

Table 4-6
Shallow Groundwater PFAS Analytical Results

PFAS CERCLA Remedial Investigation Site Characterization Summary Report
Former Loring Air Force Base
Limestone, ME

Drainage Basin:			Butterfield Brook Drainage						Greenlaw Brook Drainage					
Location ID:			HSSG08	B01		B12	B13	HSSG06	A13	HSSG01	HSSG02	A02	A02-01	A02-02
Sample ID:			LORNG_HSSG08_0722 2022	F-GWB01_20240522	F-GWDUP01_20240522	F-GWB12_20240910	F-GWB13_20240910	LORNG_HSSG06_0722 2022	F-GWA13_20240910	LORNG_HSSG01_0720 2022	LORNG_HSSG02_0721 2022	F-GWA02_20240508	F-GWA02-01_20240521	F-GWA02-02_20240521
Sample Date:			7/22/2022	5/22/2024	5/22/2024	9/10/2024	9/10/2024	7/22/2022	9/10/2024	7/20/2022	7/21/2022	5/8/2024	5/21/2024	5/21/2024
Sample Depth (ft bgs):			0.00-1.00	0.00-1.00	0.00-1.00	0.00-0.50	0.00-0.50	0.00-1.00	0.00-0.50	0.00-1.00	0.00-1.00	0.00-0.50	0.00-1.00	0.00-1.00
Sample Type:			N	N	FD	N	N	N	N	N	N	N	N	N
Latitude:			46.9582518	46.93173038	46.93173038	46.93176411	46.93042089	46.9324087	46.92863236	46.9565897	46.9443486	46.92837012	46.92866341	46.92863491
Longitude:			-67.883244	-67.86545156	-67.86545156	-67.86561631	-67.86560543	-67.8725586	-67.87738371	-67.9100051	-67.9094684	-67.87807014	-67.87721254	-67.8772326
Analyte	USEPA Tapwater RSL (ng/L)	MCL (ng/L)	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L
Perfluorobutanoic acid (PFBA)	1800	-	20 U	6.3 J	6.8 J	4.2 J	4.1 U	54.5	6.2 J	7.2 J	88.6	6 J	9.9 J	33 U
Perfluoropentanoic acid (PFPeA)	-	-	10 U	1.7 J	2 J	4.9 J	20 U	24.1	12.2	3.5 J	94.7	1.4 J	3.2 J	17 U
Perfluorohexanoic acid (PFHxA)	990	-	10 U	1.2 J	1.5 J	1.4 J	2 U	20.7	1.2 J	1.8 U	32.8	2 U	0.96 J	17 U
Perfluoroheptanoic acid (PFHpA)	-	-	10 U	1.6 J	1.7 J	1.3 J	2 U	17.3	1.1 J	2.7 J	24.7	0.73 J	1.5 J	17 U
Perfluorooctanoic acid (PFOA)	0.0027	4	10 U	2.2 J	2.5 J	2.2 U	1 U	38.4	1.9 U	4.9	17.9	0.92 J	1.1 U	8.3 U
Perfluorononanoic acid (PFNA)	5.9	10	10 U	0.63 J	0.76 J	0.8 J	2 U	14.5	1.2 J	0.96 J	6 J	0.87 J	0.86 J	17 U
Perfluorodecanoic acid (PFDA)	0.004	-	10 U	1.9 U	2 U	1.9 U	2 U	2.8 U	2 U	1.8 U	3.6 U	2 U	1.9 U	17 U
Perfluoroundecanoic acid (PFUnA)	-	-	10 U	1.9 U	2 U	1.9 U	2 U	2.8 U	2 U	1.8 U	3.6 U	2 U	1.9 U	17 U
Perfluorododecanoic acid (PFDoA)	-	-	10 U	1.9 U	2 U	1.9 U	2 U	2.8 UJ	2 U	1.8 U	3.6 U	2 U	1.9 U	17 U
Perfluorotridecanoic acid (PFTrDA)	-	-	10 U	1.9 U	2 U	1.9 U	2 U	2.8 UJ	2 U	1.8 U	3.6 U	2 U	1.9 U	17 U
Perfluorotetradecanoic acid (PFTeDA)	-	-	10 U	1.9 U	2 U	1.9 U	2 U	2.8 UJ	2 U	1.8 UJ	3.6 UJ	2 U	1.9 U	17 U
Perfluorobutanesulfonic acid (PFBS)	600	-	10 U	1.9 U	2 U	1.9 U	2 U	2.7 J	2 U	2.1 J	5.8 J	2 U	1.9 U	17 U
Perfluoropentanesulfonic acid (PFPeS)	-	-	10 U	3.8 U	3.9 U	3.8 U	4.1 U	2.8 U	1.8 U	3.6 U	4 U	3.8 U	33 U	
Perfluorohexanesulfonic acid (PFHxS)	39	10	42.2	4.3	3.9	3.2 J	2 U	38.9	0.85 J	7.7	24.9	2 U	1.9 U	17 U
Perfluoroheptanesulfonic acid (PFHpS)	-	-	10 U	1.9 U	2 U	1.9 U	2 U	2.8 U	2 U	1.8 U	3.6 U	2 U	1.9 U	17 U
Perfluorooctanesulfonic acid (PFOS)	0.2	4	58.3	3.2 J	3.4 J	2.3 J	2 U	51	1.3 J	9.6	135	2.5 J	2.4 J	17 U
Perfluorononanesulfonic acid (PFNS)	-	-	10 U	1.9 U	2 U	1.9 U	2 U	2.8 U	2 U	1.8 U	3.6 U	2 U	1.9 U	17 U
Perfluorodecanesulfonic acid (PFDS)	-	-	10 U	1.9 U	2 U	1.9 U	2 U	2.8 U	2 U	1.8 U	3.6 U	2 U	1.9 U	17 U
Perfluorododecanesulfonic acid (PFDoS)	-	-	NA	3.8 U	3.9 U	3.8 U	4.1 U	NA	4.1 U	NA	NA	4 U	3.8 U	33 U
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	-	-	20 U	38 U	39 U	7.7 U	8.2 U	5.6 U	8.2 U	3.6 U	7.1 U	8.1 U	38 U	67 U
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	-	-	20 U	7.7 U	7.8 U	7.7 U	8.2 U	5.6 U	8.2 U	3.6 U	7.1 U	8.1 U	7.5 U	67 U
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	-	-	20 U	7.7 U	7.8 U	7.7 U	8.2 U	5.6 U	8.2 U	3.6 U	7.1 U	8.1 U	7.5 U	67 U
Perfluorooctane sulfonamide (PFOSA)	-	-	10 U	1.9 U	0.72 J	1.9 U	2 U	2.8 UJ	2 U	1.8 UJ	3.6 UJ	2 U	1.9 U	17 U
N-methyl perfluorooctanesulfonamide (NMeFOSA)	-	-	20 UJ	3.8 U	3.9 U	3.8 U	4.1 U	0 R	4.1 U	0 R	0 R	4 U	3.8 UJ	33 U
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	-	-	NA	3.8 U	3.9 U	3.8 U	4.1 U	NA	4.1 U	NA	NA	4 UJ	3.8 U	33 U
N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	-	-	20 U	3.8 U	3.9 U	3.8 U	4.1 U	5.6 U	4.1 U	3.6 U	7.1 U	4 U	3.8 U	33 U
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	-	-	20 U	3.8 U	3.9 U	3.8 U	4.1 U	5.6 U	4.1 U	3.6 U	7.1 U	4 U	3.8 U	33 U
N-methyl perfluorooctanesulfonamidoethanol (NMeFOSE)	-	-	NA	19 UJ	20 UJ	19 U	20 U	NA	20 U	NA	NA	20 U	19 UJ	170 UJ
N-ethyl perfluorooctanesulfonamidoethanol (NEtFOSE)	-	-	NA	19 UJ	20 UJ	19 U	20 U	NA	20 U	NA	NA	20 U	19 UJ	170 UJ
Hexafluoropropylene oxide dimer acid (HFPO-DA)	1.5	10	NA	1.9 U	2 U	1.9 U	20 U	NA	2 U	NA	NA	2 U	1.9 U	17 U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	-	-	NA	3.8 U	3.9 U	3.8 U	41 U	NA	4.1 U	NA	NA	4 U	3.8 U	33 U
Perfluoro-3-methoxypropanoic acid (PFMPA)	-	-	NA	1.9 U	2 U	1.9 U	2 U	NA	2 U	NA	NA	2 U	1.9 U	17 U
Perfluoro-4-methoxybutanoic acid (PFMBA)	-	-	NA	3.8 U	3.9 U	3.8 U	41 U	NA	4.1 U	NA	NA	4 U	3.8 U	33 U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	-	-	NA	3.8 U	3.9 U	3.8 U	4.1 U	NA	4.1 U	NA	NA	4 U	3.8 U	33 U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9CI-PF3ONS)	-	-	NA	3.8 U	3.9 U	3.8 U	41 U	NA	4.1 U	NA	NA	4 U	3.8 U	33 U
11-Chlororeicosafuoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUds)	-	-	NA	3.8 U	3.9 U	3.8 U	41 U	NA	4.1 U	NA	NA	4 U	3.8 U	33 U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	-	-	NA	1.9 U	2 U	1.9 U	2 U	NA	2 U	NA	NA	2 U	1.9 U	17 U
3-Perfluoropropyl propanoic acid (3:3FTCA)	-	-	NA	9.6 U	9.8 U	9.6 U	100 U	NA	10 U	NA	NA	10 U	9.4 U	83 U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3FTCA)	-	-	NA	19 U	20 U	19 U	20 U	NA	20 U	NA	NA	20 U	19 U	170 U
3-Perfluoroheptyl propanoic acid (7:3FTCA)	-	-	NA	19 U	20 U	19 U	20 U	NA	20 U	NA	NA	20 U	19 U	170 U

Notes
See Table 1-1 for notes and Table 1-3 for information about screening levels.

Drainage Basin:			Greenlaw Brook Drainage											Reference Location
Location ID:			A07	C03	C04	C06	C09	C12	C13	HSSG03	HSSG04	HSSG05		PB01
Sample ID:			F-GWA07_20240522	F-GWC03_20240521	F-GWC04_20240508	F-GWC06_20240521	F-GWC09_20240523	F-GWC12_20240910	F-GWC13_20240910	LORNG_HSSG03_0722 2022	LORNG_HSSG04_0721 2022	LORNG_HSSG05_0721 2022	LORNG_HSSG05_0721 2022FD	F-GWPB01_20240510
Sample Date:			5/22/2024	5/21/2024	5/8/2024	5/21/2024	5/23/2024	9/10/2024	9/10/2024	7/22/2022	7/21/2022	7/21/2022	7/21/2022	5/10/2024
Sample Depth (ft bgs):			0.00-1.00	0.00-0.83	0.00-1.00	0.00-1.00	0.00-1.00	0.00-0.50	0.00-0.50	0.00-1.00	0.00-1.00	0.00-1.00	0.00-1.00	0.00-1.00
Sample Type:			N	N	N	N	N	N	N	N	N	N	FD	N
Latitude:			46.92896308	46.92686024	46.9254875	46.92734258	46.92582658	46.92734606	46.9268988	46.9400882	46.9265092	46.9293633	46.9293633	46.8269434
Longitude:			-67.88094438	-67.89532954	-67.8877632	-67.89903787	-67.89534254	-67.89908929	-67.89532806	-67.9078243	-67.8931214	-67.8791691	-67.8791691	-68.0085908
Analyte	USEPA Tapwater RSL (ng/L)	MCL (ng/L)	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L
Perfluorobutanoic acid (PFBA)	1800	-	9.5 J	72.9	6.2 J	24.1	19.9	7.8 J	9.4 J	2.8 J	23.7	13.5	14.6 J	4 U
Perfluoropentanoic acid (PFPeA)	-	-	2.4 J	140	1.4 J	41.4	15.7	18.8	14.5 J	2.6 U	7.8	4.1	5.2	2 U
Perfluorohexanoic acid (PFHxA)	990	-	1.5 J	286	1.8 J	37.8	8.1	31	54.7	2.6 U	9.5	2 U	2 U	2 U
Perfluoroheptanoic acid (PFHpA)	-	-	2.3 J	71.3	1.1 J	27.4	11.9	12.6	12.7	2.6 U	9.8	4.3	4.4	2 U
Perfluorooctanoic acid (PFOA)	0.0027	4	3.2 J	172	2.2 J	39.7	15.6	30.4	27.7	1.5 J	15.6	4.2	4.6	0.81 J
Perfluorononanoic acid (PFNA)	5.9	10	1.6 J	18.3	0.69 J	5.1	4.9	2 J	3.8 J	2.6 U	3.2 J	3 J	3 J	2 U
Perfluorodecanoic acid (PFDA)	0.004	-	1.9 U	4.5	2 U	2 U	1.9 U	1.8 U	1 J	2.6 U	3.1 U	2 U	2 U	2 U
Perfluoroundecanoic acid (PFUnA)	-	-	1.9 U	1.9 U	2 U	2 U	1.9 U	1.8 U	2 U	2.6 U	3.1 U	2 U	2 U	2 U
Perfluorododecanoic acid (PFDoA)	-	-	1.9 U	1.9 U	2 U	2 U	1.9 U	1.8 U	2 U	2.6 U	3.1 U	2 U	2 U	2 U
Perfluorotridecanoic acid (PFTrDA)	-	-	1.9 U	1.9 U	2 U	2 U	1.9 U	1.8 U	2 U	2.6 U	3.1 U	2 U	2 U	2 U
Perfluorotetradecanoic acid (PFTeDA)	-	-	1.9 U	1.9 U	2 U	2 U	1.9 U	1.8 U	2 U	2.6 UJ	3.1 UJ	2 UJ	2 UJ	2 U
Perfluorobutanesulfonic acid (PFBS)	600	-	0.86 J	35.5	2 U	5.4	0.8 J	4.6	11.7	2.6 U	1.6 J	2 U	2 U	2 U
Perfluoropentanesulfonic acid (PFPeS)	-	-	3.8 U	48.2	4.1 U	7.6	3.8 U	5.9	13.3	2.6 U	3.1 U	2 U	2 U	4 U
Perfluorohexanesulfonic acid (PFHxS)	39	10	2.8 J	2370	9.3	153	10.1	149	475	2.6 U	17.9	8.4	8.1	2 U
Perfluoroheptanesulfonic acid (PFHpS)	-	-	1.9 U	23.2	2 U	3.6 J	0.54 J	3.7	4.9	2.6 U	3.1 U	2 U	2 U	2 U
Perfluorooctanesulfonic acid (PFOS)	0.2	4	2.3 J	1110	16.8	124	35.1	182	366	2.6 U	11.4	35.6	36	2 U
Perfluorononanesulfonic acid (PFNS)	-	-	1.9 U	5.7	2 U	2 U	1.9 U	1.8 U	2 U	2.6 U	3.1 U	2 U	2 U	2 U
Perfluorodecanesulfonic acid (PFDS)	-	-	1.9 U	1.9 U	2 U	2 U	1.9 U	1.8 U	2 U	2.6 U	3.1 U	2 U	2 U	2 U
Perfluorododecanesulfonic acid (PFDoS)	-	-	3.8 U	3.8 U	4.1 U	3.9 U	3.8 UJ	3.6 U	4 U	NA	NA	NA	NA	4 U
1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2FTS)	-	-	38 U	75 U	8.2 U	39 U	75 U	7.3 U	7.9 U	5.3 U	6.3 U	4 U	4 U	8 U
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2FTS)	-	-	7.5 U	75 U	8.2 U	7.8 U	75 U	4.2 J	49.1	5.3 U	6.3 U	4 U	4 U	8 U
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2FTS)	-	-	7.5 U	7.5 U	8.2 U	7.8 U	7.5 U	7.3 U	7.9 U	5.3 U	6.3 U	4 U	4 U	8 U
Perfluorooctane sulfonamide (PFOSA)	-	-	1.9 U	4.5 J+	2 U	2 U	1.9 U	1.8 U	2 U	2.6 UJ	3.1 UJ	2 UJ	2 UJ	2 U
N-methyl perfluorooctanesulfonamide (NMeFOSA)	-	-	3.8 U	3.8 UJ	4.1 U	3.9 U	3.8 U	3.6 U	4 U	0 R	0 R	0 R	0 R	4 U
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	-	-	3.8 U	3.8 U	4.1 UJ	3.9 U	3.8 U	3.6 U	4 U	NA	NA	NA	NA	4 UJ
N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	-	-	3.8 U	3.8 U	4.1 U	3.9 U	3.8 U	3.6 U	4 U	5.3 U	6.3 U	4 U	4 U	4 U
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	-	-	3.8 U	3.8 U	4.1 U	3.9 U	3.8 U	3.6 U	4 U	5.3 U	6.3 U	4 U	4 U	4 U
N-methyl perfluorooctanesulfonamidoethanol (NMeFOSE)	-	-	19 UJ	19 UJ	20 U	20 U	19 UJ	18 U	20 U	NA	NA	NA	NA	20 U
N-ethyl perfluorooctanesulfonamidoethanol (NEtFOSE)	-	-	19 UJ	19 UJ	20 U	20 U	19 UJ	18 U	20 U	NA	NA	NA	NA	20 U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	1.5	10	1.9 U	1.9 U	2 U	2 U	1.9 U	1.8 U	20 U	NA	NA	NA	NA	2 U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	-	-	3.8 U	3.8 U	4.1 U	3.9 U	3.8 U	3.6 U	40 U	NA	NA	NA	NA	4 U
Perfluoro-3-methoxypropanoic acid (PFMPA)	-	-	1.9 U	1.9 U	2 U	2 U	1.9 U	1.8 U	2 U	NA	NA	NA	NA	2 U
Perfluoro-4-methoxybutanoic acid (PFMBA)	-	-	3.8 U	3.8 U	4.1 U	3.9 U	3.8 U	3.6 U	40 U	NA	NA	NA	NA	4 U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	-	-	3.8 U	3.8 U	4.1 U	3.9 U	3.8 U	3.6 U	4 U	NA	NA	NA	NA	4 U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	-	-	3.8 U	3.8 U	4.1 U	3.9 U	3.8 U	3.6 U	40 U	NA	NA	NA	NA	4 U
11-Chlororeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	-	-	3.8 U	3.8 U	4.1 U	3.9 U	3.8 U	3.6 U	40 U	NA	NA	NA	NA	4 U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	-	-	1.9 U	1.9 U	2 U	2 U	1.9 U	1.8 U	2 U	NA	NA	NA	NA	2 U
3-Perfluoropropyl propanoic acid (3:3FTCA)	-	-	9.4 U	9.4 U	10 U	9.8 U	9.4 U	9.1 U	99 U	NA	NA	NA	NA	10 U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3FTCA)	-	-	19 U	19 U	20 U	20 U	19 U	18 U	20 U	NA	NA	NA	NA	20 U
3-Perfluoroheptyl propanoic acid (7:3FTCA)	-	-	19 U	19 U	20 U	20 U	19 U	18 U	20 U	NA	NA	NA	NA	20 U

Notes
See Table 1-1 for notes and Table 1-3 for information about screening levels.