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ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

SPECIAL
PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

JOB NUMBER

380-125047-1

Eurofins Eaton Analytical 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 Eaton Analytical, LLC Project Manager.

Compliance Statement

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

Authorization



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Definitions/Glossary

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

Qualifiers

LCMS

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

Glossary

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

Case Narrative

Client: City & County of Honolulu
Project: SPECIAL

Job ID: 380-125047-1

Job ID: 380-125047-1

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Job Narrative 380-125047-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 12/5/2024 10:01 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 0.9°C.

PFAS

Method 533: The following QC issues in preparation batch 380-122704 and analytical batch 380-122816 were observed: All IDA recoveries had zero percent recovery for FB sample FB: Waipahu Wells III Pump #3 (380-125047-4). Insufficient volume for re-extraction / re-analysis.

Extracts were re-analyzed for confirmation. No volume available for re-extraction. Results not acceptable per method. Results are estimated concentrations. Data excluded due to this QC failure, analysis of Field Blank is required only if a field sample contains a method analyte or analytes at or above the MRL. Sample results showed ND thus valid for reporting.

Method 533: The following QC issues in preparation batch 380-122704 and analytical batch 380-122816 were observed: All IDA recoveries had zero percent recovery for FB sample FB: Waipahu Wells III Pump #4 (380-125047-5). Insufficient volume for re-extraction/re-analysis. Extracts were re-analyzed for confirmation. No volume available for re-extraction. Results not acceptable per method. Results are estimated concentrations. Data excluded due to this QC failure, analysis of Field Blank is required only if a field sample contains a method analyte or analytes at or above the MRL. Sample results showed ND thus valid for reporting.

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: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

Client Sample ID: Waipahu Wells III Pump #3

Lab Sample ID: 380-125047-1

No Detections.

Client Sample ID: Waipahu Wells III Pump #4

Lab Sample ID: 380-125047-2

No Detections.

Client Sample ID: Kaamilo Pump #1

Lab Sample ID: 380-125047-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	2.6		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	2.3		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.8		2.0	ng/L	1		533	Total/NA
Perfluorooctanoic acid (PFOA)	2.2		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	2.2		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.0		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanoic acid (PFHxA)	2.4		2.0	ng/L	1		537.1	Total/NA
Perfluorooctanoic acid (PFOA)	2.5		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.8		2.0	ng/L	1		537.1	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.0		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: FB: Waipahu Wells III Pump #3

Lab Sample ID: 380-125047-4

No Detections.

Client Sample ID: FB: Waipahu Wells III Pump #4

Lab Sample ID: 380-125047-5

No Detections.

Client Sample ID: FB: Kaamilo Pump #1

Lab Sample ID: 380-125047-6

No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

Client Sample ID: Waipahu Wells III Pump #3

Lab Sample ID: 380-125047-1

Date Collected: 12/03/24 11:04

Matrix: Water

Date Received: 12/05/24 10:01

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:17	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	60		50 - 200	12/10/24 14:42	12/11/24 10:17	1
13C6 PFDA	60		50 - 200	12/10/24 14:42	12/11/24 10:17	1
13C5 PFHxA	68		50 - 200	12/10/24 14:42	12/11/24 10:17	1
13C4 PFHpA	66		50 - 200	12/10/24 14:42	12/11/24 10:17	1
13C8 PFOA	63		50 - 200	12/10/24 14:42	12/11/24 10:17	1
13C9 PFNA	58		50 - 200	12/10/24 14:42	12/11/24 10:17	1
13C7 PFUnA	65		50 - 200	12/10/24 14:42	12/11/24 10:17	1
13C2 PFDoA	75		50 - 200	12/10/24 14:42	12/11/24 10:17	1
13C4 PFBA	69		50 - 200	12/10/24 14:42	12/11/24 10:17	1
13C5 PFPeA	66		50 - 200	12/10/24 14:42	12/11/24 10:17	1
13C3 PFBS	110		50 - 200	12/10/24 14:42	12/11/24 10:17	1
13C3 PFHxS	109		50 - 200	12/10/24 14:42	12/11/24 10:17	1
13C8 PFOS	106		50 - 200	12/10/24 14:42	12/11/24 10:17	1

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Client Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

Client Sample ID: Waipahu Wells III Pump #3

Lab Sample ID: 380-125047-1

Date Collected: 12/03/24 11:04

Matrix: Water

Date Received: 12/05/24 10:01

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-4:2-FTS	127		50 - 200	12/10/24 14:42	12/11/24 10:17	1
13C2-6:2-FTS	121		50 - 200	12/10/24 14:42	12/11/24 10:17	1
13C2-8:2-FTS	109		50 - 200	12/10/24 14:42	12/11/24 10:17	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:34	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:34	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:34	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:34	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:34	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:34	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:34	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:34	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:34	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:34	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:34	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:34	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:34	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:34	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:34	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:34	1
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:34	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	110		70 - 130			12/06/24 13:57	12/07/24 17:34	1
13C2 PFHxA	108		70 - 130			12/06/24 13:57	12/07/24 17:34	1
13C2 PFDA	104		70 - 130			12/06/24 13:57	12/07/24 17:34	1
13C3-GenX	99		70 - 130			12/06/24 13:57	12/07/24 17:34	1

Client Sample ID: Waipahu Wells III Pump #4

Lab Sample ID: 380-125047-2

Date Collected: 12/03/24 11:17

Matrix: Water

Date Received: 12/05/24 10:01

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1

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Client Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

Client Sample ID: Waipahu Wells III Pump #4

Lab Sample ID: 380-125047-2

Date Collected: 12/03/24 11:17

Matrix: Water

Date Received: 12/05/24 10:01

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:27	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	65		50 - 200	12/10/24 14:42	12/11/24 10:27	1
13C6 PFDA	53		50 - 200	12/10/24 14:42	12/11/24 10:27	1
13C5 PFHxA	78		50 - 200	12/10/24 14:42	12/11/24 10:27	1
13C4 PFHpA	76		50 - 200	12/10/24 14:42	12/11/24 10:27	1
13C8 PFOA	70		50 - 200	12/10/24 14:42	12/11/24 10:27	1
13C9 PFNA	58		50 - 200	12/10/24 14:42	12/11/24 10:27	1
13C7 PFUnA	56		50 - 200	12/10/24 14:42	12/11/24 10:27	1
13C2 PFDoA	63		50 - 200	12/10/24 14:42	12/11/24 10:27	1
13C4 PFBA	85		50 - 200	12/10/24 14:42	12/11/24 10:27	1
13C5 PFPeA	84		50 - 200	12/10/24 14:42	12/11/24 10:27	1
13C3 PFBS	109		50 - 200	12/10/24 14:42	12/11/24 10:27	1
13C3 PFHxS	110		50 - 200	12/10/24 14:42	12/11/24 10:27	1
13C8 PFOS	108		50 - 200	12/10/24 14:42	12/11/24 10:27	1
13C2-4:2-FTS	128		50 - 200	12/10/24 14:42	12/11/24 10:27	1
13C2-6:2-FTS	121		50 - 200	12/10/24 14:42	12/11/24 10:27	1
13C2-8:2-FTS	112		50 - 200	12/10/24 14:42	12/11/24 10:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:45	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:45	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:45	1

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

Client Sample ID: Waipahu Wells III Pump #4

Lab Sample ID: 380-125047-2

Date Collected: 12/03/24 11:17

Matrix: Water

Date Received: 12/05/24 10:01

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:45	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:45	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:45	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:45	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:45	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:45	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:45	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:45	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:45	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:45	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:45	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:45	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:45	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	105		70 - 130			12/06/24 13:57	12/07/24 17:45	1
13C2 PFHxA	111		70 - 130			12/06/24 13:57	12/07/24 17:45	1
13C2 PFDA	102		70 - 130			12/06/24 13:57	12/07/24 17:45	1
13C3-GenX	98		70 - 130			12/06/24 13:57	12/07/24 17:45	1

Client Sample ID: Kaamilo Pump #1

Lab Sample ID: 380-125047-3

Date Collected: 12/03/24 10:16

Matrix: Water

Date Received: 12/05/24 10:01

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		12/10/24 14:42	12/11/24 10:36	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
Perfluorohexanesulfonic acid (PFHxS)	2.6		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
Perfluorohexanoic acid (PFHxA)	2.3		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
Perfluorooctanesulfonic acid (PFOS)	2.8		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
Perfluorooctanoic acid (PFOA)	2.2		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

Client Sample ID: Kaamilo Pump #1

Lab Sample ID: 380-125047-3

Date Collected: 12/03/24 10:16

Matrix: Water

Date Received: 12/05/24 10:01

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
Perfluoropentanoic acid (PFPeA)	2.2		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		12/10/24 14:42	12/11/24 10:36	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	99		50 - 200	12/10/24 14:42	12/11/24 10:36	1
13C6 PFDA	106		50 - 200	12/10/24 14:42	12/11/24 10:36	1
13C5 PFHxA	106		50 - 200	12/10/24 14:42	12/11/24 10:36	1
13C4 PFHpA	108		50 - 200	12/10/24 14:42	12/11/24 10:36	1
13C8 PFOA	112		50 - 200	12/10/24 14:42	12/11/24 10:36	1
13C9 PFNA	108		50 - 200	12/10/24 14:42	12/11/24 10:36	1
13C7 PFUnA	109		50 - 200	12/10/24 14:42	12/11/24 10:36	1
13C2 PFDoA	103		50 - 200	12/10/24 14:42	12/11/24 10:36	1
13C4 PFBA	106		50 - 200	12/10/24 14:42	12/11/24 10:36	1
13C5 PFPeA	112		50 - 200	12/10/24 14:42	12/11/24 10:36	1
13C3 PFBS	105		50 - 200	12/10/24 14:42	12/11/24 10:36	1
13C3 PFHxS	106		50 - 200	12/10/24 14:42	12/11/24 10:36	1
13C8 PFOS	109		50 - 200	12/10/24 14:42	12/11/24 10:36	1
13C2-4:2-FTS	124		50 - 200	12/10/24 14:42	12/11/24 10:36	1
13C2-6:2-FTS	113		50 - 200	12/10/24 14:42	12/11/24 10:36	1
13C2-8:2-FTS	105		50 - 200	12/10/24 14:42	12/11/24 10:36	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:56	1
Perfluorooctanesulfonic acid (PFOS)	3.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:56	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:56	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:56	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:56	1
Perfluorohexanoic acid (PFHxA)	2.4		2.0	ng/L		12/06/24 13:57	12/07/24 17:56	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:56	1
Perfluorooctanoic acid (PFOA)	2.5		2.0	ng/L		12/06/24 13:57	12/07/24 17:56	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:56	1

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

Client Sample ID: Kaamilo Pump #1

Lab Sample ID: 380-125047-3

Date Collected: 12/03/24 10:16

Matrix: Water

Date Received: 12/05/24 10:01

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	2.8		2.0	ng/L		12/06/24 13:57	12/07/24 17:56	1
Perfluorobutanesulfonic acid (PFBS)	2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:56	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:56	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:56	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:56	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:56	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:56	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:56	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 17:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	112		70 - 130			12/06/24 13:57	12/07/24 17:56	1
13C2 PFHxA	105		70 - 130			12/06/24 13:57	12/07/24 17:56	1
13C2 PFDA	109		70 - 130			12/06/24 13:57	12/07/24 17:56	1
13C3-GenX	98		70 - 130			12/06/24 13:57	12/07/24 17:56	1

Client Sample ID: FB: Waipahu Wells III Pump #3

Lab Sample ID: 380-125047-4

Date Collected: 12/03/24 11:04

Matrix: Water

Date Received: 12/05/24 10:01

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:07	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:07	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:07	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:07	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:07	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:07	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:07	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:07	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:07	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:07	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:07	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:07	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:07	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:07	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:07	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:07	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:07	1

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

Client Sample ID: FB: Waipahu Wells III Pump #3

Lab Sample ID: 380-125047-4

Date Collected: 12/03/24 11:04

Matrix: Water

Date Received: 12/05/24 10:01

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	114		70 - 130	12/06/24 13:57	12/07/24 18:07	1
13C2 PFHxA	109		70 - 130	12/06/24 13:57	12/07/24 18:07	1
13C2 PFDA	104		70 - 130	12/06/24 13:57	12/07/24 18:07	1
13C3-GenX	100		70 - 130	12/06/24 13:57	12/07/24 18:07	1

Client Sample ID: FB: Waipahu Wells III Pump #4

Lab Sample ID: 380-125047-5

Date Collected: 12/03/24 11:17

Matrix: Water

Date Received: 12/05/24 10:01

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:17	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:17	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:17	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:17	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:17	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:17	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:17	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:17	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:17	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:17	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:17	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:17	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:17	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:17	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	109		70 - 130	12/06/24 13:57	12/07/24 18:17	1
13C2 PFHxA	106		70 - 130	12/06/24 13:57	12/07/24 18:17	1
13C2 PFDA	106		70 - 130	12/06/24 13:57	12/07/24 18:17	1
13C3-GenX	101		70 - 130	12/06/24 13:57	12/07/24 18:17	1

Client Sample ID: FB: Kaamilo Pump #1

Lab Sample ID: 380-125047-6

Date Collected: 12/03/24 10:16

Matrix: Water

Date Received: 12/05/24 10:01

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		12/09/24 04:27	12/10/24 02:26	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

Client Sample ID: FB: Kaamilo Pump #1

Lab Sample ID: 380-125047-6

Date Collected: 12/03/24 10:16

Matrix: Water

Date Received: 12/05/24 10:01

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		12/09/24 04:27	12/10/24 02:26	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		12/09/24 04:27	12/10/24 02:26	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	98		50 - 200	12/09/24 04:27	12/10/24 02:26	1
13C6 PFDA	127		50 - 200	12/09/24 04:27	12/10/24 02:26	1
13C5 PFHxA	114		50 - 200	12/09/24 04:27	12/10/24 02:26	1
13C4 PFHpA	123		50 - 200	12/09/24 04:27	12/10/24 02:26	1
13C8 PFOA	121		50 - 200	12/09/24 04:27	12/10/24 02:26	1
13C9 PFNA	124		50 - 200	12/09/24 04:27	12/10/24 02:26	1
13C7 PFUnA	132		50 - 200	12/09/24 04:27	12/10/24 02:26	1
13C2 PFDoA	135		50 - 200	12/09/24 04:27	12/10/24 02:26	1
13C4 PFBA	119		50 - 200	12/09/24 04:27	12/10/24 02:26	1
13C5 PFPeA	118		50 - 200	12/09/24 04:27	12/10/24 02:26	1
13C3 PFBS	109		50 - 200	12/09/24 04:27	12/10/24 02:26	1
13C3 PFHxS	116		50 - 200	12/09/24 04:27	12/10/24 02:26	1
13C8 PFOS	116		50 - 200	12/09/24 04:27	12/10/24 02:26	1
13C2-4:2-FTS	149		50 - 200	12/09/24 04:27	12/10/24 02:26	1
13C2-6:2-FTS	134		50 - 200	12/09/24 04:27	12/10/24 02:26	1
13C2-8:2-FTS	136		50 - 200	12/09/24 04:27	12/10/24 02:26	1

Client Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

Client Sample ID: FB: Kaamilo Pump #1

Lab Sample ID: 380-125047-6

Date Collected: 12/03/24 10:16

Matrix: Water

Date Received: 12/05/24 10:01

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:28	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:28	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:28	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:28	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:28	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:28	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:28	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:28	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:28	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:28	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:28	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:28	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:28	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:28	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:28	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:28	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:28	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/06/24 13:57	12/07/24 18:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	119		70 - 130			12/06/24 13:57	12/07/24 18:28	1
13C2 PFHxA	112		70 - 130			12/06/24 13:57	12/07/24 18:28	1
13C2 PFDA	108		70 - 130			12/06/24 13:57	12/07/24 18:28	1
13C3-GenX	103		70 - 130			12/06/24 13:57	12/07/24 18:28	1

Surrogate Summary

Client: City & County of Honolulu
 Project/Site: SPECIAL

Job ID: 380-125047-1
 SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-125047-1	Waipahu Wells III Pump #3	110	108	104	99
380-125047-2	Waipahu Wells III Pump #4	105	111	102	98
380-125047-3	Kaamilo Pump #1	112	105	109	98
380-125047-4	FB: Waipahu Wells III Pump #3	114	109	104	100
380-125047-5	FB: Waipahu Wells III Pump #4	109	106	106	101
380-125047-6	FB: Kaamilo Pump #1	119	112	108	103
380-125052-B-5-A MS	Matrix Spike	103	106	104	101
380-125052-C-5-A MSD	Matrix Spike Duplicate	102	111	100	103
LCS 380-122455/22-A	Lab Control Sample	100	106	107	102
MBL 380-122455/20-A	Method Blank	108	102	101	93
MRL 380-122455/21-A	Lab Control Sample	107	114	109	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: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDaA (50-200)
380-125045-B-1-A MS	Matrix Spike	99	112	103	111	109	114	98	85
380-125045-C-1-A MSD	Matrix Spike Duplicate	87	91	95	97	88	88	100	109
380-125047-1	Waipahu Wells III Pump #3	60	60	68	66	63	58	65	75
380-125047-2	Waipahu Wells III Pump #4	65	53	78	76	70	58	56	63
380-125047-3	Kaamilo Pump #1	99	106	106	108	112	108	109	103
380-125047-6	FB: Kaamilo Pump #1	98	127	114	123	121	124	132	135
380-125404-D-19-A MS	Matrix Spike	81	103	94	96	97	101	102	99
380-125404-E-19-A MSD	Matrix Spike Duplicate	88	99	96	96	101	100	103	103
LCS 380-122704/18-A	Lab Control Sample	94	119	104	112	115	119	122	128
LCS 380-123007/18-A	Lab Control Sample	104	106	109	108	108	106	96	88
MBL 380-122704/16-A	Method Blank	95	122	116	119	116	119	128	129
MBL 380-123007/16-A	Method Blank	101	103	111	112	111	105	102	93
MRL 380-122704/17-A	Lab Control Sample	91	119	106	112	115	117	122	128
MRL 380-123007/17-A	Lab Control Sample	87	101	99	101	100	100	101	98

		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)
380-125045-B-1-A MS	Matrix Spike	110	109	108	112	110	144	127	124
380-125045-C-1-A MSD	Matrix Spike Duplicate	105	107	109	113	118	143	136	138
380-125047-1	Waipahu Wells III Pump #3	69	66	110	109	106	127	121	109
380-125047-2	Waipahu Wells III Pump #4	85	84	109	110	108	128	121	112
380-125047-3	Kaamilo Pump #1	106	112	105	106	109	124	113	105
380-125047-6	FB: Kaamilo Pump #1	119	118	109	116	116	149	134	136
380-125404-D-19-A MS	Matrix Spike	88	89	113	113	109	129	126	111
380-125404-E-19-A MSD	Matrix Spike Duplicate	93	90	112	111	110	125	124	113
LCS 380-122704/18-A	Lab Control Sample	117	119	106	108	115	131	130	124
LCS 380-123007/18-A	Lab Control Sample	110	112	104	105	100	115	117	103
MBL 380-122704/16-A	Method Blank	116	124	106	113	114	147	134	133
MBL 380-123007/16-A	Method Blank	105	105	109	107	105	119	116	103
MRL 380-122704/17-A	Lab Control Sample	118	120	106	113	118	147	129	133
MRL 380-123007/17-A	Lab Control Sample	97	92	110	109	108	124	118	105

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: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Lab Sample ID: MBL 380-122704/16-A
Matrix: Water
Analysis Batch: 122816

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122704

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		12/09/24 04:27	12/10/24 00:19	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		12/09/24 04:27	12/10/24 00:19	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	95		50 - 200	12/09/24 04:27	12/10/24 00:19	1
13C6 PFDA	122		50 - 200	12/09/24 04:27	12/10/24 00:19	1
13C5 PFHxA	116		50 - 200	12/09/24 04:27	12/10/24 00:19	1
13C4 PFHpA	119		50 - 200	12/09/24 04:27	12/10/24 00:19	1
13C8 PFOA	116		50 - 200	12/09/24 04:27	12/10/24 00:19	1
13C9 PFNA	119		50 - 200	12/09/24 04:27	12/10/24 00:19	1
13C7 PFUnA	128		50 - 200	12/09/24 04:27	12/10/24 00:19	1
13C2 PFDoA	129		50 - 200	12/09/24 04:27	12/10/24 00:19	1
13C4 PFBA	116		50 - 200	12/09/24 04:27	12/10/24 00:19	1
13C5 PFPeA	124		50 - 200	12/09/24 04:27	12/10/24 00:19	1
13C3 PFBS	106		50 - 200	12/09/24 04:27	12/10/24 00:19	1
13C3 PFHxS	113		50 - 200	12/09/24 04:27	12/10/24 00:19	1

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Lab Sample ID: MBL 380-122704/16-A
Matrix: Water
Analysis Batch: 122816

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122704

<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	114		50 - 200	12/09/24 04:27	12/10/24 00:19	1
13C2-4:2-FTS	147		50 - 200	12/09/24 04:27	12/10/24 00:19	1
13C2-6:2-FTS	134		50 - 200	12/09/24 04:27	12/10/24 00:19	1
13C2-8:2-FTS	133		50 - 200	12/09/24 04:27	12/10/24 00:19	1

Lab Sample ID: LCS 380-122704/18-A
Matrix: Water
Analysis Batch: 122816

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122704

<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	53.5		ng/L		89	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.1	56.7		ng/L		94	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.1	53.4		ng/L		89	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.1	56.3		ng/L		94	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.1	56.3		ng/L		94	70 - 130
Perfluorodecanoic acid (PFDA)	60.1	57.5		ng/L		96	70 - 130
Perfluorododecanoic acid (PFDoA)	60.1	57.5		ng/L		96	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.1	57.0		ng/L		95	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.1	56.8		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	60.1	60.0		ng/L		100	70 - 130
Perfluorononanoic acid (PFNA)	60.1	55.1		ng/L		92	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.1	55.8		ng/L		93	70 - 130
Perfluorooctanoic acid (PFOA)	60.1	54.8		ng/L		91	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.1	57.7		ng/L		96	70 - 130
Perfluorobutanoic acid (PFBA)	60.1	57.9		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.1	57.6		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.1	56.6		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.1	55.2		ng/L		92	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.1	64.0		ng/L		106	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	60.1	53.4		ng/L		89	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.1	58.5		ng/L		97	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.1	57.6		ng/L		96	70 - 130
Perfluoropentanoic acid (PFPeA)	60.1	55.9		ng/L		93	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.1	54.8		ng/L		91	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Lab Sample ID: LCS 380-122704/18-A
Matrix: Water
Analysis Batch: 122816

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122704

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Perfluoropentanesulfonic acid (PFPeS)	60.1	55.7		ng/L		93	70 - 130	
LCS LCS								
Isotope Dilution	%Recovery	Qualifier						Limits
13C3 HFPO-DA	94							50 - 200
13C6 PFDA	119							50 - 200
13C5 PFHxA	104							50 - 200
13C4 PFHpA	112							50 - 200
13C8 PFOA	115							50 - 200
13C9 PFNA	119							50 - 200
13C7 PFUnA	122							50 - 200
13C2 PFDoA	128							50 - 200
13C4 PFBA	117							50 - 200
13C5 PFPeA	119							50 - 200
13C3 PFBS	106							50 - 200
13C3 PFHxS	108							50 - 200
13C8 PFOS	115							50 - 200
13C2-4:2-FTS	131							50 - 200
13C2-6:2-FTS	130							50 - 200
13C2-8:2-FTS	124							50 - 200

Lab Sample ID: MRL 380-122704/17-A
Matrix: Water
Analysis Batch: 122816

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122704

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.93	J	ng/L		96	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	2.13	J	ng/L		106	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.96	J	ng/L		98	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.12	J	ng/L		106	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.21	J	ng/L		110	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.09	J	ng/L		104	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.15	J	ng/L		107	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.18	J	ng/L		108	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.06	J	ng/L		103	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.13	J	ng/L		106	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.20	J	ng/L		109	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.15	J	ng/L		107	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.05	J	ng/L		102	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.15	J	ng/L		107	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.15	J	ng/L		107	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Lab Sample ID: MRL 380-122704/17-A
Matrix: Water
Analysis Batch: 122816

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122704

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.31	J	ng/L		115	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.15	J	ng/L		107	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.32	J	ng/L		115	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	2.36	J	ng/L		117	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	2.09	J	ng/L		104	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	2.10	J	ng/L		104	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	2.06	J	ng/L		103	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.11	J	ng/L		105	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	2.03	J	ng/L		101	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	2.11	J	ng/L		105	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	91		50 - 200
13C6 PFDA	119		50 - 200
13C5 PFHxA	106		50 - 200
13C4 PFHpA	112		50 - 200
13C8 PFOA	115		50 - 200
13C9 PFNA	117		50 - 200
13C7 PFUnA	122		50 - 200
13C2 PFDoA	128		50 - 200
13C4 PFBA	118		50 - 200
13C5 PFPeA	120		50 - 200
13C3 PFBS	106		50 - 200
13C3 PFHxS	113		50 - 200
13C8 PFOS	118		50 - 200
13C2-4:2-FTS	147		50 - 200
13C2-6:2-FTS	129		50 - 200
13C2-8:2-FTS	133		50 - 200

Lab Sample ID: 380-125045-B-1-A MS
Matrix: Water
Analysis Batch: 122816

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 122704

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	*5-	60.5	51.1		ng/L		84	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0	*5-	60.5	57.0		ng/L		94	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0	*5-	60.5	54.3		ng/L		90	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Lab Sample ID: 380-125045-B-1-A MS
Matrix: Water
Analysis Batch: 122816

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 122704

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0	*5-	60.5	58.8		ng/L		97	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0	*5-	60.5	59.4		ng/L		98	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0	*5-	60.5	56.7		ng/L		94	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0	*5-	60.5	57.1		ng/L		94	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0	*5-	60.5	59.9		ng/L		99	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0	*5-	60.5	59.6		ng/L		98	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0	*5-	60.5	61.3		ng/L		101	70 - 130
Perfluorononanoic acid (PFNA)	<2.0	*5-	60.5	57.1		ng/L		94	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0	*5-	60.5	60.9		ng/L		101	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0	*5-	60.5	58.9		ng/L		97	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0	*5-	60.5	56.9		ng/L		94	70 - 130
Perfluorobutanoic acid (PFBA)	2.9	*5-	60.5	58.9		ng/L		93	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0	*5-	60.5	58.6		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0	*5-	60.5	56.7		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0	*5-	60.5	56.2		ng/L		93	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0	*5-	60.5	64.4		ng/L		107	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0	*5-	60.5	54.0		ng/L		89	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0	*5-	60.5	57.5		ng/L		95	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0	*5-	60.5	57.9		ng/L		96	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0	*5-	60.5	59.6		ng/L		99	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0	*5-	60.5	58.0		ng/L		96	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0	*5-	60.5	56.9		ng/L		94	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	99		50 - 200
13C6 PFDA	112		50 - 200
13C5 PFHxA	103		50 - 200
13C4 PFHpA	111		50 - 200
13C8 PFOA	109		50 - 200
13C9 PFNA	114		50 - 200
13C7 PFUnA	98		50 - 200
13C2 PFDoA	85		50 - 200
13C4 PFBA	110		50 - 200
13C5 PFPeA	109		50 - 200
13C3 PFBS	108		50 - 200
13C3 PFHxS	112		50 - 200
13C8 PFOS	110		50 - 200

QC Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Lab Sample ID: 380-125045-B-1-A MS
Matrix: Water
Analysis Batch: 122816

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 122704

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C2-4:2-FTS	144		50 - 200
13C2-6:2-FTS	127		50 - 200
13C2-8:2-FTS	124		50 - 200

Lab Sample ID: 380-125045-C-1-A MSD
Matrix: Water
Analysis Batch: 122816

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 122704

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	*5-	60.4	54.2		ng/L		90	70 - 130	6	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0	*5-	60.4	58.0		ng/L		96	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0	*5-	60.4	53.6		ng/L		89	70 - 130	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0	*5-	60.4	58.2		ng/L		96	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	<2.0	*5-	60.4	58.2		ng/L		96	70 - 130	2	30
Perfluorodecanoic acid (PFDA)	<2.0	*5-	60.4	57.4		ng/L		95	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<2.0	*5-	60.4	57.2		ng/L		95	70 - 130	0	30
Perfluoroheptanoic acid (PFHpA)	<2.0	*5-	60.4	60.0		ng/L		99	70 - 130	0	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0	*5-	60.4	60.6		ng/L		100	70 - 130	2	30
Perfluorohexanoic acid (PFHxA)	<2.0	*5-	60.4	59.9		ng/L		99	70 - 130	2	30
Perfluorononanoic acid (PFNA)	<2.0	*5-	60.4	57.7		ng/L		96	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	<2.0	*5-	60.4	60.1		ng/L		100	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	<2.0	*5-	60.4	59.1		ng/L		98	70 - 130	0	30
Perfluoroundecanoic acid (PFUnA)	<2.0	*5-	60.4	57.7		ng/L		96	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	2.9	*5-	60.4	59.4		ng/L		94	70 - 130	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0	*5-	60.4	57.6		ng/L		95	70 - 130	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0	*5-	60.4	58.3		ng/L		97	70 - 130	3	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0	*5-	60.4	57.4		ng/L		95	70 - 130	2	30
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0	*5-	60.4	59.5		ng/L		99	70 - 130	8	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0	*5-	60.4	54.5		ng/L		90	70 - 130	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0	*5-	60.4	57.1		ng/L		95	70 - 130	1	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0	*5-	60.4	55.8		ng/L		92	70 - 130	4	30
Perfluoropentanoic acid (PFPeA)	<2.0	*5-	60.4	56.7		ng/L		94	70 - 130	5	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0	*5-	60.4	54.9		ng/L		91	70 - 130	6	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0	*5-	60.4	55.7		ng/L		92	70 - 130	2	30

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Isotope Dilution	MSD		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	87		50 - 200
13C6 PFDA	91		50 - 200
13C5 PFHxA	95		50 - 200
13C4 PFHpA	97		50 - 200
13C8 PFOA	88		50 - 200
13C9 PFNA	88		50 - 200
13C7 PFUnA	100		50 - 200
13C2 PFDoA	109		50 - 200
13C4 PFBA	105		50 - 200
13C5 PFPeA	107		50 - 200
13C3 PFBS	109		50 - 200
13C3 PFHxS	113		50 - 200
13C8 PFOS	118		50 - 200
13C2-4:2-FTS	143		50 - 200
13C2-6:2-FTS	136		50 - 200
13C2-8:2-FTS	138		50 - 200

Lab Sample ID: MBL 380-123007/16-A
Matrix: Water
Analysis Batch: 123148

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123007

Analyte	MBL		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1

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QC Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Lab Sample ID: MBL 380-123007/16-A
Matrix: Water
Analysis Batch: 123148

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 123007

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		12/10/24 14:42	12/11/24 09:10	1
Isotope Dilution	%Recovery	MBL Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	101		50 - 200			12/10/24 14:42	12/11/24 09:10	1
13C6 PFDA	103		50 - 200			12/10/24 14:42	12/11/24 09:10	1
13C5 PFHxA	111		50 - 200			12/10/24 14:42	12/11/24 09:10	1
13C4 PFHpA	112		50 - 200			12/10/24 14:42	12/11/24 09:10	1
13C8 PFOA	111		50 - 200			12/10/24 14:42	12/11/24 09:10	1
13C9 PFNA	105		50 - 200			12/10/24 14:42	12/11/24 09:10	1
13C7 PFUnA	102		50 - 200			12/10/24 14:42	12/11/24 09:10	1
13C2 PFDoA	93		50 - 200			12/10/24 14:42	12/11/24 09:10	1
13C4 PFBA	105		50 - 200			12/10/24 14:42	12/11/24 09:10	1
13C5 PFPeA	105		50 - 200			12/10/24 14:42	12/11/24 09:10	1
13C3 PFBS	109		50 - 200			12/10/24 14:42	12/11/24 09:10	1
13C3 PFHxS	107		50 - 200			12/10/24 14:42	12/11/24 09:10	1
13C8 PFOS	105		50 - 200			12/10/24 14:42	12/11/24 09:10	1
13C2-4:2-FTS	119		50 - 200			12/10/24 14:42	12/11/24 09:10	1
13C2-6:2-FTS	116		50 - 200			12/10/24 14:42	12/11/24 09:10	1
13C2-8:2-FTS	103		50 - 200			12/10/24 14:42	12/11/24 09:10	1

Lab Sample ID: LCS 380-123007/18-A
Matrix: Water
Analysis Batch: 123148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.5	58.2		ng/L		96	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.5	57.1		ng/L		94	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.5	60.2		ng/L		100	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.5	59.5		ng/L		98	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.5	60.6		ng/L		100	70 - 130
Perfluorodecanoic acid (PFDA)	60.5	57.9		ng/L		96	70 - 130
Perfluorododecanoic acid (PFDoA)	60.5	60.4		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.5	59.3		ng/L		98	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.5	59.4		ng/L		98	70 - 130
Perfluorohexanoic acid (PFHxA)	60.5	59.9		ng/L		99	70 - 130
Perfluorononanoic acid (PFNA)	60.5	57.5		ng/L		95	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.5	59.8		ng/L		99	70 - 130
Perfluorooctanoic acid (PFOA)	60.5	58.1		ng/L		96	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Lab Sample ID: LCS 380-123007/18-A
Matrix: Water
Analysis Batch: 123148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	60.5	58.6		ng/L		97	70 - 130
Perfluorobutanoic acid (PFBA)	60.5	59.0		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.5	60.1		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.5	58.7		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.5	60.8		ng/L		101	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.5	57.4		ng/L		95	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	60.5	56.2		ng/L		93	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.5	56.3		ng/L		93	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.5	58.2		ng/L		96	70 - 130
Perfluoropentanoic acid (PFPeA)	60.5	57.8		ng/L		96	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.5	61.4		ng/L		101	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	60.5	58.9		ng/L		97	70 - 130

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	104		50 - 200
13C6 PFDA	106		50 - 200
13C5 PFHxA	109		50 - 200
13C4 PFHpA	108		50 - 200
13C8 PFOA	108		50 - 200
13C9 PFNA	106		50 - 200
13C7 PFUnA	96		50 - 200
13C2 PFDoA	88		50 - 200
13C4 PFBA	110		50 - 200
13C5 PFPeA	112		50 - 200
13C3 PFBS	104		50 - 200
13C3 PFHxS	105		50 - 200
13C8 PFOS	100		50 - 200
13C2-4:2-FTS	115		50 - 200
13C2-6:2-FTS	117		50 - 200
13C2-8:2-FTS	103		50 - 200

Lab Sample ID: MRL 380-123007/17-A
Matrix: Water
Analysis Batch: 123148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123007

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.25	J	ng/L		113	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.04	J	ng/L		102	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Lab Sample ID: MRL 380-123007/17-A
Matrix: Water
Analysis Batch: 123148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123007

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.12	J	ng/L		106	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.14	J	ng/L		107	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.13	J	ng/L		106	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.25	J	ng/L		112	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.23	J	ng/L		112	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.21	J	ng/L		110	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.24	J	ng/L		112	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.09	J	ng/L		104	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.10	J	ng/L		105	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.38	J	ng/L		119	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.18	J	ng/L		109	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.09	J	ng/L		104	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	2.13	J	ng/L		106	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	2.43	J	ng/L		121	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	2.34	J	ng/L		117	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	2.49	J	ng/L		124	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	2.13	J	ng/L		106	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.00	2.03	J	ng/L		101	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	1.95	J	ng/L		97	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	2.12	J	ng/L		106	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	2.39	J	ng/L		120	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	2.21	J	ng/L		110	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	2.27	J	ng/L		113	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	87		50 - 200
13C6 PFDA	101		50 - 200
13C5 PFHxA	99		50 - 200
13C4 PFHpA	101		50 - 200
13C8 PFOA	100		50 - 200
13C9 PFNA	100		50 - 200
13C7 PFUnA	101		50 - 200
13C2 PFDoA	98		50 - 200
13C4 PFBA	97		50 - 200
13C5 PFPeA	92		50 - 200
13C3 PFBS	110		50 - 200
13C3 PFHxS	109		50 - 200

QC Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Lab Sample ID: MRL 380-123007/17-A
Matrix: Water
Analysis Batch: 123148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 123007

<i>Isotope Dilution</i>	<i>MRL %Recovery</i>	<i>MRL Qualifier</i>	<i>Limits</i>
13C8 PFOS	108		50 - 200
13C2-4:2-FTS	124		50 - 200
13C2-6:2-FTS	118		50 - 200
13C2-8:2-FTS	105		50 - 200

Lab Sample ID: 380-125404-D-19-A MS
Matrix: Water
Analysis Batch: 123148

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 123007

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.5	57.8		ng/L		96	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.5	54.3		ng/L		90	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.5	57.1		ng/L		94	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.5	57.4		ng/L		95	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.5	58.2		ng/L		96	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.5	58.0		ng/L		96	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.5	60.0		ng/L		99	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.5	57.6		ng/L		95	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.5	57.3		ng/L		95	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.5	58.4		ng/L		97	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.5	55.6		ng/L		92	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.5	58.7		ng/L		97	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.5	58.9		ng/L		97	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.5	57.3		ng/L		95	70 - 130
Perfluorobutanoic acid (PFBA)	5.4		60.5	64.0		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.5	60.8		ng/L		101	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.5	58.3		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.5	59.0		ng/L		97	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.5	54.7		ng/L		90	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		60.5	52.9		ng/L		87	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.5	57.9		ng/L		96	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.5	58.8		ng/L		97	70 - 130
Perfluoropentanoic acid (PFPeA)	3.6		60.5	63.8		ng/L		99	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.5	59.3		ng/L		98	70 - 130

QC Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Lab Sample ID: 380-125404-D-19-A MS
Matrix: Water
Analysis Batch: 123148

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 123007

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.5	56.0		ng/L		93	70 - 130
MS MS									
Isotope Dilution	%Recovery	Qualifier	Limits						
13C3 HFPO-DA	81		50 - 200						
13C6 PFDA	103		50 - 200						
13C5 PFHxA	94		50 - 200						
13C4 PFHpA	96		50 - 200						
13C8 PFOA	97		50 - 200						
13C9 PFNA	101		50 - 200						
13C7 PFUnA	102		50 - 200						
13C2 PFDoA	99		50 - 200						
13C4 PFBA	88		50 - 200						
13C5 PFPeA	89		50 - 200						
13C3 PFBS	113		50 - 200						
13C3 PFHxS	113		50 - 200						
13C8 PFOS	109		50 - 200						
13C2-4:2-FTS	129		50 - 200						
13C2-6:2-FTS	126		50 - 200						
13C2-8:2-FTS	111		50 - 200						

Lab Sample ID: 380-125404-E-19-A MSD
Matrix: Water
Analysis Batch: 123148

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 123007

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	58.5		ng/L		97	70 - 130	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.4	55.6		ng/L		92	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	59.1		ng/L		98	70 - 130	3	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.4	59.6		ng/L		99	70 - 130	4	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	57.5		ng/L		95	70 - 130	1	30
Perfluorodecanoic acid (PFDA)	<2.0		60.4	60.0		ng/L		99	70 - 130	3	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	57.9		ng/L		96	70 - 130	4	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	60.0		ng/L		99	70 - 130	4	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.4	59.9		ng/L		99	70 - 130	4	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	58.8		ng/L		97	70 - 130	1	30
Perfluorononanoic acid (PFNA)	<2.0		60.4	57.9		ng/L		96	70 - 130	4	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.4	58.2		ng/L		96	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	<2.0		60.4	58.0		ng/L		96	70 - 130	1	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	59.4		ng/L		98	70 - 130	4	30
Perfluorobutanoic acid (PFBA)	5.4		60.4	64.0		ng/L		97	70 - 130	0	30

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QC Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Lab Sample ID: 380-125404-E-19-A MSD
Matrix: Water
Analysis Batch: 123148

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 123007

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	58.4		ng/L		97	70 - 130	4	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	63.9		ng/L		106	70 - 130	9	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	62.4		ng/L		103	70 - 130	6	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	56.8		ng/L		94	70 - 130	4	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.4	54.9		ng/L		91	70 - 130	4	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	56.3		ng/L		93	70 - 130	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	58.1		ng/L		96	70 - 130	1	30
Perfluoropentanoic acid (PFPeA)	3.6		60.4	65.9		ng/L		103	70 - 130	3	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	59.7		ng/L		99	70 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	57.8		ng/L		96	70 - 130	3	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	MSD Limits
13C3 HFPO-DA	88		50 - 200
13C6 PFDA	99		50 - 200
13C5 PFHxA	96		50 - 200
13C4 PFHpA	96		50 - 200
13C8 PFOA	101		50 - 200
13C9 PFNA	100		50 - 200
13C7 PFUnA	103		50 - 200
13C2 PFDoA	103		50 - 200
13C4 PFBA	93		50 - 200
13C5 PFPeA	90		50 - 200
13C3 PFBS	112		50 - 200
13C3 PFHxS	111		50 - 200
13C8 PFOS	110		50 - 200
13C2-4:2-FTS	125		50 - 200
13C2-6:2-FTS	124		50 - 200
13C2-8:2-FTS	113		50 - 200

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

Lab Sample ID: MBL 380-122455/20-A
Matrix: Water
Analysis Batch: 122593

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122455

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		12/06/24 13:57	12/07/24 16:19	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		12/06/24 13:57	12/07/24 16:19	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		12/06/24 13:57	12/07/24 16:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		12/06/24 13:57	12/07/24 16:19	1

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Lab Sample ID: MBL 380-122455/20-A
Matrix: Water
Analysis Batch: 122593

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 122455

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		12/06/24 13:57	12/07/24 16:19	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		12/06/24 13:57	12/07/24 16:19	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		12/06/24 13:57	12/07/24 16:19	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		12/06/24 13:57	12/07/24 16:19	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		12/06/24 13:57	12/07/24 16:19	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		12/06/24 13:57	12/07/24 16:19	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		12/06/24 13:57	12/07/24 16:19	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		12/06/24 13:57	12/07/24 16:19	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		12/06/24 13:57	12/07/24 16:19	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		12/06/24 13:57	12/07/24 16:19	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		12/06/24 13:57	12/07/24 16:19	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		12/06/24 13:57	12/07/24 16:19	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		12/06/24 13:57	12/07/24 16:19	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		12/06/24 13:57	12/07/24 16:19	1
Surrogate	MBL %Recovery	MBL Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	108		70 - 130			12/06/24 13:57	12/07/24 16:19	1
13C2 PFHxA	102		70 - 130			12/06/24 13:57	12/07/24 16:19	1
13C2 PFDA	101		70 - 130			12/06/24 13:57	12/07/24 16:19	1
13C3-GenX	93		70 - 130			12/06/24 13:57	12/07/24 16:19	1

Lab Sample ID: LCS 380-122455/22-A
Matrix: Water
Analysis Batch: 122593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122455

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	25.1	24.4		ng/L		98	70 - 130
Perfluorooctanesulfonic acid (PFOS)	25.1	28.3		ng/L		113	70 - 130
Perfluoroundecanoic acid (PFUnA)	25.1	28.5		ng/L		114	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.1	27.5		ng/L		110	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.1	26.8		ng/L		107	70 - 130
Perfluorohexanoic acid (PFHxA)	25.1	26.5		ng/L		106	70 - 130
Perfluorododecanoic acid (PFDoA)	25.1	26.2		ng/L		104	70 - 130
Perfluorooctanoic acid (PFOA)	25.1	27.9		ng/L		111	70 - 130
Perfluorodecanoic acid (PFDA)	25.1	28.1		ng/L		112	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	25.1	29.4		ng/L		118	70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.1	28.8		ng/L		115	70 - 130
Perfluoroheptanoic acid (PFHpA)	25.1	27.3		ng/L		109	70 - 130
Perfluorononanoic acid (PFNA)	25.1	27.9		ng/L		111	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Lab Sample ID: LCS 380-122455/22-A
Matrix: Water
Analysis Batch: 122593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122455

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorotetradecanoic acid (PFTA)	25.1	25.3		ng/L		101	70 - 130
Perfluorotridecanoic acid (PFTrDA)	25.1	25.8		ng/L		103	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	25.1	28.4		ng/L		113	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	25.1	26.8		ng/L		107	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.1	24.6		ng/L		98	70 - 130
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
d5-NEtFOSAA	100		70 - 130				
13C2 PFHxA	106		70 - 130				
13C2 PFDA	107		70 - 130				
13C3-GenX	102		70 - 130				

Lab Sample ID: MRL 380-122455/21-A
Matrix: Water
Analysis Batch: 122593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122455

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.02	J	ng/L		101	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.32	J	ng/L		116	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.33	J	ng/L		116	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.17	J	ng/L		108	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.22	J	ng/L		111	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.27	J	ng/L		114	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.14	J	ng/L		107	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.33	J	ng/L		116	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.31	J	ng/L		115	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.37	J	ng/L		118	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.27	J	ng/L		113	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.30	J	ng/L		115	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.43	J	ng/L		121	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.00	2.32	J	ng/L		116	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.00	2.14	J	ng/L		107	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.35	J	ng/L		117	50 - 150

QC Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Lab Sample ID: MRL 380-122455/21-A
Matrix: Water
Analysis Batch: 122593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 122455

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.07	J	ng/L		103	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.09	J	ng/L		104	50 - 150
	<i>MRL</i>	<i>MRL</i>					
Surrogate	%Recovery	MRL Qualifier	Limits				
<i>d5-NEtFOSAA</i>	107		70 - 130				
<i>13C2 PFHxA</i>	114		70 - 130				
<i>13C2 PFDA</i>	109		70 - 130				
<i>13C3-GenX</i>	104		70 - 130				

Lab Sample ID: 380-125052-B-5-A MS
Matrix: Water
Analysis Batch: 122593

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 122455

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		50.2	47.9		ng/L		95	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		50.2	56.3		ng/L		109	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		50.2	51.9		ng/L		103	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.2	51.2		ng/L		102	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		50.2	52.8		ng/L		105	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		50.2	51.2		ng/L		100	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		50.2	49.8		ng/L		99	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		50.2	55.5		ng/L		109	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		50.2	50.9		ng/L		101	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		50.2	58.2		ng/L		113	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.2	57.5		ng/L		113	70 - 130
Perfluoroheptanoic acid (PFHpA)	2.0		50.2	52.3		ng/L		103	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		50.2	52.2		ng/L		104	70 - 130
Perfluorotetradecanoic acid (PFTA)	<2.0		50.2	47.0		ng/L		94	70 - 130
Perfluorotridecanoic acid (PFTrDA)	<2.0		50.2	47.9		ng/L		95	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.2	54.9		ng/L		109	70 - 130
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		50.2	50.8		ng/L		101	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.2	48.3		ng/L		96	70 - 130

QC Sample Results

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

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

Lab Sample ID: 380-125052-B-5-A MS
Matrix: Water
Analysis Batch: 122593

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 122455

<i>Surrogate</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
d5-NEtFOSAA	103		70 - 130
13C2 PFHxA	106		70 - 130
13C2 PFDA	104		70 - 130
13C3-GenX	101		70 - 130

Lab Sample ID: 380-125052-C-5-A MSD
Matrix: Water
Analysis Batch: 122593

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 122455

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		50.2	48.3		ng/L		96	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		50.2	57.7		ng/L		112	70 - 130	2	30
Perfluoroundecanoic acid (PFUnA)	<2.0		50.2	53.2		ng/L		106	70 - 130	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.2	51.0		ng/L		102	70 - 130	0	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		50.2	50.9		ng/L		101	70 - 130	4	30
Perfluorohexanoic acid (PFHxA)	<2.0		50.2	53.5		ng/L		105	70 - 130	4	30
Perfluorododecanoic acid (PFDoA)	<2.0		50.2	50.3		ng/L		100	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	<2.0		50.2	57.1		ng/L		112	70 - 130	3	30
Perfluorodecanoic acid (PFDA)	<2.0		50.2	53.8		ng/L		107	70 - 130	6	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		50.2	59.6		ng/L		116	70 - 130	3	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.2	57.4		ng/L		113	70 - 130	0	30
Perfluoroheptanoic acid (PFHpA)	<2.0		50.2	54.0		ng/L		106	70 - 130	3	30
Perfluorononanoic acid (PFNA)	<2.0		50.2	54.0		ng/L		108	70 - 130	3	30
Perfluorotetradecanoic acid (PFTA)	<2.0		50.2	47.9		ng/L		95	70 - 130	2	30
Perfluorotridecanoic acid (PFTrDA)	<2.0		50.2	48.1		ng/L		96	70 - 130	1	30
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.2	56.8		ng/L		113	70 - 130	3	30
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		50.2	53.1		ng/L		106	70 - 130	4	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.2	49.6		ng/L		99	70 - 130	3	30

<i>Surrogate</i>	<i>%Recovery</i>	<i>MSD MSD Qualifier</i>	<i>Limits</i>
d5-NEtFOSAA	102		70 - 130
13C2 PFHxA	111		70 - 130
13C2 PFDA	100		70 - 130
13C3-GenX	103		70 - 130

QC Association Summary

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

LCMS

Prep Batch: 122455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-125047-1	Waipahu Wells III Pump #3	Total/NA	Water	537.1 DW	
380-125047-2	Waipahu Wells III Pump #4	Total/NA	Water	537.1 DW	
380-125047-3	Kaamilo Pump #1	Total/NA	Water	537.1 DW	
380-125047-4	FB: Waipahu Wells III Pump #3	Total/NA	Water	537.1 DW	
380-125047-5	FB: Waipahu Wells III Pump #4	Total/NA	Water	537.1 DW	
380-125047-6	FB: Kaamilo Pump #1	Total/NA	Water	537.1 DW	
MBL 380-122455/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-122455/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-122455/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-125052-B-5-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-125052-C-5-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 122593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-125047-1	Waipahu Wells III Pump #3	Total/NA	Water	537.1	122455
380-125047-2	Waipahu Wells III Pump #4	Total/NA	Water	537.1	122455
380-125047-3	Kaamilo Pump #1	Total/NA	Water	537.1	122455
380-125047-4	FB: Waipahu Wells III Pump #3	Total/NA	Water	537.1	122455
380-125047-5	FB: Waipahu Wells III Pump #4	Total/NA	Water	537.1	122455
380-125047-6	FB: Kaamilo Pump #1	Total/NA	Water	537.1	122455
MBL 380-122455/20-A	Method Blank	Total/NA	Water	537.1	122455
LCS 380-122455/22-A	Lab Control Sample	Total/NA	Water	537.1	122455
MRL 380-122455/21-A	Lab Control Sample	Total/NA	Water	537.1	122455
380-125052-B-5-A MS	Matrix Spike	Total/NA	Water	537.1	122455
380-125052-C-5-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1	122455

Prep Batch: 122704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-125047-6	FB: Kaamilo Pump #1	Total/NA	Water	533	
MBL 380-122704/16-A	Method Blank	Total/NA	Water	533	
LCS 380-122704/18-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-122704/17-A	Lab Control Sample	Total/NA	Water	533	
380-125045-B-1-A MS	Matrix Spike	Total/NA	Water	533	
380-125045-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 122816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-125047-6	FB: Kaamilo Pump #1	Total/NA	Water	533	122704
MBL 380-122704/16-A	Method Blank	Total/NA	Water	533	122704
LCS 380-122704/18-A	Lab Control Sample	Total/NA	Water	533	122704
MRL 380-122704/17-A	Lab Control Sample	Total/NA	Water	533	122704
380-125045-B-1-A MS	Matrix Spike	Total/NA	Water	533	122704
380-125045-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	122704

Prep Batch: 123007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-125047-1	Waipahu Wells III Pump #3	Total/NA	Water	533	
380-125047-2	Waipahu Wells III Pump #4	Total/NA	Water	533	
380-125047-3	Kaamilo Pump #1	Total/NA	Water	533	
MBL 380-123007/16-A	Method Blank	Total/NA	Water	533	
LCS 380-123007/18-A	Lab Control Sample	Total/NA	Water	533	

QC Association Summary

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

LCMS (Continued)

Prep Batch: 123007 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 380-123007/17-A	Lab Control Sample	Total/NA	Water	533	
380-125404-D-19-A MS	Matrix Spike	Total/NA	Water	533	
380-125404-E-19-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 123148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-125047-1	Waipahu Wells III Pump #3	Total/NA	Water	533	123007
380-125047-2	Waipahu Wells III Pump #4	Total/NA	Water	533	123007
380-125047-3	Kaamilo Pump #1	Total/NA	Water	533	123007
MBL 380-123007/16-A	Method Blank	Total/NA	Water	533	123007
LCS 380-123007/18-A	Lab Control Sample	Total/NA	Water	533	123007
MRL 380-123007/17-A	Lab Control Sample	Total/NA	Water	533	123007
380-125404-D-19-A MS	Matrix Spike	Total/NA	Water	533	123007
380-125404-E-19-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	123007

Lab Chronicle

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

Client Sample ID: Waipahu Wells III Pump #3

Lab Sample ID: 380-125047-1

Date Collected: 12/03/24 11:04

Matrix: Water

Date Received: 12/05/24 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			123007	HM3M	EA POM	12/10/24 14:42
Total/NA	Analysis	533		1	123148	SZ9R	EA POM	12/11/24 10:17
Total/NA	Prep	537.1 DW			122455	N8NE	EA POM	12/06/24 13:57
Total/NA	Analysis	537.1		1	122593	M7ML	EA POM	12/07/24 17:34

Client Sample ID: Waipahu Wells III Pump #4

Lab Sample ID: 380-125047-2

Date Collected: 12/03/24 11:17

Matrix: Water

Date Received: 12/05/24 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			123007	HM3M	EA POM	12/10/24 14:42
Total/NA	Analysis	533		1	123148	SZ9R	EA POM	12/11/24 10:27
Total/NA	Prep	537.1 DW			122455	N8NE	EA POM	12/06/24 13:57
Total/NA	Analysis	537.1		1	122593	M7ML	EA POM	12/07/24 17:45

Client Sample ID: Kaamilo Pump #1

Lab Sample ID: 380-125047-3

Date Collected: 12/03/24 10:16

Matrix: Water

Date Received: 12/05/24 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			123007	HM3M	EA POM	12/10/24 14:42
Total/NA	Analysis	533		1	123148	SZ9R	EA POM	12/11/24 10:36
Total/NA	Prep	537.1 DW			122455	N8NE	EA POM	12/06/24 13:57
Total/NA	Analysis	537.1		1	122593	M7ML	EA POM	12/07/24 17:56

Client Sample ID: FB: Waipahu Wells III Pump #3

Lab Sample ID: 380-125047-4

Date Collected: 12/03/24 11:04

Matrix: Water

Date Received: 12/05/24 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	537.1 DW			122455	N8NE	EA POM	12/06/24 13:57
Total/NA	Analysis	537.1		1	122593	M7ML	EA POM	12/07/24 18:07

Client Sample ID: FB: Waipahu Wells III Pump #4

Lab Sample ID: 380-125047-5

Date Collected: 12/03/24 11:17

Matrix: Water

Date Received: 12/05/24 10:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	537.1 DW			122455	N8NE	EA POM	12/06/24 13:57
Total/NA	Analysis	537.1		1	122593	M7ML	EA POM	12/07/24 18:17

Lab Chronicle

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

Client Sample ID: FB: Kaamilo Pump #1

Lab Sample ID: 380-125047-6

Date Collected: 12/03/24 10:16

Matrix: Water

Date Received: 12/05/24 10:01

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Prep	533			122704	XTD8	EA POM	12/09/24 04:27
Total/NA	Analysis	533		1	122816	SZ9R	EA POM	12/10/24 02:26
Total/NA	Prep	537.1 DW			122455	N8NE	EA POM	12/06/24 13:57
Total/NA	Analysis	537.1		1	122593	M7ML	EA POM	12/07/24 18:28

Laboratory References:

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



Accreditation/Certification Summary

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

Laboratory: Eurofins Eaton Analytical Pomona

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

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-31-25

- 1
- 2
- 3
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Method Summary

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

Method	Method Description	Protocol	Laboratory
533	Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water	EPA	EA POM
537.1	Perfluorinated Alkyl Acids (LC/MS)	EPA	EA POM
533	Extraction of Perfluorinated and Polyfluorinated Alkyl Acids	EPA	EA POM
537.1 DW	Extraction of Perfluorinated Alkyl Acids	EPA	EA POM

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

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



Sample Summary

Client: City & County of Honolulu
Project/Site: SPECIAL

Job ID: 380-125047-1
SDG: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-125047-1	Waipahu Wells III Pump #3	Water	12/03/24 11:04	12/05/24 10:01
380-125047-2	Waipahu Wells III Pump #4	Water	12/03/24 11:17	12/05/24 10:01
380-125047-3	Kaamilo Pump #1	Water	12/03/24 10:16	12/05/24 10:01
380-125047-4	FB: Waipahu Wells III Pump #3	Water	12/03/24 11:04	12/05/24 10:01
380-125047-5	FB: Waipahu Wells III Pump #4	Water	12/03/24 11:17	12/05/24 10:01
380-125047-6	FB: Kaamilo Pump #1	Water	12/03/24 10:16	12/05/24 10:01

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



Environment Testing
 America

Chain of Custody Record

Client Information		Sampler BAILEY		Lab PM Arada Rachelle		Carrier Tracking Note(s)		COC No:	
Client Contact Dr Ron Fenstermacher		Phone: 808-748-5840		E-Mail: Rachelle.Arada@et.euronisus.com		State of Origin		Page Page 1 of 1	
Company City & County of Honolulu		PWSID*		Analysis Requested		Total Number of Containers		Job #:	
Address: 630 South Beretania Street, Chemistry Lab Honolulu State, Zip: HI 96843		Due Date Requested:		TAT Requested (days): Standard		533 All Analyses		Preservation Codes	
Phone: 808-748-5091 (tel)		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		PO #: C20525101 exp 05312023		Field Filtered Sample (Yes or No)		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
Email: rfenstermacher@hbws.org		Project #: 38000519		WO #:		Perform MS/MSD (Yes or No)		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - NH4 Acetate J - DI Water K - EDTA L - EDA Other	
Project Name: SPECIAL		SSOW#:		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Site: Hawaii		Matrix (Water, Solid, On-water, Air)		Sample Code:		537 1 DW-REC 637 1 Full List		Special Instructions/Note:	
Sample Identification		Sample Date		Sample Time		Sample Type		Preservation Code:	
Waipahu Wells III Pump #3		3-Dec-2024		1104		G		Water	
Waipahu Wells III Pump #4		3-Dec-2024		117		G		Water	
Kaamilo Pump #1		3-Dec-2024		1016		G		Water	
FB. Waipahu Wells III Pump #3		3-Dec-2024		1104				1 1	
FB. Waipahu Wells III Pump #4		3-Dec-2024		1117				1 1	
FB. Kaamilo Pump #1		3-Dec-2024		1016				1 1	
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		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/OC Requirements	
Deliverable Requested I II III IV Other (specify)		Empty Kit Relinquished by		Date		Method of Shipment: FAX-3704 9213 5000		Company	
Relinquished by		Date/Time: 21 December 2024 1400		Date/Time: 12/05/24 10:01		Date/Time: 12/05/24 10:01		Company	
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Custody Seal No.		Cooler Temperature(s) °C and Other Remarks: (-57N) 0.9-0.0-0.9		PEAL-FROZEN		Ver 01/16/2019	



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-125047-1

SDG Number: PFAS - Waipahu Wells III P3/P4 / Kaamilo P1

Login Number: 125047

List Number: 1

Creator: Edrosa, Rey

List Source: Eurofins Eaton Analytical 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	