



ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

INTERA - Red-Hill-Incident
Site D2 PFAS 1633

JOB NUMBER

380-224628-1

Eurofins Pomona

Job Notes

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

Compliance Statement

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

Authorization



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Definitions/Glossary

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Qualifiers

LCMS

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.

Glossary

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

Case Narrative

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

Job ID: 380-224628-1

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Job Narrative 380-224628-1

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 sample was received on 7/14/2026 9:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.6°C.

PFAS

Method QSM B-24: If aqueous samples were extracted beyond 7 days from collection, NMeFOSE, NEtFOSE, NMeFOSAA, and NEtFOSAA may be affected. If soil or tissue samples were extracted beyond 3 days from collection, NFDHA may be affected. If sample extracts, regardless of matrix, were analyzed beyond 28 days from extraction, 9Cl-PF3ONS and 11Cl-PF3OUdS may be affected. Per DoD Environmental Data Quality Workgroup Memorandum dated March 27, 2025, none of these analytes have associated regulatory limits or toxicity factors, thus any additional uncertainty associated with a holding time exceedance for these analytes will not affect current decision making and the DoD is willing to accept any additional uncertainty.

Method QSM B-24: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 320-927830 and analytical batch 320-927997 recovered outside control limits for the following analytes: Perfluorodecanoic acid (PFDA).

Method QSM B-24: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 320-927830 and analytical batch 320-927997 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

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Detection Summary

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Client Sample ID: BWS2254-D2-AQ

Lab Sample ID: 380-224628-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	4.7		1.5	ng/L	1		QSM B-24	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	14		1.5	ng/L	1		QSM B-24	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Client Sample ID: BWS2254-D2-AQ

Lab Sample ID: 380-224628-1

Date Collected: 07/13/26 11:00

Matrix: Water

Date Received: 07/14/26 09:00

Method: DoD 6.0 QSM B-24 - PFAS for QSM 6.0, Table B-24

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.9		2.9	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluoropentanoic acid (PFPeA)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluorohexanoic acid (PFHxA)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluoroheptanoic acid (PFHpA)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluorooctanoic acid (PFOA)	4.7		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluorononanoic acid (PFNA)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluorodecanoic acid (PFDA)	<1.5	*1	1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluoroundecanoic acid (PFUnA)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluorododecanoic acid (PFDoA)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluorotridecanoic acid (PFTTrDA)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluorotetradecanoic acid (PFTeDA)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluorobutanesulfonic acid (PFBS)	<2.9		2.9	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluoropentanesulfonic acid (PFPeS)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluorohexanesulfonic acid (PFHxS)	14		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluoroheptanesulfonic acid (PFHpS)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluorooctanesulfonic acid (PFOS)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluorononanesulfonic acid (PFNS)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluorodecanesulfonic acid (PFDS)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluorododecanesulfonic acid (PFDoS)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.9		2.9	ng/L		07/22/26 04:53	07/23/26 06:48	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.9		2.9	ng/L		07/22/26 04:53	07/23/26 06:48	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.9		2.9	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluorooctanesulfonamide (PFOSA)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<7.4		7.4	ng/L		07/22/26 04:53	07/23/26 06:48	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<7.4		7.4	ng/L		07/22/26 04:53	07/23/26 06:48	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.1		1.1	ng/L		07/22/26 04:53	07/23/26 06:48	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1

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Client Sample Results

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Client Sample ID: BWS2254-D2-AQ

Lab Sample ID: 380-224628-1

Date Collected: 07/13/26 11:00

Matrix: Water

Date Received: 07/14/26 09:00

Method: DoD 6.0 QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<1.5		1.5	ng/L		07/22/26 04:53	07/23/26 06:48	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<2.9		2.9	ng/L		07/22/26 04:53	07/23/26 06:48	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<7.4		7.4	ng/L		07/22/26 04:53	07/23/26 06:48	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<7.4		7.4	ng/L		07/22/26 04:53	07/23/26 06:48	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C4 PFBA	98.2		5 - 130			07/22/26 04:53	07/23/26 06:48	1
13C5 PFPeA	94.0		40 - 130			07/22/26 04:53	07/23/26 06:48	1
13C5 PFHxA	99.0		40 - 130			07/22/26 04:53	07/23/26 06:48	1
13C4 PFHpA	90.6		40 - 130			07/22/26 04:53	07/23/26 06:48	1
13C8 PFOA	102		40 - 130			07/22/26 04:53	07/23/26 06:48	1
13C9 PFNA	97.2		40 - 130			07/22/26 04:53	07/23/26 06:48	1
13C6 PFDA	85.8		40 - 130			07/22/26 04:53	07/23/26 06:48	1
13C7 PFUnA	87.0		30 - 130			07/22/26 04:53	07/23/26 06:48	1
13C2 PFDoA	89.3		10 - 130			07/22/26 04:53	07/23/26 06:48	1
13C2 PFTeDA	87.2		10 - 130			07/22/26 04:53	07/23/26 06:48	1
13C6 PFTrDA	89.4		20 - 150			07/22/26 04:53	07/23/26 06:48	1
13C3 PFBS	85.9		40 - 135			07/22/26 04:53	07/23/26 06:48	1
13C3 PFHxS	84.9		40 - 130			07/22/26 04:53	07/23/26 06:48	1
13C8 PFOS	79.0		40 - 130			07/22/26 04:53	07/23/26 06:48	1
13C8 PFOSA	75.4		40 - 130			07/22/26 04:53	07/23/26 06:48	1
d3-NMeFOSAA	70.0		40 - 170			07/22/26 04:53	07/23/26 06:48	1
d5-NEtFOSAA	64.6		25 - 135			07/22/26 04:53	07/23/26 06:48	1
13C2 4:2 FTS	71.9		40 - 200			07/22/26 04:53	07/23/26 06:48	1
13C2 6:2 FTS	71.8		40 - 200			07/22/26 04:53	07/23/26 06:48	1
13C2 8:2 FTS	62.8		40 - 300			07/22/26 04:53	07/23/26 06:48	1
13C3 HFPO-DA	81.4		40 - 130			07/22/26 04:53	07/23/26 06:48	1
d7-N-MeFOSE-M	55.7		10 - 130			07/22/26 04:53	07/23/26 06:48	1
d9-N-EtFOSE-M	51.2		10 - 130			07/22/26 04:53	07/23/26 06:48	1
d5-NEtPFOSA	53.5		10 - 130			07/22/26 04:53	07/23/26 06:48	1
d3-NMePFOSA	59.2		10 - 130			07/22/26 04:53	07/23/26 06:48	1
13C3-3:3 FTCA	96.4		20 - 150			07/22/26 04:53	07/23/26 06:48	1
13C3-5:3 FTCA	83.3		20 - 150			07/22/26 04:53	07/23/26 06:48	1

Action Limit Summary

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Client Sample ID: BWS2254-D2-AQ

Lab Sample ID: 380-224628-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Perfluorooctanoic acid (PFOA)	4.7		ng/L	4	1.5	QSM B-24	Total/NA
Perfluorononanoic acid (PFNA)	<1.5		ng/L	10	1.5	QSM B-24	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	14		ng/L	10	1.5	QSM B-24	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<1.5		ng/L	4	1.5	QSM B-24	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.1		ng/L	10	1.1	QSM B-24	Total/NA

Isotope Dilution Summary

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (5-130)	PFPeA (40-130)	13C5PHA (40-130)	C4PFHA (40-130)	C8PFOA (40-130)	C9PFNA (40-130)	C6PFDA (40-130)	13C7PUA (30-130)
320-134392-A-20-B MS	Matrix Spike	90.5	67.8	92.3	78.0	83.8	79.8	68.8	63.7
320-134392-A-20-C MSD	Matrix Spike Duplicate	91.6	63.6	90.1	78.6	91.6	77.8	73.3	62.8
380-224628-1	BWS2254-D2-AQ	98.2	94.0	99.0	90.6	102	97.2	85.8	87.0
LCS 320-927830/3-A	Lab Control Sample	100	75.6	85.7	72.4	107	84.4	89.3	75.8
LCSD 320-927830/4-A	Lab Control Sample Dup	96.1	88.9	93.1	97.2	84.2	88.7	82.9	101
LLCS 320-927830/2-A	Lab Control Sample	98.1	79.2	98.1	90.4	87.6	92.3	82.3	87.4
MB 320-927830/1-A	Method Blank	96.5	72.4	76.8	63.4	102	89.9	79.7	82.9

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDaA (10-130)	PFTDA (10-130)	36PFTTrDA (20-150)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)
320-134392-A-20-B MS	Matrix Spike	55.4	34.5	41.9	85.8	79.1	54.6	54.9	58.7
320-134392-A-20-C MSD	Matrix Spike Duplicate	48.2	35.7	35.0	81.2	74.9	52.3	47.7	51.5
380-224628-1	BWS2254-D2-AQ	89.3	87.2	89.4	85.9	84.9	79.0	75.4	70.0
LCS 320-927830/3-A	Lab Control Sample	93.7	88.7	102	82.8	86.1	84.1	75.4	78.7
LCSD 320-927830/4-A	Lab Control Sample Dup	94.8	91.8	107	80.8	83.4	82.7	73.1	71.1
LLCS 320-927830/2-A	Lab Control Sample	78.1	88.1	102	84.3	83.5	79.1	68.5	69.0
MB 320-927830/1-A	Method Blank	83.5	83.3	84.5	85.3	81.4	79.6	71.7	69.2

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	d5NEFOS (25-135)	M242FTS (40-200)	M262FTS (40-200)	M282FTS (40-300)	HFPODA (40-130)	NMFM (10-130)	NEFM (10-130)	d5NPFSA (10-130)
320-134392-A-20-B MS	Matrix Spike	64.4	117	87.6	59.7	82.1	42.4	39.9	40.9
320-134392-A-20-C MSD	Matrix Spike Duplicate	54.5	103	81.9	63.8	73.0	38.4	34.8	37.3
380-224628-1	BWS2254-D2-AQ	64.6	71.9	71.8	62.8	81.4	55.7	51.2	53.5
LCS 320-927830/3-A	Lab Control Sample	88.1	78.4	76.9	85.8	85.6	66.2	63.3	49.5
LCSD 320-927830/4-A	Lab Control Sample Dup	74.9	80.5	78.4	74.0	101	60.0	58.8	47.0
LLCS 320-927830/2-A	Lab Control Sample	68.4	77.4	75.7	70.0	88.2	55.5	55.2	42.4
MB 320-927830/1-A	Method Blank	70.9	83.1	74.4	80.6	77.4	56.5	57.8	42.1

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	d3NMFSA (10-130)	3-3:3 FTC (20-150)	3-5:3 FTC (20-150)
320-134392-A-20-B MS	Matrix Spike	46.7	88.8	81.9
320-134392-A-20-C MSD	Matrix Spike Duplicate	43.7	85.0	77.8
380-224628-1	BWS2254-D2-AQ	59.2	96.4	83.3
LCS 320-927830/3-A	Lab Control Sample	59.3	91.5	86.2
LCSD 320-927830/4-A	Lab Control Sample Dup	56.4	107	95.1
LLCS 320-927830/2-A	Lab Control Sample	50.6	99.4	83.5
MB 320-927830/1-A	Method Blank	51.1	79.4	75.0

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDaA = 13C2 PFDaA
PFTDA = 13C2 PFTeDA

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Isotope Dilution Summary

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

C6PFTTrDA = 13C6 PFTTrDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 PFOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
C3-3:3 FTCA = 13C3-3:3 FTCA
C3-5:3 FTCA = 13C3-5:3 FTCA

1
2
3
4
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8
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11
12
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14
15
16

QC Sample Results

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24

Lab Sample ID: MB 320-927830/1-A

Matrix: Water

Analysis Batch: 927997

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 927830

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<4.0		4.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluorotetradecanoic acid (PFTeDA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluorobutanesulfonic acid (PFBS)	<4.0		4.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluorononanesulfonic acid (PFNS)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluorodecanesulfonic acid (PFDS)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluorododecanesulfonic acid (PFDoS)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<4.0		4.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<4.0		4.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<4.0		4.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluorooctanesulfonamide (PFOSA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<10		10	ng/L		07/22/26 04:53	07/22/26 23:41	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<10		10	ng/L		07/22/26 04:53	07/22/26 23:41	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.5		1.5	ng/L		07/22/26 04:53	07/22/26 23:41	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1

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QC Sample Results

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: MB 320-927830/1-A

Matrix: Water

Analysis Batch: 927997

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 927830

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<4.0		4.0	ng/L		07/22/26 04:53	07/22/26 23:41	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<10		10	ng/L		07/22/26 04:53	07/22/26 23:41	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<10		10	ng/L		07/22/26 04:53	07/22/26 23:41	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	96.5		5 - 130	07/22/26 04:53	07/22/26 23:41	1
13C5 PFPeA	72.4		40 - 130	07/22/26 04:53	07/22/26 23:41	1
13C5 PFHxA	76.8		40 - 130	07/22/26 04:53	07/22/26 23:41	1
13C4 PFHpA	63.4		40 - 130	07/22/26 04:53	07/22/26 23:41	1
13C8 PFOA	102		40 - 130	07/22/26 04:53	07/22/26 23:41	1
13C9 PFNA	89.9		40 - 130	07/22/26 04:53	07/22/26 23:41	1
13C6 PFDA	79.7		40 - 130	07/22/26 04:53	07/22/26 23:41	1
13C7 PFUnA	82.9		30 - 130	07/22/26 04:53	07/22/26 23:41	1
13C2 PFDoA	83.5		10 - 130	07/22/26 04:53	07/22/26 23:41	1
13C2 PFTeDA	83.3		10 - 130	07/22/26 04:53	07/22/26 23:41	1
13C6 PFTrDA	84.5		20 - 150	07/22/26 04:53	07/22/26 23:41	1
13C3 PFBS	85.3		40 - 135	07/22/26 04:53	07/22/26 23:41	1
13C3 PFHxS	81.4		40 - 130	07/22/26 04:53	07/22/26 23:41	1
13C8 PFOS	79.6		40 - 130	07/22/26 04:53	07/22/26 23:41	1
13C8 PFOSA	71.7		40 - 130	07/22/26 04:53	07/22/26 23:41	1
d3-NMeFOSAA	69.2		40 - 170	07/22/26 04:53	07/22/26 23:41	1
d5-NEtFOSAA	70.9		25 - 135	07/22/26 04:53	07/22/26 23:41	1
13C2 4:2 FTS	83.1		40 - 200	07/22/26 04:53	07/22/26 23:41	1
13C2 6:2 FTS	74.4		40 - 200	07/22/26 04:53	07/22/26 23:41	1
13C2 8:2 FTS	80.6		40 - 300	07/22/26 04:53	07/22/26 23:41	1
13C3 HFPO-DA	77.4		40 - 130	07/22/26 04:53	07/22/26 23:41	1
d7-N-MeFOSE-M	56.5		10 - 130	07/22/26 04:53	07/22/26 23:41	1
d9-N-EtFOSE-M	57.8		10 - 130	07/22/26 04:53	07/22/26 23:41	1
d5-NEtPFOSA	42.1		10 - 130	07/22/26 04:53	07/22/26 23:41	1
d3-NMePFOSA	51.1		10 - 130	07/22/26 04:53	07/22/26 23:41	1
13C3-3:3 FTCA	79.4		20 - 150	07/22/26 04:53	07/22/26 23:41	1
13C3-5:3 FTCA	75.0		20 - 150	07/22/26 04:53	07/22/26 23:41	1

Lab Sample ID: LCS 320-927830/3-A

Matrix: Water

Analysis Batch: 927997

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 927830

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	75.7		ng/L		95	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	50.1		ng/L		125	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	42.5		ng/L		106	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	36.5		ng/L		91	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	35.6		ng/L		89	70 - 150

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QC Sample Results

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LCS 320-927830/3-A

Matrix: Water

Analysis Batch: 927997

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 927830

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorononanoic acid (PFNA)	40.0	39.9		ng/L		100	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	34.8		ng/L		87	70 - 140
Perfluoroundecanoic acid (PFUnA)	40.0	39.3		ng/L		98	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	37.7		ng/L		94	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	31.1		ng/L		78	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	34.0		ng/L		85	60 - 140
Perfluorobutanesulfonic acid (PFBS)	71.0	83.0		ng/L		117	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	37.9		ng/L		101	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	41.9		ng/L		115	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	33.6		ng/L		88	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	37.1		ng/L		100	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	38.2		ng/L		99	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	36.8		ng/L		95	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	34.2		ng/L		88	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	64.4		ng/L		86	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	73.5		ng/L		96	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	72.6		ng/L		94	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	39.6		ng/L		99	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	38.1		ng/L		95	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	40.7		ng/L		102	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	39.1		ng/L		98	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.2		ng/L		90	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	192		ng/L		96	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	215		ng/L		107	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	31.2		ng/L		104	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	37.8		ng/L		100	65 - 145
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	45.7		ng/L		114	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	39.6		ng/L		99	50 - 150

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QC Sample Results

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LCS 320-927830/3-A

Matrix: Water

Analysis Batch: 927997

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 927830

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	46.8		ng/L		117	55 - 140
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	37.4	35.8		ng/L		96	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	37.8	32.4		ng/L		86	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	35.7	33.6		ng/L		94	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	78.0		ng/L		98	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	174		ng/L		87	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	173		ng/L		86	50 - 145

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	100		5 - 130
13C5 PFPeA	75.6		40 - 130
13C5 PFHxA	85.7		40 - 130
13C4 PFHpA	72.4		40 - 130
13C8 PFOA	107		40 - 130
13C9 PFNA	84.4		40 - 130
13C6 PFDA	89.3		40 - 130
13C7 PFUnA	75.8		30 - 130
13C2 PFDoA	93.7		10 - 130
13C2 PFTeDA	88.7		10 - 130
13C6 PFTTrDA	102		20 - 150
13C3 PFBS	82.8		40 - 135
13C3 PFHxS	86.1		40 - 130
13C8 PFOS	84.1		40 - 130
13C8 PFOSA	75.4		40 - 130
d3-NMeFOSAA	78.7		40 - 170
d5-NEtFOSAA	88.1		25 - 135
13C2 4:2 FTS	78.4		40 - 200
13C2 6:2 FTS	76.9		40 - 200
13C2 8:2 FTS	85.8		40 - 300
13C3 HFPO-DA	85.6		40 - 130
d7-N-MeFOSE-M	66.2		10 - 130
d9-N-EtFOSE-M	63.3		10 - 130
d5-NEtPFOSA	49.5		10 - 130
d3-NMePFOSA	59.3		10 - 130
13C3-3:3 FTCA	91.5		20 - 150
13C3-5:3 FTCA	86.2		20 - 150

Lab Sample ID: LCSD 320-927830/4-A

Matrix: Water

Analysis Batch: 927997

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 927830

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Perfluorobutanoic acid (PFBA)	80.0	76.8		ng/L		96	70 - 140	1	30
Perfluoropentanoic acid (PFPeA)	40.0	46.6		ng/L		117	65 - 135	7	30

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QC Sample Results

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LCSD 320-927830/4-A

Matrix: Water

Analysis Batch: 927997

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 927830

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanoic acid (PFHxA)	40.0	43.2		ng/L		108	70 - 145	2	30
Perfluoroheptanoic acid (PFHpA)	40.0	33.6		ng/L		84	70 - 150	8	30
Perfluorooctanoic acid (PFOA)	40.0	40.8		ng/L		102	70 - 150	13	30
Perfluorononanoic acid (PFNA)	40.0	35.0		ng/L		87	70 - 150	13	30
Perfluorodecanoic acid (PFDA)	40.0	48.4	*1	ng/L		121	70 - 140	33	30
Perfluoroundecanoic acid (PFUnA)	40.0	37.1		ng/L		93	70 - 145	6	30
Perfluorododecanoic acid (PFDoA)	40.0	38.8		ng/L		97	70 - 140	3	30
Perfluorotridecanoic acid (PFTrDA)	40.0	34.0		ng/L		85	65 - 140	9	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	42.8		ng/L		107	60 - 140	23	30
Perfluorobutanesulfonic acid (PFBS)	71.0	88.7		ng/L		125	60 - 145	7	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	38.3		ng/L		102	65 - 140	1	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	42.7		ng/L		117	65 - 145	2	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	37.3		ng/L		98	70 - 150	11	30
Perfluorooctanesulfonic acid (PFOS)	37.2	38.3		ng/L		103	55 - 150	3	30
Perfluorononanesulfonic acid (PFNS)	38.5	41.4		ng/L		108	65 - 145	8	30
Perfluorodecanesulfonic acid (PFDS)	38.6	37.5		ng/L		97	60 - 145	2	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	34.1		ng/L		88	50 - 145	0	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	60.1		ng/L		80	70 - 145	7	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	76.0		ng/L		100	65 - 155	3	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	87.3		ng/L		114	60 - 150	18	30
Perfluorooctanesulfonamide (PFOSA)	40.0	41.0		ng/L		102	70 - 145	4	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	39.5		ng/L		99	60 - 150	4	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	42.6		ng/L		106	65 - 145	5	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	41.6		ng/L		104	50 - 140	6	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.8		ng/L		97	70 - 145	7	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	199		ng/L		100	70 - 145	4	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	218		ng/L		109	70 - 135	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	30.3		ng/L		101	70 - 140	3	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	38.5		ng/L		102	65 - 145	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	49.9		ng/L		125	60 - 150	9	30

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QC Sample Results

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LCSD 320-927830/4-A

Matrix: Water

Analysis Batch: 927997

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 927830

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	40.0	39.3		ng/L		98	50 - 150	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	47.6		ng/L		119	55 - 140	2	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	37.4	38.1		ng/L		102	70 - 155	6	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	37.8	33.5		ng/L		89	55 - 160	3	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	35.7	38.3		ng/L		107	70 - 140	13	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	78.3		ng/L		98	65 - 130	0	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	175		ng/L		87	70 - 135	1	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	182		ng/L		91	50 - 145	5	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	LCSD Limits
13C4 PFBA	96.1		5 - 130
13C5 PFPeA	88.9		40 - 130
13C5 PFHxA	93.1		40 - 130
13C4 PFHpA	97.2		40 - 130
13C8 PFOA	84.2		40 - 130
13C9 PFNA	88.7		40 - 130
13C6 PFDA	82.9		40 - 130
13C7 PFUnA	101		30 - 130
13C2 PFDoA	94.8		10 - 130
13C2 PFTeDA	91.8		10 - 130
13C6 PFTrDA	107		20 - 150
13C3 PFBS	80.8		40 - 135
13C3 PFHxS	83.4		40 - 130
13C8 PFOS	82.7		40 - 130
13C8 PFOSA	73.1		40 - 130
d3-NMeFOSAA	71.1		40 - 170
d5-NEtFOSAA	74.9		25 - 135
13C2 4:2 FTS	80.5		40 - 200
13C2 6:2 FTS	78.4		40 - 200
13C2 8:2 FTS	74.0		40 - 300
13C3 HFPO-DA	101		40 - 130
d7-N-MeFOSE-M	60.0		10 - 130
d9-N-EtFOSE-M	58.8		10 - 130
d5-NEtPFOSA	47.0		10 - 130
d3-NMePFOSA	56.4		10 - 130
13C3-3:3 FTCA	107		20 - 150
13C3-5:3 FTCA	95.1		20 - 150

QC Sample Results

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LLCS 320-927830/2-A

Matrix: Water

Analysis Batch: 927997

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 927830

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	8.00	7.69		ng/L		96	70 - 140
Perfluoropentanoic acid (PFPeA)	4.00	4.57		ng/L		114	65 - 135
Perfluorohexanoic acid (PFHxA)	4.00	3.95		ng/L		99	70 - 145
Perfluoroheptanoic acid (PFHpA)	4.00	3.58		ng/L		90	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.96		ng/L		99	70 - 150
Perfluorononanoic acid (PFNA)	4.00	3.92		ng/L		98	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	4.34		ng/L		109	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.67		ng/L		92	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	4.52		ng/L		113	70 - 140
Perfluorotridecanoic acid (PFTTrDA)	4.00	3.68		ng/L		92	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.46		ng/L		87	60 - 140
Perfluorobutanesulfonic acid (PFBS)	7.10	8.68		ng/L		122	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.82		ng/L		102	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	4.56		ng/L		125	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.48		ng/L		91	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.77		ng/L		101	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	3.63		ng/L		94	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.49		ng/L		91	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.80		ng/L		72	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	7.09		ng/L		95	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	7.93		ng/L		104	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.84		ng/L		102	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.06		ng/L		102	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.94		ng/L		99	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	4.31		ng/L		108	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	4.48		ng/L		112	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	4.03		ng/L		101	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	19.9		ng/L		100	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	21.4		ng/L		107	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	3.19		ng/L		106	70 - 140

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QC Sample Results

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LLCS 320-927830/2-A

Matrix: Water

Analysis Batch: 927997

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 927830

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.92		ng/L		103	65 - 145
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	4.65		ng/L		116	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	4.10		ng/L		103	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	4.74		ng/L		118	55 - 140
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid	3.74	3.42		ng/L		91	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	3.78	3.48		ng/L		92	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	3.57	3.02		ng/L		85	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	7.47		ng/L		93	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	18.3		ng/L		92	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	14.8		ng/L		74	50 - 145

Isotope Dilution	LLCS %Recovery	LLCS Qualifier	Limits
13C4 PFBA	98.1		5 - 130
13C5 PFPeA	79.2		40 - 130
13C5 PFHxA	98.1		40 - 130
13C4 PFHpA	90.4		40 - 130
13C8 PFOA	87.6		40 - 130
13C9 PFNA	92.3		40 - 130
13C6 PFDA	82.3		40 - 130
13C7 PFUnA	87.4		30 - 130
13C2 PFDoA	78.1		10 - 130
13C2 PFTeDA	88.1		10 - 130
13C6 PFTrDA	102		20 - 150
13C3 PFBS	84.3		40 - 135
13C3 PFHxS	83.5		40 - 130
13C8 PFOS	79.1		40 - 130
13C8 PFOSA	68.5		40 - 130
d3-NMeFOSAA	69.0		40 - 170
d5-NEtFOSAA	68.4		25 - 135
13C2 4:2 FTS	77.4		40 - 200
13C2 6:2 FTS	75.7		40 - 200
13C2 8:2 FTS	70.0		40 - 300
13C3 HFPO-DA	88.2		40 - 130
d7-N-MeFOSE-M	55.5		10 - 130
d9-N-EtFOSE-M	55.2		10 - 130
d5-NEtPFOSA	42.4		10 - 130
d3-NMePFOSA	50.6		10 - 130
13C3-3:3 FTCA	99.4		20 - 150
13C3-5:3 FTCA	83.5		20 - 150

QC Sample Results

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: 320-134392-A-20-B MS

Matrix: Water

Analysis Batch: 927997

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 927830

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	13		68.0	76.7		ng/L		94	70 - 140
Perfluoropentanoic acid (PFPeA)	<1.6		34.0	39.2		ng/L		115	65 - 135
Perfluorohexanoic acid (PFHxA)	1.6		34.0	38.7		ng/L		109	70 - 145
Perfluoroheptanoic acid (PFHpA)	1.7		34.0	32.6		ng/L		91	70 - 150
Perfluorooctanoic acid (PFOA)	1.6		34.0	35.1		ng/L		99	70 - 150
Perfluorononanoic acid (PFNA)	<1.6		34.0	36.2		ng/L		105	70 - 150
Perfluorodecanoic acid (PFDA)	<1.6	*1	34.0	38.5		ng/L		113	70 - 140
Perfluoroundecanoic acid (PFUnA)	<1.6		34.0	31.7		ng/L		93	70 - 145
Perfluorododecanoic acid (PFDoA)	<1.6		34.0	27.8		ng/L		82	70 - 140
Perfluorotridecanoic acid (PFTTrDA)	<1.6		34.0	30.6		ng/L		90	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	<1.6		34.0	34.7		ng/L		102	60 - 140
Perfluorobutanesulfonic acid (PFBS)	<3.3		60.3	73.2		ng/L		121	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	<1.6		31.9	32.6		ng/L		102	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	1.6		31.0	39.8		ng/L		123	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	<1.6		32.4	38.1		ng/L		118	70 - 150
Perfluorooctanesulfonic acid (PFOS)	<1.6		31.6	36.1		ng/L		110	55 - 150
Perfluorononanesulfonic acid (PFNS)	<1.6		32.7	28.6		ng/L		87	65 - 145
Perfluorodecanesulfonic acid (PFDS)	<1.6		32.8	25.3		ng/L		77	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	<1.6	F1	33.0	15.5	F1	ng/L		47	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<3.3		63.7	57.6		ng/L		90	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<3.3		64.7	56.4		ng/L		87	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<3.3		65.2	78.6		ng/L		120	60 - 150
Perfluorooctanesulfonamide (PFOSA)	<1.6		34.0	34.2		ng/L		101	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1.6		34.0	35.1		ng/L		103	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<1.6		34.0	36.2		ng/L		107	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.6		34.0	36.9		ng/L		109	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.6		34.0	30.2		ng/L		89	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<8.2		170	173		ng/L		102	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<8.2		170	190		ng/L		112	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.2		25.5	27.5		ng/L		108	70 - 140

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QC Sample Results

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: 320-134392-A-20-B MS

Matrix: Water

Analysis Batch: 927997

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 927830

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.6		32.1	32.7		ng/L		102	65 - 145
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.6		34.0	45.0		ng/L		132	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.6		34.0	37.5		ng/L		110	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.6		34.0	33.4		ng/L		98	55 - 140
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<1.6		31.7	28.2		ng/L		89	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	<1.6		32.1	21.0		ng/L		65	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<1.6		30.3	25.7		ng/L		85	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<3.3		68.0	68.0		ng/L		100	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<8.2		170	157		ng/L		92	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<8.2		170	126		ng/L		74	50 - 145

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C4 PFBA	90.5		5 - 130
13C5 PFPeA	67.8		40 - 130
13C5 PFHxA	92.3		40 - 130
13C4 PFHpA	78.0		40 - 130
13C8 PFOA	83.8		40 - 130
13C9 PFNA	79.8		40 - 130
13C6 PFDA	68.8		40 - 130
13C7 PFUnA	63.7		30 - 130
13C2 PFDoA	55.4		10 - 130
13C2 PFTeDA	34.5		10 - 130
13C6 PFTrDA	41.9		20 - 150
13C3 PFBS	85.8		40 - 135
13C3 PFHxS	79.1		40 - 130
13C8 PFOS	54.6		40 - 130
13C8 PFOSA	54.9		40 - 130
d3-NMeFOSAA	58.7		40 - 170
d5-NEtFOSAA	64.4		25 - 135
13C2 4:2 FTS	117		40 - 200
13C2 6:2 FTS	87.6		40 - 200
13C2 8:2 FTS	59.7		40 - 300
13C3 HFPO-DA	82.1		40 - 130
d7-N-MeFOSE-M	42.4		10 - 130
d9-N-EtFOSE-M	39.9		10 - 130
d5-NEtPFOSA	40.9		10 - 130
d3-NMePFOSA	46.7		10 - 130
13C3-3:3 FTCA	88.8		20 - 150
13C3-5:3 FTCA	81.9		20 - 150

QC Sample Results

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: 320-134392-A-20-C MSD

Matrix: Water

Analysis Batch: 927997

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 927830

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	13		70.1	79.9		ng/L		96	70 - 140	4	30
Perfluoropentanoic acid (PFPeA)	<1.6		35.0	42.8		ng/L		122	65 - 135	9	30
Perfluorohexanoic acid (PFHxA)	1.6		35.0	33.2		ng/L		90	70 - 145	15	30
Perfluoroheptanoic acid (PFHpA)	1.7		35.0	31.5		ng/L		85	70 - 150	3	30
Perfluorooctanoic acid (PFOA)	1.6		35.0	32.8		ng/L		89	70 - 150	7	30
Perfluorononanoic acid (PFNA)	<1.6		35.0	34.4		ng/L		97	70 - 150	5	30
Perfluorodecanoic acid (PFDA)	<1.6	*1	35.0	31.3		ng/L		89	70 - 140	21	30
Perfluoroundecanoic acid (PFUnA)	<1.6		35.0	32.8		ng/L		94	70 - 145	4	30
Perfluorododecanoic acid (PFDoA)	<1.6		35.0	34.6		ng/L		99	70 - 140	22	30
Perfluorotridecanoic acid (PFTTrDA)	<1.6		35.0	34.2		ng/L		98	65 - 140	11	30
Perfluorotetradecanoic acid (PFTeDA)	<1.6		35.0	30.7		ng/L		88	60 - 140	12	30
Perfluorobutanesulfonic acid (PFBS)	<3.3		62.2	79.2		ng/L		127	60 - 145	8	30
Perfluoropentanesulfonic acid (PFPeS)	<1.6		32.9	37.2		ng/L		113	65 - 140	13	30
Perfluorohexanesulfonic acid (PFHxS)	1.6		31.9	44.0		ng/L		133	65 - 145	10	30
Perfluoroheptanesulfonic acid (PFHpS)	<1.6		33.4	38.3		ng/L		115	70 - 150	1	30
Perfluorooctanesulfonic acid (PFOS)	<1.6		32.6	35.7		ng/L		106	55 - 150	1	30
Perfluorononanesulfonic acid (PFNS)	<1.6		33.7	27.0		ng/L		80	65 - 145	6	30
Perfluorodecanesulfonic acid (PFDS)	<1.6		33.8	23.0		ng/L		68	60 - 145	9	30
Perfluorododecanesulfonic acid (PFDoS)	<1.6	F1	34.0	15.1	F1	ng/L		44	50 - 145	3	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<3.3		65.7	56.6		ng/L		86	70 - 145	2	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<3.3		66.7	70.4		ng/L		106	65 - 155	22	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<3.3		67.3	65.9		ng/L		98	60 - 150	18	30
Perfluorooctanesulfonamide (PFOSA)	<1.6		35.0	36.2		ng/L		103	70 - 145	6	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1.6		35.0	35.6		ng/L		102	60 - 150	1	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<1.6		35.0	36.7		ng/L		105	65 - 145	1	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.6		35.0	37.7		ng/L		108	50 - 140	2	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.6		35.0	33.1		ng/L		94	70 - 145	9	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<8.2		175	178		ng/L		102	70 - 145	3	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<8.2		175	198		ng/L		113	70 - 135	4	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.2		26.3	28.6		ng/L		109	70 - 140	4	30

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QC Sample Results

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: 320-134392-A-20-C MSD

Matrix: Water

Analysis Batch: 927997

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 927830

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.6		33.1	39.7		ng/L		120	65 - 145	19	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.6		35.0	45.0		ng/L		128	60 - 150	0	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.6		35.0	34.2		ng/L		98	50 - 150	9	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.6		35.0	35.0		ng/L		100	55 - 140	5	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<1.6		32.7	27.4		ng/L		84	70 - 155	3	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	<1.6		33.1	22.5		ng/L		68	55 - 160	7	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<1.6		31.2	24.5		ng/L		78	70 - 140	5	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<3.3		70.1	69.8		ng/L		100	65 - 130	3	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<8.2		175	154		ng/L		88	70 - 135	2	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<8.2		175	127		ng/L		72	50 - 145	1	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C4 PFBA	91.6		5 - 130
13C5 PFPeA	63.6		40 - 130
13C5 PFHxA	90.1		40 - 130
13C4 PFHpA	78.6		40 - 130
13C8 PFOA	91.6		40 - 130
13C9 PFNA	77.8		40 - 130
13C6 PFDA	73.3		40 - 130
13C7 PFUnA	62.8		30 - 130
13C2 PFDoA	48.2		10 - 130
13C2 PFTeDA	35.7		10 - 130
13C6 PFTrDA	35.0		20 - 150
13C3 PFBS	81.2		40 - 135
13C3 PFHxS	74.9		40 - 130
13C8 PFOS	52.3		40 - 130
13C8 PFOSA	47.7		40 - 130
d3-NMeFOSAA	51.5		40 - 170
d5-NEtFOSAA	54.5		25 - 135
13C2 4:2 FTS	103		40 - 200
13C2 6:2 FTS	81.9		40 - 200
13C2 8:2 FTS	63.8		40 - 300
13C3 HFPO-DA	73.0		40 - 130
d7-N-MeFOSE-M	38.4		10 - 130
d9-N-EtFOSE-M	34.8		10 - 130
d5-NEtPFOSA	37.3		10 - 130
d3-NMePFOSA	43.7		10 - 130
13C3-3:3 FTCA	85.0		20 - 150
13C3-5:3 FTCA	77.8		20 - 150

QC Association Summary

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

LCMS

Prep Batch: 927830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-224628-1	BWS2254-D2-AQ	Total/NA	Water	1633	
MB 320-927830/1-A	Method Blank	Total/NA	Water	1633	
LCS 320-927830/3-A	Lab Control Sample	Total/NA	Water	1633	
LCSD 320-927830/4-A	Lab Control Sample Dup	Total/NA	Water	1633	
LLCS 320-927830/2-A	Lab Control Sample	Total/NA	Water	1633	
320-134392-A-20-B MS	Matrix Spike	Total/NA	Water	1633	
320-134392-A-20-C MSD	Matrix Spike Duplicate	Total/NA	Water	1633	

Analysis Batch: 927997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-224628-1	BWS2254-D2-AQ	Total/NA	Water	QSM B-24	927830
MB 320-927830/1-A	Method Blank	Total/NA	Water	QSM B-24	927830
LCS 320-927830/3-A	Lab Control Sample	Total/NA	Water	QSM B-24	927830
LCSD 320-927830/4-A	Lab Control Sample Dup	Total/NA	Water	QSM B-24	927830
LLCS 320-927830/2-A	Lab Control Sample	Total/NA	Water	QSM B-24	927830
320-134392-A-20-B MS	Matrix Spike	Total/NA	Water	QSM B-24	927830
320-134392-A-20-C MSD	Matrix Spike Duplicate	Total/NA	Water	QSM B-24	927830

Lab Chronicle

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Client Sample ID: BWS2254-D2-AQ
Date Collected: 07/13/26 11:00
Date Received: 07/14/26 09:00

Lab Sample ID: 380-224628-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			927830	JHH	EET SAC	07/22/26 04:53
Total/NA	Analysis	QSM B-24		1	927997	SS	EET SAC	07/23/26 06:48

Laboratory References:
EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA00044	06-30-27
Alaska (UST)	State	17-020	02-22-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468.03	01-20-27
Arizona	State	AZ0708	08-11-26
Arkansas DEQ	State	88-0691	05-17-27
California	State	2897	01-31-28
Colorado	State	CA00044	08-31-26
Florida	NELAP	E87570	06-30-27
Georgia	State	4040	01-29-27
Illinois	NELAP	200060	03-31-27
Kansas	NELAP	E-10375	10-31-26
Louisiana (All)	NELAP	01944	06-30-27
Maine	State	CA00004	04-14-28
Massachusetts	State	M-CA044	07-01-27
Michigan	State	9947	08-03-26
Minnesota	NELAP	006-999-474	12-31-26
Nevada	State	CA00044	07-31-26
New Jersey	NELAP	CA005	06-30-27
New York	NELAP	11666	04-01-27
Ohio	State	41252	01-29-27
Oregon	NELAP	4040	01-29-27
Texas	NELAP	T104704399-23-17	05-31-27
US Fish & Wildlife	US Federal Programs	A22139	04-30-27
USDA	US Federal Programs	525-23-59-76739	03-01-27
Utah	NELAP	CA000442023-16	02-28-27
Virginia	NELAP	460278	09-30-26
Washington	State	C581	05-06-27
West Virginia (DW)	State	9930C	01-31-27
West Virginia DEP	State	422	07-31-27
Wisconsin	State	998204680	08-31-26
Wyoming	State Program	8TMS-L	01-28-19 *

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

Eurofins Pomona

Method Summary

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Method	Method Description	Protocol	Laboratory
QSM B-24	PFAS for QSM 6.0, Table B-24	DoD 6.0	EET SAC
1633	Solid-Phase Extraction (SPE)	EPA	EET SAC

Protocol References:

DoD 6.0 = Department of Defense Quality Systems Manual V6.0
EPA = US Environmental Protection Agency

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

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

Job ID: 380-224628-1
SDG: Site D2 PFAS 1633

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-224628-1	BWS2254-D2-AQ	Water	07/13/26 11:00	07/14/26 09:00	Hawaii

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Chain of Custody Record

Client Information		Sampler: H. Bentley (808) 321-0683		Lab P/N: Lopez, Maria		Carrier Tracking No(s):		COC No:	
Client Contact: Mr. Erwin Kawata		Phone: 858-205-0730		E-Mail: Maria.Lopez@eurofins.com		State of Origin: Hawaii		Page: Page 1 of 1	
Company: City & County of Honolulu		PWSID:		Due Date Requested:		Analysis Requested		Job #:	
Address: 630 South Beretania Street		TAT Requested (days): Standard		Compliance Project: ☒ Yes ☒ No		1633 DDB - EPA Method 1633 Std List		Preservation Codes: A - HCL N - None	
City: Honolulu		State, Zip: HI, 96843		PO #:		Matrix (Water, Seawater, Groundwater, Surface Water, Wastewater)		Other:	
Phone: 808-748-5066		Email: ekawata@hbws.org		WFO #:		Sample Type (C=Comp, G=Grab)		Total Number of Containers	
Project #: 38000961		Project Name: INTERA - Red-Hill Incident		Site: D2		Sample Date		Special Instructions/Note:	
SSOW#:		Sample Time		Preservation Code		Sample Date		BILL TO POMONA EEA	
Sample Identification		Sample Time		Preservation Code		Sample Date		380-224628 COC	
BWS254-D2-AQ		7/13/20 11:00		G		Water		380-224628 COC	
Possible Hazard Identification		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		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:		Special Instructions/QC Requirements:		Special Instructions/QC Requirements:		Special Instructions/QC Requirements:	
Empty Kit Relinquished by		Date:		Time:		Method of Shipment		Company	
Relinquished by		Date/Time: 7/13/20 14:00		Company: INTERA		Received by		Date/Time: 7/14/20 09:00	
Relinquished by		Date/Time:		Company:		Received by		Date/Time:	
Relinquished by		Date/Time:		Company:		Received by		Date/Time:	
Custody-Seals Intact: ☒ Yes ☐ No		Custody Seal No.: 546		Cooler Temperature(s) °C and Other Remarks: 4.6		Ver 05/06/2024			

[illegible]

Chain of Custody Record

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.eurofins.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:		Analysis Requested	
City Honolulu		TAT Requested (days): Standard		Preservation Codes: A - HCL N - None	
State, Zip HI, 96843		Compliance Project: ☐ Yes ☒ No		Other:	
Phone: 808-748-5066		PO #:		Total Number of containers	
Email: ekawata@hbws.org		WO #:		Special Instructions/Note:	
Project Name: INTERA - Red-Hill-Incident		Project #: 38000861		BILL TO POMONA EEA	
Site D2		SSOW#:			
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Viewwater, Seawater, Solid, Oil, BT=Tissue, A=Air, DW=Drinking Water)
BWS2254-D2-AQ		7/13/20	1100	G	Water
		380-224628 Chain of Custody			
Possible Hazard Identification ☒ 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	
Relinquished by 		Date/Time: 7/13/20 14:00		Company INTERA	
Relinquished by		Date/Time:		Company	
Relinquished by		Date/Time:		Company	
Custody Seals intact: ☒ Yes ☐ No		Custody Seal No.		Cooler Temperature(s) °C and Other Remarks: 9.6	

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-224628-1
SDG Number: Site D2 PFAS 1633

Login Number: 224628

List Number: 1

Creator: Ngo, Theodore

List Source: Eurofins Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
CIO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-224628-1
SDG Number: Site D2 PFAS 1633

Login Number: 224628

List Number: 2

Creator: Simmons, Jason C

List Source: Eurofins Sacramento

List Creation: 07/14/26 05:56 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	Seal
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
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	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	