03*	*10/26/25 04:08*	*1*
13C2-6:2-FTS	*107*		*50 - 200*	*10/24/25 18:03*	*10/26/25 04:08*	*1*
13C2-8:2-FTS	*109*		*50 - 200*	*10/24/25 18:03*	*10/26/25 04:08*	*1*

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:28	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:28	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:28	1
N-methylperfluorooctanesulfonamidoac etic acid (NMeFOSAA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:28	1
N-ethylperfluorooctanesulfonamidoacet c acid (NEtFOSAA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:28	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:28	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:28	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:28	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:28	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:28	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:28	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:28	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:28	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:28	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:28	1

Client Sample ID: FB: Ka'amilo Wells P1

Lab Sample ID: 380-178586-3
Matrix: Water
Date Collected: 10/20/25 12:03
Date Received: 10/22/25 10:08

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane--sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:28	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:28	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*93*		*70 - 130*	*10/24/25 09:14*	*10/24/25 22:28*	*1*
13C2 PFHxA	*100*		*70 - 130*	*10/24/25 09:14*	*10/24/25 22:28*	*1*
13C2 PFDA	*103*		*70 - 130*	*10/24/25 09:14*	*10/24/25 22:28*	*1*
13C3-GenX	*92*		*70 - 130*	*10/24/25 09:14*	*10/24/25 22:28*	*1*

Client Sample ID: FB: Ka'amilo Wells P2

Lab Sample ID: 380-178586-4
Matrix: Water
Date Collected: 10/20/25 12:46
Date Received: 10/22/25 10:08

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
9-Chlorohexadecafluoro-3-oxanonane--sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Perfluoro (2-ethoxyethane) sulfonic aci (PFEESA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		10/24/25 18:03	10/26/25 04:19	1

Client Sample ID: FB: Ka'amilo Wells P2

Date Collected: 10/20/25 12:46
Date Received: 10/22/25 10:08

Lab Sample ID: 380-178586-4

Matrix: Water

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	87		50 - 200	10/24/25 18:03	10/26/25 04:19	1
13C6 PFDA	107		50 - 200	10/24/25 18:03	10/26/25 04:19	1
13C5 PFHxA	95		50 - 200	10/24/25 18:03	10/26/25 04:19	1
13C4 PFHpA	98		50 - 200	10/24/25 18:03	10/26/25 04:19	1
13C8 PFOA	96		50 - 200	10/24/25 18:03	10/26/25 04:19	1
13C9 PFNA	101		50 - 200	10/24/25 18:03	10/26/25 04:19	1
13C7 PFUnA	103		50 - 200	10/24/25 18:03	10/26/25 04:19	1
13C2 PFDoA	104		50 - 200	10/24/25 18:03	10/26/25 04:19	1
13C4 PFBA	105		50 - 200	10/24/25 18:03	10/26/25 04:19	1
13C5 PFPeA	98		50 - 200	10/24/25 18:03	10/26/25 04:19	1
13C3 PFBS	103		50 - 200	10/24/25 18:03	10/26/25 04:19	1
13C3 PFHxS	102		50 - 200	10/24/25 18:03	10/26/25 04:19	1
13C8 PFOS	104		50 - 200	10/24/25 18:03	10/26/25 04:19	1
13C2-4:2-FTS	111		50 - 200	10/24/25 18:03	10/26/25 04:19	1
13C2-6:2-FTS	106		50 - 200	10/24/25 18:03	10/26/25 04:19	1
13C2-8:2-FTS	113		50 - 200	10/24/25 18:03	10/26/25 04:19	1

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:39	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:39	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:39	1
N-methylperfluorooctanesulfonamidoac etic acid (NMeFOSAA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:39	1
N-ethylperfluorooctanesulfonamidoacet c acid (NEtFOSAA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:39	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:39	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:39	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:39	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:39	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:39	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:39	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:39	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:39	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:39	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:39	1
9-Chlorohexadecafluoro-3-oxanonane- -sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:39	1
11-Chloroeicosafluoro-3-oxaundecane- 1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:39	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		10/24/25 09:14	10/24/25 22:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	101		70 - 130	10/24/25 09:14	10/24/25 22:39	1
13C2 PFHxA	100		70 - 130	10/24/25 09:14	10/24/25 22:39	1
13C2 PFDA	102		70 - 130	10/24/25 09:14	10/24/25 22:39	1
13C3-GenX	95		70 - 130	10/24/25 09:14	10/24/25 22:39	1

Action Limit Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-178586-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: Ka'amilo Wells P1 — Lab Sample ID: 380-178586-1

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.5		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	**4.8**		ng/L	**4**	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	**4.1**		ng/L	**4**	2.0	533	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2 0		ng/L	10	2 0	537 1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	**5.0**		ng/L	**4**	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	**4.2**		ng/L	**4**	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.8		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Client Sample ID: Ka'amilo Wells P2 — Lab Sample ID: 380-178586-2

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.3		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	**4.2**		ng/L	**4**	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	3.9		ng/L	4	2.0	533	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	**4.5**		ng/L	**4**	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	3.9		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.6		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Client Sample ID: FB: Ka'amilo Wells P1 — Lab Sample ID: 380-178586-3

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	533	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	537.1	Total/NA

Action Limit Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-178586-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: FB: Ka'amilo Wells P1 (Continued) — Lab Sample ID: 380-178586-3

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Client Sample ID: FB: Ka'amilo Wells P2 — Lab Sample ID: 380-178586-4

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	533	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Surrogate Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-178586-1
SDG: PFAS: Ka'amilo Wells P1/P2

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS	PFHxA	PFDA	GenX
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)
380-178586-1	Ka'amilo Wells P1	105	103	104	99
380-178586-2	Ka'amilo Wells P2	100	98	104	95
380-178586-3	FB: Ka'amilo Wells P1	93	100	103	92
380-178586-4	FB: Ka'amilo Wells P2	101	100	102	95
380-178738-B-1-A MS	Matrix Spike	109	109	110	109
380-178738-C-1-A MSD	Matrix Spike Duplicate	101	110	109	106
LCS 380-182001/20-A	Lab Control Sample	98	103	103	95
MBL 380-182001/21-A	Method Blank	93	103	106	92
MRL 380-182001/22-A	Lab Control Sample	98	104	103	97

Surrogate Legend

d5NEFOS = d5-NEtFOSAA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA
GenX = 13C3-GenX

Isotope Dilution Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-178586-1
SDG: PFAS: Ka'amilo Wells P1/P2

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDoA (50-200)
380-178586-1	Ka'amilo Wells P1	94	99	94	97	96	98	96	98
380-178586-2	Ka'amilo Wells P2	66	74	70	71	71	71	76	84
380-178586-3	FB: Ka'amilo Wells P1	83	99	94	93	94	98	99	101
380-178586-4	FB: Ka'amilo Wells P2	87	107	95	98	96	101	103	104
380-178755-B-1-A MS	Matrix Spike	85	80	86	87	82	81	84	84
380-178755-C-1-A MSD	Matrix Spike Duplicate	80	78	84	84	78	79	79	82
LCS 380-182187/22-A	Lab Control Sample	93	98	101	101	96	103	101	103
MBL 380-182187/20-A	Method Blank	84	101	97	98	98	103	99	101
MRL 380-182187/21-A	Lab Control Sample	89	100	101	97	99	101	101	103

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (50-200)	PFPeA (50-200)	C3PFBS (50-200)	C3PFHS (50-200)	C8PFOS (50-200)	42FTS (50-200)	62FTS (50-200)	82FTS (50-200)
380-178586-1	Ka'amilo Wells P1	102	95	103	104	101	110	103	105
380-178586-2	Ka'amilo Wells P2	76	67	105	106	105	110	103	105
380-178586-3	FB: Ka'amilo Wells P1	91	88	102	102	103	109	107	109
380-178586-4	FB: Ka'amilo Wells P2	105	98	103	102	104	111	106	113
380-178755-B-1-A MS	Matrix Spike	96	91	100	104	100	113	105	103
380-178755-C-1-A MSD	Matrix Spike Duplicate	92	89	101	105	103	111	103	104
LCS 380-182187/22-A	Lab Control Sample	100	101	105	106	106	107	105	104
MBL 380-182187/20-A	Method Blank	93	91	104	104	103	102	104	98
MRL 380-182187/21-A	Lab Control Sample	97	89	103	102	102	102	101	103

Surrogate Legend

HFPODA = 13C3 HFPO-DA
C6PFDA = 13C6 PFDA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
13C7PUA = 13C7 PFUnA
PFDoA = 13C2 PFDoA
PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
42FTS = 13C2-4:2-FTS
62FTS = 13C2-6:2-FTS
82FTS = 13C2-8:2-FTS

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Lab Sample ID: MBL 380-182187/20-A
Matrix: Water
Analysis Batch: 182288

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 182187

Analyte	MBL Result	MBL Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
9-Chlorohexadecafluoro-3-oxanonane--sulfonic acid(9Cl-PF3ONS)	<0.30		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Perfluorononanoic acid (PFNA)	<0.40		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Perfluoro (2-ethoxyethane) sulfonic aci (PFEESA)	<0.25		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0		ng/L		10/24/25 18:03	10/26/25 01:05	1

Isotope Dilution	*MBL %Recovery*	*MBL Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*84*		*50 - 200*	*10/24/25 18:03*	*10/26/25 01:05*	*1*
13C6 PFDA	*101*		*50 - 200*	*10/24/25 18:03*	*10/26/25 01:05*	*1*
13C5 PFHxA	*97*		*50 - 200*	*10/24/25 18:03*	*10/26/25 01:05*	*1*
13C4 PFHpA	*98*		*50 - 200*	*10/24/25 18:03*	*10/26/25 01:05*	*1*
13C8 PFOA	*98*		*50 - 200*	*10/24/25 18:03*	*10/26/25 01:05*	*1*
13C9 PFNA	*103*		*50 - 200*	*10/24/25 18:03*	*10/26/25 01:05*	*1*
13C7 PFUnA	*99*		*50 - 200*	*10/24/25 18:03*	*10/26/25 01:05*	*1*
13C2 PFDoA	*101*		*50 - 200*	*10/24/25 18:03*	*10/26/25 01:05*	*1*
13C4 PFBA	*93*		*50 - 200*	*10/24/25 18:03*	*10/26/25 01:05*	*1*
13C5 PFPeA	*91*		*50 - 200*	*10/24/25 18:03*	*10/26/25 01:05*	*1*
13C3 PFBS	*104*		*50 - 200*	*10/24/25 18:03*	*10/26/25 01:05*	*1*
13C3 PFHxS	*104*		*50 - 200*	*10/24/25 18:03*	*10/26/25 01:05*	*1*
13C8 PFOS	*103*		*50 - 200*	*10/24/25 18:03*	*10/26/25 01:05*	*1*
13C2-4:2-FTS	*102*		*50 - 200*	*10/24/25 18:03*	*10/26/25 01:05*	*1*
13C2-6:2-FTS	*104*		*50 - 200*	*10/24/25 18:03*	*10/26/25 01:05*	*1*

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: MBL 380-182187/20-A
Matrix: Water
Analysis Batch: 182288

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 182187

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-8:2-FTS	98		50 - 200	10/24/25 18:03	10/26/25 01:05	1

Lab Sample ID: LCS 380-182187/22-A
Matrix: Water
Analysis Batch: 182288

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	120	121		ng/L		101	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	120	122		ng/L		102	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	120	125		ng/L		104	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	120	120		ng/L		99	70 - 130
Perfluorobutanesulfonic acid (PFBS)	120	127		ng/L		105	70 - 130
Perfluorodecanoic acid (PFDA)	120	132		ng/L		110	70 - 130
Perfluorododecanoic acid (PFDoA)	120	126		ng/L		105	70 - 130
Perfluoroheptanoic acid (PFHpA)	120	125		ng/L		104	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	120	125		ng/L		103	70 - 130
Perfluorohexanoic acid (PFHxA)	120	126		ng/L		104	70 - 130
Perfluorononanoic acid (PFNA)	120	121		ng/L		101	70 - 130
Perfluorooctanesulfonic acid (PFOS)	120	122		ng/L		101	70 - 130
Perfluorooctanoic acid (PFOA)	120	133		ng/L		110	70 - 130
Perfluoroundecanoic acid (PFUnA)	120	133		ng/L		110	70 - 130
Perfluorobutanoic acid (PFBA)	120	127		ng/L		106	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	120	129		ng/L		107	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	120	126		ng/L		105	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	120	122		ng/L		101	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	120	121		ng/L		100	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	120	121		ng/L		100	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	120	126		ng/L		105	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	120	126		ng/L		105	70 - 130
Perfluoropentanoic acid (PFPeA)	120	133		ng/L		110	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	120	122		ng/L		101	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	120	126		ng/L		104	70 - 130

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C3 HFPO-DA	93		50 - 200
13C6 PFDA	98		50 - 200
13C5 PFHxA	101		50 - 200

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: LCS 380-182187/22-A
Matrix: Water
Analysis Batch: 182288

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182187

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFHpA	101		50 - 200
13C8 PFOA	96		50 - 200
13C9 PFNA	103		50 - 200
13C7 PFUnA	101		50 - 200
13C2 PFDoA	103		50 - 200
13C4 PFBA	100		50 - 200
13C5 PFPeA	101		50 - 200
13C3 PFBS	105		50 - 200
13C3 PFHxS	106		50 - 200
13C8 PFOS	106		50 - 200
13C2-4:2-FTS	107		50 - 200
13C2-6:2-FTS	105		50 - 200
13C2-8:2-FTS	104		50 - 200

Lab Sample ID: MRL 380-182187/21-A
Matrix: Water
Analysis Batch: 182288

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182187

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2 00	1.92	J	ng/L		96	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.01	J	ng/L		100	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.24	J	ng/L		112	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.09	J	ng/L		104	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.10	J	ng/L		105	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.28	J	ng/L		114	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.18	J	ng/L		109	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.31	J	ng/L		115	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.16	J	ng/L		108	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.20	J	ng/L		110	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.12	J	ng/L		106	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.10	J	ng/L		105	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.27	J	ng/L		114	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.30	J	ng/L		115	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	2.37	J	ng/L		118	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	2.27	J	ng/L		113	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	2.35	J	ng/L		118	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	2.17	J	ng/L		108	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	2.20	J	ng/L		110	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	2.00	2.03	J	ng/L		101	50 - 150

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: MRL 380-182187/21-A
Matrix: Water
Analysis Batch: 182288

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182187

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoro-3-methoxypropanoic acid (PFMPA)			2.00	2.08	J	ng/L		104	50 - 150		
Perfluoro-4-methoxybutanoic acid (PFMBA)			2.00	2.32	J	ng/L		116	50 - 150		
Perfluoropentanoic acid (PFPeA)			2.00	2.34	J	ng/L		117	50 - 150		
Perfluoroheptanesulfonic acid (PFHpS)			2.00	2.23	J	ng/L		111	50 - 150		
Perfluoropentanesulfonic acid (PFPeS)			2.00	2.15	J	ng/L		107	50 - 150		

Isotope Dilution	*MRL %Recovery*	*MRL Qualifier*	*Limits*
13C3 HFPO-DA	*89*		*50 - 200*
13C6 PFDA	*100*		*50 - 200*
13C5 PFHxA	*101*		*50 - 200*
13C4 PFHpA	*97*		*50 - 200*
13C8 PFOA	*99*		*50 - 200*
13C9 PFNA	*101*		*50 - 200*
13C7 PFUnA	*101*		*50 - 200*
13C2 PFDoA	*103*		*50 - 200*
13C4 PFBA	*97*		*50 - 200*
13C5 PFPeA	*89*		*50 - 200*
13C3 PFBS	*103*		*50 - 200*
13C3 PFHxS	*102*		*50 - 200*
13C8 PFOS	*102*		*50 - 200*
13C2-4:2-FTS	*102*		*50 - 200*
13C2-6:2-FTS	*101*		*50 - 200*
13C2-8:2-FTS	*103*		*50 - 200*

Lab Sample ID: 380-178755-B-1-A MS
Matrix: Water
Analysis Batch: 182288

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 182187

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	59.3		ng/L		98	70 - 130		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.4	61.8		ng/L		102	70 - 130		
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	61.5		ng/L		102	70 - 130		
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.4	63.6		ng/L		105	70 - 130		
Perfluorobutanesulfonic acid (PFBS)	3.0		60.4	71.2		ng/L		113	70 - 130		
Perfluorodecanoic acid (PFDA)	<2.0		60.4	67.0		ng/L		111	70 - 130		
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	66.0		ng/L		109	70 - 130		
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	64.5		ng/L		105	70 - 130		
Perfluorohexanesulfonic acid (PFHxS)	2.1		60.4	64.1		ng/L		103	70 - 130		
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	67.0		ng/L		108	70 - 130		
Perfluorononanoic acid (PFNA)	<2.0		60.4	63.0		ng/L		104	70 - 130		
Perfluorooctanesulfonic acid (PFOS)	6.1		60.4	69.8		ng/L		106	70 - 130		

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: 380-178755-B-1-A MS
Matrix: Water
Analysis Batch: 182288

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 182187

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanoic acid (PFOA)	5.0		60.4	70.9		ng/L		109	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	66.1		ng/L		110	70 - 130
Perfluorobutanoic acid (PFBA)	3.3		60.4	65.6		ng/L		103	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	63.7		ng/L		106	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	64.8		ng/L		107	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	63.8		ng/L		106	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	63.5		ng/L		105	70 - 130
Perfluoro (2-ethoxyethane) sulfoni acid (PFEESA)	<2.0		60.4	62.9		ng/L		104	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	65.2		ng/L		108	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	67.1		ng/L		111	70 - 130
Perfluoropentanoic acid (PFPeA)	2.5		60.4	67.0		ng/L		107	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	64.0		ng/L		106	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	62.9		ng/L		103	70 - 130

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C3 HFPO-DA	*85*		*50 - 200*
13C6 PFDA	*80*		*50 - 200*
13C5 PFHxA	*86*		*50 - 200*
13C4 PFHpA	*87*		*50 - 200*
13C8 PFOA	*82*		*50 - 200*
13C9 PFNA	*81*		*50 - 200*
13C7 PFUnA	*84*		*50 - 200*
13C2 PFDoA	*84*		*50 - 200*
13C4 PFBA	*96*		*50 - 200*
13C5 PFPeA	*91*		*50 - 200*
13C3 PFBS	*100*		*50 - 200*
13C3 PFHxS	*104*		*50 - 200*
13C8 PFOS	*100*		*50 - 200*
13C2-4:2-FTS	*113*		*50 - 200*
13C2-6:2-FTS	*105*		*50 - 200*
13C2-8:2-FTS	*103*		*50 - 200*

Lab Sample ID: 380-178755-C-1-A MSD
Matrix: Water
Analysis Batch: 182288

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 182187

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundec ane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	60.3		ng/L		100	70 - 130	2	30
9-Chlorohexadecafluoro-3-oxanon ane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.4	61.8		ng/L		102	70 - 130	0	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	60.8		ng/L		101	70 - 130	1	30

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: 380-178755-C-1-A MSD
Matrix: Water
Analysis Batch: 182288

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 182187

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.4	62.6		ng/L		104	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	3.0		60.4	66.1		ng/L		105	70 - 130	7	30
Perfluorodecanoic acid (PFDA)	<2.0		60.4	67.3		ng/L		111	70 - 130	0	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	65.2		ng/L		108	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	63.6		ng/L		103	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	2.1		60.4	65.1		ng/L		104	70 - 130	2	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	66.8		ng/L		108	70 - 130	0	30
Perfluorononanoic acid (PFNA)	<2.0		60.4	63.7		ng/L		105	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	6.1		60.4	68.8		ng/L		104	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	5.0		60.4	70.0		ng/L		108	70 - 130	1	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	66.6		ng/L		110	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	3.3		60.4	66.9		ng/L		105	70 - 130	2	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	64.8		ng/L		107	70 - 130	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	68.5		ng/L		113	70 - 130	6	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	68.1		ng/L		113	70 - 130	7	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	65.2		ng/L		108	70 - 130	3	30
Perfluoro (2-ethoxyethane) sulfoni acid (PFEESA)	<2.0		60.4	61.3		ng/L		102	70 - 130	3	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	63.8		ng/L		106	70 - 130	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	65.5		ng/L		109	70 - 130	2	30
Perfluoropentanoic acid (PFPeA)	2.5		60.4	69.9		ng/L		112	70 - 130	4	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	63.5		ng/L		105	70 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	62.5		ng/L		103	70 - 130	1	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C3 HFPO-DA	*80*		*50 - 200*
13C6 PFDA	*78*		*50 - 200*
13C5 PFHxA	*84*		*50 - 200*
13C4 PFHpA	*84*		*50 - 200*
13C8 PFOA	*78*		*50 - 200*
13C9 PFNA	*79*		*50 - 200*
13C7 PFUnA	*79*		*50 - 200*
13C2 PFDoA	*82*		*50 - 200*
13C4 PFBA	*92*		*50 - 200*
13C5 PFPeA	*89*		*50 - 200*
13C3 PFBS	*101*		*50 - 200*
13C3 PFHxS	*105*		*50 - 200*
13C8 PFOS	*103*		*50 - 200*
13C2-4:2-FTS	*111*		*50 - 200*
13C2-6:2-FTS	*103*		*50 - 200*
13C2-8:2-FTS	*104*		*50 - 200*

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Lab Sample ID: MBL 380-182001/21-A
Matrix: Water
Analysis Batch: 182183

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 182001

Analyte	MBL Result	MBL Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0		ng/L		10/24/25 09:14	10/24/25 19:50	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0		ng/L		10/24/25 09:14	10/24/25 19:50	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0		ng/L		10/24/25 09:14	10/24/25 19:50	1
N-methylperfluorooctanesulfonamidoac etic acid (NMeFOSAA)	<0.58		2.0		ng/L		10/24/25 09:14	10/24/25 19:50	1
N-ethylperfluorooctanesulfonamidoacet c acid (NEtFOSAA)	<0.42		2.0		ng/L		10/24/25 09:14	10/24/25 19:50	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0		ng/L		10/24/25 09:14	10/24/25 19:50	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0		ng/L		10/24/25 09:14	10/24/25 19:50	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0		ng/L		10/24/25 09:14	10/24/25 19:50	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0		ng/L		10/24/25 09:14	10/24/25 19:50	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0		ng/L		10/24/25 09:14	10/24/25 19:50	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0		ng/L		10/24/25 09:14	10/24/25 19:50	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0		ng/L		10/24/25 09:14	10/24/25 19:50	1
Perfluorononanoic acid (PFNA)	<0.40		2.0		ng/L		10/24/25 09:14	10/24/25 19:50	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0		ng/L		10/24/25 09:14	10/24/25 19:50	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0		ng/L		10/24/25 09:14	10/24/25 19:50	1
9-Chlorohexadecafluoro-3-oxanonane- -sulfonic acid(9Cl-PF3ONS)	<0.30		2.0		ng/L		10/24/25 09:14	10/24/25 19:50	1
11-Chloroeicosafluoro-3-oxaundecane- 1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0		ng/L		10/24/25 09:14	10/24/25 19:50	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0		ng/L		10/24/25 09:14	10/24/25 19:50	1

Surrogate	*MBL %Recovery*	*MBL Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*93*		*70 - 130*	*10/24/25 09:14*	*10/24/25 19:50*	*1*
13C2 PFHxA	*103*		*70 - 130*	*10/24/25 09:14*	*10/24/25 19:50*	*1*
13C2 PFDA	*106*		*70 - 130*	*10/24/25 09:14*	*10/24/25 19:50*	*1*
13C3-GenX	*92*		*70 - 130*	*10/24/25 09:14*	*10/24/25 19:50*	*1*

Lab Sample ID: LCS 380-182001/20-A
Matrix: Water
Analysis Batch: 182183

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182001

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	50.3	46.4		ng/L		92	70 - 130
Perfluorooctanesulfonic acid (PFOS)	50.3	52.6		ng/L		105	70 - 130
Perfluoroundecanoic acid (PFUnA)	50.3	51.4		ng/L		102	70 - 130
N-methylperfluorooctanesulfonam doacetic acid (NMeFOSAA)	50.3	47.8		ng/L		95	70 - 130
N-ethylperfluorooctanesulfonamid acetic acid (NEtFOSAA)	50.3	48.7		ng/L		97	70 - 130
Perfluorohexanoic acid (PFHxA)	50.3	46.1		ng/L		92	70 - 130
Perfluorododecanoic acid (PFDoA)	50.3	50.5		ng/L		100	70 - 130
Perfluorooctanoic acid (PFOA)	50.3	49.9		ng/L		99	70 - 130
Perfluorodecanoic acid (PFDA)	50.3	51.0		ng/L		101	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	50.3	51.9		ng/L		103	70 - 130

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: LCS 380-182001/20-A
Matrix: Water
Analysis Batch: 182183

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182001

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanesulfonic acid (PFBS)	50.3	51.7		ng/L		103	70 - 130
Perfluoroheptanoic acid (PFHpA)	50.3	49.5		ng/L		98	70 - 130
Perfluorononanoic acid (PFNA)	50.3	51.0		ng/L		101	70 - 130
Perfluorotetradecanoic acid (PFTA)	50.3	46.2		ng/L		92	70 - 130
Perfluorotridecanoic acid (PFTrDA)	50.3	50.9		ng/L		101	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	50.3	54.3		ng/L		108	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	50.3	50.7		ng/L		101	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	50.3	46.7		ng/L		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
d5-NEtFOSAA	*98*		*70 - 130*
13C2 PFHxA	*103*		*70 - 130*
13C2 PFDA	*103*		*70 - 130*
13C3-GenX	*95*		*70 - 130*

Lab Sample ID: MRL 380-182001/22-A
Matrix: Water
Analysis Batch: 182183

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182001

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.04	J	ng/L		102	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.59	J	ng/L		129	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.26	J	ng/L		113	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.24	J	ng/L		112	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.13	J	ng/L		106	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.06	J	ng/L		103	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.25	J	ng/L		112	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.24	J	ng/L		112	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.33	J	ng/L		116	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.49	J	ng/L		124	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.36	J	ng/L		118	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.25	J	ng/L		112	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.31	J	ng/L		115	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.00	2.02	J	ng/L		101	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.00	2.46	J	ng/L		123	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.42	J	ng/L		121	50 - 150

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: MRL 380-182001/22-A
Matrix: Water
Analysis Batch: 182183

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 182001

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.46	J	ng/L		123	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.26	J	ng/L		113	50 - 150

Surrogate	*MRL %Recovery*	*MRL Qualifier*	*Limits*
d5-NEtFOSAA	*98*		*70 - 130*
13C2 PFHxA	*104*		*70 - 130*
13C2 PFDA	*103*		*70 130*
13C3-GenX	*97*		*70 - 130*

Lab Sample ID: 380-178738-B-1-A MS
Matrix: Water
Analysis Batch: 182183

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 182001

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		50.2	51.1		ng/L		102	70 - 130
Perfluorooctanesulfonic acid (PFOS)	38		50.2	90.9	E	ng/L		105	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		50.2	52.9		ng/L		105	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.2	51.2		ng/L		102	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		50.2	53.1		ng/L		106	70 - 130
Perfluorohexanoic acid (PFHxA)	2.7		50.2	52.1		ng/L		98	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		50.2	51.7		ng/L		103	70 - 130
Perfluorooctanoic acid (PFOA)	9.4		50.2	59.7		ng/L		100	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		50.2	52.1		ng/L		103	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	8.7		50.2	60.8		ng/L		104	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.2	55.1		ng/L		106	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		50.2	53.0		ng/L		102	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		50.2	53.2		ng/L		103	70 - 130
Perfluorotetradecanoic acid (PFTA)	<2.0		50.2	43.0		ng/L		86	70 - 130
Perfluorotridecanoic acid (PFTrDA)	<2.0		50.2	53.5		ng/L		107	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.2	52.5		ng/L		105	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		50.2	52.3		ng/L		104	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.2	51.2		ng/L		102	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
d5-NEtFOSAA	*109*		*70 - 130*
13C2 PFHxA	*109*		*70 - 130*
13C2 PFDA	*110*		*70 - 130*

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: 380-178738-B-1-A MS
Matrix: Water
Analysis Batch: 182183

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 182001

Surrogate	MS %Recovery	MS Qualifier	Limits
13C3-GenX	109		70 - 130

Lab Sample ID: 380-178738-C-1-A MSD
Matrix: Water
Analysis Batch: 182183

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 182001

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		50.2	50.6		ng/L		101	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	38		50.2	90.1	E	ng/L		104	70 - 130	1	30
Perfluoroundecanoic acid (PFUnA)	<2.0		50.2	52.8		ng/L		105	70 - 130	0	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.2	49.0		ng/L		98	70 - 130	4	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		50.2	47.8		ng/L		95	70 - 130	11	30
Perfluorohexanoic acid (PFHxA)	2.7		50.2	51.5		ng/L		97	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<2.0		50.2	53.1		ng/L		106	70 - 130	3	30
Perfluorooctanoic acid (PFOA)	9.4		50.2	60.1		ng/L		101	70 - 130	1	30
Perfluorodecanoic acid (PFDA)	<2.0		50.2	51.7		ng/L		102	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	8.7		50.2	60.6		ng/L		103	70 - 130	0	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.2	53.5		ng/L		103	70 - 130	3	30
Perfluoroheptanoic acid (PFHpA)	<2.0		50.2	55.1		ng/L		106	70 - 130	4	30
Perfluorononanoic acid (PFNA)	<2.0		50.2	53.8		ng/L		104	70 - 130	1	30
Perfluorotetradecanoic acid (PFTA)	<2.0		50.2	43.0		ng/L		86	70 - 130	0	30
Perfluorotridecanoic acid (PFTrDA)	<2.0		50.2	52.6		ng/L		105	70 - 130	2	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.2	53.3		ng/L		106	70 - 130	2	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		50.2	49.8		ng/L		99	70 - 130	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.2	51.3		ng/L		102	70 - 130	0	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
d5-NEtFOSAA	101		70 - 130
13C2 PFHxA	110		70 - 130
13C2 PFDA	109		70 - 130
13C3-GenX	106		70 - 130

QC Association Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-178586-1
SDG: PFAS: Ka'amilo Wells P1/P2

LCMS

Prep Batch: 182001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-178586-1	Ka'amilo Wells P1	Total/NA	Water	537.1 DW	
380-178586-2	Ka'amilo Wells P2	Total/NA	Water	537.1 DW	
380-178586-3	FB: Ka'amilo Wells P1	Total/NA	Water	537.1 DW	
380-178586-4	FB: Ka'amilo Wells P2	Total/NA	Water	537.1 DW	
MBL 380-182001/21-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-182001/20-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-182001/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-178738-B-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-178738-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 182183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-178586-1	Ka'amilo Wells P1	Total/NA	Water	537.1	182001
380-178586-2	Ka'amilo Wells P2	Total/NA	Water	537.1	182001
380-178586-3	FB: Ka'amilo Wells P1	Total/NA	Water	537.1	182001
380-178586-4	FB: Ka'amilo Wells P2	Total/NA	Water	537.1	182001
MBL 380-182001/21-A	Method Blank	Total/NA	Water	537.1	182001
LCS 380-182001/20-A	Lab Control Sample	Total/NA	Water	537.1	182001
MRL 380-182001/22-A	Lab Control Sample	Total/NA	Water	537.1	182001
380-178738-B-1-A MS	Matrix Spike	Total/NA	Water	537.1	182001
380-178738-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1	182001

Prep Batch: 182187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-178586-1	Ka'amilo Wells P1	Total/NA	Water	533	
380-178586-2	Ka'amilo Wells P2	Total/NA	Water	533	
380-178586-3	FB: Ka'amilo Wells P1	Total/NA	Water	533	
380-178586-4	FB: Ka'amilo Wells P2	Total/NA	Water	533	
MBL 380-182187/20-A	Method Blank	Total/NA	Water	533	
LCS 380-182187/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-182187/21-A	Lab Control Sample	Total/NA	Water	533	
380-178755-B-1-A MS	Matrix Spike	Total/NA	Water	533	
380-178755-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 182288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-178586-1	Ka'amilo Wells P1	Total/NA	Water	533	182187
380-178586-2	Ka'amilo Wells P2	Total/NA	Water	533	182187
380-178586-3	FB: Ka'amilo Wells P1	Total/NA	Water	533	182187
380-178586-4	FB: Ka'amilo Wells P2	Total/NA	Water	533	182187
MBL 380-182187/20-A	Method Blank	Total/NA	Water	533	182187
LCS 380-182187/22-A	Lab Control Sample	Total/NA	Water	533	182187
MRL 380-182187/21-A	Lab Control Sample	Total/NA	Water	533	182187
380-178755-B-1-A MS	Matrix Spike	Total/NA	Water	533	182187
380-178755-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	182187

Lab Chronicle

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-178586-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: Ka'amilo Wells P1
Date Collected: 10/20/25 12:03
Date Received: 10/22/25 10:08

Lab Sample ID: 380-178586-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			182187	N8NE	EA POM	10/24/25 18:03
Total/NA	Analysis	533		1	182288	M7ML	EA POM	10/26/25 03:36
Total/NA	Prep	537.1 DW			182001	U7RS	EA POM	10/24/25 09:14
Total/NA	Analysis	537.1		1	182183	Y5FM	EA POM	10/24/25 21:58

Client Sample ID: Ka'amilo Wells P2
Date Collected: 10/20/25 12:46
Date Received: 10/22/25 10:08

Lab Sample ID: 380-178586-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			182187	N8NE	EA POM	10/24/25 18:03
Total/NA	Analysis	533		1	182288	M7ML	EA POM	10/26/25 03:58
Total/NA	Prep	537.1 DW			182001	U7RS	EA POM	10/24/25 09:14
Total/NA	Analysis	537.1		1	182183	Y5FM	EA POM	10/24/25 22:07

Client Sample ID: FB: Ka'amilo Wells P1
Date Collected: 10/20/25 12:03
Date Received: 10/22/25 10:08

Lab Sample ID: 380-178586-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			182187	N8NE	EA POM	10/24/25 18:03
Total/NA	Analysis	533		1	182288	M7ML	EA POM	10/26/25 04:08
Total/NA	Prep	537.1 DW			182001	U7RS	EA POM	10/24/25 09:14
Total/NA	Analysis	537.1		1	182183	Y5FM	EA POM	10/24/25 22:28

Client Sample ID: FB: Ka'amilo Wells P2
Date Collected: 10/20/25 12:46
Date Received: 10/22/25 10:08

Lab Sample ID: 380-178586-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			182187	N8NE	EA POM	10/24/25 18:03
Total/NA	Analysis	533		1	182288	M7ML	EA POM	10/26/25 04:19
Total/NA	Prep	537.1 DW			182001	U7RS	EA POM	10/24/25 09:14
Total/NA	Analysis	537.1		1	182183	Y5FM	EA POM	10/24/25 22:39

Laboratory References:

EA POM = Eurofins Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100

Accreditation/Certification Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-178586-1
SDG: PFAS: Ka'amilo Wells P1/P2

Laboratory: Eurofins Eaton Analytical Pomona

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

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-31-26

Method Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-178586-1
SDG: PFAS: Ka'amilo Wells P1/P2

Method	Method Description	Protocol	Laboratory
533	Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water	EPA	EA POM
537.1	Perfluorinated Alkyl Acids (LC/MS)	EPA	EA POM
533	Extraction of Perfluorinated and Polyfluorinated Alkyl Acids	EPA	EA POM
537.1 DW	Extraction of Perfluorinated Alkyl Acids	EPA	EA POM

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EA POM = Eurofins Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100

Sample Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-178586-1
SDG: PFAS: Ka'amilo Wells P1/P2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-178586-1	Ka'amilo Wells P1	Water	10/20/25 12:03	10/22/25 10:08	Hawaii
380-178586-2	Ka'amilo Wells P2	Water	10/20/25 12:46	10/22/25 10:08	Hawaii
380-178586-3	FB: Ka'amilo Wells P1	Water	10/20/25 12:03	10/22/25 10:08	Hawaii
380-178586-4	FB: Ka'amilo Wells P2	Water	10/20/25 12:46	10/22/25 10:08	Hawaii

Monrovia, CA (Suite 100)
750 Royal Oaks Drive Suite 100
Monrovia CA 91016
Phone (626) 386-1100

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: bailey	Lab PM: Arada Rachelle	Carrier Tracking No(s):	COC No: 380-27941-2757 2
Client Contact: kirk Iwamoto	Phone: +1 808 748 5840	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: City & County of Honolulu	PWSID:			Job #:
Address: 630 South Beretania Street; Chemistry Lab	Due Date Requested:			
City: Honolulu	TAT Requested (days): RUSH			
State, Zip: HI 96843	Compliance Project: Δ No			
Phone: 808-748-5840 (tel)	PO #: C20525101 exp 05312023			
Email: kiwamoto@hbws.org	WO #:			
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill	Project #: 38001111			
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, Y Trizma, Z other (specify), Other:

Sample Identification	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)	SUBCONTRACT 625 PAH Physis LL (EAL) + TICs	8015B_GRO_LL (MOD) GRO	8015B_DRO_LL_CS HNL Ranges C10-C24/C24-C36/C8 C18	525.2_PREC (MOD) 525plus PLUS TICs	537 1_DW_PREC 537 1 Full List	533 - All Analytes	Total Number of containers	Special Instructions/Note.
			Preservation Code:		X	X	R	A	Q	QA	Y	I	X	
Ka'amilo Wells P1	20-Oct-2025	1203	G	Water							3	3		
Ka'amilo Wells P2	20-Oct-2025	1246	G	Water							3	3		
FB: Ka'amilo Wells P1	20-Oct-2025	1203		Water							1	1		
FB: Ka'amilo Wells P2	20-Oct-2025	1246		Water							1	1		

380 178586 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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)

Special Instructions/QC Requirements. 3809/3819/3820

Empty Kit Relinquished by | Date | Time | Method of Shipment: 853 6+16377 2/3783/3784

	Date/Time:	Company	Received by:	Date/Time:	Company
[redacted]	21 October 202	HBWS		4401 10/22/25 1008	EAP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks: 6.8A / 3.3 1.9 2.2 1.5 5.3 5.7 / 3.3 1.9 2.2 >1.5 5.3 5.7 GR2

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-178586-1
SDG Number: PFAS: Ka'amilo Wells P1/P2

Login Number: 178586
List Number: 1
Creator: Ngo, Theodore

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is 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	
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	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	