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ANALYTICAL REPORT

PREPARED FOR

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City & County of Honolulu
630 South Beretania Street
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Honolulu, Hawaii 96843

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JOB DESCRIPTION

RED-HILL
Weekly: Moanalua Wells

JOB NUMBER

380-221354-1

Eurofins Pomona

Job Notes

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

Compliance Statement

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

Authorization



Authorized for release by
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Definitions/Glossary

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

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: 380-221354-1

Job ID: 380-221354-1

Eurofins Pomona

Job Narrative 380-221354-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The samples were received on 6/24/2026 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C.

PFAS

Method EPA 537.1 V2: The following QC issues in preparation batch 380-236105 and analytical batch 380-236282 were observed: QC's (MRL, LCS, MS, and MSD) were not spiked with appropriate target compounds for sample Field Blank FB: MOANALUA WELLS (331-223-TP202) (380-221354-2) Results not acceptable per method, Insufficient volume for re-extraction / re-analysis. Analysis of the Field Blank for PFAS 537.1 for FB: MOANALUA WELLS (331-223-TP202) (380-221354-2) was excluded. Analysis of the field blank is only required if a field sample contains a method analyte or analytes at, or above, the MRL. Native Sample results showed non detected thus valid for reporting the native sample. (XWB4)

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

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Detection Summary

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-221354-1

No Detections.

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-221354-2

No Detections.

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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: 380-221354-1
SDG: Weekly: Moanalua Wells

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-221354-1

Date Collected: 06/22/26 09:42

Matrix: Drinking Water

Date Received: 06/24/26 09:30

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		06/25/26 06:28	06/26/26 00:35	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:35	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	75		50 - 200	06/25/26 06:28	06/26/26 00:35	1
13C6 PFDA	78		50 - 200	06/25/26 06:28	06/26/26 00:35	1
13C5 PFHxA	85		50 - 200	06/25/26 06:28	06/26/26 00:35	1
13C4 PFHpA	85		50 - 200	06/25/26 06:28	06/26/26 00:35	1
13C8 PFOA	83		50 - 200	06/25/26 06:28	06/26/26 00:35	1
13C9 PFNA	82		50 - 200	06/25/26 06:28	06/26/26 00:35	1
13C7 PFUnA	84		50 - 200	06/25/26 06:28	06/26/26 00:35	1
13C2 PFDoA	92		50 - 200	06/25/26 06:28	06/26/26 00:35	1
13C4 PFBA	86		50 - 200	06/25/26 06:28	06/26/26 00:35	1
13C5 PFPeA	85		50 - 200	06/25/26 06:28	06/26/26 00:35	1
13C3 PFBS	114		50 - 200	06/25/26 06:28	06/26/26 00:35	1
13C3 PFHxS	117		50 - 200	06/25/26 06:28	06/26/26 00:35	1
13C8 PFOS	117		50 - 200	06/25/26 06:28	06/26/26 00:35	1

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Client Sample Results

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-221354-1

Date Collected: 06/22/26 09:42

Matrix: Drinking Water

Date Received: 06/24/26 09:30

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-4:2-FTS	126		50 - 200	06/25/26 06:28	06/26/26 00:35	1
13C2-6:2-FTS	119		50 - 200	06/25/26 06:28	06/26/26 00:35	1
13C2-8:2-FTS	118		50 - 200	06/25/26 06:28	06/26/26 00:35	1

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/26/26 11:07	06/27/26 14:00	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/26/26 11:07	06/27/26 14:00	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/26/26 11:07	06/27/26 14:00	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		06/26/26 11:07	06/27/26 14:00	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		06/26/26 11:07	06/27/26 14:00	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/26/26 11:07	06/27/26 14:00	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/26/26 11:07	06/27/26 14:00	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/26/26 11:07	06/27/26 14:00	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/26/26 11:07	06/27/26 14:00	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/26/26 11:07	06/27/26 14:00	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/26/26 11:07	06/27/26 14:00	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/26/26 11:07	06/27/26 14:00	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/26/26 11:07	06/27/26 14:00	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		06/26/26 11:07	06/27/26 14:00	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		06/26/26 11:07	06/27/26 14:00	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/26/26 11:07	06/27/26 14:00	1
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/26/26 11:07	06/27/26 14:00	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/26/26 11:07	06/27/26 14:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	110		70 - 130			06/26/26 11:07	06/27/26 14:00	1
13C2 PFHxA	111		70 - 130			06/26/26 11:07	06/27/26 14:00	1
13C2 PFDA	108		70 - 130			06/26/26 11:07	06/27/26 14:00	1
13C3-GenX	113		70 - 130			06/26/26 11:07	06/27/26 14:00	1

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-221354-2

Date Collected: 06/22/26 09:42

Matrix: Water

Date Received: 06/24/26 09:30

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1

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Client Sample Results

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-221354-2

Date Collected: 06/22/26 09:42

Matrix: Water

Date Received: 06/24/26 09:30

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		06/25/26 06:28	06/26/26 00:45	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	108		50 - 200	06/25/26 06:28	06/26/26 00:45	1
13C6 PFDA	108		50 - 200	06/25/26 06:28	06/26/26 00:45	1
13C5 PFHxA	107		50 - 200	06/25/26 06:28	06/26/26 00:45	1
13C4 PFHpA	110		50 - 200	06/25/26 06:28	06/26/26 00:45	1
13C8 PFOA	114		50 - 200	06/25/26 06:28	06/26/26 00:45	1
13C9 PFNA	113		50 - 200	06/25/26 06:28	06/26/26 00:45	1
13C7 PFUnA	105		50 - 200	06/25/26 06:28	06/26/26 00:45	1
13C2 PFDoA	105		50 - 200	06/25/26 06:28	06/26/26 00:45	1
13C4 PFBA	119		50 - 200	06/25/26 06:28	06/26/26 00:45	1
13C5 PFPeA	116		50 - 200	06/25/26 06:28	06/26/26 00:45	1
13C3 PFBS	116		50 - 200	06/25/26 06:28	06/26/26 00:45	1
13C3 PFHxS	117		50 - 200	06/25/26 06:28	06/26/26 00:45	1
13C8 PFOS	114		50 - 200	06/25/26 06:28	06/26/26 00:45	1
13C2-4:2-FTS	120		50 - 200	06/25/26 06:28	06/26/26 00:45	1
13C2-6:2-FTS	118		50 - 200	06/25/26 06:28	06/26/26 00:45	1
13C2-8:2-FTS	113		50 - 200	06/25/26 06:28	06/26/26 00:45	1

Action Limit Summary

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-221354-1

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	EPA 537.1 V2	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-221354-2

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

Surrogate Summary

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

Job ID: 380-221354-1
 SDG: Weekly: Moanalua Wells

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-221354-1	MOANALUA WELLS (331-223-T	110	111	108	113

Surrogate Legend

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

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-221675-E-1-A MS	Matrix Spike	108	110	111	112
380-221675-F-1-A MSD	Matrix Spike Duplicate	111	113	111	110
LCS 380-236444/22-A	Lab Control Sample	103	109	109	105
MBL 380-236444/20-A	Method Blank	112	111	115	111
MRL 380-236444/21-A	Lab Control Sample	110	101	109	102

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: 380-221354-1
SDG: Weekly: Moanalua Wells

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

Matrix: Drinking Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDoA (50-200)
380-221354-1	MOANALUA WELLS (331-223-T	75	78	85	85	83	82	84	92

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (50-200)	PFPeA (50-200)	C3PFBS (50-200)	C3PFHS (50-200)	C8PFOS (50-200)	42FTS (50-200)	62FTS (50-200)	82FTS (50-200)
380-221354-1	MOANALUA WELLS (331-223-T	86	85	114	117	117	126	119	118

Surrogate Legend

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

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

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDoA (50-200)
380-221336-B-1-A MS	Matrix Spike	113	116	116	113	119	119	117	116
380-221336-C-1-A MSD	Matrix Spike Duplicate	113	116	112	115	115	119	117	116
380-221354-2	FB: MOANALUA WELLS (331-223-TP202)	108	108	107	110	114	113	105	105
LCS 380-236110/22-A	Lab Control Sample	110	117	111	113	114	115	117	115
MBL 380-236110/20-A	Method Blank	100	108	107	108	110	110	113	113
MRL 380-236110/21-A	Lab Control Sample	101	110	108	105	113	114	111	111

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (50-200)	PFPeA (50-200)	C3PFBS (50-200)	C3PFHS (50-200)	C8PFOS (50-200)	42FTS (50-200)	62FTS (50-200)	82FTS (50-200)
380-221336-B-1-A MS	Matrix Spike	119	119	115	113	113	119	113	114
380-221336-C-1-A MSD	Matrix Spike Duplicate	120	119	116	114	116	116	117	117
380-221354-2	FB: MOANALUA WELLS (331-223-TP202)	119	116	116	117	114	120	118	113
LCS 380-236110/22-A	Lab Control Sample	112	111	112	114	114	116	115	117
MBL 380-236110/20-A	Method Blank	113	110	116	117	116	127	128	124
MRL 380-236110/21-A	Lab Control Sample	116	116	114	110	114	121	121	114

Surrogate Legend

- HFPODA = 13C3 HFPO-DA
- C6PFDA = 13C6 PFDA

Isotope Dilution Summary

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

- 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

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QC Sample Results

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

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

Lab Sample ID: MBL 380-236110/20-A
Matrix: Water
Analysis Batch: 236283

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 236110

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		06/25/26 06:28	06/25/26 21:40	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		06/25/26 06:28	06/25/26 21:40	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	100		50 - 200	06/25/26 06:28	06/25/26 21:40	1
13C6 PFDA	108		50 - 200	06/25/26 06:28	06/25/26 21:40	1
13C5 PFHxA	107		50 - 200	06/25/26 06:28	06/25/26 21:40	1
13C4 PFHpA	108		50 - 200	06/25/26 06:28	06/25/26 21:40	1
13C8 PFOA	110		50 - 200	06/25/26 06:28	06/25/26 21:40	1
13C9 PFNA	110		50 - 200	06/25/26 06:28	06/25/26 21:40	1
13C7 PFUnA	113		50 - 200	06/25/26 06:28	06/25/26 21:40	1
13C2 PFDoA	113		50 - 200	06/25/26 06:28	06/25/26 21:40	1
13C4 PFBA	113		50 - 200	06/25/26 06:28	06/25/26 21:40	1
13C5 PFPeA	110		50 - 200	06/25/26 06:28	06/25/26 21:40	1
13C3 PFBS	116		50 - 200	06/25/26 06:28	06/25/26 21:40	1
13C3 PFHxS	117		50 - 200	06/25/26 06:28	06/25/26 21:40	1

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QC Sample Results

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

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

Lab Sample ID: MBL 380-236110/20-A
Matrix: Water
Analysis Batch: 236283

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 236110

<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	116		50 - 200	06/25/26 06:28	06/25/26 21:40	1
13C2-4:2-FTS	127		50 - 200	06/25/26 06:28	06/25/26 21:40	1
13C2-6:2-FTS	128		50 - 200	06/25/26 06:28	06/25/26 21:40	1
13C2-8:2-FTS	124		50 - 200	06/25/26 06:28	06/25/26 21:40	1

Lab Sample ID: LCS 380-236110/22-A
Matrix: Water
Analysis Batch: 236283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 236110

<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)	60.2	52.8		ng/L		88	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.2	52.5		ng/L		87	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.2	56.1		ng/L		93	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.2	54.4		ng/L		90	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.2	55.8		ng/L		93	70 - 130
Perfluorodecanoic acid (PFDA)	60.2	54.1		ng/L		90	70 - 130
Perfluorododecanoic acid (PFDoA)	60.2	55.2		ng/L		92	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.2	55.9		ng/L		93	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.2	54.7		ng/L		91	70 - 130
Perfluorohexanoic acid (PFHxA)	60.2	55.7		ng/L		92	70 - 130
Perfluorononanoic acid (PFNA)	60.2	54.6		ng/L		91	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.2	54.2		ng/L		90	70 - 130
Perfluorooctanoic acid (PFOA)	60.2	53.5		ng/L		89	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.2	54.9		ng/L		91	70 - 130
Perfluorobutanoic acid (PFBA)	60.2	57.1		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.2	54.9		ng/L		91	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.2	54.8		ng/L		91	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.2	56.4		ng/L		94	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.2	55.4		ng/L		92	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	60.2	54.3		ng/L		90	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.2	54.8		ng/L		91	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.2	58.1		ng/L		96	70 - 130
Perfluoropentanoic acid (PFPeA)	60.2	56.1		ng/L		93	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.2	55.4		ng/L		92	70 - 130

QC Sample Results

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

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

Lab Sample ID: LCS 380-236110/22-A
Matrix: Water
Analysis Batch: 236283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 236110

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	60.2	55.2		ng/L		92	70 - 130
LCS LCS							
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	110		50 - 200				
13C6 PFDA	117		50 - 200				
13C5 PFHxA	111		50 - 200				
13C4 PFHpA	113		50 - 200				
13C8 PFOA	114		50 - 200				
13C9 PFNA	115		50 - 200				
13C7 PFUnA	117		50 - 200				
13C2 PFDoA	115		50 - 200				
13C4 PFBA	112		50 - 200				
13C5 PFPeA	111		50 - 200				
13C3 PFBS	112		50 - 200				
13C3 PFHxS	114		50 - 200				
13C8 PFOS	114		50 - 200				
13C2-4:2-FTS	116		50 - 200				
13C2-6:2-FTS	115		50 - 200				
13C2-8:2-FTS	117		50 - 200				

Lab Sample ID: MRL 380-236110/21-A
Matrix: Water
Analysis Batch: 236283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 236110

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	1.84	J	ng/L		92	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	1.81	J	ng/L		90	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	1.90	J	ng/L		95	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	1.83	J	ng/L		91	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	1.88	J	ng/L		94	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.06	J	ng/L		103	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	1.96	J	ng/L		98	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.05	J	ng/L		102	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	1.97	J	ng/L		99	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	1.93	J	ng/L		96	50 - 150
Perfluorononanoic acid (PFNA)	2.00	1.93	J	ng/L		96	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	1.84	J	ng/L		92	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	1.87	J	ng/L		93	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.07	J	ng/L		103	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	1.98	J	ng/L		99	50 - 150

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QC Sample Results

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

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

Lab Sample ID: MRL 380-236110/21-A
Matrix: Water
Analysis Batch: 236283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 236110

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	2.05	J	ng/L		102	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	1.82	J	ng/L		91	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	2.18	J	ng/L		109	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	1.92	J	ng/L		96	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.00	1.87	J	ng/L		93	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	1.79	J	ng/L		89	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	1.81	J	ng/L		90	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	2.00	J	ng/L		100	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	1.85	J	ng/L		92	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	1.88	J	ng/L		94	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	101		50 - 200
13C6 PFDA	110		50 - 200
13C5 PFHxA	108		50 - 200
13C4 PFHpA	105		50 - 200
13C8 PFOA	113		50 - 200
13C9 PFNA	114		50 - 200
13C7 PFUnA	111		50 - 200
13C2 PFDoA	111		50 - 200
13C4 PFBA	116		50 - 200
13C5 PFPeA	116		50 - 200
13C3 PFBS	114		50 - 200
13C3 PFHxS	110		50 - 200
13C8 PFOS	114		50 - 200
13C2-4:2-FTS	121		50 - 200
13C2-6:2-FTS	121		50 - 200
13C2-8:2-FTS	114		50 - 200

Lab Sample ID: 380-221336-B-1-A MS
Matrix: Water
Analysis Batch: 236283

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 236110

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	52.0		ng/L		86	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.4	53.3		ng/L		88	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	54.7		ng/L		91	70 - 130

QC Sample Results

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

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

Lab Sample ID: 380-221336-B-1-A MS
Matrix: Water
Analysis Batch: 236283

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 236110

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		60.4	54.6		ng/L		90	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	53.5		ng/L		89	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.4	56.5		ng/L		94	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	55.4		ng/L		92	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	57.3		ng/L		95	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.4	55.4		ng/L		91	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	56.8		ng/L		93	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.4	53.0		ng/L		88	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.4	53.8		ng/L		89	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.4	54.9		ng/L		91	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	55.2		ng/L		91	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.4	53.7		ng/L		89	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	55.8		ng/L		92	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	57.0		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	54.4		ng/L		90	70 - 130
Nonafluoro-3,6-dioxahheptanoic acid (NFDHA)	<2.0		60.4	52.2		ng/L		86	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.4	56.0		ng/L		93	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	54.2		ng/L		90	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	54.2		ng/L		90	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.4	54.2		ng/L		89	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	54.8		ng/L		91	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	53.7		ng/L		89	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	113		50 - 200
13C6 PFDA	116		50 - 200
13C5 PFHxA	116		50 - 200
13C4 PFHpA	113		50 - 200
13C8 PFOA	119		50 - 200
13C9 PFNA	119		50 - 200
13C7 PFUnA	117		50 - 200
13C2 PFDoA	116		50 - 200
13C4 PFBA	119		50 - 200
13C5 PFPeA	119		50 - 200
13C3 PFBS	115		50 - 200
13C3 PFHxS	113		50 - 200
13C8 PFOS	113		50 - 200

QC Sample Results

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

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

Lab Sample ID: 380-221336-B-1-A MS
Matrix: Water
Analysis Batch: 236283

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 236110

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C2-4:2-FTS	119		50 - 200
13C2-6:2-FTS	113		50 - 200
13C2-8:2-FTS	114		50 - 200

Lab Sample ID: 380-221336-C-1-A MSD
Matrix: Water
Analysis Batch: 236283

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 236110

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	51.7		ng/L		86	70 - 130	0	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.5	51.6		ng/L		85	70 - 130	3	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.5	54.9		ng/L		91	70 - 130	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.5	53.7		ng/L		89	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.5	54.2		ng/L		90	70 - 130	1	30
Perfluorodecanoic acid (PFDA)	<2.0		60.5	57.1		ng/L		94	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.5	55.9		ng/L		92	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.5	56.3		ng/L		93	70 - 130	2	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.5	55.5		ng/L		91	70 - 130	0	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.5	56.8		ng/L		93	70 - 130	0	30
Perfluorononanoic acid (PFNA)	<2.0		60.5	52.8		ng/L		87	70 - 130	0	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.5	53.5		ng/L		89	70 - 130	0	30
Perfluorooctanoic acid (PFOA)	<2.0		60.5	54.4		ng/L		90	70 - 130	1	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.5	55.7		ng/L		92	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	<2.0		60.5	54.1		ng/L		89	70 - 130	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.5	55.0		ng/L		91	70 - 130	1	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.5	54.4		ng/L		90	70 - 130	5	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.5	53.0		ng/L		88	70 - 130	3	30
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.5	51.7		ng/L		85	70 - 130	1	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.5	53.8		ng/L		89	70 - 130	4	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.5	51.8		ng/L		86	70 - 130	5	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.5	54.9		ng/L		91	70 - 130	1	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.5	54.9		ng/L		90	70 - 130	1	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.5	53.5		ng/L		88	70 - 130	2	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.5	55.3		ng/L		91	70 - 130	3	30

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QC Sample Results

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

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

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	113		50 - 200
13C6 PFDA	116		50 - 200
13C5 PFHxA	112		50 - 200
13C4 PFHpA	115		50 - 200
13C8 PFOA	115		50 - 200
13C9 PFNA	119		50 - 200
13C7 PFUnA	117		50 - 200
13C2 PFDoA	116		50 - 200
13C4 PFBA	120		50 - 200
13C5 PFPeA	119		50 - 200
13C3 PFBS	116		50 - 200
13C3 PFHxS	114		50 - 200
13C8 PFOS	116		50 - 200
13C2-4:2-FTS	116		50 - 200
13C2-6:2-FTS	117		50 - 200
13C2-8:2-FTS	117		50 - 200

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020

Lab Sample ID: MBL 380-236444/20-A
Matrix: Water
Analysis Batch: 236595

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 236444

Analyte	MBL MBL		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		06/26/26 11:07	06/27/26 11:43	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		06/26/26 11:07	06/27/26 11:43	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		06/26/26 11:07	06/27/26 11:43	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		06/26/26 11:07	06/27/26 11:43	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		06/26/26 11:07	06/27/26 11:43	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		06/26/26 11:07	06/27/26 11:43	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		06/26/26 11:07	06/27/26 11:43	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		06/26/26 11:07	06/27/26 11:43	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		06/26/26 11:07	06/27/26 11:43	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		06/26/26 11:07	06/27/26 11:43	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		06/26/26 11:07	06/27/26 11:43	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		06/26/26 11:07	06/27/26 11:43	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		06/26/26 11:07	06/27/26 11:43	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		06/26/26 11:07	06/27/26 11:43	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		06/26/26 11:07	06/27/26 11:43	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		06/26/26 11:07	06/27/26 11:43	1
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		06/26/26 11:07	06/27/26 11:43	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		06/26/26 11:07	06/27/26 11:43	1
Surrogate	MBL MBL		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
d5-NEtFOSAA	112		70 - 130			06/26/26 11:07	06/27/26 11:43	1
13C2 PFHxA	111		70 - 130			06/26/26 11:07	06/27/26 11:43	1
13C2 PFDA	115		70 - 130			06/26/26 11:07	06/27/26 11:43	1

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QC Sample Results

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020 (Continued)

Lab Sample ID: MBL 380-236444/20-A
Matrix: Water
Analysis Batch: 236595

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 236444

<i>Surrogate</i>	<i>MBL</i>	<i>MBL</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3-GenX	111	Qualifier	70 - 130	06/26/26 11:07	06/27/26 11:43	1

Lab Sample ID: LCS 380-236444/22-A
Matrix: Water
Analysis Batch: 236595

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 236444

<i>Analyte</i>	<i>Spike</i>	<i>LCS</i>	<i>LCS</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i>	<i>Limits</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>					
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	50.2	47.9	ng/L	95	70 - 130			
Perfluorooctanesulfonic acid (PFOS)	50.2	47.6	ng/L	95	70 - 130			
Perfluoroundecanoic acid (PFUnA)	50.2	49.9	ng/L	99	70 - 130			
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	50.2	48.5	ng/L	97	70 - 130			
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	50.2	47.3	ng/L	94	70 - 130			
Perfluorohexanoic acid (PFHxA)	50.2	50.2	ng/L	100	70 - 130			
Perfluorododecanoic acid (PFDoA)	50.2	47.7	ng/L	95	70 - 130			
Perfluorooctanoic acid (PFOA)	50.2	51.4	ng/L	102	70 - 130			
Perfluorodecanoic acid (PFDA)	50.2	50.6	ng/L	101	70 - 130			
Perfluorohexanesulfonic acid (PFHxS)	50.2	48.4	ng/L	96	70 - 130			
Perfluorobutanesulfonic acid (PFBS)	50.2	49.8	ng/L	99	70 - 130			
Perfluoroheptanoic acid (PFHpA)	50.2	53.4	ng/L	106	70 - 130			
Perfluorononanoic acid (PFNA)	50.2	52.4	ng/L	104	70 - 130			
Perfluorotetradecanoic acid (PFTA)	50.2	44.5	ng/L	89	70 - 130			
Perfluorotridecanoic acid (PFTrDA)	50.2	50.8	ng/L	101	70 - 130			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	50.2	45.0	ng/L	90	70 - 130			
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	50.2	44.6	ng/L	89	70 - 130			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	50.2	49.3	ng/L	98	70 - 130			
<i>Surrogate</i>	<i>LCS</i>	<i>LCS</i>	<i>Limits</i>					
d5-NEtFOSAA	103	Qualifier	70 - 130					
13C2 PFHxA	109	Qualifier	70 - 130					
13C2 PFDA	109	Qualifier	70 - 130					
13C3-GenX	105	Qualifier	70 - 130					

QC Sample Results

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020 (Continued)

Lab Sample ID: MRL 380-236444/21-A
Matrix: Water
Analysis Batch: 236595

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 236444

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.01	J	ng/L		100	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.01	J	ng/L		100	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.01	J	ng/L		100	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	1.99	J	ng/L		99	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	2.05	J	ng/L		102	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	1.95	J	ng/L		97	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	1.95	J	ng/L		97	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.03	J	ng/L		101	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	1.95	J	ng/L		97	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.02	J	ng/L		101	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	1.89	J	ng/L		94	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.05	J	ng/L		102	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.24	J	ng/L		111	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	1.86	J	ng/L		93	50 - 150
Perfluorotridecanoic acid (PFTTrDA)	2.01	2.10	J	ng/L		105	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	1.86	J	ng/L		93	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.85	J	ng/L		92	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.98	J	ng/L		99	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	110		70 - 130
13C2 PFHxA	101		70 - 130
13C2 PFDA	109		70 - 130
13C3-GenX	102		70 - 130

Lab Sample ID: 380-221675-E-1-A MS
Matrix: Water
Analysis Batch: 236595

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 236444

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.4	25.4		ng/L		100	70 - 130
Perfluorooctanesulfonic acid (PFOS)	3.5		25.4	31.0		ng/L		108	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.4	26.7		ng/L		105	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.4	26.3		ng/L		104	70 - 130

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QC Association Summary

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

LCMS

Prep Batch: 236110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-221354-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	533	
380-221354-2	FB: MOANALUA WELLS (331-223-TP202)	Total/NA	Water	533	
MBL 380-236110/20-A	Method Blank	Total/NA	Water	533	
LCS 380-236110/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-236110/21-A	Lab Control Sample	Total/NA	Water	533	
380-221336-B-1-A MS	Matrix Spike	Total/NA	Water	533	
380-221336-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 236283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-221354-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	533	236110
380-221354-2	FB: MOANALUA WELLS (331-223-TP202)	Total/NA	Water	533	236110
MBL 380-236110/20-A	Method Blank	Total/NA	Water	533	236110
LCS 380-236110/22-A	Lab Control Sample	Total/NA	Water	533	236110
MRL 380-236110/21-A	Lab Control Sample	Total/NA	Water	533	236110
380-221336-B-1-A MS	Matrix Spike	Total/NA	Water	533	236110
380-221336-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	236110

Prep Batch: 236444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-221354-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	537.1 DW	
MBL 380-236444/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-236444/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-236444/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-221675-E-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-221675-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 236595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-221354-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	EPA 537.1 V2	236444
MBL 380-236444/20-A	Method Blank	Total/NA	Water	EPA 537.1 V2	236444
LCS 380-236444/22-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	236444
MRL 380-236444/21-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	236444
380-221675-E-1-A MS	Matrix Spike	Total/NA	Water	EPA 537.1 V2	236444
380-221675-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 537.1 V2	236444

Lab Chronicle

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-221354-1

Date Collected: 06/22/26 09:42

Matrix: Drinking Water

Date Received: 06/24/26 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			236110	XTD8	EA POM	06/25/26 06:28
Total/NA	Analysis	533		1	236283	Y5FM	EA POM	06/26/26 00:35
Total/NA	Prep	537.1 DW			236444	LM3A	EA POM	06/26/26 11:07
Total/NA	Analysis	EPA 537.1 V2		1	236595	Y5FM	EA POM	06/27/26 14:00

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-221354-2

Date Collected: 06/22/26 09:42

Matrix: Water

Date Received: 06/24/26 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			236110	XTD8	EA POM	06/25/26 06:28
Total/NA	Analysis	533		1	236283	Y5FM	EA POM	06/26/26 00:45

Laboratory References:

EA POM = Eurofins Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100

Accreditation/Certification Summary

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

Laboratory: Eurofins Pomona

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

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

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

Method Summary

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

Method	Method Description	Protocol	Laboratory
533	Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water	EPA	EA POM
EPA 537.1 V2	EPA 537.1 Ver. 2.0 March 2020	EPA	EA POM
533	Extraction of Perfluorinated and Polyfluorinated Alkyl Acids	EPA	EA POM
537.1 DW	Extraction of Perfluorinated Alkyl Acids	EPA	EA POM

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EA POM = Eurofins Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100



Sample Summary

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

Job ID: 380-221354-1
SDG: Weekly: Moanalua Wells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-221354-1	MOANALUA WELLS (331-223-TP202)	Drinking Water	06/22/26 09:42	06/24/26 09:30	Hawaii
380-221354-2	FB: MOANALUA WELLS (331-223-TP202)	Water	06/22/26 09:42	06/24/26 09:30	Hawaii

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Monrovia, CA (Suite 100)

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

Chain of Custody Record



Client Information		Sampler bailey		Lab PM. Lopez, Maria		Carrier Tracking No(s):		COC No:					
Client Contact kirk iwamoto		Phone +1 808 748 5840		E-Mail: Maria.Lopez@et.eurofins.com		State of Origin:		Page Page 1 of 1					
Company City & County of Honolulu				PWSID:		Analysis Requested							
Address 630 South Beretania Street, Chemistry Lab		Due Date Requested		Field Filled Sample (Yes or No) Perform MS/MSD (Yes or No) SUBCONTRACT - 625 PAH Physys LL (EAL) + TICs 8015B_GRO_LL - (MOD) GRO 8015B_DRO_LL_CS - HNL Ranges: C10-C24/C24-C36/C8-C18 625.2_PREC - (MOD) 625plus PLUS TICs 637_DW_PREC - 637.1 Full List 633 - All Analytes		Total Number of containers 380-221354 COC		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)					
City Honolulu		TAT Requested (days):											
State Zip: HI, 96843		Compliance Project: Δ No											
Phone 808-748-5840 (tel)		PO #: C20525101 exp 05312023											
Email kiwamoto@hbws.org		WO #:											
Project Name: RED-HILL/HBWS sites Event Desc. RUSH Weekly Red Hill		Project #: 38001111											
Site:		SSOW#:											
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code:	R	A	Q	QA	Y	I	Special Instructions/Note:
Moanalua Wells (331-223-TP202)		22-Jun-2026	0942	G	Water					3	3		chlorinated
FB: Moanalua Wells (331-223-TP202)		22-Jun-2026	0942							1	1		
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
<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						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested I, II, III, IV, Other (specify)						Special Instructions/QC Requirements							
Empty Kit Relinquished by		Date		Time		Method of Shipment: <i>FX 6734 6/9/ 7662</i>							
[Redacted]		Date/Time: <i>23 June 2026 1100</i>		Company HBWS		Received by: <i>[Signature]</i>		Date/Time: <i>6/24/26 0930</i>		Company <i>EEAP</i>			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:			
Custody Seals Intact Δ Yes Δ No		Custody Seal No.		Cooler Temperature(s) °C and Other Remarks: <i>5.6 ± 0.0 = 9.6 °C (6311)</i>									



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-221354-1
SDG Number: Weekly: Moanalua Wells

Login Number: 221354

List Number: 1

Creator: Del Rosario, Michael

List Source: Eurofins Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
CIO4 headspace requirement met (>50% for CA, >30% for other states).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

