



Per- and Polyfluoroalkyl Substances (PFAS) Data Summary No. 3 Red Hill Bulk Fuel Storage Facility Joint Base Pearl Harbor-Hickam, Oahu, Hawaii

PFAS Data Summary No. 3

January 2026

INTRODUCTION

The Navy has initiated a **Remedial Investigation (RI)** at the Red Hill Bulk Fuel Storage Facility (referred to as the Facility) as a result of the 2022 **Aqueous Film-Forming Foam (AFFF)** accidental release. To expedite data collection activities, the Navy is conducting initial quarterly groundwater sampling ahead of the fully developed RI sampling work plan being prepared in coordination with the **State of Hawaii Department of Health (DOH)** and **U.S. Environmental Protection Agency (EPA)**.

REMEDIAL INVESTIGATION

The RI focuses on two areas (Area A and Area B) within the Facility (*Figure 1*). Area A includes the area near the November 2022 AFFF accidental release area. Area B includes the western portion of the Facility where **per- and polyfluoroalkyl substances (PFAS)** were detected in groundwater monitoring wells during a September 2023 baseline groundwater sampling event. There have been no documented releases in Area B.

FIELD ACTIVITIES

The third quarterly groundwater sampling and testing event took place from March through July 2025. Groundwater samples were collected from 41 monitoring wells (*Figure 1*). These samples are called the **Quarter 3 (Q3)** samples.

Shallow and deep groundwater occur beneath the site. Shallow groundwater is located approximately 30–60 feet deep and is not used for drinking water. Deep groundwater at the site is located approximately 100–600 feet deep and comprises the aquifer, which can serve as a source of drinking water. Below the shallow groundwater is a layer of soil and rock that limits the downward flow of the shallow groundwater to the deep groundwater. Of the 41 groundwater monitoring wells sampled, 31 are in deep groundwater and 10 are in shallow groundwater.

The groundwater samples were tested by an accredited analytical laboratory utilizing the EPA Method 1633 for PFAS, which is the standard method used to test for PFAS in groundwater (*ASD 2024*).

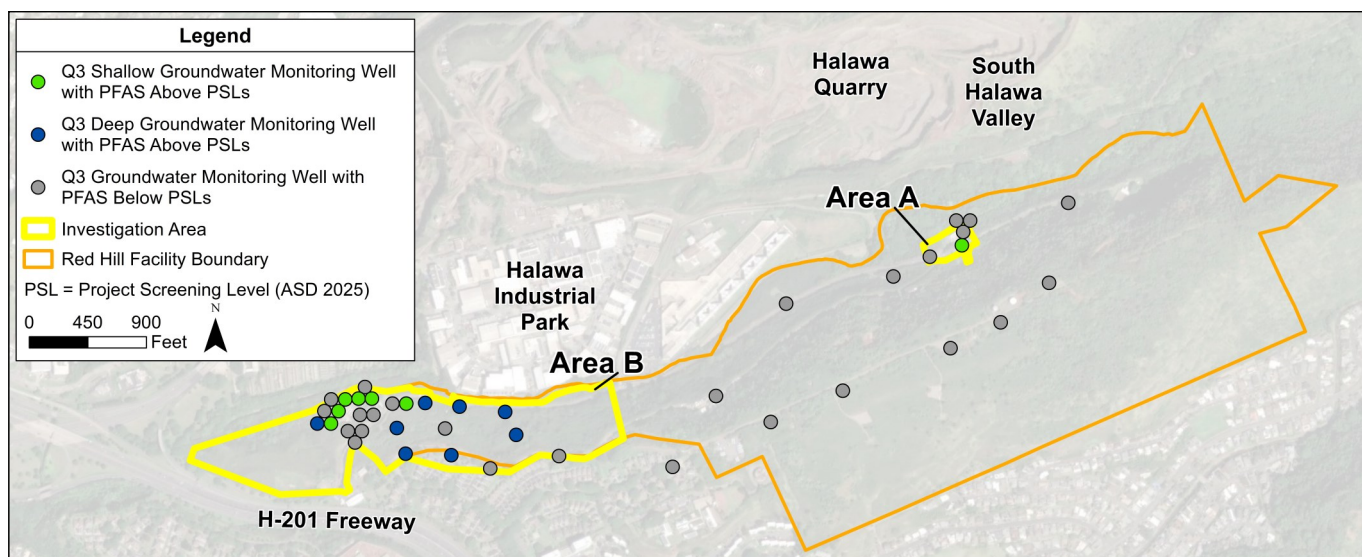


Figure 1: Groundwater Sampling Locations and Results

PFAS are a family of thousands of different chemicals which have been widely used in many household and industrial products since the 1950s. The Navy and Department of Defense have developed proactive policies to address past releases of PFAS, including perfluorooctanoic acid (PFOA) and per-fluorooctanesulfonic acid (PFOS), at installations nationwide.

For the Q3 groundwater sampling event, the method tested for 44 different PFAS. At the time of the Q3 sampling event, project-specific screening levels had been established for 11 of the 44 PFAS analyzed for.

If PFAS are detected at concentrations above the associated project screening level, that means additional investigation is likely needed. These project screening levels may change over time as more information is learned about these compounds (ASD 2025).

RESULTS

Q3 results were as follows:

Area A:

- One shallow groundwater monitoring well in Area A had PFAS concentrations above the project screening levels (Figure 1).

Area B:

- Eight of the 20 deep groundwater monitoring wells in Area B had concentrations of some PFAS above the project screening levels (Figure 1).
- Six shallow groundwater monitoring wells in Area B had concentrations of some PFAS above the project screening levels (Figure 1).
- **Perfluorooctanoic acid (PFOA)** and **perfluorooctanesulfonic acid (PFOS)** were the two most frequently detected PFAS at concentrations above the project screening levels at Area B.
- The highest concentrations of PFAS were observed in the shallow groundwater wells at Area B.
- The Red Hill Shaft water pumping station did not have any PFAS concentrations above the project screening levels.

Table 1 presents the range of concentrations for the PFAS detected above project screening levels in one or more groundwater monitoring wells.

Table 1: Summary of Laboratory Analyses of PFAS

PFAS	Project Screening Level (ppt)	Minimum–Maximum Concentrations (ppt)
Deep Groundwater		
Perfluorooctanoic acid (PFOA)	4	Not Detected—10
Perfluorooctanesulfonic acid (PFOS)	4	Not Detected—16
Perfluorodecanoic acid (PFDA)	0.52	Not Detected—0.56
Shallow Groundwater		
Perfluorooctanoic acid (PFOA)	4	Not Detected—35
Perfluorooctanesulfonic acid (PFOS)	4	Not Detected—290
Perfluorohexanesulfonic acid (PFHxS)	10	Not Detected—240
Perfluorobutanoic acid (PFBA)	1,800	Not Detected—2,200
Perfluorohexanoic acid (PFHxA)	990	Not Detected—5,000
Perfluorononanoic acid (PFNA)	5.9	Not Detected—7.4
Perfluoropropanoic acid (PFPrA)	980	Not Detected—1,600

Notes:

Units are in parts per trillion (ppt).

Q3 project screening levels are consistent with ASD 2025. Project screening levels may change over time as more information becomes available.

REFERENCES

- Assistant Secretary of Defense (ASD). 2024. *Establishing a Consistent Methodology for the Analysis of Per- and Polyfluoroalkyl Substances in Matrices Other than Drinking Water*. Washington, DC: Assistant Secretary of Defense. May 1.
- ASD. 2025. *Investigating Per- and Polyfluoroalkyl Substances within the Department of Defense Cleanup Program*. Washington, DC: Office of the Assistant Secretary of Defense for Energy, Installations, and Environment. January 17.

HEALTH INFORMATION

Federal agencies such as the Agency for Toxic Substances and Disease Registry (ATSDR) and the EPA continue to conduct and support research into the health effects associated with PFAS exposure. More information about health effects can be found online at:

ATSDR: <https://www.atsdr.cdc.gov/pfas/index.html>

EPA: <https://www.epa.gov/pfas>

Final PFAS National Primary Drinking Water Regulation: <https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas>

FOR MORE INFORMATION/COMMENTS

Contact:

Public Affairs Officer
Naval Facilities Engineering Systems Command, Hawaii

Address:

COMMANDING OFFICER
NAVFAC HAWAII
ATTN: PUBLIC AFFAIRS OFFICER CODE 09PAO
400 MARSHALL ROAD
JBPHH HI 96860-3139

Phone: 808-471-7300

Fax: 808-474-5479

Email: NFHI_PAO_DL@us.navy.mil

Summary of the PFAS Remedial Investigation's Third Quarter Groundwater Monitoring
Data Table - Groundwater Results Round III - RI PFAS Release, RHBFSF, JBPHH Oahu HI

Location				OWDFMW01		OWDFMW02A		OWDFMW03A		OWDFMW03B		OWDFMW04A		OWDFMW05A		OWDFMW05A		OWDFMW05B		OWDFMW06A		OWDFMW06B		OWDFMW07A	
COC ID				JV173		JV174		JV175		JV176		JV177		JV178		JV179		JV180		JV181		JV182		JV183	
Matrix				WG		WG		WG		WG		WG		WG		WG		WG		WG		WG		WG	
Sample Type				N		N		N		N		N		N		FD		N		N		N		N	
Sample Date				3/31/2025		3/31/2025		4/2/2025		4/3/2025		4/4/2025		4/4/2025		4/4/2025		4/3/2025		4/1/2025		4/1/2025		4/2/2025	
Chemical	Abbr.	Cas No.	PSL ^a	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Perfluorobutanoic acid	PFBA	375-22-4	1800	3.1	J	2	U	6.5		1500	J	9.2		50		68		2200	J	3.5	J	35		2	U
Perfluoropentanoic acid	PFPeA	2706-90-3	—	5.5		1	U	20		5400	J	18		210		190		7200	J	7.9		51		1	U
Perfluorohexanoic acid	PFHxA	307-24-4	990	2.7		1	UJ	10		4200	J	13	J	120		140		5000	J	4.7		40		1	U
Perfluoroheptanoic acid	PFHpA	375-85-9	—	2.7		1	U	5.8		980	J	13		40		52		770	J	1.5	J	26		1	U
Perfluorooctanoic acid	PFOA	335-67-1	4	1.5	J	1	U	0.99	U	35	J	10		2.4		2.8		14	J	1	U	21		1	U
Perfluorononanoic acid	PFNA	375-95-1	5.9	1.1	U	1	U	0.99	U	10	UJ	2.8		1.1	J	0.97	J	10	UJ	1	U	6		1	U
Perfluorodecanoic acid	PFDA	335-76-2	0.52	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.99	U	1	U
Perfluoroundecanoic acid	PFUnA	2058-94-8	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.99	U	1	U
Perfluorododecanoic acid	PFDoA	307-55-1	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.99	U	1	U
Perfluorotridecanoic acid	PFTTrDA	72629-94-8	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.99	U	1	U
Perfluorotetradecanoic acid	PFTeDA	376-06-7	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.99	U	1	U
Perfluorobutanesulfonic acid	PFBS	375-73-5	600	1.1	U	1	U	0.99	U	15	J	2.4		1.5	J	1.1	J	10	UJ	0.5	J	14		1	U
Perfluoropentanesulfonic acid	PFPeS	2706-91-4	—	1.1	U	1	U	0.99	U	9.4	J	1	U	1	U	1	U	10	UJ	1	U	1.4	J	1	U
Perfluorohexanesulfonic acid	PFHxS	355-46-4	10	0.7	J	1	U	0.99	U	43	J	3.1		3.3		3.8		27	J	2		17		1	U
Perfluoroheptanesulfonic acid	PFHpS	375-92-8	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.52	J	1	U
Perfluorooctanesulfonic acid	PFOS	1763-23-1	4	0.65	J	1	U	0.99	U	64	J	7.2		3.8		4		8.8	J	2.1		33		1	U
Perfluorononanesulfonic acid	PFNS	68259-12-1	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.99	U	1	U
Perfluorodecanesulfonic acid	PFDS	335-77-3	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.99	U	1	U
Perfluorododecanesulfonic acid	PFDoS	79780-39-5	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.99	U	1	U
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid	4:2 FTS	757124-72-4	—	2.1	U	2	U	2	U	20	UJ	2	U	2	U	2	U	42	J	2	U	2	U	2	U
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	6:2 FTS	27619-97-2	—	2.1	U	2	U	2	U	5100	J	2	U	230		280		25000	J	20		2	U	2	U
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid	8:2 FTS	39108-34-4	—	2.1	U	2	U	2	U	20	UJ	2	U	2	U	2	U	20	UJ	2	U	2	U	2	U
N-methyl perfluorooctanesulfonamide	NMeFOSA	31506-32-8	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.99	U	1	U
N-ethyl perfluorooctanesulfonamide	NEtFOSA	4151-50-2	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.99	U	1	U
Perfluorooctanesulfonamide	PFOSA	754-91-6	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.99	U	1	U
N-methyl perfluorooctanesulfonamidoacetic acid	NMeFOSAA	2355-31-9	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.99	U	1	U
N-ethyl perfluorooctanesulfonamidoacetic acid	NEtFOSAA	2991-50-6	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.99	U	1	U
N-methyl perfluorooctanesulfonamidoethanol	NMeFOSE	24448-09-7	—	5.3	U	5	U	4.9	U	50	UJ	5	U	5.1	U	5	U	50	UJ	5	U	4.9	U	5.1	U
N-ethyl perfluorooctanesulfonamidoethanol	NEtFOSE	1691-99-2	—	5.3	U	5	U	4.9	U	50	UJ	5	U	5.1	U	5	U	50	UJ	5	U	4.9	U	5.1	U
Hexafluoropropylene oxide dimer acid	HFPO-DA	13252-13-6	1.5	0.75	U	0.7	U	0.69	U	7	UJ	0.7	U	0.71	U	0.7	U	7	UJ	0.7	U	0.69	U	0.71	U
4,8-Dioxa-3H-perfluorononanoic acid	ADONA	919005-14-4	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.99	U	1	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9Cl-PF3ONS	756426-58-1	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.99	U	1	U
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS	763051-92-9	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.99	U	1	U
3-Perfluoropropyl propanoic acid	3:3FTCA	356-02-5	—	2.1	U	2	U	2	U	20	UJ	2	U	2	U	2	U	20	UJ	2	U	20	U	2	U
2H,2H,3H,3H-Perfluorooctanoic acid	5:3FTCA	914637-49-3	—	5.3	U	5	U	4.9	U	50	UJ	5	U	5.1	U	2.6	J	50	UJ	5	U	4.9	U	5.1	U
3-Perfluoroheptyl propanoic acid	7:3FTCA	812-70-4	—	5.3	U	5	U	4.9	U	50	UJ	5	U	5.1	U	5	U	50	UJ	5	U	4.9	U	5.1	U
Perfluoro(2-ethoxyethane)sulfonic acid	PFEESA	113507-82-7	—	1.1	UJ	1	U	0.99	UJ	10	UJ	1	U	1	UJ	1	U	10	UJ	1	UJ	0.99	U	1	U
Perfluoro-4-methoxybutanoic acid	PFMBA	863090-89-5	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	9.9	U	1	U
Perfluoro-3-methoxypropanoic acid	PFMPA	377-73-1	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	9.9	U	1	U
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	151772-58-6	—	1.1	UJ	1	UJ	0.99	UJ	10	UJ	1	UJ	1	UJ	1	U	10	UJ	1	UJ	0.99	U	1	U
Perfluoropropanoic acid	PFPPrA	422-64-0	980	6.7	J	5	U	4.5	J	1100	J	11		29		45		1600	J	9.4	J	44		5.1	U
Bis(trifluoromethylsulfonyl)amine	TSFI	82113-65-3	590	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.99	U	1	U
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5	—	1.1	U	1	U	0.99	U	10	UJ	1	U	1	U	1	U	10	UJ	1	U	0.99	U	1	U
Perfluorooctadecanoic Acid	PFODA	16517-11-6	—	1.5	U	1.4	U	1.4	U	14	UJ	1.4	U	1.4	U	1.4	U	14	UJ	1.4	U	1.4	U	1.4	U

Summary of the PFAS Remedial Investigation's Third Quarter Groundwater Monitoring (cont'd)
Data Table - Groundwater Results Round III - RI PFAS Release, RHBFSF, JBPHH Oahu HI

Location				OWDFMW07B		OWDFMW07C		OWDFMW08A		OWDFMW08B		OWDFMW08B		PFMW01B		RHMW01R		RHMW02		RHMW02		RHMW03		RHMW04	
COC ID				JV184		JV185		JV186		JV187		JV188		JV191		JV144		JV145		JV146		JV147		JV148	
Matrix				WG		WG		WG		WG		WG		WG		WG		WG		WG		WG		WG	
Sample Type				N		N		N		N		FD		N		N		N		FD		N		N	
Sample Date				4/2/2025		4/7/2025		4/29/2025		4/3/2025		4/3/2025		4/4/2025		4/18/2025		4/18/2025		4/18/2025		4/23/2025		4/28/2025	
Chemical	Abbr.	Cas No.	PSL ^a	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Perfluorobutanoic acid	PFBA	375-22-4	1800	30		3.9		1.9	U	26	J	26	J	200		60		2	U	1.9	U	1.2	J	2	U
Perfluoropentanoic acid	PFPeA	2706-90-3	—	49		2.9		0.97	U	39	J	45	J	760		0.99	U	0.98	U	0.97	U	3.1		0.98	U
Perfluorohexanoic acid	PFHxA	307-24-4	990	26		1	J	0.97	U	26	J	25	J	1300		0.99	U	0.98	U	0.97	U	2.1		0.98	U
Perfluoroheptanoic acid	PFHpA	375-85-9	—	23		0.56	J	0.97	U	19	J	20	J	150	J	0.99	U	0.98	U	0.97	U	1.3	J	0.98	U
Perfluorooctanoic acid	PFOA	335-67-1	4	26		3		0.97	UJ	21	J	20	J	29		0.99	U	0.98	U	0.97	U	0.87	UJ	0.98	UJ
Perfluorononanoic acid	PFNA	375-95-1	5.9	7.4		0.96	J	0.97	U	3.7	J	3.7	J	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorodecanoic acid	PFDA	335-76-2	0.52	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluoroundecanoic acid	PFUnA	2058-94-8	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorododecanoic acid	PFDoA	307-55-1	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorotridecanoic acid	PFTTrDA	72629-94-8	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorotetradecanoic acid	PFTeDA	376-06-7	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorobutanesulfonic acid	PFBS	375-73-5	600	17		1.9		0.97	U	12	J	11	J	34		0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluoropentanesulfonic acid	PFPeS	2706-91-4	—	1.3	J	0.78	J	0.97	U	0.89	J	0.99	J	46		0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorohexanesulfonic acid	PFHxS	355-46-4	10	17		11		0.91	J	9.6	J	9.4	J	240		0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluoroheptanesulfonic acid	PFHpS	375-92-8	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	9.8	J	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorooctanesulfonic acid	PFOS	1763-23-1	4	16		5.5		0.6	J	17	J	19	J	290		0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorononanesulfonic acid	PFNS	68259-12-1	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorodecanesulfonic acid	PFDS	335-77-3	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorododecanesulfonic acid	PFDoS	79780-39-5	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid	4:2 FTS	757124-72-4	—	2	U	1.9	U	1.9	U	2	UJ	2	UJ	42		2	U	2	U	1.9	U	1.7	U	2	U
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	6:2 FTS	27619-97-2	—	2	U	1.9	U	1.9	U	2.9	J	4	J	22000		4.1		9.4		11		2	J	2	U
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid	8:2 FTS	39108-34-4	—	2	U	1.9	U	1.9	U	2	UJ	2	UJ	20	U	2	U	2	U	1.9	U	1.7	U	2	U
N-methyl perfluorooctanesulfonamide	NMeFOSA	31506-32-8	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
N-ethyl perfluorooctanesulfonamide	NEtFOSA	4151-50-2	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorooctanesulfonamide	PFOSA	754-91-6	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
N-methyl perfluorooctanesulfonamidoacetic acid	NMeFOSAA	2355-31-9	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
N-ethyl perfluorooctanesulfonamidoacetic acid	NEtFOSAA	2991-50-6	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
N-methyl perfluorooctanesulfonamidoethanol	NMeFOSE	24448-09-7	—	5.1	U	4.8	U	4.8	U	5.1	UJ	5	UJ	50	U	4.9	U	4.9	U	4.9	U	4.4	U	4.9	U
N-ethyl perfluorooctanesulfonamidoethanol	NEtFOSE	1691-99-2	—	5.1	U	4.8	U	4.8	U	5.1	UJ	5	UJ	50	U	4.9	U	4.9	U	4.9	U	4.4	U	4.9	U
Hexafluoropropylene oxide dimer acid	HFPO-DA	13252-13-6	1.5	0.71	U	0.68	U	0.68	U	0.71	UJ	0.7	UJ	7	U	0.69	U	0.69	U	0.68	U	0.61	U	0.69	U
4,8-Dioxa-3H-perfluorononanoic acid	ADONA	919005-14-4	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9Cl-PF3ONS	756426-58-1	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS	763051-92-9	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
3-Perfluoropropyl propanoic acid	3:3FTCA	356-02-5	—	2	U	1.9	U	1.9	U	2	UJ	2	UJ	42		2	U	2	U	1.9	U	1.7	U	2	U
2H,2H,3H,3H-Perfluorooctanoic acid	5:3FTCA	914637-49-3	—	5.1	U	4.8	U	4.8	U	5.1	UJ	5	UJ	1900		4.9	U	4.9	U	4.9	U	4.4	U	4.9	U
3-Perfluoroheptyl propanoic acid	7:3FTCA	812-70-4	—	5.1	U	4.8	U	4.8	U	5.1	UJ	5	UJ	50	U	4.9	U	4.9	U	4.9	U	4.4	U	4.9	U
Perfluoro(2-ethoxyethane)sulfonic acid	PFEESA	113507-82-7	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluoro-4-methoxybutanoic acid	PFMBA	863090-89-5	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluoro-3-methoxypropanoic acid	PFMPA	377-73-1	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	151772-58-6	—	1	UJ	0.97	UJ	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluoropropanoic acid	PFPPrA	422-64-0	980	35		9.8		4.8	U	28	J	32	J	50	U	4.9	U	280		270		4.4	U	4.9	U
Bis(trifluoromethylsulfonyl)amine	TSFI	82113-65-3	590	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5	—	1	U	0.97	U	0.97	U	1	UJ	1	UJ	10	U	0.99	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorooctadecanoic Acid	PFODA	16517-11-6	—	1.4	U	1.4	U	1.4	U	1.4	UJ	1.4	UJ	14	U	1.4	U	1.4	U	1.4	U	1.2	U	1.4	U

Summary of the PFAS Remedial Investigation's Third Quarter Groundwater Monitoring (cont'd)
Data Table - Groundwater Results Round III - RI PFAS Release, RHBFSF, JBPHH Oahu HI

Location				RHMW05		RHMW06		RHMW07		RHMW08		RHMW17		RHMW17D		RHMW17S		RHMW17S		RHMW18		RHMW20		RHMW21	
COC ID				JV149		JV150		JV151		JV152		JV153		JV154		JV155		JV156		JV157		JV158		JV159	
Matrix				WG		WG		WG		WG		WG		WG		WG		WG		WG		WG		WG	
Sample Type				N		N		N		N		N		N		N		FD		N		N		N	
Sample Date				4/23/2025		4/21/2025		4/3/2025		5/9/2025		4/25/2025		4/25/2025		4/25/2025		4/25/2025		4/24/2025		4/29/2025		4/18/2025	
Chemical	Abbr.	Cas No.	PSL ^a	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Perfluorobutanoic acid	PFBA	375-22-4	1800	1.7	U	2	U	2	U	21	U	1.8	U	20	U	12		9		0.9	J	2	U	1.9	U
Perfluoropentanoic acid	PFPeA	2706-90-3	—	0.88	J	1	U	1	U	4.3		0.77	J	0.85	U	0.86	U	0.97	U	0.66	J	1	U	4	
Perfluorohexanoic acid	PFHxA	307-24-4	990	0.76	J	1	U	1	U	2.4	J	0.49	J	0.85	U	0.86	U	0.97	U	0.89	U	1	U	1.1	J
Perfluoroheptanoic acid	PFHpA	375-85-9	—	0.49	J	1	U	1	U	11	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluorooctanoic acid	PFOA	335-67-1	4	0.87	U	1	U	1	U	0.64	J	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	UJ	0.96	U
Perfluorononanoic acid	PFNA	375-95-1	5.9	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluorodecanoic acid	PFDA	335-76-2	0.52	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluoroundecanoic acid	PFUnA	2058-94-8	—	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluorododecanoic acid	PFDoA	307-55-1	—	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluorotridecanoic acid	PFTTrDA	72629-94-8	—	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluorotetradecanoic acid	PFTeDA	376-06-7	—	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluorobutanesulfonic acid	PFBS	375-73-5	600	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluoropentanesulfonic acid	PFPeS	2706-91-4	—	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluorohexanesulfonic acid	PFHxS	355-46-4	10	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluoroheptanesulfonic acid	PFHpS	375-92-8	—	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluorooctanesulfonic acid	PFOS	1763-23-1	4	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluorononanesulfonic acid	PFNS	68259-12-1	—	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluorodecanesulfonic acid	PFDS	335-77-3	—	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluorododecanesulfonic acid	PFDoS	79780-39-5	—	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid	4:2 FTS	757124-72-4	—	1.7	U	2	U	2	U	2.1	U	1.8	U	1.7	U	1.7	U	1.9	U	1.8	U	2	U	1.9	U
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	6:2 FTS	27619-97-2	—	18		2	U	2	U	16	J	1.8	U	2.2	J	1.9	J	1.4	J	1.8	U	2	U	2	J
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid	8:2 FTS	39108-34-4	—	1.7	U	2	U	2	U	2.1	U	1.8	U	1.7	U	1.7	U	1.9	U	1.8	U	2	U	1.9	U
N-methyl perfluorooctanesulfonamide	NMeFOSA	31506-32-8	—	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
N-ethyl perfluorooctanesulfonamide	NEtFOSA	4151-50-2	—	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluorooctanesulfonamide	PFOSA	754-91-6	—	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
N-methyl perfluorooctanesulfonamidoacetic acid	NMeFOSAA	2355-31-9	—	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
N-ethyl perfluorooctanesulfonamidoacetic acid	NEtFOSAA	2991-50-6	—	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
N-methyl perfluorooctanesulfonamidoethanol	NMeFOSE	24448-09-7	—	4.3	U	5.1	U	5.1	U	5.3	U	4.6	U	4.2	U	4.3	U	4.8	U	4.4	U	5	U	4.8	U
N-ethyl perfluorooctanesulfonamidoethanol	NEtFOSE	1691-99-2	—	4.3	U	5.1	U	5.1	U	5.3	U	4.6	U	4.2	U	4.3	U	4.8	U	4.4	U	5	U	4.8	U
Hexafluoropropylene oxide dimer acid	HFPO-DA	13252-13-6	1.5	0.61	U	0.71	U	0.71	U	7.5	U	0.64	U	0.59	U	0.6	U	0.68	U	0.62	U	0.71	U	0.67	U
4,8-Dioxa-3H-perfluorononanoic acid	ADONA	919005-14-4	—	0.87	U	1	U	1	U	11	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9Cl-PF3ONS	756426-58-1	—	0.87	U	1	U	1	U	11	UJ	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS	763051-92-9	—	0.87	U	1	U	1	U	11	UJ	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
3-Perfluoropropyl propanoic acid	3:3FTCA	356-02-5	—	1.7	U	2	U	2	U	2.1	UJ	1.8	U	1.7	U	1.7	U	1.9	U	1.8	U	2	U	1.9	U
2H,2H,3H,3H-Perfluorooctanoic acid	5:3FTCA	914637-49-3	—	4.3	U	5.1	U	5.1	U	5.3	U	4.6	U	4.2	U	4.3	U	4.8	U	4.4	U	5	U	4.8	U
3-Perfluoroheptyl propanoic acid	7:3FTCA	812-70-4	—	4.3	U	5.1	U	5.1	U	5.3	U	4.6	U	4.2	U	4.3	U	4.8	U	4.4	U	5	U	4.8	U
Perfluoro(2-ethoxyethane)sulfonic acid	PFEESA	113507-82-7	—	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluoro-4-methoxybutanoic acid	PFMBA	863090-89-5	—	0.87	U	1	U	1	U	1.1	UJ	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluoro-3-methoxypropanoic acid	PFMPA	377-73-1	—	0.87	U	1	U	1	U	1.1	UJ	0.92	U	5.4		0.86	U	0.97	U	0.89	U	1	U	0.96	U
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	151772-58-6	—	0.87	U	1	U	1	U	1.1	UJ	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluoropropanoic acid	PFPPrA	422-64-0	980	4.3	U	5.1	U	5.1	U	53	UJ	2.9	J	50	U	4.3	U	4.8	U	50	U	5	U	4.8	U
Bis(trifluoromethylsulfonyl)amine	TSFI	82113-65-3	590	0.87	U	1	U	1	U	11	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5	—	0.87	U	1	U	1	U	1.1	U	0.92	U	0.85	U	0.86	U	0.97	U	0.89	U	1	U	0.96	U
Perfluorooctadecanoic Acid	PFODA	16517-11-6	—	1.2	U	1.4	U	1.4	U	1.5	U	1.3	U	1.2	U	1.2	U	1.4	U	1.2	U	1.4	U	1.3	U

Summary of the PFAS Remedial Investigation's Third Quarter Groundwater Monitoring (cont'd)
Data Table - Groundwater Results Round III - RI PFAS Release, RHBFSF, JBPHH Oahu HI

Location				RHMW2254-01		RHP01		RHP02		RHP03		RHP04A		RHP04B		RHP04C		RHP05		RHP06		RHP07		RHP08	
COC ID				JV160		JV161		JV162		JV163		JV164		JV165		JV166		JV167		JV168		JV169		JV170	
Matrix				WG		WG		WG		WG		WG		WG		WG		WG		WG		WG		WG	
Sample Type				N		N		N		N		N		N		N		N		N		N		N	
Sample Date				4/21/2025		4/22/2025		4/22/2025		4/22/2025		4/21/2025		4/28/2025		4/28/2025		4/22/2025		4/22/2025		4/23/2025		4/22/2025	
Chemical	Abbr.	Cas No.	PSL ^a	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Perfluorobutanoic acid	PFBA	375-22-4	1800	2	U	15		15		7.7		1.9	J	2	U	2	U	1.2	J	5.5		9.5		1.6	J
Perfluoropentanoic acid	PFPeA	2706-90-3	—	0.98	U	10		12		6.8		1.1	J	0.63	J	1.3	J	1.5	J	7.8		5.4		2.4	
Perfluorohexanoic acid	PFHxA	307-24-4	990	0.78	J	4.3		6.3		3.1		0.63	J	1	U	1	U	1.3	J	5.3		2.8		1.7	J
Perfluoroheptanoic acid	PFHpA	375-85-9	—	0.98	U	3.8		4.9		3.2		0.66	J	1	U	1	U	1	J	3.6		2.7		1.3	J
Perfluorooctanoic acid	PFOA	335-67-1	4	1.1	J	7.1		8.5		4.3		1.6	J	1	U	1	U	3.9		4.2		4.5		2.8	
Perfluorononanoic acid	PFNA	375-95-1	5.9	0.98	U	1.7	J	2		0.76	J	0.95	J	1	U	1	U	1.3	J	0.83	J	1.1	J	0.98	U
Perfluorodecanoic acid	PFDA	335-76-2	0.52	0.98	U	0.56	J	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluoroundecanoic acid	PFUnA	2058-94-8	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorododecanoic acid	PFDoA	307-55-1	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorotridecanoic acid	PFTTrDA	72629-94-8	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorotetradecanoic acid	PFTeDA	376-06-7	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorobutanesulfonic acid	PFBS	375-73-5	600	0.75	J	2.1		4.5		2.7		0.88	J	1	U	1	U	1.1	J	2.3		1.6	J	1.5	J
Perfluoropentanesulfonic acid	PFPeS	2706-91-4	—	0.98	U	0.53	J	0.52	J	0.97	U	0.6	J	1	U	1	U	0.98	U	0.97	U	0.51	J	0.98	U
Perfluorohexanesulfonic acid	PFHxS	355-46-4	10	0.91	J	5.7		5.8		5.4		5.4		1	U	1	U	5.1		3.5		5.6		3.1	
Perfluoroheptanesulfonic acid	PFHpS	375-92-8	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorooctanesulfonic acid	PFOS	1763-23-1	4	0.85	J	14		16		7.6		2.2		1	U	1	U	4.5		5.7		13		2.7	
Perfluorononanesulfonic acid	PFNS	68259-12-1	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorodecanesulfonic acid	PFDS	335-77-3	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorododecanesulfonic acid	PFDoS	79780-39-5	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid	4:2 FTS	757124-72-4	—	2	U	2	U	1.9	U	1.9	U	1.9	U	2	U	2	U	2	U	1.9	U	1.7	U	2	U
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	6:2 FTS	27619-97-2	—	2	U	1.5	J	1.9	U	1.9	U	1.9	U	3.9	J	2	U	2	U	33		1.7	U	2	U
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid	8:2 FTS	39108-34-4	—	2	U	2	U	1.9	U	1.9	U	1.9	U	2	U	2	U	2	U	1.9	U	1.2	J	2	U
N-methyl perfluorooctanesulfonamide	NMeFOSA	31506-32-8	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
N-ethyl perfluorooctanesulfonamide	NEtFOSA	4151-50-2	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorooctanesulfonamide	PFOSA	754-91-6	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
N-methyl perfluorooctanesulfonamidoacetic acid	NMeFOSAA	2355-31-9	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
N-ethyl perfluorooctanesulfonamidoacetic acid	NEtFOSAA	2991-50-6	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
N-methyl perfluorooctanesulfonamidoethanol	NMeFOSE	24448-09-7	—	4.9	U	5	U	4.9	U	4.9	U	4.8	U	5.1	U	5	U	4.9	U	4.8	U	4.4	U	4.9	U
N-ethyl perfluorooctanesulfonamidoethanol	NEtFOSE	1691-99-2	—	4.9	U	5	U	4.9	U	4.9	U	4.8	U	5.1	U	5	U	4.9	U	4.8	U	4.4	U	4.9	U
Hexafluoropropylene oxide dimer acid	HFPO-DA	13252-13-6	1.5	0.68	U	0.7	U	0.68	U	0.68	U	0.67	U	0.72	U	0.7	U	0.68	U	0.68	U	0.61	U	0.69	U
4,8-Dioxa-3H-perfluorononanoic acid	ADONA	919005-14-4	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9Cl-PF3ONS	756426-58-1	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS	763051-92-9	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
3-Perfluoropropyl propanoic acid	3:3FTCA	356-02-5	—	2	U	2	U	1.9	U	1.9	U	1.9	U	2	U	2	U	2	U	1.9	U	1.7	U	2	U
2H,2H,3H,3H-Perfluorooctanoic acid	5:3FTCA	914637-49-3	—	4.9	U	5	U	4.9	U	4.9	U	4.8	U	5.1	U	5	U	4.9	U	4.8	U	4.4	U	4.9	U
3-Perfluoroheptyl propanoic acid	7:3FTCA	812-70-4	—	4.9	U	5	U	4.9	U	4.9	U	4.8	U	5.1	U	5	U	4.9	U	4.8	U	4.4	U	4.9	U
Perfluoro(2-ethoxyethane)sulfonic acid	PFEESA	113507-82-7	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluoro-4-methoxybutanoic acid	PFMBA	863090-89-5	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluoro-3-methoxypropanoic acid	PFMPA	377-73-1	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	151772-58-6	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluoropropanoic acid	PFPPrA	422-64-0	980	3.4	J	29		33		13		6.6	J	5.1	U	5	U	5.1	J	15		21		4.9	U
Bis(trifluoromethylsulfonyl)amine	TSFI	82113-65-3	590	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5	—	0.98	U	1	U	0.97	U	0.97	U	0.96	U	1	U	1	U	0.98	U	0.97	U	0.87	U	0.98	U
Perfluorooctadecanoic Acid	PFODA	16517-11-6	—	1.4	U	1.4	U	1.4	U	1.4	U	1.3	U	1.4	U	1.4	U	1.4	U	1.4	U	1.2	U	1.4	U

Summary of the PFAS Remedial Investigation's Third Quarter Groundwater Monitoring (cont'd)
Data Table - Groundwater Results Round III - RI PFAS Release, RHBFSF, JBPHH Oahu HI

				Location		RHP08	RHP08B
				COC ID		JV171	JV172
				Matrix		WG	WG
				Sample Type		FD	N
				Sample Date		4/22/2025	4/25/2025
Chemical	Abbr.	Cas No.	PSL ^a	Result	Q	Result	Q
Perfluorobutanoic acid	PFBA	375-22-4	1800	1.5	J	2	U
Perfluoropentanoic acid	PFPeA	2706-90-3	—	2.1		0.98	U
Perfluorohexanoic acid	PFHxA	307-24-4	990	1.7	J	0.98	U
Perfluoroheptanoic acid	PFHpA	375-85-9	—	1.1	J	0.98	U
Perfluorooctanoic acid	PFOA	335-67-1	4	2.8		0.98	U
Perfluorononanoic acid	PFNA	375-95-1	5.9	0.97	U	0.98	U
Perfluorodecanoic acid	PFDA	335-76-2	0.52	0.97	U	0.98	U
Perfluoroundecanoic acid	PFUnA	2058-94-8	—	0.97	U	0.98	U
Perfluorododecanoic acid	PFDoA	307-55-1	—	0.97	U	0.98	U
Perfluorotridecanoic acid	PFTTrDA	72629-94-8	—	0.97	U	0.98	U
Perfluorotetradecanoic acid	PFTeDA	376-06-7	—	0.97	U	0.98	U
Perfluorobutanesulfonic acid	PFBS	375-73-5	600	1.6	J	0.98	U
Perfluoropentanesulfonic acid	PFPeS	2706-91-4	—	0.97	U	0.98	U
Perfluorohexanesulfonic acid	PFHxS	355-46-4	10	3		0.98	U
Perfluoroheptanesulfonic acid	PFHpS	375-92-8	—	0.97	U	0.98	U
Perfluorooctanesulfonic acid	PFOS	1763-23-1	4	2.5		0.98	U
Perfluorononanesulfonic acid	PFNS	68259-12-1	—	0.97	U	0.98	U
Perfluorodecanesulfonic acid	PFDS	335-77-3	—	0.97	U	0.98	U
Perfluorododecanesulfonic acid	PFDoS	79780-39-5	—	0.97	U	0.98	U
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid	4:2 FTS	757124-72-4	—	1.9	U	2	U
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	6:2 FTS	27619-97-2	—	1.9	U	2	U
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid	8:2 FTS	39108-34-4	—	1.9	U	2	U
N-methyl perfluorooctanesulfonamide	NMeFOSA	31506-32-8	—	0.97	U	0.98	U
N-ethyl perfluorooctanesulfonamide	NEtFOSA	4151-50-2	—	0.97	U	0.98	U
Perfluorooctanesulfonamide	PFOSA	754-91-6	—	0.97	U	0.98	U
N-methyl perfluorooctanesulfonamidoacetic acid	NMeFOSAA	2355-31-9	—	0.97	U	0.98	U
N-ethyl perfluorooctanesulfonamidoacetic acid	NEtFOSAA	2991-50-6	—	0.97	U	0.98	U
N-methyl perfluorooctanesulfonamidoethanol	NMeFOSE	24448-09-7	—	4.9	U	4.9	U
N-ethyl perfluorooctanesulfonamidoethanol	NEtFOSE	1691-99-2	—	4.9	U	4.9	U
Hexafluoropropylene oxide dimer acid	HFPO-DA	13252-13-6	1.5	0.68	U	0.69	U
4,8-Dioxa-3H-perfluorononanoic acid	ADONA	919005-14-4	—	0.97	U	0.98	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9Cl-PF3ONS	756426-58-1	—	0.97	U	0.98	U
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS	763051-92-9	—	0.97	U	0.98	U
3-Perfluoropropyl propanoic acid	3:3FTCA	356-02-5	—	1.9	U	2	U
2H,2H,3H,3H-Perfluorooctanoic acid	5:3FTCA	914637-49-3	—	4.9	U	4.9	U
3-Perfluoroheptyl propanoic acid	7:3FTCA	812-70-4	—	4.9	U	4.9	U
Perfluoro(2-ethoxyethane)sulfonic acid	PFEESA	113507-82-7	—	0.97	U	0.98	U
Perfluoro-4-methoxybutanoic acid	PFMBA	863090-89-5	—	0.97	U	0.98	U
Perfluoro-3-methoxypropanoic acid	PFMPA	377-73-1	—	0.97	U	0.98	U
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	151772-58-6	—	0.97	U	0.98	U
Perfluoropropanoic acid	PFPPrA	422-64-0	980	4.9	U	4.9	U
Bis(trifluoromethylsulfonyl)amine	TSFI	82113-65-3	590	0.97	U	0.98	U
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5	—	0.97	U	0.98	U
Perfluorooctadecanoic Acid	PFODA	16517-11-6	—	1.4	U	1.4	U

Notes:

Units are in parts per trillion (ppt). Analysis conducted using EPA Method 1633 (EPA 2024).

^a PSLs consistent with Assistant Secretary of Defense Memorandum (DoD 2025a).

— not applicable

Bold and shaded analyte was detected above the PSLs

Bold analyte was detected

Grey analyte is reported as a non-detect

abbr. abbreviated chemical name

Cas No. chemical abstracts service registry number

COC chain of custody

D The reported value is from a dilution.

EPA Environmental Protection Agency, United States

FD field duplicate sample

H sample was prepped or analyzed beyond the specified holding time

ID identification

J the reported result was an estimated value with an unknown bias

J1 Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

LOD limit of detection

M manual integrated compound

N primary sample

OWDF former oily waste disposal facility

PSL project screening level

ppt parts per trillion

Q data qualifier

RSL regional screening level

U the analyte was not detected and was reported as less than the LOD

UQ the analyte was not detected and was reported as less than the LOD. One or more quality control criteria failed.

WG groundwater

References:

DoD 2025 *Investigating Per- and Polyfluoroalkyl Substances within the Department of Defense Cleanup Program* . Memorandum : Office of the Assistant Secretary of Defense January 21, 2025.

EPA 2024 *EPA Method 1633: Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS* . Environmental Protection Agency, United States, January 2024.

