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ANALYTICAL REPORT

PREPARED FOR

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

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JOB DESCRIPTION

RED-HILL
Weekly PFAS
RUSH Weekly Red Hill

JOB NUMBER

380-133898-1

Eurofins Eaton Analytical Pomona

Job Notes

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

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

Compliance Statement

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

Authorization



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Authorized for release by
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Definitions/Glossary

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

Job ID: 380-133898-1
SDG: Weekly PFAS

Qualifiers

LCMS

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Case Narrative

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

Job ID: 380-133898-1

Job ID: 380-133898-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-133898-1

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 2/5/2025 10:26 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.7°C and 0.9°C.

PFAS

Method 533: The following QC issues in 380-133940 OR 380-134122 were observed: IDA recovery for samples 380-133898-E-2-A MS (380-2051978) and 380-133898-F-2-A MSD (380-2051979) failed to meet method limits (low bias) for analyte(s) 13C6 PFDA. Insufficient volume for re-extraction / re-analysis for sample. Affected target analytes flagged due to IDA failure (s).

Methods EPA 537.1 and EPA 533 are two distinct methods for the analysis of PFAS in drinking water. The analyses are conducted on differing instrumentation, with calibrations, extraction solvents and sample preservatives being dissimilar among the two methods. Therefore it is probable and not unexpected to see the methods having slight variations in analytical results. HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065) (380-133898-1) and KA'AMILO WELLS (380-133898-5)

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: 380-133898-1
SDG: Weekly PFAS

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
(331-206-TP065)
PWSID Number: HI0000331

Lab Sample ID: 380-133898-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	2.7		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	2.3		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.5		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	2.5		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.4		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanoic acid (PFHxA)	2.2		2.0	ng/L	1		537.1	Total/NA
Perfluorooctanoic acid (PFOA)	2.0		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.7		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)
PWSID Number: HI0000331

Lab Sample ID: 380-133898-2

No Detections.

Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)
PWSID Number: HI0000331

Lab Sample ID: 380-133898-3

No Detections.

Client Sample ID: AIEA WELLS PUMPS 1&2 P2 (260)
(331-203-TP400)
PWSID Number: HI0000331

Lab Sample ID: 380-133898-4

No Detections.

Client Sample ID: KA'AMILO WELLS
PWSID Number: HI0000331

Lab Sample ID: 380-133898-5

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	2.4		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	2.0		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.4		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.7		2.0	ng/L	1		537.1	Total/NA
Perfluorooctanoic acid (PFOA)	2.0		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.4		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: FB HALAWA WELLS UNITS 1 & 2
(331-206-TP065)
PWSID Number: HI0000331

Lab Sample ID: 380-133898-6

No Detections.

Client Sample ID: FB AIEA GULCH WELLS PUMP 1
(331-201-TP071)
PWSID Number: HI0000331

Lab Sample ID: 380-133898-7

No Detections.

This Detection Summary does not include radiochemical test results.

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Detection Summary

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

Job ID: 380-133898-1
SDG: Weekly PFAS

**Client Sample ID: FB AIEA GULCH WELLS PUMP 2
(331-202-TP072)**
PWSID Number: HI0000331

Lab Sample ID: 380-133898-8

No Detections.

**Client Sample ID: FB AIEA WELLS PUMPS 1&2 (260)
(331-203-TP400)**
PWSID Number: HI0000331

Lab Sample ID: 380-133898-9

No Detections.

Client Sample ID: FB KA'AMILO WELLS
PWSID Number: HI0000331

Lab Sample ID: 380-133898-10

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-1

Date Collected: 02/03/25 10:06

Matrix: Drinking Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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		02/09/25 11:47	02/10/25 16:04	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Perfluorohexanesulfonic acid (PFHxS)	2.7		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Perfluorohexanoic acid (PFHxA)	2.3		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Perfluorooctanesulfonic acid (PFOS)	2.5		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Perfluoropentanoic acid (PFPeA)	2.5		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 16:04	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	75		50 - 200			02/09/25 11:47	02/10/25 16:04	1
13C6 PFDA	87		50 - 200			02/09/25 11:47	02/10/25 16:04	1
13C5 PFHxA	80		50 - 200			02/09/25 11:47	02/10/25 16:04	1
13C4 PFHpA	84		50 - 200			02/09/25 11:47	02/10/25 16:04	1
13C8 PFOA	85		50 - 200			02/09/25 11:47	02/10/25 16:04	1
13C9 PFNA	85		50 - 200			02/09/25 11:47	02/10/25 16:04	1
13C7 PFUnA	92		50 - 200			02/09/25 11:47	02/10/25 16:04	1
13C2 PFDoA	92		50 - 200			02/09/25 11:47	02/10/25 16:04	1
13C4 PFBA	91		50 - 200			02/09/25 11:47	02/10/25 16:04	1
13C5 PFPeA	92		50 - 200			02/09/25 11:47	02/10/25 16:04	1
13C3 PFBS	93		50 - 200			02/09/25 11:47	02/10/25 16:04	1

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Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-1

Date Collected: 02/03/25 10:06

Matrix: Drinking Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	101		50 - 200	02/09/25 11:47	02/10/25 16:04	1
13C8 PFOS	100		50 - 200	02/09/25 11:47	02/10/25 16:04	1
13C2-4:2-FTS	133		50 - 200	02/09/25 11:47	02/10/25 16:04	1
13C2-6:2-FTS	131		50 - 200	02/09/25 11:47	02/10/25 16:04	1
13C2-8:2-FTS	111		50 - 200	02/09/25 11:47	02/10/25 16:04	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		02/06/25 04:57	02/07/25 00:19	1
Perfluorooctanesulfonic acid (PFOS)	2.4		2.0	ng/L		02/06/25 04:57	02/07/25 00:19	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:19	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:19	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:19	1
Perfluorohexanoic acid (PFHxA)	2.2		2.0	ng/L		02/06/25 04:57	02/07/25 00:19	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:19	1
Perfluorooctanoic acid (PFOA)	2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:19	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:19	1
Perfluorohexanesulfonic acid (PFHxS)	2.7		2.0	ng/L		02/06/25 04:57	02/07/25 00:19	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:19	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:19	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:19	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:19	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:19	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:19	1
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:19	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	112		70 - 130	02/06/25 04:57	02/07/25 00:19	1
13C2 PFHxA	109		70 - 130	02/06/25 04:57	02/07/25 00:19	1
13C2 PFDA	109		70 - 130	02/06/25 04:57	02/07/25 00:19	1
13C3-GenX	109		70 - 130	02/06/25 04:57	02/07/25 00:19	1

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

Lab Sample ID: 380-133898-2

Date Collected: 02/03/25 10:32

Matrix: Drinking Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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		02/10/25 07:05	02/10/25 23:23	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-2

Date Collected: 02/03/25 10:32

Matrix: Drinking Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6 2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/10/25 07:05	02/10/25 23:23	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	51		50 - 200	02/10/25 07:05	02/10/25 23:23	1
13C6 PFDA	51		50 - 200	02/10/25 07:05	02/10/25 23:23	1
13C5 PFHxA	66		50 - 200	02/10/25 07:05	02/10/25 23:23	1
13C4 PFHpA	66		50 - 200	02/10/25 07:05	02/10/25 23:23	1
13C8 PFOA	62		50 - 200	02/10/25 07:05	02/10/25 23:23	1
13C9 PFNA	57		50 - 200	02/10/25 07:05	02/10/25 23:23	1
13C7 PFUnA	56		50 - 200	02/10/25 07:05	02/10/25 23:23	1
13C2 PFDoA	71		50 - 200	02/10/25 07:05	02/10/25 23:23	1
13C4 PFBA	74		50 - 200	02/10/25 07:05	02/10/25 23:23	1
13C5 PFPeA	71		50 - 200	02/10/25 07:05	02/10/25 23:23	1
13C3 PFBS	102		50 - 200	02/10/25 07:05	02/10/25 23:23	1
13C3 PFHxS	108		50 - 200	02/10/25 07:05	02/10/25 23:23	1
13C8 PFOS	106		50 - 200	02/10/25 07:05	02/10/25 23:23	1
13C2-4:2-FTS	141		50 - 200	02/10/25 07:05	02/10/25 23:23	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-2

Date Collected: 02/03/25 10:32

Matrix: Drinking Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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	138		50 - 200	02/10/25 07:05	02/10/25 23:23	1
13C2-8:2-FTS	128		50 - 200	02/10/25 07:05	02/10/25 23:23	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		02/06/25 04:57	02/07/25 00:30	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:30	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:30	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:30	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:30	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:30	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:30	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:30	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:30	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:30	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:30	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:30	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:30	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:30	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:30	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:30	1
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:30	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	108		70 - 130	02/06/25 04:57	02/07/25 00:30	1
13C2 PFHxA	107		70 - 130	02/06/25 04:57	02/07/25 00:30	1
13C2 PFDA	114		70 - 130	02/06/25 04:57	02/07/25 00:30	1
13C3-GenX	105		70 - 130	02/06/25 04:57	02/07/25 00:30	1

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

Lab Sample ID: 380-133898-3

Date Collected: 02/03/25 10:50

Matrix: Drinking Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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		02/10/25 07:05	02/11/25 00:30	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-3

Date Collected: 02/03/25 10:50

Matrix: Drinking Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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		02/10/25 07:05	02/11/25 00:30	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:30	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	60		50 - 200			02/10/25 07:05	02/11/25 00:30	1
13C6 PFDA	71		50 - 200			02/10/25 07:05	02/11/25 00:30	1
13C5 PFHxA	72		50 - 200			02/10/25 07:05	02/11/25 00:30	1
13C4 PFHpA	76		50 - 200			02/10/25 07:05	02/11/25 00:30	1
13C8 PFOA	73		50 - 200			02/10/25 07:05	02/11/25 00:30	1
13C9 PFNA	76		50 - 200			02/10/25 07:05	02/11/25 00:30	1
13C7 PFUnA	83		50 - 200			02/10/25 07:05	02/11/25 00:30	1
13C2 PFDoA	91		50 - 200			02/10/25 07:05	02/11/25 00:30	1
13C4 PFBA	82		50 - 200			02/10/25 07:05	02/11/25 00:30	1
13C5 PFPeA	78		50 - 200			02/10/25 07:05	02/11/25 00:30	1
13C3 PFBS	101		50 - 200			02/10/25 07:05	02/11/25 00:30	1
13C3 PFHxS	107		50 - 200			02/10/25 07:05	02/11/25 00:30	1
13C8 PFOS	108		50 - 200			02/10/25 07:05	02/11/25 00:30	1
13C2-4:2-FTS	138		50 - 200			02/10/25 07:05	02/11/25 00:30	1
13C2-6:2-FTS	136		50 - 200			02/10/25 07:05	02/11/25 00:30	1
13C2-8:2-FTS	127		50 - 200			02/10/25 07:05	02/11/25 00:30	1

Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-3

Date Collected: 02/03/25 10:50

Matrix: Drinking Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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		02/06/25 04:57	02/07/25 00:40	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:40	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:40	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:40	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:40	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:40	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:40	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:40	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:40	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:40	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:40	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:40	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:40	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:40	1
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:40	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	115		70 - 130			02/06/25 04:57	02/07/25 00:40	1
13C2 PFHxA	109		70 - 130			02/06/25 04:57	02/07/25 00:40	1
13C2 PFDA	111		70 - 130			02/06/25 04:57	02/07/25 00:40	1
13C3-GenX	101		70 - 130			02/06/25 04:57	02/07/25 00:40	1

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

Lab Sample ID: 380-133898-4

Date Collected: 02/03/25 11:11

Matrix: Drinking Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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		02/10/25 07:05	02/11/25 00:40	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-4

Date Collected: 02/03/25 11:11

Matrix: Drinking Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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		02/10/25 07:05	02/11/25 00:40	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:40	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	56		50 - 200			02/10/25 07:05	02/11/25 00:40	1
13C6 PFDA	69		50 - 200			02/10/25 07:05	02/11/25 00:40	1
13C5 PFHxA	69		50 - 200			02/10/25 07:05	02/11/25 00:40	1
13C4 PFHpA	72		50 - 200			02/10/25 07:05	02/11/25 00:40	1
13C8 PFOA	69		50 - 200			02/10/25 07:05	02/11/25 00:40	1
13C9 PFNA	69		50 - 200			02/10/25 07:05	02/11/25 00:40	1
13C7 PFUnA	77		50 - 200			02/10/25 07:05	02/11/25 00:40	1
13C2 PFDoA	89		50 - 200			02/10/25 07:05	02/11/25 00:40	1
13C4 PFBA	81		50 - 200			02/10/25 07:05	02/11/25 00:40	1
13C5 PFPeA	81		50 - 200			02/10/25 07:05	02/11/25 00:40	1
13C3 PFBS	104		50 - 200			02/10/25 07:05	02/11/25 00:40	1
13C3 PFHxS	106		50 - 200			02/10/25 07:05	02/11/25 00:40	1
13C8 PFOS	108		50 - 200			02/10/25 07:05	02/11/25 00:40	1
13C2-4:2-FTS	158		50 - 200			02/10/25 07:05	02/11/25 00:40	1
13C2-6:2-FTS	146		50 - 200			02/10/25 07:05	02/11/25 00:40	1
13C2-8:2-FTS	121		50 - 200			02/10/25 07:05	02/11/25 00:40	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		02/06/25 04:57	02/07/25 00:51	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:51	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:51	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:51	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-4

Date Collected: 02/03/25 11:11
Date Received: 02/05/25 10:26

Matrix: Drinking Water
PWSID Number: HI0000331

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		02/06/25 04:57	02/07/25 00:51	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:51	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:51	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:51	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:51	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:51	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:51	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:51	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:51	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:51	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:51	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:51	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:51	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 00:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	108		70 - 130			02/06/25 04:57	02/07/25 00:51	1
13C2 PFHxA	106		70 - 130			02/06/25 04:57	02/07/25 00:51	1
13C2 PFDA	109		70 - 130			02/06/25 04:57	02/07/25 00:51	1
13C3-GenX	102		70 - 130			02/06/25 04:57	02/07/25 00:51	1

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-133898-5

Date Collected: 02/03/25 11:37
Date Received: 02/05/25 10:26

Matrix: Water
PWSID Number: HI0000331

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		02/10/25 07:05	02/11/25 00:49	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
Perfluorohexanesulfonic acid (PFHxS)	2.4		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
Perfluorohexanoic acid (PFHxA)	2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
Perfluorooctanesulfonic acid (PFOS)	2.4		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-133898-5

Date Collected: 02/03/25 11:37

Matrix: Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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		02/10/25 07:05	02/11/25 00:49	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:49	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	72		50 - 200	02/10/25 07:05	02/11/25 00:49	1
13C6 PFDA	91		50 - 200	02/10/25 07:05	02/11/25 00:49	1
13C5 PFHxA	85		50 - 200	02/10/25 07:05	02/11/25 00:49	1
13C4 PFHpA	88		50 - 200	02/10/25 07:05	02/11/25 00:49	1
13C8 PFOA	92		50 - 200	02/10/25 07:05	02/11/25 00:49	1
13C9 PFNA	91		50 - 200	02/10/25 07:05	02/11/25 00:49	1
13C7 PFUnA	92		50 - 200	02/10/25 07:05	02/11/25 00:49	1
13C2 PFDoA	103		50 - 200	02/10/25 07:05	02/11/25 00:49	1
13C4 PFBA	96		50 - 200	02/10/25 07:05	02/11/25 00:49	1
13C5 PFPeA	96		50 - 200	02/10/25 07:05	02/11/25 00:49	1
13C3 PFBS	99		50 - 200	02/10/25 07:05	02/11/25 00:49	1
13C3 PFHxS	102		50 - 200	02/10/25 07:05	02/11/25 00:49	1
13C8 PFOS	104		50 - 200	02/10/25 07:05	02/11/25 00:49	1
13C2-4:2-FTS	141		50 - 200	02/10/25 07:05	02/11/25 00:49	1
13C2-6:2-FTS	140		50 - 200	02/10/25 07:05	02/11/25 00:49	1
13C2-8:2-FTS	121		50 - 200	02/10/25 07:05	02/11/25 00:49	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		02/06/25 04:57	02/06/25 21:47	1
Perfluorooctanesulfonic acid (PFOS)	2.7		2.0	ng/L		02/06/25 04:57	02/06/25 21:47	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/06/25 04:57	02/06/25 21:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/06/25 21:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/06/25 21:47	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/06/25 04:57	02/06/25 21:47	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/06/25 04:57	02/06/25 21:47	1
Perfluorooctanoic acid (PFOA)	2.0		2.0	ng/L		02/06/25 04:57	02/06/25 21:47	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/06/25 21:47	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-133898-5

Date Collected: 02/03/25 11:37

Matrix: Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	2.4		2.0	ng/L		02/06/25 04:57	02/06/25 21:47	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/06/25 04:57	02/06/25 21:47	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/06/25 04:57	02/06/25 21:47	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/06/25 04:57	02/06/25 21:47	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/06/25 04:57	02/06/25 21:47	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/06/25 21:47	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/06/25 04:57	02/06/25 21:47	1
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/06/25 04:57	02/06/25 21:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/06/25 04:57	02/06/25 21:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	110		70 - 130			02/06/25 04:57	02/06/25 21:47	1
13C2 PFHxA	101		70 - 130			02/06/25 04:57	02/06/25 21:47	1
13C2 PFDA	103		70 - 130			02/06/25 04:57	02/06/25 21:47	1
13C3-GenX	99		70 - 130			02/06/25 04:57	02/06/25 21:47	1

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

Lab Sample ID: 380-133898-6

Date Collected: 02/03/25 10:06

Matrix: Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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		02/09/25 11:47	02/10/25 17:01	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-6

Date Collected: 02/03/25 10:06

Matrix: Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/09/25 11:47	02/10/25 17:01	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	85		50 - 200			02/09/25 11:47	02/10/25 17:01	1
13C6 PFDA	100		50 - 200			02/09/25 11:47	02/10/25 17:01	1
13C5 PFHxA	99		50 - 200			02/09/25 11:47	02/10/25 17:01	1
13C4 PFHpA	99		50 - 200			02/09/25 11:47	02/10/25 17:01	1
13C8 PFOA	101		50 - 200			02/09/25 11:47	02/10/25 17:01	1
13C9 PFNA	101		50 - 200			02/09/25 11:47	02/10/25 17:01	1
13C7 PFUnA	99		50 - 200			02/09/25 11:47	02/10/25 17:01	1
13C2 PFDoA	98		50 - 200			02/09/25 11:47	02/10/25 17:01	1
13C4 PFBA	102		50 - 200			02/09/25 11:47	02/10/25 17:01	1
13C5 PFPeA	104		50 - 200			02/09/25 11:47	02/10/25 17:01	1
13C3 PFBS	97		50 - 200			02/09/25 11:47	02/10/25 17:01	1
13C3 PFHxS	103		50 - 200			02/09/25 11:47	02/10/25 17:01	1
13C8 PFOS	101		50 - 200			02/09/25 11:47	02/10/25 17:01	1
13C2-4:2-FTS	130		50 - 200			02/09/25 11:47	02/10/25 17:01	1
13C2-6:2-FTS	131		50 - 200			02/09/25 11:47	02/10/25 17:01	1
13C2-8:2-FTS	118		50 - 200			02/09/25 11:47	02/10/25 17:01	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		02/06/25 04:57	02/07/25 01:02	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:02	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:02	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:02	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:02	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:02	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:02	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:02	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:02	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:02	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:02	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:02	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:02	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:02	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-6

Date Collected: 02/03/25 10:06

Matrix: Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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		02/06/25 04:57	02/07/25 01:02	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:02	1
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:02	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	107		70 - 130			02/06/25 04:57	02/07/25 01:02	1
13C2 PFHxA	103		70 - 130			02/06/25 04:57	02/07/25 01:02	1
13C2 PFDA	108		70 - 130			02/06/25 04:57	02/07/25 01:02	1
13C3-GenX	102		70 - 130			02/06/25 04:57	02/07/25 01:02	1

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

Lab Sample ID: 380-133898-7

Date Collected: 02/03/25 10:32

Matrix: Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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		02/10/25 07:05	02/11/25 00:59	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-7

Date Collected: 02/03/25 10:32

Matrix: Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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		02/10/25 07:05	02/11/25 00:59	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 00:59	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	85		50 - 200			02/10/25 07:05	02/11/25 00:59	1
13C6 PFDA	103		50 - 200			02/10/25 07:05	02/11/25 00:59	1
13C5 PFHxA	100		50 - 200			02/10/25 07:05	02/11/25 00:59	1
13C4 PFHpA	105		50 - 200			02/10/25 07:05	02/11/25 00:59	1
13C8 PFOA	107		50 - 200			02/10/25 07:05	02/11/25 00:59	1
13C9 PFNA	107		50 - 200			02/10/25 07:05	02/11/25 00:59	1
13C7 PFUnA	106		50 - 200			02/10/25 07:05	02/11/25 00:59	1
13C2 PFDoA	107		50 - 200			02/10/25 07:05	02/11/25 00:59	1
13C4 PFBA	105		50 - 200			02/10/25 07:05	02/11/25 00:59	1
13C5 PFPeA	106		50 - 200			02/10/25 07:05	02/11/25 00:59	1
13C3 PFBS	100		50 - 200			02/10/25 07:05	02/11/25 00:59	1
13C3 PFHxS	101		50 - 200			02/10/25 07:05	02/11/25 00:59	1
13C8 PFOS	103		50 - 200			02/10/25 07:05	02/11/25 00:59	1
13C2-4:2-FTS	129		50 - 200			02/10/25 07:05	02/11/25 00:59	1
13C2-6:2-FTS	131		50 - 200			02/10/25 07:05	02/11/25 00:59	1
13C2-8:2-FTS	114		50 - 200			02/10/25 07:05	02/11/25 00:59	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		02/06/25 04:57	02/07/25 01:13	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:13	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:13	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:13	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:13	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:13	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:13	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:13	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:13	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:13	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:13	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:13	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:13	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:13	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:13	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:13	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:13	1

Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-7

Date Collected: 02/03/25 10:32

Matrix: Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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		02/06/25 04:57	02/07/25 01:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	107		70 - 130			02/06/25 04:57	02/07/25 01:13	1
13C2 PFHxA	104		70 - 130			02/06/25 04:57	02/07/25 01:13	1
13C2 PFDA	108		70 - 130			02/06/25 04:57	02/07/25 01:13	1
13C3-GenX	99		70 - 130			02/06/25 04:57	02/07/25 01:13	1

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

Lab Sample ID: 380-133898-8

Date Collected: 02/03/25 10:50

Matrix: Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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		02/10/25 07:05	02/11/25 01:08	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:08	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-8

Date Collected: 02/03/25 10:50

Matrix: Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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		02/10/25 07:05	02/11/25 01:08	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	83		50 - 200			02/10/25 07:05	02/11/25 01:08	1
13C6 PFDA	102		50 - 200			02/10/25 07:05	02/11/25 01:08	1
13C5 PFHxA	102		50 - 200			02/10/25 07:05	02/11/25 01:08	1
13C4 PFHpA	107		50 - 200			02/10/25 07:05	02/11/25 01:08	1
13C8 PFOA	108		50 - 200			02/10/25 07:05	02/11/25 01:08	1
13C9 PFNA	104		50 - 200			02/10/25 07:05	02/11/25 01:08	1
13C7 PFUnA	104		50 - 200			02/10/25 07:05	02/11/25 01:08	1
13C2 PFDoA	102		50 - 200			02/10/25 07:05	02/11/25 01:08	1
13C4 PFBA	112		50 - 200			02/10/25 07:05	02/11/25 01:08	1
13C5 PFPeA	112		50 - 200			02/10/25 07:05	02/11/25 01:08	1
13C3 PFBS	101		50 - 200			02/10/25 07:05	02/11/25 01:08	1
13C3 PFHxS	106		50 - 200			02/10/25 07:05	02/11/25 01:08	1
13C8 PFOS	105		50 - 200			02/10/25 07:05	02/11/25 01:08	1
13C2-4:2-FTS	142		50 - 200			02/10/25 07:05	02/11/25 01:08	1
13C2-6:2-FTS	140		50 - 200			02/10/25 07:05	02/11/25 01:08	1
13C2-8:2-FTS	124		50 - 200			02/10/25 07:05	02/11/25 01:08	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:24	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:24	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:24	1
N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:24	1
N-ethylperfluorooctanesulfonamide acetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:24	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:24	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:24	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:24	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:24	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:24	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:24	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:24	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:24	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:24	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:24	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:24	1
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:24	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	109		70 - 130			02/06/25 04:57	02/07/25 01:24	1
13C2 PFHxA	114		70 - 130			02/06/25 04:57	02/07/25 01:24	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-8

Date Collected: 02/03/25 10:50
Date Received: 02/05/25 10:26

Matrix: Water
PWSID Number: HI0000331

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDA	118		70 - 130	02/06/25 04:57	02/07/25 01:24	1
13C3-GenX	111		70 - 130	02/06/25 04:57	02/07/25 01:24	1

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

Lab Sample ID: 380-133898-9

Date Collected: 02/03/25 11:01
Date Received: 02/05/25 10:26

Matrix: Water
PWSID Number: HI0000331

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		02/10/25 07:05	02/11/25 01:18	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:18	1
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
13C3 HFPO-DA	84		50 - 200	02/10/25 07:05	02/11/25 01:18	1		
13C6 PFDA	105		50 - 200	02/10/25 07:05	02/11/25 01:18	1		

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-9

Date Collected: 02/03/25 11:01

Matrix: Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFHxA	103		50 - 200	02/10/25 07:05	02/11/25 01:18	1
13C4 PFHpA	106		50 - 200	02/10/25 07:05	02/11/25 01:18	1
13C8 PFOA	108		50 - 200	02/10/25 07:05	02/11/25 01:18	1
13C9 PFNA	107		50 - 200	02/10/25 07:05	02/11/25 01:18	1
13C7 PFUnA	104		50 - 200	02/10/25 07:05	02/11/25 01:18	1
13C2 PFDoA	101		50 - 200	02/10/25 07:05	02/11/25 01:18	1
13C4 PFBA	110		50 - 200	02/10/25 07:05	02/11/25 01:18	1
13C5 PFPeA	110		50 - 200	02/10/25 07:05	02/11/25 01:18	1
13C3 PFBS	102		50 - 200	02/10/25 07:05	02/11/25 01:18	1
13C3 PFHxS	107		50 - 200	02/10/25 07:05	02/11/25 01:18	1
13C8 PFOS	108		50 - 200	02/10/25 07:05	02/11/25 01:18	1
13C2-4:2-FTS	158		50 - 200	02/10/25 07:05	02/11/25 01:18	1
13C2-6:2-FTS	151		50 - 200	02/10/25 07:05	02/11/25 01:18	1
13C2-8:2-FTS	127		50 - 200	02/10/25 07:05	02/11/25 01:18	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		02/06/25 04:57	02/07/25 01:35	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:35	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:35	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:35	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:35	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:35	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:35	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:35	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:35	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:35	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:35	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:35	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:35	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:35	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:35	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:35	1
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	110		70 - 130	02/06/25 04:57	02/07/25 01:35	1
13C2 PFHxA	110		70 - 130	02/06/25 04:57	02/07/25 01:35	1
13C2 PFDA	111		70 - 130	02/06/25 04:57	02/07/25 01:35	1
13C3-GenX	105		70 - 130	02/06/25 04:57	02/07/25 01:35	1

Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

Client Sample ID: FB KA'AMILO WELLS

Lab Sample ID: 380-133898-10

Date Collected: 02/03/25 11:37

Matrix: Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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		02/10/25 07:05	02/11/25 01:27	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/10/25 07:05	02/11/25 01:27	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	81		50 - 200	02/10/25 07:05	02/11/25 01:27	1
13C6 PFDA	101		50 - 200	02/10/25 07:05	02/11/25 01:27	1
13C5 PFHxA	98		50 - 200	02/10/25 07:05	02/11/25 01:27	1
13C4 PFHpA	105		50 - 200	02/10/25 07:05	02/11/25 01:27	1
13C8 PFOA	105		50 - 200	02/10/25 07:05	02/11/25 01:27	1
13C9 PFNA	106		50 - 200	02/10/25 07:05	02/11/25 01:27	1
13C7 PFUnA	105		50 - 200	02/10/25 07:05	02/11/25 01:27	1
13C2 PFDoA	106		50 - 200	02/10/25 07:05	02/11/25 01:27	1
13C4 PFBA	110		50 - 200	02/10/25 07:05	02/11/25 01:27	1
13C5 PFPeA	109		50 - 200	02/10/25 07:05	02/11/25 01:27	1
13C3 PFBS	99		50 - 200	02/10/25 07:05	02/11/25 01:27	1
13C3 PFHxS	102		50 - 200	02/10/25 07:05	02/11/25 01:27	1
13C8 PFOS	103		50 - 200	02/10/25 07:05	02/11/25 01:27	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

Client Sample ID: FB KA'AMILO WELLS

Lab Sample ID: 380-133898-10

Date Collected: 02/03/25 11:37

Matrix: Water

Date Received: 02/05/25 10:26

PWSID Number: HI0000331

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	130		50 - 200	02/10/25 07:05	02/11/25 01:27	1
13C2-6:2-FTS	136		50 - 200	02/10/25 07:05	02/11/25 01:27	1
13C2-8:2-FTS	117		50 - 200	02/10/25 07:05	02/11/25 01:27	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		02/06/25 04:57	02/07/25 01:45	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:45	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:45	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:45	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:45	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:45	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:45	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:45	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:45	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:45	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:45	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:45	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:45	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:45	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:45	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:45	1
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/06/25 04:57	02/07/25 01:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	112		70 - 130	02/06/25 04:57	02/07/25 01:45	1
13C2 PFHxA	104		70 - 130	02/06/25 04:57	02/07/25 01:45	1
13C2 PFDA	111		70 - 130	02/06/25 04:57	02/07/25 01:45	1
13C3-GenX	102		70 - 130	02/06/25 04:57	02/07/25 01:45	1

Action Limit Summary

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

Job ID: 380-133898-1
SDG: Weekly PFAS

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
(331-206-TP065)
PWSID Number: HI0000331

Lab Sample ID: 380-133898-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.7		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.5		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)	2.4		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)	2.7		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)
PWSID Number: HI0000331

Lab Sample ID: 380-133898-2

Compliance Check

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

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

Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)
PWSID Number: HI0000331

Lab Sample ID: 380-133898-3

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-133898-1
SDG: Weekly PFAS

Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072) (Continued)
PWSID Number: HI0000331

Lab Sample ID: 380-133898-3

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			
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 WELLS PUMPS 1&2 P2 (260)
(331-203-TP400)
PWSID Number: HI0000331

Lab Sample ID: 380-133898-4

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
PWSID Number: HI0000331

Lab Sample ID: 380-133898-5

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)	2.4		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.4		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: 380-133898-1
SDG: Weekly PFAS

Client Sample ID: KA'AMILO WELLS (Continued)

Lab Sample ID: 380-133898-5

PWSID Number: HI0000331

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)	2.7		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)	2.4		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 HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-133898-6

(331-206-TP065)

PWSID Number: HI0000331

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 GULCH WELLS PUMP 1

Lab Sample ID: 380-133898-7

(331-201-TP071)

PWSID Number: HI0000331

Compliance Check

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

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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-133898-1
SDG: Weekly PFAS

Client Sample ID: FB AIEA GULCH WELLS PUMP 1
(331-201-TP071) (Continued)
PWSID Number: HI0000331

Lab Sample ID: 380-133898-7

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	RL	Method	Prep Type
				Limit			
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Client Sample ID: FB AIEA GULCH WELLS PUMP 2
(331-202-TP072)
PWSID Number: HI0000331

Lab Sample ID: 380-133898-8

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 (260)
(331-203-TP400)
PWSID Number: HI0000331

Lab Sample ID: 380-133898-9

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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-133898-1
SDG: Weekly PFAS

Client Sample ID: FB AIEA WELLS PUMPS 1&2 (260)
(331-203-TP400) (Continued)
PWSID Number: HI0000331

Lab Sample ID: 380-133898-9

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 Limit	RL	Method	Prep Type
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
PWSID Number: HI0000331

Lab Sample ID: 380-133898-10

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	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	533	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Surrogate Summary

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

Job ID: 380-133898-1
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)
380-133898-1	HALAWA WELLS UNITS 1 & 2 F	112	109	109	109
380-133898-2	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	108	107	114	105
380-133898-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	115	109	111	101
380-133898-4	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP400)	108	106	109	102

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)
380-133898-5	KA'AMILO WELLS	110	101	103	99
380-133898-5 MS	KA'AMILO WELLS	100	106	108	104
380-133898-5 MSD	KA'AMILO WELLS	113	110	113	108
380-133898-6	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	107	103	108	102
380-133898-7	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	107	104	108	99
380-133898-8	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	109	114	118	111
380-133898-9	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	110	110	111	105
380-133898-10	FB KA'AMILO WELLS	112	104	111	102
LCS 380-133227/22-A	Lab Control Sample	104	109	111	105
MBL 380-133227/20-A	Method Blank	104	105	111	103
MRL 380-133227/21-A	Lab Control Sample	114	109	111	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: 380-133898-1
SDG: Weekly PFAS

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDaA (50-200)
380-133898-1	HALAWA WELLS UNITS 1 & 2 F	75	87	80	84	85	85	92	92
380-133898-1 MS	HALAWA WELLS UNITS 1 & 2	92	101	95	99	99	101	104	102
380-133898-1 MSD	P1 (331-206-TP065) HALAWA WELLS UNITS 1 & 2	92	101	95	96	100	102	99	99
380-133898-2	P1 (331-206-TP065) AIEA GULCH WELLS PUMP 1	51	51	66	66	62	57	56	71
380-133898-2 MS	(331-201-TP071) AIEA GULCH WELLS PUMP 1	55	45 *5-	62	63	59	50	54	69
380-133898-2 MSD	(331-201-TP071) AIEA GULCH WELLS PUMP 1	54	35 *5-	59	57	54	45 *5-	36 *5-	51
380-133898-3	(331-201-TP071) AIEA GULCH WELLS PUMP 2	60	71	72	76	73	76	83	91
380-133898-4	(331-202-TP072) AIEA WELLS PUMPS 1&2 P2	56	69	69	72	69	69	77	89
	(260) (331-203-TP400)								

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (50-200)	PFPeA (50-200)	C3PFBS (50-200)	C3PFHS (50-200)	C8PFOS (50-200)	42FTS (50-200)	62FTS (50-200)	82FTS (50-200)
380-133898-1	HALAWA WELLS UNITS 1 & 2 F	91	92	93	101	100	133	131	111
380-133898-1 MS	HALAWA WELLS UNITS 1 & 2	97	106	97	100	101	125	126	112
380-133898-1 MSD	P1 (331-206-TP065) HALAWA WELLS UNITS 1 & 2	102	107	95	98	104	133	134	119
380-133898-2	P1 (331-206-TP065) AIEA GULCH WELLS PUMP 1	74	71	102	108	106	141	138	128
380-133898-2 MS	(331-201-TP071) AIEA GULCH WELLS PUMP 1	71	70	100	103	102	133	130	126
380-133898-2 MSD	(331-201-TP071) AIEA GULCH WELLS PUMP 1	70	68	99	98	99	132	130	125
380-133898-3	(331-201-TP071) AIEA GULCH WELLS PUMP 2	82	78	101	107	108	138	136	127
380-133898-4	(331-202-TP072) AIEA WELLS PUMPS 1&2 P2	81	81	104	106	108	158	146	121
	(260) (331-203-TP400)								

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

Isotope Dilution Summary

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

Job ID: 380-133898-1
 SDG: Weekly PFAS

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDoA (50-200)
380-133898-5	KA'AMILO WELLS	72	91	85	88	92	91	92	103
380-133898-6	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	85	100	99	99	101	101	99	98
380-133898-7	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	85	103	100	105	107	107	106	107
380-133898-8	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	83	102	102	107	108	104	104	102
380-133898-9	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	84	105	103	106	108	107	104	101
380-133898-10	FB KA'AMILO WELLS	81	101	98	105	105	106	105	106
LCS 380-133844/22-A	Lab Control Sample	94	104	99	102	103	104	104	110
LCS 380-133940/38-A	Lab Control Sample	92	99	100	105	107	108	94	89
MBL 380-133844/20-A	Method Blank	93	103	101	105	104	104	102	107
MBL 380-133940/36-A	Method Blank	84	96	103	103	104	102	90	85
MRL 380-133844/21-A	Lab Control Sample	92	100	101	104	104	104	103	102
MRL 380-133940/37-A	Lab Control Sample	73	99	93	97	103	102	99	102

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (50-200)	PFPeA (50-200)	C3PFBS (50-200)	C3PFHS (50-200)	C8PFOS (50-200)	42FTS (50-200)	62FTS (50-200)	82FTS (50-200)
380-133898-5	KA'AMILO WELLS	96	96	99	102	104	141	140	121
380-133898-6	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	102	104	97	103	101	130	131	118
380-133898-7	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	105	106	100	101	103	129	131	114
380-133898-8	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	112	112	101	106	105	142	140	124
380-133898-9	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	110	110	102	107	108	158	151	127
380-133898-10	FB KA'AMILO WELLS	110	109	99	102	103	130	136	117
LCS 380-133844/22-A	Lab Control Sample	104	106	99	101	102	125	134	113
LCS 380-133940/38-A	Lab Control Sample	106	107	103	105	102	127	133	119
MBL 380-133844/20-A	Method Blank	109	108	97	105	103	132	136	122
MBL 380-133940/36-A	Method Blank	106	108	98	105	99	130	129	114
MRL 380-133844/21-A	Lab Control Sample	104	106	96	99	99	134	135	117
MRL 380-133940/37-A	Lab Control Sample	97	98	101	105	105	141	136	127

Surrogate Legend

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

Isotope Dilution Summary

Client: City & County of Honolulu
Project/Site: RED-HILL
82FTS = 13C2-8:2-FTS

Job ID: 380-133898-1
SDG: Weekly PFAS

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
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- 14
- 15
- 16
- 17

QC Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-133844/20-A
Matrix: Water
Analysis Batch: 134092

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 133844

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		02/09/25 11:47	02/10/25 15:35	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		02/09/25 11:47	02/10/25 15:35	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	93		50 - 200	02/09/25 11:47	02/10/25 15:35	1
13C6 PFDA	103		50 - 200	02/09/25 11:47	02/10/25 15:35	1
13C5 PFHxA	101		50 - 200	02/09/25 11:47	02/10/25 15:35	1
13C4 PFHpA	105		50 - 200	02/09/25 11:47	02/10/25 15:35	1
13C8 PFOA	104		50 - 200	02/09/25 11:47	02/10/25 15:35	1
13C9 PFNA	104		50 - 200	02/09/25 11:47	02/10/25 15:35	1
13C7 PFUnA	102		50 - 200	02/09/25 11:47	02/10/25 15:35	1
13C2 PFDoA	107		50 - 200	02/09/25 11:47	02/10/25 15:35	1
13C4 PFBA	109		50 - 200	02/09/25 11:47	02/10/25 15:35	1
13C5 PFPeA	108		50 - 200	02/09/25 11:47	02/10/25 15:35	1
13C3 PFBS	97		50 - 200	02/09/25 11:47	02/10/25 15:35	1
13C3 PFHxS	105		50 - 200	02/09/25 11:47	02/10/25 15:35	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-133844/20-A
Matrix: Water
Analysis Batch: 134092

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 133844

<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	103		50 - 200	02/09/25 11:47	02/10/25 15:35	1
13C2-4:2-FTS	132		50 - 200	02/09/25 11:47	02/10/25 15:35	1
13C2-6:2-FTS	136		50 - 200	02/09/25 11:47	02/10/25 15:35	1
13C2-8:2-FTS	122		50 - 200	02/09/25 11:47	02/10/25 15:35	1

Lab Sample ID: LCS 380-133844/22-A
Matrix: Water
Analysis Batch: 134092

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 133844

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	120	114		ng/L		94	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	120	114		ng/L		95	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	120	118		ng/L		98	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	120	121		ng/L		101	70 - 130
Perfluorobutanesulfonic acid (PFBS)	120	126		ng/L		105	70 - 130
Perfluorodecanoic acid (PFDA)	120	120		ng/L		99	70 - 130
Perfluorododecanoic acid (PFDoA)	120	120		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	120	122		ng/L		102	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	120	123		ng/L		102	70 - 130
Perfluorohexanoic acid (PFHxA)	120	127		ng/L		106	70 - 130
Perfluorononanoic acid (PFNA)	120	119		ng/L		99	70 - 130
Perfluorooctanesulfonic acid (PFOS)	120	118		ng/L		98	70 - 130
Perfluorooctanoic acid (PFOA)	120	124		ng/L		103	70 - 130
Perfluoroundecanoic acid (PFUnA)	120	124		ng/L		103	70 - 130
Perfluorobutanoic acid (PFBA)	120	122		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	120	125		ng/L		104	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	120	120		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	120	116		ng/L		97	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	120	107		ng/L		89	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	120	116		ng/L		96	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	120	123		ng/L		102	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	120	123		ng/L		102	70 - 130
Perfluoropentanoic acid (PFPeA)	120	123		ng/L		102	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	120	120		ng/L		100	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: LCS 380-133844/22-A
Matrix: Water
Analysis Batch: 134092

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 133844

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	120	124		ng/L		103	70 - 130
LCS LCS							
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	94		50 - 200				
13C6 PFDA	104		50 - 200				
13C5 PFHxA	99		50 - 200				
13C4 PFHpA	102		50 - 200				
13C8 PFOA	103		50 - 200				
13C9 PFNA	104		50 - 200				
13C7 PFUnA	104		50 - 200				
13C2 PFDoA	110		50 - 200				
13C4 PFBA	104		50 - 200				
13C5 PFPeA	106		50 - 200				
13C3 PFBS	99		50 - 200				
13C3 PFHxS	101		50 - 200				
13C8 PFOS	102		50 - 200				
13C2-4:2-FTS	125		50 - 200				
13C2-6:2-FTS	134		50 - 200				
13C2-8:2-FTS	113		50 - 200				

Lab Sample ID: MRL 380-133844/21-A
Matrix: Water
Analysis Batch: 134092

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 133844

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	2.09	J	ng/L		104	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	2.04	J	ng/L		101	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.19	J	ng/L		109	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.11	J	ng/L		105	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.30	J	ng/L		115	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.23	J	ng/L		111	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.32	J	ng/L		116	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.25	J	ng/L		112	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.34	J	ng/L		117	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.27	J	ng/L		113	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.19	J	ng/L		109	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.23	J	ng/L		111	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.16	J	ng/L		108	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.30	J	ng/L		115	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.25	J	ng/L		112	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-133844/21-A
Matrix: Water
Analysis Batch: 134092

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 133844

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.16	J	ng/L		108	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.36	J	ng/L		117	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.44	J	ng/L		122	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	2.23	J	ng/L		111	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	2.12	J	ng/L		105	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	2.21	J	ng/L		110	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	2.14	J	ng/L		106	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.37	J	ng/L		118	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	2.30	J	ng/L		115	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	2.36	J	ng/L		118	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	92		50 - 200
13C6 PFDA	100		50 - 200
13C5 PFHxA	101		50 - 200
13C4 PFHpA	104		50 - 200
13C8 PFOA	104		50 - 200
13C9 PFNA	104		50 - 200
13C7 PFUnA	103		50 - 200
13C2 PFDoA	102		50 - 200
13C4 PFBA	104		50 - 200
13C5 PFPeA	106		50 - 200
13C3 PFBS	96		50 - 200
13C3 PFHxS	99		50 - 200
13C8 PFOS	99		50 - 200
13C2-4:2-FTS	134		50 - 200
13C2-6:2-FTS	135		50 - 200
13C2-8:2-FTS	117		50 - 200

Lab Sample ID: 380-133898-1 MS
Matrix: Drinking Water
Analysis Batch: 134092

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)
Prep Type: Total/NA
Prep Batch: 133844

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	60.8		ng/L		101	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.2	60.4		ng/L		100	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.2	63.0		ng/L		105	70 - 130

QC Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-1 MS

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

Matrix: Drinking Water

Prep Type: Total/NA

Analysis Batch: 134092

Prep Batch: 133844

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		60.2	60.0		ng/L		100	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.2	70.3		ng/L		115	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.2	65.5		ng/L		109	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.2	66.0		ng/L		110	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.2	66.3		ng/L		108	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	2.7		60.2	66.2		ng/L		105	70 - 130
Perfluorohexanoic acid (PFHxA)	2.3		60.2	69.0		ng/L		111	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.2	64.1		ng/L		106	70 - 130
Perfluorooctanesulfonic acid (PFOS)	2.5		60.2	64.5		ng/L		103	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.2	65.9		ng/L		107	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.2	65.1		ng/L		108	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.2	66.5		ng/L		109	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.2	68.6		ng/L		114	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.2	64.0		ng/L		106	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.2	66.9		ng/L		111	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.2	64.1		ng/L		106	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.2	63.4		ng/L		105	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.2	66.6		ng/L		111	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.2	64.0		ng/L		106	70 - 130
Perfluoropentanoic acid (PFPeA)	2.5		60.2	64.7		ng/L		103	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.2	64.4		ng/L		107	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.2	64.4		ng/L		107	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	92		50 - 200
13C6 PFDA	101		50 - 200
13C5 PFHxA	95		50 - 200
13C4 PFHpA	99		50 - 200
13C8 PFOA	99		50 - 200
13C9 PFNA	101		50 - 200
13C7 PFUnA	104		50 - 200
13C2 PFDoA	102		50 - 200
13C4 PFBA	97		50 - 200
13C5 PFPeA	106		50 - 200
13C3 PFBS	97		50 - 200
13C3 PFHxS	100		50 - 200
13C8 PFOS	101		50 - 200

QC Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-1 MS
Matrix: Drinking Water
Analysis Batch: 134092

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)
Prep Type: Total/NA
Prep Batch: 133844

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C2-4:2-FTS	125		50 - 200
13C2-6:2-FTS	126		50 - 200
13C2-8:2-FTS	112		50 - 200

Lab Sample ID: 380-133898-1 MSD
Matrix: Drinking Water
Analysis Batch: 134092

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)
Prep Type: Total/NA
Prep Batch: 133844

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	56.8		ng/L		94	70 - 130	7	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.2	57.6		ng/L		96	70 - 130	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.2	65.4		ng/L		109	70 - 130	4	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.2	60.0		ng/L		100	70 - 130	0	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.2	68.3		ng/L		111	70 - 130	3	30
Perfluorodecanoic acid (PFDA)	<2.0		60.2	63.2		ng/L		105	70 - 130	3	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.2	66.9		ng/L		111	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.2	65.3		ng/L		107	70 - 130	2	30
Perfluorohexanesulfonic acid (PFHxS)	2.7		60.2	69.2		ng/L		110	70 - 130	4	30
Perfluorohexanoic acid (PFHxA)	2.3		60.2	67.3		ng/L		108	70 - 130	3	30
Perfluorononanoic acid (PFNA)	<2.0		60.2	63.7		ng/L		106	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	2.5		60.2	62.5		ng/L		100	70 - 130	3	30
Perfluorooctanoic acid (PFOA)	<2.0		60.2	65.5		ng/L		106	70 - 130	1	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.2	66.0		ng/L		109	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	<2.0		60.2	63.6		ng/L		104	70 - 130	4	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.2	63.2		ng/L		105	70 - 130	8	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.2	65.5		ng/L		109	70 - 130	2	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.2	66.9		ng/L		111	70 - 130	0	30
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.2	50.0		ng/L		83	70 - 130	25	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.2	64.9		ng/L		108	70 - 130	2	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.2	64.9		ng/L		108	70 - 130	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.2	65.8		ng/L		109	70 - 130	3	30
Perfluoropentanoic acid (PFPeA)	2.5		60.2	63.7		ng/L		102	70 - 130	2	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.2	63.5		ng/L		105	70 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.2	67.3		ng/L		112	70 - 130	4	30

QC Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	92		50 - 200
13C6 PFDA	101		50 - 200
13C5 PFHxA	95		50 - 200
13C4 PFHpA	96		50 - 200
13C8 PFOA	100		50 - 200
13C9 PFNA	102		50 - 200
13C7 PFUnA	99		50 - 200
13C2 PFDoA	99		50 - 200
13C4 PFBA	102		50 - 200
13C5 PFPeA	107		50 - 200
13C3 PFBS	95		50 - 200
13C3 PFHxS	98		50 - 200
13C8 PFOS	104		50 - 200
13C2-4:2-FTS	133		50 - 200
13C2-6:2-FTS	134		50 - 200
13C2-8:2-FTS	119		50 - 200

Lab Sample ID: MBL 380-133940/36-A
Matrix: Water
Analysis Batch: 134122

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 133940

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		02/10/25 07:05	02/10/25 22:55	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-133940/36-A
Matrix: Water
Analysis Batch: 134122

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 133940

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		02/10/25 07:05	02/10/25 22:55	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	84		50 - 200	02/10/25 07:05	02/10/25 22:55	1
13C6 PFDA	96		50 - 200	02/10/25 07:05	02/10/25 22:55	1
13C5 PFHxA	103		50 - 200	02/10/25 07:05	02/10/25 22:55	1
13C4 PFHpA	103		50 - 200	02/10/25 07:05	02/10/25 22:55	1
13C8 PFOA	104		50 - 200	02/10/25 07:05	02/10/25 22:55	1
13C9 PFNA	102		50 - 200	02/10/25 07:05	02/10/25 22:55	1
13C7 PFUnA	90		50 - 200	02/10/25 07:05	02/10/25 22:55	1
13C2 PFDoA	85		50 - 200	02/10/25 07:05	02/10/25 22:55	1
13C4 PFBA	106		50 - 200	02/10/25 07:05	02/10/25 22:55	1
13C5 PFPeA	108		50 - 200	02/10/25 07:05	02/10/25 22:55	1
13C3 PFBS	98		50 - 200	02/10/25 07:05	02/10/25 22:55	1
13C3 PFHxS	105		50 - 200	02/10/25 07:05	02/10/25 22:55	1
13C8 PFOS	99		50 - 200	02/10/25 07:05	02/10/25 22:55	1
13C2-4:2-FTS	130		50 - 200	02/10/25 07:05	02/10/25 22:55	1
13C2-6:2-FTS	129		50 - 200	02/10/25 07:05	02/10/25 22:55	1
13C2-8:2-FTS	114		50 - 200	02/10/25 07:05	02/10/25 22:55	1

Lab Sample ID: LCS 380-133940/38-A
Matrix: Water
Analysis Batch: 134122

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 133940

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	120	101		ng/L		83	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	120	107		ng/L		89	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	120	108		ng/L		89	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	120	106		ng/L		88	70 - 130
Perfluorobutanesulfonic acid (PFBS)	120	119		ng/L		99	70 - 130
Perfluorodecanoic acid (PFDA)	120	113		ng/L		94	70 - 130
Perfluorododecanoic acid (PFDoA)	120	111		ng/L		92	70 - 130
Perfluoroheptanoic acid (PFHpA)	120	113		ng/L		94	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	120	117		ng/L		97	70 - 130
Perfluorohexanoic acid (PFHxA)	120	120		ng/L		100	70 - 130
Perfluorononanoic acid (PFNA)	120	114		ng/L		94	70 - 130
Perfluorooctanesulfonic acid (PFOS)	120	114		ng/L		95	70 - 130
Perfluorooctanoic acid (PFOA)	120	115		ng/L		95	70 - 130

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QC Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: LCS 380-133940/38-A
Matrix: Water
Analysis Batch: 134122

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 133940

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	120	120		ng/L		100	70 - 130
Perfluorobutanoic acid (PFBA)	120	113		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	120	113		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	120	116		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	120	118		ng/L		98	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	120	100		ng/L		83	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	120	109		ng/L		90	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	120	111		ng/L		92	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	120	113		ng/L		94	70 - 130
Perfluoropentanoic acid (PFPeA)	120	113		ng/L		94	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	120	119		ng/L		99	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	120	115		ng/L		95	70 - 130

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	92		50 - 200
13C6 PFDA	99		50 - 200
13C5 PFHxA	100		50 - 200
13C4 PFHpA	105		50 - 200
13C8 PFOA	107		50 - 200
13C9 PFNA	108		50 - 200
13C7 PFUnA	94		50 - 200
13C2 PFDoA	89		50 - 200
13C4 PFBA	106		50 - 200
13C5 PFPeA	107		50 - 200
13C3 PFBS	103		50 - 200
13C3 PFHxS	105		50 - 200
13C8 PFOS	102		50 - 200
13C2-4:2-FTS	127		50 - 200
13C2-6:2-FTS	133		50 - 200
13C2-8:2-FTS	119		50 - 200

Lab Sample ID: MRL 380-133940/37-A
Matrix: Water
Analysis Batch: 134122

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 133940

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.85	J	ng/L		92	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	1.86	J	ng/L		93	50 - 150

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QC Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-133940/37-A
Matrix: Water
Analysis Batch: 134122

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 133940

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.97	J	ng/L		98	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.20	J	ng/L		110	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.13	J	ng/L		106	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.06	J	ng/L		102	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.17	J	ng/L		108	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.11	J	ng/L		105	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.13	J	ng/L		106	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	1.98	J	ng/L		99	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.07	J	ng/L		103	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.13	J	ng/L		106	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	1.99	J	ng/L		99	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.06	J	ng/L		102	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.16	J	ng/L		108	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.07	J	ng/L		103	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.11	J	ng/L		105	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.24	J	ng/L		112	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	1.69	J	ng/L		84	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	1.95	J	ng/L		97	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	1.97	J	ng/L		98	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.05	J	ng/L		102	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	2.13	J	ng/L		106	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	2.10	J	ng/L		105	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	73		50 - 200
13C6 PFDA	99		50 - 200
13C5 PFHxA	93		50 - 200
13C4 PFHpA	97		50 - 200
13C8 PFOA	103		50 - 200
13C9 PFNA	102		50 - 200
13C7 PFUnA	99		50 - 200
13C2 PFDoA	102		50 - 200
13C4 PFBA	97		50 - 200
13C5 PFPeA	98		50 - 200
13C3 PFBS	101		50 - 200
13C3 PFHxS	105		50 - 200

QC Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-133940/37-A
Matrix: Water
Analysis Batch: 134122

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 133940

<i>Isotope Dilution</i>	<i>MRL %Recovery</i>	<i>MRL Qualifier</i>	<i>Limits</i>
13C8 PFOS	105		50 - 200
13C2-4:2-FTS	141		50 - 200
13C2-6:2-FTS	136		50 - 200
13C2-8:2-FTS	127		50 - 200

Lab Sample ID: 380-133898-2 MS
Matrix: Drinking Water
Analysis Batch: 134122

Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)
Prep Type: Total/NA
Prep Batch: 133940

<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		120	110		ng/L		91	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		120	109		ng/L		90	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		120	108		ng/L		90	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		120	116		ng/L		96	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		120	121		ng/L		100	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		120	116	*5-	ng/L		97	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		120	121		ng/L		101	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		120	115		ng/L		95	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		120	121		ng/L		100	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		120	120		ng/L		99	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		120	120		ng/L		99	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		120	117		ng/L		97	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		120	118		ng/L		98	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		120	118		ng/L		98	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		120	115		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		120	113		ng/L		93	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		120	118		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		120	121		ng/L		100	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		120	113		ng/L		94	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		120	110		ng/L		91	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		120	109		ng/L		90	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		120	107		ng/L		89	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		120	114		ng/L		94	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		120	121		ng/L		100	70 - 130

QC Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-2 MS
Matrix: Drinking Water
Analysis Batch: 134122

Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)
Prep Type: Total/NA
Prep Batch: 133940

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	<2.0		120	121		ng/L		100	70 - 130
MS MS									
Isotope Dilution	%Recovery	Qualifier	Limits						
13C3 HFPO-DA	55		50 - 200						
13C6 PFDA	45	*5-	50 - 200						
13C5 PFHxA	62		50 - 200						
13C4 PFHpA	63		50 - 200						
13C8 PFOA	59		50 - 200						
13C9 PFNA	50		50 - 200						
13C7 PFUnA	54		50 - 200						
13C2 PFDoA	69		50 - 200						
13C4 PFBA	71		50 - 200						
13C5 PFPeA	70		50 - 200						
13C3 PFBS	100		50 - 200						
13C3 PFHxS	103		50 - 200						
13C8 PFOS	102		50 - 200						
13C2-4:2-FTS	133		50 - 200						
13C2-6:2-FTS	130		50 - 200						
13C2-8:2-FTS	126		50 - 200						

Lab Sample ID: 380-133898-2 MSD
Matrix: Drinking Water
Analysis Batch: 134122

Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)
Prep Type: Total/NA
Prep Batch: 133940

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		121	111		ng/L		92	70 - 130	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		121	111		ng/L		92	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		121	113		ng/L		93	70 - 130	4	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		121	113		ng/L		94	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		121	120		ng/L		99	70 - 130	0	30
Perfluorodecanoic acid (PFDA)	<2.0		121	115	*5-	ng/L		95	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<2.0		121	119		ng/L		98	70 - 130	2	30
Perfluoroheptanoic acid (PFHpA)	<2.0		121	117		ng/L		97	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		121	124		ng/L		102	70 - 130	3	30
Perfluorohexanoic acid (PFHxA)	<2.0		121	124		ng/L		102	70 - 130	3	30
Perfluorononanoic acid (PFNA)	<2.0		121	124	*5-	ng/L		103	70 - 130	4	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		121	117		ng/L		97	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	<2.0		121	123		ng/L		102	70 - 130	4	30
Perfluoroundecanoic acid (PFUnA)	<2.0		121	121	*5-	ng/L		101	70 - 130	3	30
Perfluorobutanoic acid (PFBA)	<2.0		121	121		ng/L		100	70 - 130	5	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-2 MSD

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

Matrix: Drinking Water

Prep Type: Total/NA

Analysis Batch: 134122

Prep Batch: 133940

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	119		ng/L		98	70 - 130	5	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		121	117		ng/L		97	70 - 130	1	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		121	118		ng/L		97	70 - 130	3	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		121	111		ng/L		92	70 - 130	2	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		121	110		ng/L		91	70 - 130	0	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		121	112		ng/L		93	70 - 130	4	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		121	112		ng/L		93	70 - 130	4	30
Perfluoropentanoic acid (PFPeA)	<2.0		121	116		ng/L		96	70 - 130	2	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		121	122		ng/L		101	70 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		121	125		ng/L		104	70 - 130	4	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	MSD Limits
13C3 HFPO-DA	54		50 - 200
13C6 PFDA	35	*5-	50 - 200
13C5 PFHxA	59		50 - 200
13C4 PFHpA	57		50 - 200
13C8 PFOA	54		50 - 200
13C9 PFNA	45	*5-	50 - 200
13C7 PFUnA	36	*5-	50 - 200
13C2 PFDoA	51		50 - 200
13C4 PFBA	70		50 - 200
13C5 PFPeA	68		50 - 200
13C3 PFBS	99		50 - 200
13C3 PFHxS	98		50 - 200
13C8 PFOS	99		50 - 200
13C2-4:2-FTS	132		50 - 200
13C2-6:2-FTS	130		50 - 200
13C2-8:2-FTS	125		50 - 200

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

Lab Sample ID: MBL 380-133227/20-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 133364

Prep Batch: 133227

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		02/06/25 04:57	02/06/25 21:15	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		02/06/25 04:57	02/06/25 21:15	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		02/06/25 04:57	02/06/25 21:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		02/06/25 04:57	02/06/25 21:15	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-133227/20-A
Matrix: Water
Analysis Batch: 133364

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 133227

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		02/06/25 04:57	02/06/25 21:15	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		02/06/25 04:57	02/06/25 21:15	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		02/06/25 04:57	02/06/25 21:15	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		02/06/25 04:57	02/06/25 21:15	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		02/06/25 04:57	02/06/25 21:15	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		02/06/25 04:57	02/06/25 21:15	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		02/06/25 04:57	02/06/25 21:15	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		02/06/25 04:57	02/06/25 21:15	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		02/06/25 04:57	02/06/25 21:15	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		02/06/25 04:57	02/06/25 21:15	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		02/06/25 04:57	02/06/25 21:15	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		02/06/25 04:57	02/06/25 21:15	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		02/06/25 04:57	02/06/25 21:15	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		02/06/25 04:57	02/06/25 21:15	1

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	104		70 - 130	02/06/25 04:57	02/06/25 21:15	1
13C2 PFHxA	105		70 - 130	02/06/25 04:57	02/06/25 21:15	1
13C2 PFDA	111		70 - 130	02/06/25 04:57	02/06/25 21:15	1
13C3-GenX	103		70 - 130	02/06/25 04:57	02/06/25 21:15	1

Lab Sample ID: LCS 380-133227/22-A
Matrix: Water
Analysis Batch: 133364

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 133227

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	25.2	25.9		ng/L		103	70 - 130
Perfluorooctanesulfonic acid (PFOS)	25.2	27.3		ng/L		108	70 - 130
Perfluoroundecanoic acid (PFUnA)	25.2	28.4		ng/L		113	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.2	27.4		ng/L		109	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.2	28.2		ng/L		112	70 - 130
Perfluorohexanoic acid (PFHxA)	25.2	26.6		ng/L		106	70 - 130
Perfluorododecanoic acid (PFDoA)	25.2	27.5		ng/L		109	70 - 130
Perfluorooctanoic acid (PFOA)	25.2	28.7		ng/L		114	70 - 130
Perfluorodecanoic acid (PFDA)	25.2	28.5		ng/L		113	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	25.2	27.3		ng/L		109	70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.2	28.0		ng/L		111	70 - 130
Perfluoroheptanoic acid (PFHpA)	25.2	29.5		ng/L		117	70 - 130
Perfluorononanoic acid (PFNA)	25.2	28.6		ng/L		114	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: LCS 380-133227/22-A
Matrix: Water
Analysis Batch: 133364

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 133227

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorotetradecanoic acid (PFTA)	25.2	28.1		ng/L		112	70 - 130
Perfluorotridecanoic acid (PFTrDA)	25.2	26.2		ng/L		104	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	25.2	26.8		ng/L		107	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	25.2	25.2		ng/L		100	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.2	28.1		ng/L		112	70 - 130
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
d5-NEtFOSAA	104		70 - 130				
13C2 PFHxA	109		70 - 130				
13C2 PFDA	111		70 - 130				
13C3-GenX	105		70 - 130				

Lab Sample ID: MRL 380-133227/21-A
Matrix: Water
Analysis Batch: 133364

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 133227

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	1.91	J	ng/L		95	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.14	J	ng/L		107	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.14	J	ng/L		107	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	2.09	J	ng/L		104	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	2.11	J	ng/L		105	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.03	J	ng/L		101	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.11	J	ng/L		105	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.20	J	ng/L		110	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.06	J	ng/L		102	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.08	J	ng/L		104	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.13	J	ng/L		106	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.17	J	ng/L		108	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.17	J	ng/L		108	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	2.20	J	ng/L		109	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.01	1.97	J	ng/L		98	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	2.04	J	ng/L		102	50 - 150

QC Sample Results

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-133227/21-A
Matrix: Water
Analysis Batch: 133364

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 133227

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.93	J	ng/L		96	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.15	J	ng/L		107	50 - 150
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
d5-NEtFOSAA	114		70 - 130				
13C2 PFHxA	109		70 - 130				
13C2 PFDA	111		70 - 130				
13C3-GenX	110		70 - 130				

Lab Sample ID: 380-133898-5 MS
Matrix: Water
Analysis Batch: 133364

Client Sample ID: KA'AMILO WELLS
Prep Type: Total/NA
Prep Batch: 133227

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	25.3		ng/L		101	70 - 130
Perfluorooctanesulfonic acid (PFOS)	2.7		25.1	30.4		ng/L		111	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.1	27.6		ng/L		110	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.1	26.2		ng/L		105	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.1	25.0		ng/L		100	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		25.1	27.8		ng/L		104	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		25.1	26.3		ng/L		105	70 - 130
Perfluorooctanoic acid (PFOA)	2.0		25.1	29.4		ng/L		109	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		25.1	28.5		ng/L		114	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	2.4		25.1	29.4		ng/L		108	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		25.1	29.2		ng/L		110	70 - 130
Perfluoroheptanoic acid (PFHpA)	2.0		25.1	30.3		ng/L		117	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		25.1	29.4		ng/L		117	70 - 130
Perfluorotetradecanoic acid (PFTA)	<2.0		25.1	28.6		ng/L		114	70 - 130
Perfluorotridecanoic acid (PFTrDA)	<2.0		25.1	26.9		ng/L		107	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.1	26.7		ng/L		107	70 - 130
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.1	25.0		ng/L		100	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: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-5 MS
Matrix: Water
Analysis Batch: 133364

Client Sample ID: KA'AMILO WELLS
Prep Type: Total/NA
Prep Batch: 133227

<i>Surrogate</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
d5-NEtFOSAA	100		70 - 130
13C2 PFHxA	106		70 - 130
13C2 PFDA	108		70 - 130
13C3-GenX	104		70 - 130

Lab Sample ID: 380-133898-5 MSD
Matrix: Water
Analysis Batch: 133364

Client Sample ID: KA'AMILO WELLS
Prep Type: Total/NA
Prep Batch: 133227

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.2	27.2		ng/L		108	70 - 130	7	30
Perfluorooctanesulfonic acid (PFOS)	2.7		25.2	30.3		ng/L		110	70 - 130	0	30
Perfluoroundecanoic acid (PFUnA)	<2.0		25.2	27.5		ng/L		109	70 - 130	0	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	28.3		ng/L		113	70 - 130	8	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.2	28.4		ng/L		113	70 - 130	13	30
Perfluorohexanoic acid (PFHxA)	<2.0		25.2	28.1		ng/L		104	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<2.0		25.2	27.9		ng/L		111	70 - 130	6	30
Perfluorooctanoic acid (PFOA)	2.0		25.2	30.8		ng/L		114	70 - 130	4	30
Perfluorodecanoic acid (PFDA)	<2.0		25.2	28.7		ng/L		114	70 - 130	0	30
Perfluorohexanesulfonic acid (PFHxS)	2.4		25.2	29.8		ng/L		109	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		25.2	28.4		ng/L		106	70 - 130	3	30
Perfluoroheptanoic acid (PFHpA)	<2.0		25.2	29.8		ng/L		114	70 - 130	2	30
Perfluorononanoic acid (PFNA)	<2.0		25.2	29.8		ng/L		119	70 - 130	1	30
Perfluorotetradecanoic acid (PFTA)	<2.0		25.2	28.9		ng/L		115	70 - 130	1	30
Perfluorotridecanoic acid (PFTrDA)	<2.0		25.2	27.4		ng/L		109	70 - 130	2	30
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.2	28.0		ng/L		111	70 - 130	5	30
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.2	26.1		ng/L		104	70 - 130	4	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.2	28.7		ng/L		114	70 - 130	2	30

<i>Surrogate</i>	<i>%Recovery</i>	<i>MSD MSD Qualifier</i>	<i>Limits</i>
d5-NEtFOSAA	113		70 - 130
13C2 PFHxA	110		70 - 130
13C2 PFDA	113		70 - 130
13C3-GenX	108		70 - 130

QC Association Summary

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

Job ID: 380-133898-1
SDG: Weekly PFAS

LCMS

Prep Batch: 133227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-133898-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	537.1 DW	
380-133898-2	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	537.1 DW	
380-133898-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1 DW	
380-133898-4	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP01)	Total/NA	Drinking Water	537.1 DW	
380-133898-5	KA'AMILO WELLS	Total/NA	Water	537.1 DW	
380-133898-6	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP01)	Total/NA	Water	537.1 DW	
380-133898-7	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	537.1 DW	
380-133898-8	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	537.1 DW	
380-133898-9	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP01)	Total/NA	Water	537.1 DW	
380-133898-10	FB KA'AMILO WELLS	Total/NA	Water	537.1 DW	
MBL 380-133227/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-133227/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-133227/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-133898-5 MS	KA'AMILO WELLS	Total/NA	Water	537.1 DW	
380-133898-5 MSD	KA'AMILO WELLS	Total/NA	Water	537.1 DW	

Analysis Batch: 133364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-133898-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	537.1	133227
380-133898-2	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	537.1	133227
380-133898-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1	133227
380-133898-4	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP01)	Total/NA	Drinking Water	537.1	133227
380-133898-5	KA'AMILO WELLS	Total/NA	Water	537.1	133227
380-133898-6	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP01)	Total/NA	Water	537.1	133227
380-133898-7	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	537.1	133227
380-133898-8	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	537.1	133227
380-133898-9	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP01)	Total/NA	Water	537.1	133227
380-133898-10	FB KA'AMILO WELLS	Total/NA	Water	537.1	133227
MBL 380-133227/20-A	Method Blank	Total/NA	Water	537.1	133227
LCS 380-133227/22-A	Lab Control Sample	Total/NA	Water	537.1	133227
MRL 380-133227/21-A	Lab Control Sample	Total/NA	Water	537.1	133227
380-133898-5 MS	KA'AMILO WELLS	Total/NA	Water	537.1	133227
380-133898-5 MSD	KA'AMILO WELLS	Total/NA	Water	537.1	133227

Prep Batch: 133844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-133898-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	533	
380-133898-6	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP01)	Total/NA	Water	533	
MBL 380-133844/20-A	Method Blank	Total/NA	Water	533	
LCS 380-133844/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-133844/21-A	Lab Control Sample	Total/NA	Water	533	
380-133898-1 MS	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	533	
380-133898-1 MSD	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	533	

Prep Batch: 133940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-133898-2	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	
380-133898-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	
380-133898-4	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP01)	Total/NA	Drinking Water	533	
380-133898-5	KA'AMILO WELLS	Total/NA	Water	533	
380-133898-7	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	533	

QC Association Summary

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

Job ID: 380-133898-1
SDG: Weekly PFAS

LCMS (Continued)

Prep Batch: 133940 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-133898-8	FB AIEA GULCH WELLS PUMP 2 (331-202-TP0	Total/NA	Water	533	
380-133898-9	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP	Total/NA	Water	533	
380-133898-10	FB KA'AMILO WELLS	Total/NA	Water	533	
MBL 380-133940/36-A	Method Blank	Total/NA	Water	533	
LCS 380-133940/38-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-133940/37-A	Lab Control Sample	Total/NA	Water	533	
380-133898-2 MS	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	
380-133898-2 MSD	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	

Analysis Batch: 134092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-133898-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP0	Total/NA	Drinking Water	533	133844
380-133898-6	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP0	Total/NA	Water	533	133844
MBL 380-133844/20-A	Method Blank	Total/NA	Water	533	133844
LCS 380-133844/22-A	Lab Control Sample	Total/NA	Water	533	133844
MRL 380-133844/21-A	Lab Control Sample	Total/NA	Water	533	133844
380-133898-1 MS	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP0	Total/NA	Drinking Water	533	133844
380-133898-1 MSD	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP0	Total/NA	Drinking Water	533	133844

Analysis Batch: 134122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-133898-2	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	133940
380-133898-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	133940
380-133898-4	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP	Total/NA	Drinking Water	533	133940
380-133898-5	KA'AMILO WELLS	Total/NA	Water	533	133940
380-133898-7	FB AIEA GULCH WELLS PUMP 1 (331-201-TP0	Total/NA	Water	533	133940
380-133898-8	FB AIEA GULCH WELLS PUMP 2 (331-202-TP0	Total/NA	Water	533	133940
380-133898-9	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP	Total/NA	Water	533	133940
380-133898-10	FB KA'AMILO WELLS	Total/NA	Water	533	133940
MBL 380-133940/36-A	Method Blank	Total/NA	Water	533	133940
LCS 380-133940/38-A	Lab Control Sample	Total/NA	Water	533	133940
MRL 380-133940/37-A	Lab Control Sample	Total/NA	Water	533	133940
380-133898-2 MS	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	133940
380-133898-2 MSD	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	133940

Lab Chronicle

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

Job ID: 380-133898-1
 SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-1

Date Collected: 02/03/25 10:06

Matrix: Drinking Water

Date Received: 02/05/25 10:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			133844	N8NE	EA POM	02/09/25 11:47
Total/NA	Analysis	533		1	134092	R6YA	EA POM	02/10/25 16:04
Total/NA	Prep	537.1 DW			133227	G9MN	EA POM	02/06/25 04:57
Total/NA	Analysis	537.1		1	133364	Y5FM	EA POM	02/07/25 00:19

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

Lab Sample ID: 380-133898-2

Date Collected: 02/03/25 10:32

Matrix: Drinking Water

Date Received: 02/05/25 10:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			133940	XTD8	EA POM	02/10/25 07:05
Total/NA	Analysis	533		1	134122	M7ML	EA POM	02/10/25 23:23
Total/NA	Prep	537.1 DW			133227	G9MN	EA POM	02/06/25 04:57
Total/NA	Analysis	537.1		1	133364	Y5FM	EA POM	02/07/25 00:30

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

Lab Sample ID: 380-133898-3

Date Collected: 02/03/25 10:50

Matrix: Drinking Water

Date Received: 02/05/25 10:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			133940	XTD8	EA POM	02/10/25 07:05
Total/NA	Analysis	533		1	134122	M7ML	EA POM	02/11/25 00:30
Total/NA	Prep	537.1 DW			133227	G9MN	EA POM	02/06/25 04:57
Total/NA	Analysis	537.1		1	133364	Y5FM	EA POM	02/07/25 00:40

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

Lab Sample ID: 380-133898-4

Date Collected: 02/03/25 11:11

Matrix: Drinking Water

Date Received: 02/05/25 10:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			133940	XTD8	EA POM	02/10/25 07:05
Total/NA	Analysis	533		1	134122	M7ML	EA POM	02/11/25 00:40
Total/NA	Prep	537.1 DW			133227	G9MN	EA POM	02/06/25 04:57
Total/NA	Analysis	537.1		1	133364	Y5FM	EA POM	02/07/25 00:51

Lab Chronicle

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

Job ID: 380-133898-1
SDG: Weekly PFAS

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-133898-5

Date Collected: 02/03/25 11:37

Matrix: Water

Date Received: 02/05/25 10:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			133940	XTD8	EA POM	02/10/25 07:05
Total/NA	Analysis	533		1	134122	M7ML	EA POM	02/11/25 00:49
Total/NA	Prep	537.1 DW			133227	G9MN	EA POM	02/06/25 04:57
Total/NA	Analysis	537.1		1	133364	Y5FM	EA POM	02/06/25 21:47

Client Sample ID: FB HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-133898-6

(331-206-TP065)

Date Collected: 02/03/25 10:06

Matrix: Water

Date Received: 02/05/25 10:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			133844	N8NE	EA POM	02/09/25 11:47
Total/NA	Analysis	533		1	134092	R6YA	EA POM	02/10/25 17:01
Total/NA	Prep	537.1 DW			133227	G9MN	EA POM	02/06/25 04:57
Total/NA	Analysis	537.1		1	133364	Y5FM	EA POM	02/07/25 01:02

Client Sample ID: FB AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-133898-7

(331-201-TP071)

Date Collected: 02/03/25 10:32

Matrix: Water

Date Received: 02/05/25 10:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			133940	XTD8	EA POM	02/10/25 07:05
Total/NA	Analysis	533		1	134122	M7ML	EA POM	02/11/25 00:59
Total/NA	Prep	537.1 DW			133227	G9MN	EA POM	02/06/25 04:57
Total/NA	Analysis	537.1		1	133364	Y5FM	EA POM	02/07/25 01:13

Client Sample ID: FB AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-133898-8

(331-202-TP072)

Date Collected: 02/03/25 10:50

Matrix: Water

Date Received: 02/05/25 10:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			133940	XTD8	EA POM	02/10/25 07:05
Total/NA	Analysis	533		1	134122	M7ML	EA POM	02/11/25 01:08
Total/NA	Prep	537.1 DW			133227	G9MN	EA POM	02/06/25 04:57
Total/NA	Analysis	537.1		1	133364	Y5FM	EA POM	02/07/25 01:24

Lab Chronicle

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

Job ID: 380-133898-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-133898-9

Date Collected: 02/03/25 11:01

Matrix: Water

Date Received: 02/05/25 10:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			133940	XTD8	EA POM	02/10/25 07:05
Total/NA	Analysis	533		1	134122	M7ML	EA POM	02/11/25 01:18
Total/NA	Prep	537.1 DW			133227	G9MN	EA POM	02/06/25 04:57
Total/NA	Analysis	537.1		1	133364	Y5FM	EA POM	02/07/25 01:35

Client Sample ID: FB KA'AMILO WELLS

Lab Sample ID: 380-133898-10

Date Collected: 02/03/25 11:37

Matrix: Water

Date Received: 02/05/25 10:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			133940	XTD8	EA POM	02/10/25 07:05
Total/NA	Analysis	533		1	134122	M7ML	EA POM	02/11/25 01:27
Total/NA	Prep	537.1 DW			133227	G9MN	EA POM	02/06/25 04:57
Total/NA	Analysis	537.1		1	133364	Y5FM	EA POM	02/07/25 01:45

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: 380-133898-1
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 *

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

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

Method Summary

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

Job ID: 380-133898-1
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: 380-133898-1
SDG: Weekly PFAS

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-133898-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	Drinking Water	02/03/25 10:06	02/05/25 10:26	HI0000331
380-133898-2	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Drinking Water	02/03/25 10:32	02/05/25 10:26	HI0000331
380-133898-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Drinking Water	02/03/25 10:50	02/05/25 10:26	HI0000331
380-133898-4	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP400)	Drinking Water	02/03/25 11:11	02/05/25 10:26	HI0000331
380-133898-5	KA'AMILO WELLS	Water	02/03/25 11:37	02/05/25 10:26	HI0000331
380-133898-6	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Water	02/03/25 10:06	02/05/25 10:26	HI0000331
380-133898-7	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Water	02/03/25 10:32	02/05/25 10:26	HI0000331
380-133898-8	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Water	02/03/25 10:50	02/05/25 10:26	HI0000331
380-133898-9	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	Water	02/03/25 11:01	02/05/25 10:26	HI0000331
380-133898-10	FB KA'AMILO WELLS	Water	02/03/25 11:37	02/05/25 10:26	HI0000331



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-133898-1

SDG Number: Weekly PFAS

Login Number: 133898

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	