eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 11/11/2026 10:19:45 AM

JOB DESCRIPTION

INTERA - Red-Hill-Incident
Site J1 PFAS 533/537.1

JOB NUMBER

380-246530-1

Eurofins Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

my EOL

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



Generated
11/11/2026 10:19:45 AM

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

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 7
Action Limit Summary 11
Surrogate Summary 12
Isotope Dilution Summary 13
QC Sample Results 15
QC Association Summary 26
Lab Chronicle 27
Certification Summary 28
Method Summary 29
Sample Summary 30
Chain of Custody 31
Receipt Checklists 32

Definitions/Glossary

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

Job ID: 380-246530-1
SDG: Site J1 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

Job ID: 380-246530-1 — Eurofins Pomona

Job Narrative
380-246530-1

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 11/5/2026 10:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°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: INTERA - Red-Hill-Incident

Job ID: 380-246530-1
SDG: Site J1 PFAS 533/537.1

Client Sample ID: BWS2253-J1-AQ — Lab Sample ID: 380-246530-1

No Detections.

Client Sample ID: BWS2253-J1-FB — Lab Sample ID: 380-246530-2

No Detections.

This Detection Summary does not include radiochemical test results.

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

Job ID: 380-246530-1
SDG: Site J1 PFAS 533/537.1

Client Sample ID: BWS2253-J1-AQ
Date Collected: 11/04/26 12:30
Date Received: 11/05/26 10:20

Lab Sample ID: 380-246530-1
Matrix: Drinking Water

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		11/08/26 12:32	11/10/26 07:22	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*93*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:22*	*1*
13C6 PFDA	*103*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:22*	*1*
13C5 PFHxA	*96*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:22*	*1*
13C4 PFHpA	*103*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:22*	*1*
13C8 PFOA	*104*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:22*	*1*
13C9 PFNA	*99*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:22*	*1*
13C7 PFUnA	*104*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:22*	*1*
13C2 PFDoA	*106*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:22*	*1*
13C4 PFBA	*102*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:22*	*1*
13C5 PFPeA	*102*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:22*	*1*
13C3 PFBS	*108*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:22*	*1*
13C3 PFHxS	*105*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:22*	*1*
13C8 PFOS	*105*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:22*	*1*

Client Sample ID: BWS2253-J1-AQ

Date Collected: 11/04/26 12:30
Date Received: 11/05/26 10:20

Lab Sample ID: 380-246530-1

Matrix: Drinking Water

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	*92*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:22*	*1*
13C2-6:2-FTS	*94*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:22*	*1*
13C2-8:2-FTS	*109*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:22*	*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		11/07/26 08:52	11/08/26 15:15	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:15	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:15	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:15	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:15	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:15	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:15	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:15	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:15	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:15	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:15	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:15	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:15	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:15	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:15	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*111*		*70 - 130*	*11/07/26 08:52*	*11/08/26 15:15*	*1*
13C2 PFHxA	*103*		*70 - 130*	*11/07/26 08:52*	*11/08/26 15:15*	*1*
13C2 PFDA	*106*		*70 - 130*	*11/07/26 08:52*	*11/08/26 15:15*	*1*
13C3-GenX	*98*		*70 - 130*	*11/07/26 08:52*	*11/08/26 15:15*	*1*

Client Sample ID: BWS2253-J1-FB

Date Collected: 11/04/26 12:30
Date Received: 11/05/26 10:20

Lab Sample ID: 380-246530-2

Matrix: Water

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		11/08/26 12:32	11/10/26 07:36	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1

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

Job ID: 380-246530-1
SDG: Site J1 PFAS 533/537.1

Client Sample ID: BWS2253-J1-FB
Date Collected: 11/04/26 12:30
Date Received: 11/05/26 10:20

Lab Sample ID: 380-246530-2
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		11/08/26 12:32	11/10/26 07:36	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*96*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:36*	*1*
13C6 PFDA	*101*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:36*	*1*
13C5 PFHxA	*98*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:36*	*1*
13C4 PFHpA	*105*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:36*	*1*
13C8 PFOA	*100*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:36*	*1*
13C9 PFNA	*103*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:36*	*1*
13C7 PFUnA	*101*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:36*	*1*
13C2 PFDoA	*101*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:36*	*1*
13C4 PFBA	*104*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:36*	*1*
13C5 PFPeA	*112*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:36*	*1*
13C3 PFBS	*103*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:36*	*1*
13C3 PFHxS	*110*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:36*	*1*
13C8 PFOS	*109*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:36*	*1*
13C2-4:2-FTS	*100*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:36*	*1*
13C2-6:2-FTS	*92*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:36*	*1*
13C2-8:2-FTS	*107*		*50 - 200*	*11/08/26 12:32*	*11/10/26 07:36*	*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		11/07/26 08:52	11/08/26 15:25	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:25	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:25	1

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

Job ID: 380-246530-1
SDG: Site J1 PFAS 533/537.1

Client Sample ID: BWS2253-J1-FB
Date Collected: 11/04/26 12:30
Date Received: 11/05/26 10:20

Lab Sample ID: 380-246530-2
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:25	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:25	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:25	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:25	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:25	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:25	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:25	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:25	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:25	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:25	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:25	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:25	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:25	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/07/26 08:52	11/08/26 15:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*108*		*70 - 130*	*11/07/26 08:52*	*11/08/26 15:25*	*1*
13C2 PFHxA	*105*		*70 - 130*	*11/07/26 08:52*	*11/08/26 15:25*	*1*
13C2 PFDA	*109*		*70 - 130*	*11/07/26 08:52*	*11/08/26 15:25*	*1*
13C3-GenX	*102*		*70 - 130*	*11/07/26 08:52*	*11/08/26 15:25*	*1*

Action Limit Summary

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

Job ID: 380-246530-1
SDG: Site J1 PFAS 533/537.1

Client Sample ID: BWS2253-J1-AQ

Lab Sample ID: 380-246530-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<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

Client Sample ID: BWS2253-J1-FB

Lab Sample ID: 380-246530-2

Compliance Check

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

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

Surrogate Summary

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

Job ID: 380-246530-1
SDG: Site J1 PFAS 533/537.1

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

Matrix: Drinking Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS	PFHxA	PFDA	GenX
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)
380-246530-1	BWS2253-J1-AQ	111	103	106	98

Surrogate Legend

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

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

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS	PFHxA	PFDA	GenX
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)
380-246530-2	BWS2253-J1-FB	108	105	109	102
380-246584-K-2-A MS	Matrix Spike	106	106	108	107
380-246584-L-2-A MSD	Matrix Spike Duplicate	106	104	106	100
LCS 380-264218/23-A	Lab Control Sample	97	97	102	92
MBL 380-264218/21-A	Method Blank	110	101	110	100
MRL 380-264218/22-A	Lab Control Sample	100	101	107	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: 380-246530-1
SDG: Site J1 PFAS 533/537.1

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

Matrix: Drinking Water — **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		HFPODA	C6PFDA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	13C7PUA	PFDoA
Lab Sample ID	Client Sample ID	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)
380-246530-1	BWS2253-J1-AQ	93	103	96	103	104	99	104	106

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	C3PFBS	C3PFHS	C8PFOS	42FTS	62FTS	82FTS
Lab Sample ID	Client Sample ID	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)
380-246530-1	BWS2253-J1-AQ	102	102	108	105	105	92	94	109

Surrogate Legend

HFPODA = 13C3 HFPO-DA
C6PFDA = 13C6 PFDA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
13C7PUA = 13C7 PFUnA
PFDoA = 13C2 PFDoA
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

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

Matrix: Water — **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		HFPODA	C6PFDA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	13C7PUA	PFDoA
Lab Sample ID	Client Sample ID	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)
380-246523-E-1-A MS	Matrix Spike	107	108	103	106	106	105	104	113
380-246523-F-1-A MSD	Matrix Spike Duplicate	113	113	112	110	113	114	113	113
380-246530-2	BWS2253-J1-FB	96	101	98	105	100	103	101	101
LCS 380-264249/22-A	Lab Control Sample	90	96	91	97	95	98	100	102
MBL 380-264249/20-A	Method Blank	77	91	80	83	89	88	91	92
MRL 380-264249/21-A	Lab Control Sample	79	89	80	84	88	87	86	88

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	C3PFBS	C3PFHS	C8PFOS	42FTS	62FTS	82FTS
Lab Sample ID	Client Sample ID	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)
380-246523-E-1-A MS	Matrix Spike	109	108	110	106	106	98	104	104
380-246523-F-1-A MSD	Matrix Spike Duplicate	109	107	111	104	107	99	101	101
380-246530-2	BWS2253-J1-FB	104	112	103	110	109	100	92	107
LCS 380-264249/22-A	Lab Control Sample	95	96	112	109	112	107	101	105
MBL 380-264249/20-A	Method Blank	90	92	105	106	108	105	107	111
MRL 380-264249/21-A	Lab Control Sample	89	88	102	107	105	100	105	106

Surrogate Legend

HFPODA = 13C3 HFPO-DA
C6PFDA = 13C6 PFDA
13C5PHA = 13C5 PFHxA

Isotope Dilution Summary

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

Job ID: 380-246530-1
SDG: Site J1 PFAS 533/537.1

C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
13C7PUA = 13C7 PFUnA
PFDoA = 13C2 PFDoA
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

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

Lab Sample ID: MBL 380-264249/20-A
Matrix: Water
Analysis Batch: 264593

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 264249

Analyte	MBL Result	MBL Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.29		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.59		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<0.98		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Perfluorobutanesulfonic acid (PFBS)	<0.36		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Perfluorododecanoic acid (PFDoA)	<0.53		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Perfluoroheptanoic acid (PFHpA)	<0.38		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Perfluorohexanesulfonic acid (PFHxS)	<0.31		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Perfluorohexanoic acid (PFHxA)	<0.45		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Perfluorononanoic acid (PFNA)	<0.39		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Perfluorooctanesulfonic acid (PFOS)	<0.42		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Perfluorooctanoic acid (PFOA)	<0.37		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Perfluoroundecanoic acid (PFUnA)	<0.41		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Perfluorobutanoic acid (PFBA)	<0.68		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.36		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.47		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.46		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.24		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.45		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Perfluoropentanoic acid (PFPeA)	<0.37		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.35		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1
Perfluoropentanesulfonic acid (PFPeS)	<0.38		2.0		ng/L		11/08/26 12:32	11/10/26 01:58	1

Isotope Dilution	*MBL %Recovery*	*MBL Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*77*		*50 - 200*	*11/08/26 12:32*	*11/10/26 01:58*	*1*
13C6 PFDA	*91*		*50 - 200*	*11/08/26 12:32*	*11/10/26 01:58*	*1*
13C5 PFHxA	*80*		*50 - 200*	*11/08/26 12:32*	*11/10/26 01:58*	*1*
13C4 PFHpA	*83*		*50 - 200*	*11/08/26 12:32*	*11/10/26 01:58*	*1*
13C8 PFOA	*89*		*50 - 200*	*11/08/26 12:32*	*11/10/26 01:58*	*1*
13C9 PFNA	*88*		*50 - 200*	*11/08/26 12:32*	*11/10/26 01:58*	*1*
13C7 PFUnA	*91*		*50 - 200*	*11/08/26 12:32*	*11/10/26 01:58*	*1*
13C2 PFDoA	*92*		*50 - 200*	*11/08/26 12:32*	*11/10/26 01:58*	*1*
13C4 PFBA	*90*		*50 - 200*	*11/08/26 12:32*	*11/10/26 01:58*	*1*
13C5 PFPeA	*92*		*50 - 200*	*11/08/26 12:32*	*11/10/26 01:58*	*1*
13C3 PFBS	*105*		*50 - 200*	*11/08/26 12:32*	*11/10/26 01:58*	*1*
13C3 PFHxS	*106*		*50 - 200*	*11/08/26 12:32*	*11/10/26 01:58*	*1*

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

Lab Sample ID: MBL 380-264249/20-A
Matrix: Water
Analysis Batch: 264593

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 264249

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	108		50 - 200	11/08/26 12:32	11/10/26 01:58	1
13C2-4:2-FTS	105		50 - 200	11/08/26 12:32	11/10/26 01:58	1
13C2-6:2-FTS	107		50 - 200	11/08/26 12:32	11/10/26 01:58	1
13C2-8:2-FTS	111		50 - 200	11/08/26 12:32	11/10/26 01:58	1

Lab Sample ID: LCS 380-264249/22-A
Matrix: Water
Analysis Batch: 264593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 264249

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	58.9	54.9		ng/L		93	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	58.9	55.8		ng/L		95	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	58.9	53.9		ng/L		91	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	58.9	58.6		ng/L		99	70 - 130
Perfluorobutanesulfonic acid (PFBS)	58.9	53.1		ng/L		90	70 - 130
Perfluorodecanoic acid (PFDA)	58.9	60.4		ng/L		102	70 - 130
Perfluorododecanoic acid (PFDoA)	58.9	58.8		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	58.9	57.1		ng/L		97	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	58.9	57.4		ng/L		97	70 - 130
Perfluorohexanoic acid (PFHxA)	58.9	60.1		ng/L		102	70 - 130
Perfluorononanoic acid (PFNA)	58.9	56.7		ng/L		96	70 - 130
Perfluorooctanesulfonic acid (PFOS)	58.9	56.9		ng/L		97	70 - 130
Perfluorooctanoic acid (PFOA)	58.9	57.0		ng/L		97	70 - 130
Perfluoroundecanoic acid (PFUnA)	58.9	59.1		ng/L		100	70 - 130
Perfluorobutanoic acid (PFBA)	58.9	58.3		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	58.9	61.5		ng/L		104	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	58.9	59.1		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	58.9	63.9		ng/L		108	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	58.9	57.8		ng/L		98	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	58.9	65.6		ng/L		111	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	58.9	56.8		ng/L		96	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	58.9	56.2		ng/L		95	70 - 130
Perfluoropentanoic acid (PFPeA)	58.9	55.7		ng/L		94	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	58.9	57.5		ng/L		98	70 - 130

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

Lab Sample ID: LCS 380-264249/22-A
Matrix: Water
Analysis Batch: 264593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 264249

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoropentanesulfonic acid (PFPeS)			58.9	56.1		ng/L		95	70 - 130		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C3 HFPO-DA	*90*		*50 - 200*
13C6 PFDA	*96*		*50 - 200*
13C5 PFHxA	*91*		*50 - 200*
13C4 PFHpA	*97*		*50 - 200*
13C8 PFOA	*95*		*50 - 200*
13C9 PFNA	*98*		*50 - 200*
13C7 PFUnA	*100*		*50 - 200*
13C2 PFDoA	*102*		*50 - 200*
13C4 PFBA	*95*		*50 - 200*
13C5 PFPeA	*96*		*50 - 200*
13C3 PFBS	*112*		*50 - 200*
13C3 PFHxS	*109*		*50 - 200*
13C8 PFOS	*112*		*50 - 200*
13C2-4:2-FTS	*107*		*50 - 200*
13C2-6:2-FTS	*101*		*50 - 200*
13C2-8:2-FTS	*105*		*50 - 200*

Lab Sample ID: MRL 380-264249/21-A
Matrix: Water
Analysis Batch: 264593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 264249

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			1.96	2.19	J	ng/L		112	50 - 150		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)			1.96	2.18	J	ng/L		111	50 - 150		
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			1.96	1.92	J	ng/L		98	50 - 150		
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)			1.96	2.07	J	ng/L		105	50 - 150		
Perfluorobutanesulfonic acid (PFBS)			1.96	2.05	J	ng/L		104	50 - 150		
Perfluorodecanoic acid (PFDA)			1.96	2.15	J	ng/L		109	50 - 150		
Perfluorododecanoic acid (PFDoA)			1.96	2.28	J	ng/L		116	50 - 150		
Perfluoroheptanoic acid (PFHpA)			1.96	2.22	J	ng/L		113	50 - 150		
Perfluorohexanesulfonic acid (PFHxS)			1.96	2.01	J	ng/L		102	50 - 150		
Perfluorohexanoic acid (PFHxA)			1.96	2.29	J	ng/L		116	50 - 150		
Perfluorononanoic acid (PFNA)			1.96	2.13	J	ng/L		108	50 - 150		
Perfluorooctanesulfonic acid (PFOS)			1.96	2.21	J	ng/L		113	50 - 150		
Perfluorooctanoic acid (PFOA)			1.96	2.21	J	ng/L		113	50 - 150		
Perfluoroundecanoic acid (PFUnA)			1.96	2.17	J	ng/L		110	50 - 150		
Perfluorobutanoic acid (PFBA)			1.96	2.11	J	ng/L		107	50 - 150		

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

Lab Sample ID: MRL 380-264249/21-A
Matrix: Water
Analysis Batch: 264593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 264249

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	1.96	2.36	J	ng/L		120	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	1.96	2.28	J	ng/L		116	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	1.96	2.01	J	ng/L		103	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	1.96	2.16	J	ng/L		110	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	1.96	2.43	J	ng/L		124	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	1.96	2.03	J	ng/L		103	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	1.96	1.96	J	ng/L		100	50 - 150
Perfluoropentanoic acid (PFPeA)	1.96	2.13	J	ng/L		108	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	1.96	2.09	J	ng/L		106	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	1.96	1.96	J	ng/L		100	50 - 150

Isotope Dilution	*MRL %Recovery*	*MRL Qualifier*	*Limits*
13C3 HFPO-DA	*79*		*50 - 200*
13C6 PFDA	*89*		*50 - 200*
13C5 PFHxA	*80*		*50 - 200*
13C4 PFHpA	*84*		*50 - 200*
13C8 PFOA	*88*		*50 - 200*
13C9 PFNA	*87*		*50 - 200*
13C7 PFUnA	*86*		*50 - 200*
13C2 PFDoA	*88*		*50 - 200*
13C4 PFBA	*89*		*50 - 200*
13C5 PFPeA	*88*		*50 - 200*
13C3 PFBS	*102*		*50 - 200*
13C3 PFHxS	*107*		*50 - 200*
13C8 PFOS	*105*		*50 - 200*
13C2-4:2-FTS	*100*		*50 - 200*
13C2-6:2-FTS	*105*		*50 - 200*
13C2-8:2-FTS	*106*		*50 - 200*

Lab Sample ID: 380-246523-E-1-A MS
Matrix: Water
Analysis Batch: 264593

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 264249

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		118	117		ng/L		99	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		118	114		ng/L		97	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		118	115		ng/L		97	70 - 130

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

Lab Sample ID: 380-246523-E-1-A MS
Matrix: Water
Analysis Batch: 264593

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 264249

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		118	115		ng/L		97	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		118	112		ng/L		94	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		118	115		ng/L		97	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		118	113		ng/L		95	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		118	116		ng/L		97	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		118	117		ng/L		98	70 - 130
Perfluorohexanoic acid (PFHxA)	2.0		118	121		ng/L		101	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		118	118		ng/L		99	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		118	116		ng/L		97	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		118	114		ng/L		96	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		118	117		ng/L		99	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		118	115		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		118	125		ng/L		105	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		118	121		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		118	115		ng/L		97	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		118	119		ng/L		101	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		118	116		ng/L		98	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		118	113		ng/L		95	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		118	110		ng/L		93	70 - 130
Perfluoropentanoic acid (PFPeA)	2.3		118	111		ng/L		91	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		118	114		ng/L		96	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		118	115		ng/L		97	70 - 130

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C3 HFPO-DA	*107*		*50 - 200*
13C6 PFDA	*108*		*50 - 200*
13C5 PFHxA	*103*		*50 - 200*
13C4 PFHpA	*106*		*50 - 200*
13C8 PFOA	*106*		*50 - 200*
13C9 PFNA	*105*		*50 - 200*
13C7 PFUnA	*104*		*50 - 200*
13C2 PFDoA	*113*		*50 - 200*
13C4 PFBA	*109*		*50 - 200*
13C5 PFPeA	*108*		*50 - 200*
13C3 PFBS	*110*		*50 - 200*
13C3 PFHxS	*106*		*50 - 200*
13C8 PFOS	*106*		*50 - 200*

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

Lab Sample ID: 380-246523-E-1-A MS
Matrix: Water
Analysis Batch: 264593

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 264249

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C2-4:2-FTS	98		50 - 200
13C2-6:2-FTS	104		50 - 200
13C2-8:2-FTS	104		50 - 200

Lab Sample ID: 380-246523-F-1-A MSD
Matrix: Water
Analysis Batch: 264593

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 264249

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		118	112		ng/L		95	70 - 130	4	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		118	112		ng/L		95	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		118	116		ng/L		98	70 - 130	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		118	116		ng/L		99	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		118	109		ng/L		91	70 - 130	3	30
Perfluorodecanoic acid (PFDA)	<2.0		118	116		ng/L		98	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<2.0		118	115		ng/L		98	70 - 130	2	30
Perfluoroheptanoic acid (PFHpA)	<2.0		118	120		ng/L		101	70 - 130	3	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		118	117		ng/L		98	70 - 130	0	30
Perfluorohexanoic acid (PFHxA)	2.0		118	119		ng/L		99	70 - 130	1	30
Perfluorononanoic acid (PFNA)	<2.0		118	108		ng/L		92	70 - 130	8	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		118	113		ng/L		96	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		118	114		ng/L		96	70 - 130	0	30
Perfluoroundecanoic acid (PFUnA)	<2.0		118	115		ng/L		98	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	<2.0		118	115		ng/L		97	70 - 130	0	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		118	122		ng/L		103	70 - 130	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		118	115		ng/L		98	70 - 130	4	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		118	114		ng/L		96	70 - 130	1	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		118	116		ng/L		99	70 - 130	2	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		118	115		ng/L		98	70 - 130	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		118	112		ng/L		95	70 - 130	1	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		118	113		ng/L		95	70 - 130	2	30
Perfluoropentanoic acid (PFPeA)	2.3		118	112		ng/L		93	70 - 130	2	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		118	115		ng/L		98	70 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		118	120		ng/L		101	70 - 130	4	30

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

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C3 HFPO-DA	113		50 - 200
13C6 PFDA	113		50 - 200
13C5 PFHxA	112		50 - 200
13C4 PFHpA	110		50 - 200
13C8 PFOA	113		50 - 200
13C9 PFNA	114		50 - 200
13C7 PFUnA	113		50 - 200
13C2 PFDoA	113		50 - 200
13C4 PFBA	109		50 - 200
13C5 PFPeA	107		50 - 200
13C3 PFBS	111		50 - 200
13C3 PFHxS	104		50 - 200
13C8 PFOS	107		50 - 200
13C2-4:2-FTS	99		50 - 200
13C2-6:2-FTS	101		50 - 200
13C2-8:2-FTS	101		50 - 200

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

Lab Sample ID: MBL 380-264218/21-A
Matrix: Water
Analysis Batch: 264247

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 264218

Analyte	MBL Result	MBL Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<0.98		2.0		ng/L		11/07/26 08:52	11/08/26 12:07	1
Perfluorooctanesulfonic acid (PFOS)	<0.42		2.0		ng/L		11/07/26 08:52	11/08/26 12:07	1
Perfluoroundecanoic acid (PFUnA)	<0.41		2.0		ng/L		11/07/26 08:52	11/08/26 12:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.57		2.0		ng/L		11/07/26 08:52	11/08/26 12:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.41		2.0		ng/L		11/07/26 08:52	11/08/26 12:07	1
Perfluorohexanoic acid (PFHxA)	<0.45		2.0		ng/L		11/07/26 08:52	11/08/26 12:07	1
Perfluorododecanoic acid (PFDoA)	<0.53		2.0		ng/L		11/07/26 08:52	11/08/26 12:07	1
Perfluorooctanoic acid (PFOA)	<0.37		2.0		ng/L		11/07/26 08:52	11/08/26 12:07	1
Perfluorodecanoic acid (PFDA)	<0.30		2.0		ng/L		11/07/26 08:52	11/08/26 12:07	1
Perfluorohexanesulfonic acid (PFHxS)	<0.31		2.0		ng/L		11/07/26 08:52	11/08/26 12:07	1
Perfluorobutanesulfonic acid (PFBS)	<0.36		2.0		ng/L		11/07/26 08:52	11/08/26 12:07	1
Perfluoroheptanoic acid (PFHpA)	<0.38		2.0		ng/L		11/07/26 08:52	11/08/26 12:07	1
Perfluorononanoic acid (PFNA)	<0.39		2.0		ng/L		11/07/26 08:52	11/08/26 12:07	1
Perfluorotetradecanoic acid (PFTA)	<0.53		2.0		ng/L		11/07/26 08:52	11/08/26 12:07	1
Perfluorotridecanoic acid (PFTrDA)	<0.35		2.0		ng/L		11/07/26 08:52	11/08/26 12:07	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.29		2.0		ng/L		11/07/26 08:52	11/08/26 12:07	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.29		2.0		ng/L		11/07/26 08:52	11/08/26 12:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.59		2.0		ng/L		11/07/26 08:52	11/08/26 12:07	1

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	110		70 - 130	11/07/26 08:52	11/08/26 12:07	1
13C2 PFHxA	101		70 - 130	11/07/26 08:52	11/08/26 12:07	1
13C2 PFDA	110		70 - 130	11/07/26 08:52	11/08/26 12:07	1

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

Lab Sample ID: MBL 380-264218/21-A
Matrix: Water
Analysis Batch: 264247

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 264218

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3-GenX	100		70 - 130	11/07/26 08:52	11/08/26 12:07	1

Lab Sample ID: LCS 380-264218/23-A
Matrix: Water
Analysis Batch: 264247

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 264218

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	24.5	22.6		ng/L		92	70 - 130
Perfluorooctanesulfonic acid (PFOS)	24.5	25.2		ng/L		103	70 - 130
Perfluoroundecanoic acid (PFUnA)	24.5	26.6		ng/L		109	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.5	24.4		ng/L		100	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.5	23.8		ng/L		97	70 - 130
Perfluorohexanoic acid (PFHxA)	24.5	22.8		ng/L		93	70 - 130
Perfluorododecanoic acid (PFDoA)	24.5	26.4		ng/L		108	70 - 130
Perfluorooctanoic acid (PFOA)	24.5	24.6		ng/L		100	70 - 130
Perfluorodecanoic acid (PFDA)	24.5	25.1		ng/L		103	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	24.5	25.5		ng/L		104	70 - 130
Perfluorobutanesulfonic acid (PFBS)	24.5	24.6		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	24.5	23.6		ng/L		96	70 - 130
Perfluorononanoic acid (PFNA)	24.5	25.3		ng/L		103	70 - 130
Perfluorotetradecanoic acid (PFTA)	24.5	26.8		ng/L		109	70 - 130
Perfluorotridecanoic acid (PFTrDA)	24.5	29.0		ng/L		118	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	24.5	25.1		ng/L		102	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	24.5	25.8		ng/L		105	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	24.5	23.5		ng/L		96	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
d5-NEtFOSAA	97		70 - 130
13C2 PFHxA	97		70 - 130
13C2 PFDA	102		70 - 130
13C3-GenX	92		70 - 130

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

Lab Sample ID: MRL 380-264218/22-A
Matrix: Water
Analysis Batch: 264247

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 264218

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	1.96	2.00	J	ng/L		102	50 - 150
Perfluorooctanesulfonic acid (PFOS)	1.96	2.02	J	ng/L		103	50 - 150
Perfluoroundecanoic acid (PFUnA)	1.96	2.18	J	ng/L		111	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.96	1.94	J	ng/L		99	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.96	2.01	J	ng/L		102	50 - 150
Perfluorohexanoic acid (PFHxA)	1.96	1.99	J	ng/L		101	50 - 150
Perfluorododecanoic acid (PFDoA)	1.96	2.19	J	ng/L		112	50 - 150
Perfluorooctanoic acid (PFOA)	1.96	2.06	J	ng/L		105	50 - 150
Perfluorodecanoic acid (PFDA)	1.96	2.01	J	ng/L		102	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	1.96	1.96	J	ng/L		100	50 - 150
Perfluorobutanesulfonic acid (PFBS)	1.96	1.88	J	ng/L		96	50 - 150
Perfluoroheptanoic acid (PFHpA)	1.96	2.00	J	ng/L		102	50 - 150
Perfluorononanoic acid (PFNA)	1.96	2.03	J	ng/L		103	50 - 150
Perfluorotetradecanoic acid (PFTA)	1.96	2.10	J	ng/L		107	50 - 150
Perfluorotridecanoic acid (PFTrDA)	1.96	2.28	J	ng/L		116	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	1.96	1.92	J	ng/L		98	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	1.96	1.90	J	ng/L		97	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.96	2.02	J	ng/L		103	50 - 150

Surrogate	*MRL %Recovery*	*MRL Qualifier*	*Limits*
d5-NEtFOSAA	*100*		*70 - 130*
13C2 PFHxA	*101*		*70 - 130*
13C2 PFDA	*107*		*70 - 130*
13C3-GenX	*100*		*70 - 130*

Lab Sample ID: 380-246584-K-2-A MS
Matrix: Water
Analysis Batch: 264247

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 264218

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		24.7	25.6		ng/L		104	70 - 130
Perfluorooctanesulfonic acid (PFOS)	22		24.7	45.6		ng/L		96	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		24.7	27.2		ng/L		110	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		24.7	25.4		ng/L		103	70 - 130

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

Lab Sample ID: 380-246584-K-2-A MS
Matrix: Water
Analysis Batch: 264247

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 264218

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		24.7	25.6		ng/L		104	70 - 130
Perfluorohexanoic acid (PFHxA)	13		24.7	36.7		ng/L		97	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		24.7	26.6		ng/L		108	70 - 130
Perfluorooctanoic acid (PFOA)	16		24.7	41.5		ng/L		103	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		24.7	27.3		ng/L		105	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	5.0		24.7	29.2		ng/L		98	70 - 130
Perfluorobutanesulfonic acid (PFBS)	14		24.7	38.0		ng/L		98	70 - 130
Perfluoroheptanoic acid (PFHpA)	6.1		24.7	31.6		ng/L		103	70 - 130
Perfluorononanoic acid (PFNA)	2.2		24.7	28.4		ng/L		106	70 - 130
Perfluorotetradecanoic acid (PFTA)	<2.0		24.7	26.2		ng/L		106	70 - 130
Perfluorotridecanoic acid (PFTrDA)	<2.0		24.7	29.8		ng/L		121	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		24.7	25.5		ng/L		103	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		24.7	25.3		ng/L		103	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		24.7	25.0		ng/L		102	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
d5-NEtFOSAA	*106*		*70 - 130*
13C2 PFHxA	*106*		*70 - 130*
13C2 PFDA	*108*		*70 - 130*
13C3-GenX	*107*		*70 - 130*

Lab Sample ID: 380-246584-L-2-A MSD
Matrix: Water
Analysis Batch: 264247

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 264218

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	25.0		ng/L		102	70 - 130	2	30
Perfluorooctanesulfonic acid (PFOS)	22		24.6	45.9		ng/L		97	70 - 130	1	30
Perfluoroundecanoic acid (PFUnA)	<2.0		24.6	26.8		ng/L		109	70 - 130	1	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		24.6	25.7		ng/L		104	70 - 130	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		24.6	25.8		ng/L		105	70 - 130	1	30
Perfluorohexanoic acid (PFHxA)	13		24.6	37.4		ng/L		101	70 - 130	2	30
Perfluorododecanoic acid (PFDoA)	<2.0		24.6	27.7		ng/L		113	70 - 130	4	30
Perfluorooctanoic acid (PFOA)	16		24.6	40.8		ng/L		101	70 - 130	2	30
Perfluorodecanoic acid (PFDA)	<2.0		24.6	26.3		ng/L		101	70 - 130	4	30

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

Lab Sample ID: 380-246584-L-2-A MSD
Matrix: Water
Analysis Batch: 264247

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 264218

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanesulfonic acid (PFHxS)	5.0		24.6	30.3		ng/L		103	70 - 130	4	30
Perfluorobutanesulfonic acid (PFBS)	14		24.6	38.7		ng/L		101	70 - 130	2	30
Perfluoroheptanoic acid (PFHpA)	6.1		24.6	31.0		ng/L		101	70 - 130	2	30
Perfluorononanoic acid (PFNA)	2.2		24.6	28.1		ng/L		105	70 - 130	1	30
Perfluorotetradecanoic acid (PFTA)	<2.0		24.6	26.6		ng/L		108	70 - 130	1	30
Perfluorotridecanoic acid (PFTrDA)	<2.0		24.6	30.2		ng/L		123	70 - 130	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		24.6	25.4		ng/L		103	70 - 130	0	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		24.6	25.7		ng/L		104	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		24.6	25.8		ng/L		105	70 - 130	3	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
d5-NEtFOSAA	*106*		*70 - 130*
13C2 PFHxA	*104*		*70 - 130*
13C2 PFDA	*106*		*70 - 130*
13C3-GenX	*100*		*70 - 130*

LCMS

Prep Batch: 264218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-246530-1	BWS2253-J1-AQ	Total/NA	Drinking Water	537.1 DW	
380-246530-2	BWS2253-J1-FB	Total/NA	Water	537.1 DW	
MBL 380-264218/21-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-264218/23-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-264218/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-246584-K-2-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-246584-L-2-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 264247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-246530-1	BWS2253-J1-AQ	Total/NA	Drinking Water	EPA 537.1 V2	264218
380-246530-2	BWS2253-J1-FB	Total/NA	Water	EPA 537.1 V2	264218
MBL 380-264218/21-A	Method Blank	Total/NA	Water	EPA 537.1 V2	264218
LCS 380-264218/23-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	264218
MRL 380-264218/22-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	264218
380-246584-K-2-A MS	Matrix Spike	Total/NA	Water	EPA 537.1 V2	264218
380-246584-L-2-A MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 537.1 V2	264218

Prep Batch: 264249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-246530-1	BWS2253-J1-AQ	Total/NA	Drinking Water	533	
380-246530-2	BWS2253-J1-FB	Total/NA	Water	533	
MBL 380-264249/20-A	Method Blank	Total/NA	Water	533	
LCS 380-264249/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-264249/21-A	Lab Control Sample	Total/NA	Water	533	
380-246523-E-1-A MS	Matrix Spike	Total/NA	Water	533	
380-246523-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 264593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-246530-1	BWS2253-J1-AQ	Total/NA	Drinking Water	533	264249
380-246530-2	BWS2253-J1-FB	Total/NA	Water	533	264249
MBL 380-264249/20-A	Method Blank	Total/NA	Water	533	264249
LCS 380-264249/22-A	Lab Control Sample	Total/NA	Water	533	264249
MRL 380-264249/21-A	Lab Control Sample	Total/NA	Water	533	264249
380-246523-E-1-A MS	Matrix Spike	Total/NA	Water	533	264249
380-246523-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	264249

Lab Chronicle

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

Job ID: 380-246530-1
SDG: Site J1 PFAS 533/537.1

Client Sample ID: BWS2253-J1-AQ

Lab Sample ID: 380-246530-1

Date Collected: 11/04/26 12:30
Matrix: Drinking Water
Date Received: 11/05/26 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			264249	N8NE	EA POM	11/08/26 12:32
Total/NA	Analysis	533		1	264593	Y5FM	EA POM	11/10/26 07:22
Total/NA	Prep	537.1 DW			264218	E9PK	EA POM	11/07/26 08:52
Total/NA	Analysis	EPA 537.1 V2		1	264247	UKDT	EA POM	11/08/26 15:15

Client Sample ID: BWS2253-J1-FB

Lab Sample ID: 380-246530-2

Date Collected: 11/04/26 12:30
Matrix: Water
Date Received: 11/05/26 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			264249	N8NE	EA POM	11/08/26 12:32
Total/NA	Analysis	533		1	264593	Y5FM	EA POM	11/10/26 07:36
Total/NA	Prep	537.1 DW			264218	E9PK	EA POM	11/07/26 08:52
Total/NA	Analysis	EPA 537.1 V2		1	264247	UKDT	EA POM	11/08/26 15:25

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: 380-246530-1
SDG: Site J1 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	01-31-27

Method Summary

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

Job ID: 380-246530-1
SDG: Site J1 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: 380-246530-1
SDG: Site J1 PFAS 533/537.1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-246530-1	BWS2253-J1-AQ	Drinking Water	11/04/26 12:30	11/05/26 10:20	Hawaii
380-246530-2	BWS2253-J1-FB	Water	11/04/26 12:30	11/05/26 10:20	Hawaii

Eurofins Pomona
941 Corporate Center Drive
Pomona CA 91768-2642
Phone (626) 386-1100

Chain of Custody Record

eurofins | Environment Testing

380-246530 COC

Client Information	Sampler: H Bentley (808) 321-0683	Lab PM: Lopez Maria	Carrier Tracking No(s):	COC No:
Client Contact: Mr Erwin Kawata	Phone: 858-205-0730	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: City & County of Honolulu	PWSID:			Job #:
Address: 630 South Beretania Street	Due Date Requested:			
City: Honolulu	TAT Requested (days): Standard			
State, Zip: HI 96843	Compliance Project: Δ Yes X No			
Phone: 808-748-5066	PO #:			
Email: ekawata@hbws.org	WO #:			
Project Name: INTERA - Red-Hill-Incident	Project #: 38000861			
Site: J1	SSOW#:			

Analysis Requested

Preservation Codes
A - HCL
N - None
I - AMMONIUM ACETATE
Y - TRIZMA

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	533 - All Analytes	537 1_DW_PREC - 537 1 Full List	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	I	Y	X	
BWS2253-J1-AQ	11/4/26	12:30	G	Water	N	N	3	3	6	
BWS2253-J1-FB	"	"	G	Water	N	N	1	1	2	FIELD REAGANT BLANK

Possible Hazard Identification
☐ X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II III, IV Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FedX: 8797 5370 3794		
Relinquished by: [signature]	Date/Time: 11/4/26 14.00	Company: INTERA, INC	Received by: [signature] Mark Urrutia	Date/Time: 11/5/26 1020	Company: CEAP
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: (631A) 2.7+01 - 2.8 ice-frozen

Ver 05/06/2024

11/11/2026

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-246530-1
SDG Number: Site J1 PFAS 533/537.1

Login Number: 246530
List Number: 1
Creator: Abaya, Ashton

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	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	