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ANALYTICAL REPORT

PREPARED FOR

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City & County of Honolulu
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Generated 11/24/2025 9:40:18 AM

JOB DESCRIPTION

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

JOB NUMBER

380-183573-1

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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Definitions/Glossary

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

Qualifiers

LCMS

Qualifier	Qualifier Description
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

Case Narrative

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

Job ID: 380-183573-1

Job ID: 380-183573-1

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Job Narrative 380-183573-1

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 11/19/2025 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 time was 2.7°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: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: Ka'amilo Wells P1

Lab Sample ID: 380-183573-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	3.0		2.0	ng/L	1		533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.2		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	3.5		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.5		2.0	ng/L	1		533	Total/NA
Perfluorooctanoic acid (PFOA)	3.8		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	3.5		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)	3.7		2.0	ng/L	1		537.1	Total/NA
Perfluorooctanoic acid (PFOA)	4.3		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)	3.3		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: Ka'amilo Wells P2

Lab Sample ID: 380-183573-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	2.6		2.0	ng/L	1		533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.2		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	3.5		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.1		2.0	ng/L	1		533	Total/NA
Perfluorooctanoic acid (PFOA)	3.7		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	3.6		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.6		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanoic acid (PFHxA)	3.7		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)	3.6		2.0	ng/L	1		537.1	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.0		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: FB: Ka'amilo Wells P1

Lab Sample ID: 380-183573-3

No Detections.

Client Sample ID: FB: Ka'amilo Wells P2

Lab Sample ID: 380-183573-4

No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: Ka'amilo Wells P1

Lab Sample ID: 380-183573-1

Date Collected: 11/17/25 11:56

Matrix: Water

Date Received: 11/19/25 09:50

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Perfluorobutanesulfonic acid (PFBS)	3.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Perfluorohexanesulfonic acid (PFHxS)	3.2		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Perfluorohexanoic acid (PFHxA)	3.5		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Perfluorooctanesulfonic acid (PFOS)	4.5		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Perfluorooctanoic acid (PFOA)	3.8		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Perfluoropentanoic acid (PFPeA)	3.5		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:37	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	96		50 - 200	11/21/25 05:57	11/21/25 17:37	1
13C6 PFDA	105		50 - 200	11/21/25 05:57	11/21/25 17:37	1
13C5 PFHxA	107		50 - 200	11/21/25 05:57	11/21/25 17:37	1
13C4 PFHpA	105		50 - 200	11/21/25 05:57	11/21/25 17:37	1
13C8 PFOA	108		50 - 200	11/21/25 05:57	11/21/25 17:37	1
13C9 PFNA	109		50 - 200	11/21/25 05:57	11/21/25 17:37	1
13C7 PFUnA	110		50 - 200	11/21/25 05:57	11/21/25 17:37	1
13C2 PFDoA	107		50 - 200	11/21/25 05:57	11/21/25 17:37	1
13C4 PFBA	103		50 - 200	11/21/25 05:57	11/21/25 17:37	1
13C5 PFPeA	108		50 - 200	11/21/25 05:57	11/21/25 17:37	1
13C3 PFBS	105		50 - 200	11/21/25 05:57	11/21/25 17:37	1

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Client Sample Results

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: Ka'amilo Wells P1

Lab Sample ID: 380-183573-1

Date Collected: 11/17/25 11:56

Matrix: Water

Date Received: 11/19/25 09:50

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	112		50 - 200	11/21/25 05:57	11/21/25 17:37	1
13C8 PFOS	108		50 - 200	11/21/25 05:57	11/21/25 17:37	1
13C2-4:2-FTS	115		50 - 200	11/21/25 05:57	11/21/25 17:37	1
13C2-6:2-FTS	108		50 - 200	11/21/25 05:57	11/21/25 17:37	1
13C2-8:2-FTS	108		50 - 200	11/21/25 05:57	11/21/25 17:37	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		11/20/25 10:45	11/21/25 07:36	1
Perfluorooctanesulfonic acid (PFOS)	5.0		2.0	ng/L		11/20/25 10:45	11/21/25 07:36	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 07:36	1
N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 07:36	1
N-ethylperfluorooctanesulfonamide acetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 07:36	1
Perfluorohexanoic acid (PFHxA)	3.7		2.0	ng/L		11/20/25 10:45	11/21/25 07:36	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 07:36	1
Perfluorooctanoic acid (PFOA)	4.3		2.0	ng/L		11/20/25 10:45	11/21/25 07:36	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 07:36	1
Perfluorohexanesulfonic acid (PFHxS)	3.6		2.0	ng/L		11/20/25 10:45	11/21/25 07:36	1
Perfluorobutanesulfonic acid (PFBS)	3.3		2.0	ng/L		11/20/25 10:45	11/21/25 07:36	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 07:36	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 07:36	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 07:36	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 07:36	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 07:36	1
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 07:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 07:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	105		70 - 130	11/20/25 10:45	11/21/25 07:36	1
13C2 PFHxA	107		70 - 130	11/20/25 10:45	11/21/25 07:36	1
13C2 PFDA	113		70 - 130	11/20/25 10:45	11/21/25 07:36	1
13C3-GenX	113		70 - 130	11/20/25 10:45	11/21/25 07:36	1

Client Sample ID: Ka'amilo Wells P2

Lab Sample ID: 380-183573-2

Date Collected: 11/17/25 12:28

Matrix: Water

Date Received: 11/19/25 09:50

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1

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Client Sample Results

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: Ka'amilo Wells P2

Lab Sample ID: 380-183573-2

Date Collected: 11/17/25 12:28

Matrix: Water

Date Received: 11/19/25 09:50

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Perfluorobutanesulfonic acid (PFBS)	2.6		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Perfluorohexanesulfonic acid (PFHxS)	3.2		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Perfluorohexanoic acid (PFHxA)	3.5		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Perfluorooctanesulfonic acid (PFOS)	4.1		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Perfluorooctanoic acid (PFOA)	3.7		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Perfluoropentanoic acid (PFPeA)	3.6		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:00	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	80		50 - 200	11/21/25 05:57	11/21/25 21:00	1
13C6 PFDA	76		50 - 200	11/21/25 05:57	11/21/25 21:00	1
13C5 PFHxA	93		50 - 200	11/21/25 05:57	11/21/25 21:00	1
13C4 PFHpA	92		50 - 200	11/21/25 05:57	11/21/25 21:00	1
13C8 PFOA	87		50 - 200	11/21/25 05:57	11/21/25 21:00	1
13C9 PFNA	84		50 - 200	11/21/25 05:57	11/21/25 21:00	1
13C7 PFUnA	76		50 - 200	11/21/25 05:57	11/21/25 21:00	1
13C2 PFDoA	80		50 - 200	11/21/25 05:57	11/21/25 21:00	1
13C4 PFBA	98		50 - 200	11/21/25 05:57	11/21/25 21:00	1
13C5 PFPeA	96		50 - 200	11/21/25 05:57	11/21/25 21:00	1
13C3 PFBS	115		50 - 200	11/21/25 05:57	11/21/25 21:00	1
13C3 PFHxS	123		50 - 200	11/21/25 05:57	11/21/25 21:00	1
13C8 PFOS	119		50 - 200	11/21/25 05:57	11/21/25 21:00	1
13C2-4:2-FTS	134		50 - 200	11/21/25 05:57	11/21/25 21:00	1
13C2-6:2-FTS	120		50 - 200	11/21/25 05:57	11/21/25 21:00	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: Ka'amilo Wells P2

Lab Sample ID: 380-183573-2

Date Collected: 11/17/25 12:28

Matrix: Water

Date Received: 11/19/25 09:50

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	122		50 - 200	11/21/25 05:57	11/21/25 21:00	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		11/20/25 10:45	11/21/25 09:10	1
Perfluorooctanesulfonic acid (PFOS)	4.6		2.0	ng/L		11/20/25 10:45	11/21/25 09:10	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:10	1
N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:10	1
N-ethylperfluorooctanesulfonamide acetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:10	1
Perfluorohexanoic acid (PFHxA)	3.7		2.0	ng/L		11/20/25 10:45	11/21/25 09:10	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:10	1
Perfluorooctanoic acid (PFOA)	4.2		2.0	ng/L		11/20/25 10:45	11/21/25 09:10	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:10	1
Perfluorohexanesulfonic acid (PFHxS)	3.6		2.0	ng/L		11/20/25 10:45	11/21/25 09:10	1
Perfluorobutanesulfonic acid (PFBS)	3.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:10	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:10	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:10	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:10	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:10	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:10	1
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:10	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	104		70 - 130			11/20/25 10:45	11/21/25 09:10	1
13C2 PFHxA	111		70 - 130			11/20/25 10:45	11/21/25 09:10	1
13C2 PFDA	115		70 - 130			11/20/25 10:45	11/21/25 09:10	1
13C3-GenX	113		70 - 130			11/20/25 10:45	11/21/25 09:10	1

Client Sample ID: FB: Ka'amilo Wells P1

Lab Sample ID: 380-183573-3

Date Collected: 11/17/25 11:56

Matrix: Water

Date Received: 11/19/25 09:50

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: FB: Ka'amilo Wells P1

Lab Sample ID: 380-183573-3

Date Collected: 11/17/25 11:56

Matrix: Water

Date Received: 11/19/25 09:50

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:11	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	84		50 - 200	11/21/25 05:57	11/21/25 21:11	1
13C6 PFDA	107		50 - 200	11/21/25 05:57	11/21/25 21:11	1
13C5 PFHxA	112		50 - 200	11/21/25 05:57	11/21/25 21:11	1
13C4 PFHpA	116		50 - 200	11/21/25 05:57	11/21/25 21:11	1
13C8 PFOA	113		50 - 200	11/21/25 05:57	11/21/25 21:11	1
13C9 PFNA	114		50 - 200	11/21/25 05:57	11/21/25 21:11	1
13C7 PFUnA	109		50 - 200	11/21/25 05:57	11/21/25 21:11	1
13C2 PFDoA	109		50 - 200	11/21/25 05:57	11/21/25 21:11	1
13C4 PFBA	108		50 - 200	11/21/25 05:57	11/21/25 21:11	1
13C5 PFPeA	114		50 - 200	11/21/25 05:57	11/21/25 21:11	1
13C3 PFBS	117		50 - 200	11/21/25 05:57	11/21/25 21:11	1
13C3 PFHxS	115		50 - 200	11/21/25 05:57	11/21/25 21:11	1
13C8 PFOS	110		50 - 200	11/21/25 05:57	11/21/25 21:11	1
13C2-4:2-FTS	135		50 - 200	11/21/25 05:57	11/21/25 21:11	1
13C2-6:2-FTS	112		50 - 200	11/21/25 05:57	11/21/25 21:11	1
13C2-8:2-FTS	110		50 - 200	11/21/25 05:57	11/21/25 21:11	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		11/20/25 10:45	11/21/25 09:19	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:19	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:19	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: FB: Ka'amilo Wells P1

Lab Sample ID: 380-183573-3

Date Collected: 11/17/25 11:56

Matrix: Water

Date Received: 11/19/25 09:50

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:19	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:19	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:19	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:19	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:19	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:19	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:19	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:19	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:19	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:19	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:19	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:19	1
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:19	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	96		70 - 130			11/20/25 10:45	11/21/25 09:19	1
13C2 PFHxA	104		70 - 130			11/20/25 10:45	11/21/25 09:19	1
13C2 PFDA	109		70 - 130			11/20/25 10:45	11/21/25 09:19	1
13C3-GenX	101		70 - 130			11/20/25 10:45	11/21/25 09:19	1

Client Sample ID: FB: Ka'amilo Wells P2

Lab Sample ID: 380-183573-4

Date Collected: 11/17/25 12:28

Matrix: Water

Date Received: 11/19/25 09:50

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: FB: Ka'amilo Wells P2

Lab Sample ID: 380-183573-4

Date Collected: 11/17/25 12:28

Matrix: Water

Date Received: 11/19/25 09:50

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-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/21/25 05:57	11/21/25 21:22	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	84		50 - 200	11/21/25 05:57	11/21/25 21:22	1
13C6 PFDA	103		50 - 200	11/21/25 05:57	11/21/25 21:22	1
13C5 PFHxA	104		50 - 200	11/21/25 05:57	11/21/25 21:22	1
13C4 PFHpA	108		50 - 200	11/21/25 05:57	11/21/25 21:22	1
13C8 PFOA	110		50 - 200	11/21/25 05:57	11/21/25 21:22	1
13C9 PFNA	110		50 - 200	11/21/25 05:57	11/21/25 21:22	1
13C7 PFUnA	109		50 - 200	11/21/25 05:57	11/21/25 21:22	1
13C2 PFDoA	106		50 - 200	11/21/25 05:57	11/21/25 21:22	1
13C4 PFBA	107		50 - 200	11/21/25 05:57	11/21/25 21:22	1
13C5 PFPeA	112		50 - 200	11/21/25 05:57	11/21/25 21:22	1
13C3 PFBS	110		50 - 200	11/21/25 05:57	11/21/25 21:22	1
13C3 PFHxS	113		50 - 200	11/21/25 05:57	11/21/25 21:22	1
13C8 PFOS	111		50 - 200	11/21/25 05:57	11/21/25 21:22	1
13C2-4:2-FTS	125		50 - 200	11/21/25 05:57	11/21/25 21:22	1
13C2-6:2-FTS	120		50 - 200	11/21/25 05:57	11/21/25 21:22	1
13C2-8:2-FTS	106		50 - 200	11/21/25 05:57	11/21/25 21:22	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		11/20/25 10:45	11/21/25 09:39	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:39	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:39	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:39	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:39	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:39	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:39	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:39	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:39	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:39	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: FB: Ka'amilo Wells P2

Lab Sample ID: 380-183573-4

Date Collected: 11/17/25 12:28

Matrix: Water

Date Received: 11/19/25 09:50

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:39	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:39	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:39	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:39	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:39	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:39	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:39	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/20/25 10:45	11/21/25 09:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	96		70 - 130	11/20/25 10:45	11/21/25 09:39	1
13C2 PFHxA	107		70 - 130	11/20/25 10:45	11/21/25 09:39	1
13C2 PFDA	114		70 - 130	11/20/25 10:45	11/21/25 09:39	1
13C3-GenX	104		70 - 130	11/20/25 10:45	11/21/25 09:39	1

Action Limit Summary

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: Ka'amilo Wells P1

Lab Sample ID: 380-183573-1

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	RL	Method	Prep Type
				Limit			
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.2		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.5		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	3.8		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)	4.3		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: Ka'amilo Wells P2

Lab Sample ID: 380-183573-2

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	RL	Method	Prep Type
				Limit			
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.2		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.1		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	3.7		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)	4.6		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)	3.6		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: 380-183573-3

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	RL	Method	Prep Type
				Limit			
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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: FB: Ka'amilo Wells P1 (Continued)

Lab Sample ID: 380-183573-3

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	RL	Method	Prep Type
				Limit			
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

Client Sample ID: FB: Ka'amilo Wells P2

Lab Sample ID: 380-183573-4

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	RL	Method	Prep Type
				Limit			
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: 380-183573-1
 SDG: PFAS: Ka'amilo Wells P1/P2

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-183573-1	Ka'amilo Wells P1	105	107	113	113
380-183573-1 LMS	Ka'amilo Wells P1	106	109	114	114
380-183573-1 LMSD	Ka'amilo Wells P1	106	115	113	114
380-183573-2	Ka'amilo Wells P2	104	111	115	113
380-183573-3	FB: Ka'amilo Wells P1	96	104	109	101
380-183573-4	FB: Ka'amilo Wells P2	96	107	114	104
LCS 380-187600/22-A	Lab Control Sample	94	107	104	99
MBL 380-187600/20-A	Method Blank	101	114	118	109
MRL 380-187600/21-A	Lab Control Sample	100	121	115	115

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: 380-183573-1
 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)
380-183573-1	Ka'amilo Wells P1	96	105	107	105	108	109	110	107
380-183573-1 MS	Ka'amilo Wells P1	91	83	94	92	91	85	83	89
380-183573-1 MSD	Ka'amilo Wells P1	91	98	92	93	93	96	101	105
380-183573-2	Ka'amilo Wells P2	80	76	93	92	87	84	76	80
380-183573-3	FB: Ka'amilo Wells P1	84	107	112	116	113	114	109	109
380-183573-4	FB: Ka'amilo Wells P2	84	103	104	108	110	110	109	106
LCS 380-187880/22-A	Lab Control Sample	102	119	118	118	118	118	120	117
MBL 380-187880/20-A	Method Blank	89	103	104	101	105	105	100	97
MRL 380-187880/21-A	Lab Control Sample	94	116	121	119	122	118	115	118

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)
380-183573-1	Ka'amilo Wells P1	103	108	105	112	108	115	108	108
380-183573-1 MS	Ka'amilo Wells P1	100	104	112	113	107	124	114	111
380-183573-1 MSD	Ka'amilo Wells P1	99	102	112	111	108	111	111	105
380-183573-2	Ka'amilo Wells P2	98	96	115	123	119	134	120	122
380-183573-3	FB: Ka'amilo Wells P1	108	114	117	115	110	135	112	110
380-183573-4	FB: Ka'amilo Wells P2	107	112	110	113	111	125	120	106
LCS 380-187880/22-A	Lab Control Sample	121	128	116	117	118	125	118	111
MBL 380-187880/20-A	Method Blank	103	106	109	109	108	118	107	105
MRL 380-187880/21-A	Lab Control Sample	118	115	115	115	113	126	110	111

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

QC Sample Results

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: MBL 380-187880/20-A
Matrix: Water
Analysis Batch: 188036

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 187880

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		11/21/25 05:57	11/21/25 17:05	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	89		50 - 200	11/21/25 05:57	11/21/25 17:05	1
13C6 PFDA	103		50 - 200	11/21/25 05:57	11/21/25 17:05	1
13C5 PFHxA	104		50 - 200	11/21/25 05:57	11/21/25 17:05	1
13C4 PFHpA	101		50 - 200	11/21/25 05:57	11/21/25 17:05	1
13C8 PFOA	105		50 - 200	11/21/25 05:57	11/21/25 17:05	1
13C9 PFNA	105		50 - 200	11/21/25 05:57	11/21/25 17:05	1
13C7 PFUnA	100		50 - 200	11/21/25 05:57	11/21/25 17:05	1
13C2 PFDoA	97		50 - 200	11/21/25 05:57	11/21/25 17:05	1
13C4 PFBA	103		50 - 200	11/21/25 05:57	11/21/25 17:05	1
13C5 PFPeA	106		50 - 200	11/21/25 05:57	11/21/25 17:05	1
13C3 PFBS	109		50 - 200	11/21/25 05:57	11/21/25 17:05	1
13C3 PFHxS	109		50 - 200	11/21/25 05:57	11/21/25 17:05	1

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QC Sample Results

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: MBL 380-187880/20-A
Matrix: Water
Analysis Batch: 188036

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 187880

<i>Isotope Dilution</i>	<i>MBL %Recovery</i>	<i>MBL Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C8 PFOS	108		50 - 200	11/21/25 05:57	11/21/25 17:05	1
13C2-4:2-FTS	118		50 - 200	11/21/25 05:57	11/21/25 17:05	1
13C2-6:2-FTS	107		50 - 200	11/21/25 05:57	11/21/25 17:05	1
13C2-8:2-FTS	105		50 - 200	11/21/25 05:57	11/21/25 17:05	1

Lab Sample ID: LCS 380-187880/22-A
Matrix: Water
Analysis Batch: 188036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 187880

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	120	117		ng/L		97	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	120	118		ng/L		98	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	120	112		ng/L		93	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	120	114		ng/L		95	70 - 130
Perfluorobutanesulfonic acid (PFBS)	120	115		ng/L		95	70 - 130
Perfluorodecanoic acid (PFDA)	120	111		ng/L		92	70 - 130
Perfluorododecanoic acid (PFDoA)	120	111		ng/L		92	70 - 130
Perfluoroheptanoic acid (PFHpA)	120	115		ng/L		96	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	120	112		ng/L		93	70 - 130
Perfluorohexanoic acid (PFHxA)	120	109		ng/L		90	70 - 130
Perfluorononanoic acid (PFNA)	120	108		ng/L		89	70 - 130
Perfluorooctanesulfonic acid (PFOS)	120	114		ng/L		94	70 - 130
Perfluorooctanoic acid (PFOA)	120	113		ng/L		94	70 - 130
Perfluoroundecanoic acid (PFUnA)	120	112		ng/L		93	70 - 130
Perfluorobutanoic acid (PFBA)	120	117		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	120	122		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	120	112		ng/L		93	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	120	111		ng/L		92	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	120	121		ng/L		100	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	120	123		ng/L		102	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	120	113		ng/L		94	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	120	109		ng/L		90	70 - 130
Perfluoropentanoic acid (PFPeA)	120	107		ng/L		89	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	120	118		ng/L		98	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: LCS 380-187880/22-A
Matrix: Water
Analysis Batch: 188036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 187880

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	120	113		ng/L		94	70 - 130
LCS LCS							
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	102		50 - 200				
13C6 PFDA	119		50 - 200				
13C5 PFHxA	118		50 - 200				
13C4 PFHpA	118		50 - 200				
13C8 PFOA	118		50 - 200				
13C9 PFNA	118		50 - 200				
13C7 PFUnA	120		50 - 200				
13C2 PFDoA	117		50 - 200				
13C4 PFBA	121		50 - 200				
13C5 PFPeA	128		50 - 200				
13C3 PFBS	116		50 - 200				
13C3 PFHxS	117		50 - 200				
13C8 PFOS	118		50 - 200				
13C2-4:2-FTS	125		50 - 200				
13C2-6:2-FTS	118		50 - 200				
13C2-8:2-FTS	111		50 - 200				

Lab Sample ID: MRL 380-187880/21-A
Matrix: Water
Analysis Batch: 188036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 187880

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.82	J	ng/L		91	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	1.89	J	ng/L		94	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.89	J	ng/L		94	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	1.94	J	ng/L		97	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	1.73	J	ng/L		86	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.03	J	ng/L		101	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.07	J	ng/L		103	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	1.96	J	ng/L		98	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	1.91	J	ng/L		95	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	1.87	J	ng/L		93	50 - 150
Perfluorononanoic acid (PFNA)	2.01	1.96	J	ng/L		98	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	1.96	J	ng/L		98	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	1.95	J	ng/L		97	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.05	J	ng/L		102	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	1.97	J	ng/L		98	50 - 150

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QC Sample Results

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: MRL 380-187880/21-A
Matrix: Water
Analysis Batch: 188036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 187880

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.15	J	ng/L		107	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	1.97	J	ng/L		98	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.51	J	ng/L		125	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	2.00	J	ng/L		100	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	2.00	J	ng/L		100	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	1.83	J	ng/L		91	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	2.00	J	ng/L		100	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	1.95	J	ng/L		97	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	2.01	J	ng/L		100	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	1.85	J	ng/L		92	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	94		50 - 200
13C6 PFDA	116		50 - 200
13C5 PFHxA	121		50 - 200
13C4 PFHpA	119		50 - 200
13C8 PFOA	122		50 - 200
13C9 PFNA	118		50 - 200
13C7 PFUnA	115		50 - 200
13C2 PFDoA	118		50 - 200
13C4 PFBA	118		50 - 200
13C5 PFPeA	115		50 - 200
13C3 PFBS	115		50 - 200
13C3 PFHxS	115		50 - 200
13C8 PFOS	113		50 - 200
13C2-4:2-FTS	126		50 - 200
13C2-6:2-FTS	110		50 - 200
13C2-8:2-FTS	111		50 - 200

Lab Sample ID: 380-183573-1 MS
Matrix: Water
Analysis Batch: 188036

Client Sample ID: Ka'amilo Wells P1
Prep Type: Total/NA
Prep Batch: 187880

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		121	120		ng/L		99	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		121	121		ng/L		100	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		121	111		ng/L		92	70 - 130

QC Sample Results

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: 380-183573-1 MS

Matrix: Water

Analysis Batch: 188036

Client Sample ID: Ka'amilo Wells P1

Prep Type: Total/NA

Prep Batch: 187880

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		121	114		ng/L		95	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	3.0		121	118		ng/L		95	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		121	114		ng/L		95	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		121	111		ng/L		92	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		121	123		ng/L		101	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	3.2		121	116		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	3.5		121	109		ng/L		88	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		121	113		ng/L		93	70 - 130
Perfluorooctanesulfonic acid (PFOS)	4.5		121	123		ng/L		99	70 - 130
Perfluorooctanoic acid (PFOA)	3.8		121	110		ng/L		88	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		121	113		ng/L		94	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		121	122		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		121	120		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		121	115		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		121	114		ng/L		95	70 - 130
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		121	118		ng/L		97	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		121	117		ng/L		97	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		121	112		ng/L		93	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		121	110		ng/L		91	70 - 130
Perfluoropentanoic acid (PFPeA)	3.5		121	112		ng/L		90	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		121	124		ng/L		103	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		121	111		ng/L		91	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	91		50 - 200
13C6 PFDA	83		50 - 200
13C5 PFHxA	94		50 - 200
13C4 PFHpA	92		50 - 200
13C8 PFOA	91		50 - 200
13C9 PFNA	85		50 - 200
13C7 PFUnA	83		50 - 200
13C2 PFDoA	89		50 - 200
13C4 PFBA	100		50 - 200
13C5 PFPeA	104		50 - 200
13C3 PFBS	112		50 - 200
13C3 PFHxS	113		50 - 200
13C8 PFOS	107		50 - 200

QC Sample Results

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: 380-183573-1 MS
Matrix: Water
Analysis Batch: 188036

Client Sample ID: Ka'amilo Wells P1
Prep Type: Total/NA
Prep Batch: 187880

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C2-4:2-FTS	124		50 - 200
13C2-6:2-FTS	114		50 - 200
13C2-8:2-FTS	111		50 - 200

Lab Sample ID: 380-183573-1 MSD
Matrix: Water
Analysis Batch: 188036

Client Sample ID: Ka'amilo Wells P1
Prep Type: Total/NA
Prep Batch: 187880

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		121	115		ng/L		95	70 - 130	4	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		121	120		ng/L		99	70 - 130	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		121	111		ng/L		92	70 - 130	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		121	112		ng/L		92	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	3.0		121	116		ng/L		93	70 - 130	2	30
Perfluorodecanoic acid (PFDA)	<2.0		121	115		ng/L		95	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<2.0		121	116		ng/L		96	70 - 130	4	30
Perfluoroheptanoic acid (PFHpA)	<2.0		121	115		ng/L		94	70 - 130	7	30
Perfluorohexanesulfonic acid (PFHxS)	3.2		121	114		ng/L		92	70 - 130	2	30
Perfluorohexanoic acid (PFHxA)	3.5		121	114		ng/L		91	70 - 130	4	30
Perfluorononanoic acid (PFNA)	<2.0		121	110		ng/L		91	70 - 130	3	30
Perfluorooctanesulfonic acid (PFOS)	4.5		121	120		ng/L		95	70 - 130	3	30
Perfluorooctanoic acid (PFOA)	3.8		121	118		ng/L		94	70 - 130	7	30
Perfluoroundecanoic acid (PFUnA)	<2.0		121	117		ng/L		96	70 - 130	3	30
Perfluorobutanoic acid (PFBA)	<2.0		121	115		ng/L		94	70 - 130	6	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		121	122		ng/L		101	70 - 130	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		121	125		ng/L		103	70 - 130	8	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		121	123		ng/L		101	70 - 130	7	30
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		121	124		ng/L		102	70 - 130	5	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		121	117		ng/L		97	70 - 130	0	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		121	109		ng/L		90	70 - 130	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		121	110		ng/L		91	70 - 130	0	30
Perfluoropentanoic acid (PFPeA)	3.5		121	112		ng/L		90	70 - 130	1	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		121	121		ng/L		100	70 - 130	2	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		121	114		ng/L		93	70 - 130	2	30

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QC Sample Results

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	91		50 - 200
13C6 PFDA	98		50 - 200
13C5 PFHxA	92		50 - 200
13C4 PFHpA	93		50 - 200
13C8 PFOA	93		50 - 200
13C9 PFNA	96		50 - 200
13C7 PFUnA	101		50 - 200
13C2 PFDoA	105		50 - 200
13C4 PFBA	99		50 - 200
13C5 PFPeA	102		50 - 200
13C3 PFBS	112		50 - 200
13C3 PFHxS	111		50 - 200
13C8 PFOS	108		50 - 200
13C2-4:2-FTS	111		50 - 200
13C2-6:2-FTS	111		50 - 200
13C2-8:2-FTS	105		50 - 200

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

Lab Sample ID: MBL 380-187600/20-A
Matrix: Water
Analysis Batch: 187883

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 187600

Analyte	MBL MBL		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		11/20/25 10:45	11/21/25 07:06	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		11/20/25 10:45	11/21/25 07:06	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		11/20/25 10:45	11/21/25 07:06	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		11/20/25 10:45	11/21/25 07:06	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		11/20/25 10:45	11/21/25 07:06	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		11/20/25 10:45	11/21/25 07:06	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		11/20/25 10:45	11/21/25 07:06	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		11/20/25 10:45	11/21/25 07:06	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		11/20/25 10:45	11/21/25 07:06	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		11/20/25 10:45	11/21/25 07:06	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		11/20/25 10:45	11/21/25 07:06	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		11/20/25 10:45	11/21/25 07:06	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		11/20/25 10:45	11/21/25 07:06	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		11/20/25 10:45	11/21/25 07:06	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		11/20/25 10:45	11/21/25 07:06	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		11/20/25 10:45	11/21/25 07:06	1
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		11/20/25 10:45	11/21/25 07:06	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		11/20/25 10:45	11/21/25 07:06	1

Surrogate	MBL MBL		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
d5-NEtFOSAA	101		70 - 130	11/20/25 10:45	11/21/25 07:06	1
13C2 PFHxA	114		70 - 130	11/20/25 10:45	11/21/25 07:06	1
13C2 PFDA	118		70 - 130	11/20/25 10:45	11/21/25 07:06	1

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QC Sample Results

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: MBL 380-187600/20-A
Matrix: Water
Analysis Batch: 187883

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 187600

<i>Surrogate</i>	<i>MBL</i>	<i>MBL</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3-GenX	109	Qualifier	70 - 130	11/20/25 10:45	11/21/25 07:06	1

Lab Sample ID: LCS 380-187600/22-A
Matrix: Water
Analysis Batch: 187883

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 187600

<i>Analyte</i>	<i>Spike</i>	<i>LCS</i>	<i>LCS</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i>	<i>Limits</i>
	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>				<i>Limits</i>	
Hexafluoropropylene Oxide	25.1	24.4		ng/L		97	70 - 130	
Dimer Acid (HFPO-DA/GenX)								
Perfluorooctanesulfonic acid (PFOS)	25.1	25.4		ng/L		101	70 - 130	
Perfluoroundecanoic acid (PFUnA)	25.1	27.5		ng/L		110	70 - 130	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.1	22.3		ng/L		89	70 - 130	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.1	22.2		ng/L		88	70 - 130	
Perfluorohexanoic acid (PFHxA)	25.1	22.2		ng/L		89	70 - 130	
Perfluorododecanoic acid (PFDoA)	25.1	26.1		ng/L		104	70 - 130	
Perfluorooctanoic acid (PFOA)	25.1	24.9		ng/L		99	70 - 130	
Perfluorodecanoic acid (PFDA)	25.1	25.3		ng/L		101	70 - 130	
Perfluorohexanesulfonic acid (PFHxS)	25.1	23.9		ng/L		95	70 - 130	
Perfluorobutanesulfonic acid (PFBS)	25.1	26.1		ng/L		104	70 - 130	
Perfluoroheptanoic acid (PFHpA)	25.1	25.7		ng/L		103	70 - 130	
Perfluorononanoic acid (PFNA)	25.1	26.7		ng/L		106	70 - 130	
Perfluorotetradecanoic acid (PFTA)	25.1	28.6		ng/L		114	70 - 130	
Perfluorotridecanoic acid (PFTrDA)	25.1	27.6		ng/L		110	70 - 130	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	25.1	22.9		ng/L		91	70 - 130	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	25.1	22.2		ng/L		88	70 - 130	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.1	23.6		ng/L		94	70 - 130	

<i>Surrogate</i>	<i>LCS</i>	<i>LCS</i>	<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
d5-NEtFOSAA	94		70 - 130
13C2 PFHxA	107		70 - 130
13C2 PFDA	104		70 - 130
13C3-GenX	99		70 - 130

QC Sample Results

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: MRL 380-187600/21-A
Matrix: Water
Analysis Batch: 187883

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 187600

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.28	J	ng/L		114	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.33	J	ng/L		116	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.56	J	ng/L		127	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	2.11	J	ng/L		105	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	2.21	J	ng/L		110	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.31	J	ng/L		115	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.47	J	ng/L		123	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.38	J	ng/L		118	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.35	J	ng/L		117	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.10	J	ng/L		105	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.16	J	ng/L		107	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.46	J	ng/L		122	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.47	J	ng/L		123	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	2.71	J	ng/L		135	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.01	2.54	J	ng/L		126	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	2.01	1.93	J	ng/L		96	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.75	J	ng/L		87	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.45	J	ng/L		122	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	MRL Limits
d5-NEtFOSAA	100		70 - 130
13C2 PFHxA	121		70 - 130
13C2 PFDA	115		70 - 130
13C3-GenX	115		70 - 130

Lab Sample ID: 380-183573-1 LMS
Matrix: Water
Analysis Batch: 187883

Client Sample ID: Ka'amilo Wells P1
Prep Type: Total/NA
Prep Batch: 187600

Analyte	Sample Result	Sample Qualifier	Spike Added	LMS Result	LMS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.01	2.35		ng/L		117	50 - 150
Perfluorooctanesulfonic acid (PFOS)	5.0		2.01	7.38		ng/L		118	50 - 150
Perfluoroundecanoic acid (PFUnA)	<2.0		2.01	2.52		ng/L		125	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.01	2.18		ng/L		108	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-183573-1
 SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: 380-183573-1 LMSD
Matrix: Water
Analysis Batch: 187883

Client Sample ID: Ka'amilo Wells P1
Prep Type: Total/NA
Prep Batch: 187600

Analyte	Sample Result	Sample Qualifier	Spike Added	LMSD Result	LMSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanesulfonic acid (PFHxS)	3.6		2.01	5.71		ng/L		106	50 - 150	1	50
Perfluorobutanesulfonic acid (PFBS)	3.3		2.01	5.45		ng/L		107	50 - 150	1	50
Perfluoroheptanoic acid (PFHpA)	<2.0		2.01	4.25		ng/L		117	50 - 150	1	50
Perfluorononanoic acid (PFNA)	<2.0		2.01	2.69		ng/L		134	50 - 150	1	50
Perfluorotetradecanoic acid (PFTA)	<2.0		2.01	2.51		ng/L		125	50 - 150	7	50
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.01	2.51		ng/L		125	50 - 150	1	50
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.01	2.01		ng/L		100	50 - 150	3	50
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.01	1.90	J	ng/L		95	50 - 150	1	50
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.01	2.38		ng/L		118	50 - 150	0	50
		LMSD	LMSD								
Surrogate	%Recovery	Qualifier	Limits								
d5-NEtFOSAA	106		70 - 130								
13C2 PFHxA	115		70 - 130								
13C2 PFDA	113		70 - 130								
13C3-GenX	114		70 - 130								

QC Association Summary

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

LCMS

Prep Batch: 187600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-183573-1	Ka'amilo Wells P1	Total/NA	Water	537.1 DW	
380-183573-2	Ka'amilo Wells P2	Total/NA	Water	537.1 DW	
380-183573-3	FB: Ka'amilo Wells P1	Total/NA	Water	537.1 DW	
380-183573-4	FB: Ka'amilo Wells P2	Total/NA	Water	537.1 DW	
MBL 380-187600/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-187600/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-187600/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-183573-1 LMS	Ka'amilo Wells P1	Total/NA	Water	537.1 DW	
380-183573-1 LMSD	Ka'amilo Wells P1	Total/NA	Water	537.1 DW	

Prep Batch: 187880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-183573-1	Ka'amilo Wells P1	Total/NA	Water	533	
380-183573-2	Ka'amilo Wells P2	Total/NA	Water	533	
380-183573-3	FB: Ka'amilo Wells P1	Total/NA	Water	533	
380-183573-4	FB: Ka'amilo Wells P2	Total/NA	Water	533	
MBL 380-187880/20-A	Method Blank	Total/NA	Water	533	
LCS 380-187880/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-187880/21-A	Lab Control Sample	Total/NA	Water	533	
380-183573-1 MS	Ka'amilo Wells P1	Total/NA	Water	533	
380-183573-1 MSD	Ka'amilo Wells P1	Total/NA	Water	533	

Analysis Batch: 187883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-183573-1	Ka'amilo Wells P1	Total/NA	Water	537.1	187600
380-183573-2	Ka'amilo Wells P2	Total/NA	Water	537.1	187600
380-183573-3	FB: Ka'amilo Wells P1	Total/NA	Water	537.1	187600
380-183573-4	FB: Ka'amilo Wells P2	Total/NA	Water	537.1	187600
MBL 380-187600/20-A	Method Blank	Total/NA	Water	537.1	187600
LCS 380-187600/22-A	Lab Control Sample	Total/NA	Water	537.1	187600
MRL 380-187600/21-A	Lab Control Sample	Total/NA	Water	537.1	187600
380-183573-1 LMS	Ka'amilo Wells P1	Total/NA	Water	537.1	187600
380-183573-1 LMSD	Ka'amilo Wells P1	Total/NA	Water	537.1	187600

Analysis Batch: 188036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-183573-1	Ka'amilo Wells P1	Total/NA	Water	533	187880
380-183573-2	Ka'amilo Wells P2	Total/NA	Water	533	187880
380-183573-3	FB: Ka'amilo Wells P1	Total/NA	Water	533	187880
380-183573-4	FB: Ka'amilo Wells P2	Total/NA	Water	533	187880
MBL 380-187880/20-A	Method Blank	Total/NA	Water	533	187880
LCS 380-187880/22-A	Lab Control Sample	Total/NA	Water	533	187880
MRL 380-187880/21-A	Lab Control Sample	Total/NA	Water	533	187880
380-183573-1 MS	Ka'amilo Wells P1	Total/NA	Water	533	187880
380-183573-1 MSD	Ka'amilo Wells P1	Total/NA	Water	533	187880

Lab Chronicle

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

Job ID: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: Ka'amilo Wells P1

Lab Sample ID: 380-183573-1

Date Collected: 11/17/25 11:56

Matrix: Water

Date Received: 11/19/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			187880	XTD8	EA POM	11/21/25 05:57
Total/NA	Analysis	533		1	188036	Y5FM	EA POM	11/21/25 17:37
Total/NA	Prep	537.1 DW			187600	X5FS	EA POM	11/20/25 10:45
Total/NA	Analysis	537.1		1	187883	SZ9R	EA POM	11/21/25 07:36

Client Sample ID: Ka'amilo Wells P2

Lab Sample ID: 380-183573-2

Date Collected: 11/17/25 12:28

Matrix: Water

Date Received: 11/19/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			187880	XTD8	EA POM	11/21/25 05:57
Total/NA	Analysis	533		1	188036	Y5FM	EA POM	11/21/25 21:00
Total/NA	Prep	537.1 DW			187600	X5FS	EA POM	11/20/25 10:45
Total/NA	Analysis	537.1		1	187883	SZ9R	EA POM	11/21/25 09:10

Client Sample ID: FB: Ka'amilo Wells P1

Lab Sample ID: 380-183573-3

Date Collected: 11/17/25 11:56

Matrix: Water

Date Received: 11/19/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			187880	XTD8	EA POM	11/21/25 05:57
Total/NA	Analysis	533		1	188036	Y5FM	EA POM	11/21/25 21:11
Total/NA	Prep	537.1 DW			187600	X5FS	EA POM	11/20/25 10:45
Total/NA	Analysis	537.1		1	187883	SZ9R	EA POM	11/21/25 09:19

Client Sample ID: FB: Ka'amilo Wells P2

Lab Sample ID: 380-183573-4

Date Collected: 11/17/25 12:28

Matrix: Water

Date Received: 11/19/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			187880	XTD8	EA POM	11/21/25 05:57
Total/NA	Analysis	533		1	188036	Y5FM	EA POM	11/21/25 21:22
Total/NA	Prep	537.1 DW			187600	X5FS	EA POM	11/20/25 10:45
Total/NA	Analysis	537.1		1	187883	SZ9R	EA POM	11/21/25 09:39

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: 380-183573-1
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

- 1
- 2
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Method Summary

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

Job ID: 380-183573-1
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: 380-183573-1
SDG: PFAS: Ka'amilo Wells P1/P2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-183573-1	Ka'amilo Wells P1	Water	11/17/25 11:56	11/19/25 09:50	Hawaii
380-183573-2	Ka'amilo Wells P2	Water	11/17/25 12:28	11/19/25 09:50	Hawaii
380-183573-3	FB: Ka'amilo Wells P1	Water	11/17/25 11:56	11/19/25 09:50	Hawaii
380-183573-4	FB: Ka'amilo Wells P2	Water	11/17/25 12:28	11/19/25 09:50	Hawaii

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Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-183573-1
SDG Number: PFAS: Ka'amilo Wells P1/P2

Login Number: 183573
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	
CIO4 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	

