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ANALYTICAL REPORT

PREPARED FOR

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

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JOB DESCRIPTION

RED-HILL
PFAS: Halawa Shaft Viewing Pool

JOB NUMBER

380-188647-1

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



Authorized for release by
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Definitions/Glossary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

Qualifiers

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Case Narrative

Client: City & County of Honolulu
Project: RED-HILL

Job ID: 380-188647-1

Job ID: 380-188647-1

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Job Narrative 380-188647-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The samples were received on 12/18/2025 10:12 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C.

PFAS

EPA 537.1 and EPA 533 are two distinct methods for the analysis of PFAS in drinking water. The analyses are conducted on differing instrumentation, with calibrations, extraction solvents and sample preservatives being dissimilar among the two methods. Therefore it is probable and not unexpected to see the methods having slight variations in analytical results: Halawa Shaft Viewing Pool (380-188647-1). (XWB4)

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

Detection Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-188647-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	3.4		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.2		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.3		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanoic acid (PFHxA)	2.3		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.4		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: FB Halawa Shaft Viewing Pool

Lab Sample ID: 380-188647-2

No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-188647-1

Date Collected: 12/16/25 10:00

Matrix: Water

Date Received: 12/18/25 10:12

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Perfluorohexanesulfonic acid (PFHxS)	3.4		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Perfluorooctanesulfonic acid (PFOS)	3.2		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:47	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	80		50 - 200	12/22/25 02:08	12/22/25 20:47	1
13C6 PFDA	72		50 - 200	12/22/25 02:08	12/22/25 20:47	1
13C5 PFHxA	84		50 - 200	12/22/25 02:08	12/22/25 20:47	1
13C4 PFHpA	78		50 - 200	12/22/25 02:08	12/22/25 20:47	1
13C8 PFOA	80		50 - 200	12/22/25 02:08	12/22/25 20:47	1
13C9 PFNA	74		50 - 200	12/22/25 02:08	12/22/25 20:47	1
13C7 PFUnA	72		50 - 200	12/22/25 02:08	12/22/25 20:47	1
13C2 PFDoA	76		50 - 200	12/22/25 02:08	12/22/25 20:47	1
13C4 PFBA	91		50 - 200	12/22/25 02:08	12/22/25 20:47	1
13C5 PFPeA	87		50 - 200	12/22/25 02:08	12/22/25 20:47	1
13C3 PFBS	112		50 - 200	12/22/25 02:08	12/22/25 20:47	1
13C3 PFHxS	107		50 - 200	12/22/25 02:08	12/22/25 20:47	1

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Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-188647-1

Date Collected: 12/16/25 10:00

Matrix: Water

Date Received: 12/18/25 10:12

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	108		50 - 200	12/22/25 02:08	12/22/25 20:47	1
13C2-4:2-FTS	103		50 - 200	12/22/25 02:08	12/22/25 20:47	1
13C2-6:2-FTS	99		50 - 200	12/22/25 02:08	12/22/25 20:47	1
13C2-8:2-FTS	91		50 - 200	12/22/25 02:08	12/22/25 20:47	1

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:43	1
Perfluorooctanesulfonic acid (PFOS)	3.3		2.0	ng/L		12/19/25 02:00	12/19/25 16:43	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:43	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:43	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:43	1
Perfluorohexanoic acid (PFHxA)	2.3		2.0	ng/L		12/19/25 02:00	12/19/25 16:43	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:43	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:43	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:43	1
Perfluorohexanesulfonic acid (PFHxS)	3.4		2.0	ng/L		12/19/25 02:00	12/19/25 16:43	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:43	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:43	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:43	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:43	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:43	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:43	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:43	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	104		70 - 130			12/19/25 02:00	12/19/25 16:43	1
13C2 PFHxA	108		70 - 130			12/19/25 02:00	12/19/25 16:43	1
13C2 PFDA	114		70 - 130			12/19/25 02:00	12/19/25 16:43	1
13C3-GenX	109		70 - 130			12/19/25 02:00	12/19/25 16:43	1

Client Sample ID: FB Halawa Shaft Viewing Pool

Lab Sample ID: 380-188647-2

Date Collected: 12/16/25 10:00

Matrix: Water

Date Received: 12/18/25 10:12

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1

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Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: FB Halawa Shaft Viewing Pool

Lab Sample ID: 380-188647-2

Date Collected: 12/16/25 10:00

Matrix: Water

Date Received: 12/18/25 10:12

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		12/22/25 02:08	12/22/25 20:56	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	90		50 - 200	12/22/25 02:08	12/22/25 20:56	1
13C6 PFDA	82		50 - 200	12/22/25 02:08	12/22/25 20:56	1
13C5 PFHxA	92		50 - 200	12/22/25 02:08	12/22/25 20:56	1
13C4 PFHpA	94		50 - 200	12/22/25 02:08	12/22/25 20:56	1
13C8 PFOA	91		50 - 200	12/22/25 02:08	12/22/25 20:56	1
13C9 PFNA	85		50 - 200	12/22/25 02:08	12/22/25 20:56	1
13C7 PFUnA	81		50 - 200	12/22/25 02:08	12/22/25 20:56	1
13C2 PFDoA	84		50 - 200	12/22/25 02:08	12/22/25 20:56	1
13C4 PFBA	95		50 - 200	12/22/25 02:08	12/22/25 20:56	1
13C5 PFPeA	91		50 - 200	12/22/25 02:08	12/22/25 20:56	1
13C3 PFBS	108		50 - 200	12/22/25 02:08	12/22/25 20:56	1
13C3 PFHxS	111		50 - 200	12/22/25 02:08	12/22/25 20:56	1
13C8 PFOS	104		50 - 200	12/22/25 02:08	12/22/25 20:56	1
13C2-4:2-FTS	107		50 - 200	12/22/25 02:08	12/22/25 20:56	1
13C2-6:2-FTS	102		50 - 200	12/22/25 02:08	12/22/25 20:56	1
13C2-8:2-FTS	91		50 - 200	12/22/25 02:08	12/22/25 20:56	1

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: FB Halawa Shaft Viewing Pool

Lab Sample ID: 380-188647-2

Date Collected: 12/16/25 10:00

Matrix: Water

Date Received: 12/18/25 10:12

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:52	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:52	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:52	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:52	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:52	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:52	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:52	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:52	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:52	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:52	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:52	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:52	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:52	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:52	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:52	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:52	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:52	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/19/25 02:00	12/19/25 16:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	107		70 - 130			12/19/25 02:00	12/19/25 16:52	1
13C2 PFHxA	119		70 - 130			12/19/25 02:00	12/19/25 16:52	1
13C2 PFDA	121		70 - 130			12/19/25 02:00	12/19/25 16:52	1
13C3-GenX	118		70 - 130			12/19/25 02:00	12/19/25 16:52	1

Action Limit Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-188647-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.4		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.2		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	533	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.3		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.4		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Client Sample ID: FB Halawa Shaft Viewing Pool

Lab Sample ID: 380-188647-2

Compliance Check

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

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

Surrogate Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	d5NEFOS	PFHxA	PFDA	GenX
		(70-130)	(70-130)	(70-130)	(70-130)
380-188261-E-1-A MS	Matrix Spike	105	112	116	114
380-188261-F-1-A MSD	Matrix Spike Duplicate	101	113	114	112
380-188647-1	Halawa Shaft Viewing Pool	104	108	114	109
380-188647-2	FB Halawa Shaft Viewing Pool	107	119	121	118
LCS 380-193553/23-A	Lab Control Sample	101	114	118	115
MBL 380-193553/21-A	Method Blank	111	122	128	126
MRL 380-193553/22-A	Lab Control Sample	100	106	114	107

Surrogate Legend

d5NEFOS = d5-NEtFOSAA

PFHxA = 13C2 PFHxA

PFDA = 13C2 PFDA

GenX = 13C3-GenX

Isotope Dilution Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

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

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDoA (50-200)
380-188647-1	Halawa Shaft Viewing Pool	80	72	84	78	80	74	72	76
380-188647-2	FB Halawa Shaft Viewing Pool	90	82	92	94	91	85	81	84
380-188660-E-1-A MS	Matrix Spike	70	78	75	78	80	80	81	85
380-188660-F-1-A MSD	Matrix Spike Duplicate	72	75	75	79	75	74	79	80
LCS 380-193882/22-A	Lab Control Sample	96	95	96	94	93	90	90	92
MBL 380-193882/20-A	Method Blank	86	81	89	87	86	80	84	86
MRL 380-193882/21-A	Lab Control Sample	85	81	91	89	86	85	83	85

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (50-200)	PFPeA (50-200)	C3PFBS (50-200)	C3PFHS (50-200)	C8PFOS (50-200)	42FTS (50-200)	62FTS (50-200)	82FTS (50-200)
380-188647-1	Halawa Shaft Viewing Pool	91	87	112	107	108	103	99	91
380-188647-2	FB Halawa Shaft Viewing Pool	95	91	108	111	104	107	102	91
380-188660-E-1-A MS	Matrix Spike	74	70	105	109	107	115	108	90
380-188660-F-1-A MSD	Matrix Spike Duplicate	78	76	110	111	108	96	91	89
LCS 380-193882/22-A	Lab Control Sample	95	93	109	108	103	100	94	88
MBL 380-193882/20-A	Method Blank	93	87	122	108	106	90	85	87
MRL 380-193882/21-A	Lab Control Sample	93	86	111	108	104	100	95	83

Surrogate Legend

- HFPODA = 13C3 HFPO-DA
- C6PFDA = 13C6 PFDA
- 13C5PHA = 13C5 PFHxA
- C4PFHA = 13C4 PFHpA
- C8PFOA = 13C8 PFOA
- C9PFNA = 13C9 PFNA
- 13C7PUA = 13C7 PFUnA
- PFDoA = 13C2 PFDoA
- PFBA = 13C4 PFBA
- PFPeA = 13C5 PFPeA
- C3PFBS = 13C3 PFBS
- C3PFHS = 13C3 PFHxS
- C8PFOS = 13C8 PFOS
- 42FTS = 13C2-4:2-FTS
- 62FTS = 13C2-6:2-FTS
- 82FTS = 13C2-8:2-FTS

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

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

Lab Sample ID: MBL 380-193882/20-A
Matrix: Water
Analysis Batch: 194076

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 193882

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		12/22/25 02:08	12/22/25 18:16	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	86		50 - 200	12/22/25 02:08	12/22/25 18:16	1
13C6 PFDA	81		50 - 200	12/22/25 02:08	12/22/25 18:16	1
13C5 PFHxA	89		50 - 200	12/22/25 02:08	12/22/25 18:16	1
13C4 PFHpA	87		50 - 200	12/22/25 02:08	12/22/25 18:16	1
13C8 PFOA	86		50 - 200	12/22/25 02:08	12/22/25 18:16	1
13C9 PFNA	80		50 - 200	12/22/25 02:08	12/22/25 18:16	1
13C7 PFUnA	84		50 - 200	12/22/25 02:08	12/22/25 18:16	1
13C2 PFDoA	86		50 - 200	12/22/25 02:08	12/22/25 18:16	1
13C4 PFBA	93		50 - 200	12/22/25 02:08	12/22/25 18:16	1
13C5 PFPeA	87		50 - 200	12/22/25 02:08	12/22/25 18:16	1
13C3 PFBS	122		50 - 200	12/22/25 02:08	12/22/25 18:16	1
13C3 PFHxS	108		50 - 200	12/22/25 02:08	12/22/25 18:16	1

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

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

Lab Sample ID: MBL 380-193882/20-A
Matrix: Water
Analysis Batch: 194076

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 193882

<i>Isotope Dilution</i>	<i>MBL %Recovery</i>	<i>MBL Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C8 PFOS	106		50 - 200	12/22/25 02:08	12/22/25 18:16	1
13C2-4:2-FTS	90		50 - 200	12/22/25 02:08	12/22/25 18:16	1
13C2-6:2-FTS	85		50 - 200	12/22/25 02:08	12/22/25 18:16	1
13C2-8:2-FTS	87		50 - 200	12/22/25 02:08	12/22/25 18:16	1

Lab Sample ID: LCS 380-193882/22-A
Matrix: Water
Analysis Batch: 194076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 193882

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.2	60.7		ng/L		101	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.2	62.5		ng/L		104	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.2	62.8		ng/L		104	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.2	63.0		ng/L		105	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.2	60.9		ng/L		101	70 - 130
Perfluorodecanoic acid (PFDA)	60.2	59.4		ng/L		99	70 - 130
Perfluorododecanoic acid (PFDoA)	60.2	61.2		ng/L		102	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.2	64.3		ng/L		107	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.2	62.1		ng/L		103	70 - 130
Perfluorohexanoic acid (PFHxA)	60.2	64.7		ng/L		107	70 - 130
Perfluorononanoic acid (PFNA)	60.2	67.4		ng/L		112	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.2	63.7		ng/L		106	70 - 130
Perfluorooctanoic acid (PFOA)	60.2	62.0		ng/L		103	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.2	63.5		ng/L		105	70 - 130
Perfluorobutanoic acid (PFBA)	60.2	64.7		ng/L		107	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.2	64.3		ng/L		107	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.2	68.1		ng/L		113	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.2	63.8		ng/L		106	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.2	63.2		ng/L		105	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	60.2	63.3		ng/L		105	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.2	60.5		ng/L		100	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.2	59.1		ng/L		98	70 - 130
Perfluoropentanoic acid (PFPeA)	60.2	64.8		ng/L		108	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.2	64.7		ng/L		107	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

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

Lab Sample ID: LCS 380-193882/22-A
Matrix: Water
Analysis Batch: 194076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 193882

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	60.2	64.4		ng/L		107	70 - 130
LCS LCS							
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	96		50 - 200				
13C6 PFDA	95		50 - 200				
13C5 PFHxA	96		50 - 200				
13C4 PFHpA	94		50 - 200				
13C8 PFOA	93		50 - 200				
13C9 PFNA	90		50 - 200				
13C7 PFUnA	90		50 - 200				
13C2 PFDoA	92		50 - 200				
13C4 PFBA	95		50 - 200				
13C5 PFPeA	93		50 - 200				
13C3 PFBS	109		50 - 200				
13C3 PFHxS	108		50 - 200				
13C8 PFOS	103		50 - 200				
13C2-4:2-FTS	100		50 - 200				
13C2-6:2-FTS	94		50 - 200				
13C2-8:2-FTS	88		50 - 200				

Lab Sample ID: MRL 380-193882/21-A
Matrix: Water
Analysis Batch: 194076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 193882

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.92	J	ng/L		95	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	1.92	J	ng/L		95	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.02	J	ng/L		100	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.07	J	ng/L		103	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.00	J	ng/L		100	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.26	J	ng/L		113	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.11	J	ng/L		105	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.16	J	ng/L		108	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.21	J	ng/L		110	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.11	J	ng/L		105	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.16	J	ng/L		107	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.16	J	ng/L		108	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.19	J	ng/L		109	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.12	J	ng/L		106	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.33	J	ng/L		116	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

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

Lab Sample ID: MRL 380-193882/21-A
Matrix: Water
Analysis Batch: 194076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 193882

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.23	J	ng/L		111	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.27	J	ng/L		113	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.41	J	ng/L		120	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	1.98	J	ng/L		99	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	1.94	J	ng/L		97	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	2.03	J	ng/L		101	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	2.21	J	ng/L		110	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.38	J	ng/L		118	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	2.06	J	ng/L		103	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	2.10	J	ng/L		104	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	85		50 - 200
13C6 PFDA	81		50 - 200
13C5 PFHxA	91		50 - 200
13C4 PFHpA	89		50 - 200
13C8 PFOA	86		50 - 200
13C9 PFNA	85		50 - 200
13C7 PFUnA	83		50 - 200
13C2 PFDoA	85		50 - 200
13C4 PFBA	93		50 - 200
13C5 PFPeA	86		50 - 200
13C3 PFBS	111		50 - 200
13C3 PFHxS	108		50 - 200
13C8 PFOS	104		50 - 200
13C2-4:2-FTS	100		50 - 200
13C2-6:2-FTS	95		50 - 200
13C2-8:2-FTS	83		50 - 200

Lab Sample ID: 380-188660-E-1-A MS
Matrix: Water
Analysis Batch: 194076

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 193882

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	56.8		ng/L		94	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.4	58.4		ng/L		97	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	55.5		ng/L		92	70 - 130

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-188660-E-1-A MS
Matrix: Water
Analysis Batch: 194076

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 193882

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		60.4	62.8		ng/L		104	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	64.8		ng/L		107	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.4	62.8		ng/L		104	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	60.4		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	65.6		ng/L		109	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.4	62.7		ng/L		104	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	65.1		ng/L		108	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.4	63.4		ng/L		105	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.4	61.6		ng/L		102	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.4	62.1		ng/L		103	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	61.0		ng/L		101	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.4	62.9		ng/L		104	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	62.2		ng/L		103	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	64.0		ng/L		106	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	65.6		ng/L		109	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	55.5		ng/L		92	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.4	66.6		ng/L		110	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	55.6		ng/L		92	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	59.6		ng/L		99	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.4	66.4		ng/L		109	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	62.7		ng/L		104	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	61.1		ng/L		101	70 - 130

<i>Isotope Dilution</i>	<i>MS %Recovery</i>	<i>MS Qualifier</i>	<i>MS Limits</i>
13C3 HFPO-DA	70		50 - 200
13C6 PFDA	78		50 - 200
13C5 PFHxA	75		50 - 200
13C4 PFHpA	78		50 - 200
13C8 PFOA	80		50 - 200
13C9 PFNA	80		50 - 200
13C7 PFUnA	81		50 - 200
13C2 PFDoA	85		50 - 200
13C4 PFBA	74		50 - 200
13C5 PFPeA	70		50 - 200
13C3 PFBS	105		50 - 200
13C3 PFHxS	109		50 - 200
13C8 PFOS	107		50 - 200

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

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

Lab Sample ID: 380-188660-E-1-A MS
Matrix: Water
Analysis Batch: 194076

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 193882

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C2-4:2-FTS	115		50 - 200
13C2-6:2-FTS	108		50 - 200
13C2-8:2-FTS	90		50 - 200

Lab Sample ID: 380-188660-F-1-A MSD
Matrix: Water
Analysis Batch: 194076

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 193882

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	56.1		ng/L		93	70 - 130	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.4	58.1		ng/L		96	70 - 130	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	53.1		ng/L		88	70 - 130	4	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.4	63.3		ng/L		105	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	59.2		ng/L		98	70 - 130	9	30
Perfluorodecanoic acid (PFDA)	<2.0		60.4	61.2		ng/L		101	70 - 130	3	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	62.6		ng/L		104	70 - 130	4	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	60.4		ng/L		100	70 - 130	8	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.4	58.1		ng/L		96	70 - 130	8	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	65.2		ng/L		108	70 - 130	0	30
Perfluorononanoic acid (PFNA)	<2.0		60.4	63.9		ng/L		106	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.4	59.0		ng/L		98	70 - 130	4	30
Perfluorooctanoic acid (PFOA)	<2.0		60.4	61.8		ng/L		102	70 - 130	0	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	62.6		ng/L		104	70 - 130	3	30
Perfluorobutanoic acid (PFBA)	<2.0		60.4	62.9		ng/L		104	70 - 130	0	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	61.0		ng/L		101	70 - 130	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	64.1		ng/L		106	70 - 130	0	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	63.4		ng/L		105	70 - 130	3	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	54.5		ng/L		90	70 - 130	2	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.4	58.9		ng/L		98	70 - 130	12	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	57.3		ng/L		95	70 - 130	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	58.7		ng/L		97	70 - 130	2	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.4	61.6		ng/L		101	70 - 130	8	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	60.8		ng/L		101	70 - 130	3	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	59.3		ng/L		98	70 - 130	3	30

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

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

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	72		50 - 200
13C6 PFDA	75		50 - 200
13C5 PFHxA	75		50 - 200
13C4 PFHpA	79		50 - 200
13C8 PFOA	75		50 - 200
13C9 PFNA	74		50 - 200
13C7 PFUnA	79		50 - 200
13C2 PFDoA	80		50 - 200
13C4 PFBA	78		50 - 200
13C5 PFPeA	76		50 - 200
13C3 PFBS	110		50 - 200
13C3 PFHxS	111		50 - 200
13C8 PFOS	108		50 - 200
13C2-4:2-FTS	96		50 - 200
13C2-6:2-FTS	91		50 - 200
13C2-8:2-FTS	89		50 - 200

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Lab Sample ID: MBL 380-193553/21-A
Matrix: Water
Analysis Batch: 193699

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 193553

Analyte	MBL MBL		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		12/19/25 02:00	12/19/25 15:45	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		12/19/25 02:00	12/19/25 15:45	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		12/19/25 02:00	12/19/25 15:45	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		12/19/25 02:00	12/19/25 15:45	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		12/19/25 02:00	12/19/25 15:45	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		12/19/25 02:00	12/19/25 15:45	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		12/19/25 02:00	12/19/25 15:45	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		12/19/25 02:00	12/19/25 15:45	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		12/19/25 02:00	12/19/25 15:45	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		12/19/25 02:00	12/19/25 15:45	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		12/19/25 02:00	12/19/25 15:45	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		12/19/25 02:00	12/19/25 15:45	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		12/19/25 02:00	12/19/25 15:45	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		12/19/25 02:00	12/19/25 15:45	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		12/19/25 02:00	12/19/25 15:45	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		12/19/25 02:00	12/19/25 15:45	1
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		12/19/25 02:00	12/19/25 15:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		12/19/25 02:00	12/19/25 15:45	1
Surrogate	MBL MBL		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
d5-NEtFOSAA	111		70 - 130			12/19/25 02:00	12/19/25 15:45	1
13C2 PFHxA	122		70 - 130			12/19/25 02:00	12/19/25 15:45	1
13C2 PFDA	128		70 - 130			12/19/25 02:00	12/19/25 15:45	1

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QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: MBL 380-193553/21-A
Matrix: Water
Analysis Batch: 193699

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 193553

<i>Surrogate</i>	<i>MBL</i>	<i>MBL</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3-GenX	126	Qualifier	70 - 130	12/19/25 02:00	12/19/25 15:45	1

Lab Sample ID: LCS 380-193553/23-A
Matrix: Water
Analysis Batch: 193699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 193553

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	25.1	26.3	Qualifier	ng/L	-	105	70 - 130
Perfluorooctanesulfonic acid (PFOS)	25.1	26.5	Qualifier	ng/L	-	106	70 - 130
Perfluoroundecanoic acid (PFUnA)	25.1	28.3	Qualifier	ng/L	-	113	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.1	26.1	Qualifier	ng/L	-	104	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.1	24.6	Qualifier	ng/L	-	98	70 - 130
Perfluorohexanoic acid (PFHxA)	25.1	24.8	Qualifier	ng/L	-	99	70 - 130
Perfluorododecanoic acid (PFDoA)	25.1	27.8	Qualifier	ng/L	-	111	70 - 130
Perfluorooctanoic acid (PFOA)	25.1	27.0	Qualifier	ng/L	-	108	70 - 130
Perfluorodecanoic acid (PFDA)	25.1	28.2	Qualifier	ng/L	-	112	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	25.1	26.5	Qualifier	ng/L	-	106	70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.1	26.0	Qualifier	ng/L	-	104	70 - 130
Perfluoroheptanoic acid (PFHpA)	25.1	25.9	Qualifier	ng/L	-	103	70 - 130
Perfluorononanoic acid (PFNA)	25.1	27.2	Qualifier	ng/L	-	108	70 - 130
Perfluorotetradecanoic acid (PFTA)	25.1	24.2	Qualifier	ng/L	-	97	70 - 130
Perfluorotridecanoic acid (PFTrDA)	25.1	27.5	Qualifier	ng/L	-	110	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	25.1	26.1	Qualifier	ng/L	-	104	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	25.1	25.6	Qualifier	ng/L	-	102	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.1	25.2	Qualifier	ng/L	-	101	70 - 130

<i>Surrogate</i>	<i>LCS %Recovery</i>	<i>LCS Qualifier</i>	<i>Limits</i>
d5-NEtFOSAA	101	Qualifier	70 - 130
13C2 PFHxA	114	Qualifier	70 - 130
13C2 PFDA	118	Qualifier	70 - 130
13C3-GenX	115	Qualifier	70 - 130

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: MRL 380-193553/22-A
Matrix: Water
Analysis Batch: 193699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 193553

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.02	J	ng/L		101	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.14	J	ng/L		107	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.29	J	ng/L		114	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	2.04	J	ng/L		102	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	1.93	J	ng/L		96	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.60	J	ng/L		129	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.28	J	ng/L		114	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.07	J	ng/L		103	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.20	J	ng/L		110	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.10	J	ng/L		105	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.03	J	ng/L		101	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.01	J	ng/L		100	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.24	J	ng/L		111	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	1.99	J	ng/L		99	50 - 150
Perfluorotridecanoic acid (PFTTrDA)	2.01	2.18	J	ng/L		109	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	2.01	2.13	J	ng/L		106	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	2.00	J	ng/L		100	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.92	J	ng/L		96	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	100		70 - 130
13C2 PFHxA	106		70 - 130
13C2 PFDA	114		70 - 130
13C3-GenX	107		70 - 130

Lab Sample ID: 380-188261-E-1-A MS
Matrix: Water
Analysis Batch: 193699

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 193553

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.1	25.7		ng/L		102	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.1	26.7		ng/L		106	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.1	28.0		ng/L		111	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.1	25.6		ng/L		102	70 - 130

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QC Association Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

LCMS

Prep Batch: 193553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-188647-1	Halawa Shaft Viewing Pool	Total/NA	Water	537.1 DW	
380-188647-2	FB Halawa Shaft Viewing Pool	Total/NA	Water	537.1 DW	
MBL 380-193553/21-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-193553/23-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-193553/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-188261-E-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-188261-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 193699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-188647-1	Halawa Shaft Viewing Pool	Total/NA	Water	537.1	193553
380-188647-2	FB Halawa Shaft Viewing Pool	Total/NA	Water	537.1	193553
MBL 380-193553/21-A	Method Blank	Total/NA	Water	537.1	193553
LCS 380-193553/23-A	Lab Control Sample	Total/NA	Water	537.1	193553
MRL 380-193553/22-A	Lab Control Sample	Total/NA	Water	537.1	193553
380-188261-E-1-A MS	Matrix Spike	Total/NA	Water	537.1	193553
380-188261-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1	193553

Prep Batch: 193882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-188647-1	Halawa Shaft Viewing Pool	Total/NA	Water	533	
380-188647-2	FB Halawa Shaft Viewing Pool	Total/NA	Water	533	
MBL 380-193882/20-A	Method Blank	Total/NA	Water	533	
LCS 380-193882/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-193882/21-A	Lab Control Sample	Total/NA	Water	533	
380-188660-E-1-A MS	Matrix Spike	Total/NA	Water	533	
380-188660-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 194076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-188647-1	Halawa Shaft Viewing Pool	Total/NA	Water	533	193882
380-188647-2	FB Halawa Shaft Viewing Pool	Total/NA	Water	533	193882
MBL 380-193882/20-A	Method Blank	Total/NA	Water	533	193882
LCS 380-193882/22-A	Lab Control Sample	Total/NA	Water	533	193882
MRL 380-193882/21-A	Lab Control Sample	Total/NA	Water	533	193882
380-188660-E-1-A MS	Matrix Spike	Total/NA	Water	533	193882
380-188660-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	193882

Lab Chronicle

Client: City & County of Honolulu
 Project/Site: RED-HILL

Job ID: 380-188647-1
 SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-188647-1

Date Collected: 12/16/25 10:00

Matrix: Water

Date Received: 12/18/25 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			193882	XTD8	EA POM	12/22/25 02:08
Total/NA	Analysis	533		1	194076	M7ML	EA POM	12/22/25 20:47
Total/NA	Prep	537.1 DW			193553	G9MN	EA POM	12/19/25 02:00
Total/NA	Analysis	537.1		1	193699	Y5FM	EA POM	12/19/25 16:43

Client Sample ID: FB Halawa Shaft Viewing Pool

Lab Sample ID: 380-188647-2

Date Collected: 12/16/25 10:00

Matrix: Water

Date Received: 12/18/25 10:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			193882	XTD8	EA POM	12/22/25 02:08
Total/NA	Analysis	533		1	194076	M7ML	EA POM	12/22/25 20:56
Total/NA	Prep	537.1 DW			193553	G9MN	EA POM	12/19/25 02:00
Total/NA	Analysis	537.1		1	193699	Y5FM	EA POM	12/19/25 16:52

Laboratory References:

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

Accreditation/Certification Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

Laboratory: Eurofins Eaton Analytical Pomona

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

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

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

Method Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

Method	Method Description	Protocol	Laboratory
533	Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water	EPA	EA POM
537.1	Perfluorinated Alkyl Acids (LC/MS)	EPA	EA POM
533	Extraction of Perfluorinated and Polyfluorinated Alkyl Acids	EPA	EA POM
537.1 DW	Extraction of Perfluorinated Alkyl Acids	EPA	EA POM

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

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



Sample Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-188647-1
SDG: PFAS: Halawa Shaft Viewing Pool

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-188647-1	Halawa Shaft Viewing Pool	Water	12/16/25 10:00	12/18/25 10:12	Hawaii
380-188647-2	FB Halawa Shaft Viewing Pool	Water	12/16/25 10:00	12/18/25 10:12	Hawaii

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

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-188647-1

SDG Number: PFAS: Halawa Shaft Viewing Pool

Login Number: 188647

List Number: 1

Creator: Tran, Kristine

List Source: Eurofins Eaton Analytical 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").	N/A	
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	

