

ANALYTICAL REPORT

PREPARED FOR

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Honolulu, Hawaii 96843

Generated 8/14/2026 11:28:18 AM

JOB DESCRIPTION

INTERA - Red-Hill-Incident
Site D1 PFAS 533/537.1

JOB NUMBER

380-230070-1

Eurofins Pomona

Job Notes

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

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

Compliance Statement

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

Authorization



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Definitions/Glossary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

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: INTERA - Red-Hill-Incident

Job ID: 380-230070-1

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Job Narrative 380-230070-1

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 8/11/2026 10:10 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 0.3°C.

PFAS

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

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Detection Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

Client Sample ID: BWS2254-D1-AQ

Lab Sample ID: 380-230070-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	2.4		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.6		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.1		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.6		2.0	ng/L	1		EPA 537.1 V2	Total/NA

Client Sample ID: BWS2254-D1-FB

Lab Sample ID: 380-230070-2

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: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

Client Sample ID: BWS2254-D1-AQ

Lab Sample ID: 380-230070-1

Date Collected: 08/10/26 09:15

Matrix: Water

Date Received: 08/11/26 10:10

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		08/12/26 17:50	08/13/26 12:24	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Perfluorohexanesulfonic acid (PFHxS)	2.4		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Perfluorooctanesulfonic acid (PFOS)	2.6		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:24	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	88		50 - 200			08/12/26 17:50	08/13/26 12:24	1
13C6 PFDA	52		50 - 200			08/12/26 17:50	08/13/26 12:24	1
13C5 PFHxA	82		50 - 200			08/12/26 17:50	08/13/26 12:24	1
13C4 PFHpA	81		50 - 200			08/12/26 17:50	08/13/26 12:24	1
13C8 PFOA	76		50 - 200			08/12/26 17:50	08/13/26 12:24	1
13C9 PFNA	69		50 - 200			08/12/26 17:50	08/13/26 12:24	1
13C7 PFUnA	51		50 - 200			08/12/26 17:50	08/13/26 12:24	1
13C2 PFDoA	55		50 - 200			08/12/26 17:50	08/13/26 12:24	1
13C4 PFBA	100		50 - 200			08/12/26 17:50	08/13/26 12:24	1
13C5 PFPeA	97		50 - 200			08/12/26 17:50	08/13/26 12:24	1
13C3 PFBS	104		50 - 200			08/12/26 17:50	08/13/26 12:24	1
13C3 PFHxS	110		50 - 200			08/12/26 17:50	08/13/26 12:24	1

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Client Sample Results

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

Client Sample ID: BWS2254-D1-AQ

Lab Sample ID: 380-230070-1

Date Collected: 08/10/26 09:15

Matrix: Water

Date Received: 08/11/26 10:10

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	114		50 - 200	08/12/26 17:50	08/13/26 12:24	1
13C2-4:2-FTS	129		50 - 200	08/12/26 17:50	08/13/26 12:24	1
13C2-6:2-FTS	118		50 - 200	08/12/26 17:50	08/13/26 12:24	1
13C2-8:2-FTS	90		50 - 200	08/12/26 17:50	08/13/26 12:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:27	1
Perfluorooctanesulfonic acid (PFOS)	3.1		2.0	ng/L		08/12/26 13:10	08/13/26 11:27	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:27	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:27	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:27	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:27	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:27	1
Perfluorohexanesulfonic acid (PFHxS)	2.6		2.0	ng/L		08/12/26 13:10	08/13/26 11:27	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:27	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:27	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:27	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:27	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:27	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:27	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:27	1
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	104		70 - 130			08/12/26 13:10	08/13/26 11:27	1
13C2 PFHxA	100		70 - 130			08/12/26 13:10	08/13/26 11:27	1
13C2 PFDA	103		70 - 130			08/12/26 13:10	08/13/26 11:27	1
13C3-GenX	99		70 - 130			08/12/26 13:10	08/13/26 11:27	1

Client Sample ID: BWS2254-D1-FB

Lab Sample ID: 380-230070-2

Date Collected: 08/10/26 09:15

Matrix: Water

Date Received: 08/11/26 10:10

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		08/12/26 17:50	08/13/26 12:33	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1

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Client Sample Results

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

Client Sample ID: BWS2254-D1-FB

Lab Sample ID: 380-230070-2

Date Collected: 08/10/26 09:15

Matrix: Water

Date Received: 08/11/26 10:10

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		08/12/26 17:50	08/13/26 12:33	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	94		50 - 200			08/12/26 17:50	08/13/26 12:33	1
13C6 PFDA	94		50 - 200			08/12/26 17:50	08/13/26 12:33	1
13C5 PFHxA	102		50 - 200			08/12/26 17:50	08/13/26 12:33	1
13C4 PFHpA	100		50 - 200			08/12/26 17:50	08/13/26 12:33	1
13C8 PFOA	100		50 - 200			08/12/26 17:50	08/13/26 12:33	1
13C9 PFNA	103		50 - 200			08/12/26 17:50	08/13/26 12:33	1
13C7 PFUnA	102		50 - 200			08/12/26 17:50	08/13/26 12:33	1
13C2 PFDoA	99		50 - 200			08/12/26 17:50	08/13/26 12:33	1
13C4 PFBA	106		50 - 200			08/12/26 17:50	08/13/26 12:33	1
13C5 PFPeA	101		50 - 200			08/12/26 17:50	08/13/26 12:33	1
13C3 PFBS	103		50 - 200			08/12/26 17:50	08/13/26 12:33	1
13C3 PFHxS	110		50 - 200			08/12/26 17:50	08/13/26 12:33	1
13C8 PFOS	115		50 - 200			08/12/26 17:50	08/13/26 12:33	1
13C2-4:2-FTS	107		50 - 200			08/12/26 17:50	08/13/26 12:33	1
13C2-6:2-FTS	100		50 - 200			08/12/26 17:50	08/13/26 12:33	1
13C2-8:2-FTS	87		50 - 200			08/12/26 17:50	08/13/26 12:33	1

Eurofins Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

Client Sample ID: BWS2254-D1-FB

Lab Sample ID: 380-230070-2

Date Collected: 08/10/26 09:15

Matrix: Water

Date Received: 08/11/26 10:10

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:36	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:36	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:36	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:36	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:36	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:36	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:36	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:36	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:36	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:36	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:36	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:36	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:36	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:36	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/12/26 13:10	08/13/26 11:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	100		70 - 130	08/12/26 13:10	08/13/26 11:36	1
13C2 PFHxA	95		70 - 130	08/12/26 13:10	08/13/26 11:36	1
13C2 PFDA	103		70 - 130	08/12/26 13:10	08/13/26 11:36	1
13C3-GenX	93		70 - 130	08/12/26 13:10	08/13/26 11:36	1

Action Limit Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

Client Sample ID: BWS2254-D1-AQ

Lab Sample ID: 380-230070-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.4		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.6		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	533	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.1		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.6		ng/L	10	2.0	EPA 537.1 V2	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA

Client Sample ID: BWS2254-D1-FB

Lab Sample ID: 380-230070-2

Compliance Check

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

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

Surrogate Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-230070-1	BWS2254-D1-AQ	104	100	103	99
380-230070-2	BWS2254-D1-FB	100	95	103	93
380-230140-B-1-A MS	Matrix Spike	99	104	107	102
380-230140-C-1-A MSD	Matrix Spike Duplicate	98	100	103	100
LCS 380-245997/22-A	Lab Control Sample	119	122	128	120
MBL 380-245997/20-A	Method Blank	100	103	109	99
MRL 380-245997/21-A	Lab Control Sample	98	106	108	100

Surrogate Legend

d5NEFOS = d5-NEtFOSAA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA
GenX = 13C3-GenX

Isotope Dilution Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

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)
380-230070-1	BWS2254-D1-AQ	88	52	82	81	76	69	51	55
380-230070-2	BWS2254-D1-FB	94	94	102	100	100	103	102	99
380-230140-E-1-A MS	Matrix Spike	108	95	104	105	103	106	102	100
380-230140-F-1-A MSD	Matrix Spike Duplicate	120	101	115	112	114	115	107	109
LCS 380-246062/22-A	Lab Control Sample	111	98	109	106	108	111	104	106
MBL 380-246062/20-A	Method Blank	103	96	106	108	109	108	104	103
MRL 380-246062/21-A	Lab Control Sample	105	98	113	105	108	109	102	103

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)
380-230070-1	BWS2254-D1-AQ	100	97	104	110	114	129	118	90
380-230070-2	BWS2254-D1-FB	106	101	103	110	115	107	100	87
380-230140-E-1-A MS	Matrix Spike	116	106	105	112	109	107	100	85
380-230140-F-1-A MSD	Matrix Spike Duplicate	121	111	114	115	118	116	110	87
LCS 380-246062/22-A	Lab Control Sample	114	94	106	113	114	104	102	84
MBL 380-246062/20-A	Method Blank	115	108	104	108	110	110	98	82
MRL 380-246062/21-A	Lab Control Sample	119	108	108	110	114	109	100	91

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: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

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

Lab Sample ID: MBL 380-246062/20-A

Matrix: Water

Analysis Batch: 246222

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 246062

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	<0.29		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9CI-PF3ONS)	<0.29		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.59		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<0.98		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Perfluorobutanesulfonic acid (PFBS)	<0.36		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Perfluorodecanoic acid (PFDA)	<0.30		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Perfluorododecanoic acid (PFDoA)	<0.53		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Perfluoroheptanoic acid (PFHpA)	<0.38		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Perfluorohexanesulfonic acid (PFHxS)	<0.31		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Perfluorohexanoic acid (PFHxA)	<0.45		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Perfluorononanoic acid (PFNA)	<0.39		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Perfluorooctanesulfonic acid (PFOS)	<0.42		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Perfluorooctanoic acid (PFOA)	<0.37		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Perfluoroundecanoic acid (PFUnA)	<0.41		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Perfluorobutanoic acid (PFBA)	<0.68		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.37		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.36		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.47		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.46		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.24		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.45		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Perfluoropentanoic acid (PFPeA)	<0.37		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.35		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1
Perfluoropentanesulfonic acid (PFPeS)	<0.38		2.0	ng/L		08/12/26 17:50	08/13/26 10:58	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	103		50 - 200	08/12/26 17:50	08/13/26 10:58	1
13C6 PFDA	96		50 - 200	08/12/26 17:50	08/13/26 10:58	1
13C5 PFHxA	106		50 - 200	08/12/26 17:50	08/13/26 10:58	1
13C4 PFHpA	108		50 - 200	08/12/26 17:50	08/13/26 10:58	1
13C8 PFOA	109		50 - 200	08/12/26 17:50	08/13/26 10:58	1
13C9 PFNA	108		50 - 200	08/12/26 17:50	08/13/26 10:58	1
13C7 PFUnA	104		50 - 200	08/12/26 17:50	08/13/26 10:58	1
13C2 PFDoA	103		50 - 200	08/12/26 17:50	08/13/26 10:58	1
13C4 PFBA	115		50 - 200	08/12/26 17:50	08/13/26 10:58	1
13C5 PFPeA	108		50 - 200	08/12/26 17:50	08/13/26 10:58	1
13C3 PFBS	104		50 - 200	08/12/26 17:50	08/13/26 10:58	1
13C3 PFHxS	108		50 - 200	08/12/26 17:50	08/13/26 10:58	1

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QC Sample Results

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

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

Lab Sample ID: MBL 380-246062/20-A

Matrix: Water

Analysis Batch: 246222

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 246062

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	110		50 - 200	08/12/26 17:50	08/13/26 10:58	1
13C2-4:2-FTS	110		50 - 200	08/12/26 17:50	08/13/26 10:58	1
13C2-6:2-FTS	98		50 - 200	08/12/26 17:50	08/13/26 10:58	1
13C2-8:2-FTS	82		50 - 200	08/12/26 17:50	08/13/26 10:58	1

Lab Sample ID: LCS 380-246062/22-A

Matrix: Water

Analysis Batch: 246222

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 246062

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	58.9	50.0		ng/L		85	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	58.9	47.9		ng/L		81	70 - 130
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	58.9	58.2		ng/L		99	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	58.9	58.0		ng/L		98	70 - 130
Perfluorobutanesulfonic acid (PFBS)	58.9	55.5		ng/L		94	70 - 130
Perfluorodecanoic acid (PFDA)	58.9	57.7		ng/L		98	70 - 130
Perfluorododecanoic acid (PFDoA)	58.9	56.2		ng/L		95	70 - 130
Perfluoroheptanoic acid (PFHpA)	58.9	56.8		ng/L		96	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	58.9	52.9		ng/L		90	70 - 130
Perfluorohexanoic acid (PFHxA)	58.9	54.9		ng/L		93	70 - 130
Perfluorononanoic acid (PFNA)	58.9	53.8		ng/L		91	70 - 130
Perfluorooctanesulfonic acid (PFOS)	58.9	53.3		ng/L		90	70 - 130
Perfluorooctanoic acid (PFOA)	58.9	57.0		ng/L		97	70 - 130
Perfluoroundecanoic acid (PFUnA)	58.9	56.2		ng/L		95	70 - 130
Perfluorobutanoic acid (PFBA)	58.9	51.5		ng/L		87	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	58.9	59.2		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	58.9	56.4		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	58.9	56.5		ng/L		96	70 - 130
Nonfluoro-3,6-dioxahexanoic acid (NFDHA)	58.9	62.5		ng/L		106	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	58.9	54.0		ng/L		92	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	58.9	61.5		ng/L		104	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	58.9	59.8		ng/L		101	70 - 130
Perfluoropentanoic acid (PFPeA)	58.9	58.3		ng/L		99	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	58.9	54.1		ng/L		92	70 - 130

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QC Sample Results

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

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

Lab Sample ID: LCS 380-246062/22-A

Matrix: Water

Analysis Batch: 246222

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 246062

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	58.9	53.7		ng/L		91	70 - 130
	LCS	LCS					
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	111		50 - 200				
13C6 PFDA	98		50 - 200				
13C5 PFHxA	109		50 - 200				
13C4 PFHpA	106		50 - 200				
13C8 PFOA	108		50 - 200				
13C9 PFNA	111		50 - 200				
13C7 PFUnA	104		50 - 200				
13C2 PFDoA	106		50 - 200				
13C4 PFBA	114		50 - 200				
13C5 PFPeA	94		50 - 200				
13C3 PFBS	106		50 - 200				
13C3 PFHxS	113		50 - 200				
13C8 PFOS	114		50 - 200				
13C2-4:2-FTS	104		50 - 200				
13C2-6:2-FTS	102		50 - 200				
13C2-8:2-FTS	84		50 - 200				

Lab Sample ID: MRL 380-246062/21-A

Matrix: Water

Analysis Batch: 246222

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 246062

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	1.97	1.63	J	ng/L		83	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	1.97	1.60	J	ng/L		81	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.97	1.99	J	ng/L		101	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	1.97	1.85	J	ng/L		94	50 - 150
Perfluorobutanesulfonic acid (PFBS)	1.97	1.79	J	ng/L		91	50 - 150
Perfluorodecanoic acid (PFDA)	1.97	1.95	J	ng/L		99	50 - 150
Perfluorododecanoic acid (PFDoA)	1.97	1.91	J	ng/L		97	50 - 150
Perfluoroheptanoic acid (PFHpA)	1.97	2.03	J	ng/L		103	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	1.97	1.93	J	ng/L		98	50 - 150
Perfluorohexanoic acid (PFHxA)	1.97	1.87	J	ng/L		95	50 - 150
Perfluorononanoic acid (PFNA)	1.97	1.99	J	ng/L		101	50 - 150
Perfluorooctanesulfonic acid (PFOS)	1.97	1.79	J	ng/L		91	50 - 150
Perfluorooctanoic acid (PFOA)	1.97	1.88	J	ng/L		95	50 - 150
Perfluoroundecanoic acid (PFUnA)	1.97	1.90	J	ng/L		96	50 - 150
Perfluorobutanoic acid (PFBA)	1.97	1.84	J	ng/L		94	50 - 150

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QC Sample Results

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

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

Lab Sample ID: MRL 380-246062/21-A

Matrix: Water

Analysis Batch: 246222

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 246062

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	1.97	2.04	J	ng/L		103	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	1.97	2.00	J	ng/L		102	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	1.97	2.02	J	ng/L		103	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	1.97	1.93	J	ng/L		98	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	1.97	1.53	J	ng/L		78	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	1.97	1.79	J	ng/L		91	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	1.97	1.76	J	ng/L		89	50 - 150
Perfluoropentanoic acid (PFPeA)	1.97	1.69	J	ng/L		86	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	1.97	1.85	J	ng/L		94	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	1.97	1.85	J	ng/L		94	50 - 150

Isotope Dilution	%Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	105		50 - 200
13C6 PFDA	98		50 - 200
13C5 PFHxA	113		50 - 200
13C4 PFHpA	105		50 - 200
13C8 PFOA	108		50 - 200
13C9 PFNA	109		50 - 200
13C7 PFUnA	102		50 - 200
13C2 PFDoA	103		50 - 200
13C4 PFBA	119		50 - 200
13C5 PFPeA	108		50 - 200
13C3 PFBS	108		50 - 200
13C3 PFHxS	110		50 - 200
13C8 PFOS	114		50 - 200
13C2-4:2-FTS	109		50 - 200
13C2-6:2-FTS	100		50 - 200
13C2-8:2-FTS	91		50 - 200

Lab Sample ID: 380-230140-E-1-A MS

Matrix: Water

Analysis Batch: 246222

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 246062

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		59.1	47.0		ng/L		80	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		59.1	47.9		ng/L		81	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		59.1	58.1		ng/L		98	70 - 130

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QC Sample Results

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

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

Lab Sample ID: 380-230140-E-1-A MS

Matrix: Water

Analysis Batch: 246222

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 246062

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		59.1	56.7		ng/L		96	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	3.4		59.1	59.0		ng/L		94	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		59.1	60.0		ng/L		102	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		59.1	57.0		ng/L		96	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		59.1	58.6		ng/L		97	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	3.7		59.1	57.8		ng/L		92	70 - 130
Perfluorohexanoic acid (PFHxA)	2.1		59.1	57.1		ng/L		93	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		59.1	57.1		ng/L		97	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		59.1	55.8		ng/L		93	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		59.1	57.7		ng/L		96	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		59.1	53.7		ng/L		91	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		59.1	53.3		ng/L		87	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		59.1	56.5		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		59.1	56.5		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		59.1	55.8		ng/L		95	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		59.1	57.3		ng/L		97	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		59.1	55.7		ng/L		94	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		59.1	60.6		ng/L		103	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		59.1	58.8		ng/L		100	70 - 130
Perfluoropentanoic acid (PFPeA)	2.6		59.1	58.8		ng/L		95	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		59.1	57.9		ng/L		98	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		59.1	52.9		ng/L		88	70 - 130

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C3 HFPO-DA	108		50 - 200
13C6 PFDA	95		50 - 200
13C5 PFHxA	104		50 - 200
13C4 PFHpA	105		50 - 200
13C8 PFOA	103		50 - 200
13C9 PFNA	106		50 - 200
13C7 PFUnA	102		50 - 200
13C2 PFDoA	100		50 - 200
13C4 PFBA	116		50 - 200
13C5 PFPeA	106		50 - 200
13C3 PFBS	105		50 - 200
13C3 PFHxS	112		50 - 200
13C8 PFOS	109		50 - 200

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QC Sample Results

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

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

Lab Sample ID: 380-230140-E-1-A MS

Matrix: Water

Analysis Batch: 246222

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 246062

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C2-4:2-FTS	107		50 - 200
13C2-6:2-FTS	100		50 - 200
13C2-8:2-FTS	85		50 - 200

Lab Sample ID: 380-230140-F-1-A MSD

Matrix: Water

Analysis Batch: 246222

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 246062

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		59.2	45.1		ng/L		76	70 - 130	4	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		59.2	45.5		ng/L		77	70 - 130	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		59.2	56.6		ng/L		96	70 - 130	3	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		59.2	53.8		ng/L		91	70 - 130	5	30
Perfluorobutanesulfonic acid (PFBS)	3.4		59.2	55.0		ng/L		87	70 - 130	7	30
Perfluorodecanoic acid (PFDA)	<2.0		59.2	57.2		ng/L		97	70 - 130	5	30
Perfluorododecanoic acid (PFDoA)	<2.0		59.2	54.2		ng/L		92	70 - 130	5	30
Perfluoroheptanoic acid (PFHpA)	<2.0		59.2	55.1		ng/L		91	70 - 130	6	30
Perfluorohexanesulfonic acid (PFHxS)	3.7		59.2	56.6		ng/L		89	70 - 130	2	30
Perfluorohexanoic acid (PFHxA)	2.1		59.2	55.8		ng/L		91	70 - 130	2	30
Perfluorononanoic acid (PFNA)	<2.0		59.2	54.1		ng/L		91	70 - 130	5	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		59.2	52.8		ng/L		88	70 - 130	5	30
Perfluorooctanoic acid (PFOA)	<2.0		59.2	54.6		ng/L		90	70 - 130	6	30
Perfluoroundecanoic acid (PFUnA)	<2.0		59.2	54.5		ng/L		92	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	<2.0		59.2	51.3		ng/L		83	70 - 130	4	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		59.2	55.2		ng/L		93	70 - 130	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		59.2	52.4		ng/L		89	70 - 130	8	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		59.2	51.2		ng/L		87	70 - 130	9	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		59.2	54.8		ng/L		93	70 - 130	4	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		59.2	50.7		ng/L		86	70 - 130	9	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		59.2	57.1		ng/L		97	70 - 130	6	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		59.2	56.8		ng/L		96	70 - 130	3	30
Perfluoropentanoic acid (PFPeA)	2.6		59.2	54.0		ng/L		87	70 - 130	9	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		59.2	51.9		ng/L		88	70 - 130	11	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		59.2	52.3		ng/L		87	70 - 130	1	30

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QC Sample Results

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

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

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	120		50 - 200
13C6 PFDA	101		50 - 200
13C5 PFHxA	115		50 - 200
13C4 PFHpA	112		50 - 200
13C8 PFOA	114		50 - 200
13C9 PFNA	115		50 - 200
13C7 PFUnA	107		50 - 200
13C2 PFDoA	109		50 - 200
13C4 PFBA	121		50 - 200
13C5 PFPeA	111		50 - 200
13C3 PFBS	114		50 - 200
13C3 PFHxS	115		50 - 200
13C8 PFOS	118		50 - 200
13C2-4:2-FTS	116		50 - 200
13C2-6:2-FTS	110		50 - 200
13C2-8:2-FTS	87		50 - 200

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

Lab Sample ID: MBL 380-245997/20-A
Matrix: Water
Analysis Batch: 246221

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245997

Analyte	MBL MBL		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<0.98		2.0	ng/L		08/12/26 13:10	08/13/26 10:10	1
Perfluorooctanesulfonic acid (PFOS)	<0.42		2.0	ng/L		08/12/26 13:10	08/13/26 10:10	1
Perfluoroundecanoic acid (PFUnA)	<0.41		2.0	ng/L		08/12/26 13:10	08/13/26 10:10	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.57		2.0	ng/L		08/12/26 13:10	08/13/26 10:10	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.41		2.0	ng/L		08/12/26 13:10	08/13/26 10:10	1
Perfluorohexanoic acid (PFHxA)	<0.45		2.0	ng/L		08/12/26 13:10	08/13/26 10:10	1
Perfluorododecanoic acid (PFDoA)	<0.53		2.0	ng/L		08/12/26 13:10	08/13/26 10:10	1
Perfluorooctanoic acid (PFOA)	<0.37		2.0	ng/L		08/12/26 13:10	08/13/26 10:10	1
Perfluorodecanoic acid (PFDA)	<0.30		2.0	ng/L		08/12/26 13:10	08/13/26 10:10	1
Perfluorohexanesulfonic acid (PFHxS)	<0.31		2.0	ng/L		08/12/26 13:10	08/13/26 10:10	1
Perfluorobutanesulfonic acid (PFBS)	<0.36		2.0	ng/L		08/12/26 13:10	08/13/26 10:10	1
Perfluoroheptanoic acid (PFHpA)	<0.38		2.0	ng/L		08/12/26 13:10	08/13/26 10:10	1
Perfluorononanoic acid (PFNA)	<0.39		2.0	ng/L		08/12/26 13:10	08/13/26 10:10	1
Perfluorotetradecanoic acid (PFTA)	<0.53		2.0	ng/L		08/12/26 13:10	08/13/26 10:10	1
Perfluorotridecanoic acid (PFTTrDA)	<0.35		2.0	ng/L		08/12/26 13:10	08/13/26 10:10	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<0.29		2.0	ng/L		08/12/26 13:10	08/13/26 10:10	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.29		2.0	ng/L		08/12/26 13:10	08/13/26 10:10	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.59		2.0	ng/L		08/12/26 13:10	08/13/26 10:10	1
Surrogate	MBL MBL		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
d5-NEtFOSAA	100		70 - 130			08/12/26 13:10	08/13/26 10:10	1
13C2 PFHxA	103		70 - 130			08/12/26 13:10	08/13/26 10:10	1
13C2 PFDA	109		70 - 130			08/12/26 13:10	08/13/26 10:10	1

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QC Sample Results

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

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

Lab Sample ID: MBL 380-245997/20-A

Matrix: Water

Analysis Batch: 246221

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 245997

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3-GenX	99		70 - 130	08/12/26 13:10	08/13/26 10:10	1

Lab Sample ID: LCS 380-245997/22-A

Matrix: Water

Analysis Batch: 246221

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 245997

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	49.1	43.6		ng/L		89	70 - 130
Dimer Acid (HFPO-DA/GenX)							
Perfluorooctanesulfonic acid (PFOS)	49.1	48.7		ng/L		99	70 - 130
Perfluoroundecanoic acid (PFUnA)	49.1	46.7		ng/L		95	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	49.1	46.9		ng/L		96	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	49.1	44.5		ng/L		91	70 - 130
Perfluorohexanoic acid (PFHxA)	49.1	46.5		ng/L		95	70 - 130
Perfluorododecanoic acid (PFDoA)	49.1	47.1		ng/L		96	70 - 130
Perfluorooctanoic acid (PFOA)	49.1	47.5		ng/L		97	70 - 130
Perfluorodecanoic acid (PFDA)	49.1	46.3		ng/L		94	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	49.1	48.7		ng/L		99	70 - 130
Perfluorobutanesulfonic acid (PFBS)	49.1	47.8		ng/L		97	70 - 130
Perfluoroheptanoic acid (PFHpA)	49.1	46.3		ng/L		94	70 - 130
Perfluorononanoic acid (PFNA)	49.1	48.0		ng/L		98	70 - 130
Perfluorotetradecanoic acid (PFTA)	49.1	42.4		ng/L		86	70 - 130
Perfluorotridecanoic acid (PFTrDA)	49.1	47.9		ng/L		98	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	49.1	48.7		ng/L		99	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	49.1	46.4		ng/L		94	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	49.1	45.5		ng/L		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
d5-NEtFOSAA	119		70 - 130
13C2 PFHxA	122		70 - 130
13C2 PFDA	128		70 - 130
13C3-GenX	120		70 - 130

QC Sample Results

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

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

Lab Sample ID: MRL 380-245997/21-A

Matrix: Water

Analysis Batch: 246221

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 245997

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	1.96	1.73	J	ng/L		88	50 - 150
Dimer Acid (HFPO-DA/GenX)							
Perfluorooctanesulfonic acid (PFOS)	1.96	1.89	J	ng/L		96	50 - 150
Perfluoroundecanoic acid (PFUnA)	1.96	1.96	J	ng/L		100	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.96	1.90	J	ng/L		97	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.96	1.87	J	ng/L		95	50 - 150
Perfluorohexanoic acid (PFHxA)	1.96	1.94	J	ng/L		99	50 - 150
Perfluorododecanoic acid (PFDoA)	1.96	1.99	J	ng/L		101	50 - 150
Perfluorooctanoic acid (PFOA)	1.96	1.88	J	ng/L		96	50 - 150
Perfluorodecanoic acid (PFDA)	1.96	1.93	J	ng/L		98	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	1.96	2.00	J	ng/L		102	50 - 150
Perfluorobutanesulfonic acid (PFBS)	1.96	1.99	J	ng/L		101	50 - 150
Perfluoroheptanoic acid (PFHpA)	1.96	1.85	J	ng/L		94	50 - 150
Perfluorononanoic acid (PFNA)	1.96	1.96	J	ng/L		100	50 - 150
Perfluorotetradecanoic acid (PFTA)	1.96	1.82	J	ng/L		93	50 - 150
Perfluorotridecanoic acid (PFTrDA)	1.96	1.94	J	ng/L		99	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	1.96	1.90	J	ng/L		97	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	1.96	1.71	J	ng/L		87	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.96	1.82	J	ng/L		93	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	98		70 - 130
13C2 PFHxA	106		70 - 130
13C2 PFDA	108		70 - 130
13C3-GenX	100		70 - 130

Lab Sample ID: 380-230140-B-1-A MS

Matrix: Water

Analysis Batch: 246221

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 245997

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		24.6	24.4		ng/L		99	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorooctanesulfonic acid (PFOS)	<2.0		24.6	26.9		ng/L		106	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		24.6	24.9		ng/L		101	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		24.6	25.5		ng/L		104	70 - 130

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QC Sample Results

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

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

Lab Sample ID: 380-230140-B-1-A MS

Matrix: Water

Analysis Batch: 246221

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 245997

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits		
	Result	Qualifier	Added	Result	Qualifier			%Rec			
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		24.6	24.5		ng/L		100	70 - 130		
Perfluorohexanoic acid (PFHxA)	2.4		24.6	27.9		ng/L		104	70 - 130		
Perfluorododecanoic acid (PFDoA)	<2.0		24.6	25.5		ng/L		104	70 - 130		
Perfluorooctanoic acid (PFOA)	<2.0		24.6	26.3		ng/L		101	70 - 130		
Perfluorodecanoic acid (PFDA)	<2.0		24.6	25.2		ng/L		102	70 - 130		
Perfluorohexanesulfonic acid (PFHxS)	4.2		24.6	30.7		ng/L		108	70 - 130		
Perfluorobutanesulfonic acid (PFBS)	4.1		24.6	30.4		ng/L		107	70 - 130		
Perfluoroheptanoic acid (PFHpA)	<2.0		24.6	26.9		ng/L		105	70 - 130		
Perfluorononanoic acid (PFNA)	<2.0		24.6	26.3		ng/L		107	70 - 130		
Perfluorotetradecanoic acid (PFTA)	<2.0		24.6	24.3		ng/L		99	70 - 130		
Perfluorotridecanoic acid (PFTrDA)	<2.0		24.6	26.7		ng/L		108	70 - 130		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		24.6	25.5		ng/L		104	70 - 130		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		24.6	25.5		ng/L		104	70 - 130		
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		24.6	24.9		ng/L		101	70 - 130		
</											

Lab Sample ID: 380-230140-C-1-A MSD

Matrix: Water

Analysis Batch: 246221

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 245997

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		24.6	23.3		ng/L		95	70 - 130	4	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		24.6	27.0		ng/L		106	70 - 130	0	30
Perfluoroundecanoic acid (PFUnA)	<2.0		24.6	24.5		ng/L		100	70 - 130	1	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		24.6	25.1		ng/L		102	70 - 130	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		24.6	24.9		ng/L		101	70 - 130	2	30
Perfluorohexanoic acid (PFHxA)	2.4		24.6	27.2		ng/L		101	70 - 130	2	30
Perfluorododecanoic acid (PFDoA)	<2.0		24.6	25.2		ng/L		102	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	<2.0		24.6	26.0		ng/L		100	70 - 130	1	30
Perfluorodecanoic acid (PFDA)	<2.0		24.6	24.8		ng/L		101	70 - 130	2	30

Eurofins Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

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

Lab Sample ID: 380-230140-C-1-A MSD

Matrix: Water

Analysis Batch: 246221

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 245997

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanesulfonic acid (PFHxS)	4.2		24.6	30.8		ng/L		108	70 - 130	0	30
Perfluorobutanesulfonic acid (PFBS)	4.1		24.6	29.8		ng/L		104	70 - 130	2	30
Perfluoroheptanoic acid (PFHpA)	<2.0		24.6	25.6		ng/L		100	70 - 130	5	30
Perfluorononanoic acid (PFNA)	<2.0		24.6	25.2		ng/L		103	70 - 130	4	30
Perfluorotetradecanoic acid (PFTA)	<2.0		24.6	23.8		ng/L		97	70 - 130	2	30
Perfluorotridecanoic acid (PFTrDA)	<2.0		24.6	26.2		ng/L		107	70 - 130	2	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		24.6	25.3		ng/L		103	70 - 130	1	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		24.6	25.9		ng/L		105	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		24.6	24.5		ng/L		99	70 - 130	2	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
d5-NEtFOSAA	98		70 - 130								
13C2 PFHxA	100		70 - 130								
13C2 PFDA	103		70 - 130								
13C3-GenX	100		70 - 130								

QC Association Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

LCMS

Prep Batch: 245997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-230070-1	BWS2254-D1-AQ	Total/NA	Water	537.1 DW	
380-230070-2	BWS2254-D1-FB	Total/NA	Water	537.1 DW	
MBL 380-245997/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-245997/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-245997/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-230140-B-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-230140-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Prep Batch: 246062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-230070-1	BWS2254-D1-AQ	Total/NA	Water	533	
380-230070-2	BWS2254-D1-FB	Total/NA	Water	533	
MBL 380-246062/20-A	Method Blank	Total/NA	Water	533	
LCS 380-246062/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-246062/21-A	Lab Control Sample	Total/NA	Water	533	
380-230140-E-1-A MS	Matrix Spike	Total/NA	Water	533	
380-230140-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 246221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-230070-1	BWS2254-D1-AQ	Total/NA	Water	EPA 537.1 V2	245997
380-230070-2	BWS2254-D1-FB	Total/NA	Water	EPA 537.1 V2	245997
MBL 380-245997/20-A	Method Blank	Total/NA	Water	EPA 537.1 V2	245997
LCS 380-245997/22-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	245997
MRL 380-245997/21-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	245997
380-230140-B-1-A MS	Matrix Spike	Total/NA	Water	EPA 537.1 V2	245997
380-230140-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 537.1 V2	245997

Analysis Batch: 246222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-230070-1	BWS2254-D1-AQ	Total/NA	Water	533	246062
380-230070-2	BWS2254-D1-FB	Total/NA	Water	533	246062
MBL 380-246062/20-A	Method Blank	Total/NA	Water	533	246062
LCS 380-246062/22-A	Lab Control Sample	Total/NA	Water	533	246062
MRL 380-246062/21-A	Lab Control Sample	Total/NA	Water	533	246062
380-230140-E-1-A MS	Matrix Spike	Total/NA	Water	533	246062
380-230140-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	246062

Lab Chronicle

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

Client Sample ID: BWS2254-D1-AQ

Lab Sample ID: 380-230070-1

Date Collected: 08/10/26 09:15

Matrix: Water

Date Received: 08/11/26 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			246062	E2HD	EA POM	08/12/26 17:50
Total/NA	Analysis	533		1	246222	Y5FM	EA POM	08/13/26 12:24
Total/NA	Prep	537.1 DW			245997	LM3A	EA POM	08/12/26 13:10
Total/NA	Analysis	EPA 537.1 V2		1	246221	Y5FM	EA POM	08/13/26 11:27

Client Sample ID: BWS2254-D1-FB

Lab Sample ID: 380-230070-2

Date Collected: 08/10/26 09:15

Matrix: Water

Date Received: 08/11/26 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			246062	E2HD	EA POM	08/12/26 17:50
Total/NA	Analysis	533		1	246222	Y5FM	EA POM	08/13/26 12:33
Total/NA	Prep	537.1 DW			245997	LM3A	EA POM	08/12/26 13:10
Total/NA	Analysis	EPA 537.1 V2		1	246221	Y5FM	EA POM	08/13/26 11:36

Laboratory References:

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

Accreditation/Certification Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

Laboratory: Eurofins Pomona

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

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

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

Method Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

Method	Method Description	Protocol	Laboratory
533	Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water	EPA	EA POM
EPA 537.1 V2	EPA 537.1 Ver. 2.0 March 2020	EPA	EA POM
533	Extraction of Perfluorinated and Polyfluorinated Alkyl Acids	EPA	EA POM
537.1 DW	Extraction of Perfluorinated Alkyl Acids	EPA	EA POM

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

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

Sample Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-230070-1
SDG: Site D1 PFAS 533/537.1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-230070-1	BWS2254-D1-AQ	Water	08/10/26 09:15	08/11/26 10:10	Hawaii
380-230070-2	BWS2254-D1-FB	Water	08/10/26 09:15	08/11/26 10:10	Hawaii

- 1
- 2
- 3
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- 6
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- 11
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- 14
- 15
- 16
- 17

Ver 05/06/2024

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-230070-1
SDG Number: Site D1 PFAS 533/537.1

Login Number: 230070

List Number: 1

Creator: Segura, Ryan

List Source: Eurofins Pomona

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