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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 5/13/2026 9:38:12 AM

JOB DESCRIPTION

RED-HILL
PFAS: Ka'amilo Wells P1

JOB NUMBER

380-212170-1

Eurofins Pomona

Job Notes

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

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

Compliance Statement

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

Authorization



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

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Definitions/Glossary

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

Job ID: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

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: 380-212170-1

Job ID: 380-212170-1

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Job Narrative 380-212170-1

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 5/6/2026 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.1°C.

PFAS

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

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Detection Summary

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

Job ID: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

Client Sample ID: Ka'amilo Wells P1 (331-031-WL008)

Lab Sample ID: 380-212170-1

PWSID Number: HI0000331

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	3.3		2.0	ng/L	1		533	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.0		2.0	ng/L	1		533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.7		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	4.0		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.0		2.0	ng/L	1		533	Total/NA
Perfluorooctanoic acid (PFOA)	4.0		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	4.3		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.5		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorohexanoic acid (PFHxA)	4.4		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorooctanoic acid (PFOA)	4.0		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.8		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.6		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.2		2.0	ng/L	1		EPA 537.1 V2	Total/NA

Client Sample ID: FB: Ka'amilo Wells P1 (331-031-WL008)

Lab Sample ID: 380-212170-2

PWSID Number: HI0000331

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: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

Client Sample ID: Ka'amilo Wells P1 (331-031-WL008)

Lab Sample ID: 380-212170-1

Date Collected: 05/04/26 12:27

Matrix: Water

Date Received: 05/06/26 09:45

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Perfluorobutanesulfonic acid (PFBS)	3.3		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Perfluoroheptanoic acid (PFHpA)	2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Perfluorohexanesulfonic acid (PFHxS)	3.7		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Perfluorohexanoic acid (PFHxA)	4.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Perfluorooctanesulfonic acid (PFOS)	5.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Perfluorooctanoic acid (PFOA)	4.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Perfluoropentanoic acid (PFPeA)	4.3		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:35	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	97		50 - 200			05/07/26 06:48	05/07/26 20:35	1
13C6 PFDA	104		50 - 200			05/07/26 06:48	05/07/26 20:35	1
13C5 PFHxA	100		50 - 200			05/07/26 06:48	05/07/26 20:35	1
13C4 PFHpA	107		50 - 200			05/07/26 06:48	05/07/26 20:35	1
13C8 PFOA	113		50 - 200			05/07/26 06:48	05/07/26 20:35	1
13C9 PFNA	105		50 - 200			05/07/26 06:48	05/07/26 20:35	1
13C7 PFUnA	104		50 - 200			05/07/26 06:48	05/07/26 20:35	1
13C2 PFDoA	104		50 - 200			05/07/26 06:48	05/07/26 20:35	1
13C4 PFBA	107		50 - 200			05/07/26 06:48	05/07/26 20:35	1
13C5 PFPeA	112		50 - 200			05/07/26 06:48	05/07/26 20:35	1
13C3 PFBS	107		50 - 200			05/07/26 06:48	05/07/26 20:35	1

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Client Sample Results

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

Job ID: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

Client Sample ID: Ka'amilo Wells P1 (331-031-WL008)

Lab Sample ID: 380-212170-1

Date Collected: 05/04/26 12:27

Matrix: Water

Date Received: 05/06/26 09:45

PWSID Number: HI0000331

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	108		50 - 200	05/07/26 06:48	05/07/26 20:35	1
13C8 PFOS	105		50 - 200	05/07/26 06:48	05/07/26 20:35	1
13C2-4:2-FTS	112		50 - 200	05/07/26 06:48	05/07/26 20:35	1
13C2-6:2-FTS	102		50 - 200	05/07/26 06:48	05/07/26 20:35	1
13C2-8:2-FTS	104		50 - 200	05/07/26 06:48	05/07/26 20:35	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		05/09/26 08:50	05/10/26 16:48	1
Perfluorooctanesulfonic acid (PFOS)	5.5		2.0	ng/L		05/09/26 08:50	05/10/26 16:48	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:48	1
N-methylperfluorooctanesulfonamide cetic acid (NMeFOSAA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:48	1
N-ethylperfluorooctanesulfonamide acetic acid (NEtFOSAA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:48	1
Perfluorohexanoic acid (PFHxA)	4.4		2.0	ng/L		05/09/26 08:50	05/10/26 16:48	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:48	1
Perfluorooctanoic acid (PFOA)	4.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:48	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:48	1
Perfluorohexanesulfonic acid (PFHxS)	3.8		2.0	ng/L		05/09/26 08:50	05/10/26 16:48	1
Perfluorobutanesulfonic acid (PFBS)	3.6		2.0	ng/L		05/09/26 08:50	05/10/26 16:48	1
Perfluoroheptanoic acid (PFHpA)	2.2		2.0	ng/L		05/09/26 08:50	05/10/26 16:48	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:48	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:48	1
Perfluorotridecanoic acid (PFTDA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:48	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:48	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:48	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	107		70 - 130	05/09/26 08:50	05/10/26 16:48	1
13C2 PFHxA	94		70 - 130	05/09/26 08:50	05/10/26 16:48	1
13C2 PFDA	92		70 - 130	05/09/26 08:50	05/10/26 16:48	1
13C3-GenX	95		70 - 130	05/09/26 08:50	05/10/26 16:48	1

Client Sample ID: FB: Ka'amilo Wells P1 (331-031-WL008)

Lab Sample ID: 380-212170-2

Date Collected: 05/04/26 12:27

Matrix: Water

Date Received: 05/06/26 09:45

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1

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Client Sample Results

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

Job ID: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

Client Sample ID: FB: Ka'amilo Wells P1 (331-031-WL008)

Lab Sample ID: 380-212170-2

Date Collected: 05/04/26 12:27

Matrix: Water

Date Received: 05/06/26 09:45

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		05/07/26 06:48	05/07/26 23:37	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	99		50 - 200	05/07/26 06:48	05/07/26 23:37	1
13C6 PFDA	101		50 - 200	05/07/26 06:48	05/07/26 23:37	1
13C5 PFHxA	106		50 - 200	05/07/26 06:48	05/07/26 23:37	1
13C4 PFHpA	102		50 - 200	05/07/26 06:48	05/07/26 23:37	1
13C8 PFOA	107		50 - 200	05/07/26 06:48	05/07/26 23:37	1
13C9 PFNA	104		50 - 200	05/07/26 06:48	05/07/26 23:37	1
13C7 PFUnA	100		50 - 200	05/07/26 06:48	05/07/26 23:37	1
13C2 PFDoA	105		50 - 200	05/07/26 06:48	05/07/26 23:37	1
13C4 PFBA	107		50 - 200	05/07/26 06:48	05/07/26 23:37	1
13C5 PFPeA	113		50 - 200	05/07/26 06:48	05/07/26 23:37	1
13C3 PFBS	106		50 - 200	05/07/26 06:48	05/07/26 23:37	1
13C3 PFHxS	106		50 - 200	05/07/26 06:48	05/07/26 23:37	1
13C8 PFOS	106		50 - 200	05/07/26 06:48	05/07/26 23:37	1
13C2-4:2-FTS	104		50 - 200	05/07/26 06:48	05/07/26 23:37	1
13C2-6:2-FTS	104		50 - 200	05/07/26 06:48	05/07/26 23:37	1
13C2-8:2-FTS	104		50 - 200	05/07/26 06:48	05/07/26 23:37	1

Client Sample Results

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

Job ID: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

Client Sample ID: FB: Ka'amilo Wells P1 (331-031-WL008)

Lab Sample ID: 380-212170-2

Date Collected: 05/04/26 12:27

Matrix: Water

Date Received: 05/06/26 09:45

PWSID Number: HI0000331

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		05/09/26 08:50	05/10/26 16:58	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:58	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:58	1
N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:58	1
N-ethylperfluorooctanesulfonamide acetic acid (NEtFOSAA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:58	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:58	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:58	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:58	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:58	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:58	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:58	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:58	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:58	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:58	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:58	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:58	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		05/09/26 08:50	05/10/26 16:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	101		70 - 130			05/09/26 08:50	05/10/26 16:58	1
13C2 PFHxA	95		70 - 130			05/09/26 08:50	05/10/26 16:58	1
13C2 PFDA	91		70 - 130			05/09/26 08:50	05/10/26 16:58	1
13C3-GenX	87		70 - 130			05/09/26 08:50	05/10/26 16:58	1

Action Limit Summary

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

Job ID: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

Client Sample ID: Ka'amilo Wells P1 (331-031-WL008)

Lab Sample ID: 380-212170-1

PWSID Number: HI0000331

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.7		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.0		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	4.0		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)	5.5		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorooctanoic acid (PFOA)	4.0		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.8		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: Ka'amilo Wells P1 (331-031-WL008)

Lab Sample ID: 380-212170-2

PWSID Number: HI0000331

Compliance Check

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

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

Surrogate Summary

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

Job ID: 380-212170-1
 SDG: PFAS: Ka'amilo Wells P1

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)
380-212170-1	Ka'amilo Wells P1 (331-031-WL008)	107	94	92	95
380-212170-2	FB: Ka'amilo Wells P1 (331-031-WL008)	101	95	91	87
380-212178-B-1-A MS	Matrix Spike	108	100	99	100
380-212178-C-1-A MSD	Matrix Spike Duplicate	110	103	101	104
LCS 380-225944/23-A	Lab Control Sample	105	101	96	93
MBL 380-225944/21-A	Method Blank	112	101	96	102
MRL 380-225944/22-A	Lab Control Sample	112	106	98	100

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: 380-212170-1
 SDG: PFAS: Ka'amilo Wells P1

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)	PFD _o A (50-200)
380-212170-1	Ka'amilo Wells P1 (331-031-WL008)	97	104	100	107	113	105	104	104
380-212170-1 MS	Ka'amilo Wells P1 (331-031-WL008)	104	103	103	110	107	106	106	106
380-212170-1 MSD	Ka'amilo Wells P1 (331-031-WL008)	106	106	104	111	110	108	107	109
380-212170-2	FB: Ka'amilo Wells P1 (331-031-WL008)	99	101	106	102	107	104	100	105
LCS 380-225478/22-A	Lab Control Sample	115	111	119	115	117	114	115	118
MBL 380-225478/20-A	Method Blank	108	113	113	113	116	119	113	112
MRL 380-225478/21-A	Lab Control Sample	107	112	122	115	117	112	109	104

		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)
380-212170-1	Ka'amilo Wells P1 (331-031-WL008)	107	112	107	108	105	112	102	104
380-212170-1 MS	Ka'amilo Wells P1 (331-031-WL008)	111	115	106	109	106	104	103	104
380-212170-1 MSD	Ka'amilo Wells P1 (331-031-WL008)	107	114	107	108	105	112	103	98
380-212170-2	FB: Ka'amilo Wells P1 (331-031-WL008)	107	113	106	106	106	104	104	104
LCS 380-225478/22-A	Lab Control Sample	111	114	112	109	114	111	107	103
MBL 380-225478/20-A	Method Blank	112	120	119	113	114	120	114	115
MRL 380-225478/21-A	Lab Control Sample	106	113	114	115	114	117	113	112

Surrogate Legend

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

QC Sample Results

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

Job ID: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: MBL 380-225478/20-A
Matrix: Water
Analysis Batch: 225658

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 225478

Analyte	MBL	MBL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		05/07/26 06:48	05/07/26 20:05	1

Isotope Dilution	MBL	MBL	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C3 HFPO-DA	108		50 - 200	05/07/26 06:48	05/07/26 20:05	1
13C6 PFDA	113		50 - 200	05/07/26 06:48	05/07/26 20:05	1
13C5 PFHxA	113		50 - 200	05/07/26 06:48	05/07/26 20:05	1
13C4 PFHpA	113		50 - 200	05/07/26 06:48	05/07/26 20:05	1
13C8 PFOA	116		50 - 200	05/07/26 06:48	05/07/26 20:05	1
13C9 PFNA	119		50 - 200	05/07/26 06:48	05/07/26 20:05	1
13C7 PFUnA	113		50 - 200	05/07/26 06:48	05/07/26 20:05	1
13C2 PFDoA	112		50 - 200	05/07/26 06:48	05/07/26 20:05	1
13C4 PFBA	112		50 - 200	05/07/26 06:48	05/07/26 20:05	1
13C5 PFPeA	120		50 - 200	05/07/26 06:48	05/07/26 20:05	1
13C3 PFBS	119		50 - 200	05/07/26 06:48	05/07/26 20:05	1
13C3 PFHxS	113		50 - 200	05/07/26 06:48	05/07/26 20:05	1

Eurofins Pomona

QC Sample Results

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

Job ID: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: MBL 380-225478/20-A
Matrix: Water
Analysis Batch: 225658

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 225478

<i>Isotope Dilution</i>	<i>MBL</i>	<i>MBL</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	<i>%Recovery</i>	<i>Qualifier</i>				
13C8 PFOS	114		50 - 200	05/07/26 06:48	05/07/26 20:05	1
13C2-4:2-FTS	120		50 - 200	05/07/26 06:48	05/07/26 20:05	1
13C2-6:2-FTS	114		50 - 200	05/07/26 06:48	05/07/26 20:05	1
13C2-8:2-FTS	115		50 - 200	05/07/26 06:48	05/07/26 20:05	1

Lab Sample ID: LCS 380-225478/22-A
Matrix: Water
Analysis Batch: 225658

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225478

<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>Added</i>	<i>Result</i>	<i>Qualifier</i>				<i>Limits</i>
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.1	53.3		ng/L		89	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.1	53.1		ng/L		88	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.1	58.2		ng/L		97	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.1	54.8		ng/L		91	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.1	56.4		ng/L		94	70 - 130
Perfluorodecanoic acid (PFDA)	60.1	58.3		ng/L		97	70 - 130
Perfluorododecanoic acid (PFDoA)	60.1	55.1		ng/L		92	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.1	57.3		ng/L		95	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.1	56.7		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	60.1	55.3		ng/L		92	70 - 130
Perfluorononanoic acid (PFNA)	60.1	56.0		ng/L		93	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.1	55.0		ng/L		91	70 - 130
Perfluorooctanoic acid (PFOA)	60.1	54.3		ng/L		90	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.1	54.5		ng/L		91	70 - 130
Perfluorobutanoic acid (PFBA)	60.1	56.4		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.1	59.6		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.1	57.4		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.1	59.4		ng/L		99	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.1	54.6		ng/L		91	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	60.1	53.9		ng/L		90	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.1	57.7		ng/L		96	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.1	54.4		ng/L		91	70 - 130
Perfluoropentanoic acid (PFPeA)	60.1	55.4		ng/L		92	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.1	56.1		ng/L		93	70 - 130

QC Sample Results

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

Job ID: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: LCS 380-225478/22-A

Matrix: Water

Analysis Batch: 225658

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 225478

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	60.1	56.2		ng/L		94	70 - 130
LCS LCS							
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	115		50 - 200				
13C6 PFDA	111		50 - 200				
13C5 PFHxA	119		50 - 200				
13C4 PFHpA	115		50 - 200				
13C8 PFOA	117		50 - 200				
13C9 PFNA	114		50 - 200				
13C7 PFUnA	115		50 - 200				
13C2 PFDoA	118		50 - 200				
13C4 PFBA	111		50 - 200				
13C5 PFPeA	114		50 - 200				
13C3 PFBS	112		50 - 200				
13C3 PFHxS	109		50 - 200				
13C8 PFOS	114		50 - 200				
13C2-4:2-FTS	111		50 - 200				
13C2-6:2-FTS	107		50 - 200				
13C2-8:2-FTS	103		50 - 200				

Lab Sample ID: MRL 380-225478/21-A

Matrix: Water

Analysis Batch: 225658

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 225478

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	1.81	J	ng/L		91	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	1.84	J	ng/L		92	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	1.93	J	ng/L		96	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	1.90	J	ng/L		95	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	1.85	J	ng/L		93	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	1.90	J	ng/L		95	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.11	J	ng/L		105	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.00	J	ng/L		100	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	1.87	J	ng/L		94	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	1.80	J	ng/L		90	50 - 150
Perfluorononanoic acid (PFNA)	2.00	1.91	J	ng/L		95	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	1.85	J	ng/L		93	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	1.85	J	ng/L		93	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	1.93	J	ng/L		97	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	1.99	J	ng/L		99	50 - 150

Eurofins Pomona

QC Sample Results

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

Job ID: 380-212170-1
 SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: MRL 380-225478/21-A
Matrix: Water
Analysis Batch: 225658

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225478

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	1.93	J	ng/L		96	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	2.19	J	ng/L		109	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	2.30	J	ng/L		115	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	1.76	J	ng/L		88	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.00	1.87	J	ng/L		94	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	1.99	J	ng/L		100	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	1.82	J	ng/L		91	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	1.96	J	ng/L		98	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	1.94	J	ng/L		97	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	1.83	J	ng/L		92	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	107		50 - 200
13C6 PFDA	112		50 - 200
13C5 PFHxA	122		50 - 200
13C4 PFHpA	115		50 - 200
13C8 PFOA	117		50 - 200
13C9 PFNA	112		50 - 200
13C7 PFUnA	109		50 - 200
13C2 PFDoA	104		50 - 200
13C4 PFBA	106		50 - 200
13C5 PFPeA	113		50 - 200
13C3 PFBS	114		50 - 200
13C3 PFHxS	115		50 - 200
13C8 PFOS	114		50 - 200
13C2-4:2-FTS	117		50 - 200
13C2-6:2-FTS	113		50 - 200
13C2-8:2-FTS	112		50 - 200

Lab Sample ID: 380-212170-1 MS
Matrix: Water
Analysis Batch: 225658

Client Sample ID: Ka'amilo Wells P1 (331-031-WL008)
Prep Type: Total/NA
Prep Batch: 225478

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.2	56.0		ng/L		93	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.2	55.5		ng/L		92	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.2	57.9		ng/L		96	70 - 130

QC Sample Results

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

Job ID: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: 380-212170-1 MS

Client Sample ID: Ka'amilo Wells P1 (331-031-WL008)

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 225658

Prep Batch: 225478

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Hexafluoropropylene Oxide	<2.0		60.2	58.8		ng/L		98	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	3.3		60.2	60.4		ng/L		95	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.2	58.3		ng/L		97	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.2	56.7		ng/L		94	70 - 130
Perfluoroheptanoic acid (PFHpA)	2.0		60.2	60.4		ng/L		97	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	3.7		60.2	60.9		ng/L		95	70 - 130
Perfluorohexanoic acid (PFHxA)	4.0		60.2	60.0		ng/L		93	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.2	56.4		ng/L		94	70 - 130
Perfluorooctanesulfonic acid (PFOS)	5.0		60.2	62.2		ng/L		95	70 - 130
Perfluorooctanoic acid (PFOA)	4.0		60.2	60.8		ng/L		94	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.2	57.3		ng/L		95	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.2	58.8		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.2	56.0		ng/L		93	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.2	60.5		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.2	62.9		ng/L		104	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.2	61.4		ng/L		102	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.2	58.4		ng/L		97	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.2	58.0		ng/L		96	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.2	55.7		ng/L		92	70 - 130
Perfluoropentanoic acid (PFPeA)	4.3		60.2	61.1		ng/L		94	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.2	58.3		ng/L		97	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.2	55.3		ng/L		91	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	104		50 - 200
13C6 PFDA	103		50 - 200
13C5 PFHxA	103		50 - 200
13C4 PFHpA	110		50 - 200
13C8 PFOA	107		50 - 200
13C9 PFNA	106		50 - 200
13C7 PFUnA	106		50 - 200
13C2 PFDoA	106		50 - 200
13C4 PFBA	111		50 - 200
13C5 PFPeA	115		50 - 200
13C3 PFBS	106		50 - 200
13C3 PFHxS	109		50 - 200
13C8 PFOS	106		50 - 200

QC Sample Results

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

Job ID: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: 380-212170-1 MS

Client Sample ID: Ka'amilo Wells P1 (331-031-WL008)

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 225658

Prep Batch: 225478

<i>Isotope Dilution</i>	<i>MS MS</i>	<i>Limits</i>
	%Recovery	Qualifier
13C2-4:2-FTS	104	50 - 200
13C2-6:2-FTS	103	50 - 200
13C2-8:2-FTS	104	50 - 200

Lab Sample ID: 380-212170-1 MSD

Client Sample ID: Ka'amilo Wells P1 (331-031-WL008)

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 225658

Prep Batch: 225478

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	56.1		ng/L		93	70 - 130	0	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.4	56.4		ng/L		93	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	57.1		ng/L		95	70 - 130	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.4	57.7		ng/L		96	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	3.3		60.4	58.7		ng/L		92	70 - 130	3	30
Perfluorodecanoic acid (PFDA)	<2.0		60.4	56.2		ng/L		93	70 - 130	4	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	58.7		ng/L		97	70 - 130	3	30
Perfluoroheptanoic acid (PFHpA)	2.0		60.4	58.9		ng/L		94	70 - 130	3	30
Perfluorohexanesulfonic acid (PFHxS)	3.7		60.4	58.5		ng/L		91	70 - 130	4	30
Perfluorohexanoic acid (PFHxA)	4.0		60.4	60.8		ng/L		94	70 - 130	1	30
Perfluorononanoic acid (PFNA)	<2.0		60.4	55.7		ng/L		92	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	5.0		60.4	60.8		ng/L		92	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	4.0		60.4	59.5		ng/L		92	70 - 130	2	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	56.8		ng/L		94	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	<2.0		60.4	59.3		ng/L		96	70 - 130	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	60.9		ng/L		101	70 - 130	8	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	57.2		ng/L		95	70 - 130	6	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	60.3		ng/L		100	70 - 130	4	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	60.8		ng/L		101	70 - 130	1	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		60.4	56.4		ng/L		93	70 - 130	4	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	60.0		ng/L		99	70 - 130	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	56.0		ng/L		93	70 - 130	1	30
Perfluoropentanoic acid (PFPeA)	4.3		60.4	64.6		ng/L		100	70 - 130	5	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	58.4		ng/L		97	70 - 130	0	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	55.8		ng/L		92	70 - 130	1	30

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QC Sample Results

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

Job ID: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

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	106		50 - 200
13C5 PFHxA	104		50 - 200
13C4 PFHpA	111		50 - 200
13C8 PFOA	110		50 - 200
13C9 PFNA	108		50 - 200
13C7 PFUnA	107		50 - 200
13C2 PFDoA	109		50 - 200
13C4 PFBA	107		50 - 200
13C5 PFPeA	114		50 - 200
13C3 PFBS	107		50 - 200
13C3 PFHxS	108		50 - 200
13C8 PFOS	105		50 - 200
13C2-4:2-FTS	112		50 - 200
13C2-6:2-FTS	103		50 - 200
13C2-8:2-FTS	98		50 - 200

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

Lab Sample ID: MBL 380-225944/21-A
Matrix: Water
Analysis Batch: 225986

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 225944

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		05/09/26 08:50	05/10/26 15:22	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		05/09/26 08:50	05/10/26 15:22	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		05/09/26 08:50	05/10/26 15:22	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		05/09/26 08:50	05/10/26 15:22	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		05/09/26 08:50	05/10/26 15:22	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		05/09/26 08:50	05/10/26 15:22	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		05/09/26 08:50	05/10/26 15:22	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		05/09/26 08:50	05/10/26 15:22	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		05/09/26 08:50	05/10/26 15:22	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		05/09/26 08:50	05/10/26 15:22	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		05/09/26 08:50	05/10/26 15:22	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		05/09/26 08:50	05/10/26 15:22	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		05/09/26 08:50	05/10/26 15:22	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		05/09/26 08:50	05/10/26 15:22	1
Perfluorotridecanoic acid (PFTTrDA)	<0.36		2.0	ng/L		05/09/26 08:50	05/10/26 15:22	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		05/09/26 08:50	05/10/26 15:22	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		05/09/26 08:50	05/10/26 15:22	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		05/09/26 08:50	05/10/26 15:22	1
Surrogate	MBL MBL		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
d5-NEtFOSAA	112		70 - 130			05/09/26 08:50	05/10/26 15:22	1
13C2 PFHxA	101		70 - 130			05/09/26 08:50	05/10/26 15:22	1
13C2 PFDA	96		70 - 130			05/09/26 08:50	05/10/26 15:22	1

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QC Sample Results

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

Job ID: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: MBL 380-225944/21-A
Matrix: Water
Analysis Batch: 225986

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 225944

<i>Surrogate</i>	<i>MBL</i>	<i>MBL</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3-GenX	102	Qualifier	70 - 130	05/09/26 08:50	05/10/26 15:22	1

Lab Sample ID: LCS 380-225944/23-A
Matrix: Water
Analysis Batch: 225986

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225944

<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>Analyte</i>	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>Limits</i>
Hexafluoropropylene Oxide	25.0	20.4		ng/L		82	70 - 130
Dimer Acid (HFPO-DA/GenX)							
Perfluorooctanesulfonic acid (PFOS)	25.0	25.7		ng/L		103	70 - 130
Perfluoroundecanoic acid (PFUnA)	25.0	23.5		ng/L		94	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	24.3		ng/L		97	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	25.0		ng/L		100	70 - 130
Perfluorohexanoic acid (PFHxA)	25.0	23.4		ng/L		94	70 - 130
Perfluorododecanoic acid (PFDoA)	25.0	22.8		ng/L		91	70 - 130
Perfluorooctanoic acid (PFOA)	25.0	23.4		ng/L		94	70 - 130
Perfluorodecanoic acid (PFDA)	25.0	22.2		ng/L		89	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	25.0	25.2		ng/L		101	70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.0	25.1		ng/L		101	70 - 130
Perfluoroheptanoic acid (PFHpA)	25.0	22.9		ng/L		92	70 - 130
Perfluorononanoic acid (PFNA)	25.0	25.0		ng/L		100	70 - 130
Perfluorotetradecanoic acid (PFTA)	25.0	22.1		ng/L		88	70 - 130
Perfluorotridecanoic acid (PFTrDA)	25.0	24.9		ng/L		99	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	25.0	27.7		ng/L		111	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	25.0	25.8		ng/L		103	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.0	23.9		ng/L		96	70 - 130

<i>Surrogate</i>	<i>LCS</i>	<i>LCS</i>	<i>Limits</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
d5-NEtFOSAA	105		70 - 130
13C2 PFHxA	101		70 - 130
13C2 PFDA	96		70 - 130
13C3-GenX	93		70 - 130

QC Sample Results

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

Job ID: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: MRL 380-225944/22-A
Matrix: Water
Analysis Batch: 225986

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 225944

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	1.78	J	ng/L		89	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.14	J	ng/L		107	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	1.87	J	ng/L		93	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.10	J	ng/L		105	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.31	J	ng/L		116	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.03	J	ng/L		101	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	1.86	J	ng/L		93	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.00	J	ng/L		100	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	1.93	J	ng/L		96	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.11	J	ng/L		105	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.24	J	ng/L		112	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.06	J	ng/L		103	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.14	J	ng/L		107	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.00	1.70	J	ng/L		85	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.00	1.97	J	ng/L		99	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.25	J	ng/L		113	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.05	J	ng/L		102	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	1.97	J	ng/L		98	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	112		70 - 130
13C2 PFHxA	106		70 - 130
13C2 PFDA	98		70 - 130
13C3-GenX	100		70 - 130

Lab Sample ID: 380-212178-B-1-A MS
Matrix: Water
Analysis Batch: 225986

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 225944

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		50.2	45.9		ng/L		91	70 - 130
Perfluorooctanesulfonic acid (PFOS)	3.5		50.2	60.7		ng/L		114	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		50.2	46.3		ng/L		92	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.2	55.0		ng/L		110	70 - 130

Eurofins Pomona

QC Association Summary

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

Job ID: 380-212170-1
 SDG: PFAS: Ka'amilo Wells P1

LCMS

Prep Batch: 225478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-212170-1	Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	533	
380-212170-2	FB: Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	533	
MBL 380-225478/20-A	Method Blank	Total/NA	Water	533	
LCS 380-225478/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-225478/21-A	Lab Control Sample	Total/NA	Water	533	
380-212170-1 MS	Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	533	
380-212170-1 MSD	Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	533	

Analysis Batch: 225658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-212170-1	Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	533	225478
380-212170-2	FB: Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	533	225478
MBL 380-225478/20-A	Method Blank	Total/NA	Water	533	225478
LCS 380-225478/22-A	Lab Control Sample	Total/NA	Water	533	225478
MRL 380-225478/21-A	Lab Control Sample	Total/NA	Water	533	225478
380-212170-1 MS	Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	533	225478
380-212170-1 MSD	Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	533	225478

Prep Batch: 225944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-212170-1	Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	537.1 DW	
380-212170-2	FB: Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	537.1 DW	
MBL 380-225944/21-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-225944/23-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-225944/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-212178-B-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-212178-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 225986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-212170-1	Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	EPA 537.1 V2	225944
380-212170-2	FB: Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	EPA 537.1 V2	225944
MBL 380-225944/21-A	Method Blank	Total/NA	Water	EPA 537.1 V2	225944
LCS 380-225944/23-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	225944
MRL 380-225944/22-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	225944
380-212178-B-1-A MS	Matrix Spike	Total/NA	Water	EPA 537.1 V2	225944
380-212178-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 537.1 V2	225944

Lab Chronicle

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

Job ID: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

Client Sample ID: Ka'amilo Wells P1 (331-031-WL008)

Lab Sample ID: 380-212170-1

Date Collected: 05/04/26 12:27

Matrix: Water

Date Received: 05/06/26 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			225478	XTD8	EA POM	05/07/26 06:48
Total/NA	Analysis	533		1	225658	Y5FM	EA POM	05/07/26 20:35
Total/NA	Prep	537.1 DW			225944	E9PK	EA POM	05/09/26 08:50
Total/NA	Analysis	EPA 537.1 V2		1	225986	M7ML	EA POM	05/10/26 16:48

Client Sample ID: FB: Ka'amilo Wells P1 (331-031-WL008)

Lab Sample ID: 380-212170-2

Date Collected: 05/04/26 12:27

Matrix: Water

Date Received: 05/06/26 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			225478	XTD8	EA POM	05/07/26 06:48
Total/NA	Analysis	533		1	225658	Y5FM	EA POM	05/07/26 23:37
Total/NA	Prep	537.1 DW			225944	E9PK	EA POM	05/09/26 08:50
Total/NA	Analysis	EPA 537.1 V2		1	225986	M7ML	EA POM	05/10/26 16:58

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: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

Laboratory: Eurofins Pomona

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

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

- 1
- 2
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- 15
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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: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

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: 380-212170-1
SDG: PFAS: Ka'amilo Wells P1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-212170-1	Ka'amilo Wells P1 (331-031-WL008)	Water	05/04/26 12:27	05/06/26 09:45	HI0000331
380-212170-2	FB: Ka'amilo Wells P1 (331-031-WL008)	Water	05/04/26 12:27	05/06/26 09:45	HI0000331

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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 Teststar
 Ameri



380-212170 COC

Client Information
 Client Contact: Kirk Iwamoto
 Phone: +1 808 748 5840
 Lab PM: Lopez, Maria
 Carrier Tracking No(s):
 State of Origin:
 E-Mail: Maria.Lopez@et.eurofins.com
 Job #:

Company
 City & County of Honolulu
 Address: 630 South Beretania Street, Chemistry Lab
 City: Honolulu
 State, Zip: HI, 96843
 Phone: 808-748-5840 (tel)
 Email: kiwamoto@hbws.org
 Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill
 Site:

Analysis Requested
 Due Date Requested:
 TAT Requested (days): RUSH
 Compliance Project: Δ No
 PO #: C20525101 exp 05312023
 WO #:
 Project #: 38001111
 SSOW#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Weather, Sealed, On-site/Off-site, etc.)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT - 625 PAH Phyla LL (EAL) + TICs	8015B_GRO_LL - (MOD) GRO	8015B_DRO_LL_CS - HNL Ranges: C10-C24/C24-C36/C8-C18	525.2_PREC - (MOD) 525plus PLUS TICs	537.1_DW_PREC - 537.1 Full List	533 - All Analytes	Total Number of Containers	Special Instructions/Note:
Ka'amilo Wells P1 (331-031-WL008)	4-May-2026	1227	G	Water	G										
FB: Ka'amilo Wells P1 (331-031-WL008)	4-May-2026	1227		Water											

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested I, II, III, IV, Other (specify)

Empty Kit Relinquished by
 Date/Time: 05/11/2026 1400
 Company: HBWS
 Date/Time: 5/16/26 945
 Company: KEAR
 Date/Time: 3-(+00-3.1) 961-8026
 Company: 1 Ver 01/6/2019



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-212170-1
SDG Number: PFAS: Ka'amilo Wells P1

Login Number: 212170

List Number: 1

Creator: Tran, Kristine

List Source: Eurofins Pomona

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

