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ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

RED-HILL
PFAS: Ka'amilo Wells P2

JOB NUMBER

380-203652-1

Eurofins Pomona

Job Notes

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

Compliance Statement

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

Authorization



Authorized for release by
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Definitions/Glossary

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

Job ID: 380-203652-1
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: 380-203652-1

Job ID: 380-203652-1

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Job Narrative 380-203652-1

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 3/18/2026 10:20 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 2.2°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) (380-203652-1). (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: 380-203652-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: Ka'amilo Wells P2 (331-600-WL085)
PWSID Number: HI0000331

Lab Sample ID: 380-203652-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	3.3		2.0	ng/L	1		533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.6		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	4.1		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.8		2.0	ng/L	1		533	Total/NA
Perfluorooctanoic acid (PFOA)	3.9		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	4.1		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.1		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)	4.2		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.4		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)	2.1		2.0	ng/L	1		EPA 537.1 V2	Total/NA

Client Sample ID: FB: Ka'amilo Wells P2 (331-600-WL085)
PWSID Number: HI0000331

Lab Sample ID: 380-203652-2

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: 380-203652-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: 380-203652-1

Date Collected: 03/16/26 12:51

Matrix: Water

Date Received: 03/18/26 10:20

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Perfluorobutanesulfonic acid (PFBS)	3.3		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Perfluorohexanesulfonic acid (PFHxS)	3.6		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Perfluorohexanoic acid (PFHxA)	4.1		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Perfluorooctanesulfonic acid (PFOS)	4.8		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Perfluorooctanoic acid (PFOA)	3.9		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Perfluoropentanoic acid (PFPeA)	4.1		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		03/20/26 15:27	03/21/26 23:53	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	95		50 - 200	03/20/26 15:27	03/21/26 23:53	1
13C6 PFDA	97		50 - 200	03/20/26 15:27	03/21/26 23:53	1
13C5 PFHxA	98		50 - 200	03/20/26 15:27	03/21/26 23:53	1
13C4 PFHpA	102		50 - 200	03/20/26 15:27	03/21/26 23:53	1
13C8 PFOA	103		50 - 200	03/20/26 15:27	03/21/26 23:53	1
13C9 PFNA	95		50 - 200	03/20/26 15:27	03/21/26 23:53	1
13C7 PFUnA	94		50 - 200	03/20/26 15:27	03/21/26 23:53	1
13C2 PFDoA	96		50 - 200	03/20/26 15:27	03/21/26 23:53	1
13C4 PFBA	104		50 - 200	03/20/26 15:27	03/21/26 23:53	1
13C5 PFPeA	104		50 - 200	03/20/26 15:27	03/21/26 23:53	1
13C3 PFBS	105		50 - 200	03/20/26 15:27	03/21/26 23:53	1

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Client Sample Results

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

Job ID: 380-203652-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: 380-203652-1

Date Collected: 03/16/26 12:51

Matrix: Water

Date Received: 03/18/26 10:20

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	112		50 - 200	03/20/26 15:27	03/21/26 23:53	1
13C8 PFOS	101		50 - 200	03/20/26 15:27	03/21/26 23:53	1
13C2-4:2-FTS	113		50 - 200	03/20/26 15:27	03/21/26 23:53	1
13C2-6:2-FTS	106		50 - 200	03/20/26 15:27	03/21/26 23:53	1
13C2-8:2-FTS	98		50 - 200	03/20/26 15:27	03/21/26 23:53	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		03/19/26 01:49	03/19/26 12:36	1
Perfluorooctanesulfonic acid (PFOS)	5.1		2.0	ng/L		03/19/26 01:49	03/19/26 12:36	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 12:36	1
N-methylperfluorooctanesulfonamide cetic acid (NMeFOSAA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 12:36	1
N-ethylperfluorooctanesulfonamide cetic acid (NEtFOSAA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 12:36	1
Perfluorohexanoic acid (PFHxA)	4.2		2.0	ng/L		03/19/26 01:49	03/19/26 12:36	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 12:36	1
Perfluorooctanoic acid (PFOA)	4.2		2.0	ng/L		03/19/26 01:49	03/19/26 12:36	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 12:36	1
Perfluorohexanesulfonic acid (PFHxS)	4.4		2.0	ng/L		03/19/26 01:49	03/19/26 12:36	1
Perfluorobutanesulfonic acid (PFBS)	3.6		2.0	ng/L		03/19/26 01:49	03/19/26 12:36	1
Perfluoroheptanoic acid (PFHpA)	2.1		2.0	ng/L		03/19/26 01:49	03/19/26 12:36	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 12:36	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 12:36	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 12:36	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 12:36	1
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 12:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 12:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	123		70 - 130	03/19/26 01:49	03/19/26 12:36	1
13C2 PFHxA	98		70 - 130	03/19/26 01:49	03/19/26 12:36	1
13C2 PFDA	106		70 - 130	03/19/26 01:49	03/19/26 12:36	1
13C3-GenX	103		70 - 130	03/19/26 01:49	03/19/26 12:36	1

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

Lab Sample ID: 380-203652-2

Date Collected: 03/16/26 12:51

Matrix: Water

Date Received: 03/18/26 10:20

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1

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Client Sample Results

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

Job ID: 380-203652-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: 380-203652-2

Date Collected: 03/16/26 12:51

Matrix: Water

Date Received: 03/18/26 10:20

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		03/20/26 15:27	03/22/26 00:03	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		03/20/26 15:27	03/22/26 00:03	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	100		50 - 200	03/20/26 15:27	03/22/26 00:03	1
13C6 PFDA	106		50 - 200	03/20/26 15:27	03/22/26 00:03	1
13C5 PFHxA	110		50 - 200	03/20/26 15:27	03/22/26 00:03	1
13C4 PFHpA	108		50 - 200	03/20/26 15:27	03/22/26 00:03	1
13C8 PFOA	105		50 - 200	03/20/26 15:27	03/22/26 00:03	1
13C9 PFNA	102		50 - 200	03/20/26 15:27	03/22/26 00:03	1
13C7 PFUnA	105		50 - 200	03/20/26 15:27	03/22/26 00:03	1
13C2 PFDoA	102		50 - 200	03/20/26 15:27	03/22/26 00:03	1
13C4 PFBA	106		50 - 200	03/20/26 15:27	03/22/26 00:03	1
13C5 PFPeA	102		50 - 200	03/20/26 15:27	03/22/26 00:03	1
13C3 PFBS	118		50 - 200	03/20/26 15:27	03/22/26 00:03	1
13C3 PFHxS	119		50 - 200	03/20/26 15:27	03/22/26 00:03	1
13C8 PFOS	108		50 - 200	03/20/26 15:27	03/22/26 00:03	1
13C2-4:2-FTS	119		50 - 200	03/20/26 15:27	03/22/26 00:03	1
13C2-6:2-FTS	110		50 - 200	03/20/26 15:27	03/22/26 00:03	1
13C2-8:2-FTS	107		50 - 200	03/20/26 15:27	03/22/26 00:03	1

Client Sample Results

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

Job ID: 380-203652-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: 380-203652-2

Date Collected: 03/16/26 12:51

Matrix: Water

Date Received: 03/18/26 10:20

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		03/19/26 01:49	03/19/26 15:18	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 15:18	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 15:18	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 15:18	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 15:18	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 15:18	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 15:18	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 15:18	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 15:18	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 15:18	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 15:18	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 15:18	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 15:18	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 15:18	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 15:18	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 15:18	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 15:18	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		03/19/26 01:49	03/19/26 15:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	120		70 - 130			03/19/26 01:49	03/19/26 15:18	1
13C2 PFHxA	104		70 - 130			03/19/26 01:49	03/19/26 15:18	1
13C2 PFDA	105		70 - 130			03/19/26 01:49	03/19/26 15:18	1
13C3-GenX	103		70 - 130			03/19/26 01:49	03/19/26 15:18	1

Action Limit Summary

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

Job ID: 380-203652-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: 380-203652-1

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)	3.6		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.8		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	3.9		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)	5.1		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorooctanoic acid (PFOA)	4.2		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.4		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: 380-203652-2

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: 380-203652-1
 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)
380-203652-1	Ka'amilo Wells P2 (331-600-WL085)	123	98	106	103
380-203652-1 MS	Ka'amilo Wells P2 (331-600-WL085)	108	94	106	102
380-203652-1 MSD	Ka'amilo Wells P2 (331-600-WL085)	107	96	102	109
380-203652-2	FB: Ka'amilo Wells P2 (331-600-WL085)	120	104	105	103
LCS 380-214325/20-A	Lab Control Sample	98	101	110	96
MBL 380-214325/18-A	Method Blank	97	99	103	91
MRL 380-214325/19-A	Lab Control Sample	104	99	100	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: 380-203652-1
 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)
380-203652-1	Ka'amilo Wells P2 (331-600-WL085)	95	97	98	102	103	95	94	96
380-203652-2	FB: Ka'amilo Wells P2 (331-600-WL085)	100	106	110	108	105	102	105	102
380-203671-B-1-A MS	Matrix Spike	112	112	108	112	114	107	114	113
380-203671-C-1-A MSD	Matrix Spike Duplicate	113	111	105	111	114	107	112	113
LCS 380-214754/22-A	Lab Control Sample	102	104	112	106	112	103	106	105
MBL 380-214754/20-A	Method Blank	93	104	108	103	111	103	103	108
MRL 380-214754/21-A	Lab Control Sample	95	104	106	103	107	99	104	105

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)
380-203652-1	Ka'amilo Wells P2 (331-600-WL085)	104	104	105	112	101	113	106	98
380-203652-2	FB: Ka'amilo Wells P2 (331-600-WL085)	106	102	118	119	108	119	110	107
380-203671-B-1-A MS	Matrix Spike	109	110	112	115	109	108	107	109
380-203671-C-1-A MSD	Matrix Spike Duplicate	113	116	117	120	111	114	118	109
LCS 380-214754/22-A	Lab Control Sample	108	107	111	117	109	120	113	105
MBL 380-214754/20-A	Method Blank	107	98	109	115	107	124	111	112
MRL 380-214754/21-A	Lab Control Sample	107	100	116	115	109	128	117	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
- 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: 380-203652-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: MBL 380-214754/20-A
Matrix: Water
Analysis Batch: 214947

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 214754

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		03/20/26 15:27	03/21/26 20:25	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	93		50 - 200	03/20/26 15:27	03/21/26 20:25	1
13C6 PFDA	104		50 - 200	03/20/26 15:27	03/21/26 20:25	1
13C5 PFHxA	108		50 - 200	03/20/26 15:27	03/21/26 20:25	1
13C4 PFHpA	103		50 - 200	03/20/26 15:27	03/21/26 20:25	1
13C8 PFOA	111		50 - 200	03/20/26 15:27	03/21/26 20:25	1
13C9 PFNA	103		50 - 200	03/20/26 15:27	03/21/26 20:25	1
13C7 PFUnA	103		50 - 200	03/20/26 15:27	03/21/26 20:25	1
13C2 PFDoA	108		50 - 200	03/20/26 15:27	03/21/26 20:25	1
13C4 PFBA	107		50 - 200	03/20/26 15:27	03/21/26 20:25	1
13C5 PFPeA	98		50 - 200	03/20/26 15:27	03/21/26 20:25	1
13C3 PFBS	109		50 - 200	03/20/26 15:27	03/21/26 20:25	1
13C3 PFHxS	115		50 - 200	03/20/26 15:27	03/21/26 20:25	1

Eurofins Pomona

QC Sample Results

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

Job ID: 380-203652-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: MBL 380-214754/20-A
Matrix: Water
Analysis Batch: 214947

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 214754

<i>Isotope Dilution</i>	<i>MBL %Recovery</i>	<i>MBL Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C8 PFOS	107		50 - 200	03/20/26 15:27	03/21/26 20:25	1
13C2-4:2-FTS	124		50 - 200	03/20/26 15:27	03/21/26 20:25	1
13C2-6:2-FTS	111		50 - 200	03/20/26 15:27	03/21/26 20:25	1
13C2-8:2-FTS	112		50 - 200	03/20/26 15:27	03/21/26 20:25	1

Lab Sample ID: LCS 380-214754/22-A
Matrix: Water
Analysis Batch: 214947

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 214754

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.1	59.0		ng/L		98	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.1	61.0		ng/L		101	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.1	58.3		ng/L		97	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.1	58.5		ng/L		97	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.1	61.6		ng/L		102	70 - 130
Perfluorodecanoic acid (PFDA)	60.1	62.5		ng/L		104	70 - 130
Perfluorododecanoic acid (PFDoA)	60.1	57.4		ng/L		96	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.1	59.0		ng/L		98	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.1	58.0		ng/L		96	70 - 130
Perfluorohexanoic acid (PFHxA)	60.1	55.7		ng/L		93	70 - 130
Perfluorononanoic acid (PFNA)	60.1	59.3		ng/L		99	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.1	57.3		ng/L		95	70 - 130
Perfluorooctanoic acid (PFOA)	60.1	56.7		ng/L		94	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.1	58.1		ng/L		97	70 - 130
Perfluorobutanoic acid (PFBA)	60.1	57.3		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.1	61.4		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.1	58.9		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.1	62.9		ng/L		105	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.1	54.3		ng/L		90	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	60.1	62.5		ng/L		104	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.1	56.8		ng/L		94	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.1	58.8		ng/L		98	70 - 130
Perfluoropentanoic acid (PFPeA)	60.1	56.7		ng/L		94	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.1	59.9		ng/L		100	70 - 130

QC Sample Results

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

Job ID: 380-203652-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: LCS 380-214754/22-A
Matrix: Water
Analysis Batch: 214947

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 214754

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	60.1	57.3		ng/L		95	70 - 130
LCS LCS							
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	102		50 - 200				
13C6 PFDA	104		50 - 200				
13C5 PFHxA	112		50 - 200				
13C4 PFHpA	106		50 - 200				
13C8 PFOA	112		50 - 200				
13C9 PFNA	103		50 - 200				
13C7 PFUnA	106		50 - 200				
13C2 PFDoA	105		50 - 200				
13C4 PFBA	108		50 - 200				
13C5 PFPeA	107		50 - 200				
13C3 PFBS	111		50 - 200				
13C3 PFHxS	117		50 - 200				
13C8 PFOS	109		50 - 200				
13C2-4:2-FTS	120		50 - 200				
13C2-6:2-FTS	113		50 - 200				
13C2-8:2-FTS	105		50 - 200				

Lab Sample ID: MRL 380-214754/21-A
Matrix: Water
Analysis Batch: 214947

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 214754

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.18	J	ng/L		109	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.17	J	ng/L		108	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.01	J	ng/L		100	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.01	J	ng/L		100	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.12	J	ng/L		106	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.10	J	ng/L		105	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.11	J	ng/L		105	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.19	J	ng/L		109	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.11	J	ng/L		105	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	1.90	J	ng/L		95	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.24	J	ng/L		112	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.16	J	ng/L		108	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.10	J	ng/L		105	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.21	J	ng/L		110	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	2.04	J	ng/L		102	50 - 150

Eurofins Pomona

QC Sample Results

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

Job ID: 380-203652-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: MRL 380-214754/21-A
Matrix: Water
Analysis Batch: 214947

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 214754

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	2.28	J	ng/L		114	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	2.20	J	ng/L		110	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	2.37	J	ng/L		118	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	2.21	J	ng/L		110	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.00	2.08	J	ng/L		104	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	2.00	J	ng/L		100	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	2.04	J	ng/L		102	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	2.03	J	ng/L		101	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	2.23	J	ng/L		111	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	2.09	J	ng/L		104	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	95		50 - 200
13C6 PFDA	104		50 - 200
13C5 PFHxA	106		50 - 200
13C4 PFHpA	103		50 - 200
13C8 PFOA	107		50 - 200
13C9 PFNA	99		50 - 200
13C7 PFUnA	104		50 - 200
13C2 PFDoA	105		50 - 200
13C4 PFBA	107		50 - 200
13C5 PFPeA	100		50 - 200
13C3 PFBS	116		50 - 200
13C3 PFHxS	115		50 - 200
13C8 PFOS	109		50 - 200
13C2-4:2-FTS	128		50 - 200
13C2-6:2-FTS	117		50 - 200
13C2-8:2-FTS	112		50 - 200

Lab Sample ID: 380-203671-B-1-A MS
Matrix: Water
Analysis Batch: 214947

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 214754

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		120	118		ng/L		98	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		120	117		ng/L		97	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		120	115		ng/L		95	70 - 130

QC Sample Results

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

Job ID: 380-203652-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: 380-203671-B-1-A MS
Matrix: Water
Analysis Batch: 214947

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 214754

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		120	114		ng/L		95	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	3.3		120	116		ng/L		94	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		120	115		ng/L		96	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		120	113		ng/L		94	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		120	113		ng/L		92	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	3.6		120	115		ng/L		92	70 - 130
Perfluorohexanoic acid (PFHxA)	3.9		120	115		ng/L		92	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		120	117		ng/L		97	70 - 130
Perfluorooctanesulfonic acid (PFOS)	4.9		120	115		ng/L		92	70 - 130
Perfluorooctanoic acid (PFOA)	4.0		120	115		ng/L		92	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		120	109		ng/L		91	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		120	111		ng/L		91	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		120	110		ng/L		92	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		120	116		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		120	116		ng/L		97	70 - 130
Nonafluoro-3,6-dioxahheptanoic acid (NFDHA)	<2.0		120	120		ng/L		100	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		120	114		ng/L		94	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		120	117		ng/L		97	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		120	117		ng/L		97	70 - 130
Perfluoropentanoic acid (PFPeA)	4.2		120	114		ng/L		91	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		120	116		ng/L		97	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		120	111		ng/L		92	70 - 130

Isotope Dilution	MS %Recovery	MS Qualifier	MS Limits
13C3 HFPO-DA	112		50 - 200
13C6 PFDA	112		50 - 200
13C5 PFHxA	108		50 - 200
13C4 PFHpA	112		50 - 200
13C8 PFOA	114		50 - 200
13C9 PFNA	107		50 - 200
13C7 PFUnA	114		50 - 200
13C2 PFDoA	113		50 - 200
13C4 PFBA	109		50 - 200
13C5 PFPeA	110		50 - 200
13C3 PFBS	112		50 - 200
13C3 PFHxS	115		50 - 200
13C8 PFOS	109		50 - 200

QC Sample Results

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

Job ID: 380-203652-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: 380-203671-B-1-A MS
Matrix: Water
Analysis Batch: 214947

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 214754

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C2-4:2-FTS	108		50 - 200
13C2-6:2-FTS	107		50 - 200
13C2-8:2-FTS	109		50 - 200

Lab Sample ID: 380-203671-C-1-A MSD
Matrix: Water
Analysis Batch: 214947

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 214754

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		120	116		ng/L		96	70 - 130	2	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		120	117		ng/L		97	70 - 130	0	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		120	110		ng/L		92	70 - 130	4	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		120	110		ng/L		91	70 - 130	4	30
Perfluorobutanesulfonic acid (PFBS)	3.3		120	111		ng/L		89	70 - 130	5	30
Perfluorodecanoic acid (PFDA)	<2.0		120	113		ng/L		94	70 - 130	2	30
Perfluorododecanoic acid (PFDoA)	<2.0		120	111		ng/L		92	70 - 130	2	30
Perfluoroheptanoic acid (PFHpA)	<2.0		120	115		ng/L		94	70 - 130	2	30
Perfluorohexanesulfonic acid (PFHxS)	3.6		120	112		ng/L		90	70 - 130	3	30
Perfluorohexanoic acid (PFHxA)	3.9		120	114		ng/L		92	70 - 130	1	30
Perfluorononanoic acid (PFNA)	<2.0		120	117		ng/L		98	70 - 130	0	30
Perfluorooctanesulfonic acid (PFOS)	4.9		120	115		ng/L		92	70 - 130	0	30
Perfluorooctanoic acid (PFOA)	4.0		120	115		ng/L		92	70 - 130	0	30
Perfluoroundecanoic acid (PFUnA)	<2.0		120	110		ng/L		91	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	<2.0		120	111		ng/L		91	70 - 130	0	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		120	109		ng/L		90	70 - 130	1	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		120	113		ng/L		94	70 - 130	3	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		120	111		ng/L		92	70 - 130	5	30
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		120	112		ng/L		93	70 - 130	7	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		120	114		ng/L		95	70 - 130	0	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		120	112		ng/L		93	70 - 130	4	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		120	110		ng/L		91	70 - 130	6	30
Perfluoropentanoic acid (PFPeA)	4.2		120	107		ng/L		85	70 - 130	7	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		120	114		ng/L		95	70 - 130	2	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		120	107		ng/L		89	70 - 130	4	30

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QC Sample Results

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

Job ID: 380-203652-1
SDG: PFAS: Ka'amilo Wells P2

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

<i>Isotope Dilution</i>	<i>MSD</i>	<i>MSD</i>	<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
13C3 HFPO-DA	113		50 - 200
13C6 PFDA	111		50 - 200
13C5 PFHxA	105		50 - 200
13C4 PFHpA	111		50 - 200
13C8 PFOA	114		50 - 200
13C9 PFNA	107		50 - 200
13C7 PFUnA	112		50 - 200
13C2 PFDoA	113		50 - 200
13C4 PFBA	113		50 - 200
13C5 PFPeA	116		50 - 200
13C3 PFBS	117		50 - 200
13C3 PFHxS	120		50 - 200
13C8 PFOS	111		50 - 200
13C2-4:2-FTS	114		50 - 200
13C2-6:2-FTS	118		50 - 200
13C2-8:2-FTS	109		50 - 200

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

Lab Sample ID: MBL 380-214325/18-A
Matrix: Water
Analysis Batch: 214395

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 214325

<i>Analyte</i>	<i>MBL</i>	<i>MBL</i>	<i>RL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	<i>Result</i>	<i>Qualifier</i>						
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		03/19/26 01:49	03/19/26 12:07	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		03/19/26 01:49	03/19/26 12:07	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		03/19/26 01:49	03/19/26 12:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		03/19/26 01:49	03/19/26 12:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		03/19/26 01:49	03/19/26 12:07	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		03/19/26 01:49	03/19/26 12:07	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		03/19/26 01:49	03/19/26 12:07	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		03/19/26 01:49	03/19/26 12:07	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		03/19/26 01:49	03/19/26 12:07	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		03/19/26 01:49	03/19/26 12:07	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		03/19/26 01:49	03/19/26 12:07	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		03/19/26 01:49	03/19/26 12:07	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		03/19/26 01:49	03/19/26 12:07	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		03/19/26 01:49	03/19/26 12:07	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		03/19/26 01:49	03/19/26 12:07	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		03/19/26 01:49	03/19/26 12:07	1
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		03/19/26 01:49	03/19/26 12:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		03/19/26 01:49	03/19/26 12:07	1
<i>Surrogate</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>						
d5-NEtFOSAA	97		70 - 130			03/19/26 01:49	03/19/26 12:07	1
13C2 PFHxA	99		70 - 130			03/19/26 01:49	03/19/26 12:07	1
13C2 PFDA	103		70 - 130			03/19/26 01:49	03/19/26 12:07	1

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QC Sample Results

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

Job ID: 380-203652-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: MBL 380-214325/18-A
Matrix: Water
Analysis Batch: 214395

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 214325

<i>Surrogate</i>	<i>MBL</i>	<i>MBL</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3-GenX	91	Qualifier	70 - 130	03/19/26 01:49	03/19/26 12:07	1

Lab Sample ID: LCS 380-214325/20-A
Matrix: Water
Analysis Batch: 214395

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 214325

<i>Analyte</i>	<i>Spike</i>	<i>LCS</i>	<i>LCS</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i>	<i>Limits</i>
	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>					
Hexafluoropropylene Oxide	25.1	22.5		ng/L		90		70 - 130
Dimer Acid (HFPO-DA/GenX)								
Perfluorooctanesulfonic acid (PFOS)	25.1	25.1		ng/L		100		70 - 130
Perfluoroundecanoic acid (PFUnA)	25.1	26.3		ng/L		105		70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.1	24.5		ng/L		98		70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.1	22.3		ng/L		89		70 - 130
Perfluorohexanoic acid (PFHxA)	25.1	23.3		ng/L		93		70 - 130
Perfluorododecanoic acid (PFDoA)	25.1	24.9		ng/L		100		70 - 130
Perfluorooctanoic acid (PFOA)	25.1	24.6		ng/L		98		70 - 130
Perfluorodecanoic acid (PFDA)	25.1	25.4		ng/L		101		70 - 130
Perfluorohexanesulfonic acid (PFHxS)	25.1	26.6		ng/L		106		70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.1	25.2		ng/L		101		70 - 130
Perfluoroheptanoic acid (PFHpA)	25.1	22.9		ng/L		92		70 - 130
Perfluorononanoic acid (PFNA)	25.1	24.9		ng/L		99		70 - 130
Perfluorotetradecanoic acid (PFTA)	25.1	23.8		ng/L		95		70 - 130
Perfluorotridecanoic acid (PFTrDA)	25.1	25.1		ng/L		100		70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	25.1	25.7		ng/L		103		70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	25.1	24.1		ng/L		96		70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.1	23.6		ng/L		94		70 - 130

<i>Surrogate</i>	<i>LCS</i>	<i>LCS</i>	<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
d5-NEtFOSAA	98		70 - 130
13C2 PFHxA	101		70 - 130
13C2 PFDA	110		70 - 130
13C3-GenX	96		70 - 130

QC Sample Results

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

Job ID: 380-203652-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: MRL 380-214325/19-A
Matrix: Water
Analysis Batch: 214395

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 214325

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.12	J	ng/L		106	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.07	J	ng/L		103	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.10	J	ng/L		105	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.36	J	ng/L		118	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.19	J	ng/L		109	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.00	J	ng/L		100	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.01	J	ng/L		100	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.00	J	ng/L		100	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.06	J	ng/L		103	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.12	J	ng/L		106	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.14	J	ng/L		107	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.12	J	ng/L		106	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.12	J	ng/L		106	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.00	1.79	J	ng/L		89	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.00	2.01	J	ng/L		100	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.07	J	ng/L		103	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.02	J	ng/L		101	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	1.98	J	ng/L		99	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	104		70 - 130
13C2 PFHxA	99		70 - 130
13C2 PFDA	100		70 - 130
13C3-GenX	100		70 - 130

Lab Sample ID: 380-203652-1 MS
Matrix: Water
Analysis Batch: 214395

Client Sample ID: Ka'amilo Wells P2 (331-600-WL085)
Prep Type: Total/NA
Prep Batch: 214325

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.2	26.3		ng/L		105	70 - 130
Perfluorooctanesulfonic acid (PFOS)	5.1		25.2	29.8		ng/L		98	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.2	26.1		ng/L		104	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	27.1		ng/L		108	70 - 130

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QC Sample Results

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

Job ID: 380-203652-1
SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: 380-203652-1 MS
Matrix: Water
Analysis Batch: 214395

Client Sample ID: Ka'amilo Wells P2 (331-600-WL085)
Prep Type: Total/NA
Prep Batch: 214325

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.2	26.7		ng/L		106	70 - 130
Perfluorohexanoic acid (PFHxA)	4.2		25.2	29.2		ng/L		100	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		25.2	25.3		ng/L		100	70 - 130
Perfluorooctanoic acid (PFOA)	4.2		25.2	29.8		ng/L		102	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		25.2	25.5		ng/L		101	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	4.4		25.2	29.5		ng/L		100	70 - 130
Perfluorobutanesulfonic acid (PFBS)	3.6		25.2	29.6		ng/L		103	70 - 130
Perfluoroheptanoic acid (PFHpA)	2.1		25.2	26.5		ng/L		97	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		25.2	24.9		ng/L		99	70 - 130
Perfluorotetradecanoic acid (PFTA)	<2.0		25.2	21.6		ng/L		86	70 - 130
Perfluorotridecanoic acid (PFTrDA)	<2.0		25.2	25.4		ng/L		101	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.2	26.4		ng/L		105	70 - 130
11-Chloroeicosasfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.2	25.9		ng/L		103	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.2	25.8		ng/L		103	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
d5-NEtFOSAA	108		70 - 130
13C2 PFHxA	94		70 - 130
13C2 PFDA	106		70 - 130
13C3-GenX	102		70 - 130

Lab Sample ID: 380-203652-1 MSD
Matrix: Water
Analysis Batch: 214395

Client Sample ID: Ka'amilo Wells P2 (331-600-WL085)
Prep Type: Total/NA
Prep Batch: 214325

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.2	26.0		ng/L		103	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	5.1		25.2	30.9		ng/L		102	70 - 130	3	30
Perfluoroundecanoic acid (PFUnA)	<2.0		25.2	25.7		ng/L		102	70 - 130	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	26.0		ng/L		103	70 - 130	4	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.2	25.0		ng/L		99	70 - 130	6	30
Perfluorohexanoic acid (PFHxA)	4.2		25.2	27.9		ng/L		94	70 - 130	5	30
Perfluorododecanoic acid (PFDoA)	<2.0		25.2	25.0		ng/L		99	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	4.2		25.2	30.1		ng/L		103	70 - 130	1	30
Perfluorodecanoic acid (PFDA)	<2.0		25.2	24.9		ng/L		99	70 - 130	2	30

Eurofins Pomona

QC Association Summary

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

Job ID: 380-203652-1
SDG: PFAS: Ka'amilo Wells P2

LCMS

Prep Batch: 214325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-203652-1	Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	537.1 DW	
380-203652-2	FB: Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	537.1 DW	
MBL 380-214325/18-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-214325/20-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-214325/19-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-203652-1 MS	Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	537.1 DW	
380-203652-1 MSD	Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	537.1 DW	

Analysis Batch: 214395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-203652-1	Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	EPA 537.1 V2	214325
380-203652-2	FB: Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	EPA 537.1 V2	214325
MBL 380-214325/18-A	Method Blank	Total/NA	Water	EPA 537.1 V2	214325
LCS 380-214325/20-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	214325
MRL 380-214325/19-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	214325
380-203652-1 MS	Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	EPA 537.1 V2	214325
380-203652-1 MSD	Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	EPA 537.1 V2	214325

Prep Batch: 214754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-203652-1	Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	533	
380-203652-2	FB: Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	533	
MBL 380-214754/20-A	Method Blank	Total/NA	Water	533	
LCS 380-214754/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-214754/21-A	Lab Control Sample	Total/NA	Water	533	
380-203671-B-1-A MS	Matrix Spike	Total/NA	Water	533	
380-203671-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 214947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-203652-1	Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	533	214754
380-203652-2	FB: Ka'amilo Wells P2 (331-600-WL085)	Total/NA	Water	533	214754
MBL 380-214754/20-A	Method Blank	Total/NA	Water	533	214754
LCS 380-214754/22-A	Lab Control Sample	Total/NA	Water	533	214754
MRL 380-214754/21-A	Lab Control Sample	Total/NA	Water	533	214754
380-203671-B-1-A MS	Matrix Spike	Total/NA	Water	533	214754
380-203671-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	214754

Lab Chronicle

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

Job ID: 380-203652-1
 SDG: PFAS: Ka'amilo Wells P2

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

Lab Sample ID: 380-203652-1

Date Collected: 03/16/26 12:51

Matrix: Water

Date Received: 03/18/26 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			214754	N8NE	EA POM	03/20/26 15:27
Total/NA	Analysis	533		1	214947	M7ML	EA POM	03/21/26 23:53
Total/NA	Prep	537.1 DW			214325	G9MN	EA POM	03/19/26 01:49
Total/NA	Analysis	EPA 537.1 V2		1	214395	Y5FM	EA POM	03/19/26 12:36

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

Lab Sample ID: 380-203652-2

Date Collected: 03/16/26 12:51

Matrix: Water

Date Received: 03/18/26 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			214754	N8NE	EA POM	03/20/26 15:27
Total/NA	Analysis	533		1	214947	M7ML	EA POM	03/22/26 00:03
Total/NA	Prep	537.1 DW			214325	G9MN	EA POM	03/19/26 01:49
Total/NA	Analysis	EPA 537.1 V2		1	214395	Y5FM	EA POM	03/19/26 15:18

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: 380-203652-1
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	01-31-26 *

- 1
- 2
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- 17

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

Method Summary

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

Job ID: 380-203652-1
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: 380-203652-1
SDG: PFAS: Ka'amilo Wells P2


Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-203652-1	Ka'amilo Wells P2 (331-600-WL085)	Water	03/16/26 12:51	03/18/26 10:20	HI0000331
380-203652-2	FB: Ka'amilo Wells P2 (331-600-WL085)	Water	03/16/26 12:51	03/18/26 10:20	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



Client Information Client Contact: kirk iwamoto Phone: +1 808 748 5840 PWSID:		Lab PM: Lopez, Maria E-Mail: Maria.Lopez@et.euronisus.com		Carrier Tracking No(s): State of Origin:		COC No: Page: 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		Due Date Requested: TAT Requested (days): RUSH Compliance Project: <input type="checkbox"/> No PO #: C20525101 exp 05312023 WO #: 38001111 Project #: 38001111 SSOW#:		Analysis Requested 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		Preservation Codes: A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Identification Ka'amilo Wells P2 (331-600-WL085)		Sample Date: 16-Mar-2026 Sample Time: 1251 Matrix (Venous, Serum, Urine, Other): Water		Field Filled Sample (Yes or No): Perform MS/MSD (Yes or No): SUBCONTRACT - 825 PAH Physile 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		Special Instructions/Note:  380-203652 COC	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Date/Time: 1/16/2026 Date/Time:		Method of Shipment: FedEx Date/Time: 3/15/26 1020 Date/Time:		Company: DEHP Company:	
Relinquished by:		Date/Time:		Date/Time:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Relinquished by:		Date/Time:		Company:	
Custody Seal No.		Date/Time:		Date/Time:		Company:	



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-203652-1
SDG Number: PFAS: Ka'amilo Wells P2

Login Number: 203652

List Number: 1

Creator: Del Rosario, Michael

List Source: Eurofins Pomona

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

