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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Erwin Kawata
City & County of Honolulu
630 South Beretania Street
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JOB DESCRIPTION

RED-HILL
Weekly PFAS

JOB NUMBER

380-137787-1

Eurofins Eaton Analytical Pomona

Job Notes

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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: 380-137787-1
SDG: Weekly PFAS

Qualifiers

LCMS

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
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: 380-137787-1

Job ID: 380-137787-1

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Job Narrative 380-137787-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 2/26/2025 10:29 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 0.8°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: 380-137787-1
SDG: Weekly PFAS

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)

Lab Sample ID: 380-137787-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	2.5		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	2.0		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	2.4		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.5		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanoic acid (PFHxA)	2.3		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.6		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)

Lab Sample ID: 380-137787-2

No Detections.

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)

Lab Sample ID: 380-137787-3

No Detections.

Client Sample ID: AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP400)

Lab Sample ID: 380-137787-4

No Detections.

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-137787-5

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	2.1		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.6		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.5		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)

Lab Sample ID: 380-137787-6

No Detections.

Client Sample ID: FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)

Lab Sample ID: 380-137787-7

No Detections.

Client Sample ID: FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)

Lab Sample ID: 380-137787-8

No Detections.

Client Sample ID: FB: AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP400)

Lab Sample ID: 380-137787-9

No Detections.

Client Sample ID: FB: KA'AMILO WELLS

Lab Sample ID: 380-137787-10

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: 380-137787-1
SDG: Weekly PFAS

**Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
(331-206-TP065)**

Lab Sample ID: 380-137787-1

Date Collected: 02/24/25 10:23

Matrix: Drinking Water

Date Received: 02/26/25 10:29

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		02/28/25 16:04	03/01/25 14:18	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Perfluorohexanesulfonic acid (PFHxS)	2.5		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Perfluorohexanoic acid (PFHxA)	2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Perfluorooctanesulfonic acid (PFOS)	2.2		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Perfluoropentanoic acid (PFPeA)	2.4		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:18	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	99		50 - 200			02/28/25 16:04	03/01/25 14:18	1
13C6 PFDA	100		50 - 200			02/28/25 16:04	03/01/25 14:18	1
13C5 PFHxA	93		50 - 200			02/28/25 16:04	03/01/25 14:18	1
13C4 PFHpA	98		50 - 200			02/28/25 16:04	03/01/25 14:18	1
13C8 PFOA	100		50 - 200			02/28/25 16:04	03/01/25 14:18	1
13C9 PFNA	104		50 - 200			02/28/25 16:04	03/01/25 14:18	1
13C7 PFUnA	100		50 - 200			02/28/25 16:04	03/01/25 14:18	1
13C2 PFDoA	97		50 - 200			02/28/25 16:04	03/01/25 14:18	1
13C4 PFBA	102		50 - 200			02/28/25 16:04	03/01/25 14:18	1
13C5 PFPeA	102		50 - 200			02/28/25 16:04	03/01/25 14:18	1
13C3 PFBS	105		50 - 200			02/28/25 16:04	03/01/25 14:18	1

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Client Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

**Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
(331-206-TP065)**

Lab Sample ID: 380-137787-1

Date Collected: 02/24/25 10:23

Matrix: Drinking Water

Date Received: 02/26/25 10:29

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	102		50 - 200	02/28/25 16:04	03/01/25 14:18	1
13C8 PFOS	109		50 - 200	02/28/25 16:04	03/01/25 14:18	1
13C2-4:2-FTS	122		50 - 200	02/28/25 16:04	03/01/25 14:18	1
13C2-6:2-FTS	120		50 - 200	02/28/25 16:04	03/01/25 14:18	1
13C2-8:2-FTS	106		50 - 200	02/28/25 16:04	03/01/25 14:18	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		02/27/25 04:10	02/27/25 19:23	1
Perfluorooctanesulfonic acid (PFOS)	2.5		2.0	ng/L		02/27/25 04:10	02/27/25 19:23	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:23	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:23	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:23	1
Perfluorohexanoic acid (PFHxA)	2.3		2.0	ng/L		02/27/25 04:10	02/27/25 19:23	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:23	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:23	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:23	1
Perfluorohexanesulfonic acid (PFHxS)	2.6		2.0	ng/L		02/27/25 04:10	02/27/25 19:23	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:23	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:23	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:23	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:23	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:23	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:23	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:23	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	114		70 - 130	02/27/25 04:10	02/27/25 19:23	1
13C2 PFHxA	117		70 - 130	02/27/25 04:10	02/27/25 19:23	1
13C2 PFDA	110		70 - 130	02/27/25 04:10	02/27/25 19:23	1
13C3-GenX	113		70 - 130	02/27/25 04:10	02/27/25 19:23	1

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-137787-2

Date Collected: 02/24/25 10:52

Matrix: Drinking Water

Date Received: 02/26/25 10:29

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		02/28/25 16:04	03/01/25 14:37	1

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Client Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-137787-2

Date Collected: 02/24/25 10:52

Matrix: Drinking Water

Date Received: 02/26/25 10:29

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6 2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:37	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	104		50 - 200	02/28/25 16:04	03/01/25 14:37	1
13C6 PFDA	105		50 - 200	02/28/25 16:04	03/01/25 14:37	1
13C5 PFHxA	105		50 - 200	02/28/25 16:04	03/01/25 14:37	1
13C4 PFHpA	107		50 - 200	02/28/25 16:04	03/01/25 14:37	1
13C8 PFOA	111		50 - 200	02/28/25 16:04	03/01/25 14:37	1
13C9 PFNA	109		50 - 200	02/28/25 16:04	03/01/25 14:37	1
13C7 PFUnA	100		50 - 200	02/28/25 16:04	03/01/25 14:37	1
13C2 PFDoA	97		50 - 200	02/28/25 16:04	03/01/25 14:37	1
13C4 PFBA	113		50 - 200	02/28/25 16:04	03/01/25 14:37	1
13C5 PFPeA	114		50 - 200	02/28/25 16:04	03/01/25 14:37	1
13C3 PFBS	106		50 - 200	02/28/25 16:04	03/01/25 14:37	1
13C3 PFHxS	104		50 - 200	02/28/25 16:04	03/01/25 14:37	1
13C8 PFOS	113		50 - 200	02/28/25 16:04	03/01/25 14:37	1
13C2-4:2-FTS	124		50 - 200	02/28/25 16:04	03/01/25 14:37	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-137787-2

Date Collected: 02/24/25 10:52

Matrix: Drinking Water

Date Received: 02/26/25 10:29

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-6:2-FTS	121		50 - 200	02/28/25 16:04	03/01/25 14:37	1
13C2-8:2-FTS	108		50 - 200	02/28/25 16:04	03/01/25 14:37	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		02/27/25 04:10	02/27/25 19:33	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:33	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:33	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:33	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:33	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:33	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:33	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:33	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:33	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:33	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:33	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:33	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:33	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:33	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:33	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:33	1
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:33	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	113		70 - 130	02/27/25 04:10	02/27/25 19:33	1
13C2 PFHxA	119		70 - 130	02/27/25 04:10	02/27/25 19:33	1
13C2 PFDA	110		70 - 130	02/27/25 04:10	02/27/25 19:33	1
13C3-GenX	111		70 - 130	02/27/25 04:10	02/27/25 19:33	1

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-137787-3

Date Collected: 02/24/25 11:10

Matrix: Drinking Water

Date Received: 02/26/25 10:29

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		02/28/25 16:04	03/01/25 14:47	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-137787-3

Date Collected: 02/24/25 11:10

Matrix: Drinking Water

Date Received: 02/26/25 10:29

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:47	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>			<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 HFPO-DA	107		50 - 200			02/28/25 16:04	03/01/25 14:47	1
13C6 PFDA	106		50 - 200			02/28/25 16:04	03/01/25 14:47	1
13C5 PFHxA	103		50 - 200			02/28/25 16:04	03/01/25 14:47	1
13C4 PFHpA	107		50 - 200			02/28/25 16:04	03/01/25 14:47	1
13C8 PFOA	109		50 - 200			02/28/25 16:04	03/01/25 14:47	1
13C9 PFNA	108		50 - 200			02/28/25 16:04	03/01/25 14:47	1
13C7 PFUnA	104		50 - 200			02/28/25 16:04	03/01/25 14:47	1
13C2 PFDoA	98		50 - 200			02/28/25 16:04	03/01/25 14:47	1
13C4 PFBA	108		50 - 200			02/28/25 16:04	03/01/25 14:47	1
13C5 PFPeA	106		50 - 200			02/28/25 16:04	03/01/25 14:47	1
13C3 PFBS	103		50 - 200			02/28/25 16:04	03/01/25 14:47	1
13C3 PFHxS	104		50 - 200			02/28/25 16:04	03/01/25 14:47	1
13C8 PFOS	105		50 - 200			02/28/25 16:04	03/01/25 14:47	1
13C2-4:2-FTS	118		50 - 200			02/28/25 16:04	03/01/25 14:47	1
13C2-6:2-FTS	116		50 - 200			02/28/25 16:04	03/01/25 14:47	1
13C2-8:2-FTS	102		50 - 200			02/28/25 16:04	03/01/25 14:47	1

Client Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-137787-3

Date Collected: 02/24/25 11:10

Matrix: Drinking Water

Date Received: 02/26/25 10:29

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		02/27/25 04:10	02/27/25 19:54	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:54	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:54	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:54	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:54	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:54	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:54	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:54	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:54	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:54	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:54	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:54	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:54	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:54	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:54	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:54	1
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:54	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 19:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	116		70 - 130			02/27/25 04:10	02/27/25 19:54	1
13C2 PFHxA	118		70 - 130			02/27/25 04:10	02/27/25 19:54	1
13C2 PFDA	111		70 - 130			02/27/25 04:10	02/27/25 19:54	1
13C3-GenX	111		70 - 130			02/27/25 04:10	02/27/25 19:54	1

**Client Sample ID: AIEA WELLS PUMPS 1&2 P2 (260)
(331-203-TP400)**

Lab Sample ID: 380-137787-4

Date Collected: 02/24/25 11:34

Matrix: Water

Date Received: 02/26/25 10:29

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		02/28/25 16:04	03/01/25 14:57	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

**Client Sample ID: AIEA WELLS PUMPS 1&2 P2 (260)
(331-203-TP400)**

Lab Sample ID: 380-137787-4

Date Collected: 02/24/25 11:34

Matrix: Water

Date Received: 02/26/25 10:29

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 14:57	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	111		50 - 200			02/28/25 16:04	03/01/25 14:57	1
13C6 PFDA	111		50 - 200			02/28/25 16:04	03/01/25 14:57	1
13C5 PFHxA	109		50 - 200			02/28/25 16:04	03/01/25 14:57	1
13C4 PFHpA	111		50 - 200			02/28/25 16:04	03/01/25 14:57	1
13C8 PFOA	116		50 - 200			02/28/25 16:04	03/01/25 14:57	1
13C9 PFNA	114		50 - 200			02/28/25 16:04	03/01/25 14:57	1
13C7 PFUnA	110		50 - 200			02/28/25 16:04	03/01/25 14:57	1
13C2 PFDoA	108		50 - 200			02/28/25 16:04	03/01/25 14:57	1
13C4 PFBA	105		50 - 200			02/28/25 16:04	03/01/25 14:57	1
13C5 PFPeA	110		50 - 200			02/28/25 16:04	03/01/25 14:57	1
13C3 PFBS	106		50 - 200			02/28/25 16:04	03/01/25 14:57	1
13C3 PFHxS	106		50 - 200			02/28/25 16:04	03/01/25 14:57	1
13C8 PFOS	113		50 - 200			02/28/25 16:04	03/01/25 14:57	1
13C2-4:2-FTS	120		50 - 200			02/28/25 16:04	03/01/25 14:57	1
13C2-6:2-FTS	119		50 - 200			02/28/25 16:04	03/01/25 14:57	1
13C2-8:2-FTS	104		50 - 200			02/28/25 16:04	03/01/25 14:57	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		02/27/25 04:10	02/27/25 20:05	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:05	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:05	1
N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:05	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

**Client Sample ID: AIEA WELLS PUMPS 1&2 P2 (260)
(331-203-TP400)**

Lab Sample ID: 380-137787-4

Date Collected: 02/24/25 11:34

Matrix: Water

Date Received: 02/26/25 10:29

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:05	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:05	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:05	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:05	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:05	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:05	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:05	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:05	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:05	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:05	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:05	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:05	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	116		70 - 130			02/27/25 04:10	02/27/25 20:05	1
13C2 PFHxA	119		70 - 130			02/27/25 04:10	02/27/25 20:05	1
13C2 PFDA	107		70 - 130			02/27/25 04:10	02/27/25 20:05	1
13C3-GenX	112		70 - 130			02/27/25 04:10	02/27/25 20:05	1

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-137787-5

Date Collected: 02/24/25 11:58

Matrix: Water

Date Received: 02/26/25 10:29

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		03/03/25 06:59	03/03/25 20:18	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
Perfluorohexanesulfonic acid (PFHxS)	2.1		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
Perfluorooctanesulfonic acid (PFOS)	2.2		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-137787-5

Date Collected: 02/24/25 11:58

Matrix: Water

Date Received: 02/26/25 10:29

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		03/03/25 06:59	03/03/25 20:18	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	93		50 - 200	03/03/25 06:59	03/03/25 20:18	1
13C6 PFDA	103		50 - 200	03/03/25 06:59	03/03/25 20:18	1
13C5 PFHxA	93		50 - 200	03/03/25 06:59	03/03/25 20:18	1
13C4 PFHpA	100		50 - 200	03/03/25 06:59	03/03/25 20:18	1
13C8 PFOA	104		50 - 200	03/03/25 06:59	03/03/25 20:18	1
13C9 PFNA	103		50 - 200	03/03/25 06:59	03/03/25 20:18	1
13C7 PFUnA	97		50 - 200	03/03/25 06:59	03/03/25 20:18	1
13C2 PFDoA	96		50 - 200	03/03/25 06:59	03/03/25 20:18	1
13C4 PFBA	106		50 - 200	03/03/25 06:59	03/03/25 20:18	1
13C5 PFPeA	112		50 - 200	03/03/25 06:59	03/03/25 20:18	1
13C3 PFBS	104		50 - 200	03/03/25 06:59	03/03/25 20:18	1
13C3 PFHxS	106		50 - 200	03/03/25 06:59	03/03/25 20:18	1
13C8 PFOS	110		50 - 200	03/03/25 06:59	03/03/25 20:18	1
13C2-4:2-FTS	121		50 - 200	03/03/25 06:59	03/03/25 20:18	1
13C2-6:2-FTS	121		50 - 200	03/03/25 06:59	03/03/25 20:18	1
13C2-8:2-FTS	105		50 - 200	03/03/25 06:59	03/03/25 20:18	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		02/27/25 04:10	02/27/25 20:15	1
Perfluorooctanesulfonic acid (PFOS)	2.6		2.0	ng/L		02/27/25 04:10	02/27/25 20:15	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:15	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:15	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:15	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:15	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:15	1

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Client Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-137787-5

Date Collected: 02/24/25 11:58

Matrix: Water

Date Received: 02/26/25 10:29

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	2.5		2.0	ng/L		02/27/25 04:10	02/27/25 20:15	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:15	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:15	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:15	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:15	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:15	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:15	1
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:15	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	114		70 - 130			02/27/25 04:10	02/27/25 20:15	1
13C2 PFHxA	117		70 - 130			02/27/25 04:10	02/27/25 20:15	1
13C2 PFDA	108		70 - 130			02/27/25 04:10	02/27/25 20:15	1
13C3-GenX	113		70 - 130			02/27/25 04:10	02/27/25 20:15	1

**Client Sample ID: FB: HALAWA WELLS UNITS 1 & 2 P1
(331-206-TP065)**

Lab Sample ID: 380-137787-6

Date Collected: 02/24/25 10:23

Matrix: Water

Date Received: 02/26/25 10:29

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		02/28/25 16:04	03/01/25 15:06	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

**Client Sample ID: FB: HALAWA WELLS UNITS 1 & 2 P1
(331-206-TP065)**

Lab Sample ID: 380-137787-6

Date Collected: 02/24/25 10:23

Matrix: Water

Date Received: 02/26/25 10:29

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nonafluoro-3,6-dioxahheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:06	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	101		50 - 200			02/28/25 16:04	03/01/25 15:06	1
13C6 PFDA	105		50 - 200			02/28/25 16:04	03/01/25 15:06	1
13C5 PFHxA	102		50 - 200			02/28/25 16:04	03/01/25 15:06	1
13C4 PFHpA	102		50 - 200			02/28/25 16:04	03/01/25 15:06	1
13C8 PFOA	105		50 - 200			02/28/25 16:04	03/01/25 15:06	1
13C9 PFNA	103		50 - 200			02/28/25 16:04	03/01/25 15:06	1
13C7 PFUnA	100		50 - 200			02/28/25 16:04	03/01/25 15:06	1
13C2 PFDoA	92		50 - 200			02/28/25 16:04	03/01/25 15:06	1
13C4 PFBA	110		50 - 200			02/28/25 16:04	03/01/25 15:06	1
13C5 PFPeA	106		50 - 200			02/28/25 16:04	03/01/25 15:06	1
13C3 PFBS	106		50 - 200			02/28/25 16:04	03/01/25 15:06	1
13C3 PFHxS	104		50 - 200			02/28/25 16:04	03/01/25 15:06	1
13C8 PFOS	107		50 - 200			02/28/25 16:04	03/01/25 15:06	1
13C2-4:2-FTS	116		50 - 200			02/28/25 16:04	03/01/25 15:06	1
13C2-6:2-FTS	119		50 - 200			02/28/25 16:04	03/01/25 15:06	1
13C2-8:2-FTS	101		50 - 200			02/28/25 16:04	03/01/25 15:06	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		02/27/25 04:10	02/27/25 20:25	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:25	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:25	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:25	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:25	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:25	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:25	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:25	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:25	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:25	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:25	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:25	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:25	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:25	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

**Client Sample ID: FB: HALAWA WELLS UNITS 1 & 2 P1
(331-206-TP065)**

Lab Sample ID: 380-137787-6

Date Collected: 02/24/25 10:23

Matrix: Water

Date Received: 02/26/25 10:29

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:25	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:25	1
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:25	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	112		70 - 130			02/27/25 04:10	02/27/25 20:25	1
13C2 PFHxA	117		70 - 130			02/27/25 04:10	02/27/25 20:25	1
13C2 PFDA	106		70 - 130			02/27/25 04:10	02/27/25 20:25	1
13C3-GenX	110		70 - 130			02/27/25 04:10	02/27/25 20:25	1

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-137787-7

Date Collected: 02/24/25 10:52

Matrix: Water

Date Received: 02/26/25 10:29

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		02/28/25 16:04	03/01/25 15:16	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-137787-7

Date Collected: 02/24/25 10:52

Matrix: Water

Date Received: 02/26/25 10:29

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:16	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	107		50 - 200			02/28/25 16:04	03/01/25 15:16	1
13C6 PFDA	103		50 - 200			02/28/25 16:04	03/01/25 15:16	1
13C5 PFHxA	103		50 - 200			02/28/25 16:04	03/01/25 15:16	1
13C4 PFHpA	104		50 - 200			02/28/25 16:04	03/01/25 15:16	1
13C8 PFOA	107		50 - 200			02/28/25 16:04	03/01/25 15:16	1
13C9 PFNA	105		50 - 200			02/28/25 16:04	03/01/25 15:16	1
13C7 PFUnA	99		50 - 200			02/28/25 16:04	03/01/25 15:16	1
13C2 PFDoA	93		50 - 200			02/28/25 16:04	03/01/25 15:16	1
13C4 PFBA	107		50 - 200			02/28/25 16:04	03/01/25 15:16	1
13C5 PFPeA	103		50 - 200			02/28/25 16:04	03/01/25 15:16	1
13C3 PFBS	110		50 - 200			02/28/25 16:04	03/01/25 15:16	1
13C3 PFHxS	104		50 - 200			02/28/25 16:04	03/01/25 15:16	1
13C8 PFOS	106		50 - 200			02/28/25 16:04	03/01/25 15:16	1
13C2-4:2-FTS	123		50 - 200			02/28/25 16:04	03/01/25 15:16	1
13C2-6:2-FTS	119		50 - 200			02/28/25 16:04	03/01/25 15:16	1
13C2-8:2-FTS	104		50 - 200			02/28/25 16:04	03/01/25 15:16	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		02/27/25 04:10	02/27/25 20:34	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:34	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:34	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:34	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:34	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:34	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:34	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:34	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:34	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:34	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:34	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:34	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:34	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:34	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:34	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:34	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:34	1

Client Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-137787-7

Date Collected: 02/24/25 10:52

Matrix: Water

Date Received: 02/26/25 10:29

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	110		70 - 130			02/27/25 04:10	02/27/25 20:34	1
13C2 PFHxA	117		70 - 130			02/27/25 04:10	02/27/25 20:34	1
13C2 PFDA	109		70 - 130			02/27/25 04:10	02/27/25 20:34	1
13C3-GenX	112		70 - 130			02/27/25 04:10	02/27/25 20:34	1

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-137787-8

Date Collected: 02/24/25 11:10

Matrix: Water

Date Received: 02/26/25 10:29

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		02/28/25 16:04	03/01/25 15:25	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-137787-8

Date Collected: 02/24/25 11:10

Matrix: Water

Date Received: 02/26/25 10:29

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:25	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	105		50 - 200			02/28/25 16:04	03/01/25 15:25	1
13C6 PFDA	105		50 - 200			02/28/25 16:04	03/01/25 15:25	1
13C5 PFHxA	105		50 - 200			02/28/25 16:04	03/01/25 15:25	1
13C4 PFHpA	108		50 - 200			02/28/25 16:04	03/01/25 15:25	1
13C8 PFOA	110		50 - 200			02/28/25 16:04	03/01/25 15:25	1
13C9 PFNA	107		50 - 200			02/28/25 16:04	03/01/25 15:25	1
13C7 PFUnA	101		50 - 200			02/28/25 16:04	03/01/25 15:25	1
13C2 PFDoA	97		50 - 200			02/28/25 16:04	03/01/25 15:25	1
13C4 PFBA	107		50 - 200			02/28/25 16:04	03/01/25 15:25	1
13C5 PFPeA	112		50 - 200			02/28/25 16:04	03/01/25 15:25	1
13C3 PFBS	106		50 - 200			02/28/25 16:04	03/01/25 15:25	1
13C3 PFHxS	105		50 - 200			02/28/25 16:04	03/01/25 15:25	1
13C8 PFOS	109		50 - 200			02/28/25 16:04	03/01/25 15:25	1
13C2-4:2-FTS	123		50 - 200			02/28/25 16:04	03/01/25 15:25	1
13C2-6:2-FTS	121		50 - 200			02/28/25 16:04	03/01/25 15:25	1
13C2-8:2-FTS	107		50 - 200			02/28/25 16:04	03/01/25 15:25	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		02/27/25 04:10	02/27/25 20:44	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:44	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:44	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:44	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:44	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:44	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:44	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:44	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:44	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:44	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:44	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:44	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:44	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:44	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:44	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:44	1
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:44	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	112		70 - 130			02/27/25 04:10	02/27/25 20:44	1
13C2 PFHxA	118		70 - 130			02/27/25 04:10	02/27/25 20:44	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-137787-8

Date Collected: 02/24/25 11:10

Matrix: Water

Date Received: 02/26/25 10:29

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDA	111		70 - 130	02/27/25 04:10	02/27/25 20:44	1
13C3-GenX	111		70 - 130	02/27/25 04:10	02/27/25 20:44	1

**Client Sample ID: FB: AIEA WELLS PUMPS 1&2 P2 (260)
(331-203-TP400)**

Lab Sample ID: 380-137787-9

Date Collected: 02/24/25 11:34

Matrix: Water

Date Received: 02/26/25 10:29

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		02/28/25 16:04	03/01/25 15:35	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:35	1
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
13C3 HFPO-DA	102		50 - 200	02/28/25 16:04	03/01/25 15:35	1		
13C6 PFDA	107		50 - 200	02/28/25 16:04	03/01/25 15:35	1		

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

**Client Sample ID: FB: AIEA WELLS PUMPS 1&2 P2 (260)
(331-203-TP400)**

Lab Sample ID: 380-137787-9

Date Collected: 02/24/25 11:34

Matrix: Water

Date Received: 02/26/25 10:29

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFHxA	105		50 - 200	02/28/25 16:04	03/01/25 15:35	1
13C4 PFHpA	108		50 - 200	02/28/25 16:04	03/01/25 15:35	1
13C8 PFOA	110		50 - 200	02/28/25 16:04	03/01/25 15:35	1
13C9 PFNA	112		50 - 200	02/28/25 16:04	03/01/25 15:35	1
13C7 PFUnA	105		50 - 200	02/28/25 16:04	03/01/25 15:35	1
13C2 PFDoA	101		50 - 200	02/28/25 16:04	03/01/25 15:35	1
13C4 PFBA	111		50 - 200	02/28/25 16:04	03/01/25 15:35	1
13C5 PFPeA	106		50 - 200	02/28/25 16:04	03/01/25 15:35	1
13C3 PFBS	107		50 - 200	02/28/25 16:04	03/01/25 15:35	1
13C3 PFHxS	106		50 - 200	02/28/25 16:04	03/01/25 15:35	1
13C8 PFOS	114		50 - 200	02/28/25 16:04	03/01/25 15:35	1
13C2-4:2-FTS	121		50 - 200	02/28/25 16:04	03/01/25 15:35	1
13C2-6:2-FTS	118		50 - 200	02/28/25 16:04	03/01/25 15:35	1
13C2-8:2-FTS	105		50 - 200	02/28/25 16:04	03/01/25 15:35	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		02/27/25 04:10	02/27/25 20:54	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:54	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:54	1
N-methylperfluorooctanesulfonamide acid (NMeFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:54	1
N-ethylperfluorooctanesulfonamide acid (NEtFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:54	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:54	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:54	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:54	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:54	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:54	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:54	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:54	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:54	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:54	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:54	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:54	1
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:54	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 20:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	110		70 - 130	02/27/25 04:10	02/27/25 20:54	1
13C2 PFHxA	117		70 - 130	02/27/25 04:10	02/27/25 20:54	1
13C2 PFDA	108		70 - 130	02/27/25 04:10	02/27/25 20:54	1
13C3-GenX	109		70 - 130	02/27/25 04:10	02/27/25 20:54	1

Client Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

Client Sample ID: FB: KA'AMILO WELLS

Lab Sample ID: 380-137787-10

Date Collected: 02/24/25 11:58

Matrix: Water

Date Received: 02/26/25 10:29

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		02/28/25 16:04	03/01/25 15:44	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/28/25 16:04	03/01/25 15:44	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	100		50 - 200	02/28/25 16:04	03/01/25 15:44	1
13C6 PFDA	102		50 - 200	02/28/25 16:04	03/01/25 15:44	1
13C5 PFHxA	103		50 - 200	02/28/25 16:04	03/01/25 15:44	1
13C4 PFHpA	107		50 - 200	02/28/25 16:04	03/01/25 15:44	1
13C8 PFOA	108		50 - 200	02/28/25 16:04	03/01/25 15:44	1
13C9 PFNA	105		50 - 200	02/28/25 16:04	03/01/25 15:44	1
13C7 PFUnA	98		50 - 200	02/28/25 16:04	03/01/25 15:44	1
13C2 PFDoA	100		50 - 200	02/28/25 16:04	03/01/25 15:44	1
13C4 PFBA	109		50 - 200	02/28/25 16:04	03/01/25 15:44	1
13C5 PFPeA	106		50 - 200	02/28/25 16:04	03/01/25 15:44	1
13C3 PFBS	107		50 - 200	02/28/25 16:04	03/01/25 15:44	1
13C3 PFHxS	104		50 - 200	02/28/25 16:04	03/01/25 15:44	1
13C8 PFOS	109		50 - 200	02/28/25 16:04	03/01/25 15:44	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

Client Sample ID: FB: KA'AMILO WELLS

Lab Sample ID: 380-137787-10

Date Collected: 02/24/25 11:58

Matrix: Water

Date Received: 02/26/25 10:29

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-4:2-FTS	118		50 - 200	02/28/25 16:04	03/01/25 15:44	1
13C2-6:2-FTS	122		50 - 200	02/28/25 16:04	03/01/25 15:44	1
13C2-8:2-FTS	107		50 - 200	02/28/25 16:04	03/01/25 15:44	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		02/27/25 04:10	02/27/25 21:03	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 21:03	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 21:03	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 21:03	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 21:03	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 21:03	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 21:03	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 21:03	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 21:03	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 21:03	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 21:03	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 21:03	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 21:03	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 21:03	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 21:03	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 21:03	1
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 21:03	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/27/25 04:10	02/27/25 21:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	117		70 - 130	02/27/25 04:10	02/27/25 21:03	1
13C2 PFHxA	117		70 - 130	02/27/25 04:10	02/27/25 21:03	1
13C2 PFDA	109		70 - 130	02/27/25 04:10	02/27/25 21:03	1
13C3-GenX	113		70 - 130	02/27/25 04:10	02/27/25 21:03	1

Action Limit Summary

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

Job ID: 380-137787-1
SDG: Weekly PFAS

**Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
(331-206-TP065)**

Lab Sample ID: 380-137787-1

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)	2.5		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2		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)	2.5		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)	2.6		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: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-137787-2

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)	<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

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-137787-3

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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-137787-1
SDG: Weekly PFAS

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072) (Continued)**

Lab Sample ID: 380-137787-3

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			
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

**Client Sample ID: AIEA WELLS PUMPS 1&2 P2 (260)
(331-203-TP400)**

Lab Sample ID: 380-137787-4

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

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-137787-5

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)	2.1		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2		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)	2.6		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)	2.5		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: 380-137787-1
SDG: Weekly PFAS

Client Sample ID: KA'AMILO WELLS (Continued)

Lab Sample ID: 380-137787-5

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
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Client Sample ID: FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)

Lab Sample ID: 380-137787-6

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

Client Sample ID: FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)

Lab Sample ID: 380-137787-7

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

Action Limit Summary

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

Job ID: 380-137787-1
SDG: Weekly PFAS

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-137787-8

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

**Client Sample ID: FB: AIEA WELLS PUMPS 1&2 P2 (260)
(331-203-TP400)**

Lab Sample ID: 380-137787-9

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

Client Sample ID: FB: KA'AMILO WELLS

Lab Sample ID: 380-137787-10

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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-137787-1
SDG: Weekly PFAS

Client Sample ID: FB: KA'AMILO WELLS (Continued)

Lab Sample ID: 380-137787-10

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	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: 380-137787-1
SDG: Weekly PFAS

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

Matrix: Drinking 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)
380-137787-1	HALAWA WELLS UNITS 1 & 2 F	114	117	110	113
380-137787-2	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	113	119	110	111
380-137787-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	116	118	111	111

Surrogate Legend

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

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)
380-137783-B-1-A MS	Matrix Spike	111	113	107	110
380-137783-C-1-A MSD	Matrix Spike Duplicate	113	122	110	115
380-137787-4	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP400)	116	119	107	112
380-137787-5	KA'AMILO WELLS	114	117	108	113
380-137787-6	FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	112	117	106	110
380-137787-7	FB: AIEA GULCH WELLS PUMF 1 (331-201-TP071)	110	117	109	112
380-137787-8	FB: AIEA GULCH WELLS PUMF 2 (331-202-TP072)	112	118	111	111
380-137787-9	FB: AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP400)	110	117	108	109
380-137787-10	FB: KA'AMILO WELLS	117	117	109	113
LCS 380-138366/22-A	Lab Control Sample	112	116	105	113
MBL 380-138366/20-A	Method Blank	115	115	112	109
MRL 380-138366/21-A	Lab Control Sample	112	117	105	110

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: 380-137787-1
SDG: Weekly PFAS

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

Matrix: Drinking 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)
380-137787-1	HALAWA WELLS UNITS 1 & 2 F	99	100	93	98	100	104	100	97
380-137787-2	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	104	105	105	107	111	109	100	97
380-137787-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	107	106	103	107	109	108	104	98

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)
380-137787-1	HALAWA WELLS UNITS 1 & 2 F	102	102	105	102	109	122	120	106
380-137787-2	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	113	114	106	104	113	124	121	108
380-137787-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	108	106	103	104	105	118	116	102

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 PFDoA
- PFBA = 13C4 PFBA
- PFPeA = 13C5 PFPeA
- C3PFBS = 13C3 PFBS
- C3PFHS = 13C3 PFHxS
- C8PFOS = 13C8 PFOS
- 42FTS = 13C2-4:2-FTS
- 62FTS = 13C2-6:2-FTS
- 82FTS = 13C2-8:2-FTS

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

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)
380-137340-E-3-A MS	Matrix Spike	109	110	107	107	112	109	105	104
380-137340-F-3-A MSD	Matrix Spike Duplicate	110	106	103	104	109	107	101	99
380-137784-E-1-B MS	Matrix Spike	118	109	100	104	108	110	101	98
380-137784-F-1-B MSD	Matrix Spike Duplicate	112	117	111	109	115	117	110	108
380-137787-4	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP400)	111	111	109	111	116	114	110	108
380-137787-5	KA'AMILO WELLS	93	103	93	100	104	103	97	96
380-137787-6	FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	101	105	102	102	105	103	100	92
380-137787-7	FB: AIEA GULCH WELLS PUMF 1 (331-201-TP071)	107	103	103	104	107	105	99	93
380-137787-8	FB: AIEA GULCH WELLS PUMF 2 (331-202-TP072)	105	105	105	108	110	107	101	97

Isotope Dilution Summary

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

Job ID: 380-137787-1
 SDG: Weekly PFAS

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

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)
380-137787-9	FB: AIEA WELLS PUMPS 1&2 F	102	107	105	108	110	112	105	101
380-137787-10	FB: KA'AMILO WELLS	100	102	103	107	108	105	98	100
LCS 380-138868/24-A	Lab Control Sample	119	112	110	108	112	112	108	102
LCS 380-139057/22-A	Lab Control Sample	111	104	102	103	108	106	99	99
MBL 380-138868/22-A	Method Blank	111	102	105	109	109	103	102	102
MBL 380-139057/20-A	Method Blank	96	99	95	103	103	103	96	94
MRL 380-138868/23-A	Lab Control Sample	111	102	103	107	107	107	103	100
MRL 380-139057/21-A	Lab Control Sample	99	106	101	106	106	107	102	99

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)
380-137340-E-3-A MS	Matrix Spike	109	108	109	110	110	121	117	106
380-137340-F-3-A MSD	Matrix Spike Duplicate	111	109	109	106	111	115	117	105
380-137784-E-1-B MS	Matrix Spike	105	107	109	109	111	105	108	105
380-137784-F-1-B MSD	Matrix Spike Duplicate	119	120	115	114	121	113	113	108
380-137787-4	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP400)	105	110	106	106	113	120	119	104
380-137787-5	KA'AMILO WELLS	106	112	104	106	110	121	121	105
380-137787-6	FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	110	106	106	104	107	116	119	101
380-137787-7	FB: AIEA GULCH WELLS PUMF 1 (331-201-TP071)	107	103	110	104	106	123	119	104
380-137787-8	FB: AIEA GULCH WELLS PUMF 2 (331 202 TP072)	107	112	106	105	109	123	121	107
380-137787-9	FB: AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP400)	111	106	107	106	114	121	118	105
380-137787-10	FB: KA'AMILO WELLS	109	106	107	104	109	118	122	107
LCS 380-138868/24-A	Lab Control Sample	111	105	109	112	111	116	122	104
LCS 380-139057/22-A	Lab Control Sample	107	107	103	102	105	111	105	99
MBL 380-138868/22-A	Method Blank	112	108	112	110	112	127	126	109
MBL 380-139057/20-A	Method Blank	101	99	94	97	105	109	107	97
MRL 380-138868/23-A	Lab Control Sample	111	104	107	111	111	124	122	104
MRL 380-139057/21-A	Lab Control Sample	109	107	99	102	108	108	114	103

Surrogate Legend

- HFPODA = 13C3 HFPO-DA
- C6PFDA = 13C6 PFDA
- 13C5PHA = 13C5 PFHxA
- C4PFHA = 13C4 PFHpA
- C8PFOA = 13C8 PFOA
- C9PFNA = 13C9 PFNA
- 13C7PUA = 13C7 PFUnA
- 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: 380-137787-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-138868/22-A
Matrix: Water
Analysis Batch: 138993

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138868

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		02/28/25 16:04	03/01/25 12:04	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		02/28/25 16:04	03/01/25 12:04	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	111		50 - 200	02/28/25 16:04	03/01/25 12:04	1
13C6 PFDA	102		50 - 200	02/28/25 16:04	03/01/25 12:04	1
13C5 PFHxA	105		50 - 200	02/28/25 16:04	03/01/25 12:04	1
13C4 PFHpA	109		50 - 200	02/28/25 16:04	03/01/25 12:04	1
13C8 PFOA	109		50 - 200	02/28/25 16:04	03/01/25 12:04	1
13C9 PFNA	103		50 - 200	02/28/25 16:04	03/01/25 12:04	1
13C7 PFUnA	102		50 - 200	02/28/25 16:04	03/01/25 12:04	1
13C2 PFDoA	102		50 - 200	02/28/25 16:04	03/01/25 12:04	1
13C4 PFBA	112		50 - 200	02/28/25 16:04	03/01/25 12:04	1
13C5 PFPeA	108		50 - 200	02/28/25 16:04	03/01/25 12:04	1
13C3 PFBS	112		50 - 200	02/28/25 16:04	03/01/25 12:04	1
13C3 PFHxS	110		50 - 200	02/28/25 16:04	03/01/25 12:04	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-138868/22-A
Matrix: Water
Analysis Batch: 138993

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138868

<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	112		50 - 200	02/28/25 16:04	03/01/25 12:04	1
13C2-4:2-FTS	127		50 - 200	02/28/25 16:04	03/01/25 12:04	1
13C2-6:2-FTS	126		50 - 200	02/28/25 16:04	03/01/25 12:04	1
13C2-8:2-FTS	109		50 - 200	02/28/25 16:04	03/01/25 12:04	1

Lab Sample ID: LCS 380-138868/24-A
Matrix: Water
Analysis Batch: 138993

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138868

<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-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.2	55.0		ng/L		91	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.2	51.7		ng/L		86	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.2	61.1		ng/L		102	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.2	55.8		ng/L		93	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.2	57.8		ng/L		96	70 - 130
Perfluorodecanoic acid (PFDA)	60.2	57.1		ng/L		95	70 - 130
Perfluorododecanoic acid (PFDoA)	60.2	61.9		ng/L		103	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.2	58.6		ng/L		97	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.2	57.0		ng/L		95	70 - 130
Perfluorohexanoic acid (PFHxA)	60.2	58.8		ng/L		98	70 - 130
Perfluorononanoic acid (PFNA)	60.2	56.9		ng/L		95	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.2	56.6		ng/L		94	70 - 130
Perfluorooctanoic acid (PFOA)	60.2	55.4		ng/L		92	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.2	58.6		ng/L		97	70 - 130
Perfluorobutanoic acid (PFBA)	60.2	56.7		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.2	59.3		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.2	60.8		ng/L		101	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.2	57.5		ng/L		95	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.2	51.8		ng/L		86	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	60.2	51.7		ng/L		86	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.2	57.4		ng/L		95	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.2	58.3		ng/L		97	70 - 130
Perfluoropentanoic acid (PFPeA)	60.2	58.1		ng/L		96	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.2	56.6		ng/L		94	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

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

Lab Sample ID: LCS 380-138868/24-A
Matrix: Water
Analysis Batch: 138993

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	60.2	54.4		ng/L		90	70 - 130
LCS LCS							
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	119		50 - 200				
13C6 PFDA	112		50 - 200				
13C5 PFHxA	110		50 - 200				
13C4 PFHpA	108		50 - 200				
13C8 PFOA	112		50 - 200				
13C9 PFNA	112		50 - 200				
13C7 PFUnA	108		50 - 200				
13C2 PFDoA	102		50 - 200				
13C4 PFBA	111		50 - 200				
13C5 PFPeA	105		50 - 200				
13C3 PFBS	109		50 - 200				
13C3 PFHxS	112		50 - 200				
13C8 PFOS	111		50 - 200				
13C2-4:2-FTS	116		50 - 200				
13C2-6:2-FTS	122		50 - 200				
13C2-8:2-FTS	104		50 - 200				

Lab Sample ID: MRL 380-138868/23-A
Matrix: Water
Analysis Batch: 138993

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138868

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	1.96	J	ng/L		98	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	1.74	J	ng/L		87	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.05	J	ng/L		102	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.02	J	ng/L		101	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	1.99	J	ng/L		99	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.12	J	ng/L		106	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.11	J	ng/L		105	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.04	J	ng/L		102	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.06	J	ng/L		103	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	1.99	J	ng/L		99	50 - 150
Perfluorononanoic acid (PFNA)	2.00	1.99	J	ng/L		99	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.08	J	ng/L		104	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	1.93	J	ng/L		96	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	1.98	J	ng/L		99	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	2.10	J	ng/L		105	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-138868/23-A
Matrix: Water
Analysis Batch: 138993

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138868

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	2.22	J	ng/L		111	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	2.08	J	ng/L		104	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	2.20	J	ng/L		110	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	2.10	J	ng/L		105	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.00	1.84	J	ng/L		92	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	2.08	J	ng/L		104	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	2.21	J	ng/L		110	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	2.11	J	ng/L		105	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	1.99	J	ng/L		99	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	1.98	J	ng/L		99	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	111		50 - 200
13C6 PFDA	102		50 - 200
13C5 PFHxA	103		50 - 200
13C4 PFHpA	107		50 - 200
13C8 PFOA	107		50 - 200
13C9 PFNA	107		50 - 200
13C7 PFUnA	103		50 - 200
13C2 PFDoA	100		50 - 200
13C4 PFBA	111		50 - 200
13C5 PFPeA	104		50 - 200
13C3 PFBS	107		50 - 200
13C3 PFHxS	111		50 - 200
13C8 PFOS	111		50 - 200
13C2-4:2-FTS	124		50 - 200
13C2-6:2-FTS	122		50 - 200
13C2-8:2-FTS	104		50 - 200

Lab Sample ID: 380-137340-E-3-A MS
Matrix: Water
Analysis Batch: 138993

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 138868

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		60.2	53.6		ng/L		89	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.2	52.8		ng/L		88	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.2	61.8		ng/L		103	70 - 130

QC Sample Results

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

Job ID: 380-137787-1
 SDG: Weekly PFAS

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

Lab Sample ID: 380-137340-E-3-A MS
Matrix: Water
Analysis Batch: 138993

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 138868

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		60.2	58.8		ng/L		98	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.2	58.7		ng/L		97	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.2	57.4		ng/L		95	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.2	59.6		ng/L		99	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.2	59.7		ng/L		99	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.2	58.8		ng/L		98	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.2	58.8		ng/L		98	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.2	57.1		ng/L		95	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.2	57.3		ng/L		95	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.2	53.5		ng/L		89	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.2	59.2		ng/L		98	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.2	56.3		ng/L		93	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.2	58.3		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.2	61.7		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.2	56.7		ng/L		94	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.2	61.9		ng/L		103	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.2	52.6		ng/L		87	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.2	57.1		ng/L		95	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.2	58.6		ng/L		97	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.2	57.8		ng/L		96	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.2	56.5		ng/L		94	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.2	57.3		ng/L		95	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	109		50 - 200
13C6 PFDA	110		50 - 200
13C5 PFHxA	107		50 - 200
13C4 PFHpA	107		50 - 200
13C8 PFOA	112		50 - 200
13C9 PFNA	109		50 - 200
13C7 PFUnA	105		50 - 200
13C2 PFDoA	104		50 - 200
13C4 PFBA	109		50 - 200
13C5 PFPeA	108		50 - 200
13C3 PFBS	109		50 - 200
13C3 PFHxS	110		50 - 200
13C8 PFOS	110		50 - 200

QC Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-137340-E-3-A MS
Matrix: Water
Analysis Batch: 138993

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 138868

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C2-4:2-FTS	121		50 - 200
13C2-6:2-FTS	117		50 - 200
13C2-8:2-FTS	106		50 - 200

Lab Sample ID: 380-137340-F-3-A MSD
Matrix: Water
Analysis Batch: 138993

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 138868

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.2	54.9		ng/L		91	70 - 130	2	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.2	51.5		ng/L		86	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.2	63.7		ng/L		106	70 - 130	3	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.2	58.0		ng/L		96	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.2	60.6		ng/L		101	70 - 130	3	30
Perfluorodecanoic acid (PFDA)	<2.0		60.2	60.2		ng/L		100	70 - 130	5	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.2	59.7		ng/L		99	70 - 130	0	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.2	61.3		ng/L		102	70 - 130	3	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.2	61.7		ng/L		102	70 - 130	5	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.2	64.5		ng/L		107	70 - 130	9	30
Perfluorononanoic acid (PFNA)	<2.0		60.2	59.3		ng/L		98	70 - 130	4	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.2	58.3		ng/L		97	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		60.2	57.6		ng/L		96	70 - 130	7	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.2	59.7		ng/L		99	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	<2.0		60.2	60.3		ng/L		100	70 - 130	7	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.2	58.5		ng/L		97	70 - 130	0	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.2	60.7		ng/L		101	70 - 130	2	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.2	59.2		ng/L		98	70 - 130	4	30
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.2	68.2		ng/L		113	70 - 130	10	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		60.2	53.9		ng/L		89	70 - 130	2	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.2	58.8		ng/L		98	70 - 130	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.2	61.2		ng/L		102	70 - 130	4	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.2	58.8		ng/L		98	70 - 130	2	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.2	56.6		ng/L		94	70 - 130	0	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.2	58.9		ng/L		98	70 - 130	3	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

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

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	110		50 - 200
13C6 PFDA	106		50 - 200
13C5 PFHxA	103		50 - 200
13C4 PFHpA	104		50 - 200
13C8 PFOA	109		50 - 200
13C9 PFNA	107		50 - 200
13C7 PFUnA	101		50 - 200
13C2 PFDoA	99		50 - 200
13C4 PFBA	111		50 - 200
13C5 PFPeA	109		50 - 200
13C3 PFBS	109		50 - 200
13C3 PFHxS	106		50 - 200
13C8 PFOS	111		50 - 200
13C2-4:2-FTS	115		50 - 200
13C2-6:2-FTS	117		50 - 200
13C2-8:2-FTS	105		50 - 200

Lab Sample ID: MBL 380-139057/20-A
Matrix: Water
Analysis Batch: 139390

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 139057

Analyte	MBL MBL		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-139057/20-A
Matrix: Water
Analysis Batch: 139390

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 139057

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		03/03/25 06:59	03/03/25 16:29	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	96		50 - 200	03/03/25 06:59	03/03/25 16:29	1
13C6 PFDA	99		50 - 200	03/03/25 06:59	03/03/25 16:29	1
13C5 PFHxA	95		50 - 200	03/03/25 06:59	03/03/25 16:29	1
13C4 PFHpA	103		50 - 200	03/03/25 06:59	03/03/25 16:29	1
13C8 PFOA	103		50 - 200	03/03/25 06:59	03/03/25 16:29	1
13C9 PFNA	103		50 - 200	03/03/25 06:59	03/03/25 16:29	1
13C7 PFUnA	96		50 - 200	03/03/25 06:59	03/03/25 16:29	1
13C2 PFDoA	94		50 - 200	03/03/25 06:59	03/03/25 16:29	1
13C4 PFBA	101		50 - 200	03/03/25 06:59	03/03/25 16:29	1
13C5 PFPeA	99		50 - 200	03/03/25 06:59	03/03/25 16:29	1
13C3 PFBS	94		50 - 200	03/03/25 06:59	03/03/25 16:29	1
13C3 PFHxS	97		50 - 200	03/03/25 06:59	03/03/25 16:29	1
13C8 PFOS	105		50 - 200	03/03/25 06:59	03/03/25 16:29	1
13C2-4:2-FTS	109		50 - 200	03/03/25 06:59	03/03/25 16:29	1
13C2-6:2-FTS	107		50 - 200	03/03/25 06:59	03/03/25 16:29	1
13C2-8:2-FTS	97		50 - 200	03/03/25 06:59	03/03/25 16:29	1

Lab Sample ID: LCS 380-139057/22-A
Matrix: Water
Analysis Batch: 139390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 139057

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	120	89.5		ng/L		74	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	120	90.4		ng/L		75	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	120	111		ng/L		92	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	120	101		ng/L		84	70 - 130
Perfluorobutanesulfonic acid (PFBS)	120	104		ng/L		87	70 - 130
Perfluorodecanoic acid (PFDA)	120	107		ng/L		89	70 - 130
Perfluorododecanoic acid (PFDoA)	120	112		ng/L		93	70 - 130
Perfluoroheptanoic acid (PFHpA)	120	107		ng/L		89	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	120	108		ng/L		90	70 - 130
Perfluorohexanoic acid (PFHxA)	120	108		ng/L		89	70 - 130
Perfluorononanoic acid (PFNA)	120	99.9		ng/L		83	70 - 130
Perfluorooctanesulfonic acid (PFOS)	120	103		ng/L		86	70 - 130
Perfluorooctanoic acid (PFOA)	120	99.8		ng/L		83	70 - 130

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QC Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

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

Lab Sample ID: LCS 380-139057/22-A
Matrix: Water
Analysis Batch: 139390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 139057

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	120	105		ng/L		88	70 - 130
Perfluorobutanoic acid (PFBA)	120	110		ng/L		91	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	120	108		ng/L		90	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	120	107		ng/L		89	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	120	105		ng/L		87	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	120	93.6		ng/L		78	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	120	96.6		ng/L		80	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	120	107		ng/L		89	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	120	112		ng/L		93	70 - 130
Perfluoropentanoic acid (PFPeA)	120	105		ng/L		87	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	120	104		ng/L		87	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	120	104		ng/L		86	70 - 130

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	111		50 - 200
13C6 PFDA	104		50 - 200
13C5 PFHxA	102		50 - 200
13C4 PFHpA	103		50 - 200
13C8 PFOA	108		50 - 200
13C9 PFNA	106		50 - 200
13C7 PFUnA	99		50 - 200
13C2 PFDoA	99		50 - 200
13C4 PFBA	107		50 - 200
13C5 PFPeA	107		50 - 200
13C3 PFBS	103		50 - 200
13C3 PFHxS	102		50 - 200
13C8 PFOS	105		50 - 200
13C2-4:2-FTS	111		50 - 200
13C2-6:2-FTS	105		50 - 200
13C2-8:2-FTS	99		50 - 200

Lab Sample ID: MRL 380-139057/21-A
Matrix: Water
Analysis Batch: 139390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 139057

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.77	J	ng/L		88	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	1.59	J	ng/L		79	50 - 150

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QC Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-139057/21-A
Matrix: Water
Analysis Batch: 139390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 139057

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.16	J	ng/L		107	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.10	J	ng/L		105	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.04	J	ng/L		101	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	1.99	J	ng/L		99	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.06	J	ng/L		102	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.10	J	ng/L		105	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.16	J	ng/L		107	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.06	J	ng/L		102	50 - 150
Perfluorononanoic acid (PFNA)	2.01	1.98	J	ng/L		98	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.05	J	ng/L		102	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	1.91	J	ng/L		95	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.03	J	ng/L		101	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	1.87	J	ng/L		93	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.18	J	ng/L		109	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.21	J	ng/L		110	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.06	J	ng/L		102	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	1.96	J	ng/L		98	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	1.89	J	ng/L		94	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	1.92	J	ng/L		96	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	1.97	J	ng/L		98	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.09	J	ng/L		104	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	1.98	J	ng/L		99	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	2.09	J	ng/L		104	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	99		50 - 200
13C6 PFDA	106		50 - 200
13C5 PFHxA	101		50 - 200
13C4 PFHpA	106		50 - 200
13C8 PFOA	106		50 - 200
13C9 PFNA	107		50 - 200
13C7 PFUnA	102		50 - 200
13C2 PFDoA	99		50 - 200
13C4 PFBA	109		50 - 200
13C5 PFPeA	107		50 - 200
13C3 PFBS	99		50 - 200
13C3 PFHxS	102		50 - 200

QC Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-139057/21-A
Matrix: Water
Analysis Batch: 139390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 139057

<i>Isotope Dilution</i>	<i>MRL %Recovery</i>	<i>MRL Qualifier</i>	<i>Limits</i>
13C8 PFOS	108		50 - 200
13C2-4:2-FTS	108		50 - 200
13C2-6:2-FTS	114		50 - 200
13C2-8:2-FTS	103		50 - 200

Lab Sample ID: 380-137784-E-1-B MS
Matrix: Water
Analysis Batch: 139390

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 139057

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MS Result</i>	<i>MS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0	F1	121	88.9		ng/L		74	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0	F1	121	90.5		ng/L		75	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		121	110		ng/L		91	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		121	99.4		ng/L		82	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		121	103		ng/L		85	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		121	101		ng/L		84	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		121	113		ng/L		94	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		121	110		ng/L		91	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		121	107		ng/L		88	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		121	113		ng/L		93	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		121	102		ng/L		84	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		121	103		ng/L		85	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		121	103		ng/L		86	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		121	106		ng/L		88	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		121	112		ng/L		93	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		121	106		ng/L		88	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		121	109		ng/L		90	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		121	108		ng/L		90	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0	F1 F2	121	112		ng/L		93	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		121	93.2		ng/L		77	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		121	112		ng/L		93	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		121	117		ng/L		97	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		121	107		ng/L		88	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		121	104		ng/L		86	70 - 130

QC Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-137784-E-1-B MS
Matrix: Water
Analysis Batch: 139390

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 139057

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	<2.0		121	104		ng/L		86	70 - 130
MS MS									
Isotope Dilution	%Recovery	Qualifier	Limits						
13C3 HFPO-DA	118		50 - 200						
13C6 PFDA	109		50 - 200						
13C5 PFHxA	100		50 - 200						
13C4 PFHpA	104		50 - 200						
13C8 PFOA	108		50 - 200						
13C9 PFNA	110		50 - 200						
13C7 PFUnA	101		50 - 200						
13C2 PFDoA	98		50 - 200						
13C4 PFBA	105		50 - 200						
13C5 PFPeA	107		50 - 200						
13C3 PFBS	109		50 - 200						
13C3 PFHxS	109		50 - 200						
13C8 PFOS	111		50 - 200						
13C2-4:2-FTS	105		50 - 200						
13C2-6:2-FTS	108		50 - 200						
13C2-8:2-FTS	105		50 - 200						

Lab Sample ID: 380-137784-F-1-B MSD
Matrix: Water
Analysis Batch: 139390

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 139057

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0	F1	121	80.2	F1	ng/L		66	70 - 130	10	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0	F1	121	81.1	F1	ng/L		67	70 - 130	11	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		121	105		ng/L		87	70 - 130	5	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		121	102		ng/L		84	70 - 130	3	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		121	99.4		ng/L		82	70 - 130	3	30
Perfluorodecanoic acid (PFDA)	<2.0		121	96.7		ng/L		80	70 - 130	4	30
Perfluorododecanoic acid (PFDoA)	<2.0		121	102		ng/L		84	70 - 130	10	30
Perfluoroheptanoic acid (PFHpA)	<2.0		121	103		ng/L		85	70 - 130	6	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		121	100		ng/L		83	70 - 130	6	30
Perfluorohexanoic acid (PFHxA)	<2.0		121	102		ng/L		84	70 - 130	10	30
Perfluorononanoic acid (PFNA)	<2.0		121	93.6		ng/L		77	70 - 130	8	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		121	92.7		ng/L		76	70 - 130	10	30
Perfluorooctanoic acid (PFOA)	<2.0		121	95.5		ng/L		79	70 - 130	8	30
Perfluoroundecanoic acid (PFUnA)	<2.0		121	101		ng/L		83	70 - 130	5	30
Perfluorobutanoic acid (PFBA)	<2.0		121	103		ng/L		85	70 - 130	8	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-137784-F-1-B MSD
Matrix: Water
Analysis Batch: 139390

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 139057

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		121	103		ng/L		85	70 - 130	3	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		121	97.6		ng/L		81	70 - 130	11	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		121	98.3		ng/L		81	70 - 130	10	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0	F1 F2	121	81.7	F1 F2	ng/L		68	70 - 130	31	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		121	89.1		ng/L		74	70 - 130	5	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		121	102		ng/L		85	70 - 130	9	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		121	103		ng/L		85	70 - 130	13	30
Perfluoropentanoic acid (PFPeA)	<2.0		121	97.4		ng/L		80	70 - 130	10	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		121	94.7		ng/L		78	70 - 130	9	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		121	96.6		ng/L		80	70 - 130	7	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	MSD Limits
13C3 HFPO-DA	112		50 - 200
13C6 PFDA	117		50 - 200
13C5 PFHxA	111		50 - 200
13C4 PFHpA	109		50 - 200
13C8 PFOA	115		50 - 200
13C9 PFNA	117		50 - 200
13C7 PFUnA	110		50 - 200
13C2 PFDoA	108		50 - 200
13C4 PFBA	119		50 - 200
13C5 PFPeA	120		50 - 200
13C3 PFBS	115		50 - 200
13C3 PFHxS	114		50 - 200
13C8 PFOS	121		50 - 200
13C2-4:2-FTS	113		50 - 200
13C2-6:2-FTS	113		50 - 200
13C2-8:2-FTS	108		50 - 200

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

Lab Sample ID: MBL 380-138366/20-A
Matrix: Water
Analysis Batch: 138517

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138366

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		02/27/25 04:10	02/27/25 17:15	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		02/27/25 04:10	02/27/25 17:15	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		02/27/25 04:10	02/27/25 17:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		02/27/25 04:10	02/27/25 17:15	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-138366/20-A
Matrix: Water
Analysis Batch: 138517

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138366

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		02/27/25 04:10	02/27/25 17:15	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		02/27/25 04:10	02/27/25 17:15	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		02/27/25 04:10	02/27/25 17:15	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		02/27/25 04:10	02/27/25 17:15	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		02/27/25 04:10	02/27/25 17:15	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		02/27/25 04:10	02/27/25 17:15	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		02/27/25 04:10	02/27/25 17:15	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		02/27/25 04:10	02/27/25 17:15	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		02/27/25 04:10	02/27/25 17:15	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		02/27/25 04:10	02/27/25 17:15	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		02/27/25 04:10	02/27/25 17:15	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		02/27/25 04:10	02/27/25 17:15	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		02/27/25 04:10	02/27/25 17:15	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		02/27/25 04:10	02/27/25 17:15	1
Surrogate	MBL %Recovery	MBL Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	115		70 - 130			02/27/25 04:10	02/27/25 17:15	1
13C2 PFHxA	115		70 - 130			02/27/25 04:10	02/27/25 17:15	1
13C2 PFDA	112		70 - 130			02/27/25 04:10	02/27/25 17:15	1
13C3-GenX	109		70 - 130			02/27/25 04:10	02/27/25 17:15	1

Lab Sample ID: LCS 380-138366/22-A
Matrix: Water
Analysis Batch: 138517

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138366

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	25.1	25.5		ng/L		101	70 - 130
Perfluorooctanesulfonic acid (PFOS)	25.1	27.1		ng/L		108	70 - 130
Perfluoroundecanoic acid (PFUnA)	25.1	24.8		ng/L		99	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.1	27.2		ng/L		108	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.1	27.4		ng/L		109	70 - 130
Perfluorohexanoic acid (PFHxA)	25.1	27.0		ng/L		108	70 - 130
Perfluorododecanoic acid (PFDoA)	25.1	22.1		ng/L		88	70 - 130
Perfluorooctanoic acid (PFOA)	25.1	26.7		ng/L		106	70 - 130
Perfluorodecanoic acid (PFDA)	25.1	24.6		ng/L		98	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	25.1	27.5		ng/L		109	70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.1	26.1		ng/L		104	70 - 130
Perfluoroheptanoic acid (PFHpA)	25.1	28.6		ng/L		114	70 - 130
Perfluorononanoic acid (PFNA)	25.1	26.3		ng/L		105	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

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

Lab Sample ID: LCS 380-138366/22-A
Matrix: Water
Analysis Batch: 138517

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138366

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorotetradecanoic acid (PFTA)	25.1	23.7		ng/L		94	70 - 130
Perfluorotridecanoic acid (PFTrDA)	25.1	23.3		ng/L		93	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	25.1	24.7		ng/L		98	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	25.1	26.8		ng/L		107	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.1	26.9		ng/L		107	70 - 130
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
d5-NEtFOSAA	112		70 - 130				
13C2 PFHxA	116		70 - 130				
13C2 PFDA	105		70 - 130				
13C3-GenX	113		70 - 130				

Lab Sample ID: MRL 380-138366/21-A
Matrix: Water
Analysis Batch: 138517

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138366

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.06	J	ng/L		103	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.14	J	ng/L		106	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	1.97	J	ng/L		98	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	2.12	J	ng/L		105	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	2.16	J	ng/L		108	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.19	J	ng/L		109	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	1.78	J	ng/L		88	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.08	J	ng/L		103	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	1.97	J	ng/L		98	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.13	J	ng/L		106	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.10	J	ng/L		104	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.17	J	ng/L		108	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.05	J	ng/L		102	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	1.95	J	ng/L		97	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.01	1.84	J	ng/L		91	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	1.93	J	ng/L		96	50 - 150

QC Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-138366/21-A
Matrix: Water
Analysis Batch: 138517

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138366

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.99	J	ng/L		99	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.14	J	ng/L		107	50 - 150
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
d5-NEtFOSAA	112		70 - 130				
13C2 PFHxA	117		70 - 130				
13C2 PFDA	105		70 - 130				
13C3-GenX	110		70 - 130				

Lab Sample ID: 380-137783-B-1-A MS
Matrix: Water
Analysis Batch: 138517

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 138366

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.1	26.5		ng/L		106	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.1	29.1		ng/L		116	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.1	25.9		ng/L		103	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.1	27.5		ng/L		110	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.1	27.8		ng/L		111	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		25.1	29.4		ng/L		113	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		25.1	23.5		ng/L		94	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		25.1	29.2		ng/L		113	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		25.1	26.3		ng/L		105	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		25.1	30.1		ng/L		114	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		25.1	28.2		ng/L		110	70 - 130
Perfluoroheptanoic acid (PFHpA)	2.0		25.1	29.5		ng/L		118	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		25.1	27.9		ng/L		111	70 - 130
Perfluorotetradecanoic acid (PFTA)	<2.0		25.1	24.9		ng/L		99	70 - 130
Perfluorotridecanoic acid (PFTrDA)	<2.0		25.1	25.0		ng/L		100	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.1	26.2		ng/L		105	70 - 130
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.1	29.1		ng/L		116	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.1	28.1		ng/L		112	70 - 130

QC Sample Results

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

Job ID: 380-137787-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-137783-B-1-A MS
Matrix: Water
Analysis Batch: 138517

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 138366

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
d5-NEtFOSAA	111		70 - 130
13C2 PFHxA	113		70 - 130
13C2 PFDA	107		70 - 130
13C3-GenX	110		70 - 130

Lab Sample ID: 380-137783-C-1-A MSD
Matrix: Water
Analysis Batch: 138517

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 138366

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec		RPD	RPD Limit
				Result	Qualifier				Limits	RPD		
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.1	26.1		ng/L		104	70 - 130	2	30	
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.1	26.9		ng/L		107	70 - 130	8	30	
Perfluoroundecanoic acid (PFUnA)	<2.0		25.1	24.7		ng/L		98	70 - 130	5	30	
N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA)	<2.0		25.1	26.1		ng/L		104	70 - 130	6	30	
N-ethylperfluorooctanesulfonamide acetic acid (NEtFOSAA)	<2.0		25.1	26.3		ng/L		105	70 - 130	6	30	
Perfluorohexanoic acid (PFHxA)	<2.0		25.1	28.7		ng/L		110	70 - 130	2	30	
Perfluorododecanoic acid (PFDoA)	<2.0		25.1	22.9		ng/L		91	70 - 130	3	30	
Perfluorooctanoic acid (PFOA)	<2.0		25.1	27.9		ng/L		108	70 - 130	4	30	
Perfluorodecanoic acid (PFDA)	<2.0		25.1	25.2		ng/L		100	70 - 130	4	30	
Perfluorohexanesulfonic acid (PFHxS)	<2.0		25.1	28.8		ng/L		109	70 - 130	4	30	
Perfluorobutanesulfonic acid (PFBS)	<2.0		25.1	27.0		ng/L		105	70 - 130	5	30	
Perfluoroheptanoic acid (PFHpA)	<2.0		25.1	28.7		ng/L		114	70 - 130	3	30	
Perfluorononanoic acid (PFNA)	<2.0		25.1	26.9		ng/L		107	70 - 130	4	30	
Perfluorotetradecanoic acid (PFTA)	<2.0		25.1	24.0		ng/L		96	70 - 130	4	30	
Perfluorotridecanoic acid (PFTrDA)	<2.0		25.1	23.9		ng/L		95	70 - 130	5	30	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.1	24.7		ng/L		98	70 - 130	6	30	
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.1	26.6		ng/L		106	70 - 130	9	30	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.1	26.8		ng/L		107	70 - 130	5	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
d5-NEtFOSAA	113		70 - 130
13C2 PFHxA	122		70 - 130
13C2 PFDA	110		70 - 130
13C3-GenX	115		70 - 130

QC Association Summary

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

Job ID: 380-137787-1
SDG: Weekly PFAS

LCMS

Prep Batch: 138366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-137787-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	537.1 DW	
380-137787-2	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	537.1 DW	
380-137787-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1 DW	
380-137787-4	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP073)	Total/NA	Water	537.1 DW	
380-137787-5	KA'AMILO WELLS	Total/NA	Water	537.1 DW	
380-137787-6	FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Water	537.1 DW	
380-137787-7	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	537.1 DW	
380-137787-8	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	537.1 DW	
380-137787-9	FB: AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP073)	Total/NA	Water	537.1 DW	
380-137787-10	FB: KA'AMILO WELLS	Total/NA	Water	537.1 DW	
MBL 380-138366/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-138366/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-138366/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-137783-B-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-137783-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 138517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-137787-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	537.1	138366
380-137787-2	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	537.1	138366
380-137787-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1	138366
380-137787-4	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP073)	Total/NA	Water	537.1	138366
380-137787-5	KA'AMILO WELLS	Total/NA	Water	537.1	138366
380-137787-6	FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Water	537.1	138366
380-137787-7	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	537.1	138366
380-137787-8	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	537.1	138366
380-137787-9	FB: AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP073)	Total/NA	Water	537.1	138366
380-137787-10	FB: KA'AMILO WELLS	Total/NA	Water	537.1	138366
MBL 380-138366/20-A	Method Blank	Total/NA	Water	537.1	138366
LCS 380-138366/22-A	Lab Control Sample	Total/NA	Water	537.1	138366
MRL 380-138366/21-A	Lab Control Sample	Total/NA	Water	537.1	138366
380-137783-B-1-A MS	Matrix Spike	Total/NA	Water	537.1	138366
380-137783-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1	138366

Prep Batch: 138868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-137787-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	533	
380-137787-2	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	
380-137787-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	
380-137787-4	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP073)	Total/NA	Water	533	
380-137787-6	FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Water	533	
380-137787-7	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	533	
380-137787-8	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	533	
380-137787-9	FB: AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP073)	Total/NA	Water	533	
380-137787-10	FB: KA'AMILO WELLS	Total/NA	Water	533	
MBL 380-138868/22-A	Method Blank	Total/NA	Water	533	
LCS 380-138868/24-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-138868/23-A	Lab Control Sample	Total/NA	Water	533	
380-137340-E-3-A MS	Matrix Spike	Total/NA	Water	533	
380-137340-F-3-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

QC Association Summary

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

Job ID: 380-137787-1
SDG: Weekly PFAS

LCMS

Analysis Batch: 138993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-137787-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	533	138868
380-137787-2	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	138868
380-137787-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	138868
380-137787-4	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP073)	Total/NA	Water	533	138868
380-137787-6	FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Water	533	138868
380-137787-7	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	533	138868
380-137787-8	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	533	138868
380-137787-9	FB: AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP073)	Total/NA	Water	533	138868
380-137787-10	FB: KA'AMILO WELLS	Total/NA	Water	533	138868
MBL 380-138868/22-A	Method Blank	Total/NA	Water	533	138868
LCS 380-138868/24-A	Lab Control Sample	Total/NA	Water	533	138868
MRL 380-138868/23-A	Lab Control Sample	Total/NA	Water	533	138868
380-137340-E-3-A MS	Matrix Spike	Total/NA	Water	533	138868
380-137340-F-3-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	138868

Prep Batch: 139057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-137787-5	KA'AMILO WELLS	Total/NA	Water	533	
MBL 380-139057/20-A	Method Blank	Total/NA	Water	533	
LCS 380-139057/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-139057/21-A	Lab Control Sample	Total/NA	Water	533	
380-137784-E-1-B MS	Matrix Spike	Total/NA	Water	533	
380-137784-F-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 139390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-137787-5	KA'AMILO WELLS	Total/NA	Water	533	139057
MBL 380-139057/20-A	Method Blank	Total/NA	Water	533	139057
LCS 380-139057/22-A	Lab Control Sample	Total/NA	Water	533	139057
MRL 380-139057/21-A	Lab Control Sample	Total/NA	Water	533	139057
380-137784-E-1-B MS	Matrix Spike	Total/NA	Water	533	139057
380-137784-F-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	533	139057

Lab Chronicle

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

Job ID: 380-137787-1
 SDG: Weekly PFAS

**Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
 (331-206-TP065)**

Lab Sample ID: 380-137787-1

Date Collected: 02/24/25 10:23

Matrix: Drinking Water

Date Received: 02/26/25 10:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			138868	E9PK	EA POM	02/28/25 16:04
Total/NA	Analysis	533		1	138993	M7ML	EA POM	03/01/25 14:18
Total/NA	Prep	537.1 DW			138366	G9MN	EA POM	02/27/25 04:10
Total/NA	Analysis	537.1		1	138517	SZ9R	EA POM	02/27/25 19:23

**Client Sample ID: AIEA GULCH WELLS PUMP 1
 (331-201-TP071)**

Lab Sample ID: 380-137787-2

Date Collected: 02/24/25 10:52

Matrix: Drinking Water

Date Received: 02/26/25 10:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			138868	E9PK	EA POM	02/28/25 16:04
Total/NA	Analysis	533		1	138993	M7ML	EA POM	03/01/25 14:37
Total/NA	Prep	537.1 DW			138366	G9MN	EA POM	02/27/25 04:10
Total/NA	Analysis	537.1		1	138517	SZ9R	EA POM	02/27/25 19:33

**Client Sample ID: AIEA GULCH WELLS PUMP 2
 (331-202-TP072)**

Lab Sample ID: 380-137787-3

Date Collected: 02/24/25 11:10

Matrix: Drinking Water

Date Received: 02/26/25 10:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			138868	E9PK	EA POM	02/28/25 16:04
Total/NA	Analysis	533		1	138993	M7ML	EA POM	03/01/25 14:47
Total/NA	Prep	537.1 DW			138366	G9MN	EA POM	02/27/25 04:10
Total/NA	Analysis	537.1		1	138517	SZ9R	EA POM	02/27/25 19:54

**Client Sample ID: AIEA WELLS PUMPS 1&2 P2 (260)
 (331-203-TP400)**

Lab Sample ID: 380-137787-4

Date Collected: 02/24/25 11:34

Matrix: Water

Date Received: 02/26/25 10:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			138868	E9PK	EA POM	02/28/25 16:04
Total/NA	Analysis	533		1	138993	M7ML	EA POM	03/01/25 14:57
Total/NA	Prep	537.1 DW			138366	G9MN	EA POM	02/27/25 04:10
Total/NA	Analysis	537.1		1	138517	SZ9R	EA POM	02/27/25 20:05

Lab Chronicle

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

Job ID: 380-137787-1
 SDG: Weekly PFAS

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-137787-5

Date Collected: 02/24/25 11:58

Matrix: Water

Date Received: 02/26/25 10:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			139057	XTD8	EA POM	03/03/25 06:59
Total/NA	Analysis	533		1	139390	SZ9R	EA POM	03/03/25 20:18
Total/NA	Prep	537.1 DW			138366	G9MN	EA POM	02/27/25 04:10
Total/NA	Analysis	537.1		1	138517	SZ9R	EA POM	02/27/25 20:15

Client Sample ID: FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)

Lab Sample ID: 380-137787-6

Date Collected: 02/24/25 10:23

Matrix: Water

Date Received: 02/26/25 10:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			138868	E9PK	EA POM	02/28/25 16:04
Total/NA	Analysis	533		1	138993	M7ML	EA POM	03/01/25 15:06
Total/NA	Prep	537.1 DW			138366	G9MN	EA POM	02/27/25 04:10
Total/NA	Analysis	537.1		1	138517	SZ9R	EA POM	02/27/25 20:25

Client Sample ID: FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)

Lab Sample ID: 380-137787-7

Date Collected: 02/24/25 10:52

Matrix: Water

Date Received: 02/26/25 10:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			138868	E9PK	EA POM	02/28/25 16:04
Total/NA	Analysis	533		1	138993	M7ML	EA POM	03/01/25 15:16
Total/NA	Prep	537.1 DW			138366	G9MN	EA POM	02/27/25 04:10
Total/NA	Analysis	537.1		1	138517	SZ9R	EA POM	02/27/25 20:34

Client Sample ID: FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)

Lab Sample ID: 380-137787-8

Date Collected: 02/24/25 11:10

Matrix: Water

Date Received: 02/26/25 10:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			138868	E9PK	EA POM	02/28/25 16:04
Total/NA	Analysis	533		1	138993	M7ML	EA POM	03/01/25 15:25
Total/NA	Prep	537.1 DW			138366	G9MN	EA POM	02/27/25 04:10
Total/NA	Analysis	537.1		1	138517	SZ9R	EA POM	02/27/25 20:44

Lab Chronicle

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

Job ID: 380-137787-1
 SDG: Weekly PFAS

**Client Sample ID: FB: AIEA WELLS PUMPS 1&2 P2 (260)
 (331-203-TP400)**

Lab Sample ID: 380-137787-9

Date Collected: 02/24/25 11:34

Matrix: Water

Date Received: 02/26/25 10:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			138868	E9PK	EA POM	02/28/25 16:04
Total/NA	Analysis	533		1	138993	M7ML	EA POM	03/01/25 15:35
Total/NA	Prep	537.1 DW			138366	G9MN	EA POM	02/27/25 04:10
Total/NA	Analysis	537.1		1	138517	SZ9R	EA POM	02/27/25 20:54

Client Sample ID: FB: KA'AMILO WELLS

Lab Sample ID: 380-137787-10

Date Collected: 02/24/25 11:58

Matrix: Water

Date Received: 02/26/25 10:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			138868	E9PK	EA POM	02/28/25 16:04
Total/NA	Analysis	533		1	138993	M7ML	EA POM	03/01/25 15:44
Total/NA	Prep	537.1 DW			138366	G9MN	EA POM	02/27/25 04:10
Total/NA	Analysis	537.1		1	138517	SZ9R	EA POM	02/27/25 21:03

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: 380-137787-1
SDG: Weekly PFAS

Laboratory: Eurofins Eaton Analytical Pomona

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

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-31-25 *

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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: 380-137787-1
SDG: Weekly PFAS

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: 380-137787-1
 SDG: Weekly PFAS

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-137787-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	Drinking Water	02/24/25 10:23	02/26/25 10:29
380-137787-2	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Drinking Water	02/24/25 10:52	02/26/25 10:29
380-137787-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Drinking Water	02/24/25 11:10	02/26/25 10:29
380-137787-4	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP400)	Water	02/24/25 11:34	02/26/25 10:29
380-137787-5	KA'AMILO WELLS	Water	02/24/25 11:58	02/26/25 10:29
380-137787-6	FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	Water	02/24/25 10:23	02/26/25 10:29
380-137787-7	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Water	02/24/25 10:52	02/26/25 10:29
380-137787-8	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Water	02/24/25 11:10	02/26/25 10:29
380-137787-9	FB: AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP400)	Water	02/24/25 11:34	02/26/25 10:29
380-137787-10	FB: KA'AMILO WELLS	Water	02/24/25 11:58	02/26/25 10:29

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



Chain of Custody Record

Client Information		Lab PM		Carrier Tracking No(s)		COC No:							
Client Contact: Kirk Iwamoto City & County of Honolulu Address: 630 South Bereliana Street, Chemistry Lab Honolulu State Zip: HI 96843 Phone: 808-748-5840 (tel) Email: kiwamoto@hbws.org		Lab PM Arada Rachelle E-Mail: Rachelle.Arada@et.eurofins.com		Carrier Tracking No(s) State of Origin		COC No: 380-27941-2757 2							
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill Site: SSOW#:		PWSID: Due Date Requested: TAT Requested (days) Compliance Project: <input type="checkbox"/> No <input type="checkbox"/> Yes PO #: C20525101 exp 05312023 WO #:		Analysis Requested 533 All Analytes 537 1_DW_PREC 537 1 Full List 525 2_PREC - (MOD) 525plus PLUS TICs C18 8015B_DRO_LL_CS HNL Ranges C10-C24/C24-C38/C8- 8015B_GRO_LL (MOD) GRO SUBCONTRACT 625 PAH Physis LL (EAL) + TICs Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		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:		Special Instructions/Note: Total Number of containers: <input checked="" type="checkbox"/>					
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Preservation Code:	Matrix (W=water, S=solid, O=waste/sol, B=BIOS, A=lab)	R	A	Q	O	A	Y	I	Special Instructions/Note
HALAWA WELLS UNITS 1&2 P1	24-Feb-2025	1023	G		Water						3	3	
AIEA GULCH WELLS PUMP 1	24-Feb-2025	1052	G		Water						3	3	chlorinated
AIEA GULCH WELLS PUMP 2	24-Feb-2025	1110	G		Water						3	3	chlorinated
AIEA WELLS PUMPS 1&2 (260) P2	24-Feb-2025	1134	G		Water						3	3	chlorinated
K'A'AMILO WELLS	24-Feb-2025	1158	G		Water						3	3	chlorinated
FB HALAWA WELLS UNITS 1&2	24-Feb-2025	1023									1	1	
FB AIEA GULCH WELLS PUMP 1	24-Feb-2025	1062									1	1	
FB AIEA GULCH WELLS PUMP 2	24-Feb-2025	1110									1	1	
FB AIEA WELLS PUMPS 1&2 (260)	24-Feb-2025	1134									1	1	
FB K'A'AMILO WELLS	24-Feb-2025	1158									1	1	

Non-Hazard Flammable Skin Irritant Unknown Radiological
 Deliverable Requested I II III IV Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements

Empty Kit Relinquished by _____ Date: _____ Time: _____
 Relinquished by _____ Date/Time: 25 FEBRUARY 2025 1400 Company: HBWS
 Relinquished by _____ Date/Time: _____ Company: _____
 Relinquished by _____ Date/Time: _____ Company: _____

Method of Shipment: **FED EX** 7723 110 5226
 Received by: *[Signature]* Date/Time: 02/26/25 10:29 Company: EEAP
 Received by: _____ Date/Time: _____ Company: _____
 Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks: **(75IA) 0.8°-0.0°-0.8° GEL FROZEN**



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-137787-1

SDG Number: Weekly PFAS

Login Number: 137787

List Number: 1

Creator: Ngo, Theodore

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

