

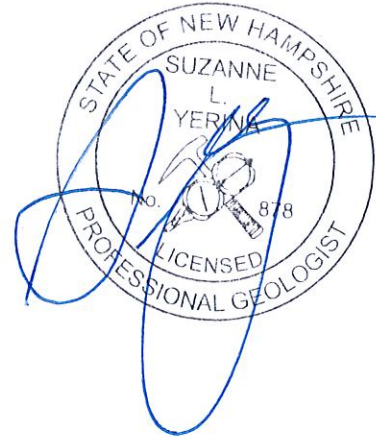
**DES Waste Management Division
29 Hazen Drive; PO Box 95
Concord, NH 03302-0095**

**January 2021
MEMO – FALL 2020 PRIVATE WATER
SUPPLY WELL SAMPLING RESULTS
COAKLEY LANDFILL SUPERFUND SITE
North Hampton and Greenland
New Hampshire**

**NHDES Site #: 198712001
Project Type: Superfund Site
Project Number: 0431**

**Prepared For:
New Hampshire Department of Environmental
Services
29 Hazen Drive
Concord, New Hampshire 03302-0095**

**Prepared By:
Haley Ward, Inc.
415 Lisbon Street
Lewiston, Maine 04240
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Contact Name: Suzanne Yerina
Contact Email: syerina@haleyward.com**



Date of Memo: (January 21, 2021)

January 21, 2021

Re: Fall 2020 Private Water Supply Well Sampling Results

Dear Sir/Madam:

The attached table includes a summary of the analytical results obtained for your water supply well sampled by CES, Inc. on behalf of the Coakley Landfill Group (CLG). These results include 1,4-dioxane and per- and polyfluoroalkyl substances (PFAS). Before the Fall of 2019, analysis of PFAS included six compounds but this was expanded to include a total of 26 PFAS compounds starting in Fall 2019.

1,4-dioxane was not detected in nearly all the water samples and is consistent with past results. Two wells closest to the north margin of the site occasionally show 1,4-dioxane detections that exceed the State of New Hampshire standard. Both wells have treatment systems installed by the CLG in recent years that have been effective in removing this compound.

All PFAS results were below the USEPA Lifetime Health Advisory of 70 parts per trillion for PFOA and PFOS combined. The results for nearly all samples were also below the current New Hampshire drinking water standards (Ambient Groundwater Quality Standard [AGQS]) for the four compounds with an AGQS. Two wells closest to the north margin of the site showed a detection slightly above the State standard for PFOA. These are the two wells mentioned above that have had treatment systems installed by the CLG that have proven effective in removing PFAS.

There were continued detections of compounds that do not have USEPA or New Hampshire groundwater regulatory standards. In particular, perfluorooctanesulfonamide (PFOSA), a PFAS compound with no regulatory standards, was detected at most locations during the Fall 2020 sampling event. Analyses for PFOSA began in Fall 2019 when the PFAS parameter list was expanded to include additional compounds. Detections of PFOSA at the same locations reported following the Spring 2020 sampling event were also reported in the Fall 2020 sampling results. Our review indicates that not all of the detections for PFOSA and other PFAS compounds appear related to the Coakley Landfill. Many of the detections of PFOSA are at locations significant distances from the landfill and are outside the areas where landfill-related constituents have been previously identified. This indicates that other sources for PFOSA and other PFAS may exist in the area. The CLG will continue to monitor both the regulated and non-regulated PFAS compounds to better establish distribution, trends, and sources for the detections.

The next sampling event will be completed in Spring 2021, and these results will be conveyed to you in the shortest time possible based on lab reporting, data analysis, and review by the regulatory agencies.

If you have any questions, please feel free to contact the undersigned by phone (207) 404-5958 or email cbuckman@cesincusa.com or contact Peter Britz by phone (603) 610-7215 or email at plbritz@cityofportsmouth.com.

Sincerely,



Christopher F. Buckman, PG
Senior Project Geologist

CFB/jnc

Enc.

Richard Hull – USEPA

Andrew Hoffman – NHDES

Peter Britz – Coakley Landfill Group

Summary of 2020 Analytical Results for Off-Site Private Water Supply Wells
Coakley Landfill - North Hampton and Greenland, New Hampshire

SAMPLE IDENTIFICATION				USEPA CL	NHDES AGQS	USEPA MCL	339 BHR 20-May-20	339 BHR 30-Sep-20	346 BHR 20-May-20	346 BHR 30-Sep-20	415 BHR 21-May-20	415 BHR 1-Oct-20	R-3 18-May-20	R-3 DUP 18-May-20	R-3 29-Sep-20	R-3 DUP 29-Sep-20	4 SMW 21-May-20	4 SMW 29-Sep-20	9 SMW 22-May-20	9 SMW 1-Oct-20	10 SMW 18-May-20	10 SMW 1-Oct-20	16 SMW May 2020	16 SMW 30-Sep-20	19 SMW 20-May-20	19 SMW 30-Sep-20	21 SMW 19-May-20	21 SMW DUP 29-Sep-20	21 SMW 29-Sep-20	21 SMW DUP 29-Sep-20	4 ROD 18-May-20	4 ROD 30-Sep-20	10 ROD 19-May-20	10 ROD 29-Sep-20	25 FW 19-May-20	25 FW 1-Oct-20	
VOLATILE ORGANIC COMPOUNDS																																					
1,4-dioxane (ug/L)	3	0.32	-	0.28	0.57	<0.2	<0.2	<0.2	<0.2	0.260	0.210	0.50	0.48	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	NS	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
FIELD PARAMETERS																																					
Temperature (degrees Celcius)	-	-	-	13	13	11	11	11	12	11	NA	11	NA	12	12	11	11	11	12	NS	13	10	11	11	NA	11	NA	10	11	11	12	10	11	11	12	10	10
Conductivity (uS/cm)				434	428	799	554	463	456	441	NA	436	NA	596	695	445	439	479	521	NS	578	824	664	752	NA	728	NA	664	638	655	545	439	506				
Dissolved Oxygen (mg/L)	-	-	-	1.4	1.3	1.4	2.7	<0.5	0.8	<0.5	NA	<0.5	NA	<0.5	<0.5	<0.5	2	2.8	4.1	NS	0.7	0.7	0.9	<0.5	NA	<0.5	NA	6.5	1.3	0.5	1.4	1.1	<0.5	1.4			
pH (standard units)	-	-	-	7.1	7.3	6.8	7.4	8.1	7.6	8.1	NA	8.5	NA	7	7.2	7.9	8.2	7	7.2	NS	7.8	7.7	7.9	8.9	NA	8.9	NA	7	7	8	7.5	8.3	8.2				
Oxidation/Reduction Potential (mV)	-	-	-	118	3	1	-33	62	185	-164	NA	-82	NA	45	63	-196	-145	35	66	NS	95	-119	-153	-195	NA	-50	NA	-65	-4	101	136	-122	-98				
Turbidity (NTU)	-	-	-	5	<5	119	11	<5	<5	<5	NA	<5	NA	<5	<5	5	<5	<5	<5	NS	<5	11	<5	<5	NA	<5	NA	<5	<5	9	<5	7	<5				
SAMPLE IDENTIFICATION				USEPA HA	NHDES AGQS		339 BHR 11-Jun-20	339 BHR 30-Sep-20	346 BHR 11-Jun-20	346 BHR 30-Sep-20	415 BHR 9-Jun-20	415 BHR 1-Oct-20	R-3 18-May-20	R-3 DUP 18-May-20	R-3 29-Sep-20	R-3 DUP 29-Sep-20	4 SMW 10-Jun-20	4 SMW 29-Sep-20	9 SMW 22-May-20	9 SMW 1-Oct-20	10 SMW 18-May-20	10 SMW 1-Oct-20	16 SMW NA	16 SMW 30-Sep-20	19 SMW 9-Jun-20	19 SMW 30-Sep-20	21 SMW 9-Jun-20	21 SMW DUP 9-Jun-20	21 SMW 29-Sep-20	21 SMW Dup 29-Sep-20	4 ROD 18-May-20	4 ROD 30-Sep-20	10 ROD 10-Jun-20	10 ROD 29-Sep-20	25 FW 9-Jun-20	25 FW 1-Oct-20	
PER- & POLY-FLUORINATED ALKYL SUBSTANCES BY MODIFIED 537 - (ng/L)																																					
Perfluorobutanoic Acid (PFBA)	---	---		1.79 J	2.37 J	4.28 U	4.42 U	4.31 U	4.32 U	1.82 J	2.14 J	1.31 J	1.17 J	4.31 U	4.36 U	4.22 U	4.37 U	1.6 J	4.28 U	NS	4.28 U	4.46 U	4.49 U	4.37 U	4.33 U	4.32U	4.20 U	2.18 J	1.32 J	4.57 U	4.48 U	4.37 U	1.39 J				
Perfluoropentanoic acid (PFpEA)	---	---		3.23 J	3.32 J	4.28 U	4.42 U	4.31 U	4.32 U	4.32 U	4.37 U	1.66 J	4.40 U	4.31 U	4.36 U	4.22 U	4.37 U	4.41 U	4.28 U	NS	4.28 U	4.46 U	4.49 U	4.37 U	4.33 U	4.32U	4.20 U	4.18 U	4.34 U	4.57 U	4.48 U	4.37 U	4.47 U				
Perfluorobutanesulfonic acid (PFBS)	---	---		2.04 J	2.00 J	4.28 U	4.42 U	4.31 U	4.32 U	4.32 U	4.37 U	4.33 U	4.40 U	4.31 U	4.36 U	4.22 U	4.37 U	4.41 U	4.28 U	NS	4.28 U	4.46 U	4.49 U	4.37 U	4.33 U	4.32U	4.20 U	3.32 J	7.81	4.20 J	3.45 J	4.37 U	4.47 U				
Perfluorohexanoic Acid (PFHxA)	---	---		4.57 J	4.73	4.28 UJ	4.42 U	4.31 UJ	4.32 U	4.32 U	4.37 U	2.73 J	2.68 J	4.31 UJ	4.36 U	4.22 U	4.37 U	4.41 U	4.28 U	NS	4.28 U	4.46 UJ	4.49 U	4.37 UJ	4.33 UJ	4.32U	4.20 U	4.18 U	4.34 U	4.57 UJ	4.48 U	4.37 UJ	4.47 U				
Perfluoroheptanoic acid (PFHpA)	---	---		6.47	6.86	4.28 U	4.42 U	4.31 UJ	4.32 U	1.73 J	4.37 U	1.71 J	2.15 J	0.886 J	0.707 J	4.22 U	4.37 U	4.41 U	4.28 U	NS	4.28 U	4.46 U	4.49 U	4.37 UJ	4.33 UJ	4.32U	4.20 U	4.18 U	0.690 J	4.57 UJ	4.48 U	4.37 U	0.674 J				
Perfluorohexanesulfonic acid (PFHxS)	---	18**		1.53 J	2.57 J	4.28 U	4.42 U	2.19 J	3.01 J	4.32 U	4.37 U	1.71 J	1.79 J	1.40 J	1.95 J	2.71 J	3.93 J	1.54 J	1.80 J	NS	4.28 U	4.46 U	1.20 J	4.37 U	4.33 UJ	4.32U	4.20 U	2.15 J	1.33 J	1.46 J	1.38 J	4.37 U	4.47 U				
1H, 1H, 2H, 2H-Perfluorooctanesulfonic Acid (6:2FTS)	---	---		4.47 U	4.28 U	4.28 U	4.42 U	4.31 U	4.32 U	4.32 U	4.37 U	4.33 U	4.40 U	4.31 U	4.36 U	4.22 U	4.37 U	4.41 U	4.28 U	NS	4.28 U	4.46 U	4.49 U	4.37 U	4.33 U	4.32U	4.20 U	4.18 U	4.34 U	4.57 U	4.48 U	4.37 U	4.47 U				
Perfluorooctanoic acid (PFOA)	70	12**		16.3	19.6	1.56 J	0.984 J	3.15 J	3.43 J	4.32	4.58	9.04 J	12.3 J	5.87	2.84 J	4.87	3.65 J	1.36 J	2.43 J	NS	2.14 J	4.12 J	4.27 J	1.71 J	1.54 J	1.57 J	0.938 J	4.13 J	8.1	3.59 J	2.28 J	3.34 J	6.16				
Perfluoroheptanesulfonic Acid (PFHpS)	---	---		4.47 U	4.28 U	4.28 U	4.42 U	4.31 U	4.32 U	4.32 U	4.37 U	4.33 U	4.40 U	4.31 U	4.36 U	4.22 U	4.37 U	4.41 U	4.28 U	NS	4.28 U	4.46 UJ	4.49 U	4.37 UJ	4.33 UJ	4.32U	4.20 U	4.18 U	4.34 U	4.57 U	4.48 U	4.37 U	4.47 U				
Perfluorononanoic acid (PFNA)	---	11**		4.47 U	1.08 J	4.28 U	4.42 U	4.31 U	4.32 U	4.32 U	4.37 U	4.33 U	4.40 U	4.31 U	4.36 U	4.22 U	4.37 U	4.41 U	4.28 U	NS	4.28 U	4.46 U	4.49 U	4.37 U	4.33 U	4.32U	4.20 U	4.18 U	4.34 U	4.57 U	4.48 U	4.37 U	4.47 U				
Perfluorooctanesulfonamide (PFOSA)	---	---		6.65	15.1	18.5	9.3	10.1	24.8	11.8 J	27.4 J	11.7 J	48.1 J	63.4	14.4	23.4	34	15.3	30.6	NS	17.6	70.5	52	5.29	6.51	5.51	2.85 J	54.2	115	32	35.8	21.3	42.8				
Perfluorooctanesulfonic (PFOS)	70	15**		1.01 J	1.23 J	1.04 J	1.97 J	4.31 U	4.32 U	4.32 U	4.37 U	1.92 J	1.3 J	4.31 U	4.36 U	4.22 U	1.01 J	4.41 U	4.28 U	NS	4.28 U	4.46 UJ	4.49 U	4.37 UJ	4.33 UJ	4.32U	4.20 U	4.18 U	4.34 U	4.57 U	4.48 U	4.37 U	8.08				
Perfluorodecanoic Acid (PFDA)	---	---		4.47 U	4.28 U	4.28 U	4.42 U	4.31 U	4.32 U	4.32 U	4.37 U	4.33 U	4.40 U	4.31 U	4.36 U	4.22 U	4.37 U	4.41 U	4.28 U	NS	4.28 U	4.46 U	4.49 U	4.37 U	4.33 U	4.32U	4.20 U	4.18 U	4.34 U	4.57 U	4.48 U	4.37 U	4.47 U				
1H, 1H, 2H, 2H-Perfluorodecanesulfonic Acid (8:2FTS)	---	---		4.47 U	4.28 U	4.28 U	4.42 U	4.31 U	4.32 U	4.32 U	4.37 U	4.33 U	4.40 U	4.31 U	4.36 U	4.22 U	4.37 U	4.41 U	4.28 U	NS	4.28 U	4.46 U	4.49 U	4.37 U	4.33 U	4.32U	4.20 U	4.18 U	4.34 U	4.57 U	4.48 U	4.37 U	4.47 U				
N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	---	---		4.47 U	4.28 U	4.28 U	4.42 U	4.31 U	4.32 U	4.32 U	4.37 U	4.33 U	4.40 U	4.31 U	4.36 U	4.22 U	4.37 U	4.41 U	4.28 U	NS	4.28 U	4.46 U	4.49 U	4.37 U	4.33 U	4.32U	4.20 U	4.18 U	4.34 U	4.57 U	4.48 U	4.37 U	4.47 U				
N-Ethyl Perfluorooctanesulfonamidoacetic (EtFOSAA)	---	---		4.47 U	4.28 U	4.28 U	4.42 U	4.31 U	4.32 U	4.32 U	4.37 U	4.33 U	4.40 U	4.31 U	4.36 U	4.22 U	4.37 U	4.41 U	4.28 U	NS	4.28 U	4.46 U	4.49 U	4.37 U	4.33 U	4.32U	4.20 U	4.18 U	4.34 U	4.57 U	4.48 U	4.37 U	4.47 U				
Perfluoroundecanoic Acid (PFUnA)	---	---		4.47 U	4.28 U	4.28 U	4.42 U	4.31 UJ	4.32 U	4.32 U	4.37 U	4.33 U	4.40 U	4.31 UJ	4.36 U	4.22 U	4.37 U	4.41 U	4.28 U	NS	4.28 U	4.46 UJ	4.49 U	4.37 U	4.33 UJ	4.32U	4.20 U	4.18 U	4.34 U	4.57 UJ	4.48 U	4.37 U	4.47 U				
Perfluorodecanesulfonic Acid (PFDS)	---	---		4.47 U	4.28 U	4.28 U	4.42 U	4.31 U	4.32 U	4.32 U	4.37 U	4.33 U	4.40 U	4.31 U	4.36 U	4.22 U	4.37 U	4.41 U	4.28 U	NS	4.28 U	4.46 UJ	4.49 U	4.37 UJ	4.33 UJ	4.32U	4.20 U	4.18 U	4.34 U	4.57 U	4.48 U	4.37 U	4.47 U				
Perfluorododecanoic Acid (PFDDA)	---	---		4.47 U	4.28 U	4.28 U	4.42 U	4.31 U	4.32 U	4.32 U	4.37 U	4.33 U	4.40 U	4.31 U	4.36 U	4.22 U	4.37 U	4.41 U	4.28 U	NS	4.28 U	4.46 U	4.49 U	4.37 U	4.33 U	4.32U	4.20 U	4.18 U	4.34 U	4.57 U	4.48 U	4.37 U	4.47 U				
N-Methyl Perfluorooctane Sulfonamide (MeFOSA)	---	---		22.3 U	21.4 U	21.4 U	22.1 U	21.6 U	21.6 U	21.8 UJ	21.5 UJ	21.6 U	22.0 U	21.5 U	21.8 U	21.1 U	21.9 U	22.1 UJ	21.4 U	NS	21.4 U	22.3 U	22.4 U	21.4 UJ	22.6 UJ	21.6 U	21.0 U	22.6 UJ	21.7 U	22.9 U	22.4 U	21.8 U	22.4 U				
Perfluorotridecanoic Acid (PFTrDA)	---	---		4.47 U	4.28 U	4.28 U	4.42 U	4.31 U	4.32 U	4.32 U	4.37 U	4.33 U	4.40 U	4.31 U	4.36 U	4.22 U	4.37 U	4.41 U	4.28 U	NS	4.28 U	4.46 U	4.49 U	4.37 U	4.33 U	4.32U	4.20 U	4.18 U	4.34 U	4.57 U	4.48 U	4.37 U	4.47 U				
Perfluorotetradecanoic Acid (PFTeDa)	---	---		4.47 U	4.28 U	4.28 U	4.42 U	4.31 U	4.32 U	4.32 U	4.37 U	4.33 U	4.40 U	4.31 U	4.36 U	4.22 U	4.37 U	4.41 U	4.28 U	NS	4.28 U	4.46 U	4.49 U	4.37 U	4.33 U	4.32U	4.20 U	4.18 U	4.34 U	4.57 U	4.48 U	4.37 U	4.47 U				
N-Ethyl Perfluorooctane Sulfonamide (EtFOSA)	---	---		22.3 U	21.4 U	21.4 U	22.1 U	21.6 U	21.6 U	21.8 UJ	21.5 UJ	21.6 U	22.0 U	21.5 U	21.8 U	21.1 U	21.9 U	22.1 UJ	21.4 U	NS	21.4 U	22.3 U	22.4 U	21.4 UJ	22.6 UJ	21.6 U	21.0 U	22.6 UJ	21.7 U	22.9 U	22.4 U	21.8 U	22.4 U				
Perfluorohexadecanoic Acid (PFHxDA)	---	---		4.47 U	4.28 U	4.28 U	4.42 U	4.31 U	4.32 U	4.32 U	4.37 U	4.33 U	4.40 U	4.31 UJ	4.36 U	4.22 U	4.37 U	4.41 U	4.28 U	NS	4.28 U	4.46 U	4.49 U	4.37 U	4.33 U	4.32U	4.20 U	4.18 U	4.34 U	4.57 U	4.48 U	4.37 U	4.47 U				
N-Methyl Perfluorooctanesulfonamido Ethanol (MeFOSE)	---	---		22.3 U	21.4 U	21.4 U	22.1 U	21.6 U	21.6 U	21.																											

Summary of 2020 Analytical Results for Off-Site Private Water Supply Wells
Coakley Landfill - North Hampton and Greenland, New Hampshire

SAMPLE IDENTIFICATION	USEPA	NHDES	USEPA	*5 BFL	*5 BFL	*9 BFL	*9 BFL	*15 BFL	*15 BFL	340 BHR	340 BHR	463 BHR	463 BHR	7 WKD	7 WKD	8 WKD	8 WKD	27 BR	27 BR	178A LR	178A LR	67 NR	67 NR	14PWC	14PWC
DATE SAMPLED	CL	AGQS	MCL	18-May-20	1-Oct-20	18-May-20	1-Oct-20	18-May-20	29-Sep-20	20-May-20	1-Oct-20	20-May-20	30-Sep-20	May 2020	30-Sep-20	21-May-20	1-Oct-20	21-May-20	30-Sep-20	20-May-20	1-Oct-20	21-May-20	1-Oct-20	18-May-20	29-Sep-20
VOLATILE ORGANIC COMPOUNDS																									
1,4-dioxane (ug/L)	3	0.32	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	NS	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.210	<0.2	<0.2	<0.2	<0.2
FIELD PARAMETERS																									
Temperature (degrees Celcius)	-	-	-	11	14	11	11	11	13	13	12	11	12	NS	12	10	11	13	16	11	12	10	15	11	13
Conductivity (uS/cm)	-	-	-	647	669	380	796	539	674	152	236	774	689	NS	772	355	401	576	639	474	516	79	115	147	176
Dissolved Oxygen (mg/L)	-	-	-	<0.5	0.8	2.8	2.5	0.7	<0.5	5.4	4.2	<0.5	1.4	NS	1.7	<0.5	0.8	7.8	0.8	1.1	1.7	6	4.4	<0.5	0.6
pH (standard units)	-	-	-	7.1	7.9	6.5	7.5	7.2	7.3	6.6	6.3	7.6	7.8	NS	7.5	7.9	7.9	6.7	7.3	6.6	6.8	6	6.1	6.9	6.8
Oxidation/Reduction Potential (mV)	-	-	-	-12	15	161	143	8	49	128	172	-76	-63	NS	195	44	-127	110	192	144	128	171	207	-55	9
Turbidity (NTU)	-	-	-	14	81	<5	7	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5	<5	<5	7	<5	<5	<5	<5	<5
SAMPLE IDENTIFICATION	USEPA	NHDES	USEPA	*5 BFL	*5 BFL	*9 BFL	*9 BFL	*15 BFL	*15 BFL	340 BHR	340 BHR	463 BHR	463 BHR	7 WKD	7 WKD	8 WKD	8 WKD	27 BR	27 BR	178A LR	178A LR	67 NR	67 NR	14 PWC	14 PWC
DATE SAMPLED	HA	AGQS		18-May-20	1-Oct-20	9-Jun-20	1-Oct-20	18-May-20	29-Sep-20	11-Jun-20	1-Oct-20	9-Jun-20	30-Sep-20	NA	30-Sep-20	11-Jun-20	1-Oct-20	10-Jun-20	30-Sep-20	9-Jun-20	1-Oct-20	10-Jun-20	1-Oct-20	18-May-20	29-Sep-20
PER- & POLY-FLUORINATED ALKYL SUBSTANCES BY MODIFIED 537 - (ng/L)																									
Perfluorobutanoic Acid (PFBA)	---	---		1.19 J	4.50 U	4.36 U	4.25 U	4.34 U	4.22 U	4.39 U	4.18 U	4.30 U	4.16 U	NS	2.07 J	4.56 U	4.37 U	4.28 U	1.67 J	1.99 J	2.27 J	4.33 U	4.27 U	4.37 U	0.857 J
Perfluoropentanoic Acid (PFpEA)	---	---		4.41 U	4.50 U	4.36 U	4.25 U	4.34 U	4.22 U	4.39 U	4.18 U	4.30 U	4.16 U	NS	5.63	4.56 U	4.37 U	2.03 J	1.73 J	3.10 J	3.58 J	4.33 U	4.27 U	4.37 U	4.24 U
Perfluorobutanesulfonic acid (PFBS)	---	---		4.41 U	4.50 U	4.36 U	4.25 U	4.34 U	4.22 U	4.39 U	4.18 U	4.30 U	4.16 U	NS	2.62 J	4.56 UJ	4.37 U	4.28 U	4.47 U	2.04 J	2.13 J	4.33 U	4.27 U	4.37 U	4.24 U
Perfluorohexanoic Acid (PFHxA)	---	---		4.41 U	4.50 U	4.36 UJ	4.25 U	4.34 U	4.22 U	4.39 UJ	4.18 U	4.30 UJ	4.16 U	NS	5.81	4.56 UJ	4.37 U	4.28 UJ	4.47 U	4.46 UJ	2.68 J	4.33 UJ	4.27 U	4.37 U	4.24 U
Perfluoroheptanoic acid (PFHpA)	---	---		4.41 U	4.50 U	4.36 UJ	4.25 U	4.34 U	4.22 U	4.39 U	4.18 U	4.30 U	4.16 U	NS	2.64 J	4.56 UJ	4.37 U	4.28 U	1.30 J	1.91 J	2.89 J	4.33 UJ	4.27 U	4.37 U	4.24 U
Perfluorohexanesulfonic acid (PFHxS)	---	18**		4.41 U	4.50 U	1.76 J	4.61	4.34 U	2.81 J	4.39 U	4.18 U	6.97	6.7	NS	5.6	1.16 J	1.80 J	4.28 U	1.14 J	4.46 UJ	4.47 U	4.33 U	4.27 U	4.37 U	4.24 U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic Acid (6:2FTS)	---	---		4.41 U	4.50 U	4.36 UJ	4.25 U	4.34 U	4.22 U	4.39 U	4.18 U	4.30 U	4.16 U	NS	4.37 UJ	4.56 U	4.37 U	4.28 U	4.47 U	4.46 U	4.47 U	4.33 U	4.27 U	4.37 U	4.24 U
Perfluorooctanoic Acid (PFOA)	70	12**		1.86 J	1.01 J	4.09 J	2.04 J	5.93	4.22 U	2.70 J	1.36 J	6.46	7.1	NS	10.8	1.94 J	2.84 J	6.11	6.49	7.66	8.37	1.27 J	1.69 J	3.06 J	2.56 J
Perfluoroheptanesulfonic Acid (PFHpS)	---	---		4.41 U	4.50 U	4.36 UJ	4.25 U	4.34 U	4.22 U	4.39 U	4.18 U	4.30 U	4.16 U	NS	4.37 UJ	4.56 UJ	4.37 U	4.28 U	4.47 U	4.46 UJ	4.47 U	4.33 UJ	4.27 U	4.37 U	4.24 U
Perfluorononanoic acid (PFNA)	---	11**		4.41 U	4.50 U	4.36 UJ	4.25 U	4.34 U	4.22 U	4.39 U	4.18 U	4.30 U	4.16 U	NS	4.37 UJ	4.56 UJ	4.37 U	4.28 U	4.47 U	4.46 UJ	4.47 U	4.33 UJ	4.27 U	4.37 U	4.24 U
Perfluorooctanesulfonamide (PFOSA)	---	---		16.6	6.76	73.8	24.9	121	10.9	29	43.8	16.1	76.3	NS	24.9	11.3	8.07	19.3	37.3	14.1	31.7	37.8	62.6	30.3	71.9
Perfluorooctanesulfonic (PFOS)	---	---		4.42	4.76	4.98 J	6.47	0.895 J	1.09 J	4.39 U	4.18 U	6.17	5.92	NS	6.13	4.56 UJ	1.05 J	5.36	6.55	2.31 J	3.76 J	4.33 UJ	4.27 U	4.37 U	0.921 J
Perfluorodecanoic Acid (PFDA)	---	19**		4.41 U	4.50 U	4.36 UJ	4.25 U	4.34 U	4.22 U	4.39 U	4.18 U	4.30 U	4.16 U	NS	4.37 UJ	4.56 UJ	4.37 U	4.28 U	4.47 U	4.46 UJ	4.47 U	4.33 UJ	4.27 U	4.37 U	4.24 U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic Acid (8:2FTS)	---	---		4.41 U	4.50 U	4.36 UJ	4.25 U	4.34 U	4.22 U	4.39 U	4.18 U	4.30 U	4.16 U	NS	4.37 UJ	4.56 UJ	4.37 U	4.28 U	4.47 U	4.46 UJ	4.47 U	4.33 UJ	4.27 U	4.37 U	4.24 U
N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA)	---	---		4.41 U	4.50 U	4.36 UJ	4.25 U	4.34 U	4.22 U	4.39 U	4.18 U	4.30 U	4.16 U	NS	4.37 UJ	4.56 UJ	4.37 U	4.28 U	4.47 U	4.46 UJ	4.47 U	4.33 UJ	4.27 U	4.37 U	4.24 U
N-Ethyl Perfluorooctanesulfonamidoacetic (EtFOSAA)	---	---		4.41 U	4.50 U	4.36 UJ	4.25 U	4.34 U	4.22 U	4.39 U	4.18 U	4.30 U	4.16 U	NS	4.37 UJ	4.56 UJ	4.37 U	4.28 U	4.47 U	4.46 UJ	4.47 U	4.33 UJ	4.27 U	4.37 U	4.24 U
Perfluoroundecanoic Acid (PFUnA)	---	---		4.41 U	4.50 U	4.36 UJ	4.25 U	4.34 U	4.22 U	4.39 UJ	4.18 U	4.30 U	4.16 U	NS	4.37 UJ	4.56 UJ	4.37 U	4.28 UJ	4.47 U	4.46 UJ	4.47 U	4.33 UJ	4.27 U	4.37 U	4.24 U
Perfluorodecanesulfonic Acid (PFDS)	---	---		4.41 U	4.50 U	4.36 UJ	4.25 U	4.34 U	4.22 U	4.39 U	4.18 U	4.30 U	4.16 U	NS	4.37 UJ	4.56 UJ	4.37 U	4.28 U	4.47 U	4.46 UJ	4.47 U	4.33 UJ	4.27 U	4.37 U	4.24 U
Perfluorododecanoic Acid (PFDoA)	---	---		4.41 U	4.50 U	4.36 UJ	4.25 U	4.34 U	4.22 U	4.39 U	4.18 U	4.30 U	4.16 U	NS	4.37 UJ	4.56 UJ	4.37 U	4.28 U	4.47 U	4.46 UJ	4.47 U	4.33 UJ	4.27 U	4.37 U	4.24 U
N-Methyl Perfluorooctane Sulfonamide (MeFOSA)	---	---		22.0 UJ	22.5 U	21.8 U	21.2 U	21.8 UJ	21.1 U	22.0 U	20.9 U	21.5 U	20.8 U	NS	21.9 U	22.8 U	21.9 U	21.4 U	22.4 U	22.3 U	22.4 U	21.6 U	21.3 U	21.1 UJ	21.2 U
Perfluorotridecanoic Acid (PFTrDA)	---	---		4.41 U	4.50 U	4.36 UJ	4.25 U	4.34 U	4.22 U	4.39 U	4.18 U	4.30 U	4.16 U	NS	4.37 UJ	4.56 UJ	4.37 U	4.28 U	4.47 U	4.46 UJ	4.47 U	4.33 UJ	4.27 U	4.37 U	4.24 U
Perfluorotetradecanoic Acid (PFTeDa)	---	---		4.41 U	4.50 U	4.36 UJ	4.25 U	4.34 U	4.22 U	4.39 U	4.18 U	4.30 U	4.16 U	NS	4.37 UJ	4.56 UJ	4.37 U	4.28 U	4.47 U	4.46 UJ	4.47 U	4.33 UJ	4.27 U	4.37 U	4.24 U
N-Ethyl Perfluorooctane Sulfonamide (EtFOSA)	---	---		22.0 UJ	22.5 U	21.8 U	21.2 U	21.8 UJ	21.1 U	22.0 U	20.9 U	21.5 U	20.8 U	NS	21.9 U	22.8 U	21.9 U	21.4 U	22.4 U	22.3 U	22.4 U	21.6 U	21.3 U	21.1 UJ	21.2 U
Perfluorohexadecanoic Acid (PFHxDA)	---	---		4.41 U	4.50 U	4.36 UJ	4.25 U	4.34 U	4.22 U	4.39 U	4.18 U	4.30 U	4.16 U	NS	4.37 UJ	4.56 UJ	4.37 U	4.28 U	4.47 U	4.46 UJ	4.47 U	4.33 UJ	4.27 U	4.37 U	4.24 U
N-Methyl Perfluorooctanesulfonamido Ethanol (MeFOSE)	---	---		22.1 U	22.5 U	21.8 U	21.2 U	21.7 U	21.1 U	22.0 U	20.9 U	21.5 U	20.8 U	NS	21.9 U	22.8 U	21.9 U	21.4 U	22.4 U	22.3 U	22.4 U	21.6 U	21.3 U	21.9 U	21.2 U
N-Ethyl Perfluorooctanesulfonamido Ethanol (EtFOSE)	---	---		22.1 U	22.5 U	21.8 U	21.2 U	21.7 U	21.1 U	22.0 U	20.9 U	21.5 U	20.8 U	NS	21.9 U	22.8 U	21.9 U	21.4 U	22.4 U	22.3 U	22.4 U	21.6 U	21.3 U	21.9 U	21.2 U
Combination of PFOA and PFOS	70	---		6.28 J	5.77 J	9.07 J	8.51 J	6.825 J	1.09 J	2.70 J	1.36 J	12.63	13.02	NS	16.93	1.94 J	3.89 J	11.47	13.04	9.97 J	12.13 J	1.27 J	1.69 J	3.06 J	3.481 J

TABLE NOTES:

TABLE ABBREVIATIONS:

NA = Not Analyzed
NM = Not Measured
NR = Not Recorded - field parameter measurement did not meet QA/QC criteria and were rejected
uS/cm = microSiemens per centimeter
ug/L = micrograms per liter (parts per billion)
mg/L = milligrams per liter (parts per million)
ng/L = nanograms per liter (parts per trillion)
NTU = Nephelometric Turbidity Units
mV = millivolts
< = parameter concentration below detection limit indicated
DUP = duplicate sample collected.
B = Result is associated with lab contamination. PFHpA concentration in the blank was higher than the result in the sample.
Q = The ion transition ratio is outside the acceptable limits.
J = The reported analyte is an estimated concentration between the method detection limit and the reporting limit.
J- = The reported analyte is an estimated concentration with a low bias.
R = The reported analyte is rejected due to preservation outside the method requirement or analysis outside the technical holding time.
UJ = undetected estimated
U = undetected
* It should be noted that 3 and 5 Berry Farm Lane share one well, 9 and 11 Berry Farm Lane share one well, and 15 and 17 Berry Fram Lane share one well.
** NHDES Ambient Groundwater Quality Standard effective September 3, 2020.

BFL = Berry Farm Lane
BHR = Breakfast Hill Road
BR = Birch Road
FW = Falls Way
LR = Lafayette Road
NR = North Road
PWC = Pinewood Circle
RCD = Ridgecrest Drive
ROD = Red Oak Drive
R-3 = 368 Breakfast Hill Road
SMW = Stone Meadow Way
WKD = Woodknoll Drive