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

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JOB DESCRIPTION

INTERA - Red-Hill-Incident
Site H1 PFAS 533/537.1

JOB NUMBER

380-246250-1

Eurofins Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

myEOL

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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Authorized for release by
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Definitions/Glossary

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

Job ID: 380-246250-1
SDG: Site H1 PFAS 533/537.1

Qualifiers

LCMS

Qualifier	Qualifier Description
E	Result exceeded calibration range.
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 Narrative
380-246250-1

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 11/4/2026 2:30 PM. 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 2.3°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: 380-246250-1
SDG: Site H1 PFAS 533/537.1

Client Sample ID: BWS2253-H1-AQ — Lab Sample ID: 380-246250-1

No Detections.

Client Sample ID: BWS2253-H1-FB — Lab Sample ID: 380-246250-2

No Detections.

This Detection Summary does not include radiochemical test results.

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

Job ID: 380-246250-1
SDG: Site H1 PFAS 533/537.1

Client Sample ID: BWS2253-H1-AQ

Date Collected: 11/03/26 09:30
Date Received: 11/04/26 14:30

Lab Sample ID: 380-246250-1

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		11/10/26 05:43	11/11/26 02:33	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		11/10/26 05:43	11/11/26 02:33	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*81*		*50 - 200*	*11/10/26 05:43*	*11/11/26 02:33*	*1*
13C6 PFDA	*79*		*50 - 200*	*11/10/26 05:43*	*11/11/26 02:33*	*1*
13C5 PFHxA	*86*		*50 - 200*	*11/10/26 05:43*	*11/11/26 02:33*	*1*
13C4 PFHpA	*86*		*50 - 200*	*11/10/26 05:43*	*11/11/26 02:33*	*1*
13C8 PFOA	*86*		*50 - 200*	*11/10/26 05:43*	*11/11/26 02:33*	*1*
13C9 PFNA	*84*		*50 - 200*	*11/10/26 05:43*	*11/11/26 02:33*	*1*
13C7 PFUnA	*84*		*50 - 200*	*11/10/26 05:43*	*11/11/26 02:33*	*1*
13C2 PFDoA	*90*		*50 - 200*	*11/10/26 05:43*	*11/11/26 02:33*	*1*
13C4 PFBA	*94*		*50 - 200*	*11/10/26 05:43*	*11/11/26 02:33*	*1*
13C5 PFPeA	*95*		*50 - 200*	*11/10/26 05:43*	*11/11/26 02:33*	*1*
13C3 PFBS	*107*		*50 - 200*	*11/10/26 05:43*	*11/11/26 02:33*	*1*
13C3 PFHxS	*108*		*50 - 200*	*11/10/26 05:43*	*11/11/26 02:33*	*1*
13C8 PFOS	*112*		*50 - 200*	*11/10/26 05:43*	*11/11/26 02:33*	*1*

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-246250-1

Date Collected: 11/03/26 09:30
Matrix: Water
Date Received: 11/04/26 14:30

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	*120*		*50 - 200*	*11/10/26 05:43*	*11/11/26 02:33*	*1*
13C2-6:2-FTS	*107*		*50 - 200*	*11/10/26 05:43*	*11/11/26 02:33*	*1*
13C2-8:2-FTS	*105*		*50 - 200*	*11/10/26 05:43*	*11/11/26 02:33*	*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		11/05/26 14:50	11/06/26 13:28	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:28	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:28	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:28	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:28	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:28	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:28	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:28	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:28	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:28	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:28	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:28	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:28	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:28	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:28	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:28	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:28	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*107*		*70 - 130*	*11/05/26 14:50*	*11/06/26 13:28*	*1*
13C2 PFHxA	*112*		*70 - 130*	*11/05/26 14:50*	*11/06/26 13:28*	*1*
13C2 PFDA	*112*		*70 - 130*	*11/05/26 14:50*	*11/06/26 13:28*	*1*
13C3-GenX	*102*		*70 - 130*	*11/05/26 14:50*	*11/06/26 13:28*	*1*

Client Sample ID: BWS2253-H1-FB

Lab Sample ID: 380-246250-2

Date Collected: 11/03/26 09:30
Matrix: Water
Date Received: 11/04/26 14:30

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		11/06/26 07:13	11/07/26 01:05	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1

Client Sample ID: BWS2253-H1-FB

Date Collected: 11/03/26 09:30
Date Received: 11/04/26 14:30

Lab Sample ID: 380-246250-2

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		11/06/26 07:13	11/07/26 01:05	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		11/06/26 07:13	11/07/26 01:05	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*71*		*50 - 200*	*11/06/26 07:13*	*11/07/26 01:05*	*1*
13C6 PFDA	*77*		*50 - 200*	*11/06/26 07:13*	*11/07/26 01:05*	*1*
13C5 PFHxA	*76*		*50 - 200*	*11/06/26 07:13*	*11/07/26 01:05*	*1*
13C4 PFHpA	*77*		*50 - 200*	*11/06/26 07:13*	*11/07/26 01:05*	*1*
13C8 PFOA	*78*		*50 - 200*	*11/06/26 07:13*	*11/07/26 01:05*	*1*
13C9 PFNA	*79*		*50 - 200*	*11/06/26 07:13*	*11/07/26 01:05*	*1*
13C7 PFUnA	*80*		*50 - 200*	*11/06/26 07:13*	*11/07/26 01:05*	*1*
13C2 PFDoA	*87*		*50 - 200*	*11/06/26 07:13*	*11/07/26 01:05*	*1*
13C4 PFBA	*90*		*50 - 200*	*11/06/26 07:13*	*11/07/26 01:05*	*1*
13C5 PFPeA	*87*		*50 - 200*	*11/06/26 07:13*	*11/07/26 01:05*	*1*
13C3 PFBS	*104*		*50 - 200*	*11/06/26 07:13*	*11/07/26 01:05*	*1*
13C3 PFHxS	*101*		*50 - 200*	*11/06/26 07:13*	*11/07/26 01:05*	*1*
13C8 PFOS	*102*		*50 - 200*	*11/06/26 07:13*	*11/07/26 01:05*	*1*
13C2-4:2-FTS	*101*		*50 - 200*	*11/06/26 07:13*	*11/07/26 01:05*	*1*
13C2-6:2-FTS	*96*		*50 - 200*	*11/06/26 07:13*	*11/07/26 01:05*	*1*
13C2-8:2-FTS	*99*		*50 - 200*	*11/06/26 07:13*	*11/07/26 01:05*	*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		11/05/26 14:50	11/06/26 13:37	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:37	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:37	1

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

Job ID: 380-246250-1
SDG: Site H1 PFAS 533/537.1

Client Sample ID: BWS2253-H1-FB
Date Collected: 11/03/26 09:30
Date Received: 11/04/26 14:30

Lab Sample ID: 380-246250-2
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		11/05/26 14:50	11/06/26 13:37	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:37	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:37	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:37	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:37	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:37	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:37	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:37	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:37	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:37	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:37	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:37	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:37	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:37	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/05/26 14:50	11/06/26 13:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*106*		*70 - 130*	*11/05/26 14:50*	*11/06/26 13:37*	*1*
13C2 PFHxA	*103*		*70 - 130*	*11/05/26 14:50*	*11/06/26 13:37*	*1*
13C2 PFDA	*105*		*70 - 130*	*11/05/26 14:50*	*11/06/26 13:37*	*1*
13C3-GenX	*93*		*70 - 130*	*11/05/26 14:50*	*11/06/26 13:37*	*1*

Action Limit Summary

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

Job ID: 380-246250-1
SDG: Site H1 PFAS 533/537.1

Client Sample ID: BWS2253-H1-AQ — Lab Sample ID: 380-246250-1

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-H1-FB — Lab Sample ID: 380-246250-2

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: 380-246250-1
SDG: Site H1 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)
380-246248-E-1-A MS	Matrix Spike	105	105	102	96
380-246248-F-1-A MSD	Matrix Spike Duplicate	106	103	103	100
380-246250-1	BWS2253-H1-AQ	107	112	112	102
380-246250-2	BWS2253-H1-FB	106	103	105	93
LCS 380-263823/22-A	Lab Control Sample	103	93	105	88
MBL 380-263823/20-A	Method Blank	103	99	105	96
MRL 380-263823/21-A	Lab Control Sample	99	98	110	92

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: 380-246250-1
SDG: Site H1 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)	PFDoA (50-200)
380-246250-1	BWS2253-H1-AQ	81	79	86	86	86	84	84	90
380-246250-2	BWS2253-H1-FB	71	77	76	77	78	79	80	87
380-246299-AF-1-A MS	Matrix Spike	86	96	101	100	100	95	99	109
380-246299-AG-1-A MSD	Matrix Spike Duplicate	88	97	94	90	92	96	96	105
380-246991-B-3-A MS	Matrix Spike	85	89	89	88	86	87	94	101
380-246991-C-3-A MSD	Matrix Spike Duplicate	81	54	82	77	73	63	56	68
LCS 380-264061/22-A	Lab Control Sample	91	97	93	93	93	94	98	96
LCS 380-264586/22-A	Lab Control Sample	104	112	103	104	106	113	113	116
MBL 380-264061/20-A	Method Blank	90	98	95	101	99	97	98	109
MBL 380-264586/20-A	Method Blank	92	102	97	95	102	107	107	111
MRL 380-264061/21-A	Lab Control Sample	82	91	88	89	88	91	92	106
MRL 380-264586/21-A	Lab Control Sample	94	108	100	98	101	110	110	112

		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)
380-246250-1	BWS2253-H1-AQ	94	95	107	108	112	120	107	105
380-246250-2	BWS2253-H1-FB	90	87	104	101	102	101	96	99
380-246299-AF-1-A MS	Matrix Spike	107	106	105	104	104	122	104	104
380-246299-AG-1-A MSD	Matrix Spike Duplicate	106	105	104	106	103	124	104	103
380-246991-B-3-A MS	Matrix Spike	95	106	104	104	106	113	97	100
380-246991-C-3-A MSD	Matrix Spike Duplicate	95	106	103	105	108	113	100	101
LCS 380-264061/22-A	Lab Control Sample	106	103	105	109	107	110	110	104
LCS 380-264586/22-A	Lab Control Sample	108	109	105	107	112	101	99	102
MBL 380-264061/20-A	Method Blank	104	104	103	108	106	112	109	102
MBL 380-264586/20-A	Method Blank	99	101	107	107	110	102	98	98
MRL 380-264061/21-A	Lab Control Sample	101	97	103	106	104	104	102	103
MRL 380-264586/21-A	Lab Control Sample	105	99	104	105	112	105	98	104

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

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

Job ID: 380-246250-1
SDG: Site H1 PFAS 533/537.1

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

Lab Sample ID: MBL 380-264061/20-A
Matrix: Water
Analysis Batch: 264172

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 264061

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		11/06/26 07:13	11/06/26 21:54	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.29		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.59		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<0.98		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Perfluorobutanesulfonic acid (PFBS)	<0.36		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Perfluorodecanoic acid (PFDA)	<0.30		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Perfluorododecanoic acid (PFDoA)	<0.53		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Perfluoroheptanoic acid (PFHpA)	<0.38		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Perfluorohexanesulfonic acid (PFHxS)	<0.31		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Perfluorohexanoic acid (PFHxA)	<0.45		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Perfluorononanoic acid (PFNA)	<0.39		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Perfluorooctanesulfonic acid (PFOS)	<0.42		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Perfluorooctanoic acid (PFOA)	<0.37		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Perfluoroundecanoic acid (PFUnA)	<0.41		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Perfluorobutanoic acid (PFBA)	<0.68		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.37		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.36		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.47		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.46		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.24		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.45		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Perfluoropentanoic acid (PFPeA)	<0.37		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.35		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1
Perfluoropentanesulfonic acid (PFPeS)	<0.38		2.0		ng/L		11/06/26 07:13	11/06/26 21:54	1

Isotope Dilution	*MBL %Recovery*	*MBL Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*90*		*50 - 200*	*11/06/26 07:13*	*11/06/26 21:54*	*1*
13C6 PFDA	*98*		*50 - 200*	*11/06/26 07:13*	*11/06/26 21:54*	*1*
13C5 PFHxA	*95*		*50 - 200*	*11/06/26 07:13*	*11/06/26 21:54*	*1*
13C4 PFHpA	*101*		*50 - 200*	*11/06/26 07:13*	*11/06/26 21:54*	*1*
13C8 PFOA	*99*		*50 - 200*	*11/06/26 07:13*	*11/06/26 21:54*	*1*
13C9 PFNA	*97*		*50 - 200*	*11/06/26 07:13*	*11/06/26 21:54*	*1*
13C7 PFUnA	*98*		*50 - 200*	*11/06/26 07:13*	*11/06/26 21:54*	*1*
13C2 PFDoA	*109*		*50 - 200*	*11/06/26 07:13*	*11/06/26 21:54*	*1*
13C4 PFBA	*104*		*50 - 200*	*11/06/26 07:13*	*11/06/26 21:54*	*1*
13C5 PFPeA	*104*		*50 - 200*	*11/06/26 07:13*	*11/06/26 21:54*	*1*
13C3 PFBS	*103*		*50 - 200*	*11/06/26 07:13*	*11/06/26 21:54*	*1*
13C3 PFHxS	*108*		*50 - 200*	*11/06/26 07:13*	*11/06/26 21:54*	*1*

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

Lab Sample ID: MBL 380-264061/20-A
Matrix: Water
Analysis Batch: 264172

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 264061

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	106		50 - 200	11/06/26 07:13	11/06/26 21:54	1
13C2-4:2-FTS	112		50 - 200	11/06/26 07:13	11/06/26 21:54	1
13C2-6:2-FTS	109		50 - 200	11/06/26 07:13	11/06/26 21:54	1
13C2-8:2-FTS	102		50 - 200	11/06/26 07:13	11/06/26 21:54	1

Lab Sample ID: LCS 380-264061/22-A
Matrix: Water
Analysis Batch: 264172

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 264061

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	59.1	56.6		ng/L		96	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	59.1	57.7		ng/L		98	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	59.1	61.7		ng/L		104	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	59.1	59.8		ng/L		101	70 - 130
Perfluorobutanesulfonic acid (PFBS)	59.1	61.6		ng/L		104	70 - 130
Perfluorodecanoic acid (PFDA)	59.1	58.0		ng/L		98	70 - 130
Perfluorododecanoic acid (PFDoA)	59.1	66.6		ng/L		113	70 - 130
Perfluoroheptanoic acid (PFHpA)	59.1	64.5		ng/L		109	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	59.1	61.8		ng/L		105	70 - 130
Perfluorohexanoic acid (PFHxA)	59.1	60.6		ng/L		103	70 - 130
Perfluorononanoic acid (PFNA)	59.1	66.3		ng/L		112	70 - 130
Perfluorooctanesulfonic acid (PFOS)	59.1	61.3		ng/L		104	70 - 130
Perfluorooctanoic acid (PFOA)	59.1	61.7		ng/L		105	70 - 130
Perfluoroundecanoic acid (PFUnA)	59.1	65.0		ng/L		110	70 - 130
Perfluorobutanoic acid (PFBA)	59.1	59.1		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	59.1	58.5		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	59.1	61.2		ng/L		104	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	59.1	60.1		ng/L		102	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	59.1	53.4		ng/L		90	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	59.1	59.5		ng/L		101	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	59.1	62.3		ng/L		106	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	59.1	60.0		ng/L		102	70 - 130
Perfluoropentanoic acid (PFPeA)	59.1	59.5		ng/L		101	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	59.1	60.9		ng/L		103	70 - 130

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

Lab Sample ID: LCS 380-264061/22-A
Matrix: Water
Analysis Batch: 264172

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 264061

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoropentanesulfonic acid (PFPeS)			59.1	57.0		ng/L		96	70 - 130		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C3 HFPO-DA	*91*		*50 - 200*
13C6 PFDA	*97*		*50 - 200*
13C5 PFHxA	*93*		*50 - 200*
13C4 PFHpA	*93*		*50 - 200*
13C8 PFOA	*93*		*50 - 200*
13C9 PFNA	*94*		*50 - 200*
13C7 PFUnA	*98*		*50 - 200*
13C2 PFDoA	*96*		*50 - 200*
13C4 PFBA	*106*		*50 - 200*
13C5 PFPeA	*103*		*50 - 200*
13C3 PFBS	*105*		*50 - 200*
13C3 PFHxS	*109*		*50 - 200*
13C8 PFOS	*107*		*50 - 200*
13C2-4:2-FTS	*110*		*50 - 200*
13C2-6:2-FTS	*110*		*50 - 200*
13C2-8:2-FTS	*104*		*50 - 200*

Lab Sample ID: MRL 380-264061/21-A
Matrix: Water
Analysis Batch: 264172

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 264061

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			1.97	1.85	J	ng/L		94	50 - 150		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)			1.97	1.87	J	ng/L		95	50 - 150		
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			1.97	1.94	J	ng/L		99	50 - 150		
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)			1.97	2.16	J	ng/L		110	50 - 150		
Perfluorobutanesulfonic acid (PFBS)			1.97	1.95	J	ng/L		99	50 - 150		
Perfluorodecanoic acid (PFDA)			1.97	2.04	J	ng/L		103	50 - 150		
Perfluorododecanoic acid (PFDoA)			1.97	1.82	J	ng/L		93	50 - 150		
Perfluoroheptanoic acid (PFHpA)			1.97	2.15	J	ng/L		109	50 - 150		
Perfluorohexanesulfonic acid (PFHxS)			1.97	1.97	J	ng/L		100	50 - 150		
Perfluorohexanoic acid (PFHxA)			1.97	2.08	J	ng/L		105	50 - 150		
Perfluorononanoic acid (PFNA)			1.97	2.30	J	ng/L		117	50 - 150		
Perfluorooctanesulfonic acid (PFOS)			1.97	2.09	J	ng/L		106	50 - 150		
Perfluorooctanoic acid (PFOA)			1.97	2.14	J	ng/L		109	50 - 150		
Perfluoroundecanoic acid (PFUnA)			1.97	2.24	J	ng/L		114	50 - 150		
Perfluorobutanoic acid (PFBA)			1.97	2.13	J	ng/L		108	50 - 150		

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

Lab Sample ID: MRL 380-264061/21-A
Matrix: Water
Analysis Batch: 264172

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 264061

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	1.97	2.02	J	ng/L		103	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	1.97	2.27	J	ng/L		116	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	1.97	2.17	J	ng/L		110	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	1.97	2.77	J	ng/L		141	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	1.97	2.00	J	ng/L		101	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	1.97	2.12	J	ng/L		108	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	1.97	2.05	J	ng/L		104	50 - 150
Perfluoropentanoic acid (PFPeA)	1.97	2.27	J	ng/L		116	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	1.97	2.06	J	ng/L		105	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	1.97	1.89	J	ng/L		96	50 - 150

Isotope Dilution	*MRL %Recovery*	*MRL Qualifier*	*Limits*
13C3 HFPO-DA	*82*		*50 - 200*
13C6 PFDA	*91*		*50 - 200*
13C5 PFHxA	*88*		*50 - 200*
13C4 PFHpA	*89*		*50 - 200*
13C8 PFOA	*88*		*50 - 200*
13C9 PFNA	*91*		*50 - 200*
13C7 PFUnA	*92*		*50 - 200*
13C2 PFDoA	*106*		*50 - 200*
13C4 PFBA	*101*		*50 - 200*
13C5 PFPeA	*97*		*50 - 200*
13C3 PFBS	*103*		*50 - 200*
13C3 PFHxS	*106*		*50 - 200*
13C8 PFOS	*104*		*50 - 200*
13C2-4:2-FTS	*104*		*50 - 200*
13C2-6:2-FTS	*102*		*50 - 200*
13C2-8:2-FTS	*103*		*50 - 200*

Lab Sample ID: 380-246299-AF-1-A MS
Matrix: Water
Analysis Batch: 264172

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 264061

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		59.3	56.1		ng/L		95	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		59.3	57.3		ng/L		97	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		59.3	58.8		ng/L		99	70 - 130

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

Lab Sample ID: 380-246299-AF-1-A MS
Matrix: Water
Analysis Batch: 264172

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 264061

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		59.3	65.3		ng/L		110	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		59.3	59.0		ng/L		100	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		59.3	62.0		ng/L		105	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		59.3	54.7		ng/L		92	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		59.3	61.7		ng/L		104	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		59.3	62.9		ng/L		106	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		59.3	60.9		ng/L		103	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		59.3	67.7		ng/L		114	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		59.3	61.0		ng/L		103	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		59.3	58.0		ng/L		98	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		59.3	62.9		ng/L		106	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		59.3	59.4		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		59.3	57.5		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		59.3	63.4		ng/L		107	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		59.3	59.0		ng/L		100	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		59.3	60.9		ng/L		103	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		59.3	59.8		ng/L		101	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		59.3	61.2		ng/L		103	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		59.3	59.3		ng/L		100	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		59.3	61.1		ng/L		103	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		59.3	63.8		ng/L		108	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		59.3	59.0		ng/L		99	70 - 130

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C3 HFPO-DA	*86*		*50 - 200*
13C6 PFDA	*96*		*50 - 200*
13C5 PFHxA	*101*		*50 - 200*
13C4 PFHpA	*100*		*50 - 200*
13C8 PFOA	*100*		*50 - 200*
13C9 PFNA	*95*		*50 - 200*
13C7 PFUnA	*99*		*50 - 200*
13C2 PFDoA	*109*		*50 - 200*
13C4 PFBA	*107*		*50 - 200*
13C5 PFPeA	*106*		*50 - 200*
13C3 PFBS	*105*		*50 - 200*
13C3 PFHxS	*104*		*50 - 200*
13C8 PFOS	*104*		*50 - 200*

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

Lab Sample ID: 380-246299-AF-1-A MS
Matrix: Water
Analysis Batch: 264172

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 264061

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C2-4:2-FTS	122		50 - 200
13C2-6:2-FTS	104		50 - 200
13C2-8:2-FTS	104		50 - 200

Lab Sample ID: 380-246299-AG-1-A MSD
Matrix: Water
Analysis Batch: 264172

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 264061

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	56.7		ng/L		96	70 - 130	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		59.2	56.7		ng/L		96	70 - 130	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		59.2	60.8		ng/L		103	70 - 130	3	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		59.2	55.6		ng/L		94	70 - 130	16	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		59.2	58.9		ng/L		100	70 - 130	0	30
Perfluorodecanoic acid (PFDA)	<2.0		59.2	51.9		ng/L		88	70 - 130	18	30
Perfluorododecanoic acid (PFDoA)	<2.0		59.2	55.7		ng/L		94	70 - 130	2	30
Perfluoroheptanoic acid (PFHpA)	<2.0		59.2	61.7		ng/L		104	70 - 130	0	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		59.2	60.5		ng/L		102	70 - 130	4	30
Perfluorohexanoic acid (PFHxA)	<2.0		59.2	59.6		ng/L		101	70 - 130	2	30
Perfluorononanoic acid (PFNA)	<2.0		59.2	65.6		ng/L		111	70 - 130	3	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		59.2	62.0		ng/L		105	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		59.2	61.1		ng/L		103	70 - 130	5	30
Perfluoroundecanoic acid (PFUnA)	<2.0		59.2	56.9		ng/L		96	70 - 130	10	30
Perfluorobutanoic acid (PFBA)	<2.0		59.2	59.3		ng/L		100	70 - 130	0	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		59.2	58.3		ng/L		99	70 - 130	1	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		59.2	61.1		ng/L		103	70 - 130	4	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		59.2	58.6		ng/L		99	70 - 130	1	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		59.2	60.3		ng/L		102	70 - 130	1	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		59.2	58.1		ng/L		98	70 - 130	3	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		59.2	61.0		ng/L		103	70 - 130	0	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		59.2	59.3		ng/L		100	70 - 130	0	30
Perfluoropentanoic acid (PFPeA)	<2.0		59.2	60.0		ng/L		101	70 - 130	2	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		59.2	63.4		ng/L		107	70 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		59.2	57.0		ng/L		96	70 - 130	3	30

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

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C3 HFPO-DA	88		50 - 200
13C6 PFDA	97		50 - 200
13C5 PFHxA	94		50 - 200
13C4 PFHpA	90		50 - 200
13C8 PFOA	92		50 - 200
13C9 PFNA	96		50 - 200
13C7 PFUnA	96		50 - 200
13C2 PFDoA	105		50 - 200
13C4 PFBA	106		50 - 200
13C5 PFPeA	105		50 - 200
13C3 PFBS	104		50 - 200
13C3 PFHxS	106		50 - 200
13C8 PFOS	103		50 - 200
13C2-4:2-FTS	124		50 - 200
13C2-6:2-FTS	104		50 - 200
13C2-8:2-FTS	103		50 - 200

Lab Sample ID: MBL 380-264586/20-A
Matrix: Water
Analysis Batch: 264750

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 264586

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		11/10/26 05:43	11/10/26 23:49	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.29		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.59		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<0.98		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
Perfluorobutanesulfonic acid (PFBS)	<0.36		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
Perfluorodecanoic acid (PFDA)	<0.30		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
Perfluorododecanoic acid (PFDoA)	<0.53		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
Perfluoroheptanoic acid (PFHpA)	<0.38		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
Perfluorohexanesulfonic acid (PFHxS)	<0.31		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
Perfluorohexanoic acid (PFHxA)	<0.45		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
Perfluorononanoic acid (PFNA)	<0.39		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
Perfluorooctanesulfonic acid (PFOS)	<0.42		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
Perfluorooctanoic acid (PFOA)	<0.37		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
Perfluoroundecanoic acid (PFUnA)	<0.41		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
Perfluorobutanoic acid (PFBA)	<0.68		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.37		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.36		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.47		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.46		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.24		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.45		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1

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

Lab Sample ID: MBL 380-264586/20-A
Matrix: Water
Analysis Batch: 264750

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 264586

Analyte	MBL Result	MBL Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	<0.37		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.35		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1
Perfluoropentanesulfonic acid (PFPeS)	<0.38		2.0		ng/L		11/10/26 05:43	11/10/26 23:49	1

Isotope Dilution	*MBL %Recovery*	*MBL Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*92*		*50 - 200*	*11/10/26 05:43*	*11/10/26 23:49*	*1*
13C6 PFDA	*102*		*50 - 200*	*11/10/26 05:43*	*11/10/26 23:49*	*1*
13C5 PFHxA	*97*		*50 - 200*	*11/10/26 05:43*	*11/10/26 23:49*	*1*
13C4 PFHpA	*95*		*50 - 200*	*11/10/26 05:43*	*11/10/26 23:49*	*1*
13C8 PFOA	*102*		*50 - 200*	*11/10/26 05:43*	*11/10/26 23:49*	*1*
13C9 PFNA	*107*		*50 - 200*	*11/10/26 05:43*	*11/10/26 23:49*	*1*
13C7 PFUnA	*107*		*50 - 200*	*11/10/26 05:43*	*11/10/26 23:49*	*1*
13C2 PFDoA	*111*		*50 - 200*	*11/10/26 05:43*	*11/10/26 23:49*	*1*
13C4 PFBA	*99*		*50 - 200*	*11/10/26 05:43*	*11/10/26 23:49*	*1*
13C5 PFPeA	*101*		*50 - 200*	*11/10/26 05:43*	*11/10/26 23:49*	*1*
13C3 PFBS	*107*		*50 - 200*	*11/10/26 05:43*	*11/10/26 23:49*	*1*
13C3 PFHxS	*107*		*50 - 200*	*11/10/26 05:43*	*11/10/26 23:49*	*1*
13C8 PFOS	*110*		*50 - 200*	*11/10/26 05:43*	*11/10/26 23:49*	*1*
13C2-4:2-FTS	*102*		*50 - 200*	*11/10/26 05:43*	*11/10/26 23:49*	*1*
13C2-6:2-FTS	*98*		*50 - 200*	*11/10/26 05:43*	*11/10/26 23:49*	*1*
13C2-8:2-FTS	*98*		*50 - 200*	*11/10/26 05:43*	*11/10/26 23:49*	*1*

Lab Sample ID: LCS 380-264586/22-A
Matrix: Water
Analysis Batch: 264750

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 264586

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			59.1	50.5		ng/L		86	70 - 130		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)			59.1	54.7		ng/L		93	70 - 130		
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			59.1	53.4		ng/L		90	70 - 130		
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)			59.1	52.5		ng/L		89	70 - 130		
Perfluorobutanesulfonic acid (PFBS)			59.1	56.4		ng/L		95	70 - 130		
Perfluorodecanoic acid (PFDA)			59.1	55.7		ng/L		94	70 - 130		
Perfluorododecanoic acid (PFDoA)			59.1	56.9		ng/L		96	70 - 130		
Perfluoroheptanoic acid (PFHpA)			59.1	56.9		ng/L		96	70 - 130		
Perfluorohexanesulfonic acid (PFHxS)			59.1	53.0		ng/L		90	70 - 130		
Perfluorohexanoic acid (PFHxA)			59.1	57.9		ng/L		98	70 - 130		
Perfluorononanoic acid (PFNA)			59.1	56.9		ng/L		96	70 - 130		
Perfluorooctanesulfonic acid (PFOS)			59.1	54.6		ng/L		92	70 - 130		
Perfluorooctanoic acid (PFOA)			59.1	57.8		ng/L		98	70 - 130		

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

Lab Sample ID: LCS 380-264586/22-A
Matrix: Water
Analysis Batch: 264750

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 264586

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	59.1	55.8		ng/L		94	70 - 130
Perfluorobutanoic acid (PFBA)	59.1	57.2		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	59.1	53.1		ng/L		90	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	59.1	55.0		ng/L		93	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	59.1	55.1		ng/L		93	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	59.1	55.0		ng/L		93	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	59.1	57.0		ng/L		97	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	59.1	54.2		ng/L		92	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	59.1	52.1		ng/L		88	70 - 130
Perfluoropentanoic acid (PFPeA)	59.1	50.9		ng/L		86	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	59.1	54.1		ng/L		92	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	59.1	52.2		ng/L		88	70 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C3 HFPO-DA	*104*		*50 - 200*
13C6 PFDA	*112*		*50 - 200*
13C5 PFHxA	*103*		*50 - 200*
13C4 PFHpA	*104*		*50 - 200*
13C8 PFOA	*106*		*50 - 200*
13C9 PFNA	*113*		*50 - 200*
13C7 PFUnA	*113*		*50 - 200*
13C2 PFDoA	*116*		*50 - 200*
13C4 PFBA	*108*		*50 - 200*
13C5 PFPeA	*109*		*50 - 200*
13C3 PFBS	*105*		*50 - 200*
13C3 PFHxS	*107*		*50 - 200*
13C8 PFOS	*112*		*50 - 200*
13C2-4:2-FTS	*101*		*50 - 200*
13C2-6:2-FTS	*99*		*50 - 200*
13C2-8:2-FTS	*102*		*50 - 200*

Lab Sample ID: MRL 380-264586/21-A
Matrix: Water
Analysis Batch: 264750

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 264586

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	1.97	1.81	J	ng/L		92	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	1.97	1.92	J	ng/L		98	50 - 150

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

Lab Sample ID: MRL 380-264586/21-A
Matrix: Water
Analysis Batch: 264750

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 264586

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.97	1.83	J	ng/L		93	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	1.97	1.92	J	ng/L		98	50 - 150
Perfluorobutanesulfonic acid (PFBS)	1.97	2.04	J	ng/L		104	50 - 150
Perfluorodecanoic acid (PFDA)	1.97	1.99	J	ng/L		101	50 - 150
Perfluorododecanoic acid (PFDoA)	1.97	2.16	J	ng/L		110	50 - 150
Perfluoroheptanoic acid (PFHpA)	1.97	2.01	J	ng/L		102	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	1.97	1.93	J	ng/L		98	50 - 150
Perfluorohexanoic acid (PFHxA)	1.97	2.15	J	ng/L		109	50 - 150
Perfluorononanoic acid (PFNA)	1.97	2.00	J	ng/L		102	50 - 150
Perfluorooctanesulfonic acid (PFOS)	1.97	1.95	J	ng/L		99	50 - 150
Perfluorooctanoic acid (PFOA)	1.97	2.19	J	ng/L		111	50 - 150
Perfluoroundecanoic acid (PFUnA)	1.97	1.97	J	ng/L		100	50 - 150
Perfluorobutanoic acid (PFBA)	1.97	2.10	J	ng/L		107	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	1.97	1.80	J	ng/L		92	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	1.97	1.80	J	ng/L		91	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	1.97	1.94	J	ng/L		98	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	1.97	2.19	J	ng/L		111	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	1.97	2.03	J	ng/L		103	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	1.97	1.89	J	ng/L		96	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	1.97	1.99	J	ng/L		101	50 - 150
Perfluoropentanoic acid (PFPeA)	1.97	2.05	J	ng/L		104	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	1.97	1.91	J	ng/L		97	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	1.97	1.88	J	ng/L		96	50 - 150

Isotope Dilution	*MRL %Recovery*	*MRL Qualifier*	*Limits*
13C3 HFPO-DA	*94*		*50 - 200*
13C6 PFDA	*108*		*50 - 200*
13C5 PFHxA	*100*		*50 - 200*
13C4 PFHpA	*98*		*50 - 200*
13C8 PFOA	*101*		*50 - 200*
13C9 PFNA	*110*		*50 - 200*
13C7 PFUnA	*110*		*50 - 200*
13C2 PFDoA	*112*		*50 - 200*
13C4 PFBA	*105*		*50 - 200*
13C5 PFPeA	*99*		*50 - 200*
13C3 PFBS	*104*		*50 - 200*
13C3 PFHxS	*105*		*50 - 200*

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

Lab Sample ID: MRL 380-264586/21-A
Matrix: Water
Analysis Batch: 264750

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 264586

Isotope Dilution	*MRL %Recovery*	*MRL Qualifier*	*Limits*
13C8 PFOS	*112*		*50 - 200*
13C2-4:2-FTS	*105*		*50 - 200*
13C2-6:2-FTS	*98*		*50 - 200*
13C2-8:2-FTS	*104*		*50 - 200*

Lab Sample ID: 380-246991-B-3-A MS
Matrix: Water
Analysis Batch: 264750

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 264586

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		59.2	51.6		ng/L		87	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		59.2	56.4		ng/L		95	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		59.2	50.0		ng/L		84	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		59.2	50.3		ng/L		85	70 - 130
Perfluorobutanesulfonic acid (PFBS)	16		59.2	67.8		ng/L		87	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		59.2	56.0		ng/L		95	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		59.2	56.0		ng/L		95	70 - 130
Perfluoroheptanoic acid (PFHpA)	4.0		59.2	57.5		ng/L		90	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	13		59.2	66.3		ng/L		90	70 - 130
Perfluorohexanoic acid (PFHxA)	14		59.2	68.4		ng/L		91	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		59.2	57.6		ng/L		97	70 - 130
Perfluorooctanesulfonic acid (PFOS)	3.8		59.2	58.5		ng/L		92	70 - 130
Perfluorooctanoic acid (PFOA)	8.8		59.2	63.5		ng/L		92	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		59.2	55.1		ng/L		93	70 - 130
Perfluorobutanoic acid (PFBA)	11		59.2	68.0		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		59.2	52.7		ng/L		89	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		59.2	52.6		ng/L		89	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		59.2	56.4		ng/L		95	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		59.2	54.0		ng/L		91	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		59.2	58.2		ng/L		98	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		59.2	50.3		ng/L		85	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		59.2	51.1		ng/L		86	70 - 130
Perfluoropentanoic acid (PFPeA)	11		59.2	62.1		ng/L		87	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		59.2	55.1		ng/L		93	70 - 130

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

Lab Sample ID: 380-246991-B-3-A MS
Matrix: Water
Analysis Batch: 264750

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 264586

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	3.4		59.2	57.8		ng/L		92	70 - 130

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C3 HFPO-DA	*85*		*50 - 200*
13C6 PFDA	*89*		*50 - 200*
13C5 PFHxA	*89*		*50 - 200*
13C4 PFHpA	*88*		*50 - 200*
13C8 PFOA	*86*		*50 - 200*
13C9 PFNA	*87*		*50 - 200*
13C7 PFUnA	*94*		*50 - 200*
13C2 PFDoA	*101*		*50 - 200*
13C4 PFBA	*95*		*50 - 200*
13C5 PFPeA	*106*		*50 - 200*
13C3 PFBS	*104*		*50 - 200*
13C3 PFHxS	*104*		*50 - 200*
13C8 PFOS	*106*		*50 - 200*
13C2-4:2-FTS	*113*		*50 - 200*
13C2-6:2-FTS	*97*		*50 - 200*
13C2-8:2-FTS	*100*		*50 - 200*

Lab Sample ID: 380-246991-C-3-A MSD
Matrix: Water
Analysis Batch: 264750

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 264586

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		59.3	53.0		ng/L		89	70 - 130	3	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		59.3	57.3		ng/L		97	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		59.3	53.5		ng/L		90	70 - 130	7	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		59.3	51.7		ng/L		87	70 - 130	3	30
Perfluorobutanesulfonic acid (PFBS)	16		59.3	74.2		ng/L		98	70 - 130	9	30
Perfluorodecanoic acid (PFDA)	<2.0		59.3	59.2		ng/L		100	70 - 130	6	30
Perfluorododecanoic acid (PFDoA)	<2.0		59.3	55.8		ng/L		94	70 - 130	0	30
Perfluoroheptanoic acid (PFHpA)	4.0		59.3	61.8		ng/L		97	70 - 130	7	30
Perfluorohexanesulfonic acid (PFHxS)	13		59.3	69.0		ng/L		94	70 - 130	4	30
Perfluorohexanoic acid (PFHxA)	14		59.3	71.1		ng/L		96	70 - 130	4	30
Perfluorononanoic acid (PFNA)	<2.0		59.3	59.4		ng/L		100	70 - 130	3	30
Perfluorooctanesulfonic acid (PFOS)	3.8		59.3	60.3		ng/L		95	70 - 130	3	30
Perfluorooctanoic acid (PFOA)	8.8		59.3	66.6		ng/L		97	70 - 130	5	30
Perfluoroundecanoic acid (PFUnA)	<2.0		59.3	58.1		ng/L		98	70 - 130	5	30
Perfluorobutanoic acid (PFBA)	11		59.3	70.0		ng/L		99	70 - 130	3	30

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

Lab Sample ID: 380-246991-C-3-A MSD
Matrix: Water
Analysis Batch: 264750

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 264586

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		59.3	55.4		ng/L		93	70 - 130	5	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		59.3	56.0		ng/L		94	70 - 130	6	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		59.3	56.6		ng/L		96	70 - 130	0	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		59.3	59.4		ng/L		100	70 - 130	10	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		59.3	62.1		ng/L		105	70 - 130	7	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		59.3	50.8		ng/L		86	70 - 130	1	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		59.3	55.3		ng/L		93	70 - 130	8	30
Perfluoropentanoic acid (PFPeA)	11		59.3	62.8		ng/L		88	70 - 130	1	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		59.3	57.6		ng/L		97	70 - 130	4	30
Perfluoropentanesulfonic acid (PFPeS)	3.4		59.3	60.2		ng/L		96	70 - 130	4	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C3 HFPO-DA	*81*		*50 - 200*
13C6 PFDA	*54*		*50 - 200*
13C5 PFHxA	*82*		*50 - 200*
13C4 PFHpA	*77*		*50 - 200*
13C8 PFOA	*73*		*50 - 200*
13C9 PFNA	*63*		*50 - 200*
13C7 PFUnA	*56*		*50 - 200*
13C2 PFDoA	*68*		*50 - 200*
13C4 PFBA	*95*		*50 - 200*
13C5 PFPeA	*106*		*50 - 200*
13C3 PFBS	*103*		*50 - 200*
13C3 PFHxS	*105*		*50 - 200*
13C8 PFOS	*108*		*50 - 200*
13C2-4:2-FTS	*113*		*50 - 200*
13C2-6:2-FTS	*100*		*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 380-263823/20-A
Matrix: Water
Analysis Batch: 264070

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 263823

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		11/05/26 14:50	11/06/26 10:10	1
Perfluorooctanesulfonic acid (PFOS)	<0.42		2.0		ng/L		11/05/26 14:50	11/06/26 10:10	1
Perfluoroundecanoic acid (PFUnA)	<0.41		2.0		ng/L		11/05/26 14:50	11/06/26 10:10	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.57		2.0		ng/L		11/05/26 14:50	11/06/26 10:10	1

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

Lab Sample ID: MBL 380-263823/20-A
Matrix: Water
Analysis Batch: 264070

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 263823

Analyte	MBL Result	MBL Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.41		2.0		ng/L		11/05/26 14:50	11/06/26 10:10	1
Perfluorohexanoic acid (PFHxA)	<0.45		2.0		ng/L		11/05/26 14:50	11/06/26 10:10	1
Perfluorododecanoic acid (PFDoA)	<0.53		2.0		ng/L		11/05/26 14:50	11/06/26 10:10	1
Perfluorooctanoic acid (PFOA)	<0.37		2.0		ng/L		11/05/26 14:50	11/06/26 10:10	1
Perfluorodecanoic acid (PFDA)	<0.30		2.0		ng/L		11/05/26 14:50	11/06/26 10:10	1
Perfluorohexanesulfonic acid (PFHxS)	<0.31		2.0		ng/L		11/05/26 14:50	11/06/26 10:10	1
Perfluorobutanesulfonic acid (PFBS)	<0.36		2.0		ng/L		11/05/26 14:50	11/06/26 10:10	1
Perfluoroheptanoic acid (PFHpA)	<0.38		2.0		ng/L		11/05/26 14:50	11/06/26 10:10	1
Perfluorononanoic acid (PFNA)	<0.39		2.0		ng/L		11/05/26 14:50	11/06/26 10:10	1
Perfluorotetradecanoic acid (PFTA)	<0.53		2.0		ng/L		11/05/26 14:50	11/06/26 10:10	1
Perfluorotridecanoic acid (PFTrDA)	<0.35		2.0		ng/L		11/05/26 14:50	11/06/26 10:10	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.29		2.0		ng/L		11/05/26 14:50	11/06/26 10:10	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.29		2.0		ng/L		11/05/26 14:50	11/06/26 10:10	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.59		2.0		ng/L		11/05/26 14:50	11/06/26 10:10	1

Surrogate	*MBL %Recovery*	*MBL Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*103*		*70 - 130*	*11/05/26 14:50*	*11/06/26 10:10*	*1*
13C2 PFHxA	*99*		*70 - 130*	*11/05/26 14:50*	*11/06/26 10:10*	*1*
13C2 PFDA	*105*		*70 - 130*	*11/05/26 14:50*	*11/06/26 10:10*	*1*
13C3-GenX	*96*		*70 - 130*	*11/05/26 14:50*	*11/06/26 10:10*	*1*

Lab Sample ID: LCS 380-263823/22-A
Matrix: Water
Analysis Batch: 264070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 263823

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	49.1	41.6		ng/L		85	70 - 130
Perfluorooctanesulfonic acid (PFOS)	49.1	49.3		ng/L		100	70 - 130
Perfluoroundecanoic acid (PFUnA)	49.1	49.1		ng/L		100	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	49.1	47.0		ng/L		96	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	49.1	46.1		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	49.1	42.8		ng/L		87	70 - 130
Perfluorododecanoic acid (PFDoA)	49.1	50.7		ng/L		103	70 - 130
Perfluorooctanoic acid (PFOA)	49.1	47.0		ng/L		96	70 - 130
Perfluorodecanoic acid (PFDA)	49.1	48.5		ng/L		99	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	49.1	49.4		ng/L		101	70 - 130
Perfluorobutanesulfonic acid (PFBS)	49.1	49.4		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	49.1	45.9		ng/L		93	70 - 130
Perfluorononanoic acid (PFNA)	49.1	49.2		ng/L		100	70 - 130

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

Lab Sample ID: LCS 380-263823/22-A
Matrix: Water
Analysis Batch: 264070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 263823

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorotetradecanoic acid (PFTA)	49.1	46.0		ng/L		94	70 - 130
Perfluorotridecanoic acid (PFTrDA)	49.1	52.2		ng/L		106	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	49.1	48.4		ng/L		99	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	49.1	49.5		ng/L		101	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	49.1	43.9		ng/L		89	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
d5-NEtFOSAA	*103*		*70 - 130*
13C2 PFHxA	*93*		*70 - 130*
13C2 PFDA	*105*		*70 - 130*
13C3-GenX	*88*		*70 - 130*

Lab Sample ID: MRL 380-263823/21-A
Matrix: Water
Analysis Batch: 264070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 263823

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	1.96	1.68	J	ng/L		86	50 - 150
Perfluorooctanesulfonic acid (PFOS)	1.96	1.88	J	ng/L		96	50 - 150
Perfluoroundecanoic acid (PFUnA)	1.96	1.99	J	ng/L		101	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.96	1.68	J	ng/L		85	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.96	1.69	J	ng/L		86	50 - 150
Perfluorohexanoic acid (PFHxA)	1.96	1.80	J	ng/L		92	50 - 150
Perfluorododecanoic acid (PFDoA)	1.96	2.07	J	ng/L		105	50 - 150
Perfluorooctanoic acid (PFOA)	1.96	1.85	J	ng/L		94	50 - 150
Perfluorodecanoic acid (PFDA)	1.96	1.92	J	ng/L		98	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	1.96	1.81	J	ng/L		92	50 - 150
Perfluorobutanesulfonic acid (PFBS)	1.96	1.85	J	ng/L		94	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	1.87	J	ng/L		95	50 - 150
Perfluorotridecanoic acid (PFTrDA)	1.96	2.15	J	ng/L		109	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	1.96	1.92	J	ng/L		98	50 - 150

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

Lab Sample ID: MRL 380-263823/21-A
Matrix: Water
Analysis Batch: 264070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 263823

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	1.96	1.78	J	ng/L		91	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.96	1.70	J	ng/L		86	50 - 150

Surrogate	*MRL %Recovery*	*MRL Qualifier*	*Limits*
d5-NEtFOSAA	*99*		*70 - 130*
13C2 PFHxA	*98*		*70 - 130*
13C2 PFDA	*110*		*70 - 130*
13C3-GenX	*92*		*70 - 130*

Lab Sample ID: 380-246248-E-1-A MS
Matrix: Water
Analysis Batch: 264070

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 263823

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		49.1	43.5		ng/L		89	70 - 130
Perfluorooctanesulfonic acid (PFOS)	14		49.1	60.9		ng/L		96	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		49.1	47.4		ng/L		96	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		49.1	48.9		ng/L		99	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		49.1	47.9		ng/L		97	70 - 130
Perfluorohexanoic acid (PFHxA)	13		49.1	57.3		ng/L		90	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		49.1	49.2		ng/L		100	70 - 130
Perfluorooctanoic acid (PFOA)	17		49.1	60.0		ng/L		88	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		49.1	48.0		ng/L		97	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	11		49.1	58.7		ng/L		97	70 - 130
Perfluorobutanesulfonic acid (PFBS)	59		49.1	102	E	ng/L		89	70 - 130
Perfluoroheptanoic acid (PFHpA)	7.1		49.1	52.7		ng/L		93	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		49.1	48.1		ng/L		95	70 - 130
Perfluorotetradecanoic acid (PFTA)	<2.0		49.1	37.2		ng/L		76	70 - 130
Perfluorotridecanoic acid (PFTrDA)	<2.0		49.1	52.5		ng/L		107	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		49.1	48.0		ng/L		98	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		49.1	47.6		ng/L		97	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		49.1	45.1		ng/L		92	70 - 130

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

Lab Sample ID: 380-246248-E-1-A MS
Matrix: Water
Analysis Batch: 264070

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 263823

Surrogate	MS %Recovery	MS Qualifier	Limits
d5-NEtFOSAA	105		70 - 130
13C2 PFHxA	105		70 - 130
13C2 PFDA	102		70 - 130
13C3-GenX	96		70 - 130

Lab Sample ID: 380-246248-F-1-A MSD
Matrix: Water
Analysis Batch: 264070

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 263823

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		49.2	46.8		ng/L		95	70 - 130	7	30
Perfluorooctanesulfonic acid (PFOS)	14		49.2	62.4		ng/L		99	70 - 130	2	30
Perfluoroundecanoic acid (PFUnA)	<2.0		49.2	49.6		ng/L		101	70 - 130	5	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		49.2	48.6		ng/L		99	70 - 130	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		49.2	49.4		ng/L		100	70 - 130	3	30
Perfluorohexanoic acid (PFHxA)	13		49.2	60.2		ng/L		96	70 - 130	5	30
Perfluorododecanoic acid (PFDoA)	<2.0		49.2	50.7		ng/L		103	70 - 130	3	30
Perfluorooctanoic acid (PFOA)	17		49.2	63.9		ng/L		96	70 - 130	6	30
Perfluorodecanoic acid (PFDA)	<2.0		49.2	50.5		ng/L		102	70 - 130	5	30
Perfluorohexanesulfonic acid (PFHxS)	11		49.2	60.2		ng/L		100	70 - 130	3	30
Perfluorobutanesulfonic acid (PFBS)	59		49.2	106	E	ng/L		96	70 - 130	4	30
Perfluoroheptanoic acid (PFHpA)	7.1		49.2	54.3		ng/L		96	70 - 130	3	30
Perfluorononanoic acid (PFNA)	<2.0		49.2	49.7		ng/L		98	70 - 130	3	30
Perfluorotetradecanoic acid (PFTA)	<2.0		49.2	41.5		ng/L		84	70 - 130	11	30
Perfluorotridecanoic acid (PFTrDA)	<2.0		49.2	53.0		ng/L		108	70 - 130	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		49.2	49.7		ng/L		101	70 - 130	4	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		49.2	50.1		ng/L		102	70 - 130	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		49.2	47.1		ng/L		96	70 - 130	4	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
d5-NEtFOSAA	106		70 - 130
13C2 PFHxA	103		70 - 130
13C2 PFDA	103		70 - 130
13C3-GenX	100		70 - 130

LCMS

Prep Batch: 263823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-246250-1	BWS2253-H1-AQ	Total/NA	Water	537.1 DW	
380-246250-2	BWS2253-H1-FB	Total/NA	Water	537.1 DW	
MBL 380-263823/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-263823/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-263823/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-246248-E-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-246248-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Prep Batch: 264061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-246250-2	BWS2253-H1-FB	Total/NA	Water	533	
MBL 380-264061/20-A	Method Blank	Total/NA	Water	533	
LCS 380-264061/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-264061/21-A	Lab Control Sample	Total/NA	Water	533	
380-246299-AF-1-A MS	Matrix Spike	Total/NA	Water	533	
380-246299-AG-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 264070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-246250-1	BWS2253-H1-AQ	Total/NA	Water	EPA 537.1 V2	263823
380-246250-2	BWS2253-H1-FB	Total/NA	Water	EPA 537.1 V2	263823
MBL 380-263823/20-A	Method Blank	Total/NA	Water	EPA 537.1 V2	263823
LCS 380-263823/22-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	263823
MRL 380-263823/21-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	263823
380-246248-E-1-A MS	Matrix Spike	Total/NA	Water	EPA 537.1 V2	263823
380-246248-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 537.1 V2	263823

Analysis Batch: 264172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-246250-2	BWS2253-H1-FB	Total/NA	Water	533	264061
MBL 380-264061/20-A	Method Blank	Total/NA	Water	533	264061
LCS 380-264061/22-A	Lab Control Sample	Total/NA	Water	533	264061
MRL 380-264061/21-A	Lab Control Sample	Total/NA	Water	533	264061
380-246299-AF-1-A MS	Matrix Spike	Total/NA	Water	533	264061
380-246299-AG-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	264061

Prep Batch: 264586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-246250-1	BWS2253-H1-AQ	Total/NA	Water	533	
MBL 380-264586/20-A	Method Blank	Total/NA	Water	533	
LCS 380-264586/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-264586/21-A	Lab Control Sample	Total/NA	Water	533	
380-246991-B-3-A MS	Matrix Spike	Total/NA	Water	533	
380-246991-C-3-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 264750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-246250-1	BWS2253-H1-AQ	Total/NA	Water	533	264586
MBL 380-264586/20-A	Method Blank	Total/NA	Water	533	264586
LCS 380-264586/22-A	Lab Control Sample	Total/NA	Water	533	264586
MRL 380-264586/21-A	Lab Control Sample	Total/NA	Water	533	264586

LCMS (Continued)

Analysis Batch: 264750 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-246991-B-3-A MS	Matrix Spike	Total/NA	Water	533	264586
380-246991-C-3-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	264586

Lab Chronicle

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

Job ID: 380-246250-1
SDG: Site H1 PFAS 533/537.1

Client Sample ID: BWS2253-H1-AQ

Date Collected: 11/03/26 09:30
Date Received: 11/04/26 14:30

Lab Sample ID: 380-246250-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			264586	XTD8	EA POM	11/10/26 05:43
Total/NA	Analysis	533		1	264750	UKDT	EA POM	11/11/26 02:33
Total/NA	Prep	537.1 DW			263823	E2HD	EA POM	11/05/26 14:50
Total/NA	Analysis	EPA 537.1 V2		1	264070	Y5FM	EA POM	11/06/26 13:28

Client Sample ID: BWS2253-H1-FB

Date Collected: 11/03/26 09:30
Date Received: 11/04/26 14:30

Lab Sample ID: 380-246250-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			264061	XTD8	EA POM	11/06/26 07:13
Total/NA	Analysis	533		1	264172	Y5FM	EA POM	11/07/26 01:05
Total/NA	Prep	537.1 DW			263823	E2HD	EA POM	11/05/26 14:50
Total/NA	Analysis	EPA 537.1 V2		1	264070	Y5FM	EA POM	11/06/26 13:37

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: 380-246250-1
SDG: Site H1 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: 380-246250-1
SDG: Site H1 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: 380-246250-1
SDG: Site H1 PFAS 533/537.1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-246250-1	BWS2253-H1-AQ	Water	11/03/26 09:30	11/04/26 14:30	Hawaii
380-246250-2	BWS2253-H1-FB	Water	11/03/26 09:30	11/04/26 14:30	Hawaii

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

Chain of Custody Record

eurofins | Environment Testing

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:	Analysis Requested		Job #:
Address: 630 South Beretania Street	Due Date Requested:			Preservation Codes: A - HCL, N - None, I - AMMONIUM ACETATE, Y - TRIZMA
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			Other: 380-246250 COC
Site: H1	SSOW#:			

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:				I	Y		
BWS2253-H1-AQ	11/3/26	9:30	G	Water	N	N	3	3	13	
BWS2253-H1-FB			G	Water	N	N	1	1	4	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 ☐ X 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: 8796 8615 2350		
Relinquished by: [signature]	Date/Time: 11/3/26 14:00	Company: INTERA, INC	Received by: [signature] 4107	Date/Time: 11/4/26 14:30	Company: EEAP
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: 6DA/2.4-0.1=2.3 IIE

Ver: 05/06/2024

11/13/2026

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-246250-1
SDG Number: Site H1 PFAS 533/537.1

Login Number: 246250
List Number: 1
Creator: Del Rosario, Michael

List Source: Eurofins Pomona

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