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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

380-204076-1

Eurofins Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

myEOL

Job Notes

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

Compliance Statement

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

Authorization

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Table of Contents

Definitions/Glossary

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

Job ID: 380-204076-1
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

Job Narrative
380-204076-1

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 3/19/2026 10:13 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 5.5°C.

PFAS
Method EPA 537.1 V2: PFAS results by 537.1 for Halawa Shaft Viewing Pool (380-204076-1) and Halawa Shaft Viewing Pool Blank (380-204076-2) collected on 03/17/26 are a resample for Halawa Shaft Viewing Pool job # 380-202871-1 collected on 03/10/26. (XWB4)

Method EPA 537.1 V2: The following QC issues in preparation batch 380-214975 and analytical batch 380-215527 were observed: All analyte Halawa Shaft Viewing Pool Blank (380-204076-2) recovery failed (biased low) in LCS. Extracts were re-analyzed for confirmation. No volume available for re-extraction. Result for field blank sample Halawa Shaft Viewing Pool Blank (380-204076-2) is not acceptable per method. 537.1 data excluded due to this QC failure, PFAS 533 data was reported as there were no noted QC issues. (M7XQ)

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: 380-204076-1
SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool — Lab Sample ID: 380-204076-1

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)	3.1		2.0		ng/L	1		533	Total/NA

Client Sample ID: Halawa Shaft Viewing Pool Blank — Lab Sample ID: 380-204076-2

No Detections.

This Detection Summary does not include radiochemical test results.

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

Job ID: 380-204076-1
SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Date Collected: 03/17/26 09:40
Date Received: 03/19/26 10:13

Lab Sample ID: 380-204076-1

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Perfluorohexanesulfonic acid (PFHxS)	**3.4**		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Perfluorooctanesulfonic acid (PFOS)	**3.1**		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 15:05	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*104*		*50 - 200*	*03/24/26 16:15*	*03/25/26 15:05*	*1*
13C6 PFDA	*107*		*50 - 200*	*03/24/26 16:15*	*03/25/26 15:05*	*1*
13C5 PFHxA	*108*		*50 - 200*	*03/24/26 16:15*	*03/25/26 15:05*	*1*
13C4 PFHpA	*110*		*50 - 200*	*03/24/26 16:15*	*03/25/26 15:05*	*1*
13C8 PFOA	*109*		*50 - 200*	*03/24/26 16:15*	*03/25/26 15:05*	*1*
13C9 PFNA	*110*		*50 - 200*	*03/24/26 16:15*	*03/25/26 15:05*	*1*
13C7 PFUnA	*110*		*50 - 200*	*03/24/26 16:15*	*03/25/26 15:05*	*1*
13C2 PFDoA	*112*		*50 - 200*	*03/24/26 16:15*	*03/25/26 15:05*	*1*
13C4 PFBA	*108*		*50 - 200*	*03/24/26 16:15*	*03/25/26 15:05*	*1*
13C5 PFPeA	*112*		*50 - 200*	*03/24/26 16:15*	*03/25/26 15:05*	*1*
13C3 PFBS	*112*		*50 - 200*	*03/24/26 16:15*	*03/25/26 15:05*	*1*
13C3 PFHxS	*108*		*50 - 200*	*03/24/26 16:15*	*03/25/26 15:05*	*1*

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-204076-1
Date Collected: 03/17/26 09:40
Matrix: Water
Date Received: 03/19/26 10:13

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

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 PFOS	*109*		*50 - 200*	*03/24/26 16:15*	*03/25/26 15:05*	*1*
13C2-4:2-FTS	*123*		*50 - 200*	*03/24/26 16:15*	*03/25/26 15:05*	*1*
13C2-6:2-FTS	*113*		*50 - 200*	*03/24/26 16:15*	*03/25/26 15:05*	*1*
13C2-8:2-FTS	*109*		*50 - 200*	*03/24/26 16:15*	*03/25/26 15:05*	*1*

Client Sample ID: Halawa Shaft Viewing Pool Blank

Lab Sample ID: 380-204076-2
Date Collected: 03/17/26 09:40
Matrix: Water
Date Received: 03/19/26 10:13

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		03/24/26 16:15	03/25/26 18:31	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		03/24/26 16:15	03/25/26 18:31	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*99*		*50 - 200*	*03/24/26 16:15*	*03/25/26 18:31*	*1*
13C6 PFDA	*105*		*50 - 200*	*03/24/26 16:15*	*03/25/26 18:31*	*1*
13C5 PFHxA	*104*		*50 - 200*	*03/24/26 16:15*	*03/25/26 18:31*	*1*

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

Job ID: 380-204076-1
SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool Blank
Date Collected: 03/17/26 09:40
Date Received: 03/19/26 10:13

Lab Sample ID: 380-204076-2
Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	109		50 - 200	03/24/26 16:15	03/25/26 18:31	1
13C8 PFOA	110		50 - 200	03/24/26 16:15	03/25/26 18:31	1
13C9 PFNA	110		50 - 200	03/24/26 16:15	03/25/26 18:31	1
13C7 PFUnA	108		50 - 200	03/24/26 16:15	03/25/26 18:31	1
13C2 PFDoA	111		50 - 200	03/24/26 16:15	03/25/26 18:31	1
13C4 PFBA	106		50 - 200	03/24/26 16:15	03/25/26 18:31	1
13C5 PFPeA	106		50 - 200	03/24/26 16:15	03/25/26 18:31	1
13C3 PFBS	106		50 - 200	03/24/26 16:15	03/25/26 18:31	1
13C3 PFHxS	109		50 - 200	03/24/26 16:15	03/25/26 18:31	1
13C8 PFOS	113		50 - 200	03/24/26 16:15	03/25/26 18:31	1
13C2-4:2-FTS	121		50 - 200	03/24/26 16:15	03/25/26 18:31	1
13C2-6:2-FTS	114		50 - 200	03/24/26 16:15	03/25/26 18:31	1
13C2-8:2-FTS	112		50 - 200	03/24/26 16:15	03/25/26 18:31	1

Action Limit Summary

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

Job ID: 380-204076-1
SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool — Lab Sample ID: 380-204076-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	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)	3.1		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	533	Total/NA

Client Sample ID: Halawa Shaft Viewing Pool Blank — Lab Sample ID: 380-204076-2

Compliance Check

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

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

Surrogate Summary

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

Job ID: 380-204076-1
SDG: PFAS: Halawa Shaft Viewing Pool

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

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

		Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS	PFHxA	PFDA	GenX
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)
380-204076-1	Halawa Shaft Viewing Pool	103	105	104	94
380-204076-2	Halawa Shaft Viewing Pool Blank	102	99	107	97
380-204172-U-1-A MS	Matrix Spike	100	96	101	100
380-204172-V-1-A MSD	Matrix Spike Duplicate	106	104	111	108
380-204758-B-1-A MS	Matrix Spike	98	97	105	93
380-204758-C-1-A MSD	Matrix Spike Duplicate	109	102	107	101
LCS 380-214975/23-A	Lab Control Sample	112	115	111	113
LCS 380-215883/21-A	Lab Control Sample	100	108	106	104
MBL 380-214975/21-A	Method Blank	112	109	116	110
MBL 380-215883/19-A	Method Blank	105	110	115	97
MRL 380-214975/22-A	Lab Control Sample	102	103	104	95
MRL 380-215883/20-A	Lab Control Sample	97	105	102	98

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: 380-204076-1
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)
380-204076-1	Halawa Shaft Viewing Pool	104	107	108	110	109	110	110	112
380-204076-1 MS	Halawa Shaft Viewing Pool	102	112	107	108	110	112	107	106
380-204076-1 MSD	Halawa Shaft Viewing Pool	106	111	111	110	107	112	108	108
380-204076-2	Halawa Shaft Viewing Pool Blank	99	105	104	109	110	110	108	111
LCS 380-215474/22-A	Lab Control Sample	99	104	105	108	110	109	108	104
MBL 380-215474/20-A	Method Blank	100	107	112	105	112	112	108	110
MRL 380-215474/21-A	Lab Control Sample	104	112	115	114	115	110	111	113

		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)
380-204076-1	Halawa Shaft Viewing Pool	108	112	112	108	109	123	113	109
380-204076-1 MS	Halawa Shaft Viewing Pool	109	115	107	108	110	119	113	111
380-204076-1 MSD	Halawa Shaft Viewing Pool	110	115	110	106	109	121	114	113
380-204076-2	Halawa Shaft Viewing Pool Blank	106	106	106	109	113	121	114	112
LCS 380-215474/22-A	Lab Control Sample	109	110	106	109	110	112	109	108
MBL 380-215474/20-A	Method Blank	108	112	105	105	107	111	104	106
MRL 380-215474/21-A	Lab Control Sample	116	116	115	111	115	120	112	110

Surrogate Legend

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

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

Lab Sample ID: MBL 380-215474/20-A
Matrix: Water
Analysis Batch: 215702

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 215474

Analyte	MBL Result	MBL Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Perfluorononanoic acid (PFNA)	<0.40		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0		ng/L		03/24/26 16:15	03/25/26 14:35	1

Isotope Dilution	*MBL %Recovery*	*MBL Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*100*		*50 - 200*	*03/24/26 16:15*	*03/25/26 14:35*	*1*
13C6 PFDA	*107*		*50 - 200*	*03/24/26 16:15*	*03/25/26 14:35*	*1*
13C5 PFHxA	*112*		*50 - 200*	*03/24/26 16:15*	*03/25/26 14:35*	*1*
13C4 PFHpA	*105*		*50 - 200*	*03/24/26 16:15*	*03/25/26 14:35*	*1*
13C8 PFOA	*112*		*50 - 200*	*03/24/26 16:15*	*03/25/26 14:35*	*1*
13C9 PFNA	*112*		*50 - 200*	*03/24/26 16:15*	*03/25/26 14:35*	*1*
13C7 PFUnA	*108*		*50 - 200*	*03/24/26 16:15*	*03/25/26 14:35*	*1*
13C2 PFDoA	*110*		*50 - 200*	*03/24/26 16:15*	*03/25/26 14:35*	*1*
13C4 PFBA	*108*		*50 - 200*	*03/24/26 16:15*	*03/25/26 14:35*	*1*
13C5 PFPeA	*112*		*50 - 200*	*03/24/26 16:15*	*03/25/26 14:35*	*1*
13C3 PFBS	*105*		*50 - 200*	*03/24/26 16:15*	*03/25/26 14:35*	*1*
13C3 PFHxS	*105*		*50 - 200*	*03/24/26 16:15*	*03/25/26 14:35*	*1*

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

Lab Sample ID: MBL 380-215474/20-A
Matrix: Water
Analysis Batch: 215702

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 215474

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	107		50 - 200	03/24/26 16:15	03/25/26 14:35	1
13C2-4:2-FTS	111		50 - 200	03/24/26 16:15	03/25/26 14:35	1
13C2-6:2-FTS	104		50 - 200	03/24/26 16:15	03/25/26 14:35	1
13C2-8:2-FTS	106		50 - 200	03/24/26 16:15	03/25/26 14:35	1

Lab Sample ID: LCS 380-215474/22-A
Matrix: Water
Analysis Batch: 215702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 215474

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.1	55.3		ng/L		92	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.1	57.6		ng/L		96	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.1	57.0		ng/L		95	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.1	59.2		ng/L		98	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.1	60.3		ng/L		100	70 - 130
Perfluorodecanoic acid (PFDA)	60.1	61.2		ng/L		102	70 - 130
Perfluorododecanoic acid (PFDoA)	60.1	58.0		ng/L		97	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.1	57.8		ng/L		96	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.1	60.4		ng/L		100	70 - 130
Perfluorohexanoic acid (PFHxA)	60.1	60.3		ng/L		100	70 - 130
Perfluorononanoic acid (PFNA)	60.1	58.6		ng/L		97	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.1	59.1		ng/L		98	70 - 130
Perfluorooctanoic acid (PFOA)	60.1	57.3		ng/L		95	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.1	56.4		ng/L		94	70 - 130
Perfluorobutanoic acid (PFBA)	60.1	58.5		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.1	60.2		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.1	58.7		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.1	61.7		ng/L		103	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.1	56.7		ng/L		94	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	60.1	59.1		ng/L		98	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.1	58.9		ng/L		98	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.1	59.4		ng/L		99	70 - 130
Perfluoropentanoic acid (PFPeA)	60.1	57.7		ng/L		96	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.1	57.1		ng/L		95	70 - 130

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

Lab Sample ID: LCS 380-215474/22-A
Matrix: Water
Analysis Batch: 215702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 215474

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	60.1	58.0		ng/L		97	70 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C3 HFPO-DA	*99*		*50 - 200*
13C6 PFDA	*104*		*50 - 200*
13C5 PFHxA	*105*		*50 - 200*
13C4 PFHpA	*108*		*50 - 200*
13C8 PFOA	*110*		*50 - 200*
13C9 PFNA	*109*		*50 - 200*
13C7 PFUnA	*108*		*50 - 200*
13C2 PFDoA	*104*		*50 - 200*
13C4 PFBA	*109*		*50 - 200*
13C5 PFPeA	*110*		*50 - 200*
13C3 PFBS	*106*		*50 - 200*
13C3 PFHxS	*109*		*50 - 200*
13C8 PFOS	*110*		*50 - 200*
13C2-4:2-FTS	*112*		*50 - 200*
13C2-6:2-FTS	*109*		*50 - 200*
13C2-8:2-FTS	*108*		*50 - 200*

Lab Sample ID: MRL 380-215474/21-A
Matrix: Water
Analysis Batch: 215702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 215474

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.26	J	ng/L		113	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.33	J	ng/L		116	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.38	J	ng/L		119	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.46	J	ng/L		123	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.39	J	ng/L		119	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.35	J	ng/L		117	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.46	J	ng/L		123	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.35	J	ng/L		117	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.45	J	ng/L		122	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.38	J	ng/L		119	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.46	J	ng/L		123	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.41	J	ng/L		120	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.38	J	ng/L		119	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.32	J	ng/L		116	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	2.36	J	ng/L		118	50 - 150

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

Lab Sample ID: MRL 380-215474/21-A
Matrix: Water
Analysis Batch: 215702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 215474

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	2.59	J	ng/L		129	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	2.47	J	ng/L		123	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	2.71	J	ng/L		135	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	2.22	J	ng/L		111	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	2.00	2.32	J	ng/L		116	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	2.35	J	ng/L		117	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	2.39	J	ng/L		119	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	2.44	J	ng/L		122	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	2.25	J	ng/L		112	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	2.54	J	ng/L		127	50 - 150

Isotope Dilution	*MRL %Recovery*	*MRL Qualifier*	*Limits*
13C3 HFPO-DA	*104*		*50 - 200*
13C6 PFDA	*112*		*50 - 200*
13C5 PFHxA	*115*		*50 - 200*
13C4 PFHpA	*114*		*50 - 200*
13C8 PFOA	*115*		*50 - 200*
13C9 PFNA	*110*		*50 - 200*
13C7 PFUnA	*111*		*50 - 200*
13C2 PFDoA	*113*		*50 - 200*
13C4 PFBA	*116*		*50 - 200*
13C5 PFPeA	*116*		*50 - 200*
13C3 PFBS	*115*		*50 - 200*
13C3 PFHxS	*111*		*50 - 200*
13C8 PFOS	*115*		*50 - 200*
13C2-4:2-FTS	*120*		*50 - 200*
13C2-6:2-FTS	*112*		*50 - 200*
13C2-8:2-FTS	*110*		*50 - 200*

Lab Sample ID: 380-204076-1 MS
Matrix: Water
Analysis Batch: 215702

Client Sample ID: Halawa Shaft Viewing Pool
Prep Type: Total/NA
Prep Batch: 215474

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		60.2	53.1		ng/L		88	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.2	57.3		ng/L		95	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.2	56.2		ng/L		93	70 - 130

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

Lab Sample ID: 380-204076-1 MS
Matrix: Water
Analysis Batch: 215702

Client Sample ID: Halawa Shaft Viewing Pool
Prep Type: Total/NA
Prep Batch: 215474

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		60.2	57.2		ng/L		95	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.2	59.5		ng/L		98	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.2	57.8		ng/L		96	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.2	56.9		ng/L		95	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.2	59.1		ng/L		97	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	3.4		60.2	61.1		ng/L		96	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.2	59.5		ng/L		96	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.2	59.1		ng/L		98	70 - 130
Perfluorooctanesulfonic acid (PFOS)	3.1		60.2	61.1		ng/L		96	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.2	57.2		ng/L		93	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.2	57.6		ng/L		96	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.2	56.8		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.2	60.4		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.2	58.5		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.2	59.6		ng/L		99	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.2	53.7		ng/L		89	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		60.2	57.3		ng/L		95	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.2	58.3		ng/L		97	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.2	52.8		ng/L		88	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.2	55.3		ng/L		91	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.2	56.5		ng/L		93	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.2	60.3		ng/L		100	70 - 130

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C3 HFPO-DA	*102*		*50 - 200*
13C6 PFDA	*112*		*50 - 200*
13C5 PFHxA	*107*		*50 - 200*
13C4 PFHpA	*108*		*50 - 200*
13C8 PFOA	*110*		*50 - 200*
13C9 PFNA	*112*		*50 - 200*
13C7 PFUnA	*107*		*50 - 200*
13C2 PFDoA	*106*		*50 - 200*
13C4 PFBA	*109*		*50 - 200*
13C5 PFPeA	*115*		*50 - 200*
13C3 PFBS	*107*		*50 - 200*
13C3 PFHxS	*108*		*50 - 200*
13C8 PFOS	*110*		*50 - 200*

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

Lab Sample ID: 380-204076-1 MS
Matrix: Water
Analysis Batch: 215702

Client Sample ID: Halawa Shaft Viewing Pool
Prep Type: Total/NA
Prep Batch: 215474

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C2-4:2-FTS	119		50 - 200
13C2-6:2-FTS	113		50 - 200
13C2-8:2-FTS	111		50 - 200

Lab Sample ID: 380-204076-1 MSD
Matrix: Water
Analysis Batch: 215702

Client Sample ID: Halawa Shaft Viewing Pool
Prep Type: Total/NA
Prep Batch: 215474

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.2	54.6		ng/L		91	70 - 130	3	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.2	56.1		ng/L		93	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.2	56.9		ng/L		95	70 - 130	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.2	57.9		ng/L		96	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.2	56.9		ng/L		94	70 - 130	4	30
Perfluorodecanoic acid (PFDA)	<2.0		60.2	58.7		ng/L		97	70 - 130	2	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.2	54.2		ng/L		90	70 - 130	5	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.2	56.7		ng/L		93	70 - 130	4	30
Perfluorohexanesulfonic acid (PFHxS)	3.4		60.2	60.7		ng/L		95	70 - 130	1	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.2	56.7		ng/L		92	70 - 130	5	30
Perfluorononanoic acid (PFNA)	<2.0		60.2	57.7		ng/L		96	70 - 130	2	30
Perfluorooctanesulfonic acid (PFOS)	3.1		60.2	60.8		ng/L		96	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	<2.0		60.2	59.2		ng/L		96	70 - 130	3	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.2	58.7		ng/L		97	70 - 130	2	30
Perfluorobutanoic acid (PFBA)	<2.0		60.2	56.9		ng/L		95	70 - 130	0	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.2	57.2		ng/L		95	70 - 130	5	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.2	57.6		ng/L		96	70 - 130	2	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.2	59.5		ng/L		99	70 - 130	0	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.2	50.9		ng/L		85	70 - 130	5	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		60.2	56.2		ng/L		93	70 - 130	2	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.2	58.8		ng/L		98	70 - 130	1	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.2	54.0		ng/L		90	70 - 130	2	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.2	56.1		ng/L		92	70 - 130	1	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.2	56.4		ng/L		93	70 - 130	0	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.2	58.0		ng/L		96	70 - 130	4	30

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

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C3 HFPO-DA	106		50 - 200
13C6 PFDA	111		50 - 200
13C5 PFHxA	111		50 - 200
13C4 PFHpA	110		50 - 200
13C8 PFOA	107		50 - 200
13C9 PFNA	112		50 - 200
13C7 PFUnA	108		50 - 200
13C2 PFDoA	108		50 - 200
13C4 PFBA	110		50 - 200
13C5 PFPeA	115		50 - 200
13C3 PFBS	110		50 - 200
13C3 PFHxS	106		50 - 200
13C8 PFOS	109		50 - 200
13C2-4:2-FTS	121		50 - 200
13C2-6:2-FTS	114		50 - 200
13C2-8:2-FTS	113		50 - 200

QC Association Summary

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

Job ID: 380-204076-1
SDG: PFAS: Halawa Shaft Viewing Pool

LCMS

Prep Batch: 215474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-204076-1	Halawa Shaft Viewing Pool	Total/NA	Water	533	
380-204076-2	Halawa Shaft Viewing Pool Blank	Total/NA	Water	533	
MBL 380-215474/20-A	Method Blank	Total/NA	Water	533	
LCS 380-215474/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-215474/21-A	Lab Control Sample	Total/NA	Water	533	
380-204076-1 MS	Halawa Shaft Viewing Pool	Total/NA	Water	533	
380-204076-1 MSD	Halawa Shaft Viewing Pool	Total/NA	Water	533	

Analysis Batch: 215702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-204076-1	Halawa Shaft Viewing Pool	Total/NA	Water	533	215474
380-204076-2	Halawa Shaft Viewing Pool Blank	Total/NA	Water	533	215474
MBL 380-215474/20-A	Method Blank	Total/NA	Water	533	215474
LCS 380-215474/22-A	Lab Control Sample	Total/NA	Water	533	215474
MRL 380-215474/21-A	Lab Control Sample	Total/NA	Water	533	215474
380-204076-1 MS	Halawa Shaft Viewing Pool	Total/NA	Water	533	215474
380-204076-1 MSD	Halawa Shaft Viewing Pool	Total/NA	Water	533	215474

Lab Chronicle

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

Job ID: 380-204076-1
SDG: PFAS: Halawa Shaft Viewing Pool

Client Sample ID: Halawa Shaft Viewing Pool

Lab Sample ID: 380-204076-1
Matrix: Water
Date Collected: 03/17/26 09:40
Date Received: 03/19/26 10:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			215474	E2HD	EA POM	03/24/26 16:15
Total/NA	Analysis	533		1	215702	M7ML	EA POM	03/25/26 15:05

Client Sample ID: Halawa Shaft Viewing Pool Blank

Lab Sample ID: 380-204076-2
Matrix: Water
Date Collected: 03/17/26 09:40
Date Received: 03/19/26 10:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			215474	E2HD	EA POM	03/24/26 16:15
Total/NA	Analysis	533		1	215702	M7ML	EA POM	03/25/26 18:31

Laboratory References:

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

Accreditation/Certification Summary

Client: City & County of Honolulu
Job ID: 380-204076-1
Project/Site: RED-HILL
SDG: PFAS: Halawa Shaft Viewing Pool

Laboratory: Eurofins Pomona

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

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

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

Method Summary

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

Job ID: 380-204076-1
SDG: PFAS: Halawa Shaft Viewing Pool

Method	Method Description	Protocol	Laboratory
533	Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water	EPA	EA POM
533	Extraction of Perfluorinated and Polyfluorinated Alkyl Acids	EPA	EA POM

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

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

Sample Summary

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

Job ID: 380-204076-1
SDG: PFAS: Halawa Shaft Viewing Pool

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-204076-1	Halawa Shaft Viewing Pool	Water	03/17/26 09:40	03/19/26 10:13	Hawaii
380-204076-2	Halawa Shaft Viewing Pool Blank	Water	03/17/26 09:40	03/19/26 10:13	Hawaii

Monrovia, CA (Suite 100)
750 Royal Oaks Drive Suite 100
Monrovia, CA 91016
Phone (626) 386-1100

Chain of Custody Record

eurofins Env Ame

380-204076 COC

Client Information	Sampler: Jason Rakofsky	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-27941-2757.2
Client Contact: kirk Iwamoto	Phone: +1 808 748 5840	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: City & County of Honolulu	PWSID:			Job #:
Address: 630 South Beretania Street; Chemistry Lab	Due Date Requested:			
City: Honolulu	TAT Requested (days): RUSH			
State, Zip: HI, 96843	Compliance Project: Δ No			
Phone: 808-748-5840 (tel)	PO #: C20525101 exp 05312023			
Email: kiwamoto@hbws.org	WO #:			
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill	Project #: 38001111			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs	8015B_GRO_LL - (MOD) GRO	8015B_DRO_LL_C8 - HNL Ranges: C10-C24/C24-C36/C8-C18	625.2_PREC - (MOD) 625plus PLUS TICs	537.1_DW_PREC - 537.1 Full List	533 - All Analytes	Total Number of containers	Special Instructions/Note:
			Preservation Code:				R	A	Q	QA	Y	I		
Halawa Shaft Viewing Pool	17-Mar-2026	0946	G	Water							3	3		
Halawa Shaft Viewing Pool Blank	17-Mar-2026		G	Water							1	1		

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by: [redacted]	Date/Time: 3/18/26 1100	Company: HBWS	Received by:	Date/Time: 3/19/26 1013	Company: FEDEX
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 751A 5.5 | 5.5 yel Fmem

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-204076-1
SDG Number: PFAS: Halawa Shaft Viewing Pool

Login Number: 204076
List Number: 1
Creator: Gross, Drake

List Source: Eurofins Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
ClO4 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	