



ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

SPECIAL
PFAS - Moanalua Wells Pump 1

JOB NUMBER

380-163191-1

Eurofins Eaton Analytical Pomona

Job Notes

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

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



Authorized for release by
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Definitions/Glossary

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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: 380-163191-1

Job ID: 380-163191-1

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Job Narrative 380-163191-1

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

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

Receipt

The samples were received on 7/29/2025 9:56 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 1.2°C.

PFAS

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

Detection Summary

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

Client Sample ID: Moanalua Wells Pump 1

Lab Sample ID: 380-163191-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	2.3		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.1		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: FB-Moanalua Wells Pump 1

Lab Sample ID: 380-163191-2

No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

Client Sample ID: Moanalua Wells Pump 1

Lab Sample ID: 380-163191-1

Date Collected: 07/25/25 09:47

Matrix: Drinking Water

Date Received: 07/29/25 09:56

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11CI-PF3OUdS)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9CI-PF3ONS)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Perfluorooctanesulfonic acid (PFOS)	2.3		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		08/01/25 06:39	08/01/25 19:05	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	99		50 - 200	08/01/25 06:39	08/01/25 19:05	1
13C6 PFDA	100		50 - 200	08/01/25 06:39	08/01/25 19:05	1
13C5 PFHxA	103		50 - 200	08/01/25 06:39	08/01/25 19:05	1
13C4 PFHpA	101		50 - 200	08/01/25 06:39	08/01/25 19:05	1
13C8 PFOA	101		50 - 200	08/01/25 06:39	08/01/25 19:05	1
13C9 PFNA	103		50 - 200	08/01/25 06:39	08/01/25 19:05	1
13C7 PFUnA	100		50 - 200	08/01/25 06:39	08/01/25 19:05	1
13C2 PFDoA	98		50 - 200	08/01/25 06:39	08/01/25 19:05	1
13C4 PFBA	102		50 - 200	08/01/25 06:39	08/01/25 19:05	1
13C5 PFPeA	101		50 - 200	08/01/25 06:39	08/01/25 19:05	1
13C3 PFBS	99		50 - 200	08/01/25 06:39	08/01/25 19:05	1
13C3 PFHxS	102		50 - 200	08/01/25 06:39	08/01/25 19:05	1
13C8 PFOS	99		50 - 200	08/01/25 06:39	08/01/25 19:05	1

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Client Sample Results

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

Client Sample ID: Moanalua Wells Pump 1

Lab Sample ID: 380-163191-1

Date Collected: 07/25/25 09:47

Matrix: Drinking Water

Date Received: 07/29/25 09:56

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	109		50 - 200	08/01/25 06:39	08/01/25 19:05	1
13C2-6:2-FTS	107		50 - 200	08/01/25 06:39	08/01/25 19:05	1
13C2-8:2-FTS	104		50 - 200	08/01/25 06:39	08/01/25 19:05	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		07/30/25 03:05	07/30/25 21:11	1
Perfluorooctanesulfonic acid (PFOS)	2.1		2.0	ng/L		07/30/25 03:05	07/30/25 21:11	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		07/30/25 03:05	07/30/25 21:11	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		07/30/25 03:05	07/30/25 21:11	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		07/30/25 03:05	07/30/25 21:11	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		07/30/25 03:05	07/30/25 21:11	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		07/30/25 03:05	07/30/25 21:11	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		07/30/25 03:05	07/30/25 21:11	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		07/30/25 03:05	07/30/25 21:11	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		07/30/25 03:05	07/30/25 21:11	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		07/30/25 03:05	07/30/25 21:11	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		07/30/25 03:05	07/30/25 21:11	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		07/30/25 03:05	07/30/25 21:11	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		07/30/25 03:05	07/30/25 21:11	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		07/30/25 03:05	07/30/25 21:11	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		07/30/25 03:05	07/30/25 21:11	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		07/30/25 03:05	07/30/25 21:11	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		07/30/25 03:05	07/30/25 21:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	96		70 - 130			07/30/25 03:05	07/30/25 21:11	1
13C2 PFHxA	108		70 - 130			07/30/25 03:05	07/30/25 21:11	1
13C2 PFDA	109		70 - 130			07/30/25 03:05	07/30/25 21:11	1
13C3-GenX	114		70 - 130			07/30/25 03:05	07/30/25 21:11	1

Client Sample ID: FB-Moanalua Wells Pump 1

Lab Sample ID: 380-163191-2

Date Collected: 07/25/25 09:47

Matrix: Drinking Water

Date Received: 07/29/25 09:56

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		07/30/25 17:53	07/31/25 13:45	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1

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Client Sample Results

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

Client Sample ID: FB-Moanalua Wells Pump 1

Lab Sample ID: 380-163191-2

Date Collected: 07/25/25 09:47

Matrix: Drinking Water

Date Received: 07/29/25 09:56

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		07/30/25 17:53	07/31/25 13:45	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	69		50 - 200	07/30/25 17:53	07/31/25 13:45	1
13C6 PFDA	89		50 - 200	07/30/25 17:53	07/31/25 13:45	1
13C5 PFHxA	85		50 - 200	07/30/25 17:53	07/31/25 13:45	1
13C4 PFHpA	86		50 - 200	07/30/25 17:53	07/31/25 13:45	1
13C8 PFOA	87		50 - 200	07/30/25 17:53	07/31/25 13:45	1
13C9 PFNA	92		50 - 200	07/30/25 17:53	07/31/25 13:45	1
13C7 PFUnA	92		50 - 200	07/30/25 17:53	07/31/25 13:45	1
13C2 PFDoA	91		50 - 200	07/30/25 17:53	07/31/25 13:45	1
13C4 PFBA	86		50 - 200	07/30/25 17:53	07/31/25 13:45	1
13C5 PFPeA	85		50 - 200	07/30/25 17:53	07/31/25 13:45	1
13C3 PFBS	105		50 - 200	07/30/25 17:53	07/31/25 13:45	1
13C3 PFHxS	111		50 - 200	07/30/25 17:53	07/31/25 13:45	1
13C8 PFOS	103		50 - 200	07/30/25 17:53	07/31/25 13:45	1
13C2-4:2-FTS	118		50 - 200	07/30/25 17:53	07/31/25 13:45	1
13C2-6:2-FTS	104		50 - 200	07/30/25 17:53	07/31/25 13:45	1
13C2-8:2-FTS	103		50 - 200	07/30/25 17:53	07/31/25 13:45	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		07/30/25 03:05	07/31/25 00:18	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		07/30/25 03:05	07/31/25 00:18	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

Client Sample ID: FB-Moanalua Wells Pump 1

Lab Sample ID: 380-163191-2

Date Collected: 07/25/25 09:47

Matrix: Drinking Water

Date Received: 07/29/25 09:56

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		07/30/25 03:05	07/31/25 00:18	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		07/30/25 03:05	07/31/25 00:18	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		07/30/25 03:05	07/31/25 00:18	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		07/30/25 03:05	07/31/25 00:18	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		07/30/25 03:05	07/31/25 00:18	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		07/30/25 03:05	07/31/25 00:18	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		07/30/25 03:05	07/31/25 00:18	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		07/30/25 03:05	07/31/25 00:18	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		07/30/25 03:05	07/31/25 00:18	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		07/30/25 03:05	07/31/25 00:18	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		07/30/25 03:05	07/31/25 00:18	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		07/30/25 03:05	07/31/25 00:18	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		07/30/25 03:05	07/31/25 00:18	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		07/30/25 03:05	07/31/25 00:18	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		07/30/25 03:05	07/31/25 00:18	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		07/30/25 03:05	07/31/25 00:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	109		70 - 130			07/30/25 03:05	07/31/25 00:18	1
13C2 PFHxA	116		70 - 130			07/30/25 03:05	07/31/25 00:18	1
13C2 PFDA	119		70 - 130			07/30/25 03:05	07/31/25 00:18	1
13C3-GenX	123		70 - 130			07/30/25 03:05	07/31/25 00:18	1

Surrogate Summary

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-163191-1	Moanalua Wells Pump 1	96	108	109	114
380-163191-1 MS	Moanalua Wells Pump 1	94	100	102	107
380-163191-1 MSD	Moanalua Wells Pump 1	94	104	106	115
380-163191-2	FB-Moanalua Wells Pump 1	109	116	119	123
LCS 380-165810/22-A	Lab Control Sample	95	108	111	108
MBL 380-165810/20-A	Method Blank	98	111	115	116
MRL 380-165810/21-A	Lab Control Sample	104	109	114	113

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: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Matrix: Drinking Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDaA (50-200)
380-162802-B-1-A MS	Matrix Spike	105	108	106	107	108	106	104	104
380-162802-C-1-A MSD	Matrix Spike Duplicate	108	107	108	104	107	107	111	106
380-163191-1	Moanalua Wells Pump 1	99	100	103	101	101	103	100	98
380-163191-2	FB-Moanalua Wells Pump 1	69	89	85	86	87	92	92	91
380-163679-G-1-A MS	Matrix Spike	100	108	102	101	101	111	108	111
380-163679-H-1-A MSD	Matrix Spike Duplicate	95	102	99	98	97	103	105	104
LCS 380-165949/22-A	Lab Control Sample	87	104	105	105	105	108	106	106
LCS 380-166297/22-A	Lab Control Sample	102	104	108	107	106	108	104	108
MBL 380-165949/20-A	Method Blank	85	100	101	98	104	106	104	105
MBL 380-166297/20-A	Method Blank	89	98	102	104	94	101	98	99
MRL 380-165949/21-A	Lab Control Sample	91	111	109	106	109	107	110	108
MRL 380-166297/21-A	Lab Control Sample	92	103	101	104	101	106	98	102

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)
380-162802-B-1-A MS	Matrix Spike	102	112	107	113	103	116	105	101
380-162802-C-1-A MSD	Matrix Spike Duplicate	106	114	111	116	105	121	111	108
380-163191-1	Moanalua Wells Pump 1	102	101	99	102	99	109	107	104
380-163191-2	FB-Moanalua Wells Pump 1	86	85	105	111	103	118	104	103
380-163679-G-1-A MS	Matrix Spike	98	112	95	101	100	109	110	117
380-163679-H-1-A MSD	Matrix Spike Duplicate	99	112	97	105	101	107	117	122
LCS 380-165949/22-A	Lab Control Sample	105	98	107	110	105	112	109	108
LCS 380-166297/22-A	Lab Control Sample	101	108	101	105	100	102	101	104
MBL 380-165949/20-A	Method Blank	103	100	108	111	102	114	108	105
MBL 380-166297/20-A	Method Blank	100	94	98	101	97	109	102	100
MRL 380-165949/21-A	Lab Control Sample	103	99	110	116	106	112	110	109
MRL 380-166297/21-A	Lab Control Sample	95	98	103	105	104	110	103	106

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: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Lab Sample ID: MBL 380-165949/20-A

Matrix: Drinking Water

Analysis Batch: 166078

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 165949

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.0		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		07/30/25 17:53	07/31/25 09:49	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	85		50 - 200	07/30/25 17:53	07/31/25 09:49	1
13C6 PFDA	100		50 - 200	07/30/25 17:53	07/31/25 09:49	1
13C5 PFHxA	101		50 - 200	07/30/25 17:53	07/31/25 09:49	1
13C4 PFHpA	98		50 - 200	07/30/25 17:53	07/31/25 09:49	1
13C8 PFOA	104		50 - 200	07/30/25 17:53	07/31/25 09:49	1
13C9 PFNA	106		50 - 200	07/30/25 17:53	07/31/25 09:49	1
13C7 PFUnA	104		50 - 200	07/30/25 17:53	07/31/25 09:49	1
13C2 PFDoA	105		50 - 200	07/30/25 17:53	07/31/25 09:49	1
13C4 PFBA	103		50 - 200	07/30/25 17:53	07/31/25 09:49	1
13C5 PFPeA	100		50 - 200	07/30/25 17:53	07/31/25 09:49	1
13C3 PFBS	108		50 - 200	07/30/25 17:53	07/31/25 09:49	1
13C3 PFHxS	111		50 - 200	07/30/25 17:53	07/31/25 09:49	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Lab Sample ID: MBL 380-165949/20-A

Matrix: Drinking Water

Analysis Batch: 166078

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 165949

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	102		50 - 200	07/30/25 17:53	07/31/25 09:49	1
13C2-4:2-FTS	114		50 - 200	07/30/25 17:53	07/31/25 09:49	1
13C2-6:2-FTS	108		50 - 200	07/30/25 17:53	07/31/25 09:49	1
13C2-8:2-FTS	105		50 - 200	07/30/25 17:53	07/31/25 09:49	1

Lab Sample ID: LCS 380-165949/22-A

Matrix: Drinking Water

Analysis Batch: 166078

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 165949

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.1	59.2		ng/L		98	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	60.1	62.4		ng/L		104	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.1	60.7		ng/L		101	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	60.1	57.0		ng/L		95	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.1	55.9		ng/L		93	70 - 130
Perfluorodecanoic acid (PFDA)	60.1	61.9		ng/L		103	70 - 130
Perfluorododecanoic acid (PFDoA)	60.1	58.3		ng/L		97	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.1	58.0		ng/L		97	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.1	56.2		ng/L		93	70 - 130
Perfluorohexanoic acid (PFHxA)	60.1	58.2		ng/L		97	70 - 130
Perfluorononanoic acid (PFNA)	60.1	56.6		ng/L		94	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.1	60.2		ng/L		100	70 - 130
Perfluorooctanoic acid (PFOA)	60.1	57.7		ng/L		96	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.1	59.8		ng/L		100	70 - 130
Perfluorobutanoic acid (PFBA)	60.1	58.1		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.1	57.5		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.1	57.8		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.1	59.5		ng/L		99	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.1	61.0		ng/L		101	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	60.1	57.9		ng/L		96	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.1	58.3		ng/L		97	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.1	60.1		ng/L		100	70 - 130
Perfluoropentanoic acid (PFPeA)	60.1	65.2		ng/L		109	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.1	58.3		ng/L		97	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Lab Sample ID: LCS 380-165949/22-A

Matrix: Drinking Water

Analysis Batch: 166078

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 165949

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	60.1	55.2		ng/L		92	70 - 130
	LCS	LCS					
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	87		50 - 200				
13C6 PFDA	104		50 - 200				
13C5 PFHxA	105		50 - 200				
13C4 PFHpA	105		50 - 200				
13C8 PFOA	105		50 - 200				
13C9 PFNA	108		50 - 200				
13C7 PFUnA	106		50 - 200				
13C2 PFDoA	106		50 - 200				
13C4 PFBA	105		50 - 200				
13C5 PFPeA	98		50 - 200				
13C3 PFBS	107		50 - 200				
13C3 PFHxS	110		50 - 200				
13C8 PFOS	105		50 - 200				
13C2-4:2-FTS	112		50 - 200				
13C2-6:2-FTS	109		50 - 200				
13C2-8:2-FTS	108		50 - 200				

Lab Sample ID: MRL 380-165949/21-A

Matrix: Drinking Water

Analysis Batch: 166078

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 165949

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.02	J	ng/L		101	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	2.00	2.01	J	ng/L		100	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.01	J	ng/L		101	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	2.00	1.89	J	ng/L		94	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	1.98	J	ng/L		99	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.01	J	ng/L		100	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.08	J	ng/L		104	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.11	J	ng/L		105	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	1.94	J	ng/L		97	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.01	J	ng/L		100	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.12	J	ng/L		106	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.16	J	ng/L		108	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.06	J	ng/L		103	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.01	J	ng/L		100	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	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: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Lab Sample ID: MRL 380-165949/21-A

Matrix: Drinking Water

Analysis Batch: 166078

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 165949

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	2.02	J	ng/L		101	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	2.19	J	ng/L		109	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	2.10	J	ng/L		105	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	2.14	J	ng/L		107	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	2.00	2.02	J	ng/L		101	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	2.08	J	ng/L		104	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	2.10	J	ng/L		105	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	2.28	J	ng/L		114	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	2.08	J	ng/L		104	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	1.86	J	ng/L		93	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	91		50 - 200
13C6 PFDA	111		50 - 200
13C5 PFHxA	109		50 - 200
13C4 PFHpA	106		50 - 200
13C8 PFOA	109		50 - 200
13C9 PFNA	107		50 - 200
13C7 PFUnA	110		50 - 200
13C2 PFDoA	108		50 - 200
13C4 PFBA	103		50 - 200
13C5 PFPeA	99		50 - 200
13C3 PFBS	110		50 - 200
13C3 PFHxS	116		50 - 200
13C8 PFOS	106		50 - 200
13C2-4:2-FTS	112		50 - 200
13C2-6:2-FTS	110		50 - 200
13C2-8:2-FTS	109		50 - 200

Lab Sample ID: 380-162802-B-1-A MS

Matrix: Drinking Water

Analysis Batch: 166078

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 165949

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	61.9		ng/L		102	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.5	62.4		ng/L		103	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.5	57.4		ng/L		95	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Lab Sample ID: 380-162802-B-1-A MS

Matrix: Drinking Water

Analysis Batch: 166078

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 165949

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		60.5	57.7		ng/L		95	70 - 130
Dimer Acid (HFPO-DA)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.5	57.1		ng/L		94	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.5	58.4		ng/L		97	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.5	61.0		ng/L		101	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.5	59.1		ng/L		97	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.5	56.7		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	2.9		60.5	57.6		ng/L		90	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.5	59.8		ng/L		99	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.5	61.1		ng/L		101	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.5	57.7		ng/L		95	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.5	60.4		ng/L		100	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.5	59.6		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.5	62.6		ng/L		104	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.5	59.1		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.5	60.5		ng/L		100	70 - 130
Nonafluoro-3,6-dioxahheptanoic acid (NFDHA)	<2.0		60.5	63.0		ng/L		104	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.5	60.0		ng/L		99	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.5	64.3		ng/L		106	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.5	57.7		ng/L		95	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.5	60.1		ng/L		99	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.5	59.5		ng/L		98	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.5	55.9		ng/L		92	70 - 130

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C3 HFPO-DA	105		50 - 200
13C6 PFDA	108		50 - 200
13C5 PFHxA	106		50 - 200
13C4 PFHpA	107		50 - 200
13C8 PFOA	108		50 - 200
13C9 PFNA	106		50 - 200
13C7 PFUnA	104		50 - 200
13C2 PFDoA	104		50 - 200
13C4 PFBA	102		50 - 200
13C5 PFPeA	112		50 - 200
13C3 PFBS	107		50 - 200
13C3 PFHxS	113		50 - 200
13C8 PFOS	103		50 - 200

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Lab Sample ID: 380-162802-B-1-A MS

Matrix: Drinking Water

Analysis Batch: 166078

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 165949

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C2-4:2-FTS	116		50 - 200
13C2-6:2-FTS	105		50 - 200
13C2-8:2-FTS	101		50 - 200

Lab Sample ID: 380-162802-C-1-A MSD

Matrix: Drinking Water

Analysis Batch: 166078

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 165949

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.5	62.4		ng/L		103	70 - 130	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		60.5	63.3		ng/L		105	70 - 130	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.5	59.8		ng/L		99	70 - 130	4	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<2.0		60.5	54.8		ng/L		91	70 - 130	5	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.5	56.0		ng/L		93	70 - 130	2	30
Perfluorodecanoic acid (PFDA)	<2.0		60.5	59.0		ng/L		98	70 - 130	1	30
Perfluorododecanoic acid (PFDaA)	<2.0		60.5	58.6		ng/L		97	70 - 130	4	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.5	59.9		ng/L		98	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.5	54.3		ng/L		90	70 - 130	4	30
Perfluorohexanoic acid (PFHxA)	2.9		60.5	56.1		ng/L		88	70 - 130	3	30
Perfluorononanoic acid (PFNA)	<2.0		60.5	58.6		ng/L		97	70 - 130	2	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.5	59.5		ng/L		98	70 - 130	3	30
Perfluorooctanoic acid (PFOA)	<2.0		60.5	57.9		ng/L		96	70 - 130	0	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.5	56.1		ng/L		93	70 - 130	7	30
Perfluorobutanoic acid (PFBA)	<2.0		60.5	57.4		ng/L		95	70 - 130	4	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.5	60.5		ng/L		100	70 - 130	3	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.5	56.2		ng/L		93	70 - 130	5	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.5	58.4		ng/L		97	70 - 130	3	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.5	60.4		ng/L		100	70 - 130	4	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		60.5	57.8		ng/L		95	70 - 130	4	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.5	59.9		ng/L		99	70 - 130	7	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.5	57.8		ng/L		96	70 - 130	0	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.5	58.2		ng/L		96	70 - 130	3	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.5	59.0		ng/L		98	70 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.5	54.0		ng/L		89	70 - 130	3	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C3 HFPO-DA	108		50 - 200
13C6 PFDA	107		50 - 200
13C5 PFHxA	108		50 - 200
13C4 PFHpA	104		50 - 200
13C8 PFOA	107		50 - 200
13C9 PFNA	107		50 - 200
13C7 PFUnA	111		50 - 200
13C2 PFDoA	106		50 - 200
13C4 PFBA	106		50 - 200
13C5 PFPeA	114		50 - 200
13C3 PFBS	111		50 - 200
13C3 PFHxS	116		50 - 200
13C8 PFOS	105		50 - 200
13C2-4:2-FTS	121		50 - 200
13C2-6:2-FTS	111		50 - 200
13C2-8:2-FTS	108		50 - 200

Lab Sample ID: MBL 380-166297/20-A
Matrix: Drinking Water
Analysis Batch: 166401

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 166297

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		08/01/25 06:39	08/01/25 16:57	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.0		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Lab Sample ID: MBL 380-166297/20-A

Matrix: Drinking Water

Analysis Batch: 166401

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 166297

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		08/01/25 06:39	08/01/25 16:57	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	89		50 - 200	08/01/25 06:39	08/01/25 16:57	1
13C6 PFDA	98		50 - 200	08/01/25 06:39	08/01/25 16:57	1
13C5 PFHxA	102		50 - 200	08/01/25 06:39	08/01/25 16:57	1
13C4 PFHpA	104		50 - 200	08/01/25 06:39	08/01/25 16:57	1
13C8 PFOA	94		50 - 200	08/01/25 06:39	08/01/25 16:57	1
13C9 PFNA	101		50 - 200	08/01/25 06:39	08/01/25 16:57	1
13C7 PFUnA	98		50 - 200	08/01/25 06:39	08/01/25 16:57	1
13C2 PFDoA	99		50 - 200	08/01/25 06:39	08/01/25 16:57	1
13C4 PFBA	100		50 - 200	08/01/25 06:39	08/01/25 16:57	1
13C5 PFPeA	94		50 - 200	08/01/25 06:39	08/01/25 16:57	1
13C3 PFBS	98		50 - 200	08/01/25 06:39	08/01/25 16:57	1
13C3 PFHxS	101		50 - 200	08/01/25 06:39	08/01/25 16:57	1
13C8 PFOS	97		50 - 200	08/01/25 06:39	08/01/25 16:57	1
13C2-4:2-FTS	109		50 - 200	08/01/25 06:39	08/01/25 16:57	1
13C2-6:2-FTS	102		50 - 200	08/01/25 06:39	08/01/25 16:57	1
13C2-8:2-FTS	100		50 - 200	08/01/25 06:39	08/01/25 16:57	1

Lab Sample ID: LCS 380-166297/22-A

Matrix: Drinking Water

Analysis Batch: 166401

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 166297

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.2	62.9		ng/L		104	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.2	62.0		ng/L		103	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.2	61.8		ng/L		103	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	60.2	58.2		ng/L		97	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.2	58.2		ng/L		97	70 - 130
Perfluorodecanoic acid (PFDA)	60.2	62.5		ng/L		104	70 - 130
Perfluorododecanoic acid (PFDoA)	60.2	60.5		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.2	63.2		ng/L		105	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.2	59.3		ng/L		98	70 - 130
Perfluorohexanoic acid (PFHxA)	60.2	60.6		ng/L		101	70 - 130
Perfluorononanoic acid (PFNA)	60.2	62.3		ng/L		103	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.2	63.7		ng/L		106	70 - 130
Perfluorooctanoic acid (PFOA)	60.2	59.0		ng/L		98	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Lab Sample ID: LCS 380-166297/22-A

Matrix: Drinking Water

Analysis Batch: 166401

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 166297

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	60.2	63.1		ng/L		105	70 - 130
Perfluorobutanoic acid (PFBA)	60.2	61.5		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.2	62.2		ng/L		103	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.2	66.4		ng/L		110	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.2	63.2		ng/L		105	70 - 130
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	60.2	64.2		ng/L		107	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	60.2	59.4		ng/L		99	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.2	64.2		ng/L		107	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.2	58.7		ng/L		98	70 - 130
Perfluoropentanoic acid (PFPeA)	60.2	62.8		ng/L		104	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.2	61.1		ng/L		101	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	60.2	61.4		ng/L		102	70 - 130

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	102		50 - 200
13C6 PFDA	104		50 - 200
13C5 PFHxA	108		50 - 200
13C4 PFHpA	107		50 - 200
13C8 PFOA	106		50 - 200
13C9 PFNA	108		50 - 200
13C7 PFUnA	104		50 - 200
13C2 PFDoA	108		50 - 200
13C4 PFBA	101		50 - 200
13C5 PFPeA	108		50 - 200
13C3 PFBS	101		50 - 200
13C3 PFHxS	105		50 - 200
13C8 PFOS	100		50 - 200
13C2-4:2-FTS	102		50 - 200
13C2-6:2-FTS	101		50 - 200
13C2-8:2-FTS	104		50 - 200

Lab Sample ID: MRL 380-166297/21-A

Matrix: Drinking Water

Analysis Batch: 166401

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 166297

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.07	J	ng/L		103	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: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Lab Sample ID: MRL 380-166297/21-A

Matrix: Drinking Water

Analysis Batch: 166401

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 166297

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.13	J	ng/L		106	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	2.00	2.02	J	ng/L		101	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.09	J	ng/L		104	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.24	J	ng/L		112	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.24	J	ng/L		112	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.30	J	ng/L		115	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.16	J	ng/L		108	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.26	J	ng/L		113	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.22	J	ng/L		111	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.28	J	ng/L		114	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.17	J	ng/L		108	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.28	J	ng/L		114	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	2.36	J	ng/L		118	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	2.32	J	ng/L		116	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	2.40	J	ng/L		120	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	2.34	J	ng/L		117	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	2.36	J	ng/L		118	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.00	2.12	J	ng/L		106	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	2.18	J	ng/L		109	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	2.11	J	ng/L		105	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	2.34	J	ng/L		117	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	2.27	J	ng/L		113	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	2.11	J	ng/L		105	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	Limits
13C3 HFPO-DA	92		50 - 200
13C6 PFDA	103		50 - 200
13C5 PFHxA	101		50 - 200
13C4 PFHpA	104		50 - 200
13C8 PFOA	101		50 - 200
13C9 PFNA	106		50 - 200
13C7 PFUnA	98		50 - 200
13C2 PFDoA	102		50 - 200
13C4 PFBA	95		50 - 200
13C5 PFPeA	98		50 - 200
13C3 PFBS	103		50 - 200
13C3 PFHxS	105		50 - 200

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Lab Sample ID: MRL 380-166297/21-A

Matrix: Drinking Water

Analysis Batch: 166401

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 166297

Isotope Dilution	MRL %Recovery	MRL Qualifier	Limits
13C8 PFOS	104		50 - 200
13C2-4:2-FTS	110		50 - 200
13C2-6:2-FTS	103		50 - 200
13C2-8:2-FTS	106		50 - 200

Lab Sample ID: 380-163679-G-1-A MS

Matrix: Drinking Water

Analysis Batch: 166401

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 166297

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	67.6		ng/L		112	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		60.4	64.8		ng/L		107	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	62.4		ng/L		103	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<2.0		60.4	61.6		ng/L		102	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	61.6		ng/L		102	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.4	63.9		ng/L		106	70 - 130
Perfluorododecanoic acid (PFDaA)	<2.0		60.4	62.6		ng/L		104	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	65.6		ng/L		109	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.4	61.7		ng/L		102	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	63.3		ng/L		103	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.4	61.7		ng/L		102	70 - 130
Perfluorooctanesulfonic acid (PFOS)	2.2		60.4	65.1		ng/L		104	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.4	63.7		ng/L		105	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	64.7		ng/L		107	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.4	65.0		ng/L		106	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	64.1		ng/L		106	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	60.5		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	64.8		ng/L		107	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	68.6		ng/L		114	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		60.4	62.0		ng/L		103	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	66.1		ng/L		110	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	64.5		ng/L		107	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.4	65.6		ng/L		107	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	62.5		ng/L		104	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Lab Sample ID: 380-163679-G-1-A MS

Matrix: Drinking Water

Analysis Batch: 166401

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 166297

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	60.7		ng/L		101	70 - 130
Isotope Dilution									
	MS %Recovery	MS Qualifier	Limits						
13C3 HFPO-DA	100		50 - 200						
13C6 PFDA	108		50 - 200						
13C5 PFHxA	102		50 - 200						
13C4 PFHpA	101		50 - 200						
13C8 PFOA	101		50 - 200						
13C9 PFNA	111		50 - 200						
13C7 PFUnA	108		50 - 200						
13C2 PFDoA	111		50 - 200						
13C4 PFBA	98		50 - 200						
13C5 PFPeA	112		50 - 200						
13C3 PFBS	95		50 - 200						
13C3 PFHxS	101		50 - 200						
13C8 PFOS	100		50 - 200						
13C2-4:2-FTS	109		50 - 200						
13C2-6:2-FTS	110		50 - 200						
13C2-8:2-FTS	117		50 - 200						

Lab Sample ID: 380-163679-H-1-A MSD

Matrix: Drinking Water

Analysis Batch: 166401

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 166297

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	69.2		ng/L		115	70 - 130	2	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		60.4	67.5		ng/L		112	70 - 130	4	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	60.3		ng/L		100	70 - 130	3	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<2.0		60.4	62.3		ng/L		103	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	61.6		ng/L		102	70 - 130	0	30
Perfluorodecanoic acid (PFDA)	<2.0		60.4	65.5		ng/L		109	70 - 130	2	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	67.1		ng/L		111	70 - 130	7	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	66.9		ng/L		111	70 - 130	2	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.4	61.7		ng/L		102	70 - 130	0	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	63.6		ng/L		104	70 - 130	1	30
Perfluorononanoic acid (PFNA)	<2.0		60.4	66.5		ng/L		110	70 - 130	7	30
Perfluorooctanesulfonic acid (PFOS)	2.2		60.4	69.7		ng/L		112	70 - 130	7	30
Perfluorooctanoic acid (PFOA)	<2.0		60.4	65.1		ng/L		107	70 - 130	2	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	64.3		ng/L		106	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	<2.0		60.4	62.2		ng/L		101	70 - 130	4	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Lab Sample ID: 380-163679-H-1-A MSD

Matrix: Drinking Water

Analysis Batch: 166401

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 166297

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	62.7		ng/L		104	70 - 130	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	68.6		ng/L		114	70 - 130	13	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	64.1		ng/L		106	70 - 130	1	30
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		60.4	64.8		ng/L		107	70 - 130	6	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFESA)	<2.0		60.4	65.6		ng/L		109	70 - 130	6	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	66.3		ng/L		110	70 - 130	0	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	61.7		ng/L		102	70 - 130	4	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.4	66.5		ng/L		109	70 - 130	1	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	64.3		ng/L		106	70 - 130	3	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	61.3		ng/L		101	70 - 130	1	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	MSD Limits
13C3 HFPO-DA	95		50 - 200
13C6 PFDA	102		50 - 200
13C5 PFHxA	99		50 - 200
13C4 PFHpA	98		50 - 200
13C8 PFOA	97		50 - 200
13C9 PFNA	103		50 - 200
13C7 PFUnA	105		50 - 200
13C2 PFDoA	104		50 - 200
13C4 PFBA	99		50 - 200
13C5 PFPeA	112		50 - 200
13C3 PFBS	97		50 - 200
13C3 PFHxS	105		50 - 200
13C8 PFOS	101		50 - 200
13C2-4:2-FTS	107		50 - 200
13C2-6:2-FTS	117		50 - 200
13C2-8:2-FTS	122		50 - 200

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

Lab Sample ID: MBL 380-165810/20-A

Matrix: Drinking Water

Analysis Batch: 165913

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 165810

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		07/30/25 03:05	07/30/25 20:41	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		07/30/25 03:05	07/30/25 20:41	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		07/30/25 03:05	07/30/25 20:41	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		07/30/25 03:05	07/30/25 20:41	1

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QC Sample Results

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Lab Sample ID: MBL 380-165810/20-A

Matrix: Drinking Water

Analysis Batch: 165913

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 165810

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		07/30/25 03:05	07/30/25 20:41	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		07/30/25 03:05	07/30/25 20:41	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		07/30/25 03:05	07/30/25 20:41	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		07/30/25 03:05	07/30/25 20:41	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		07/30/25 03:05	07/30/25 20:41	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		07/30/25 03:05	07/30/25 20:41	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		07/30/25 03:05	07/30/25 20:41	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		07/30/25 03:05	07/30/25 20:41	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		07/30/25 03:05	07/30/25 20:41	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		07/30/25 03:05	07/30/25 20:41	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		07/30/25 03:05	07/30/25 20:41	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		07/30/25 03:05	07/30/25 20:41	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		07/30/25 03:05	07/30/25 20:41	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		07/30/25 03:05	07/30/25 20:41	1

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	98		70 - 130	07/30/25 03:05	07/30/25 20:41	1
13C2 PFHxA	111		70 - 130	07/30/25 03:05	07/30/25 20:41	1
13C2 PFDA	115		70 - 130	07/30/25 03:05	07/30/25 20:41	1
13C3-GenX	116		70 - 130	07/30/25 03:05	07/30/25 20:41	1

Lab Sample ID: LCS 380-165810/22-A

Matrix: Drinking Water

Analysis Batch: 165913

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 165810

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	25.1	26.1		ng/L		104	70 - 130
Perfluorooctanesulfonic acid (PFOS)	25.1	26.2		ng/L		105	70 - 130
Perfluoroundecanoic acid (PFUnA)	25.1	26.2		ng/L		105	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.1	25.6		ng/L		102	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.1	24.0		ng/L		96	70 - 130
Perfluorohexanoic acid (PFHxA)	25.1	25.3		ng/L		101	70 - 130
Perfluorododecanoic acid (PFDoA)	25.1	27.0		ng/L		108	70 - 130
Perfluorooctanoic acid (PFOA)	25.1	26.6		ng/L		106	70 - 130
Perfluorodecanoic acid (PFDA)	25.1	26.5		ng/L		106	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	25.1	26.8		ng/L		107	70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.1	25.0		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	25.1	25.0		ng/L		100	70 - 130
Perfluorononanoic acid (PFNA)	25.1	26.1		ng/L		104	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Lab Sample ID: LCS 380-165810/22-A

Matrix: Drinking Water

Analysis Batch: 165913

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 165810

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorotetradecanoic acid (PFTA)	25.1	26.4		ng/L		105	70 - 130
Perfluorotridecanoic acid (PFTrDA)	25.1	28.3		ng/L		113	70 - 130
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid(9Cl-PF3ONS)	25.1	25.6		ng/L		102	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	25.1	23.2		ng/L		93	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.1	26.4		ng/L		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
d5-NEtFOSAA	95		70 - 130
13C2 PFHxA	108		70 - 130
13C2 PFDA	111		70 - 130
13C3-GenX	108		70 - 130

Lab Sample ID: MRL 380-165810/21-A

Matrix: Drinking Water

Analysis Batch: 165913

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 165810

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.24	J	ng/L		112	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.33	J	ng/L		116	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.30	J	ng/L		115	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.29	J	ng/L		114	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.13	J	ng/L		106	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.06	J	ng/L		103	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.32	J	ng/L		116	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.33	J	ng/L		116	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.20	J	ng/L		110	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.41	J	ng/L		120	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.15	J	ng/L		108	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.23	J	ng/L		111	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.19	J	ng/L		110	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.00	2.01	J	ng/L		101	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.00	2.36	J	ng/L		118	50 - 150
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.14	J	ng/L		107	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Lab Sample ID: MRL 380-165810/21-A

Matrix: Drinking Water

Analysis Batch: 165913

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 165810

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	1.88	J	ng/L		94	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.38	J	ng/L		119	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	104		70 - 130
13C2 PFHxA	109		70 - 130
13C2 PFDA	114		70 - 130
13C3-GenX	113		70 - 130

Lab Sample ID: 380-163191-1 MS

Matrix: Drinking Water

Analysis Batch: 165913

Client Sample ID: Moanalua Wells Pump 1

Prep Type: Total/NA

Prep Batch: 165810

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	52.2		ng/L		104	70 - 130
Perfluorooctanesulfonic acid (PFOS)	2.1		50.2	52.4		ng/L		100	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		50.2	49.1		ng/L		98	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.2	49.9		ng/L		99	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		50.2	48.3		ng/L		96	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		50.2	50.1		ng/L		97	70 - 130
Perfluorododecanoic acid (PFDaA)	<2.0		50.2	49.8		ng/L		99	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		50.2	51.2		ng/L		100	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		50.2	50.3		ng/L		100	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		50.2	53.0		ng/L		102	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.2	50.7		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	2.0		50.2	49.7		ng/L		98	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		50.2	48.2		ng/L		96	70 - 130
Perfluorotetradecanoic acid (PFTA)	<2.0		50.2	45.5		ng/L		91	70 - 130
Perfluorotridecanoic acid (PFTrDA)	<2.0		50.2	50.9		ng/L		101	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.2	48.0		ng/L		96	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		50.2	43.3		ng/L		86	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.2	51.1		ng/L		102	70 - 130

QC Sample Results

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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

Lab Sample ID: 380-163191-1 MS

Matrix: Drinking Water

Analysis Batch: 165913

Client Sample ID: Moanalua Wells Pump 1

Prep Type: Total/NA

Prep Batch: 165810

Surrogate	MS %Recovery	MS Qualifier	Limits
d5-NEtFOSAA	94		70 - 130
13C2 PFHxA	100		70 - 130
13C2 PFDA	102		70 - 130
13C3-GenX	107		70 - 130

Lab Sample ID: 380-163191-1 MSD

Matrix: Drinking Water

Analysis Batch: 165913

Client Sample ID: Moanalua Wells Pump 1

Prep Type: Total/NA

Prep Batch: 165810

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexafluoropropylene Oxide	<2.0		50.1	54.8		ng/L		109	70 - 130	5	30
Dimer Acid (HFPO-DA/GenX)											
Perfluorooctanesulfonic acid (PFOS)	2.1		50.1	52.2		ng/L		100	70 - 130	0	30
Perfluoroundecanoic acid (PFUnA)	<2.0		50.1	51.6		ng/L		103	70 - 130	5	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.1	51.0		ng/L		102	70 - 130	2	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		50.1	48.5		ng/L		97	70 - 130	0	30
Perfluorohexanoic acid (PFHxA)	<2.0		50.1	51.9		ng/L		101	70 - 130	4	30
Perfluorododecanoic acid (PFDoA)	<2.0		50.1	52.9		ng/L		106	70 - 130	6	30
Perfluorooctanoic acid (PFOA)	<2.0		50.1	52.2		ng/L		102	70 - 130	2	30
Perfluorodecanoic acid (PFDA)	<2.0		50.1	51.7		ng/L		103	70 - 130	3	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		50.1	54.1		ng/L		104	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.1	50.2		ng/L		99	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	<2.0		50.1	50.5		ng/L		99	70 - 130	2	30
Perfluorononanoic acid (PFNA)	<2.0		50.1	50.6		ng/L		101	70 - 130	5	30
Perfluorotetradecanoic acid (PFTA)	<2.0		50.1	45.8		ng/L		91	70 - 130	1	30
Perfluorotridecanoic acid (PFTrDA)	<2.0		50.1	52.9		ng/L		106	70 - 130	4	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.1	48.2		ng/L		96	70 - 130	1	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		50.1	45.0		ng/L		90	70 - 130	4	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.1	53.9		ng/L		108	70 - 130	5	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
d5-NEtFOSAA	94		70 - 130
13C2 PFHxA	104		70 - 130
13C2 PFDA	106		70 - 130
13C3-GenX	115		70 - 130

QC Association Summary

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

LCMS

Prep Batch: 165810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163191-1	Moanalua Wells Pump 1	Total/NA	Drinking Water	537.1 DW	
380-163191-2	FB-Moanalua Wells Pump 1	Total/NA	Drinking Water	537.1 DW	
MBL 380-165810/20-A	Method Blank	Total/NA	Drinking Water	537.1 DW	
LCS 380-165810/22-A	Lab Control Sample	Total/NA	Drinking Water	537.1 DW	
MRL 380-165810/21-A	Lab Control Sample	Total/NA	Drinking Water	537.1 DW	
380-163191-1 MS	Moanalua Wells Pump 1	Total/NA	Drinking Water	537.1 DW	
380-163191-1 MSD	Moanalua Wells Pump 1	Total/NA	Drinking Water	537.1 DW	

Analysis Batch: 165913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163191-1	Moanalua Wells Pump 1	Total/NA	Drinking Water	537.1	165810
380-163191-2	FB-Moanalua Wells Pump 1	Total/NA	Drinking Water	537.1	165810
MBL 380-165810/20-A	Method Blank	Total/NA	Drinking Water	537.1	165810
LCS 380-165810/22-A	Lab Control Sample	Total/NA	Drinking Water	537.1	165810
MRL 380-165810/21-A	Lab Control Sample	Total/NA	Drinking Water	537.1	165810
380-163191-1 MS	Moanalua Wells Pump 1	Total/NA	Drinking Water	537.1	165810
380-163191-1 MSD	Moanalua Wells Pump 1	Total/NA	Drinking Water	537.1	165810

Prep Batch: 165949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163191-2	FB-Moanalua Wells Pump 1	Total/NA	Drinking Water	533	
MBL 380-165949/20-A	Method Blank	Total/NA	Drinking Water	533	
LCS 380-165949/22-A	Lab Control Sample	Total/NA	Drinking Water	533	
MRL 380-165949/21-A	Lab Control Sample	Total/NA	Drinking Water	533	
380-162802-B-1-A MS	Matrix Spike	Total/NA	Drinking Water	533	
380-162802-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Drinking Water	533	

Analysis Batch: 166078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163191-2	FB-Moanalua Wells Pump 1	Total/NA	Drinking Water	533	165949
MBL 380-165949/20-A	Method Blank	Total/NA	Drinking Water	533	165949
LCS 380-165949/22-A	Lab Control Sample	Total/NA	Drinking Water	533	165949
MRL 380-165949/21-A	Lab Control Sample	Total/NA	Drinking Water	533	165949
380-162802-B-1-A MS	Matrix Spike	Total/NA	Drinking Water	533	165949
380-162802-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Drinking Water	533	165949

Prep Batch: 166297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163191-1	Moanalua Wells Pump 1	Total/NA	Drinking Water	533	
MBL 380-166297/20-A	Method Blank	Total/NA	Drinking Water	533	
LCS 380-166297/22-A	Lab Control Sample	Total/NA	Drinking Water	533	
MRL 380-166297/21-A	Lab Control Sample	Total/NA	Drinking Water	533	
380-163679-G-1-A MS	Matrix Spike	Total/NA	Drinking Water	533	
380-163679-H-1-A MSD	Matrix Spike Duplicate	Total/NA	Drinking Water	533	

Analysis Batch: 166401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163191-1	Moanalua Wells Pump 1	Total/NA	Drinking Water	533	166297
MBL 380-166297/20-A	Method Blank	Total/NA	Drinking Water	533	166297
LCS 380-166297/22-A	Lab Control Sample	Total/NA	Drinking Water	533	166297
MRL 380-166297/21-A	Lab Control Sample	Total/NA	Drinking Water	533	166297

Eurofins Eaton Analytical Pomona

QC Association Summary

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

LCMS (Continued)

Analysis Batch: 166401 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-163679-G-1-A MS	Matrix Spike	Total/NA	Drinking Water	533	166297
380-163679-H-1-A MSD	Matrix Spike Duplicate	Total/NA	Drinking Water	533	166297

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Lab Chronicle

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

Client Sample ID: Moanalua Wells Pump 1

Date Collected: 07/25/25 09:47

Date Received: 07/29/25 09:56

Lab Sample ID: 380-163191-1

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			166297	XTD8	EA POM	08/01/25 06:39
Total/NA	Analysis	533		1	166401	Y5FM	EA POM	08/01/25 19:05
Total/NA	Prep	537.1 DW			165810	G9MN	EA POM	07/30/25 03:05
Total/NA	Analysis	537.1		1	165913	SZ9R	EA POM	07/30/25 21:11

Client Sample ID: FB-Moanalua Wells Pump 1

Date Collected: 07/25/25 09:47

Date Received: 07/29/25 09:56

Lab Sample ID: 380-163191-2

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			165949	E2HD	EA POM	07/30/25 17:53
Total/NA	Analysis	533		1	166078	Y5FM	EA POM	07/31/25 13:45
Total/NA	Prep	537.1 DW			165810	G9MN	EA POM	07/30/25 03:05
Total/NA	Analysis	537.1		1	165913	SZ9R	EA POM	07/31/25 00:18

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: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

Laboratory: Eurofins Eaton Analytical Pomona

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

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

- 1
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Method Summary

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

Job ID: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

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: 380-163191-1
SDG: PFAS - Moanalua Wells Pump 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-163191-1	Moanalua Wells Pump 1	Drinking Water	07/25/25 09:47	07/29/25 09:56
380-163191-2	FB-Moanalua Wells Pump 1	Drinking Water	07/25/25 09:47	07/29/25 09:56

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Phone (626) 386-1100

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-163191-1

SDG Number: PFAS - Moanalua Wells Pump 1

Login Number: 163191

List Number: 1

Creator: Segura, Ryan

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").	True	
CIO4 headspace requirement met (>50% for CA, >30% for other states).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	