



ANALYTICAL REPORT

PREPARED FOR

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Generated 10/1/2025 12:28:00 PM

JOB DESCRIPTION

INTERA - Red-Hill-Incident
Site H

JOB NUMBER

380-173103-1

Eurofins Eaton Analytical Pomona

Job Notes

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

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

Compliance Statement

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

Authorization



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Definitions/Glossary

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

Job ID: 380-173103-1
SDG: Site H

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: 380-173103-1

Job ID: 380-173103-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-173103-1

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 9/24/2025 10:00 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 0.6°C.

PFAS

Method 1633_DOD6: 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 1633_DOD6: The continuing calibration verification (CCV) associated with batch 320-878208 recovered above the upper control limit for one or more of the following isotope dilution analyte (IDA): 13C2 6:2 FTS. The associated target analyte, 6:2 FTS, was within control limits in the CCV. The client samples were in control for the affected IDA. The method blank associated with this CCV was non-detect, the low level laboratory control sample/laboratory control sample/laboratory control sample duplicate recoveries were in control for the associated target analyte; therefore, the data have been reported. The associated samples are impacted: (CCV 320-878208/3), (LCS 320-878027/3-A), (LCSD 320-878027/4-A), (LLCS 320-878027/2-A) and (MB 320-878027/1-A).

Method 1633_DOD6: The continuing calibration verification low level (CCVL) associated with batch 320-878208 recovered above the upper control limit for one or more of the following isotope dilution analyte (IDA): 13C2 6:2 FTS. The associated target analyte, 6:2 FTS, was within control limits in the CCVL. The client samples were in control for the affected IDA. The method blank associated with this CCVL was non-detect, the low level laboratory control sample/laboratory control sample/laboratory control sample duplicate recoveries were in control for the associated target analyte; therefore, the data have been reported. The associated samples are impacted: BWS2253-H1-AQ (380-173103-1), (CCVL 320-878208/2), (LCS 320-878027/3-A), (LCSD 320-878027/4-A), (LLCS 320-878027/2-A) and (MB 320-878027/1-A).

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

Eurofins Eaton Analytical Pomona

Detection Summary

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

Job ID: 380-173103-1
SDG: Site H

Client Sample ID: BWS2253-H1-AQ Lab Sample ID: 380-173103-1

No Detections.

- 1
- 2
- 3
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- 17

This Detection Summary does not include radiochemical test results.

Client Sample Results

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

Job ID: 380-173103-1
SDG: Site H

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-173103-1

Date Collected: 09/23/25 11:15

Matrix: Water

Date Received: 09/24/25 10:00

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)	<3.0		3.0	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluoropentanoic acid (PFPeA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluorohexanoic acid (PFHxA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluoroheptanoic acid (PFHpA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluorooctanoic acid (PFOA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluorononanoic acid (PFNA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluorodecanoic acid (PFDA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluoroundecanoic acid (PFUnA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluorododecanoic acid (PFDoA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluorotridecanoic acid (PFTriDA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluorotetradecanoic acid (PFTeDA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluorobutanesulfonic acid (PFBS)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluoropentanesulfonic acid (PFPeS)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluorohexanesulfonic acid (PFHxS)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluoroheptanesulfonic acid (PFHpS)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluorooctanesulfonic acid (PFOS)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluorononanesulfonic acid (PFNS)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluorodecanesulfonic acid (PFDS)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluorododecanesulfonic acid (PFDoS)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<3.0		3.0	ng/L		09/28/25 19:47	09/30/25 07:07	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<3.0		3.0	ng/L		09/28/25 19:47	09/30/25 07:07	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<3.0		3.0	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluorooctanesulfonamide (PFOSA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<7.4		7.4	ng/L		09/28/25 19:47	09/30/25 07:07	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<7.4		7.4	ng/L		09/28/25 19:47	09/30/25 07:07	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.1		1.1	ng/L		09/28/25 19:47	09/30/25 07:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-173103-1
SDG: Site H

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-173103-1

Date Collected: 09/23/25 11:15

Matrix: Water

Date Received: 09/24/25 10:00

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		09/28/25 19:47	09/30/25 07:07	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 07:07	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<3.0		3.0	ng/L		09/28/25 19:47	09/30/25 07:07	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<7.4		7.4	ng/L		09/28/25 19:47	09/30/25 07:07	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<7.4		7.4	ng/L		09/28/25 19:47	09/30/25 07:07	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C4 PFBA	89.2		5 - 130			09/28/25 19:47	09/30/25 07:07	1
13C5 PFPeA	99.1		40 - 130			09/28/25 19:47	09/30/25 07:07	1
13C5 PFHxA	103		40 - 130			09/28/25 19:47	09/30/25 07:07	1
13C4 PFHpA	107		40 - 130			09/28/25 19:47	09/30/25 07:07	1
13C8 PFOA	97.4		40 - 130			09/28/25 19:47	09/30/25 07:07	1
13C9 PFNA	79.3		40 - 130			09/28/25 19:47	09/30/25 07:07	1
13C6 PFDA	86.3		40 - 130			09/28/25 19:47	09/30/25 07:07	1
13C7 PFUnA	76.3		30 - 130			09/28/25 19:47	09/30/25 07:07	1
13C2 PFDoA	54.4		10 - 130			09/28/25 19:47	09/30/25 07:07	1
13C2 PFTeDA	65.3		10 - 130			09/28/25 19:47	09/30/25 07:07	1
13C3 PFBS	87.0		40 - 135			09/28/25 19:47	09/30/25 07:07	1
13C3 PFHxS	89.6		40 - 130			09/28/25 19:47	09/30/25 07:07	1
13C8 PFOS	81.0		40 - 130			09/28/25 19:47	09/30/25 07:07	1
13C8 PFOSA	75.9		40 - 130			09/28/25 19:47	09/30/25 07:07	1
d3-NMeFOSAA	89.1		40 - 170			09/28/25 19:47	09/30/25 07:07	1
d5-NEtFOSAA	79.4		25 - 135			09/28/25 19:47	09/30/25 07:07	1
13C2 4:2 FTS	126		40 - 200			09/28/25 19:47	09/30/25 07:07	1
13C2 6:2 FTS	109		40 - 200			09/28/25 19:47	09/30/25 07:07	1
13C2 8:2 FTS	98.8		40 - 300			09/28/25 19:47	09/30/25 07:07	1
13C3 HFPO-DA	86.4		40 - 130			09/28/25 19:47	09/30/25 07:07	1
d7-N-MeFOSE-M	53.7		10 - 130			09/28/25 19:47	09/30/25 07:07	1
d9-N-EtFOSE-M	58.0		10 - 130			09/28/25 19:47	09/30/25 07:07	1
d5-NEtPFOSA	51.4		10 - 130			09/28/25 19:47	09/30/25 07:07	1
d3-NMePFOSA	60.5		10 - 130			09/28/25 19:47	09/30/25 07:07	1

Action Limit Summary

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

Job ID: 380-173103-1
SDG: Site H

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-173103-1

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)	<1.5		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)	<1.5		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: 380-173103-1
SDG: Site H

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)
380-173103-1	BWS2253-H1-AQ	89.2	99.1	103	107	97.4	79.3	86.3	76.3
LCS 320-878027/3-A	Lab Control Sample	88.2	102	97.5	97.6	97.9	78.6	86.9	76.4
LCSD 320-878027/4-A	Lab Control Sample Dup	91.6	92.8	95.2	96.7	100	81.9	96.2	92.6
LLCS 320-878027/2-A	Lab Control Sample	88.2	93.8	92.5	93.4	101	79.9	97.6	92.2
MB 320-878027/1-A	Method Blank	86.0	94.9	95.4	90.1	103	80.9	89.3	79.0

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDaA (10-130)	PFTDA (10-130)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)	d5NEFOS (25-135)
380-173103-1	BWS2253-H1-AQ	54.4	65.3	87.0	89.6	81.0	75.9	89.1	79.4
LCS 320-878027/3-A	Lab Control Sample	53.7	56.3	87.5	85.6	78.3	54.9	85.5	73.4
LCSD 320-878027/4-A	Lab Control Sample Dup	62.7	69.1	88.9	92.0	90.2	64.5	97.0	85.5
LLCS 320-878027/2-A	Lab Control Sample	65.1	70.6	90.4	88.2	82.9	58.7	90.5	78.3
MB 320-878027/1-A	Method Blank	59.9	63.4	90.4	91.6	82.0	63.8	87.2	80.1

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M242FTS (40-200)	M262FTS (40-200)	M282FTS (40-300)	HFPODA (40-130)	NMFM (10-130)	NEFM (10-130)	d5NPFSA (10-130)	d3NMFSA (10-130)
380-173103-1	BWS2253-H1-AQ	126	109	98.8	86.4	53.7	58.0	51.4	60.5
LCS 320-878027/3-A	Lab Control Sample	113	102	101	84.6	51.0	53.7	53.4	61.6
LCSD 320-878027/4-A	Lab Control Sample Dup	124	113	117	86.0	63.2	66.9	68.5	71.8
LLCS 320-878027/2-A	Lab Control Sample	115	108	115	81.5	51.8	57.0	57.3	62.8
MB 320-878027/1-A	Method Blank	129	103	109	83.1	62.9	67.1	64.5	70.1

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
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

QC Sample Results

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

Job ID: 380-173103-1
SDG: Site H

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

Lab Sample ID: MB 320-878027/1-A

Matrix: Water

Analysis Batch: 878208

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 878027

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<4.0		4.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluorotridecanoic acid (PFTriDA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluorotetradecanoic acid (PFTeDA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluorononanesulfonic acid (PFNS)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluorodecanesulfonic acid (PFDS)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluorododecanesulfonic acid (PFDoS)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<4.0		4.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<4.0		4.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<4.0		4.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluorooctanesulfonamide (PFOSA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<10		10	ng/L		09/28/25 19:47	09/30/25 04:23	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<10		10	ng/L		09/28/25 19:47	09/30/25 04:23	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.5		1.5	ng/L		09/28/25 19:47	09/30/25 04:23	1
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Nonfluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-173103-1
SDG: Site H

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

Lab Sample ID: MB 320-878027/1-A

Matrix: Water

Analysis Batch: 878208

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 878027

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<4.0		4.0	ng/L		09/28/25 19:47	09/30/25 04:23	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<10		10	ng/L		09/28/25 19:47	09/30/25 04:23	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<10		10	ng/L		09/28/25 19:47	09/30/25 04:23	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	86.0		5 - 130	09/28/25 19:47	09/30/25 04:23	1
13C5 PFPeA	94.9		40 - 130	09/28/25 19:47	09/30/25 04:23	1
13C5 PFHxA	95.4		40 - 130	09/28/25 19:47	09/30/25 04:23	1
13C4 PFHpA	90.1		40 - 130	09/28/25 19:47	09/30/25 04:23	1
13C8 PFOA	103		40 - 130	09/28/25 19:47	09/30/25 04:23	1
13C9 PFNA	80.9		40 - 130	09/28/25 19:47	09/30/25 04:23	1
13C6 PFDA	89.3		40 - 130	09/28/25 19:47	09/30/25 04:23	1
13C7 PFUnA	79.0		30 - 130	09/28/25 19:47	09/30/25 04:23	1
13C2 PFDoA	59.9		10 - 130	09/28/25 19:47	09/30/25 04:23	1
13C2 PFTeDA	63.4		10 - 130	09/28/25 19:47	09/30/25 04:23	1
13C3 PFBS	90.4		40 - 135	09/28/25 19:47	09/30/25 04:23	1
13C3 PFHxS	91.6		40 - 130	09/28/25 19:47	09/30/25 04:23	1
13C8 PFOS	82.0		40 - 130	09/28/25 19:47	09/30/25 04:23	1
13C8 PFOSA	63.8		40 - 130	09/28/25 19:47	09/30/25 04:23	1
d3-NMeFOSAA	87.2		40 - 170	09/28/25 19:47	09/30/25 04:23	1
d5-NEtFOSAA	80.1		25 - 135	09/28/25 19:47	09/30/25 04:23	1
13C2 4:2 FTS	129		40 - 200	09/28/25 19:47	09/30/25 04:23	1
13C2 6:2 FTS	103		40 - 200	09/28/25 19:47	09/30/25 04:23	1
13C2 8:2 FTS	109		40 - 300	09/28/25 19:47	09/30/25 04:23	1
13C3 HFPO-DA	83.1		40 - 130	09/28/25 19:47	09/30/25 04:23	1
d7-N-MeFOSE-M	62.9		10 - 130	09/28/25 19:47	09/30/25 04:23	1
d9-N-EtFOSE-M	67.1		10 - 130	09/28/25 19:47	09/30/25 04:23	1
d5-NEtPFOSA	64.5		10 - 130	09/28/25 19:47	09/30/25 04:23	1
d3-NMePFOSA	70.1		10 - 130	09/28/25 19:47	09/30/25 04:23	1

Lab Sample ID: LCS 320-878027/3-A

Matrix: Water

Analysis Batch: 878208

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 878027

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	78.5		ng/L		98	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	36.0		ng/L		90	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	40.1		ng/L		100	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	40.0		ng/L		100	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	36.7		ng/L		92	70 - 150
Perfluorononanoic acid (PFNA)	40.0	40.0		ng/L		100	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	39.5		ng/L		99	70 - 140

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-173103-1
SDG: Site H

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

Lab Sample ID: LCS 320-878027/3-A

Matrix: Water

Analysis Batch: 878208

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 878027

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	39.0		ng/L		97	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	45.7		ng/L		114	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	39.8		ng/L		99	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	43.5		ng/L		109	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	38.6		ng/L		109	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	39.2		ng/L		104	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	36.6		ng/L		100	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	40.7		ng/L		107	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	40.3		ng/L		108	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	39.2		ng/L		102	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	28.5		ng/L		74	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	27.8		ng/L		72	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	76.7		ng/L		102	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	78.7		ng/L		103	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	73.3		ng/L		96	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	44.4		ng/L		111	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	39.7		ng/L		99	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	43.2		ng/L		108	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	40.4		ng/L		101	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	43.1		ng/L		108	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	199		ng/L		100	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	208		ng/L		104	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	28.6		ng/L		95	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	40.8		ng/L		108	65 - 145
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	39.7		ng/L		99	60 - 150
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	35.4		ng/L		88	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	35.2		ng/L		88	55 - 140
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	37.4	33.6		ng/L		90	70 - 155

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-173103-1
SDG: Site H

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

Lab Sample ID: LCS 320-878027/3-A

Matrix: Water

Analysis Batch: 878208

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 878027

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	37.8	23.3		ng/L		62	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	35.7	36.5		ng/L		102	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	65.8		ng/L		82	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	183		ng/L		91	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	151		ng/L		75	50 - 145

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	88.2		5 - 130
13C5 PFPeA	102		40 - 130
13C5 PFHxA	97.5		40 - 130
13C4 PFHpA	97.6		40 - 130
13C8 PFOA	97.9		40 - 130
13C9 PFNA	78.6		40 - 130
13C6 PFDA	86.9		40 - 130
13C7 PFUnA	76.4		30 - 130
13C2 PFDoA	53.7		10 - 130
13C2 PFTeDA	56.3		10 - 130
13C3 PFBS	87.5		40 - 135
13C3 PFHxS	85.6		40 - 130
13C8 PFOS	78.3		40 - 130
13C8 PFOSA	54.9		40 - 130
d3-NMeFOSAA	85.5		40 - 170
d5-NEtFOSAA	73.4		25 - 135
13C2 4:2 FTS	113		40 - 200
13C2 6:2 FTS	102		40 - 200
13C2 8:2 FTS	101		40 - 300
13C3 HFPO-DA	84.6		40 - 130
d7-N-MeFOSE-M	51.0		10 - 130
d9-N-EtFOSE-M	53.7		10 - 130
d5-NEtPFOSA	53.4		10 - 130
d3-NMePFOSA	61.6		10 - 130

Lab Sample ID: LCSD 320-878027/4-A

Matrix: Water

Analysis Batch: 878208

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 878027

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	80.0	78.0		ng/L		97	70 - 140	1	30
Perfluoropentanoic acid (PFPeA)	40.0	39.9		ng/L		100	65 - 135	10	30
Perfluorohexanoic acid (PFHxA)	40.0	39.3		ng/L		98	70 - 145	2	30
Perfluoroheptanoic acid (PFHpA)	40.0	39.6		ng/L		99	70 - 150	1	30
Perfluorooctanoic acid (PFOA)	40.0	40.8		ng/L		102	70 - 150	10	30
Perfluorononanoic acid (PFNA)	40.0	39.9		ng/L		100	70 - 150	0	30
Perfluorodecanoic acid (PFDA)	40.0	39.2		ng/L		98	70 - 140	1	30

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QC Sample Results

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

Job ID: 380-173103-1
SDG: Site H

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

Lab Sample ID: LCSD 320-878027/4-A

Matrix: Water

Analysis Batch: 878208

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 878027

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluoroundecanoic acid (PFUnA)	40.0	40.9		ng/L		102	70 - 145	5	30
Perfluorododecanoic acid (PFDoA)	40.0	45.6		ng/L		114	70 - 140	0	30
Perfluorotridecanoic acid (PFTrDA)	40.0	41.2		ng/L		103	65 - 140	3	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	41.6		ng/L		104	60 - 140	5	30
Perfluorobutanesulfonic acid (PFBS)	35.5	39.1		ng/L		110	60 - 145	1	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	40.0		ng/L		106	65 - 140	2	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	37.9		ng/L		104	65 - 145	3	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	38.0		ng/L		100	70 - 150	7	30
Perfluorooctanesulfonic acid (PFOS)	37.2	38.6		ng/L		104	55 - 150	4	30
Perfluorononanesulfonic acid (PFNS)	38.5	38.2		ng/L		99	65 - 145	3	30
Perfluorodecanesulfonic acid (PFDS)	38.6	31.8		ng/L		82	60 - 145	11	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	28.7		ng/L		74	50 - 145	3	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	71.1		ng/L		95	70 - 145	8	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	77.3		ng/L		101	65 - 155	2	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	79.3		ng/L		103	60 - 150	8	30
Perfluorooctanesulfonamide (PFOSA)	40.0	43.8		ng/L		109	70 - 145	1	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	41.5		ng/L		104	60 - 150	4	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	42.9		ng/L		107	65 - 145	1	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	39.5		ng/L		99	50 - 140	2	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	42.7		ng/L		107	70 - 145	1	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	206		ng/L		103	70 - 145	3	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	199		ng/L		100	70 - 135	4	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	26.8		ng/L		89	70 - 140	7	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	39.5		ng/L		104	65 - 145	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	41.6		ng/L		104	60 - 150	5	30
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	35.0		ng/L		87	50 - 150	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	38.0		ng/L		95	55 - 140	8	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	37.4	36.1		ng/L		97	70 - 155	7	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-173103-1
SDG: Site H

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

Lab Sample ID: LCSD 320-878027/4-A

Matrix: Water

Analysis Batch: 878208

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 878027

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	37.8	27.7		ng/L		73	55 - 160	17	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	35.7	36.1		ng/L		101	70 - 140	1	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	73.6		ng/L		92	65 - 130	11	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	193		ng/L		96	70 - 135	5	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	163		ng/L		82	50 - 145	8	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	91.6		5 - 130
13C5 PFPeA	92.8		40 - 130
13C5 PFHxA	95.2		40 - 130
13C4 PFHpA	96.7		40 - 130
13C8 PFOA	100		40 - 130
13C9 PFNA	81.9		40 - 130
13C6 PFDA	96.2		40 - 130
13C7 PFUnA	92.6		30 - 130
13C2 PFDoA	62.7		10 - 130
13C2 PFTeDA	69.1		10 - 130
13C3 PFBS	88.9		40 - 135
13C3 PFHxS	92.0		40 - 130
13C8 PFOS	90.2		40 - 130
13C8 PFOSA	64.5		40 - 130
d3-NMeFOSAA	97.0		40 - 170
d5-NEtFOSAA	85.5		25 - 135
13C2 4:2 FTS	124		40 - 200
13C2 6:2 FTS	113		40 - 200
13C2 8:2 FTS	117		40 - 300
13C3 HFPO-DA	86.0		40 - 130
d7-N-MeFOSE-M	63.2		10 - 130
d9-N-EtFOSE-M	66.9		10 - 130
d5-NEtPFOSA	68.5		10 - 130
d3-NMePFOSA	71.8		10 - 130

Lab Sample ID: LLCS 320-878027/2-A

Matrix: Water

Analysis Batch: 878208

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 878027

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	8.00	7.77		ng/L		97	70 - 140
Perfluoropentanoic acid (PFPeA)	4.00	3.89		ng/L		97	65 - 135
Perfluorohexanoic acid (PFHxA)	4.00	3.90		ng/L		98	70 - 145
Perfluoroheptanoic acid (PFHpA)	4.00	3.75		ng/L		94	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.82		ng/L		95	70 - 150
Perfluorononanoic acid (PFNA)	4.00	4.29		ng/L		107	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	4.18		ng/L		105	70 - 140

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-173103-1
SDG: Site H

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

Lab Sample ID: LLCS 320-878027/2-A

Matrix: Water

Analysis Batch: 878208

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 878027

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	4.00	3.83		ng/L		96	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	4.09		ng/L		102	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.76		ng/L		94	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.72		ng/L		93	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	3.80		ng/L		107	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.79		ng/L		101	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.81		ng/L		105	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.68		ng/L		96	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	4.00		ng/L		108	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	3.55		ng/L		92	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	2.84		ng/L		74	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.33		ng/L		60	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	6.99		ng/L		93	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	7.73		ng/L		101	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.45		ng/L		97	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.18		ng/L		104	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.85		ng/L		96	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	4.08		ng/L		102	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	3.73		ng/L		93	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	4.05		ng/L		101	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	19.7		ng/L		98	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	18.4		ng/L		92	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.79		ng/L		93	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.55		ng/L		94	65 - 145
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	3.74		ng/L		93	60 - 150
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	3.91		ng/L		98	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.48		ng/L		87	55 - 140
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	3.74	3.39		ng/L		91	70 - 155

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-173103-1
SDG: Site H

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

Lab Sample ID: LLCS 320-878027/2-A

Matrix: Water

Analysis Batch: 878208

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 878027

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	3.78	2.34		ng/L		62	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	3.57	3.50		ng/L		98	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	6.59		ng/L		82	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	18.6		ng/L		93	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	15.2		ng/L		76	50 - 145

Isotope Dilution	LLCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	88.2		5 - 130
13C5 PFPeA	93.8		40 - 130
13C5 PFHxA	92.5		40 - 130
13C4 PFHpA	93.4		40 - 130
13C8 PFOA	101		40 - 130
13C9 PFNA	79.9		40 - 130
13C6 PFDA	97.6		40 - 130
13C7 PFUnA	92.2		30 - 130
13C2 PFDoA	65.1		10 - 130
13C2 PFTeDA	70.6		10 - 130
13C3 PFBS	90.4		40 - 135
13C3 PFHxS	88.2		40 - 130
13C8 PFOS	82.9		40 - 130
13C8 PFOSA	58.7		40 - 130
d3-NMeFOSAA	90.5		40 - 170
d5-NEtFOSAA	78.3		25 - 135
13C2 4:2 FTS	115		40 - 200
13C2 6:2 FTS	108		40 - 200
13C2 8:2 FTS	115		40 - 300
13C3 HFPO-DA	81.5		40 - 130
d7-N-MeFOSE-M	51.8		10 - 130
d9-N-EtFOSE-M	57.0		10 - 130
d5-NEtPFOSA	57.3		10 - 130
d3-NMePFOSA	62.8		10 - 130

QC Association Summary

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

Job ID: 380-173103-1
SDG: Site H

LCMS

Prep Batch: 878027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-173103-1	BWS2253-H1-AQ	Total/NA	Water	1633	
MB 320-878027/1-A	Method Blank	Total/NA	Water	1633	
LCS 320-878027/3-A	Lab Control Sample	Total/NA	Water	1633	
LCSD 320-878027/4-A	Lab Control Sample Dup	Total/NA	Water	1633	
LLCS 320-878027/2-A	Lab Control Sample	Total/NA	Water	1633	

Analysis Batch: 878208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-173103-1	BWS2253-H1-AQ	Total/NA	Water	QSM B-24	878027
MB 320-878027/1-A	Method Blank	Total/NA	Water	QSM B-24	878027
LCS 320-878027/3-A	Lab Control Sample	Total/NA	Water	QSM B-24	878027
LCSD 320-878027/4-A	Lab Control Sample Dup	Total/NA	Water	QSM B-24	878027
LLCS 320-878027/2-A	Lab Control Sample	Total/NA	Water	QSM B-24	878027

Lab Chronicle

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

Job ID: 380-173103-1
SDG: Site H

Client Sample ID: BWS2253-H1-AQ
Date Collected: 09/23/25 11:15
Date Received: 09/24/25 10:00

Lab Sample ID: 380-173103-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			878027	CJS	EET SAC	09/28/25 19:47
Total/NA	Analysis	QSM B-24		1	878208	N1K	EET SAC	09/30/25 07:07

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: 380-173103-1
SDG: Site H

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	06-30-26
Alaska (UST)	State	17-020	02-20-27
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	05-18-26
California	State	2897	01-31-26
Colorado	State	CA00044	08-31-26
Florida	NELAP	E87570	06-30-26
Georgia	State	4040	01-29-26
Illinois	NELAP	200060	03-31-26
Kansas	NELAP	E-10375	10-31-25
Louisiana	NELAP	01944	06-30-26
Louisiana (All)	NELAP	01944	06-30-26
Maine	State	CA00004	04-14-26
Massachusetts	State	M-CA044	06-30-26
Michigan	State	9947	01-29-26
Minnesota	NELAP	2749448	12-31-25
Nevada	State	CA00044	07-31-26
New Jersey	NELAP	CA005	06-30-26
New York	NELAP	11666	04-01-26
Ohio	State	41252	01-29-26
Oregon	NELAP	4040	01-29-26
Texas	NELAP	T104704399-23-17	05-31-26
US Fish & Wildlife	US Federal Programs	A22139	04-30-26
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442023-16	02-28-26
Virginia	NELAP	460278	03-14-26
Washington	State	C581	05-05-26
West Virginia (DW)	State	9930C	02-01-26
West Virginia DEP	State	422	03-28-26
Wisconsin	State	998204680	08-31-26
Wyoming	State Program	8TMS-L	01-28-19 *

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

Eurofins Eaton Analytical Pomona

Method Summary

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

Job ID: 380-173103-1
SDG: Site H

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: 380-173103-1
SDG: Site H

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-173103-1	BWS2253-H1-AQ	Water	09/23/25 11:15	09/24/25 10:00	Hawaii

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Chain of Custody Record



380-173103 COC

Client Information		Lab PM: Lopez, Maria		Center Tracking No(s):		COC No:	
Client Contact: J. Joseph/H. Bentley		Phone: 858-205-0730		State of Origin: Hawaii		Page: 1 of 1	
Company: Mr. Erwin Kawata		E-Mail: Maria.Lopez@eurofins.com		Job #:			
City & County of Honolulu		PWSID:		Analysis Requested			
Address: 630 South Beretania Street		Due Date Requested:					
City: Honolulu		TAT Requested (days): Standard					
State, Zip: HI, 96843		Compliance Project: Δ Yes Δ No					
Phone: 808-748-5066(Tel)		PO #: C20525101 exp 05312023					
Email: ekawata@hbws.org		WFO #: 38000861					
Project Name: HRS-340E - RED-HILL - INTERA		Project #: 38000861					
Site: Site H		SSOW#:					
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Soil, O=Other, B=BT-Tissue, A=Air)	Preservation Codes	
BWS253-H1-AQ	9/23/25	11:45	G	Water			
BWS253-H1-TB	9/23/25		G	Water			
BWS253-H1-FB	9/23/25		G	Water			
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)			
Deliverable Requested: I, II, III, IV, Other (specify)		Return To Client ☐ Disposal By Lab ☐		Archive For: Months			
Empty Kit Relinquished by:		Date:		Method of Shipment: FEDEX Priority Overnight			
Relinquished by: H. BENTLEY		Date/Time: 9/23/25 13:00		Company: INTERA Inc		Company: EESA	
Relinquished by:		Date/Time:		Company:		Company:	
Relinquished by:		Date/Time:		Company:		Company:	
Custody Seal No.: 38000861		Custody Seal No.: 38000861		Cooler Temperature(s) °C and Other Remarks: 0, 4 °C			

Eurofins Eaton Analytical Pomona

941 Corporate Center Drive
Pomona, CA 91768-2842
Phone: 626-386-1100

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)		Sampler: N/A		Lab Pk: Lopez, Maria		Carrier Tracking No: N/A		COC No: 380-256977.1	
Client Contact: Shipping/Receiving		Phone: N/A		E-Mail: Maria.Lopez@et.eurofins.com		State of Origin: Hawaii		Page: Page 1 of 1	
Company: Eurofins Environment Testing Northern Ca		Address: 880 Riverside Parkway,		City: West Sacramento		State: CA		Zip: 95605	
Phone: 916-373-5600(Tel)		916-372-1059(Fax)		PO #: N/A		WO #: N/A		Project #: 38000861	
Project Name: INTERA - Red-Hill Incident		Site: Honolulu BWS Sites		Sample Date: 9/23/25		Sample Time: 11:15 Hawaiian		Sample Matrix: G Water	
Sample Identification - Client ID (Lab ID)		BWS2253-H1-AQ (380-173103-1)		Sample Date: 9/23/25		Sample Time: 11:15 Hawaiian		Sample Matrix: G Water	
Special Instructions/Note:		1633, DODGE/1633, SPE, 125EPA Method 1633 Std List		1633, DODGE/1633, SPE, 125EPA Method 1633 Std List		1633, DODGE/1633, SPE, 125EPA Method 1633 Std List		1633, DODGE/1633, SPE, 125EPA Method 1633 Std List	
Other: N/A									
Analysis Requested									
Due Date Requested: 10/7/2025		TAT Requested (days): N/A							
City: West Sacramento		State: CA		Zip: 95605		PO #: N/A		WO #: N/A	
Project #: 38000861		Project Name: INTERA - Red-Hill Incident		Site: Honolulu BWS Sites		Sample Date: 9/23/25		Sample Time: 11:15 Hawaiian	
Sample Matrix: G Water		Sample Type: (C=Comp, G=grab)		Sample Time: 11:15 Hawaiian		Sample Date: 9/23/25		Sample Matrix: G Water	
Special Instructions/Note:									
Other: N/A									
Preservation Codes:									
Job #: 380-173103-1									
Page: Page 1 of 1									
COC No: 380-256977.1									

Note: Since laboratory accreditation is subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analysis & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification

Unconfirmed ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ☐ Months

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: ☒ Yes ☐ No ☐ Δ No

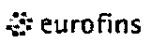
Custody Seal No: Seals

Cooler Temperature(s) To and Other Remarks: 0.6°C

Ver: 10/10/2024

Chain of Custody Record

Client Information		Sampler: J. Joseph/H. Bentley		Lab PM: 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:		Analysis Requested		Job #:			
Address: 630 South Beretania Street		Due Date Requested:		TAT Requested (days): Standard		Preservation Codes:			
City: Honolulu		Compliance Project: Δ Yes Δ No		PO #: C20525101 exp 05312023		A - HCL		M - Hexane	
State, Zip: HI, 96843		Project #: 38000861		WO #: 808-748-5066(Tel)		B - NaOH		N - None	
Phone: 808-748-5066(Tel)		SSOW#: ekawata@hbws.org		Project Name: HRS-340E - RED-HILL - INTERA		C - Zn Acetate		O - AsNaO2	
Email: ekawata@hbws.org		Site: Site H		Matrix (Wet, Solid, Dried, etc.): Water		D - Nitric Acid		P - Na2O4S	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Q - Na2SO3	
BWS2253-H1-AQ		9/23/25		11:45		G		R - Na2S2O3	
BWS2253-H1-TB		9/23/25		9/23/25		G		S - H2SO4	
BWS2253-H1-FB		9/23/25		9/23/25		G		T - TSP Dodecahydrate	
								U - Acetone	
								V - MCAA	
								W - pH 4-5	
								Y - Tizma	
								Z - other (specify)	
								Other:	
								Special Instructions/Note: x = testing comes from another container.	
								Total Number of containers	
								Subcontract Notes: 625 PAH - EEA Pom -> Ship to Caliscience 8015 TPH D+M, JP5, JP8 - EEA Pom 8015 Gas - EEA Pom 82608 - EEA POM PFAS 537.1 & 533 - EEA POM PFAS 1633 - EEA SAC Bill and Report to EEA - Pomona	
								Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months	
								Special Instructions/QC Requirements:	
								Method of Shipment: FEDEX Priority Overnight	
								Time: _____ Date: _____	
								Received by: DSM Date/Time: 09/24/25 1000	
								Received by: _____ Date/Time: _____	
								Received by: _____ Date/Time: _____	
								Cooler Temperature(s) °C and Other Remarks: 0.0 °C	
								Custody Seal No.: See (S)	

 Environment Testing	Document Title: Sample Receiving Notes		
	Eurofins Document Reference : S-SR-FRM72109	Revision: 3	Historical Reference: QA-812
	Effective date : 18 Jul 2025		Issued by: XE8X



Tracking #: 393529905932

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier

GSL / OnTrac / Goldstreak / USPS / Other _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
 File in the job folder with the COC.

Therm. ID: LD6 Corr. Factor: (+/-) NA °C

Ice / Wet / Gel _____ Other _____

Cooler Custody Seal: Seals

Cooler ID: _____

Temp Observed: 0.6 °C Corrected: 0.6 °C

From: Temp Blank ☐ Sandwich ☐ Sidewall ☐

Opening/Processing The Shipment Yes No NA

Cooler compromised/tampered with? ☐ ☒ ☐

Cooler Temperature is acceptable? ☒ ☐ ☐

Frozen samples show signs of thaw? ☐ ☐ ☒

Initials: DM Date: 09/24/25

Unpacking/Labeling The Samples Yes No NA

Containers are not broken or leaking? ☒ ☐ ☐

Samples compromised/tampered with? ☐ ☒ ☐

COC is complete w/o discrepancies ☒ ☐ ☐

Sample custody seal? ☐ ☐ ☒

Sample containers have legible labels? ☒ ☐ ☐

Sample date/times are provided? ☒ ☐ ☐

Appropriate containers are used? ☒ ☐ ☐

Sample bottles are completely filled? ☒ ☐ ☐

Sample preservatives verified? ☐ ☐ ☒

Is the Field Sampler's name on COC? ☒ ☐ ☐

Samples w/o discrepancies? ☒ ☐ ☐

Zero headspace? ☐ ☐ ☒

Alkalinity has no headspace? ☐ ☐ ☒

Perchlorate has headspace? ☐ ☐ ☒

(Methods 314, 331, 6850)

Multiphasic samples are not present? ☒ ☐ ☐

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials: SO Date: 9/24/25

Notes: _____

Trizma Lot #(s): _____

Ammonium

Acetate Lot #(s): _____

Login Completion Yes No NA

Receipt Temperature on COC? ☒ ☐ ☐

NCM Filed? ☐ ☐ ☒

Samples received within hold time? ☐ ☐ ☒

Log Release checked in TALS? ☐ ☐ ☒

Initials: SO Date: 9/24/25

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-173103-1

SDG Number: Site H

Login Number: 173103

List Source: Eurofins Eaton Analytical Pomona

List Number: 1

Creator: Edrosa, Rey

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

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-173103-1

SDG Number: Site H

Login Number: 173103

List Number: 2

Creator: Oropeza, Salvador

List Source: Eurofins Sacramento

List Creation: 09/24/25 05:14 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	0.6C
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?	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	
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	