

ANALYTICAL REPORT

PREPARED FOR

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

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JOB DESCRIPTION

RED-HILL
PFAS: Ka'amilo Wells P2

JOB NUMBER

380-237845-1

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
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1145

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Definitions/Glossary

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

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: 380-237845-1

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Job Narrative 380-237845-1

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 9/23/2026 9:06 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 4.2°C.

PFAS

EPA 537.1 and EPA 533 are two distinct methods for the analysis of PFAS in drinking water. The analyses are conducted on differing instrumentation, with calibrations, extraction solvents and sample preservatives being dissimilar among the two methods. Therefore it is probable and not unexpected to see the methods having slight variations in analytical results: Ka'amilo Wells P2 (331-600-WL085) (380-237845-1). (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: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: Ka'amilo Wells P2 (331-600-WL085)

Lab Sample ID: 380-237845-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	2.8		2.0	ng/L	1		533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.4		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	3.9		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.7		2.0	ng/L	1		533	Total/NA
Perfluorooctanoic acid (PFOA)	3.8		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	4.0		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.8		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorohexanoic acid (PFHxA)	4.2		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorooctanoic acid (PFOA)	3.9		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.9		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.0		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.0		2.0	ng/L	1		EPA 537.1 V2	Total/NA

Client Sample ID: FB: Ka'amilo Wells P2 (331-600-WL085)

Lab Sample ID: 380-237845-2

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: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: Ka'amilo Wells P2 (331-600-WL085)

Lab Sample ID: 380-237845-1

Date Collected: 09/21/26 12:34

Matrix: Water

Date Received: 09/23/26 09:06

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 (11CI-PF3OUdS)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9CI-PF3ONS)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Perfluorobutanesulfonic acid (PFBS)	2.8		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Perfluorohexanesulfonic acid (PFHxS)	3.4		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Perfluorohexanoic acid (PFHxA)	3.9		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Perfluorooctanesulfonic acid (PFOS)	4.7		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Perfluorooctanoic acid (PFOA)	3.8		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Perfluoropentanoic acid (PFPeA)	4.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:35	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	104		50 - 200	09/23/26 18:50	09/24/26 16:35	1
13C6 PFDA	106		50 - 200	09/23/26 18:50	09/24/26 16:35	1
13C5 PFHxA	105		50 - 200	09/23/26 18:50	09/24/26 16:35	1
13C4 PFHpA	103		50 - 200	09/23/26 18:50	09/24/26 16:35	1
13C8 PFOA	111		50 - 200	09/23/26 18:50	09/24/26 16:35	1
13C9 PFNA	108		50 - 200	09/23/26 18:50	09/24/26 16:35	1
13C7 PFUnA	108		50 - 200	09/23/26 18:50	09/24/26 16:35	1
13C2 PFDoA	107		50 - 200	09/23/26 18:50	09/24/26 16:35	1
13C4 PFBA	105		50 - 200	09/23/26 18:50	09/24/26 16:35	1
13C5 PFPeA	103		50 - 200	09/23/26 18:50	09/24/26 16:35	1
13C3 PFBS	110		50 - 200	09/23/26 18:50	09/24/26 16:35	1

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Client Sample Results

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: Ka'amilo Wells P2 (331-600-WL085)

Lab Sample ID: 380-237845-1

Date Collected: 09/21/26 12:34

Matrix: Water

Date Received: 09/23/26 09:06

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	110		50 - 200	09/23/26 18:50	09/24/26 16:35	1
13C8 PFOS	111		50 - 200	09/23/26 18:50	09/24/26 16:35	1
13C2-4:2-FTS	120		50 - 200	09/23/26 18:50	09/24/26 16:35	1
13C2-6:2-FTS	121		50 - 200	09/23/26 18:50	09/24/26 16:35	1
13C2-8:2-FTS	128		50 - 200	09/23/26 18:50	09/24/26 16:35	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		09/24/26 12:23	09/25/26 11:12	1
Perfluorooctanesulfonic acid (PFOS)	4.8		2.0	ng/L		09/24/26 12:23	09/25/26 11:12	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:12	1
Perfluorohexanoic acid (PFHxA)	4.2		2.0	ng/L		09/24/26 12:23	09/25/26 11:12	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:12	1
Perfluorooctanoic acid (PFOA)	3.9		2.0	ng/L		09/24/26 12:23	09/25/26 11:12	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:12	1
Perfluorohexanesulfonic acid (PFHxS)	3.9		2.0	ng/L		09/24/26 12:23	09/25/26 11:12	1
Perfluorobutanesulfonic acid (PFBS)	3.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:12	1
Perfluoroheptanoic acid (PFHpA)	2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:12	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:12	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:12	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:12	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:12	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	95		70 - 130	09/24/26 12:23	09/25/26 11:12	1
13C2 PFHxA	92		70 - 130	09/24/26 12:23	09/25/26 11:12	1
13C2 PFDA	98		70 - 130	09/24/26 12:23	09/25/26 11:12	1
13C3-GenX	98		70 - 130	09/24/26 12:23	09/25/26 11:12	1

Client Sample ID: FB: Ka'amilo Wells P2 (331-600-WL085)

Lab Sample ID: 380-237845-2

Date Collected: 09/21/26 12:34

Matrix: Water

Date Received: 09/23/26 09:06

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		09/23/26 18:50	09/24/26 16:45	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1

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Client Sample Results

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: FB: Ka'amilo Wells P2 (331-600-WL085)

Lab Sample ID: 380-237845-2

Date Collected: 09/21/26 12:34

Matrix: Water

Date Received: 09/23/26 09:06

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		09/23/26 18:50	09/24/26 16:45	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/23/26 18:50	09/24/26 16:45	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	101		50 - 200	09/23/26 18:50	09/24/26 16:45	1
13C6 PFDA	105		50 - 200	09/23/26 18:50	09/24/26 16:45	1
13C5 PFHxA	104		50 - 200	09/23/26 18:50	09/24/26 16:45	1
13C4 PFHpA	100		50 - 200	09/23/26 18:50	09/24/26 16:45	1
13C8 PFOA	106		50 - 200	09/23/26 18:50	09/24/26 16:45	1
13C9 PFNA	108		50 - 200	09/23/26 18:50	09/24/26 16:45	1
13C7 PFUnA	108		50 - 200	09/23/26 18:50	09/24/26 16:45	1
13C2 PFDoA	106		50 - 200	09/23/26 18:50	09/24/26 16:45	1
13C4 PFBA	111		50 - 200	09/23/26 18:50	09/24/26 16:45	1
13C5 PFPeA	107		50 - 200	09/23/26 18:50	09/24/26 16:45	1
13C3 PFBS	116		50 - 200	09/23/26 18:50	09/24/26 16:45	1
13C3 PFHxS	116		50 - 200	09/23/26 18:50	09/24/26 16:45	1
13C8 PFOS	117		50 - 200	09/23/26 18:50	09/24/26 16:45	1
13C2-4:2-FTS	122		50 - 200	09/23/26 18:50	09/24/26 16:45	1
13C2-6:2-FTS	124		50 - 200	09/23/26 18:50	09/24/26 16:45	1
13C2-8:2-FTS	130		50 - 200	09/23/26 18:50	09/24/26 16:45	1

Eurofins Pomona

Client Sample Results

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: FB: Ka'amilo Wells P2 (331-600-WL085)

Lab Sample ID: 380-237845-2

Date Collected: 09/21/26 12:34

Matrix: Water

Date Received: 09/23/26 09:06

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		09/24/26 12:23	09/25/26 11:22	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:22	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:22	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:22	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:22	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:22	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:22	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:22	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:22	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:22	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:22	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:22	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:22	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:22	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:22	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:22	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:22	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/24/26 12:23	09/25/26 11:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	106		70 - 130			09/24/26 12:23	09/25/26 11:22	1
13C2 PFHxA	111		70 - 130			09/24/26 12:23	09/25/26 11:22	1
13C2 PFDA	112		70 - 130			09/24/26 12:23	09/25/26 11:22	1
13C3-GenX	112		70 - 130			09/24/26 12:23	09/25/26 11:22	1

Action Limit Summary

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: Ka'amilo Wells P2 (331-600-WL085)

Lab Sample ID: 380-237845-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.4		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.7		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	3.8		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)	4.8		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorooctanoic acid (PFOA)	3.9		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.9		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 P2 (331-600-WL085)

Lab Sample ID: 380-237845-2

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	533	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	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: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

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)
380-237845-1	Ka'amilo Wells P2 (331-600-WL085)	95	92	98	98
380-237845-2	FB: Ka'amilo Wells P2 (331-600-WL085)	106	111	112	112
670-98380-B-1-A MS	Matrix Spike	103	106	108	108
670-98380-C-1-A MSD	Matrix Spike Duplicate	102	104	104	108
LCS 380-254478/22-A	Lab Control Sample	97	106	102	100
MBL 380-254478/20-A	Method Blank	96	99	97	99
MRL 380-254478/21-A	Lab Control Sample	99	106	98	104
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: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

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

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDaA (50-200)
380-237708-G-1-A MSD	Matrix Spike Duplicate	115	109	109	105	107	106	111	108
380-237708-H-1-A MS	Matrix Spike	113	107	108	104	108	106	109	107
380-237845-1	Ka'amilo Wells P2 (331-600-WL085)	104	106	105	103	111	108	108	107
380-237845-2	FB: Ka'amilo Wells P2 (331-600-WL085)	101	105	104	100	106	108	108	106
LCS 380-254336/22-A	Lab Control Sample	114	109	108	107	109	109	112	113
MBL 380-254336/20-A	Method Blank	100	101	104	102	106	103	107	109
MRL 380-254336/21-A	Lab Control Sample	109	108	105	105	109	108	109	109

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)
380-237708-G-1-A MSD	Matrix Spike Duplicate	108	104	108	109	110	114	118	123
380-237708-H-1-A MS	Matrix Spike	108	110	113	113	112	113	120	122
380-237845-1	Ka'amilo Wells P2 (331-600-WL085)	105	103	110	110	111	120	121	128
380-237845-2	FB: Ka'amilo Wells P2 (331-600-WL085)	111	107	116	116	117	122	124	130
LCS 380-254336/22-A	Lab Control Sample	111	110	109	113	112	113	116	121
MBL 380-254336/20-A	Method Blank	109	107	110	112	110	115	123	129
MRL 380-254336/21-A	Lab Control Sample	111	108	107	112	110	116	120	124

Surrogate Legend

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

QC Sample Results

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: MBL 380-254336/20-A

Matrix: Water

Analysis Batch: 254503

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 254336

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.29		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.59		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<0.98		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Perfluorobutanesulfonic acid (PFBS)	<0.36		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Perfluorododecanoic acid (PFDoA)	<0.53		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Perfluoroheptanoic acid (PFHpA)	<0.38		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Perfluorohexanesulfonic acid (PFHxS)	<0.31		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Perfluorohexanoic acid (PFHxA)	<0.45		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Perfluorononanoic acid (PFNA)	<0.39		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Perfluorooctanesulfonic acid (PFOS)	<0.42		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Perfluorooctanoic acid (PFOA)	<0.37		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Perfluoroundecanoic acid (PFUnA)	<0.41		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Perfluorobutanoic acid (PFBA)	<0.68		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.36		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.47		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.46		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.24		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.45		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Perfluoropentanoic acid (PFPeA)	<0.37		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.35		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Perfluoropentanesulfonic acid (PFPeS)	<0.38		2.0	ng/L		09/23/26 18:50	09/24/26 13:41	1
Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	100		50 - 200			09/23/26 18:50	09/24/26 13:41	1
13C6 PFDA	101		50 - 200			09/23/26 18:50	09/24/26 13:41	1
13C5 PFHxA	104		50 - 200			09/23/26 18:50	09/24/26 13:41	1
13C4 PFHpA	102		50 - 200			09/23/26 18:50	09/24/26 13:41	1
13C8 PFOA	106		50 - 200			09/23/26 18:50	09/24/26 13:41	1
13C9 PFNA	103		50 - 200			09/23/26 18:50	09/24/26 13:41	1
13C7 PFUnA	107		50 - 200			09/23/26 18:50	09/24/26 13:41	1
13C2 PFDoA	109		50 - 200			09/23/26 18:50	09/24/26 13:41	1
13C4 PFBA	109		50 - 200			09/23/26 18:50	09/24/26 13:41	1
13C5 PFPeA	107		50 - 200			09/23/26 18:50	09/24/26 13:41	1
13C3 PFBS	110		50 - 200			09/23/26 18:50	09/24/26 13:41	1
13C3 PFHxS	112		50 - 200			09/23/26 18:50	09/24/26 13:41	1

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QC Sample Results

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: MBL 380-254336/20-A

Matrix: Water

Analysis Batch: 254503

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 254336

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	110		50 - 200	09/23/26 18:50	09/24/26 13:41	1
13C2-4:2-FTS	115		50 - 200	09/23/26 18:50	09/24/26 13:41	1
13C2-6:2-FTS	123		50 - 200	09/23/26 18:50	09/24/26 13:41	1
13C2-8:2-FTS	129		50 - 200	09/23/26 18:50	09/24/26 13:41	1

Lab Sample ID: LCS 380-254336/22-A

Matrix: Water

Analysis Batch: 254503

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 254336

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	118	101		ng/L		86	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	118	102		ng/L		87	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	118	112		ng/L		95	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	118	107		ng/L		90	70 - 130
Perfluorobutanesulfonic acid (PFBS)	118	107		ng/L		90	70 - 130
Perfluorodecanoic acid (PFDA)	118	107		ng/L		91	70 - 130
Perfluorododecanoic acid (PFDaA)	118	102		ng/L		86	70 - 130
Perfluoroheptanoic acid (PFHpA)	118	107		ng/L		91	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	118	106		ng/L		90	70 - 130
Perfluorohexanoic acid (PFHxA)	118	108		ng/L		91	70 - 130
Perfluorononanoic acid (PFNA)	118	103		ng/L		87	70 - 130
Perfluorooctanesulfonic acid (PFOS)	118	103		ng/L		87	70 - 130
Perfluorooctanoic acid (PFOA)	118	108		ng/L		91	70 - 130
Perfluoroundecanoic acid (PFUnA)	118	104		ng/L		88	70 - 130
Perfluorobutanoic acid (PFBA)	118	106		ng/L		89	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	118	104		ng/L		88	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	118	109		ng/L		92	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	118	107		ng/L		91	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	118	112		ng/L		95	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	118	110		ng/L		93	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	118	109		ng/L		92	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	118	111		ng/L		94	70 - 130
Perfluoropentanoic acid (PFPeA)	118	108		ng/L		91	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	118	103		ng/L		88	70 - 130

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QC Sample Results

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: LCS 380-254336/22-A

Matrix: Water

Analysis Batch: 254503

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 254336

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	118	101		ng/L		86	70 - 130
LCS LCS							
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	114		50 - 200				
13C6 PFDA	109		50 - 200				
13C5 PFHxA	108		50 - 200				
13C4 PFHpA	107		50 - 200				
13C8 PFOA	109		50 - 200				
13C9 PFNA	109		50 - 200				
13C7 PFUnA	112		50 - 200				
13C2 PFDoA	113		50 - 200				
13C4 PFBA	111		50 - 200				
13C5 PFPeA	110		50 - 200				
13C3 PFBS	109		50 - 200				
13C3 PFHxS	113		50 - 200				
13C8 PFOS	112		50 - 200				
13C2-4:2-FTS	113		50 - 200				
13C2-6:2-FTS	116		50 - 200				
13C2-8:2-FTS	121		50 - 200				

Lab Sample ID: MRL 380-254336/21-A

Matrix: Water

Analysis Batch: 254503

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 254336

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	1.97	1.89	J	ng/L		96	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	1.97	1.93	J	ng/L		98	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.97	2.07	J	ng/L		105	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	1.97	1.87	J	ng/L		95	50 - 150
Perfluorobutanesulfonic acid (PFBS)	1.97	1.93	J	ng/L		98	50 - 150
Perfluorodecanoic acid (PFDA)	1.97	2.02	J	ng/L		102	50 - 150
Perfluorododecanoic acid (PFDoA)	1.97	1.90	J	ng/L		97	50 - 150
Perfluoroheptanoic acid (PFHpA)	1.97	1.99	J	ng/L		101	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	1.97	1.83	J	ng/L		93	50 - 150
Perfluorohexanoic acid (PFHxA)	1.97	2.14	J	ng/L		109	50 - 150
Perfluorononanoic acid (PFNA)	1.97	1.93	J	ng/L		98	50 - 150
Perfluorooctanesulfonic acid (PFOS)	1.97	2.00	J	ng/L		102	50 - 150
Perfluorooctanoic acid (PFOA)	1.97	2.10	J	ng/L		107	50 - 150
Perfluoroundecanoic acid (PFUnA)	1.97	2.01	J	ng/L		102	50 - 150
Perfluorobutanoic acid (PFBA)	1.97	2.05	J	ng/L		104	50 - 150

Eurofins Pomona

QC Sample Results

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: MRL 380-254336/21-A

Matrix: Water

Analysis Batch: 254503

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 254336

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	1.97	1.89	J	ng/L		96	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	1.97	2.13	J	ng/L		108	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	1.97	2.07	J	ng/L		105	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	1.97	2.03	J	ng/L		103	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	1.97	1.89	J	ng/L		96	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	1.97	2.17	J	ng/L		110	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	1.97	2.26	J	ng/L		115	50 - 150
Perfluoropentanoic acid (PFPeA)	1.97	1.90	J	ng/L		97	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	1.97	1.90	J	ng/L		97	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	1.97	1.84	J	ng/L		93	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	109		50 - 200
13C6 PFDA	108		50 - 200
13C5 PFHxA	105		50 - 200
13C4 PFHpA	105		50 - 200
13C8 PFOA	109		50 - 200
13C9 PFNA	108		50 - 200
13C7 PFUnA	109		50 - 200
13C2 PFDoA	109		50 - 200
13C4 PFBA	111		50 - 200
13C5 PFPeA	108		50 - 200
13C3 PFBS	107		50 - 200
13C3 PFHxS	112		50 - 200
13C8 PFOS	110		50 - 200
13C2-4:2-FTS	116		50 - 200
13C2-6:2-FTS	120		50 - 200
13C2-8:2-FTS	124		50 - 200

Lab Sample ID: 380-237708-G-1-A MSD

Matrix: Water

Analysis Batch: 254503

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 254336

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		118	103		ng/L		87	70 - 130	2	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		118	103		ng/L		88	70 - 130	4	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		118	114		ng/L		96	70 - 130	0	30

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QC Sample Results

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: 380-237708-G-1-A MSD

Matrix: Water

Analysis Batch: 254503

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 254336

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexafluoropropylene Oxide	<2.0		118	105		ng/L		89	70 - 130	1	30
Dimer Acid (HFPO-DA/GenX)											
Perfluorobutanesulfonic acid (PFBS)	<2.0		118	111		ng/L		94	70 - 130	5	30
Perfluorodecanoic acid (PFDA)	<2.0		118	107		ng/L		90	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<2.0		118	106		ng/L		90	70 - 130	0	30
Perfluoroheptanoic acid (PFHpA)	<2.0		118	109		ng/L		92	70 - 130	2	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		118	111		ng/L		94	70 - 130	6	30
Perfluorohexanoic acid (PFHxA)	<2.0		118	106		ng/L		90	70 - 130	2	30
Perfluorononanoic acid (PFNA)	<2.0		118	108		ng/L		91	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		118	105		ng/L		89	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		118	110		ng/L		93	70 - 130	0	30
Perfluoroundecanoic acid (PFUnA)	<2.0		118	107		ng/L		91	70 - 130	0	30
Perfluorobutanoic acid (PFBA)	<2.0		118	109		ng/L		93	70 - 130	0	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		118	104		ng/L		88	70 - 130	4	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		118	108		ng/L		92	70 - 130	3	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		118	109		ng/L		92	70 - 130	1	30
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		118	105		ng/L		89	70 - 130	8	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		118	110		ng/L		93	70 - 130	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		118	113		ng/L		95	70 - 130	1	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		118	110		ng/L		93	70 - 130	3	30
Perfluoropentanoic acid (PFPeA)	<2.0		118	107		ng/L		91	70 - 130	0	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		118	105		ng/L		89	70 - 130	2	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		118	107		ng/L		91	70 - 130	1	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C3 HFPO-DA	115		50 - 200
13C6 PFDA	109		50 - 200
13C5 PFHxA	109		50 - 200
13C4 PFHpA	105		50 - 200
13C8 PFOA	107		50 - 200
13C9 PFNA	106		50 - 200
13C7 PFUnA	111		50 - 200
13C2 PFDoA	108		50 - 200
13C4 PFBA	108		50 - 200
13C5 PFPeA	104		50 - 200
13C3 PFBS	108		50 - 200
13C3 PFHxS	109		50 - 200
13C8 PFOS	110		50 - 200

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QC Sample Results

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: 380-237708-G-1-A MSD

Matrix: Water

Analysis Batch: 254503

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 254336

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C2-4:2-FTS	114		50 - 200
13C2-6:2-FTS	118		50 - 200
13C2-8:2-FTS	123		50 - 200

Lab Sample ID: 380-237708-H-1-A MS

Matrix: Water

Analysis Batch: 254503

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 254336

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		118	104		ng/L		88	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		118	107		ng/L		91	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		118	114		ng/L		96	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		118	106		ng/L		90	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		118	105		ng/L		89	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		118	108		ng/L		92	70 - 130
Perfluorododecanoic acid (PFDaA)	<2.0		118	106		ng/L		90	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		118	111		ng/L		94	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		118	105		ng/L		89	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		118	108		ng/L		92	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		118	106		ng/L		90	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		118	103		ng/L		87	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		118	110		ng/L		93	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		118	107		ng/L		90	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		118	109		ng/L		92	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		118	108		ng/L		92	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		118	112		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		118	108		ng/L		91	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		118	114		ng/L		96	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		118	109		ng/L		92	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		118	111		ng/L		94	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		118	107		ng/L		91	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		118	106		ng/L		90	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		118	107		ng/L		90	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		118	106		ng/L		90	70 - 130

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QC Sample Results

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

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

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C3 HFPO-DA	113		50 - 200
13C6 PFDA	107		50 - 200
13C5 PFHxA	108		50 - 200
13C4 PFHpA	104		50 - 200
13C8 PFOA	108		50 - 200
13C9 PFNA	106		50 - 200
13C7 PFUnA	109		50 - 200
13C2 PFDoA	107		50 - 200
13C4 PFBA	108		50 - 200
13C5 PFPeA	110		50 - 200
13C3 PFBS	113		50 - 200
13C3 PFHxS	113		50 - 200
13C8 PFOS	112		50 - 200
13C2-4:2-FTS	113		50 - 200
13C2-6:2-FTS	120		50 - 200
13C2-8:2-FTS	122		50 - 200

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

Lab Sample ID: MBL 380-254478/20-A
Matrix: Water
Analysis Batch: 254713

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 254478

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<0.98		2.0	ng/L		09/24/26 12:23	09/25/26 10:05	1
Perfluorooctanesulfonic acid (PFOS)	<0.42		2.0	ng/L		09/24/26 12:23	09/25/26 10:05	1
Perfluoroundecanoic acid (PFUnA)	<0.41		2.0	ng/L		09/24/26 12:23	09/25/26 10:05	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.57		2.0	ng/L		09/24/26 12:23	09/25/26 10:05	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.41		2.0	ng/L		09/24/26 12:23	09/25/26 10:05	1
Perfluorohexanoic acid (PFHxA)	<0.45		2.0	ng/L		09/24/26 12:23	09/25/26 10:05	1
Perfluorododecanoic acid (PFDoA)	<0.53		2.0	ng/L		09/24/26 12:23	09/25/26 10:05	1
Perfluorooctanoic acid (PFOA)	<0.37		2.0	ng/L		09/24/26 12:23	09/25/26 10:05	1
Perfluorodecanoic acid (PFDA)	<0.30		2.0	ng/L		09/24/26 12:23	09/25/26 10:05	1
Perfluorohexanesulfonic acid (PFHxS)	<0.31		2.0	ng/L		09/24/26 12:23	09/25/26 10:05	1
Perfluorobutanesulfonic acid (PFBS)	<0.36		2.0	ng/L		09/24/26 12:23	09/25/26 10:05	1
Perfluoroheptanoic acid (PFHpA)	<0.38		2.0	ng/L		09/24/26 12:23	09/25/26 10:05	1
Perfluorononanoic acid (PFNA)	<0.39		2.0	ng/L		09/24/26 12:23	09/25/26 10:05	1
Perfluorotetradecanoic acid (PFTA)	<0.53		2.0	ng/L		09/24/26 12:23	09/25/26 10:05	1
Perfluorotridecanoic acid (PFTrDA)	<0.35		2.0	ng/L		09/24/26 12:23	09/25/26 10:05	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.29		2.0	ng/L		09/24/26 12:23	09/25/26 10:05	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.29		2.0	ng/L		09/24/26 12:23	09/25/26 10:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.59		2.0	ng/L		09/24/26 12:23	09/25/26 10:05	1
Surrogate	MBL %Recovery	MBL Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	96		70 - 130			09/24/26 12:23	09/25/26 10:05	1
13C2 PFHxA	99		70 - 130			09/24/26 12:23	09/25/26 10:05	1
13C2 PFDA	97		70 - 130			09/24/26 12:23	09/25/26 10:05	1

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QC Sample Results

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: MBL 380-254478/20-A

Matrix: Water

Analysis Batch: 254713

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 254478

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3-GenX	99		70 - 130	09/24/26 12:23	09/25/26 10:05	1

Lab Sample ID: LCS 380-254478/22-A

Matrix: Water

Analysis Batch: 254713

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 254478

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	49.0	51.5		ng/L		105	70 - 130
Dimer Acid (HFPO-DA/GenX)							
Perfluorooctanesulfonic acid (PFOS)	49.0	49.8		ng/L		102	70 - 130
Perfluoroundecanoic acid (PFUnA)	49.0	47.4		ng/L		97	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	49.0	47.3		ng/L		96	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	49.0	47.5		ng/L		97	70 - 130
Perfluorohexanoic acid (PFHxA)	49.0	50.4		ng/L		103	70 - 130
Perfluorododecanoic acid (PFDoA)	49.0	48.7		ng/L		99	70 - 130
Perfluorooctanoic acid (PFOA)	49.0	50.3		ng/L		103	70 - 130
Perfluorodecanoic acid (PFDA)	49.0	47.6		ng/L		97	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	49.0	51.1		ng/L		104	70 - 130
Perfluorobutanesulfonic acid (PFBS)	49.0	50.6		ng/L		103	70 - 130
Perfluoroheptanoic acid (PFHpA)	49.0	49.5		ng/L		101	70 - 130
Perfluorononanoic acid (PFNA)	49.0	51.1		ng/L		104	70 - 130
Perfluorotetradecanoic acid (PFTA)	49.0	47.6		ng/L		97	70 - 130
Perfluorotridecanoic acid (PFTrDA)	49.0	48.1		ng/L		98	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	49.0	49.5		ng/L		101	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	49.0	47.7		ng/L		97	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	49.0	50.0		ng/L		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
d5-NEtFOSAA	97		70 - 130
13C2 PFHxA	106		70 - 130
13C2 PFDA	102		70 - 130
13C3-GenX	100		70 - 130

QC Sample Results

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: MRL 380-254478/21-A

Matrix: Water

Analysis Batch: 254713

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 254478

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	1.96	1.97	J	ng/L		100	50 - 150
Perfluorooctanesulfonic acid (PFOS)	1.96	1.96	J	ng/L		100	50 - 150
Perfluoroundecanoic acid (PFUnA)	1.96	2.04	J	ng/L		104	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.96	1.81	J	ng/L		92	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.96	1.98	J	ng/L		101	50 - 150
Perfluorohexanoic acid (PFHxA)	1.96	1.95	J	ng/L		99	50 - 150
Perfluorododecanoic acid (PFDoA)	1.96	2.14	J	ng/L		109	50 - 150
Perfluorooctanoic acid (PFOA)	1.96	2.00	J	ng/L		102	50 - 150
Perfluorodecanoic acid (PFDA)	1.96	2.01	J	ng/L		102	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	1.96	1.95	J	ng/L		99	50 - 150
Perfluorobutanesulfonic acid (PFBS)	1.96	1.89	J	ng/L		96	50 - 150
Perfluoroheptanoic acid (PFHpA)	1.96	1.93	J	ng/L		98	50 - 150
Perfluorononanoic acid (PFNA)	1.96	1.98	J	ng/L		101	50 - 150
Perfluorotetradecanoic acid (PFTA)	1.96	1.76	J	ng/L		90	50 - 150
Perfluorotridecanoic acid (PFTrDA)	1.96	1.90	J	ng/L		97	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	1.96	1.85	J	ng/L		94	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	1.96	1.82	J	ng/L		93	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.96	1.91	J	ng/L		97	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	99		70 - 130
13C2 PFHxA	106		70 - 130
13C2 PFDA	98		70 - 130
13C3-GenX	104		70 - 130

Lab Sample ID: 670-98380-B-1-A MS

Matrix: Water

Analysis Batch: 254713

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 254478

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		24.6	26.9		ng/L		110	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		24.6	25.7		ng/L		105	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		24.6	25.4		ng/L		103	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		24.6	24.8		ng/L		101	70 - 130

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QC Sample Results

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: 670-98380-B-1-A MS

Matrix: Water

Analysis Batch: 254713

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 254478

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec		
	Result	Qualifier	Added	Result	Qualifier			Limits	Limits		
N-ethylperfluorooctanesulfonami doacetic acid (NEtFOSAA)	<2.0		24.6	25.3		ng/L		103	70 - 130		
Perfluorohexanoic acid (PFHxA)	<2.0		24.6	27.4		ng/L		111	70 - 130		
Perfluorododecanoic acid (PFDoA)	<2.0		24.6	27.0		ng/L		110	70 - 130		
Perfluorooctanoic acid (PFOA)	<2.0		24.6	26.9		ng/L		110	70 - 130		
Perfluorodecanoic acid (PFDA)	<2.0		24.6	26.5		ng/L		108	70 - 130		
Perfluorohexanesulfonic acid (PFHxS)	<2.0		24.6	26.1		ng/L		106	70 - 130		
Perfluorobutanesulfonic acid (PFBS)	<2.0		24.6	26.5		ng/L		108	70 - 130		
Perfluoroheptanoic acid (PFHpA)	<2.0		24.6	26.9		ng/L		109	70 - 130		
Perfluorononanoic acid (PFNA)	<2.0		24.6	28.0		ng/L		114	70 - 130		
Perfluorotetradecanoic acid (PFTA)	<2.0		24.6	26.8		ng/L		109	70 - 130		
Perfluorotridecanoic acid (PFTrDA)	<2.0		24.6	27.6		ng/L		113	70 - 130		
9-Chlorohexadecafluoro-3-oxan onane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		24.6	26.2		ng/L		107	70 - 130		
11-Chloroeicosafluoro-3-oxaund ecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		24.6	24.9		ng/L		102	70 - 130		
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		24.6	26.8		ng/L		109	70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
d5-NEtFOSAA	103		70 - 130								
13C2 PFHxA	106		70 - 130								
13C2 PFDA	108		70 - 130								
13C3-GenX	108		70 - 130								

Lab Sample ID: 670-98380-C-1-A MSD

Matrix: Water

Analysis Batch: 254713

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 254478

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		24.6	24.5		ng/L		100	70 - 130	9	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		24.6	25.5		ng/L		104	70 - 130	1	30
Perfluoroundecanoic acid (PFUnA)	<2.0		24.6	25.4		ng/L		103	70 - 130	0	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		24.6	25.1		ng/L		102	70 - 130	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		24.6	24.6		ng/L		100	70 - 130	3	30
Perfluorohexanoic acid (PFHxA)	<2.0		24.6	26.4		ng/L		107	70 - 130	4	30
Perfluorododecanoic acid (PFDoA)	<2.0		24.6	26.7		ng/L		108	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	<2.0		24.6	27.3		ng/L		111	70 - 130	1	30
Perfluorodecanoic acid (PFDA)	<2.0		24.6	25.3		ng/L		103	70 - 130	4	30

Eurofins Pomona

QC Sample Results

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: 670-98380-C-1-A MSD

Matrix: Water

Analysis Batch: 254713

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 254478

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanesulfonic acid (PFHxS)	<2.0		24.6	26.0		ng/L		106	70 - 130	0	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		24.6	26.1		ng/L		106	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	<2.0		24.6	26.4		ng/L		107	70 - 130	2	30
Perfluorononanoic acid (PFNA)	<2.0		24.6	27.2		ng/L		111	70 - 130	3	30
Perfluorotetradecanoic acid (PFTA)	<2.0		24.6	25.9		ng/L		105	70 - 130	4	30
Perfluorotridecanoic acid (PFTTrDA)	<2.0		24.6	26.3		ng/L		107	70 - 130	5	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		24.6	25.8		ng/L		105	70 - 130	2	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		24.6	25.0		ng/L		102	70 - 130	0	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		24.6	25.6		ng/L		104	70 - 130	5	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
d5-NEtFOSAA	102		70 - 130								
13C2 PFHxA	104		70 - 130								
13C2 PFDA	104		70 - 130								
13C3-GenX	108		70 - 130								

QC Association Summary

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

LCMS

Prep Batch: 254336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-237845-1	Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	533	
380-237845-2	FB: Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	533	
MBL 380-254336/20-A	Method Blank	Total/NA	Water	533	
LCS 380-254336/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-254336/21-A	Lab Control Sample	Total/NA	Water	533	
380-237708-G-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	
380-237708-H-1-A MS	Matrix Spike	Total/NA	Water	533	

Prep Batch: 254478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-237845-1	Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	537.1 DW	
380-237845-2	FB: Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	537.1 DW	
MBL 380-254478/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-254478/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-254478/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
670-98380-B-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
670-98380-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 254503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-237845-1	Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	533	254336
380-237845-2	FB: Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	533	254336
MBL 380-254336/20-A	Method Blank	Total/NA	Water	533	254336
LCS 380-254336/22-A	Lab Control Sample	Total/NA	Water	533	254336
MRL 380-254336/21-A	Lab Control Sample	Total/NA	Water	533	254336
380-237708-G-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	254336
380-237708-H-1-A MS	Matrix Spike	Total/NA	Water	533	254336

Analysis Batch: 254713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-237845-1	Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	EPA 537.1 V2	254478
380-237845-2	FB: Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	EPA 537.1 V2	254478
MBL 380-254478/20-A	Method Blank	Total/NA	Water	EPA 537.1 V2	254478
LCS 380-254478/22-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	254478
MRL 380-254478/21-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	254478
670-98380-B-1-A MS	Matrix Spike	Total/NA	Water	EPA 537.1 V2	254478
670-98380-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 537.1 V2	254478

Lab Chronicle

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: Ka'amilo Wells P2 (331-600-WL085)

Lab Sample ID: 380-237845-1

Date Collected: 09/21/26 12:34

Matrix: Water

Date Received: 09/23/26 09:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			254336	E2HD	EA POM	09/23/26 18:50
Total/NA	Analysis	533		1	254503	UKDT	EA POM	09/24/26 16:35
Total/NA	Prep	537.1 DW			254478	LM3A	EA POM	09/24/26 12:23
Total/NA	Analysis	EPA 537.1 V2		1	254713	UKDT	EA POM	09/25/26 11:12

Client Sample ID: FB: Ka'amilo Wells P2 (331-600-WL085)

Lab Sample ID: 380-237845-2

Date Collected: 09/21/26 12:34

Matrix: Water

Date Received: 09/23/26 09:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			254336	E2HD	EA POM	09/23/26 18:50
Total/NA	Analysis	533		1	254503	UKDT	EA POM	09/24/26 16:45
Total/NA	Prep	537.1 DW			254478	LM3A	EA POM	09/24/26 12:23
Total/NA	Analysis	EPA 537.1 V2		1	254713	UKDT	EA POM	09/25/26 11:22

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: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

Laboratory: Eurofins Pomona

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

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-31-27

1
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Method Summary

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

Job ID: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

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: 380-237845-1
SDG: PFAS: Ka'amilo Wells P2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-237845-1	Ka'amilo Wells P2 (331-600-WL085)	Water	09/21/26 12:34	09/23/26 09:06	Hawaii
380-237845-2	FB: Ka'amilo Wells P2 (331-600-WL085)	Water	09/21/26 12:34	09/23/26 09:06	Hawaii

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- 13
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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



Env
Ami



COC No: 380-237845 COC

Client Information		Lab PM: Lopez, Maria	Carrier Tracking No(s):
Client Contact: kurk lwamoto	Phone: +1 808 748 5840	E-Mail: Maria.Lopez@et.eurofins.com	State of Origin:
Company: City & County of Honolulu		PWSID:	

Address: 630 South Beretania Street, Chemistry Lab		Due Date Requested:	
City: Honolulu	State, Zip: HI, 96843	TAT Requested (days): RUSH	
Phone: 808-748-5840 (tel)	Compliance Project: ☐ No		
Email: lwamoto@hbws.org	PO #: C20525101 exp 05312023		
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill	WO #: 38001111		
Site:	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (If water, specify, if soil, specify, if tissue, specify)	Preservation Code	Field Filtered Sample (Yes or No)	Perform Method (Yes or No)	SUBCONTRACT - 626 PAH Physic LL (EAL) + TICs	8018B_GRO_LL - (MOD) GRO	8018B_PRO_LL_CS - HNL Ranges: C10-C24/C24-C36/C8-C18	626.2_PREC - (MOD) 526plus PLUS TICs	637.1_DW_PREC - 637.1 Full List	633 - All Analytes	Total Number of Containers	Special Instructions/Note:
Ka'amilo Wells P2 (331-600-WL085)	21-Sep-2026	1234	G	Water											
FB: Ka'amilo Wells P2 (331-600-WL085)	21-Sep-2026	1234		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:
Relinquished by: L		21 September 2026	11:00
Relinquished by:			
Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-237845-1

SDG Number: PFAS: Ka'amilo Wells P2

Login Number: 237845

List Number: 1

Creator: Edrosa, Rey

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	