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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

Generated 1/21/2025 11:03:57 AM

JOB DESCRIPTION

RED-HILL
Weekly PFAS

JOB NUMBER

380-130364-1

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: 380-130364-1
SDG: Weekly PFAS

Qualifiers

LCMS

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

Glossary

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

Case Narrative

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

Job ID: 380-130364-1

Job ID: 380-130364-1

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Job Narrative 380-130364-1

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 1/15/2025 10:21 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 3.9°C and 5.6°C.

PFAS

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

Detection Summary

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-1

No Detections.

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

Lab Sample ID: 380-130364-2

No Detections.

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

Lab Sample ID: 380-130364-3

No Detections.

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

Lab Sample ID: 380-130364-4

No Detections.

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

Lab Sample ID: 380-130364-5

No Detections.

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

Lab Sample ID: 380-130364-6

No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-1

Date Collected: 01/13/25 10:20

Matrix: Water

Date Received: 01/15/25 10:21

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		01/17/25 06:35	01/18/25 09:29	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		01/17/25 06:35	01/18/25 09:29	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	95		50 - 200			01/17/25 06:35	01/18/25 09:29	1
13C6 PFDA	101		50 - 200			01/17/25 06:35	01/18/25 09:29	1
13C5 PFHxA	105		50 - 200			01/17/25 06:35	01/18/25 09:29	1
13C4 PFHpA	105		50 - 200			01/17/25 06:35	01/18/25 09:29	1
13C8 PFOA	109		50 - 200			01/17/25 06:35	01/18/25 09:29	1
13C9 PFNA	104		50 - 200			01/17/25 06:35	01/18/25 09:29	1
13C7 PFUnA	100		50 - 200			01/17/25 06:35	01/18/25 09:29	1
13C2 PFDoA	103		50 - 200			01/17/25 06:35	01/18/25 09:29	1
13C4 PFBA	108		50 - 200			01/17/25 06:35	01/18/25 09:29	1
13C5 PFPeA	102		50 - 200			01/17/25 06:35	01/18/25 09:29	1
13C3 PFBS	107		50 - 200			01/17/25 06:35	01/18/25 09:29	1
13C3 PFHxS	109		50 - 200			01/17/25 06:35	01/18/25 09:29	1

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Client Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-1

Date Collected: 01/13/25 10:20

Matrix: Water

Date Received: 01/15/25 10:21

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	113		50 - 200	01/17/25 06:35	01/18/25 09:29	1
13C2-4:2-FTS	98		50 - 200	01/17/25 06:35	01/18/25 09:29	1
13C2-6:2-FTS	106		50 - 200	01/17/25 06:35	01/18/25 09:29	1
13C2-8:2-FTS	83		50 - 200	01/17/25 06:35	01/18/25 09:29	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 03:19	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 03:19	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 03:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 03:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 03:19	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 03:19	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 03:19	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 03:19	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 03:19	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 03:19	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 03:19	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 03:19	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 03:19	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 03:19	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 03:19	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 03:19	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 03:19	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 03:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	103		70 - 130	01/16/25 07:32	01/17/25 03:19	1
13C2 PFHxA	117		70 - 130	01/16/25 07:32	01/17/25 03:19	1
13C2 PFDA	115		70 - 130	01/16/25 07:32	01/17/25 03:19	1
13C3-GenX	107		70 - 130	01/16/25 07:32	01/17/25 03:19	1

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

Lab Sample ID: 380-130364-2

Date Collected: 01/13/25 10:20

Matrix: Water

Date Received: 01/15/25 10:21

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		01/17/25 06:42	01/18/25 11:49	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-2

Date Collected: 01/13/25 10:20

Matrix: Water

Date Received: 01/15/25 10:21

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:49	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	100		50 - 200	01/17/25 06:42	01/18/25 11:49	1
13C6 PFDA	97		50 - 200	01/17/25 06:42	01/18/25 11:49	1
13C5 PFHxA	100		50 - 200	01/17/25 06:42	01/18/25 11:49	1
13C4 PFHpA	106		50 - 200	01/17/25 06:42	01/18/25 11:49	1
13C8 PFOA	106		50 - 200	01/17/25 06:42	01/18/25 11:49	1
13C9 PFNA	105		50 - 200	01/17/25 06:42	01/18/25 11:49	1
13C7 PFUnA	102		50 - 200	01/17/25 06:42	01/18/25 11:49	1
13C2 PFDoA	97		50 - 200	01/17/25 06:42	01/18/25 11:49	1
13C4 PFBA	110		50 - 200	01/17/25 06:42	01/18/25 11:49	1
13C5 PFPeA	104		50 - 200	01/17/25 06:42	01/18/25 11:49	1
13C3 PFBS	103		50 - 200	01/17/25 06:42	01/18/25 11:49	1
13C3 PFHxS	112		50 - 200	01/17/25 06:42	01/18/25 11:49	1
13C8 PFOS	109		50 - 200	01/17/25 06:42	01/18/25 11:49	1
13C2-4:2-FTS	91		50 - 200	01/17/25 06:42	01/18/25 11:49	1
13C2-6:2-FTS	100		50 - 200	01/17/25 06:42	01/18/25 11:49	1
13C2-8:2-FTS	82		50 - 200	01/17/25 06:42	01/18/25 11:49	1

Client Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-2

Date Collected: 01/13/25 10:20

Matrix: Water

Date Received: 01/15/25 10:21

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:24	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:24	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:24	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:24	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:24	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:24	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:24	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:24	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:24	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:24	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:24	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:24	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:24	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:24	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:24	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:24	1
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:24	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	114		70 - 130			01/16/25 07:32	01/17/25 04:24	1
13C2 PFHxA	119		70 - 130			01/16/25 07:32	01/17/25 04:24	1
13C2 PFDA	114		70 - 130			01/16/25 07:32	01/17/25 04:24	1
13C3-GenX	114		70 - 130			01/16/25 07:32	01/17/25 04:24	1

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

Lab Sample ID: 380-130364-3

Date Collected: 01/13/25 11:10

Matrix: Water

Date Received: 01/15/25 10:21

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		01/17/25 06:42	01/18/25 12:33	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-3

Date Collected: 01/13/25 11:10

Matrix: Water

Date Received: 01/15/25 10:21

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		01/17/25 06:42	01/18/25 12:33	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:33	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	101		50 - 200			01/17/25 06:42	01/18/25 12:33	1
13C6 PFDA	104		50 - 200			01/17/25 06:42	01/18/25 12:33	1
13C5 PFHxA	107		50 - 200			01/17/25 06:42	01/18/25 12:33	1
13C4 PFHpA	111		50 - 200			01/17/25 06:42	01/18/25 12:33	1
13C8 PFOA	109		50 - 200			01/17/25 06:42	01/18/25 12:33	1
13C9 PFNA	106		50 - 200			01/17/25 06:42	01/18/25 12:33	1
13C7 PFUnA	97		50 - 200			01/17/25 06:42	01/18/25 12:33	1
13C2 PFDoA	101		50 - 200			01/17/25 06:42	01/18/25 12:33	1
13C4 PFBA	111		50 - 200			01/17/25 06:42	01/18/25 12:33	1
13C5 PFPeA	106		50 - 200			01/17/25 06:42	01/18/25 12:33	1
13C3 PFBS	106		50 - 200			01/17/25 06:42	01/18/25 12:33	1
13C3 PFHxS	111		50 - 200			01/17/25 06:42	01/18/25 12:33	1
13C8 PFOS	111		50 - 200			01/17/25 06:42	01/18/25 12:33	1
13C2-4:2-FTS	92		50 - 200			01/17/25 06:42	01/18/25 12:33	1
13C2-6:2-FTS	100		50 - 200			01/17/25 06:42	01/18/25 12:33	1
13C2-8:2-FTS	81		50 - 200			01/17/25 06:42	01/18/25 12:33	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:35	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:35	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:35	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:35	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-3

Date Collected: 01/13/25 11:10

Matrix: Water

Date Received: 01/15/25 10:21

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		01/16/25 07:32	01/17/25 04:35	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:35	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:35	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:35	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:35	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:35	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:35	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:35	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:35	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:35	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:35	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:35	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	102		70 - 130			01/16/25 07:32	01/17/25 04:35	1
13C2 PFHxA	115		70 - 130			01/16/25 07:32	01/17/25 04:35	1
13C2 PFDA	112		70 - 130			01/16/25 07:32	01/17/25 04:35	1
13C3-GenX	108		70 - 130			01/16/25 07:32	01/17/25 04:35	1

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

Lab Sample ID: 380-130364-4

Date Collected: 01/13/25 10:20

Matrix: Water

Date Received: 01/15/25 10:21

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		01/17/25 06:42	01/18/25 12:44	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-4

Date Collected: 01/13/25 10:20

Matrix: Water

Date Received: 01/15/25 10:21

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:44	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	99		50 - 200	01/17/25 06:42	01/18/25 12:44	1
13C6 PFDA	101		50 - 200	01/17/25 06:42	01/18/25 12:44	1
13C5 PFHxA	102		50 - 200	01/17/25 06:42	01/18/25 12:44	1
13C4 PFHpA	107		50 - 200	01/17/25 06:42	01/18/25 12:44	1
13C8 PFOA	106		50 - 200	01/17/25 06:42	01/18/25 12:44	1
13C9 PFNA	107		50 - 200	01/17/25 06:42	01/18/25 12:44	1
13C7 PFUnA	99		50 - 200	01/17/25 06:42	01/18/25 12:44	1
13C2 PFDoA	103		50 - 200	01/17/25 06:42	01/18/25 12:44	1
13C4 PFBA	109		50 - 200	01/17/25 06:42	01/18/25 12:44	1
13C5 PFPeA	100		50 - 200	01/17/25 06:42	01/18/25 12:44	1
13C3 PFBS	102		50 - 200	01/17/25 06:42	01/18/25 12:44	1
13C3 PFHxS	112		50 - 200	01/17/25 06:42	01/18/25 12:44	1
13C8 PFOS	112		50 - 200	01/17/25 06:42	01/18/25 12:44	1
13C2-4:2-FTS	90		50 - 200	01/17/25 06:42	01/18/25 12:44	1
13C2-6:2-FTS	98		50 - 200	01/17/25 06:42	01/18/25 12:44	1
13C2-8:2-FTS	83		50 - 200	01/17/25 06:42	01/18/25 12:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:46	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:46	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:46	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:46	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:46	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:46	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:46	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:46	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:46	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-4

Date Collected: 01/13/25 10:20

Matrix: Water

Date Received: 01/15/25 10:21

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:46	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:46	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:46	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:46	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:46	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:46	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:46	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:46	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	117		70 - 130			01/16/25 07:32	01/17/25 04:46	1
13C2 PFHxA	119		70 - 130			01/16/25 07:32	01/17/25 04:46	1
13C2 PFDA	117		70 - 130			01/16/25 07:32	01/17/25 04:46	1
13C3-GenX	116		70 - 130			01/16/25 07:32	01/17/25 04:46	1

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

Lab Sample ID: 380-130364-5

Date Collected: 01/13/25 10:20

Matrix: Water

Date Received: 01/15/25 10:21

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		01/17/25 06:42	01/18/25 12:55	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-5

Date Collected: 01/13/25 10:20

Matrix: Water

Date Received: 01/15/25 10:21

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		01/17/25 06:42	01/18/25 12:55	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 12:55	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	96		50 - 200			01/17/25 06:42	01/18/25 12:55	1
13C6 PFDA	98		50 - 200			01/17/25 06:42	01/18/25 12:55	1
13C5 PFHxA	102		50 - 200			01/17/25 06:42	01/18/25 12:55	1
13C4 PFHpA	104		50 - 200			01/17/25 06:42	01/18/25 12:55	1
13C8 PFOA	104		50 - 200			01/17/25 06:42	01/18/25 12:55	1
13C9 PFNA	104		50 - 200			01/17/25 06:42	01/18/25 12:55	1
13C7 PFUnA	97		50 - 200			01/17/25 06:42	01/18/25 12:55	1
13C2 PFDoA	101		50 - 200			01/17/25 06:42	01/18/25 12:55	1
13C4 PFBA	113		50 - 200			01/17/25 06:42	01/18/25 12:55	1
13C5 PFPeA	106		50 - 200			01/17/25 06:42	01/18/25 12:55	1
13C3 PFBS	107		50 - 200			01/17/25 06:42	01/18/25 12:55	1
13C3 PFHxS	111		50 - 200			01/17/25 06:42	01/18/25 12:55	1
13C8 PFOS	112		50 - 200			01/17/25 06:42	01/18/25 12:55	1
13C2-4:2-FTS	93		50 - 200			01/17/25 06:42	01/18/25 12:55	1
13C2-6:2-FTS	101		50 - 200			01/17/25 06:42	01/18/25 12:55	1
13C2-8:2-FTS	82		50 - 200			01/17/25 06:42	01/18/25 12:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:56	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:56	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:56	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:56	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:56	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:56	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:56	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:56	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:56	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:56	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:56	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:56	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:56	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:56	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-5

Date Collected: 01/13/25 10:20

Matrix: Water

Date Received: 01/15/25 10:21

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		01/16/25 07:32	01/17/25 04:56	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:56	1
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:56	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 04:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	111		70 - 130			01/16/25 07:32	01/17/25 04:56	1
13C2 PFHxA	119		70 - 130			01/16/25 07:32	01/17/25 04:56	1
13C2 PFDA	113		70 - 130			01/16/25 07:32	01/17/25 04:56	1
13C3-GenX	115		70 - 130			01/16/25 07:32	01/17/25 04:56	1

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

Lab Sample ID: 380-130364-6

Date Collected: 01/13/25 11:10

Matrix: Water

Date Received: 01/15/25 10:21

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		01/17/25 06:42	01/18/25 13:06	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-6

Date Collected: 01/13/25 11:10

Matrix: Water

Date Received: 01/15/25 10:21

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		01/17/25 06:42	01/18/25 13:06	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		01/17/25 06:42	01/18/25 13:06	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	100		50 - 200			01/17/25 06:42	01/18/25 13:06	1
13C6 PFDA	103		50 - 200			01/17/25 06:42	01/18/25 13:06	1
13C5 PFHxA	107		50 - 200			01/17/25 06:42	01/18/25 13:06	1
13C4 PFHpA	109		50 - 200			01/17/25 06:42	01/18/25 13:06	1
13C8 PFOA	113		50 - 200			01/17/25 06:42	01/18/25 13:06	1
13C9 PFNA	107		50 - 200			01/17/25 06:42	01/18/25 13:06	1
13C7 PFUnA	102		50 - 200			01/17/25 06:42	01/18/25 13:06	1
13C2 PFDoA	102		50 - 200			01/17/25 06:42	01/18/25 13:06	1
13C4 PFBA	112		50 - 200			01/17/25 06:42	01/18/25 13:06	1
13C5 PFPeA	104		50 - 200			01/17/25 06:42	01/18/25 13:06	1
13C3 PFBS	104		50 - 200			01/17/25 06:42	01/18/25 13:06	1
13C3 PFHxS	112		50 - 200			01/17/25 06:42	01/18/25 13:06	1
13C8 PFOS	110		50 - 200			01/17/25 06:42	01/18/25 13:06	1
13C2-4:2-FTS	96		50 - 200			01/17/25 06:42	01/18/25 13:06	1
13C2-6:2-FTS	103		50 - 200			01/17/25 06:42	01/18/25 13:06	1
13C2-8:2-FTS	86		50 - 200			01/17/25 06:42	01/18/25 13:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 05:07	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 05:07	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 05:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 05:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 05:07	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 05:07	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 05:07	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 05:07	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 05:07	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 05:07	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 05:07	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 05:07	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 05:07	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 05:07	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 05:07	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 05:07	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		01/16/25 07:32	01/17/25 05:07	1

Client Sample Results

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

Job ID: 380-130364-1
 SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-6

Date Collected: 01/13/25 11:10

Matrix: Water

Date Received: 01/15/25 10:21

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		01/16/25 07:32	01/17/25 05:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	114		70 - 130			01/16/25 07:32	01/17/25 05:07	1
13C2 PFHxA	119		70 - 130			01/16/25 07:32	01/17/25 05:07	1
13C2 PFDA	116		70 - 130			01/16/25 07:32	01/17/25 05:07	1
13C3-GenX	114		70 - 130			01/16/25 07:32	01/17/25 05:07	1

Action Limit Summary

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-1

Compliance Check

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

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

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

Lab Sample ID: 380-130364-2

Compliance Check

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

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

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

Lab Sample ID: 380-130364-3

Compliance Check

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

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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-3

Compliance Check

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

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

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

Lab Sample ID: 380-130364-4

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

Lab Sample ID: 380-130364-5

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)	<2.0		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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-5

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			
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)**

Lab Sample ID: 380-130364-6

Compliance Check

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

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

Surrogate Summary

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

Job ID: 380-130364-1
 SDG: Weekly PFAS

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-130364-1	AIEA GULCH WELLS PUMP 1 (103	117	115	107
380-130364-1 MS	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	107	130	123	123
380-130364-1 MSD	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	105	114	115	108
380-130364-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	114	119	114	114
380-130364-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	102	115	112	108
380-130364-4	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	117	119	117	116
380-130364-5	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	111	119	113	115
380-130364-6	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	114	119	116	114
LCS 380-128296/22-A	Lab Control Sample	112	120	120	116
MBL 380-128296/20-A	Method Blank	114	120	118	114
MRL 380-128296/21-A	Lab Control Sample	107	121	121	115

Surrogate Legend

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



Isotope Dilution Summary

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

Job ID: 380-130364-1
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)	PFDaA (50-200)
380-130335-E-1-A MS	Matrix Spike	104	105	103	110	107	103	103	102
380-130335-F-1-A MSD	Matrix Spike Duplicate	106	109	105	113	107	108	105	106
380-130364-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	95	101	105	105	109	104	100	103
380-130364-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	100	97	100	106	106	105	102	97
380-130364-2 MS	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	108	103	109	110	108	109	100	101
380-130364-2 MSD	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	104	101	102	112	108	107	103	104
380-130364-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	101	104	107	111	109	106	97	101
380-130364-4	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	99	101	102	107	106	107	99	103
380-130364-5	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	96	98	102	104	104	104	97	101
380-130364-6	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	100	103	107	109	113	107	102	102
LCS 380-128594/22-A	Lab Control Sample	103	105	105	110	108	111	104	106
LCS 380-128595/22-A	Lab Control Sample	96	98	103	107	105	104	99	100
MBL 380-128594/20-A	Method Blank	94	101	100	105	104	105	101	100
MBL 380-128595/20-A	Method Blank	77	88	85	91	92	91	87	88
MRL 380-128594/21-A	Lab Control Sample	93	99	100	107	105	107	95	98
MRL 380-128595/21-A	Lab Control Sample	84	94	90	93	98	96	94	97

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)
380-130335-E-1-A MS	Matrix Spike	108	105	108	113	109	92	105	89
380-130335-F-1-A MSD	Matrix Spike Duplicate	110	111	109	114	112	92	104	92
380-130364-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	108	102	107	109	113	98	106	83
380-130364-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	110	104	103	112	109	91	100	82
380-130364-2 MS	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	112	106	112	113	112	92	100	85
380-130364-2 MSD	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	115	109	112	117	115	97	104	88
380-130364-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	111	106	106	111	111	92	100	81
380-130364-4	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	109	100	102	112	112	90	98	83
380-130364-5	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	113	106	107	111	112	93	101	82
380-130364-6	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	112	104	104	112	110	96	103	86
LCS 380-128594/22-A	Lab Control Sample	109	107	106	111	111	93	99	91
LCS 380-128595/22-A	Lab Control Sample	106	105	104	110	109	86	98	85
MBL 380-128594/20-A	Method Blank	107	101	107	108	110	94	99	85
MBL 380-128595/20-A	Method Blank	93	87	102	108	104	84	94	77
MRL 380-128594/21-A	Lab Control Sample	113	102	101	110	109	91	105	87
MRL 380-128595/21-A	Lab Control Sample	93	90	103	109	109	87	96	84

Surrogate Legend

HFPODA = 13C3 HFPO-DA

Isotope Dilution Summary

Client: City & County of Honolulu

Project/Site: RED-HILL

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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QC Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-128594/20-A
Matrix: Water
Analysis Batch: 128736

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 128594

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		01/17/25 06:35	01/18/25 06:15	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		01/17/25 06:35	01/18/25 06:15	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	94		50 - 200	01/17/25 06:35	01/18/25 06:15	1
13C6 PFDA	101		50 - 200	01/17/25 06:35	01/18/25 06:15	1
13C5 PFHxA	100		50 - 200	01/17/25 06:35	01/18/25 06:15	1
13C4 PFHpA	105		50 - 200	01/17/25 06:35	01/18/25 06:15	1
13C8 PFOA	104		50 - 200	01/17/25 06:35	01/18/25 06:15	1
13C9 PFNA	105		50 - 200	01/17/25 06:35	01/18/25 06:15	1
13C7 PFUnA	101		50 - 200	01/17/25 06:35	01/18/25 06:15	1
13C2 PFDoA	100		50 - 200	01/17/25 06:35	01/18/25 06:15	1
13C4 PFBA	107		50 - 200	01/17/25 06:35	01/18/25 06:15	1
13C5 PFPeA	101		50 - 200	01/17/25 06:35	01/18/25 06:15	1
13C3 PFBS	107		50 - 200	01/17/25 06:35	01/18/25 06:15	1
13C3 PFHxS	108		50 - 200	01/17/25 06:35	01/18/25 06:15	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-128594/20-A
Matrix: Water
Analysis Batch: 128736

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 128594

<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	110		50 - 200	01/17/25 06:35	01/18/25 06:15	1
13C2-4:2-FTS	94		50 - 200	01/17/25 06:35	01/18/25 06:15	1
13C2-6:2-FTS	99		50 - 200	01/17/25 06:35	01/18/25 06:15	1
13C2-8:2-FTS	85		50 - 200	01/17/25 06:35	01/18/25 06:15	1

Lab Sample ID: LCS 380-128594/22-A
Matrix: Water
Analysis Batch: 128736

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128594

<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)	121	112		ng/L		92	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	121	108		ng/L		90	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	121	114		ng/L		95	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	121	114		ng/L		94	70 - 130
Perfluorobutanesulfonic acid (PFBS)	121	114		ng/L		95	70 - 130
Perfluorodecanoic acid (PFDA)	121	114		ng/L		94	70 - 130
Perfluorododecanoic acid (PFDoA)	121	112		ng/L		93	70 - 130
Perfluoroheptanoic acid (PFHpA)	121	112		ng/L		93	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	121	110		ng/L		91	70 - 130
Perfluorohexanoic acid (PFHxA)	121	114		ng/L		94	70 - 130
Perfluorononanoic acid (PFNA)	121	107		ng/L		89	70 - 130
Perfluorooctanesulfonic acid (PFOS)	121	111		ng/L		92	70 - 130
Perfluorooctanoic acid (PFOA)	121	112		ng/L		93	70 - 130
Perfluoroundecanoic acid (PFUnA)	121	110		ng/L		91	70 - 130
Perfluorobutanoic acid (PFBA)	121	108		ng/L		90	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	121	110		ng/L		91	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	121	110		ng/L		91	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	121	112		ng/L		93	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	121	115		ng/L		95	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	121	111		ng/L		92	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	121	103		ng/L		85	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	121	110		ng/L		91	70 - 130
Perfluoropentanoic acid (PFPeA)	121	109		ng/L		91	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	121	111		ng/L		92	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-130364-1
 SDG: Weekly PFAS

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

Lab Sample ID: LCS 380-128594/22-A
Matrix: Water
Analysis Batch: 128736

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128594

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	121	107		ng/L		89	70 - 130
LCS LCS							
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	103		50 - 200				
13C6 PFDA	105		50 - 200				
13C5 PFHxA	105		50 - 200				
13C4 PFHpA	110		50 - 200				
13C8 PFOA	108		50 - 200				
13C9 PFNA	111		50 - 200				
13C7 PFUnA	104		50 - 200				
13C2 PFDoA	106		50 - 200				
13C4 PFBA	109		50 - 200				
13C5 PFPeA	107		50 - 200				
13C3 PFBS	106		50 - 200				
13C3 PFHxS	111		50 - 200				
13C8 PFOS	111		50 - 200				
13C2-4:2-FTS	93		50 - 200				
13C2-6:2-FTS	99		50 - 200				
13C2-8:2-FTS	91		50 - 200				

Lab Sample ID: MRL 380-128594/21-A
Matrix: Water
Analysis Batch: 128736

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128594

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	2.12	J	ng/L		106	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	1.98	J	ng/L		99	50 - 150
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	2.17	J	ng/L		108	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.23	J	ng/L		111	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.08	J	ng/L		104	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.25	J	ng/L		112	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.11	J	ng/L		105	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.03	J	ng/L		101	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.29	J	ng/L		114	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.10	J	ng/L		105	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.24	J	ng/L		112	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.14	J	ng/L		107	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.25	J	ng/L		112	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.10	J	ng/L		105	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-128594/21-A
Matrix: Water
Analysis Batch: 128736

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128594

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.24	J	ng/L		111	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.23	J	ng/L		111	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.19	J	ng/L		109	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	2.12	J	ng/L		106	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	2.14	J	ng/L		107	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	1.78	J	ng/L		89	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	2.14	J	ng/L		106	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.26	J	ng/L		113	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	1.99	J	ng/L		99	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	1.88	J	ng/L		94	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	93		50 - 200
13C6 PFDA	99		50 - 200
13C5 PFHxA	100		50 - 200
13C4 PFHpA	107		50 - 200
13C8 PFOA	105		50 - 200
13C9 PFNA	107		50 - 200
13C7 PFUnA	95		50 - 200
13C2 PFDoA	98		50 - 200
13C4 PFBA	113		50 - 200
13C5 PFPeA	102		50 - 200
13C3 PFBS	101		50 - 200
13C3 PFHxS	110		50 - 200
13C8 PFOS	109		50 - 200
13C2-4:2-FTS	91		50 - 200
13C2-6:2-FTS	105		50 - 200
13C2-8:2-FTS	87		50 - 200

Lab Sample ID: 380-130335-E-1-A MS
Matrix: Water
Analysis Batch: 128736

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 128594

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		120	115		ng/L		96	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		120	114		ng/L		95	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		120	111		ng/L		92	70 - 130

QC Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130335-E-1-A MS
Matrix: Water
Analysis Batch: 128736

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 128594

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		120	107		ng/L		89	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		120	117		ng/L		97	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		120	109		ng/L		90	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		120	114		ng/L		95	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		120	111		ng/L		92	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		120	109		ng/L		90	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		120	112		ng/L		93	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		120	113		ng/L		94	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		120	114		ng/L		94	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		120	115		ng/L		95	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		120	115		ng/L		96	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		120	117		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		120	115		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		120	112		ng/L		93	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		120	111		ng/L		92	70 - 130
Nonafluoro-3,6-dioxahheptanoic acid (NFDHA)	<2.0		120	120		ng/L		99	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		120	116		ng/L		96	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		120	104		ng/L		87	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		120	112		ng/L		93	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		120	112		ng/L		93	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		120	116		ng/L		97	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		120	110		ng/L		91	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	104		50 - 200
13C6 PFDA	105		50 - 200
13C5 PFHxA	103		50 - 200
13C4 PFHpA	110		50 - 200
13C8 PFOA	107		50 - 200
13C9 PFNA	103		50 - 200
13C7 PFUnA	103		50 - 200
13C2 PFDoA	102		50 - 200
13C4 PFBA	108		50 - 200
13C5 PFPeA	105		50 - 200
13C3 PFBS	108		50 - 200
13C3 PFHxS	113		50 - 200
13C8 PFOS	109		50 - 200

QC Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130335-E-1-A MS
Matrix: Water
Analysis Batch: 128736

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 128594

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C2-4:2-FTS	92		50 - 200
13C2-6:2-FTS	105		50 - 200
13C2-8:2-FTS	89		50 - 200

Lab Sample ID: 380-130335-F-1-A MSD
Matrix: Water
Analysis Batch: 128736

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 128594

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		120	117		ng/L		97	70 - 130	2	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		120	111		ng/L		92	70 - 130	3	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		120	115		ng/L		96	70 - 130	4	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		120	111		ng/L		92	70 - 130	4	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		120	116		ng/L		96	70 - 130	1	30
Perfluorodecanoic acid (PFDA)	<2.0		120	112		ng/L		93	70 - 130	3	30
Perfluorododecanoic acid (PFDoA)	<2.0		120	117		ng/L		97	70 - 130	2	30
Perfluoroheptanoic acid (PFHpA)	<2.0		120	112		ng/L		93	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		120	112		ng/L		93	70 - 130	2	30
Perfluorohexanoic acid (PFHxA)	<2.0		120	117		ng/L		97	70 - 130	5	30
Perfluorononanoic acid (PFNA)	<2.0		120	112		ng/L		93	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		120	114		ng/L		95	70 - 130	0	30
Perfluorooctanoic acid (PFOA)	<2.0		120	115		ng/L		96	70 - 130	0	30
Perfluoroundecanoic acid (PFUnA)	<2.0		120	115		ng/L		95	70 - 130	0	30
Perfluorobutanoic acid (PFBA)	<2.0		120	111		ng/L		92	70 - 130	6	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		120	113		ng/L		94	70 - 130	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		120	115		ng/L		95	70 - 130	2	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		120	113		ng/L		93	70 - 130	2	30
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		120	113		ng/L		94	70 - 130	6	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		120	115		ng/L		96	70 - 130	0	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		120	102		ng/L		85	70 - 130	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		120	106		ng/L		88	70 - 130	6	30
Perfluoropentanoic acid (PFPeA)	<2.0		120	105		ng/L		87	70 - 130	6	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		120	116		ng/L		96	70 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		120	111		ng/L		92	70 - 130	1	30

QC Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	106		50 - 200
13C6 PFDA	109		50 - 200
13C5 PFHxA	105		50 - 200
13C4 PFHpA	113		50 - 200
13C8 PFOA	107		50 - 200
13C9 PFNA	108		50 - 200
13C7 PFUnA	105		50 - 200
13C2 PFDoA	106		50 - 200
13C4 PFBA	110		50 - 200
13C5 PFPeA	111		50 - 200
13C3 PFBS	109		50 - 200
13C3 PFHxS	114		50 - 200
13C8 PFOS	112		50 - 200
13C2-4:2-FTS	92		50 - 200
13C2-6:2-FTS	104		50 - 200
13C2-8:2-FTS	92		50 - 200

Lab Sample ID: MBL 380-128595/20-A
Matrix: Water
Analysis Batch: 128735

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 128595

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		01/17/25 06:42	01/18/25 11:17	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-128595/20-A
Matrix: Water
Analysis Batch: 128735

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 128595

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		01/17/25 06:42	01/18/25 11:17	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	77		50 - 200	01/17/25 06:42	01/18/25 11:17	1
13C6 PFDA	88		50 - 200	01/17/25 06:42	01/18/25 11:17	1
13C5 PFHxA	85		50 - 200	01/17/25 06:42	01/18/25 11:17	1
13C4 PFHpA	91		50 - 200	01/17/25 06:42	01/18/25 11:17	1
13C8 PFOA	92		50 - 200	01/17/25 06:42	01/18/25 11:17	1
13C9 PFNA	91		50 - 200	01/17/25 06:42	01/18/25 11:17	1
13C7 PFUnA	87		50 - 200	01/17/25 06:42	01/18/25 11:17	1
13C2 PFDoA	88		50 - 200	01/17/25 06:42	01/18/25 11:17	1
13C4 PFBA	93		50 - 200	01/17/25 06:42	01/18/25 11:17	1
13C5 PFPeA	87		50 - 200	01/17/25 06:42	01/18/25 11:17	1
13C3 PFBS	102		50 - 200	01/17/25 06:42	01/18/25 11:17	1
13C3 PFHxS	108		50 - 200	01/17/25 06:42	01/18/25 11:17	1
13C8 PFOS	104		50 - 200	01/17/25 06:42	01/18/25 11:17	1
13C2-4:2-FTS	84		50 - 200	01/17/25 06:42	01/18/25 11:17	1
13C2-6:2-FTS	94		50 - 200	01/17/25 06:42	01/18/25 11:17	1
13C2-8:2-FTS	77		50 - 200	01/17/25 06:42	01/18/25 11:17	1

Lab Sample ID: LCS 380-128595/22-A
Matrix: Water
Analysis Batch: 128735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128595

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.4	57.2		ng/L		95	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.4	56.2		ng/L		93	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.4	53.5		ng/L		89	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.4	55.3		ng/L		92	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.4	61.1		ng/L		101	70 - 130
Perfluorodecanoic acid (PFDA)	60.4	60.5		ng/L		100	70 - 130
Perfluorododecanoic acid (PFDoA)	60.4	57.6		ng/L		96	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.4	57.3		ng/L		95	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.4	56.3		ng/L		93	70 - 130
Perfluorohexanoic acid (PFHxA)	60.4	57.0		ng/L		94	70 - 130
Perfluorononanoic acid (PFNA)	60.4	57.1		ng/L		95	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.4	58.6		ng/L		97	70 - 130
Perfluorooctanoic acid (PFOA)	60.4	56.7		ng/L		94	70 - 130

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QC Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: LCS 380-128595/22-A
Matrix: Water
Analysis Batch: 128735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128595

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	60.4	58.0		ng/L		96	70 - 130
Perfluorobutanoic acid (PFBA)	60.4	57.0		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.4	57.1		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.4	58.8		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.4	58.8		ng/L		97	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.4	55.4		ng/L		92	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	60.4	57.6		ng/L		95	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.4	51.3		ng/L		85	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.4	54.0		ng/L		89	70 - 130
Perfluoropentanoic acid (PFPeA)	60.4	55.5		ng/L		92	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.4	59.2		ng/L		98	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	60.4	55.3		ng/L		92	70 - 130

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	96		50 - 200
13C6 PFDA	98		50 - 200
13C5 PFHxA	103		50 - 200
13C4 PFHpA	107		50 - 200
13C8 PFOA	105		50 - 200
13C9 PFNA	104		50 - 200
13C7 PFUnA	99		50 - 200
13C2 PFDoA	100		50 - 200
13C4 PFBA	106		50 - 200
13C5 PFPeA	105		50 - 200
13C3 PFBS	104		50 - 200
13C3 PFHxS	110		50 - 200
13C8 PFOS	109		50 - 200
13C2-4:2-FTS	86		50 - 200
13C2-6:2-FTS	98		50 - 200
13C2-8:2-FTS	85		50 - 200

Lab Sample ID: MRL 380-128595/21-A
Matrix: Water
Analysis Batch: 128735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128595

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.95	J	ng/L		97	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	2.00	J	ng/L		99	50 - 150

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QC Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-128595/21-A
Matrix: Water
Analysis Batch: 128735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128595

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.09	J	ng/L		104	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	1.91	J	ng/L		95	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.13	J	ng/L		106	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.05	J	ng/L		102	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.03	J	ng/L		101	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.17	J	ng/L		108	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.08	J	ng/L		103	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.10	J	ng/L		104	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.02	J	ng/L		100	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.01	J	ng/L		100	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.02	J	ng/L		100	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.00	J	ng/L		99	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.09	J	ng/L		104	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	1.92	J	ng/L		95	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.29	J	ng/L		114	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	1.89	J	ng/L		94	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	2.06	J	ng/L		102	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	1.86	J	ng/L		92	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	1.91	J	ng/L		95	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	1.95	J	ng/L		97	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	2.09	J	ng/L		104	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	1.96	J	ng/L		97	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	84		50 - 200
13C6 PFDA	94		50 - 200
13C5 PFHxA	90		50 - 200
13C4 PFHpA	93		50 - 200
13C8 PFOA	98		50 - 200
13C9 PFNA	96		50 - 200
13C7 PFUnA	94		50 - 200
13C2 PFDoA	97		50 - 200
13C4 PFBA	93		50 - 200
13C5 PFPeA	90		50 - 200
13C3 PFBS	103		50 - 200
13C3 PFHxS	109		50 - 200

QC Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-128595/21-A
Matrix: Water
Analysis Batch: 128735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128595

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MRL Qualifier</i>	<i>Limits</i>
13C8 PFOS	109		50 - 200
13C2-4:2-FTS	87		50 - 200
13C2-6:2-FTS	96		50 - 200
13C2-8:2-FTS	84		50 - 200

Lab Sample ID: 380-130364-2 MS
Matrix: Water
Analysis Batch: 128735

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)
Prep Type: Total/NA
Prep Batch: 128595

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	64.1		ng/L		106	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.4	57.3		ng/L		95	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	59.8		ng/L		99	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.4	57.0		ng/L		94	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	59.2		ng/L		98	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.4	61.4		ng/L		102	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	61.7		ng/L		102	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	62.5		ng/L		103	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.4	58.7		ng/L		97	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	60.3		ng/L		99	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.4	58.6		ng/L		97	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.4	58.5		ng/L		97	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.4	60.6		ng/L		100	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	60.6		ng/L		100	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.4	60.1		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	61.9		ng/L		103	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	58.2		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	60.0		ng/L		99	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	57.1		ng/L		95	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		60.4	56.9		ng/L		94	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	54.3		ng/L		90	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	57.6		ng/L		95	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.4	59.5		ng/L		97	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	60.3		ng/L		100	70 - 130

QC Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-2 MS

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

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 128735

Prep Batch: 128595

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	56.5		ng/L		94	70 - 130
MS MS									
Isotope Dilution	%Recovery	Qualifier	Limits						
13C3 HFPO-DA	108		50 - 200						
13C6 PFDA	103		50 - 200						
13C5 PFHxA	109		50 - 200						
13C4 PFHpA	110		50 - 200						
13C8 PFOA	108		50 - 200						
13C9 PFNA	109		50 - 200						
13C7 PFUnA	100		50 - 200						
13C2 PFDoA	101		50 - 200						
13C4 PFBA	112		50 - 200						
13C5 PFPeA	106		50 - 200						
13C3 PFBS	112		50 - 200						
13C3 PFHxS	113		50 - 200						
13C8 PFOS	112		50 - 200						
13C2-4:2-FTS	92		50 - 200						
13C2-6:2-FTS	100		50 - 200						
13C2-8:2-FTS	85		50 - 200						

Lab Sample ID: 380-130364-2 MSD

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

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 128735

Prep Batch: 128595

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		60.5	61.5		ng/L		102	70 - 130	4	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.5	56.9		ng/L		94	70 - 130	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.5	57.7		ng/L		95	70 - 130	4	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.5	58.9		ng/L		97	70 - 130	3	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.5	61.5		ng/L		102	70 - 130	4	30
Perfluorodecanoic acid (PFDA)	<2.0		60.5	59.3		ng/L		98	70 - 130	3	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.5	59.7		ng/L		99	70 - 130	3	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.5	58.1		ng/L		96	70 - 130	7	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.5	57.4		ng/L		94	70 - 130	2	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.5	63.5		ng/L		104	70 - 130	5	30
Perfluorononanoic acid (PFNA)	<2.0		60.5	58.5		ng/L		97	70 - 130	0	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.5	58.7		ng/L		97	70 - 130	0	30
Perfluorooctanoic acid (PFOA)	<2.0		60.5	61.0		ng/L		101	70 - 130	1	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.5	60.7		ng/L		100	70 - 130	0	30
Perfluorobutanoic acid (PFBA)	<2.0		60.5	56.9		ng/L		94	70 - 130	5	30

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QC Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-2 MSD

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

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 128735

Prep Batch: 128595

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		60.5	58.4		ng/L		97	70 - 130	6	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.5	58.4		ng/L		97	70 - 130	0	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.5	62.3		ng/L		103	70 - 130	4	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.5	61.2		ng/L		101	70 - 130	7	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.5	59.4		ng/L		98	70 - 130	4	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.5	53.7		ng/L		89	70 - 130	1	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.5	57.6		ng/L		95	70 - 130	0	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.5	60.0		ng/L		98	70 - 130	1	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.5	60.8		ng/L		101	70 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.5	56.1		ng/L		93	70 - 130	1	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	MSD Limits
13C3 HFPO-DA	104		50 - 200
13C6 PFDA	101		50 - 200
13C5 PFHxA	102		50 - 200
13C4 PFHpA	112		50 - 200
13C8 PFOA	108		50 - 200
13C9 PFNA	107		50 - 200
13C7 PFUnA	103		50 - 200
13C2 PFDoA	104		50 - 200
13C4 PFBA	115		50 - 200
13C5 PFPeA	109		50 - 200
13C3 PFBS	112		50 - 200
13C3 PFHxS	117		50 - 200
13C8 PFOS	115		50 - 200
13C2-4:2-FTS	97		50 - 200
13C2-6:2-FTS	104		50 - 200
13C2-8:2-FTS	88		50 - 200

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

Lab Sample ID: MBL 380-128296/20-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 128506

Prep Batch: 128296

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		01/16/25 07:32	01/17/25 02:47	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		01/16/25 07:32	01/17/25 02:47	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		01/16/25 07:32	01/17/25 02:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		01/16/25 07:32	01/17/25 02:47	1

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QC Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-128296/20-A
Matrix: Water
Analysis Batch: 128506

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 128296

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		01/16/25 07:32	01/17/25 02:47	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		01/16/25 07:32	01/17/25 02:47	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		01/16/25 07:32	01/17/25 02:47	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		01/16/25 07:32	01/17/25 02:47	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		01/16/25 07:32	01/17/25 02:47	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		01/16/25 07:32	01/17/25 02:47	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		01/16/25 07:32	01/17/25 02:47	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		01/16/25 07:32	01/17/25 02:47	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		01/16/25 07:32	01/17/25 02:47	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		01/16/25 07:32	01/17/25 02:47	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		01/16/25 07:32	01/17/25 02:47	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		01/16/25 07:32	01/17/25 02:47	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		01/16/25 07:32	01/17/25 02:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		01/16/25 07:32	01/17/25 02:47	1

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	114		70 - 130	01/16/25 07:32	01/17/25 02:47	1
13C2 PFHxA	120		70 - 130	01/16/25 07:32	01/17/25 02:47	1
13C2 PFDA	118		70 - 130	01/16/25 07:32	01/17/25 02:47	1
13C3-GenX	114		70 - 130	01/16/25 07:32	01/17/25 02:47	1

Lab Sample ID: LCS 380-128296/22-A
Matrix: Water
Analysis Batch: 128506

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128296

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	50.2	49.9		ng/L		99	70 - 130
Perfluorooctanesulfonic acid (PFOS)	50.2	51.7		ng/L		103	70 - 130
Perfluoroundecanoic acid (PFUnA)	50.2	52.1		ng/L		104	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	50.2	47.5		ng/L		95	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	50.2	48.8		ng/L		97	70 - 130
Perfluorohexanoic acid (PFHxA)	50.2	51.3		ng/L		102	70 - 130
Perfluorododecanoic acid (PFDoA)	50.2	51.2		ng/L		102	70 - 130
Perfluorooctanoic acid (PFOA)	50.2	51.8		ng/L		103	70 - 130
Perfluorodecanoic acid (PFDA)	50.2	50.1		ng/L		100	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	50.2	50.3		ng/L		100	70 - 130
Perfluorobutanesulfonic acid (PFBS)	50.2	48.6		ng/L		97	70 - 130
Perfluoroheptanoic acid (PFHpA)	50.2	52.4		ng/L		104	70 - 130
Perfluorononanoic acid (PFNA)	50.2	52.3		ng/L		104	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: LCS 380-128296/22-A
Matrix: Water
Analysis Batch: 128506

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128296

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorotetradecanoic acid (PFTA)	50.2	53.9		ng/L		107	70 - 130
Perfluorotridecanoic acid (PFTrDA)	50.2	50.1		ng/L		100	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	50.2	52.3		ng/L		104	70 - 130
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	50.2	49.3		ng/L		98	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	50.2	51.1		ng/L		102	70 - 130
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
d5-NEtFOSAA	112		70 - 130				
13C2 PFHxA	120		70 - 130				
13C2 PFDA	120		70 - 130				
13C3-GenX	116		70 - 130				

Lab Sample ID: MRL 380-128296/21-A
Matrix: Water
Analysis Batch: 128506

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128296

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.03	J	ng/L		101	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.16	J	ng/L		108	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.32	J	ng/L		116	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	2.15	J	ng/L		107	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	2.03	J	ng/L		101	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.19	J	ng/L		109	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.25	J	ng/L		112	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.37	J	ng/L		118	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.24	J	ng/L		111	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.18	J	ng/L		108	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.15	J	ng/L		107	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.51	J	ng/L		125	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.40	J	ng/L		119	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	2.44	J	ng/L		121	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.01	2.25	J	ng/L		112	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	2.17	J	ng/L		108	50 - 150

QC Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-128296/21-A
Matrix: Water
Analysis Batch: 128506

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128296

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	2.02	J	ng/L		101	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.17	J	ng/L		108	50 - 150
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
d5-NEtFOSAA	107		70 - 130				
13C2 PFHxA	121		70 - 130				
13C2 PFDA	121		70 - 130				
13C3-GenX	115		70 - 130				

Lab Sample ID: 380-130364-1 MS
Matrix: Water
Analysis Batch: 128506

Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)
Prep Type: Total/NA
Prep Batch: 128296

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		50.3	49.4		ng/L		98	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		50.3	52.3		ng/L		104	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		50.3	49.4		ng/L		98	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.3	47.6		ng/L		95	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		50.3	47.5		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		50.3	54.6		ng/L		107	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		50.3	51.8		ng/L		103	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		50.3	53.3		ng/L		106	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		50.3	52.6		ng/L		104	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		50.3	52.7		ng/L		104	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.3	50.2		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		50.3	53.8		ng/L		107	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		50.3	54.7		ng/L		109	70 - 130
Perfluorotetradecanoic acid (PFTA)	<2.0		50.3	55.2		ng/L		110	70 - 130
Perfluorotridecanoic acid (PFTrDA)	<2.0		50.3	50.7		ng/L		101	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.3	51.6		ng/L		103	70 - 130
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		50.3	49.2		ng/L		98	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.3	54.1		ng/L		107	70 - 130

QC Sample Results

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-1 MS
Matrix: Water
Analysis Batch: 128506

Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)
Prep Type: Total/NA
Prep Batch: 128296

Surrogate	MS %Recovery	MS Qualifier	Limits
d5-NEtFOSAA	107		70 - 130
13C2 PFHxA	130		70 - 130
13C2 PFDA	123		70 - 130
13C3-GenX	123		70 - 130

Lab Sample ID: 380-130364-1 MSD
Matrix: Water
Analysis Batch: 128506

Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)
Prep Type: Total/NA
Prep Batch: 128296

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		50.2	46.4		ng/L		92	70 - 130	6	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		50.2	52.4		ng/L		104	70 - 130	0	30
Perfluoroundecanoic acid (PFUnA)	<2.0		50.2	50.7		ng/L		101	70 - 130	3	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.2	49.8		ng/L		99	70 - 130	4	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		50.2	48.6		ng/L		97	70 - 130	2	30
Perfluorohexanoic acid (PFHxA)	<2.0		50.2	49.7		ng/L		98	70 - 130	9	30
Perfluorododecanoic acid (PFDoA)	<2.0		50.2	49.5		ng/L		99	70 - 130	5	30
Perfluorooctanoic acid (PFOA)	<2.0		50.2	50.7		ng/L		101	70 - 130	5	30
Perfluorodecanoic acid (PFDA)	<2.0		50.2	50.3		ng/L		100	70 - 130	4	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		50.2	52.3		ng/L		103	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.2	51.4		ng/L		102	70 - 130	2	30
Perfluoroheptanoic acid (PFHpA)	<2.0		50.2	52.7		ng/L		105	70 - 130	2	30
Perfluorononanoic acid (PFNA)	<2.0		50.2	50.3		ng/L		100	70 - 130	8	30
Perfluorotetradecanoic acid (PFTA)	<2.0		50.2	52.4		ng/L		104	70 - 130	5	30
Perfluorotridecanoic acid (PFTrDA)	<2.0		50.2	50.0		ng/L		100	70 - 130	1	30
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.2	52.8		ng/L		105	70 - 130	2	30
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		50.2	50.4		ng/L		100	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.2	50.4		ng/L		100	70 - 130	7	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
d5-NEtFOSAA	105		70 - 130
13C2 PFHxA	114		70 - 130
13C2 PFDA	115		70 - 130
13C3-GenX	108		70 - 130

QC Association Summary

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

Job ID: 380-130364-1
SDG: Weekly PFAS

LCMS

Prep Batch: 128296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-130364-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	537.1 DW	
380-130364-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	537.1 DW	
380-130364-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Water	537.1 DW	
380-130364-4	FB AIEA GULCH WELLS PUMP 1 (331-201-TP0	Total/NA	Water	537.1 DW	
380-130364-5	FB AIEA GULCH WELLS PUMP 2 (331-202-TP0	Total/NA	Water	537.1 DW	
380-130364-6	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP	Total/NA	Water	537.1 DW	
MBL 380-128296/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-128296/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-128296/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-130364-1 MS	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	537.1 DW	
380-130364-1 MSD	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	537.1 DW	

Analysis Batch: 128506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-130364-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	537.1	128296
380-130364-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	537.1	128296
380-130364-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Water	537.1	128296
380-130364-4	FB AIEA GULCH WELLS PUMP 1 (331-201-TP0	Total/NA	Water	537.1	128296
380-130364-5	FB AIEA GULCH WELLS PUMP 2 (331-202-TP0	Total/NA	Water	537.1	128296
380-130364-6	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP	Total/NA	Water	537.1	128296
MBL 380-128296/20-A	Method Blank	Total/NA	Water	537.1	128296
LCS 380-128296/22-A	Lab Control Sample	Total/NA	Water	537.1	128296
MRL 380-128296/21-A	Lab Control Sample	Total/NA	Water	537.1	128296
380-130364-1 MS	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	537.1	128296
380-130364-1 MSD	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	537.1	128296

Prep Batch: 128594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-130364-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	533	
MBL 380-128594/20-A	Method Blank	Total/NA	Water	533	
LCS 380-128594/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-128594/21-A	Lab Control Sample	Total/NA	Water	533	
380-130335-E-1-A MS	Matrix Spike	Total/NA	Water	533	
380-130335-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Prep Batch: 128595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-130364-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	533	
380-130364-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Water	533	
380-130364-4	FB AIEA GULCH WELLS PUMP 1 (331-201-TP0	Total/NA	Water	533	
380-130364-5	FB AIEA GULCH WELLS PUMP 2 (331-202-TP0	Total/NA	Water	533	
380-130364-6	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP	Total/NA	Water	533	
MBL 380-128595/20-A	Method Blank	Total/NA	Water	533	
LCS 380-128595/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-128595/21-A	Lab Control Sample	Total/NA	Water	533	
380-130364-2 MS	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	533	
380-130364-2 MSD	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	533	

Analysis Batch: 128735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-130364-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	533	128595

QC Association Summary

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

Job ID: 380-130364-1
 SDG: Weekly PFAS

LCMS (Continued)

Analysis Batch: 128735 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-130364-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Water	533	128595
380-130364-4	FB AIEA GULCH WELLS PUMP 1 (331-201-TP0	Total/NA	Water	533	128595
380-130364-5	FB AIEA GULCH WELLS PUMP 2 (331-202-TP0	Total/NA	Water	533	128595
380-130364-6	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP	Total/NA	Water	533	128595
MBL 380-128595/20-A	Method Blank	Total/NA	Water	533	128595
LCS 380-128595/22-A	Lab Control Sample	Total/NA	Water	533	128595
MRL 380-128595/21-A	Lab Control Sample	Total/NA	Water	533	128595
380-130364-2 MS	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	533	128595
380-130364-2 MSD	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	533	128595

Analysis Batch: 128736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-130364-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	533	128594
MBL 380-128594/20-A	Method Blank	Total/NA	Water	533	128594
LCS 380-128594/22-A	Lab Control Sample	Total/NA	Water	533	128594
MRL 380-128594/21-A	Lab Control Sample	Total/NA	Water	533	128594
380-130335-E-1-A MS	Matrix Spike	Total/NA	Water	533	128594
380-130335-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	128594

Lab Chronicle

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-1

Date Collected: 01/13/25 10:20

Matrix: Water

Date Received: 01/15/25 10:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			128594	XTD8	EA POM	01/17/25 06:35
Total/NA	Analysis	533		1	128736	Y5FM	EA POM	01/18/25 09:29
Total/NA	Prep	537.1 DW			128296	G9MN	EA POM	01/16/25 07:32
Total/NA	Analysis	537.1		1	128506	Y5FM	EA POM	01/17/25 03:19

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

Lab Sample ID: 380-130364-2

Date Collected: 01/13/25 10:20

Matrix: Water

Date Received: 01/15/25 10:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			128595	XTD8	EA POM	01/17/25 06:42
Total/NA	Analysis	533		1	128735	SZ9R	EA POM	01/18/25 11:49
Total/NA	Prep	537.1 DW			128296	G9MN	EA POM	01/16/25 07:32
Total/NA	Analysis	537.1		1	128506	Y5FM	EA POM	01/17/25 04:24

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

Lab Sample ID: 380-130364-3

Date Collected: 01/13/25 11:10

Matrix: Water

Date Received: 01/15/25 10:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			128595	XTD8	EA POM	01/17/25 06:42
Total/NA	Analysis	533		1	128735	SZ9R	EA POM	01/18/25 12:33
Total/NA	Prep	537.1 DW			128296	G9MN	EA POM	01/16/25 07:32
Total/NA	Analysis	537.1		1	128506	Y5FM	EA POM	01/17/25 04:35

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

Lab Sample ID: 380-130364-4

Date Collected: 01/13/25 10:20

Matrix: Water

Date Received: 01/15/25 10:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			128595	XTD8	EA POM	01/17/25 06:42
Total/NA	Analysis	533		1	128735	SZ9R	EA POM	01/18/25 12:44
Total/NA	Prep	537.1 DW			128296	G9MN	EA POM	01/16/25 07:32
Total/NA	Analysis	537.1		1	128506	Y5FM	EA POM	01/17/25 04:46

Lab Chronicle

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

Job ID: 380-130364-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-130364-5

Date Collected: 01/13/25 10:20

Matrix: Water

Date Received: 01/15/25 10:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			128595	XTD8	EA POM	01/17/25 06:42
Total/NA	Analysis	533		1	128735	SZ9R	EA POM	01/18/25 12:55
Total/NA	Prep	537.1 DW			128296	G9MN	EA POM	01/16/25 07:32
Total/NA	Analysis	537.1		1	128506	Y5FM	EA POM	01/17/25 04:56

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

Lab Sample ID: 380-130364-6

Date Collected: 01/13/25 11:10

Matrix: Water

Date Received: 01/15/25 10:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			128595	XTD8	EA POM	01/17/25 06:42
Total/NA	Analysis	533		1	128735	SZ9R	EA POM	01/18/25 13:06
Total/NA	Prep	537.1 DW			128296	G9MN	EA POM	01/16/25 07:32
Total/NA	Analysis	537.1		1	128506	Y5FM	EA POM	01/17/25 05:07

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: 380-130364-1
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
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- 14
- 15
- 16
- 17

Method Summary

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

Job ID: 380-130364-1
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

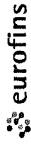
Job ID: 380-130364-1
SDG: Weekly PFAS

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-130364-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Water	01/13/25 10:20	01/15/25 10:21
380-130364-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Water	01/13/25 10:20	01/15/25 10:21
380-130364-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	Water	01/13/25 11:10	01/15/25 10:21
380-130364-4	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Water	01/13/25 10:20	01/15/25 10:21
380-130364-5	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Water	01/13/25 10:20	01/15/25 10:21
380-130364-6	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	Water	01/13/25 11:10	01/15/25 10:21

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

Chain of Custody Record



Environment Testing
 America

Client Information		Lab PM Arada Rachelle		Carrier Tracking No(s)		COC No:	
Client Contact: Dr Ron Fenstermacher		Phone: 808-748-5840		State of Origin:		Pages: Page 1 of 1	
Company: City and County of Honolulu		E-Mail: Rachelle.Arada@et.eurofinsus.com		PWSID:		Job #:	
Address: 630 South Beretania St. Chemistry Lab Honolulu Hawaii 96843		Due Date Requested:		Analysis Requested		Preservation Codes: M - Hexane A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Phone: 808-748-5841		TAT Requested (days): Standard		Perform MS/MSD (Yes or No)		Total Number of Containers	
Email: RFENSTEMACHER@hbws.org		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Field Filled Sample (Yes or No)		Special Instructions/Note:	
Project Name: RED HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill		PO #: C20525101 exp 05312023		537 1, DW, PREC - 537 1 Full List		Chlorinated	
Site: Hawaii		VO #:		537 3, All Analytes		Chlorinated	
		Project #: 38001111		537 3, 3		Pump #2	
		SSOW#:		537 3, 3		380-130364 COC	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
AIEA GULCH WELLS PUMP 1		1/13/25		1020		G Water	
AIEA GULCH WELLS PUMP 2		1/13/25		1020		G Water	
AIEA WELLS PUMPS 1&2 (260) P2		1/13/25		1110		G Water	
FB AIEA GULCH WELLS PUMP 1		1/13/25		1020		G Water	
FB AIEA GULCH WELLS PUMP 2		1/13/25		1020		G Water	
FB AIEA WELLS PUMPS 1&2 (260)		1/13/25		1110		G Water	
Possible Hazard Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Date		Date		Date	
Deliverable Requested I, II, III, IV Other (specify)		Date/Time: 1/14/25		Date/Time: 1200		Company: HBWS	
Empty Kit Relinquished by		Date/Time: 1/15/25		Date/Time: 10:21		Company: GEPAR	
Relinquished by		Date/Time:		Date/Time:		Company:	
Relinquished by		Date/Time:		Date/Time:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 75.1A ① 3.9°-0.0°-3.9° ② 5.6°-0.0°-5.6°		Method of Shipment: FED EX ② 7714 2520 5298	
Special Instructions/QC Requirements:		Special Instructions/QC Requirements:		Special Instructions/QC Requirements:		Special Instructions/QC Requirements:	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-130364-1

SDG Number: Weekly PFAS

Login Number: 130364

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	

