

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Erwin Kawata
City & County of Honolulu
630 South Beretania Street
Public Service Bldg. Room 310
Honolulu, Hawaii 96843

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JOB DESCRIPTION

RED-HILL
PFAS: Ka'amilo Wells P2

JOB NUMBER

380-195068-1

Eurofins 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 Drinking Water and Wastewater West, 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



Authorized for release by
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1100

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Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Action Limit Summary	11
Surrogate Summary	12
Isotope Dilution Summary	13
QC Sample Results	14
QC Association Summary	25
Lab Chronicle	26
Certification Summary	27
Method Summary	28
Sample Summary	29
Chain of Custody	30
Receipt Checklists	31



Definitions/Glossary

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

Qualifiers

LCMS

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
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: 380-195068-1

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Job Narrative 380-195068-1

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 1/29/2026 9:52 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 3.6°C.

PFAS

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

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Detection Summary

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: Ka'amilo Wells P2

Lab Sample ID: 380-195068-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	3.5		2.0	ng/L	1		533	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.2		2.0	ng/L	1		533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.9		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	4.1		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.4		2.0	ng/L	1		533	Total/NA
Perfluorooctanoic acid (PFOA)	3.9		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	4.5		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.2		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanoic acid (PFHxA)	4.7		2.0	ng/L	1		537.1	Total/NA
Perfluorooctanoic acid (PFOA)	4.5		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.1		2.0	ng/L	1		537.1	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.8		2.0	ng/L	1		537.1	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.1		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: FB: Ka'amilo Wells P2

Lab Sample ID: 380-195068-2

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: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: Ka'amilo Wells P2

Lab Sample ID: 380-195068-1

Date Collected: 01/26/26 11:36

Matrix: Water

Date Received: 01/29/26 09:52

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Perfluorobutanesulfonic acid (PFBS)	3.5		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Perfluoroheptanoic acid (PFHpA)	2.2		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Perfluorohexanesulfonic acid (PFHxS)	3.9		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Perfluorohexanoic acid (PFHxA)	4.1		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Perfluorooctanesulfonic acid (PFOS)	4.4		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Perfluorooctanoic acid (PFOA)	3.9		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Perfluoropentanoic acid (PFPeA)	4.5		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:12	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	87		50 - 200	02/02/26 07:41	02/02/26 20:12	1
13C6 PFDA	111		50 - 200	02/02/26 07:41	02/02/26 20:12	1
13C5 PFHxA	106		50 - 200	02/02/26 07:41	02/02/26 20:12	1
13C4 PFHpA	113		50 - 200	02/02/26 07:41	02/02/26 20:12	1
13C8 PFOA	113		50 - 200	02/02/26 07:41	02/02/26 20:12	1
13C9 PFNA	121		50 - 200	02/02/26 07:41	02/02/26 20:12	1
13C7 PFUnA	111		50 - 200	02/02/26 07:41	02/02/26 20:12	1
13C2 PFDoA	108		50 - 200	02/02/26 07:41	02/02/26 20:12	1
13C4 PFBA	103		50 - 200	02/02/26 07:41	02/02/26 20:12	1
13C5 PFPeA	93		50 - 200	02/02/26 07:41	02/02/26 20:12	1
13C3 PFBS	89		50 - 200	02/02/26 07:41	02/02/26 20:12	1

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Client Sample Results

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: Ka'amilo Wells P2

Lab Sample ID: 380-195068-1

Date Collected: 01/26/26 11:36

Matrix: Water

Date Received: 01/29/26 09:52

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	96		50 - 200	02/02/26 07:41	02/02/26 20:12	1
13C8 PFOS	104		50 - 200	02/02/26 07:41	02/02/26 20:12	1
13C2-4:2-FTS	101		50 - 200	02/02/26 07:41	02/02/26 20:12	1
13C2-6:2-FTS	102		50 - 200	02/02/26 07:41	02/02/26 20:12	1
13C2-8:2-FTS	99		50 - 200	02/02/26 07:41	02/02/26 20:12	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		01/30/26 08:07	01/31/26 03:08	1
Perfluorooctanesulfonic acid (PFOS)	5.2		2.0	ng/L		01/30/26 08:07	01/31/26 03:08	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:08	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:08	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:08	1
Perfluorohexanoic acid (PFHxA)	4.7		2.0	ng/L		01/30/26 08:07	01/31/26 03:08	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:08	1
Perfluorooctanoic acid (PFOA)	4.5		2.0	ng/L		01/30/26 08:07	01/31/26 03:08	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:08	1
Perfluorohexanesulfonic acid (PFHxS)	4.1		2.0	ng/L		01/30/26 08:07	01/31/26 03:08	1
Perfluorobutanesulfonic acid (PFBS)	3.8		2.0	ng/L		01/30/26 08:07	01/31/26 03:08	1
Perfluoroheptanoic acid (PFHpA)	2.1		2.0	ng/L		01/30/26 08:07	01/31/26 03:08	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:08	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:08	1
Perfluorotridecanoic acid (PFTDA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:08	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:08	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:08	1
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	115		70 - 130	01/30/26 08:07	01/31/26 03:08	1
13C2 PFHxA	119		70 - 130	01/30/26 08:07	01/31/26 03:08	1
13C2 PFDA	119		70 - 130	01/30/26 08:07	01/31/26 03:08	1
13C3-GenX	111		70 - 130	01/30/26 08:07	01/31/26 03:08	1

Client Sample ID: FB: Ka'amilo Wells P2

Lab Sample ID: 380-195068-2

Date Collected: 01/26/26 11:36

Matrix: Water

Date Received: 01/29/26 09:52

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		02/02/26 07:41	02/02/26 20:22	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1

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Client Sample Results

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: FB: Ka'amilo Wells P2

Lab Sample ID: 380-195068-2

Date Collected: 01/26/26 11:36

Matrix: Water

Date Received: 01/29/26 09:52

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		02/02/26 07:41	02/02/26 20:22	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/02/26 07:41	02/02/26 20:22	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	71		50 - 200	02/02/26 07:41	02/02/26 20:22	1
13C6 PFDA	103		50 - 200	02/02/26 07:41	02/02/26 20:22	1
13C5 PFHxA	97		50 - 200	02/02/26 07:41	02/02/26 20:22	1
13C4 PFHpA	103		50 - 200	02/02/26 07:41	02/02/26 20:22	1
13C8 PFOA	100		50 - 200	02/02/26 07:41	02/02/26 20:22	1
13C9 PFNA	102		50 - 200	02/02/26 07:41	02/02/26 20:22	1
13C7 PFUnA	98		50 - 200	02/02/26 07:41	02/02/26 20:22	1
13C2 PFDoA	96		50 - 200	02/02/26 07:41	02/02/26 20:22	1
13C4 PFBA	90		50 - 200	02/02/26 07:41	02/02/26 20:22	1
13C5 PFPeA	87		50 - 200	02/02/26 07:41	02/02/26 20:22	1
13C3 PFBS	99		50 - 200	02/02/26 07:41	02/02/26 20:22	1
13C3 PFHxS	99		50 - 200	02/02/26 07:41	02/02/26 20:22	1
13C8 PFOS	106		50 - 200	02/02/26 07:41	02/02/26 20:22	1
13C2-4:2-FTS	94		50 - 200	02/02/26 07:41	02/02/26 20:22	1
13C2-6:2-FTS	102		50 - 200	02/02/26 07:41	02/02/26 20:22	1
13C2-8:2-FTS	100		50 - 200	02/02/26 07:41	02/02/26 20:22	1

Eurofins Pomona

Client Sample Results

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: FB: Ka'amilo Wells P2

Lab Sample ID: 380-195068-2

Date Collected: 01/26/26 11:36

Matrix: Water

Date Received: 01/29/26 09:52

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		01/30/26 08:07	01/31/26 03:18	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:18	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:18	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:18	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:18	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:18	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:18	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:18	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:18	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:18	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:18	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:18	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:18	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:18	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:18	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:18	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:18	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/30/26 08:07	01/31/26 03:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	110		70 - 130			01/30/26 08:07	01/31/26 03:18	1
13C2 PFHxA	111		70 - 130			01/30/26 08:07	01/31/26 03:18	1
13C2 PFDA	113		70 - 130			01/30/26 08:07	01/31/26 03:18	1
13C3-GenX	101		70 - 130			01/30/26 08:07	01/31/26 03:18	1

Action Limit Summary

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: Ka'amilo Wells P2

Lab Sample ID: 380-195068-1

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)	3.9		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.4		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)	5.2		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	4.5		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.1		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: 380-195068-2

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)	<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: 380-195068-1
SDG: PFAS: Ka'amilo Wells 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)
380-195029-B-1-A MS	Matrix Spike	116	121	117	112
380-195029-C-1-A MSD	Matrix Spike Duplicate	109	109	113	105
380-195068-1	Ka'amilo Wells P2	115	119	119	111
380-195068-2	FB: Ka'amilo Wells P2	110	111	113	101
LCS 380-202164/22-A	Lab Control Sample	106	100	110	91
MBL 380-202164/20-A	Method Blank	115	108	111	101
MRL 380-202164/21-A	Lab Control Sample	114	100	117	98

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: 380-195068-1
SDG: PFAS: Ka'amilo Wells 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)	PFDaA (50-200)
380-195068-1	Ka'amilo Wells P2	87	111	106	113	113	121	111	108
380-195068-2	FB: Ka'amilo Wells P2	71	103	97	103	100	102	98	96
380-195140-B-1-A MS	Matrix Spike	51	46 *5-	69	66	60	56	41 *5-	38 *5-
380-195140-C-1-A MSD	Matrix Spike Duplicate	50	36 *5-	65	64	50	49 *5-	32 *5-	31 *5-
LCS 380-202651/22-A	Lab Control Sample	84	113	110	117	107	110	118	110
MBL 380-202651/20-A	Method Blank	74	100	98	105	100	104	101	95
MRL 380-202651/21-A	Lab Control Sample	76	116	113	115	114	117	116	114

		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)
380-195068-1	Ka'amilo Wells P2	103	93	89	96	104	101	102	99
380-195068-2	FB: Ka'amilo Wells P2	90	87	99	99	106	94	102	100
380-195140-B-1-A MS	Matrix Spike	62	61	99	97	105	105	105	108
380-195140-C-1-A MSD	Matrix Spike Duplicate	58	54	101	98	102	107	106	111
LCS 380-202651/22-A	Lab Control Sample	98	97	103	104	108	97	107	105
MBL 380-202651/20-A	Method Blank	93	90	104	104	109	106	108	103
MRL 380-202651/21-A	Lab Control Sample	93	91	102	98	105	109	102	106

Surrogate Legend

HFPODA = 13C3 HFPO-DA
C6PFDA = 13C6 PFDA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
13C7PUA = 13C7 PFUnA
PFDaA = 13C2 PFDaA
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: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: MBL 380-202651/20-A

Matrix: Water

Analysis Batch: 202854

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 202651

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		02/02/26 07:41	02/02/26 17:30	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		02/02/26 07:41	02/02/26 17:30	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	74		50 - 200	02/02/26 07:41	02/02/26 17:30	1
13C6 PFDA	100		50 - 200	02/02/26 07:41	02/02/26 17:30	1
13C5 PFHxA	98		50 - 200	02/02/26 07:41	02/02/26 17:30	1
13C4 PFHpA	105		50 - 200	02/02/26 07:41	02/02/26 17:30	1
13C8 PFOA	100		50 - 200	02/02/26 07:41	02/02/26 17:30	1
13C9 PFNA	104		50 - 200	02/02/26 07:41	02/02/26 17:30	1
13C7 PFUnA	101		50 - 200	02/02/26 07:41	02/02/26 17:30	1
13C2 PFDoA	95		50 - 200	02/02/26 07:41	02/02/26 17:30	1
13C4 PFBA	93		50 - 200	02/02/26 07:41	02/02/26 17:30	1
13C5 PFPeA	90		50 - 200	02/02/26 07:41	02/02/26 17:30	1
13C3 PFBS	104		50 - 200	02/02/26 07:41	02/02/26 17:30	1
13C3 PFHxS	104		50 - 200	02/02/26 07:41	02/02/26 17:30	1

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QC Sample Results

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: MBL 380-202651/20-A

Matrix: Water

Analysis Batch: 202854

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 202651

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	109		50 - 200	02/02/26 07:41	02/02/26 17:30	1
13C2-4:2-FTS	106		50 - 200	02/02/26 07:41	02/02/26 17:30	1
13C2-6:2-FTS	108		50 - 200	02/02/26 07:41	02/02/26 17:30	1
13C2-8:2-FTS	103		50 - 200	02/02/26 07:41	02/02/26 17:30	1

Lab Sample ID: LCS 380-202651/22-A

Matrix: Water

Analysis Batch: 202854

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 202651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.2	59.6		ng/L		99	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.2	63.8		ng/L		106	70 - 130
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	60.2	55.1		ng/L		91	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.2	66.9		ng/L		111	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.2	63.3		ng/L		105	70 - 130
Perfluorodecanoic acid (PFDA)	60.2	60.2		ng/L		100	70 - 130
Perfluorododecanoic acid (PFDoA)	60.2	63.0		ng/L		105	70 - 130
Perfluorooheptanoic acid (PFHpA)	60.2	60.4		ng/L		100	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.2	64.2		ng/L		107	70 - 130
Perfluorohexanoic acid (PFHxA)	60.2	58.9		ng/L		98	70 - 130
Perfluorononanoic acid (PFNA)	60.2	51.5		ng/L		86	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.2	57.6		ng/L		96	70 - 130
Perfluorooctanoic acid (PFOA)	60.2	63.6		ng/L		106	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.2	60.8		ng/L		101	70 - 130
Perfluorobutanoic acid (PFBA)	60.2	60.9		ng/L		101	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.2	63.7		ng/L		106	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.2	71.8		ng/L		119	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.2	65.0		ng/L		108	70 - 130
Nonafluoro-3,6-dioxahheptanoic acid (NFDHA)	60.2	48.2		ng/L		80	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	60.2	70.6		ng/L		117	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.2	60.0		ng/L		100	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.2	57.4		ng/L		95	70 - 130
Perfluoropentanoic acid (PFPeA)	60.2	59.9		ng/L		99	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.2	57.8		ng/L		96	70 - 130

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QC Sample Results

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: LCS 380-202651/22-A

Matrix: Water

Analysis Batch: 202854

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 202651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	60.2	63.2		ng/L		105	70 - 130
	LCS	LCS					
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	84		50 - 200				
13C6 PFDA	113		50 - 200				
13C5 PFHxA	110		50 - 200				
13C4 PFHpA	117		50 - 200				
13C8 PFOA	107		50 - 200				
13C9 PFNA	110		50 - 200				
13C7 PFUnA	118		50 - 200				
13C2 PFDoA	110		50 - 200				
13C4 PFBA	98		50 - 200				
13C5 PFPeA	97		50 - 200				
13C3 PFBS	103		50 - 200				
13C3 PFHxS	104		50 - 200				
13C8 PFOS	108		50 - 200				
13C2-4:2-FTS	97		50 - 200				
13C2-6:2-FTS	107		50 - 200				
13C2-8:2-FTS	105		50 - 200				

Lab Sample ID: MRL 380-202651/21-A

Matrix: Water

Analysis Batch: 202854

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 202651

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	2.02	J	ng/L		101	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	2.08	J	ng/L		104	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.82	J	ng/L		91	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.27	J	ng/L		113	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	1.99	J	ng/L		99	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	1.87	J	ng/L		93	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	1.94	J	ng/L		96	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.11	J	ng/L		105	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.09	J	ng/L		104	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	1.96	J	ng/L		97	50 - 150
Perfluorononanoic acid (PFNA)	2.01	1.60	J	ng/L		80	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	1.91	J	ng/L		95	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	1.92	J	ng/L		96	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.03	J	ng/L		101	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.18	J	ng/L		108	50 - 150

Eurofins Pomona

QC Sample Results

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: MRL 380-202651/21-A

Matrix: Water

Analysis Batch: 202854

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 202651

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.16	J	ng/L		107	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.09	J	ng/L		104	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.41	J	ng/L		120	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	1.46	J	ng/L		73	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	2.18	J	ng/L		108	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	2.00	J	ng/L		100	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	1.88	J	ng/L		94	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.03	J	ng/L		101	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	1.83	J	ng/L		91	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	2.10	J	ng/L		104	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	76		50 - 200
13C6 PFDA	116		50 - 200
13C5 PFHxA	113		50 - 200
13C4 PFHpA	115		50 - 200
13C8 PFOA	114		50 - 200
13C9 PFNA	117		50 - 200
13C7 PFUnA	116		50 - 200
13C2 PFDoA	114		50 - 200
13C4 PFBA	93		50 - 200
13C5 PFPeA	91		50 - 200
13C3 PFBS	102		50 - 200
13C3 PFHxS	98		50 - 200
13C8 PFOS	105		50 - 200
13C2-4:2-FTS	109		50 - 200
13C2-6:2-FTS	102		50 - 200
13C2-8:2-FTS	106		50 - 200

Lab Sample ID: 380-195140-B-1-A MS

Matrix: Water

Analysis Batch: 202854

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 202651

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		60.5	62.0		ng/L		102	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.5	64.0		ng/L		106	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.5	58.2		ng/L		96	70 - 130

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QC Sample Results

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: 380-195140-B-1-A MS

Matrix: Water

Analysis Batch: 202854

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 202651

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0	*5-	60.5	67.5		ng/L		112	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.5	63.9		ng/L		106	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.5	59.4	*5-	ng/L		98	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0	*5-	60.5	64.6	*5-	ng/L		107	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.5	65.5		ng/L		108	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.5	67.3		ng/L		111	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.5	60.8		ng/L		101	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.5	51.2		ng/L		85	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.5	59.5		ng/L		98	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.5	64.5		ng/L		107	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.5	61.9	*5-	ng/L		102	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.5	61.8		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.5	69.1		ng/L		114	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.5	63.9		ng/L		106	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.5	62.0		ng/L		103	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.5	52.9		ng/L		87	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		60.5	72.8		ng/L		120	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.5	59.2		ng/L		98	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.5	57.5		ng/L		95	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.5	62.4		ng/L		103	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.5	61.0		ng/L		101	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.5	68.8		ng/L		114	70 - 130

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C3 HFPO-DA	51		50 - 200
13C6 PFDA	46	*5-	50 - 200
13C5 PFHxA	69		50 - 200
13C4 PFHpA	66		50 - 200
13C8 PFOA	60		50 - 200
13C9 PFNA	56		50 - 200
13C7 PFUnA	41	*5-	50 - 200
13C2 PFDoA	38	*5-	50 - 200
13C4 PFBA	62		50 - 200
13C5 PFPeA	61		50 - 200
13C3 PFBS	99		50 - 200
13C3 PFHxS	97		50 - 200
13C8 PFOS	105		50 - 200

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QC Sample Results

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: 380-195140-B-1-A MS

Matrix: Water

Analysis Batch: 202854

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 202651

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C2-4:2-FTS	105		50 - 200
13C2-6:2-FTS	105		50 - 200
13C2-8:2-FTS	108		50 - 200

Lab Sample ID: 380-195140-C-1-A MSD

Matrix: Water

Analysis Batch: 202854

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 202651

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	62.2		ng/L		103	70 - 130	0	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		60.4	64.3		ng/L		106	70 - 130	0	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	55.9		ng/L		93	70 - 130	4	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0	*5-	60.4	64.9		ng/L		107	70 - 130	4	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	62.6		ng/L		104	70 - 130	2	30
Perfluorodecanoic acid (PFDA)	<2.0		60.4	57.8	*5-	ng/L		96	70 - 130	3	30
Perfluorododecanoic acid (PFDoA)	<2.0	*5-	60.4	63.8	*5-	ng/L		106	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	63.7		ng/L		106	70 - 130	3	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.4	66.8		ng/L		111	70 - 130	1	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	62.1		ng/L		103	70 - 130	2	30
Perfluorononanoic acid (PFNA)	<2.0		60.4	49.6	*5-	ng/L		82	70 - 130	3	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.4	61.7		ng/L		102	70 - 130	4	30
Perfluorooctanoic acid (PFOA)	<2.0		60.4	71.8		ng/L		119	70 - 130	11	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	62.9	*5-	ng/L		104	70 - 130	2	30
Perfluorobutanoic acid (PFBA)	<2.0		60.4	61.7		ng/L		102	70 - 130	0	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	64.5		ng/L		107	70 - 130	7	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	64.0		ng/L		106	70 - 130	0	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	65.7		ng/L		109	70 - 130	6	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	49.7		ng/L		82	70 - 130	6	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		60.4	71.1		ng/L		118	70 - 130	2	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	58.0		ng/L		96	70 - 130	2	30
Perfluoro-4-methoxybutanoic acid (PFMPA)	<2.0		60.4	55.7		ng/L		92	70 - 130	3	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.4	62.6		ng/L		104	70 - 130	0	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	60.2		ng/L		100	70 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	64.3		ng/L		107	70 - 130	7	30

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QC Sample Results

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

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

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	50		50 - 200
13C6 PFDA	36	*5-	50 - 200
13C5 PFHxA	65		50 - 200
13C4 PFHpA	64		50 - 200
13C8 PFOA	50		50 - 200
13C9 PFNA	49	*5-	50 - 200
13C7 PFUnA	32	*5-	50 - 200
13C2 PFDoA	31	*5-	50 - 200
13C4 PFBA	58		50 - 200
13C5 PFPeA	54		50 - 200
13C3 PFBS	101		50 - 200
13C3 PFHxS	98		50 - 200
13C8 PFOS	102		50 - 200
13C2-4:2-FTS	107		50 - 200
13C2-6:2-FTS	106		50 - 200
13C2-8:2-FTS	111		50 - 200

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

Lab Sample ID: MBL 380-202164/20-A
Matrix: Water
Analysis Batch: 202397

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 202164

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		01/30/26 08:07	01/31/26 00:35	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		01/30/26 08:07	01/31/26 00:35	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		01/30/26 08:07	01/31/26 00:35	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		01/30/26 08:07	01/31/26 00:35	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		01/30/26 08:07	01/31/26 00:35	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		01/30/26 08:07	01/31/26 00:35	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		01/30/26 08:07	01/31/26 00:35	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		01/30/26 08:07	01/31/26 00:35	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		01/30/26 08:07	01/31/26 00:35	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		01/30/26 08:07	01/31/26 00:35	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		01/30/26 08:07	01/31/26 00:35	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		01/30/26 08:07	01/31/26 00:35	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		01/30/26 08:07	01/31/26 00:35	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		01/30/26 08:07	01/31/26 00:35	1
Perfluorotridecanoic acid (PFTTrDA)	<0.36		2.0	ng/L		01/30/26 08:07	01/31/26 00:35	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<0.30		2.0	ng/L		01/30/26 08:07	01/31/26 00:35	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		01/30/26 08:07	01/31/26 00:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		01/30/26 08:07	01/31/26 00:35	1
Surrogate	MBL MBL		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
d5-NEtFOSAA	115		70 - 130			01/30/26 08:07	01/31/26 00:35	1
13C2 PFHxA	108		70 - 130			01/30/26 08:07	01/31/26 00:35	1
13C2 PFDA	111		70 - 130			01/30/26 08:07	01/31/26 00:35	1

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QC Sample Results

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: MBL 380-202164/20-A

Matrix: Water

Analysis Batch: 202397

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 202164

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3-GenX	101		70 - 130	01/30/26 08:07	01/31/26 00:35	1

Lab Sample ID: LCS 380-202164/22-A

Matrix: Water

Analysis Batch: 202397

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 202164

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	50.0	42.1		ng/L		84	70 - 130
Dimer Acid (HFPO-DA/GenX)							
Perfluorooctanesulfonic acid (PFOS)	50.0	50.8		ng/L		102	70 - 130
Perfluoroundecanoic acid (PFUnA)	50.0	48.7		ng/L		97	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	50.0	47.1		ng/L		94	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	50.0	48.1		ng/L		96	70 - 130
Perfluorohexanoic acid (PFHxA)	50.0	44.0		ng/L		88	70 - 130
Perfluorododecanoic acid (PFDoA)	50.0	48.4		ng/L		97	70 - 130
Perfluorooctanoic acid (PFOA)	50.0	48.9		ng/L		98	70 - 130
Perfluorodecanoic acid (PFDA)	50.0	49.2		ng/L		98	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	50.0	49.5		ng/L		99	70 - 130
Perfluorobutanesulfonic acid (PFBS)	50.0	49.2		ng/L		98	70 - 130
Perfluoroheptanoic acid (PFHpA)	50.0	43.0		ng/L		86	70 - 130
Perfluorononanoic acid (PFNA)	50.0	48.3		ng/L		97	70 - 130
Perfluorotetradecanoic acid (PFTA)	50.0	43.3		ng/L		87	70 - 130
Perfluorotridecanoic acid (PFTrDA)	50.0	50.0		ng/L		100	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	50.0	53.6		ng/L		107	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	50.0	50.2		ng/L		100	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	50.0	44.2		ng/L		88	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
d5-NEtFOSAA	106		70 - 130
13C2 PFHxA	100		70 - 130
13C2 PFDA	110		70 - 130
13C3-GenX	91		70 - 130

QC Sample Results

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: MRL 380-202164/21-A

Matrix: Water

Analysis Batch: 202397

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 202164

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	2.00	1.82	J	ng/L		91	50 - 150
Dimer Acid (HFPO-DA/GenX)							
Perfluorooctanesulfonic acid (PFOS)	2.00	2.15	J	ng/L		107	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.12	J	ng/L		106	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.06	J	ng/L		103	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.21	J	ng/L		110	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	1.92	J	ng/L		96	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.11	J	ng/L		105	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.10	J	ng/L		105	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.19	J	ng/L		109	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.16	J	ng/L		108	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.13	J	ng/L		106	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.07	J	ng/L		103	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.09	J	ng/L		104	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.00	1.79	J	ng/L		89	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.00	2.22	J	ng/L		111	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.25	J	ng/L		112	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.04	J	ng/L		102	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	1.88	J	ng/L		94	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	114		70 - 130
13C2 PFHxA	100		70 - 130
13C2 PFDA	117		70 - 130
13C3-GenX	98		70 - 130

Lab Sample ID: 380-195029-B-1-A MS

Matrix: Water

Analysis Batch: 202397

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 202164

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		50.2	50.4		ng/L		100	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorooctanesulfonic acid (PFOS)	<2.0		50.2	52.5		ng/L		104	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		50.2	54.3		ng/L		108	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.2	51.8		ng/L		103	70 - 130

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QC Sample Results

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: 380-195029-B-1-A MS

Matrix: Water

Analysis Batch: 202397

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 202164

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits		
	Result	Qualifier	Added	Result	Qualifier			%Rec			
N-ethylperfluorooctanesulfonami doacetic acid (NEtFOSAA)	<2.0		50.2	54.3		ng/L		108	70 - 130		
Perfluorohexanoic acid (PFHxA)	<2.0		50.2	54.8		ng/L		109	70 - 130		
Perfluorododecanoic acid (PFDoA)	<2.0		50.2	49.0		ng/L		98	70 - 130		
Perfluorooctanoic acid (PFOA)	<2.0		50.2	53.7		ng/L		107	70 - 130		
Perfluorodecanoic acid (PFDA)	<2.0		50.2	54.0		ng/L		107	70 - 130		
Perfluorohexanesulfonic acid (PFHxS)	<2.0		50.2	51.3		ng/L		102	70 - 130		
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.2	55.7		ng/L		111	70 - 130		
Perfluoroheptanoic acid (PFHpA)	<2.0		50.2	52.2		ng/L		104	70 - 130		
Perfluorononanoic acid (PFNA)	<2.0		50.2	53.9		ng/L		107	70 - 130		
Perfluorotetradecanoic acid (PFTA)	<2.0		50.2	46.2		ng/L		92	70 - 130		
Perfluorotridecanoic acid (PFTrDA)	<2.0		50.2	57.2		ng/L		114	70 - 130		
9-Chlorohexadecafluoro-3-oxan onane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.2	54.9		ng/L		109	70 - 130		
11-Chloroeicosafluoro-3-oxaund ecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		50.2	54.4		ng/L		108	70 - 130		
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.2	50.6		ng/L		101	70 - 130		
		MS			MS						
Surrogate	%Recovery	Qualifier	Limits								
d5-NEtFOSAA	116		70 - 130								
13C2 PFHxA	121		70 - 130								
13C2 PFDA	117		70 - 130								
13C3-GenX	112		70 - 130								

Lab Sample ID: 380-195029-C-1-A MSD

Matrix: Water

Analysis Batch: 202397

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 202164

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)	<2.0		50.2	50.4		ng/L		100	70 - 130	4	30
Perfluoroundecanoic acid (PFUnA)	<2.0		50.2	49.6		ng/L		99	70 - 130	9	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.2	50.4		ng/L		100	70 - 130	3	30
N-ethylperfluorooctanesulfonamidoacetic acid (NETFOSAA)	<2.0		50.2	50.4		ng/L		100	70 - 130	7	30
Perfluorohexanoic acid (PFHxA)	<2.0		50.2	50.5		ng/L		101	70 - 130	8	30
Perfluorododecanoic acid (PFDoA)	<2.0		50.2	44.9		ng/L		89	70 - 130	9	30
Perfluorooctanoic acid (PFOA)	<2.0		50.2	50.1		ng/L		100	70 - 130	7	30
Perfluorodecanoic acid (PFDA)	<2.0		50.2	51.3		ng/L		102	70 - 130	5	30

Eurofins Pomona

QC Sample Results

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: 380-195029-C-1-A MSD

Matrix: Water

Analysis Batch: 202397

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 202164

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanesulfonic acid (PFHxS)	<2.0		50.2	49.6		ng/L		99	70 - 130	3	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.2	55.9		ng/L		111	70 - 130	0	30
Perfluoroheptanoic acid (PFHpA)	<2.0		50.2	50.0		ng/L		100	70 - 130	4	30
Perfluorononanoic acid (PFNA)	<2.0		50.2	49.5		ng/L		99	70 - 130	9	30
Perfluorotetradecanoic acid (PFTA)	<2.0		50.2	42.6		ng/L		85	70 - 130	8	30
Perfluorotridecanoic acid (PFTrDA)	<2.0		50.2	50.9		ng/L		101	70 - 130	12	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.2	52.0		ng/L		104	70 - 130	5	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		50.2	51.5		ng/L		103	70 - 130	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.2	45.6		ng/L		91	70 - 130	10	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
d5-NEtFOSAA	109		70 - 130								
13C2 PFHxA	109		70 - 130								
13C2 PFDA	113		70 - 130								
13C3-GenX	105		70 - 130								

QC Association Summary

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

LCMS

Prep Batch: 202164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-195068-1	Ka'amilo Wells P2	Total/NA	Water	537.1 DW	
380-195068-2	FB: Ka'amilo Wells P2	Total/NA	Water	537.1 DW	
MBL 380-202164/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-202164/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-202164/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-195029-B-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-195029-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 202397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-195068-1	Ka'amilo Wells P2	Total/NA	Water	537.1	202164
380-195068-2	FB: Ka'amilo Wells P2	Total/NA	Water	537.1	202164
MBL 380-202164/20-A	Method Blank	Total/NA	Water	537.1	202164
LCS 380-202164/22-A	Lab Control Sample	Total/NA	Water	537.1	202164
MRL 380-202164/21-A	Lab Control Sample	Total/NA	Water	537.1	202164
380-195029-B-1-A MS	Matrix Spike	Total/NA	Water	537.1	202164
380-195029-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1	202164

Prep Batch: 202651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-195068-1	Ka'amilo Wells P2	Total/NA	Water	533	
380-195068-2	FB: Ka'amilo Wells P2	Total/NA	Water	533	
MBL 380-202651/20-A	Method Blank	Total/NA	Water	533	
LCS 380-202651/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-202651/21-A	Lab Control Sample	Total/NA	Water	533	
380-195140-B-1-A MS	Matrix Spike	Total/NA	Water	533	
380-195140-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 202854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-195068-1	Ka'amilo Wells P2	Total/NA	Water	533	202651
380-195068-2	FB: Ka'amilo Wells P2	Total/NA	Water	533	202651
MBL 380-202651/20-A	Method Blank	Total/NA	Water	533	202651
LCS 380-202651/22-A	Lab Control Sample	Total/NA	Water	533	202651
MRL 380-202651/21-A	Lab Control Sample	Total/NA	Water	533	202651
380-195140-B-1-A MS	Matrix Spike	Total/NA	Water	533	202651
380-195140-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	202651

Lab Chronicle

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: Ka'amilo Wells P2

Lab Sample ID: 380-195068-1

Date Collected: 01/26/26 11:36

Matrix: Water

Date Received: 01/29/26 09:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			202651	XTD8	EA POM	02/02/26 07:41
Total/NA	Analysis	533		1	202854	SZ9R	EA POM	02/02/26 20:12
Total/NA	Prep	537.1 DW			202164	E9PK	EA POM	01/30/26 08:07
Total/NA	Analysis	537.1		1	202397	Y5FM	EA POM	01/31/26 03:08

Client Sample ID: FB: Ka'amilo Wells P2

Lab Sample ID: 380-195068-2

Date Collected: 01/26/26 11:36

Matrix: Water

Date Received: 01/29/26 09:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			202651	XTD8	EA POM	02/02/26 07:41
Total/NA	Analysis	533		1	202854	SZ9R	EA POM	02/02/26 20:22
Total/NA	Prep	537.1 DW			202164	E9PK	EA POM	01/30/26 08:07
Total/NA	Analysis	537.1		1	202397	Y5FM	EA POM	01/31/26 03:18

Laboratory References:

EA POM = Eurofins 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: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

Laboratory: Eurofins Pomona

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

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

1
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* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

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

Job ID: 380-195068-1
SDG: PFAS: Ka'amilo Wells 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 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: 380-195068-1
SDG: PFAS: Ka'amilo Wells P2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-195068-1	Ka'amilo Wells P2	Water	01/26/26 11:36	01/29/26 09:52	Hawaii
380-195068-2	FB: Ka'amilo Wells P2	Water	01/26/26 11:36	01/29/26 09:52	Hawaii

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Client Information Client Contact: Kirk Iwamoto Company: City & County of Honolulu Address: 630 South Beretania Street, Chemistry Lab City: Honolulu State, Zip: HI, 96843 Phone: 808-748-5840 (tel) Email: kiwamoto@hbws.org Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill Site:		Lab PM: Lopez, Maria E-Mail: Maria.Lopez@et.euronisus.com PWSID:		Sampler: bailey Phone: +1 808 748 5840		Carrier Tracking No(s): State of Origin: Page:	
Analysis Requested							
Due Date 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 Other:					
TAT Requested (days): RUSH		Total Number of Containers:					
Compliance Project: A No		Special Instructions/Note:					
PO #: C20525101 exp 05312023		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)					
WO #:		Other:					
Project #: 38001111		Special Instructions/Note:					
SSOW#:		Special Instructions/Note:					
Sample Identification		Special Instructions/Note:					
Ka'amilo Wells P2		Special Instructions/Note:					
Sample Date: 26-Jan-2026		Special Instructions/Note:					
Sample Time: 1136		Special Instructions/Note:					
Sample Type (C=comp, G=grab): G		Special Instructions/Note:					
Matrix (Structure, Specified, Orientation): Water		Special Instructions/Note:					
FB: Ka'amilo Wells P2		Special Instructions/Note:					
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, IV, Other (specify)		Special Instructions/QC Requirements:					
Empty Kit Relinquished by:		Method of Shipment:					
Date/Time: 21 Jan 2026 1400		Date/Time: 1/29/26 952					
Date/Time:		Date/Time:					
Date/Time:		Date/Time:					
Relinquished by:		Relinquished by:					
Custody Seals Intact: A Yes A No		Custody Seal No.:					

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-195068-1
SDG Number: PFAS: Ka'amilo Wells P2

Login Number: 195068

List Number: 1

Creator: Gross, Drake

List Source: Eurofins 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").	N/A	
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	