



August 11, 2023

Matt Scruton, Town Administrator
Town of Rye
10 Central Road
Rye, NH 03870

**RE: Grove Road Landfill
July 2023 Additional Groundwater Sampling Results Transmittal
GWP-198704080-R-005
CMA #527**

Dear Matt:

Please find enclosed the groundwater monitoring results from an additional water quality sampling event in July 2023 at the Grove Road Landfill in Rye, New Hampshire. On site wells MW-1, MW-3 and MW-3D off-site wells MW-102, TW-15-74, TW-1-1OBS-74 and TW-79-44 were sampled on July 17, 2023 by Eastern Analytical (EAI) of Concord, NH and analyzed by EAI and Enthalpy Analytical of El Dorado Hills, CA. Sampling was also conducted concurrently at the three Rye Water District (RWD) wells - Garland, Bailey and Cedar Run and at the distribution tap following mixing. RWD wells were sampled by Seacoast Analytical Services of Barrington, NH and analyzed for PFAS by Absolute Resource Associates of Portsmouth, NH. The second quarter water analysis of the RWD wells was completed in June by Seacoast Analytical Services. These results are attached also.

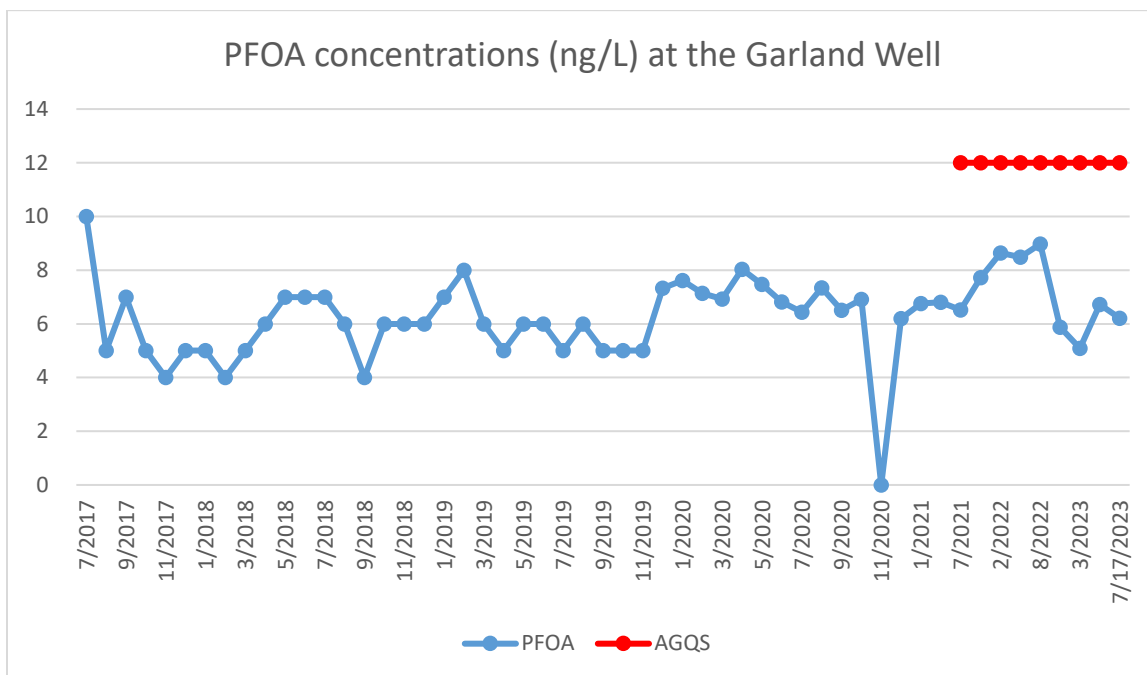
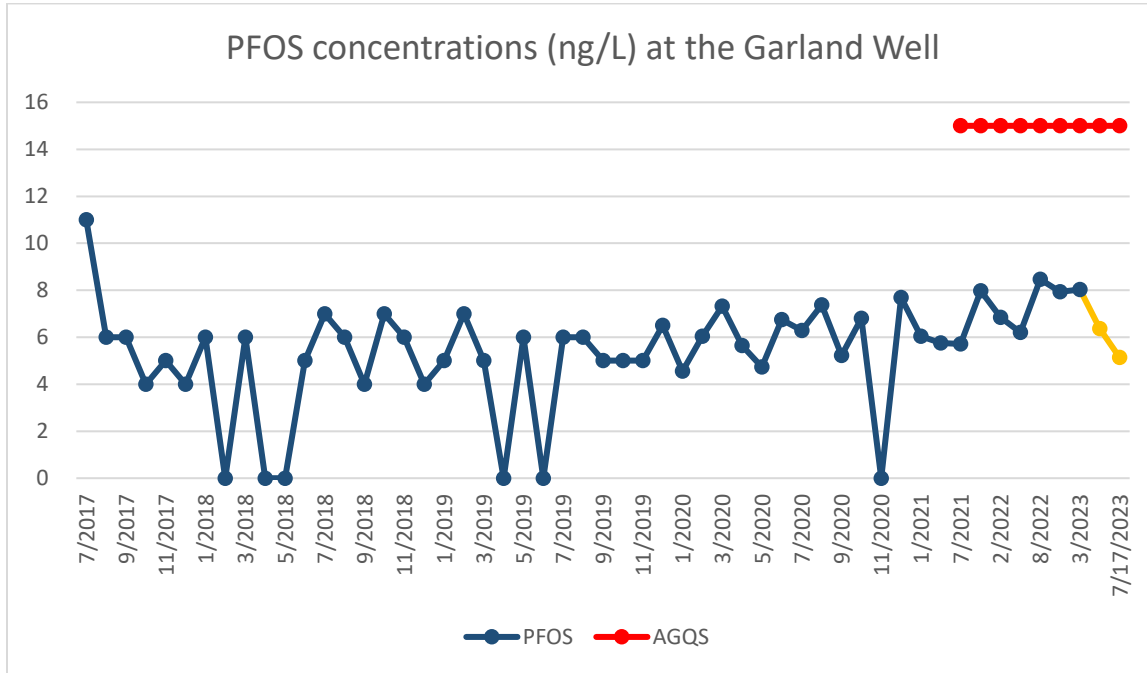
Grove Road Landfill Wells

Water elevation measurements were taken and samples were analyzed for specific conductance, pH and per- and polyfluoroalkyl substances.

The concentrations and number of PFAS detected were consistent with previous sampling events at MW-1, MW-3 and MW-102. At TW-15-74, PFBS and PFOS were detected for the first time, but the detection limit has decreased from 4.74 to 2.12 ng/L since this location was last sampled in 2018. There were more PFAS detected at MW-3D, also because of the decreased detection limit since 2018. TW-1-OBS-74 was sampled for the first time and had low concentrations of PFOA and PFOS detected. TW-79-44 was also sampled for the first time and had low concentrations of multiple PFAS detected. PFOS exceeded the ambient groundwater quality standard of 15 ng/L at MW-3 (18.4 ng/L) and MW-3D (21.4 ng/L). Additionally, PFOA exceeded the AGQS of 12 ng/L at MW-3D (19.7 ng/L).

RWD Wells

In June and July, PFOS and PFOA were detected at the Garland Well at concentrations similar to previous sampling events. The concentration of PFOS at the Garland Well decreased during both events deviating from its recent increasing trend. PFOA concentrations continue to fluctuate.



In June and July, PFOA was detected at the Bailey Well at the lowest concentrations since sampling began. There were no PFAS detected at the Cedar Run Well in June, we note that the detection limit was 10 ng/L and detected concentrations of PFOS and PFOA (and PFHxS occasionally) are generally below that. PFOA was detected in July at a low concentration consistent with previous events.

Conclusions

Water quality results remain consistent with previous sampling events on-site and off-site and at the RWD wells.

We recommend by this correspondence that NHDES add MW-3D to the regular sampling program at the landfill, with annual analysis of inorganic and indicator compounds and PFAS.

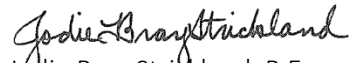
We have attached the PFAS sampling summary tables for your information.

We have also attached a site plan with the most recent PFAS concentrations detected at on and off-site wells sampled under the groundwater permit, the newly sampled observation wells and the Garland well.

If you have any questions regarding these results, please don't hesitate to contact us.

Very truly yours,

CMA ENGINEERS, INC.



Jodie Bray Strickland, P.E.

Senior Project Engineer

Enclosures: Eastern Analytical Inc. Laboratory Report, 7/17/2023

Rye Water District Laboratory Data, 6/22/202 and 7/17/2023

Figure 1: Updated Conceptual Site Model July 2023

cc: NHDES, OneStop
Arik Jones, Rye Water District

GROVE ROAD LANDFILL

Rye, New Hampshire

Table 3 - Per- and Polyfluoroalkyl Substances

Groundwater Management Permit No. GWP-198704080-R-005

DATE	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorobutane sulfonic acid (PFBS)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorooctanoic acid (PFOA)	Perfluoronanoic acid (PFNA)	Perfluorooctane sulfonic acid (PFOS)	TOTAL (PFOA & PFOS)
CAS #	375-22-4	2706-90-3	375-73-5	307-24-4	375-85-1	355-46-4	335-67-1	375-95-1	1705-23-1	-
Current NH AGQS	NS	NS	NS	NS	NS	18	12	11	15	*
MW-1										
05/24/17	<8.6	<4.3	<4.3	<4.3	<4.3	<4.3	4.5	<4.3	4.4	8.9
09/19/17	<4.37	<4.37	<4.37	<4.37	<4.37	<4.37	<4.37	<4.37	<4.37	ND
05/01/18	<4.01	<4.01	<4.01	<4.01	<4.01	<4.01	5.84	<4.01	<4.01	5.84
04/02/19	<4.25	<4.25	<4.25	<4.25	<4.25	<4.25	<4.25	<4.25	<4.25	ND
04/30/20	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	<4.29	ND
04/09/21	<4.23	<4.23	<4.23	<4.23	<4.23	<4.23	<4.23	<4.23	<4.23	*
04/19/22	<1.97	2.61	3.08	3.09	<1.97	<1.97	3.49	<1.97	2.52	*
04/03/23	<1.94	3.50	2.16	3.81	<1.94	<1.94	3.58	<1.94	<1.94	*
07/17/23	<2.05	3.76	4.10	4.05	<2.05	<2.05	3.66	<2.05	2.45	*
MW-3										
05/24/17	<8.9	<4.5	<4.5	<4.5	<4.5	<4.5	6.1	<4.5	8.9	15.0
09/19/17	<4.55	<4.55	<4.55	<4.55	<4.55	<4.55	35.3	<4.55	30.6	65.9
05/01/18	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	10.4	<4.00	28.7	39.1
07/17/23	<2.17	<2.17	<2.17	<2.17	<2.17	<2.17	2.87	<2.17	18.4	*
MW-3D										
05/01/18	<4.12	<4.12	<4.12	<4.12	<4.12	<4.12	14.1	<4.12	16.8	30.9
07/17/23	<2.12	2.43	2.76	2.63	3.00	2.39	19.7	<2.12	21.4	*
MW-5										
05/01/18	<4.13	<4.13	<4.13	<4.13	<4.13	<4.13	6.19	<4.13	<4.13	6.19
04/02/19	<4.26	<4.26	<4.26	<4.26	<4.26	<4.26	5.73	<4.26	<4.26	5.73
04/30/20	<4.13	<4.13	<4.13	<4.13	<4.13	<4.13	6.56	<4.13	<4.13	6.56
04/09/21	<4.10	<4.10	<4.10	<4.10	<4.10	<4.10	5.75	<4.10	<4.10	*
04/19/22	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	7.89	<1.97	<1.97	*
04/03/23	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	4.49	<1.95	<1.95	*
MW-6										
05/24/17	11	7.9	5.6	17	13	25	41	<4.5	110	151
07/11/17	5.24	6.19	<4.11	7.42	9.16	18.8	35.1	<4.11	53.5	88.6
09/19/17	5.57	7.59	<4.28	11.0	10.2	20.1	41.8	<4.28	53.6	95.4
05/01/18	<4.10	6.94	4.98	8.93	7.97	15.5	35.2	<4.10	44.7	79.9
12/10/18	<4.48	4.66	<4.48	8.21	8.10	15.1	36.8	<4.48	36.7	73.5
04/02/19	7.5	11.1	6.43	16.4	14.2	24.2	60.1	<4.24	58.2	118.3
04/30/20	8.03	14.4	5.39	19.7	18.9	28.1	82.3	<4.24	84.9	167.2
04/09/21	4.62	9.37	4.93	10.2	11.1	24.4	55.4	<4.27	46.5	*
04/19/22	5.18	5.93	5.63	10.0	10.5	33.0	119	<1.93	96.6	*
04/03/23	4.41	5.36	4.35	7.0	7.2	17.7	60	<1.94	30.1	*

GROVE ROAD LANDFILL

Rye, New Hampshire

Table 3 - Per- and Polyfluoroalkyl Substances

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DATE	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorobutane sulfonic acid (PFBS)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorooctanoic acid (PFOA)	Perfluoronanoic acid (PFNA)	Perfluorooctane sulfonic acid (PFOS)	TOTAL (PFOA & PFOS)
CAS #	375-22-4	2706-90-3	375-73-5	307-24-4	375-85-4	355-46-4	335-67-1	375-95-1	1705-23-1	-
Current NH AGQS	NS	NS	NS	NS	NS	18	12	11	15	*
MW-101										
07/11/17	<4.52	<4.52	<4.52	5.81	5.75	10.8	43.3	<4.52	60.5	104
09/19/17	<4.36	<4.36	<4.36	<4.36	<4.36	<4.36	13.3	<4.36	43.8	57.1
05/01/18	7.18	5.92	4.33	10.4	7.84	10.4	35.9	<4.28	57.4	93.3
04/02/19	<4.49	<4.49	<4.49	4.75	5.64	5.66	28.6	<4.49	51.7	80
04/30/20	6.94	8.16	5.99	11.50	7.79	11.00	43.9	<4.25	50.6	95
04/09/21	6.93	10.1	4.87	14.2	10.8	15.8	50.4	<4.20	40.8	*
04/19/22	4.60	5.30	3.15	7.67	7.05	9.95	39.8	<2.01	51.0	*
04/03/23	5.77	10.7	4.21	13.6	11.4	11.7	48.7	<1.96	42.2	*
MW-102										
07/11/17	<4.08	<4.08	<4.08	<4.08	<4.08	<4.08	4.70	<4.08	<4.08	4.70
09/19/17	<4.56	5.43	<4.56	<4.56	<4.56	<4.56	7.93	<4.56	<4.56	7.93
05/01/18	<4.22	<4.22	<4.22	<4.22	<4.22	<4.22	7.69	<4.22	<4.22	7.69
12/10/18	<4.43	<4.43	<4.43	<4.43	<4.43	<4.43	<4.43	<4.43	<4.43	ND
04/02/19	<4.28	<4.28	<4.28	<4.28	<4.28	<4.28	4.34	<4.28	<4.28	4.34
04/30/20	<4.28	<4.28	<4.28	<4.28	<4.28	<4.28	6.42	<4.28	<4.28	6.42
04/09/21	<4.18	<4.18	<4.18	<4.18	<4.18	<4.18	7.75	<4.18	<4.18	*
04/19/22	<2.00	<2.00	2.62	2.06	<2.00	<2.00	6.31	<2.00	4.04	*
04/03/23	2.52	<1.95	2.02	<1.95	<1.95	<1.95	3.96	<1.95	4.42	*
07/17/23	2.71	<2.21	3.18	<2.21	<2.21	<2.21	6.83	<2.21	4.36	*
TW-15-74										
07/11/17	<4.15	<4.15	<4.15	<4.15	<4.15	<4.15	4.32	<4.15	<4.15	4.32
09/19/17	<4.31	<4.31	<4.31	<4.31	<4.31	<4.31	<4.31	<4.31	<4.31	ND
05/01/18	<4.74	<4.74	<4.74	<4.74	<4.74	<4.74	4.87	<4.74	<4.74	4.87
07/17/23	<2.12	<2.12	3.16	<2.12	<2.12	<2.12	5.97	<2.12	2.81	*
TW-1-OBS-74										
07/17/23	<2.23	<2.23	<2.23	<2.23	<2.23	<2.23	5.65	<2.23	4.25	*
TW-79-44										
07/17/23	2.61	2.59	3.07	2.710	<2.14	<2.14	6.02	<2.14	7.87	*

NOTE:

AGQS - Ambient Groundwater Quality Standard (AGQS)

ND - Not detected

BOLD - detected

NS - No standard

Grey Box - AGQS exceedance

* No longer regulated

Grove Road Landfill

5 - Per- and Polyfluoroalkyl Substances in Rye District Water Supply

DATE	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoronanoic acid (PFNA)
CAS #	1763-23-1	335-67-1	355-46-4	375-95-1
NHDES MCL/AGOS	15	12	18	11
Garland Well				
4/2016	6	6	<3	<2
1/2017	7.8	7.8	<3	
1/2017	6.9(DUP)	7.1(DUP)	<3	<2
7/2017	11	10	5	<2
8/2017	6	5	3	<2
9/2017	6	7	3	<2
10/2017	4	5	<3	<2
11/2017	5	4	<3	<2
12/2017	4	5	<3	<2
1/2018	6	5	<3	<2
2/2018	<4	4	<3	<2
3/2018	6	5	<3	<2
4/2018	<4	6	<3	<2
5/2018	<4	7	<3	<2
6/2018	5	7	<3	<2
7/2018	7	7	<3	<2
8/2018	6	6	<3	<2
9/2018	4	4	<3	<2
10/2018	7	6	<3	<2
11/2018	6	6	<3	<2
12/2018	4	6	<3	<2
1/2019	5	7	<3	<2
2/2019	7	8	<3	<2
3/2019	5	6	<3	<2
4/2019	<4	5	<3	<2
5/2019	6	6	<3	<2
6/2019	<4	6	<3	<2
7/2019	6	5	<3	<2
8/2019	6	6	<3	<2
9/2019	5	5	<2	<2
10/2019	5	5	<2	<2
11/2019	5	5	<2	<2
12/2019	6.50	7.33	<2	<2
1/2020	4.55	7.62	<2	<2
2/2020	6.04	7.14	<2	<2
3/2020	7.32	6.92	<2	<2
4/2020	5.64	8.03	<2	<2
5/2020	4.74	7.47	<2	<2
6/2020	6.75	6.82	<2	<2
7/2020	6.29	6.44	<2	<2
8/2020	7.38	7.34	<2	<2
9/2020	5.22	6.51	2.12	<2
10/2020	6.80	6.91	<2	<2
11/2020	<2	<2	<2	<2
12/2020	7.69	6.20	<2	<2
1/2021	6.04	6.76	<2	<2
4/2021	5.76	6.81	<2	<2

Grove Road Landfill

5 - Per- and Polyfluoroalkyl Substances in Rye District Water Supply

DATE	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoronanoic acid (PFNA)
CAS #	1763-23-1	335-67-1	355-46-4	375-95-1
NHDES MCL/AGQS	15	12	18	11
7/2021	5.72	6.52	<2	<2
10/2021	7.97	7.72	<2	<2
2/2022	6.85	8.64	<2	<2
4/2022	6.21	8.49	<2	<2
8/2022	8.47	8.97	2.09	<2
11/2022	7.93	5.87	<2	<2
3/2023	8.03	5.09	<2	<2
6/2023	6.36	6.72	<1.64	<1.64
7/17/2023	5.13	6.21	1.17 J	1.59 U
Bailey Well				
4/2016	<4	<2	<3	<2
1/2017	<4	2.5	<3	<2
7/2017	<4	<2	<3	<2
8/2017	<4	<2	<3	<2
9/2017	<4	<2	<3	<2
10/2017	<4	<2	<3	<2
11/2017	<4	<2	<3	<2
12/2017	<4	<2	<3	<2
1/2018	<4	<2	<3	<2
2/2018	<4	<2	<3	<2
3/2018	<4	<2	<3	<2
4/2018	<4	<2	<3	<2
5/2018	<4	<2	<3	<2
6/2018	<4	<2	<3	<2
7/2018	<4	<2	<3	<2
8/2018	<4	<2	<3	<2
9/2018	<4	<2	<3	<2
10/2018	<4	<2	<3	<2
11/2018	<4	<2	<3	<2
12/2018	<4	<2	<3	<2
1/2019	<4	<2	<3	<2
2/2019	<4	<2	<3	<2
3/2019	<4	<2	<3	<2
4/2019	<4	<2	<3	<2
5/2019	<4	<2	<3	<2
6/2019	<4	<2	<3	<2
7/2019	<4	<2	<3	<2
8/2019	<4	<2	<3	<2
9/2019	<2	<2	<2	<2
10/2019	<2	<2	<2	<2
11/2019	<2	<2	<2	<2
12/2019	<2	2.43	<2	<2
1/2020	<2	2.42	<2	<2
2/2020	<2	2.29	<2	<2
3/2020	<2	2.34	<2	<2
4/2020	<2	2.45	<2	<2
5/2020	<2	<2	<2	<2
6/2020	<2	<2	<2	<2

Grove Road Landfill

5 - Per- and Polyfluoroalkyl Substances in Rye District Water Supply

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CAS #	1763-23-1	335-67-1	355-46-4	375-95-1
NHDES MCL/AGQS	15	12	18	11
7/2020	<2	<2	<2	<2
8/2020	<2	2.31	<2	<2
9/2020	<2	2.12	<2	<2
10/2020	<2	2.16	<2	<2
11/2020	<2	3.21	<2	<2
12/2020	<2	2.85	<2	<2
1/2021	<2	2.81	<2	<2
4/2021	<2	2.46	<2	<2
7/2021	<2	2.31	<2	<2
10/2021	<2	2.32	<2	<2
2/2022	<2	2.07	<2	<2
4/2022	<2	2.23	<2	<2
8/2022	<2	3.02	<2	<2
11/2022	<2	2.23	<2	<2
3/2023	<2	<2	<2	<2
6/2023	<1.64	1.90	<1.64	<1.64
7/17/2023	0.780 J	1.80	0.589 J	1.62 J
Cedar Run Well				
4/2016	<4	2	<3	<2
1/2017	<4	3	<3	<2
7/2017	<4	<2	3	<2
8/2017	<4	2	<3	<2
9/2017	<4	<2	<3	<2
10/2017	<4	<2	<3	<2
11/2017	<4	<2	<3	<2
12/2017	<4	2	<3	<2
1/2018	<4	3	<3	<2
2/2018	<4	<2	<3	<2
3/2018	<4	<2	<3	<2
4/2018	<4	<2	<3	<2
5/2018	<4	<2	<3	<2
6/2018	<4	<2	<3	<2
7/2018	<4	2	<3	<2
8/2018	<4	2	<3	<2
9/2018	<4	2	<3	<2
10/2018	<4	3	<3	<2
11/2018	<4	4	<3	<2
12/2018	<4	3	<3	<2
1/2019	<4	3	<3	<2
2/2019	<4	<2	<3	<2
3/2019	<4	4	<3	<2
4/2019	<4	2	<3	<2
5/2019	<4	2	<3	<2
6/2019	<4	3	<3	<2
7/2019	<4	4	<3	<2
8/2019	<4	4	<3	<2
9/2019	<2	4	<2	<2
10/2019	<2	4	<2	<2

Grove Road Landfill

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CAS #	1763-23-1	335-67-1	355-46-4	375-95-1
NHDES MCL/AGQS	15	12	18	11
11/2019	<2	3	<2	<2
12/2019	<2	5.11	<2	<2
1/2020	<2	5.67	<2	<2
2/2020	<2	4.85	<2	<2
3/2020	<2	4.72	<2	<2
4/2020	<2	5.23	<2	<2
5/2020	<2	4.36	<2	<2
6/2020	<2	4.39	<2	<2
7/2020	2.06	4.28	2.06	<2
8/2020	<2	5.09	<2	<2
9/2020	<2	4.32	<2	<2
10/2020	2.07	3.61	2.07	<2
11/2020	2.62	5.59	<2	<2
12/2020	2.77	5.13	2.04	<2
1/2021	2.62	5.17	3.04	<2
4/2021	<2	5.68	<2	<2
7/2021	<2	4.00	<2	<2
10/2021	2.12	5.47	2.26	<2
2/2022	<2	4.37	<2	<2
4/2022	<2	4.80	<2	<2
8/2022	2.43	5.59	<2	<2
11/2022	2.27	4.33	<2	<2
3/2023	5.40	<2	<2	<2
6/2023	<10	<10	<10	<10
7/17/2023	1.25 J	3.63	1.08 J	1.59 U
System Sample (Taken at Washington Road Storage Tanks)				
8/2017	7	4	<3	<2
9/2017	5	3	<3	<2
10/2017	4	2	<3	3
11/2017	5	3	<3	<2
12/2017	<4	3	<3	<2
1/2018	<4	3	<3	<2
2/2018	<4	3	<3	<2
3/2018	<4	2	<3	<2
4/2018	5	3	<3	<2
5/2018	<4	4	<3	<2
6/2018	<4	5	<3	<2
7/2018	4	5	<3	<2
8/2018	<4	4	<3	<2
9/2018	<4	3	<3	<2
10/2018	<4	4	<3	<2
11/2018	4	4	<3	<2
12/2018	<4	3	<3	<2
1/2019	5	4	<3	<2
2/2019	<4	5	<3	<2
3/2019	<4	4	<3	<2
4/2019	<4	3	<3	<2
5/2019	<4	5	<3	<2

Grove Road Landfill

5 - Per- and Polyfluoroalkyl Substances in Rye District Water Supply

DATE	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoronanoic acid (PFNA)
CAS #	1763-23-1	335-67-1	355-46-4	375-95-1
NHDES MCL/AGQS	15	12	18	11
6/2019	<4	4	<3	<2
7/2019	<4	4	<3	<2
8/2019	4	4	<3	<2
9/2019	<2	4	<2	<2
10/2019	2	4	<2	<2
11/2019	<2	<2	<2	<2
12/2019	3.56	4.80	<2	<2
1/2020	3.66	5.45	<2	<2
2/2020	2.84	5.16	<2	<2
3/2020	4.52	5.21	<2	<2
4/2020	4.91	5.62	<2	<2
5/2020	2.90	5.40	<2	<2
6/2020	4.32	5.68	<2	<2
7/2020	4.35	5.04	<2	<2
8/2020	4.42	5.11	<2	<2
9/2020	4.64	4.61	<2	<2
10/2020	5.31	5.31	<2	<2
11/2020	3.12	4.20	<2	<2
12/2020	4.69	5.32	<2	<2
1/2021	5.04	6.27	<2	<2
4/2021	4.35	5.71	<2	<2
7/2021	3.91	4.61	<2	<2
10/2021	4.63	4.70	<2	<2
2/2022	5.92	7.90	<2	<2
4/2022	4.02	5.74	<2	<2
8/2022	5.71	6.71	<2	<2
9/2022	4.12	5.29	<2	<2
11/2022	5.23	5.24	<2	<2
3/2023	5.77	3.37	<2	<2
7/17/2023	3.99	4.36	1.04 J	1.68 U

U = This compound was analyzed for, but not detected above the associated method detection limit.

J = The analytical result was below the instrument calibration range, but above the method detection limit. The reported concentration is an



ANALYTICAL RESULTS

Batch ID/Form: 65939 - CHEMICAL MONITORING

Submitting Lab ID: 1733

PWS ID/Name: 2041010 - RYE WATER DIST - RYE

Report Date: 07/31/2023

Collector: ARIK JONES

Phone: 603-817-1344

Collect Date: 06/22/2023 11:10:00

Lab Sample ID: 65939-003

Matrix: WATER

Received: 06/26/2023 13:01:00

Sample Location ID: 501

Sample Type: ROUTINE-SAMPLE

Compliance Period: Q2 2023

Description: DEP TAP/PUMPHOUSE /AFTER TREATMENT/001

Receipt Temp.: 5 C

Analyte	Results	Units	RDL	DF	Prepared Date	Analysis Date	Analyte Code	Analyst	Qual.
Analytical Method: 533		Analyzing Lab: 1732-ABSOLUTE RESOURCE ASSOCIATES LLC							
PERFLUOROBUTANESULFONIC ACID - PFBS	2.97	NG/L	1.64	1	00:00:00	07/05/2023 22:20:41	375-73-5		
PERFLUOROBUTANOIC ACID - PFBA	1.76	NG/L	1.64	1	00:00:00	07/05/2023 22:20:41	375-22-4		
PERFLUOROHEPTANOIC ACID - PFHPA	1.91	NG/L	1.64	1	00:00:00	07/05/2023 22:20:41	375-85-9		
PERFLUOROHEXANE SULFONIC ACID - PFHXS	ND	NG/L	1.64	1	00:00:00	07/05/2023 22:20:41	355-46-4		
PERFLUOROHEXANOIC ACID - PFHXA	2.54	NG/L	1.64	1	00:00:00	07/05/2023 22:20:41	307-24-4		
PERFLUORONONANOIC ACID - PFNA	ND	NG/L	1.64	1	00:00:00	07/05/2023 22:20:41	375-95-1		L
PERFLUOROOCTANE SULFONIC ACID - PFOS	6.36	NG/L	1.64	1	00:00:00	07/05/2023 22:20:41	1763-23-1		
PERFLUOROOCTANOIC ACID - PFOA	6.72	NG/L	1.64	1	00:00:00	07/05/2023 22:20:41	335-67-1		
PERFLUOROPENTANOIC ACID - PFPEA	ND	NG/L	3.28	1	00:00:00	07/05/2023 22:20:41	2706-90-3		

This report is derived from the original 'Report of Laboratory Analysis' and is not intended as a replacement.



ANALYTICAL RESULTS

Batch ID/Form: 65939 - CHEMICAL MONITORING

Submitting Lab ID: 1733

PWS ID/Name: 2041010 - RYE WATER DIST - RYE

Report Date: 07/31/2023

Collector: ARIK JONES

Phone: 603-817-1344

Collect Date: 06/22/2023 11:40:00

Lab Sample ID: 65939-001

Matrix: WATER

Received: 06/26/2023 13:01:00

Sample Location ID: 502

Sample Type: ROUTINE-SAMPLE

Compliance Period: Q2 2023

Description: TREATMENT FAC/008/CEDAR BRW

Receipt Temp.: 5 C

Analyte	Results	Units	RDL	DF	Prepared Date	Analysis Date	Analyte Code	Analyst	Qual.
Analytical Method: 533		Analyzing Lab: 1732-ABSOLUTE RESOURCE ASSOCIATES LLC							
PERFLUOROBUTANESULFONIC ACID - PFBS	ND	NG/L	10	1	00:00:00	07/05/2023 21:48:43	375-73-5		
PERFLUOROBUTANOIC ACID - PFBA	ND	NG/L	10	1	00:00:00	07/05/2023 21:48:43	375-22-4		
PERFLUOROHEPTANOIC ACID - PFHPA	ND	NG/L	10	1	00:00:00	07/05/2023 21:48:43	375-85-9		
PERFLUOROHEXANE SULFONIC ACID - PFHXS	ND	NG/L	10	1	00:00:00	07/05/2023 21:48:43	355-46-4		
PERFLUOROHEXANOIC ACID - PFHXA	ND	NG/L	10	1	00:00:00	07/05/2023 21:48:43	307-24-4		
PERFLUORONONANOIC ACID - PFNA	ND	NG/L	10	1	00:00:00	07/05/2023 21:48:43	375-95-1		L
PERFLUOROOCTANE SULFONIC ACID - PFOS	ND	NG/L	10	1	00:00:00	07/05/2023 21:48:43	1763-23-1		
PERFLUOROOCTANOIC ACID - PFOA	ND	NG/L	10	1	00:00:00	07/05/2023 21:48:43	335-67-1		
PERFLUOROPENTANOIC ACID - PFPEA	ND	NG/L	20	1	00:00:00	07/05/2023 21:48:43	2706-90-3		

This report is derived from the original 'Report of Laboratory Analysis' and is not intended as a replacement.



ANALYTICAL RESULTS

Batch ID/Form: 65939 - CHEMICAL MONITORING

Submitting Lab ID: 1733

PWS ID/Name: 2041010 - RYE WATER DIST - RYE

Report Date: 07/31/2023

Collector: ARIK JONES

Phone: 603-817-1344

Collect Date: 06/22/2023 11:19:00

Lab Sample ID: 65939-002

Matrix: WATER

Received: 06/26/2023 13:01:00

Sample Location ID: 506

Sample Type: ROUTINE-SAMPLE

Compliance Period: Q2 2023

Description: TREATMENT FAC/006/BAILEY BROOK BRW

Receipt Temp.: 5 C

Analyte	Results	Units	RDL	DF	Prepared Date	Analysis Date	Analyte Code	Analyst	Qual.
Analytical Method: 533		Analyzing Lab: 1732-ABSOLUTE RESOURCE ASSOCIATES LLC							
PERFLUOROBUTANESULFONIC ACID - PFBS	ND	NG/L	1.64	1	00:00:00	07/05/2023 22:04:38	375-73-5		
PERFLUOROBUTANOIC ACID - PFBA	ND	NG/L	1.64	1	00:00:00	07/05/2023 22:04:38	375-22-4		
PERFLUOROHEPTANOIC ACID - PFHPA	ND	NG/L	1.64	1	00:00:00	07/05/2023 22:04:38	375-85-9		
PERFLUOROHEXANE SULFONIC ACID - PFHXS	ND	NG/L	1.64	1	00:00:00	07/05/2023 22:04:38	355-46-4		
PERFLUOROHEXANOIC ACID - PFHXA	ND	NG/L	1.64	1	00:00:00	07/05/2023 22:04:38	307-24-4		
PERFLUORONONANOIC ACID - PFNA	ND	NG/L	1.64	1	00:00:00	07/05/2023 22:04:38	375-95-1		L
PERFLUOROOCTANE SULFONIC ACID - PFOS	ND	NG/L	1.64	1	00:00:00	07/05/2023 22:04:38	1763-23-1		
PERFLUOROOCTANOIC ACID - PFOA	1.90	NG/L	1.64	1	00:00:00	07/05/2023 22:04:38	335-67-1		
PERFLUOROPENTANOIC ACID - PFPEA	ND	NG/L	3.29	1	00:00:00	07/05/2023 22:04:38	2706-90-3		

This report is derived from the original 'Report of Laboratory Analysis' and is not intended as a replacement.

Laboratory Report



Absolute Resource *associates*

124 Heritage Avenue Portsmouth NH 03801

Katy Anderson
Seacoast Analytical Services
PO Box 555
Barrington, NH 03825

PO Number: None
Job ID: 66255
Date Received: 7/24/23

Project: RYE WATER DISTRICT 2041010

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below. The reported results apply to the sample(s) in the condition as received at the time the laboratory took custody. This report shall not be reproduced except in full, without written approval of the laboratory. The liability of ARA is limited to the cost of the requested analyses, unless otherwise agreed upon in writing.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

A handwritten signature in black ink, appearing to read 'A. DeWees', written in a cursive style.

Aaron DeWees
Chief Operating Officer

Date of Approval: 8/10/2023
Total number of pages: 10

Absolute Resource Associates Certifications

New Hampshire 1732
Maine NH902

Massachusetts M-NH902

Project ID: RYE WATER DISTRICT 2041010

Job ID: 66255

Sample#: 66255-001

Sample ID: S071723L1

Matrix: Water

Sampled: 7/17/23 12:37

Method Reference: E533

Parameter	Result	Reporting			Dil'n Factor	Analyst	Prep Date	Batch	Analysis	
		Limit	DL	Units					Date	Time
perfluorobutanoic acid (PFBA)	1.30 J	1.68	0.432	ng/L	1	DBV	7/27/23	16525	8/2/23	13:40
perfluorobutane sulfonic acid (PFBS)	2.06	1.68	0.263	ng/L	1	DBV	7/27/23	16525	8/2/23	13:40
perfluoroheptanoic acid (PFHPA)	1.99	1.68	0.544	ng/L	1	DBV	7/27/23	16525	8/2/23	13:40
perfluorohexane sulfonic acid (PFHXS)	1.04 J	1.68	0.160	ng/L	1	DBV	7/27/23	16525	8/2/23	13:40
perfluorohexanoic acid (PFHXA)	1.76	1.68	0.765	ng/L	1	DBV	7/27/23	16525	8/2/23	13:40
perfluorononanoic acid (PFNA)	1.68 U	1.68	0.403	ng/L	1	DBV	7/27/23	16525	8/2/23	13:40
perfluorooctane sulfonic acid (PFOS)	3.99	1.68	0.522	ng/L	1	DBV	7/27/23	16525	8/2/23	13:40
perfluorooctanoic acid (PFOA)	4.36	1.68	0.872	ng/L	1	DBV	7/27/23	16525	8/2/23	13:40
perfluoropentanoic acid (PFPA)	1.65 J	3.36	0.660	ng/L	1	DBV	7/27/23	16525	8/2/23	13:40
Surrogate Recovery										
		Limits								
13C8-PFOS SUR	98	50-200		%	1	DBV	7/27/23	16525	8/2/23	13:40
13C4-PFHpA SUR	83	50-200		%	1	DBV	7/27/23	16525	8/2/23	13:40
13C4-PFBA SUR	88	50-200		%	1	DBV	7/27/23	16525	8/2/23	13:40
13C3-PFBS SUR	90	50-200		%	1	DBV	7/27/23	16525	8/2/23	13:40
13C3-PFHxS SUR	95	50-200		%	1	DBV	7/27/23	16525	8/2/23	13:40
13C5-PFHxA SUR	76	50-200		%	1	DBV	7/27/23	16525	8/2/23	13:40
13C9-PFNA SUR	89	50-200		%	1	DBV	7/27/23	16525	8/2/23	13:40
13C8-PFOA SUR	90	50-200		%	1	DBV	7/27/23	16525	8/2/23	13:40
13C5-PFPeA SUR	109	50-200		%	1	DBV	7/27/23	16525	8/2/23	13:40

U = This compound was analyzed for, but not detected above the associated method detection limit.

J = The analytical result was below the instrument calibration range, but above the method detection limit. The reported concentration is an estimate.

Project ID: RYE WATER DISTRICT 2041010

Job ID: 66255

Sample#: 66255-002

Sample ID: DEP TAP/PUMPHOUSE /AFTER TREATMENT/001

Matrix: Water

Sampled: 7/17/23 12:50

Method Reference: E533

Parameter	Result	Reporting			Dil'n Factor	Analyst	Prep Date	Batch	Analysis	
		Limit	DL	Units					Date	Time
perfluorobutanoic acid (PFBA)	1.52 J	1.59	0.410	ng/L	1	DBV	7/27/23	16525	8/2/23	13:56
perfluorobutane sulfonic acid (PFBS)	2.86	1.59	0.249	ng/L	1	DBV	7/27/23	16525	8/2/23	13:56
perfluoroheptanoic acid (PFHPA)	1.42 J	1.59	0.516	ng/L	1	DBV	7/27/23	16525	8/2/23	13:56
perfluorohexane sulfonic acid (PFHXS)	1.17 J	1.59	0.152	ng/L	1	DBV	7/27/23	16525	8/2/23	13:56
perfluorohexanoic acid (PFHXA)	2.04	1.59	0.726	ng/L	1	DBV	7/27/23	16525	8/2/23	13:56
perfluorononanoic acid (PFNA)	1.59 U	1.59	0.382	ng/L	1	DBV	7/27/23	16525	8/2/23	13:56
perfluorooctane sulfonic acid (PFOS)	5.13	1.59	0.496	ng/L	1	DBV	7/27/23	16525	8/2/23	13:56
perfluorooctanoic acid (PFOA)	6.21	1.59	0.828	ng/L	1	DBV	7/27/23	16525	8/2/23	13:56
perfluoropentanoic acid (PFPA)	1.86 J	3.18	0.627	ng/L	1	DBV	7/27/23	16525	8/2/23	13:56
Surrogate Recovery		Limits								
13C8-PFOS SUR	99	50-200		%	1	DBV	7/27/23	16525	8/2/23	13:56
13C4-PFHpA SUR	76	50-200		%	1	DBV	7/27/23	16525	8/2/23	13:56
13C4-PFBA SUR	74	50-200		%	1	DBV	7/27/23	16525	8/2/23	13:56
13C3-PFBS SUR	92	50-200		%	1	DBV	7/27/23	16525	8/2/23	13:56
13C3-PFHxS SUR	96	50-200		%	1	DBV	7/27/23	16525	8/2/23	13:56
13C5-PFHxA SUR	64	50-200		%	1	DBV	7/27/23	16525	8/2/23	13:56
13C9-PFNA SUR	74	50-200		%	1	DBV	7/27/23	16525	8/2/23	13:56
13C8-PFOA SUR	76	50-200		%	1	DBV	7/27/23	16525	8/2/23	13:56
13C5-PFPeA SUR	94	50-200		%	1	DBV	7/27/23	16525	8/2/23	13:56

U = This compound was analyzed for, but not detected above the associated method detection limit.

J = The analytical result was below the instrument calibration range, but above the method detection limit. The reported concentration is an estimate.

Project ID: RYE WATER DISTRICT 2041010

Job ID: 66255

Sample#: 66255-003

Sample ID: TREATMENT FAC/008/CEDAR BRW

Matrix: Water

Sampled: 7/17/23 12:19

Method Reference: E533

Parameter	Result	Reporting			Dil'n Factor	Analyst	Prep Date	Batch	Analysis	
		Limit	DL	Units					Date	Time
perfluorobutanoic acid (PFBA)	1.63	1.59	0.410	ng/L	1	DBV	7/27/23	16525	8/2/23	14:12
perfluorobutane sulfonic acid (PFBS)	1.27 J	1.59	0.249	ng/L	1	DBV	7/27/23	16525	8/2/23	14:12
perfluoroheptanoic acid (PFHPA)	1.25 J	1.59	0.516	ng/L	1	DBV	7/27/23	16525	8/2/23	14:12
perfluorohexane sulfonic acid (PFHXS)	1.08 J	1.59	0.152	ng/L	1	DBV	7/27/23	16525	8/2/23	14:12
perfluorohexanoic acid (PFHXA)	1.55 J	1.59	0.726	ng/L	1	DBV	7/27/23	16525	8/2/23	14:12
perfluorononanoic acid (PFNA)	1.59 U	1.59	0.382	ng/L	1	DBV	7/27/23	16525	8/2/23	14:12
perfluorooctane sulfonic acid (PFOS)	1.25 J	1.59	0.496	ng/L	1	DBV	7/27/23	16525	8/2/23	14:12
perfluorooctanoic acid (PFOA)	3.63	1.59	0.828	ng/L	1	DBV	7/27/23	16525	8/2/23	14:12
perfluoropentanoic acid (PFPA)	1.68 J	3.18	0.627	ng/L	1	DBV	7/27/23	16525	8/2/23	14:12
Surrogate Recovery		Limits								
13C8-PFOS SUR	101	50-200		%	1	DBV	7/27/23	16525	8/2/23	14:12
13C4-PFHpA SUR	90	50-200		%	1	DBV	7/27/23	16525	8/2/23	14:12
13C4-PFBA SUR	97	50-200		%	1	DBV	7/27/23	16525	8/2/23	14:12
13C3-PFBS SUR	87	50-200		%	1	DBV	7/27/23	16525	8/2/23	14:12
13C3-PFHxS SUR	97	50-200		%	1	DBV	7/27/23	16525	8/2/23	14:12
13C5-PFHxA SUR	78	50-200		%	1	DBV	7/27/23	16525	8/2/23	14:12
13C9-PFNA SUR	103	50-200		%	1	DBV	7/27/23	16525	8/2/23	14:12
13C8-PFOA SUR	93	50-200		%	1	DBV	7/27/23	16525	8/2/23	14:12
13C5-PFPeA SUR	140	50-200		%	1	DBV	7/27/23	16525	8/2/23	14:12

U = This compound was analyzed for, but not detected above the associated method detection limit.

J = The analytical result was below the instrument calibration range, but above the method detection limit. The reported concentration is an estimate.

Project ID: RYE WATER DISTRICT 2041010

Job ID: 66255

Sample#: 66255-004

Sample ID: TREATMENT FAC/006/BAILEY BROOK BRW

Matrix: Water

Sampled: 7/17/23 12:29

Method Reference: E533

Parameter	Result	Reporting			Dil'n Factor	Analyst	Prep Date	Batch	Analysis	
		Limit	DL	Units					Date	Time
perfluorobutanoic acid (PFBA)	0.722 J	1.62	0.416	ng/L	1	DBV	7/27/23	16525	8/2/23	14:28
perfluorobutane sulfonic acid (PFBS)	0.728 J	1.62	0.253	ng/L	1	DBV	7/27/23	16525	8/2/23	14:28
perfluoroheptanoic acid (PFHPA)	0.621 J	1.62	0.524	ng/L	1	DBV	7/27/23	16525	8/2/23	14:28
perfluorohexane sulfonic acid (PFHXS)	0.589 J	1.62	0.155	ng/L	1	DBV	7/27/23	16525	8/2/23	14:28
perfluorohexanoic acid (PFHXA)	0.799 J	1.62	0.738	ng/L	1	DBV	7/27/23	16525	8/2/23	14:28
perfluorononanoic acid (PFNA)	1.62 U	1.62	0.388	ng/L	1	DBV	7/27/23	16525	8/2/23	14:28
perfluorooctane sulfonic acid (PFOS)	0.780 J	1.62	0.504	ng/L	1	DBV	7/27/23	16525	8/2/23	14:28
perfluorooctanoic acid (PFOA)	1.80	1.62	0.841	ng/L	1	DBV	7/27/23	16525	8/2/23	14:28
perfluoropentanoic acid (PFPA)	0.799 J	3.24	0.637	ng/L	1	DBV	7/27/23	16525	8/2/23	14:28
Surrogate Recovery		Limits								
13C8-PFOS SUR	98	50-200		%	1	DBV	7/27/23	16525	8/2/23	14:28
13C4-PFHpA SUR	84	50-200		%	1	DBV	7/27/23	16525	8/2/23	14:28
13C4-PFBA SUR	87	50-200		%	1	DBV	7/27/23	16525	8/2/23	14:28
13C3-PFBS SUR	89	50-200		%	1	DBV	7/27/23	16525	8/2/23	14:28
13C3-PFHxS SUR	96	50-200		%	1	DBV	7/27/23	16525	8/2/23	14:28
13C5-PFHxA SUR	75	50-200		%	1	DBV	7/27/23	16525	8/2/23	14:28
13C9-PFNA SUR	95	50-200		%	1	DBV	7/27/23	16525	8/2/23	14:28
13C8-PFOA SUR	90	50-200		%	1	DBV	7/27/23	16525	8/2/23	14:28
13C5-PFPeA SUR	114	50-200		%	1	DBV	7/27/23	16525	8/2/23	14:28

U = This compound was analyzed for, but not detected above the associated method detection limit.

J = The analytical result was below the instrument calibration range, but above the method detection limit. The reported concentration is an estimate.



124 Heritage Avenue #16
Portsmouth, NH 03801
603-436-2001

absoluteresourceassociates.com

**CHAIN-OF-CUSTODY RECORD
AND ANALYSIS REQUEST**

66255

Company Name:
Seacoast Analytical Services

Company Address:
72 Pinkham Road, Lee, NH 03861

Report To:
Katy Anderson

Phone #:
(603)868-1457

Project Name: **Rye Water District**

Project #: **S071723L1-4**

Project Location: **NH MA ME VT**

Accreditation Required? N/Y: **Y**

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

Protocol: RCRA SDWA NPDES
MCP NHDES DOD

Notify ARA if your samples require specific methods, certifications or compliance protocol.

Reporting Limits: QAPP EPA DW GW-1 Other S-1

ANALYSIS REQUEST

<input type="checkbox"/> VOC 8260	<input type="checkbox"/> VOC 8260 NHDES	<input type="checkbox"/> VOC 8260 MADEP	<input type="checkbox"/> VOC 8260
<input type="checkbox"/> VOC 624.1	<input type="checkbox"/> VOC BTEX MBE, only	<input type="checkbox"/> VOC 8021VT	<input type="checkbox"/> VOC 624.1
<input type="checkbox"/> VPH MADEP	<input type="checkbox"/> GRO 8015	<input type="checkbox"/> 1,4-Dioxane	<input type="checkbox"/> VPH MADEP
<input type="checkbox"/> VOC 524.2	<input type="checkbox"/> VOC 524.2 NH List	<input type="checkbox"/> Gases-List	<input type="checkbox"/> VOC 524.2
<input type="checkbox"/> TPH 8100	<input type="checkbox"/> DRO 8015	<input type="checkbox"/> EPH MADEP	<input type="checkbox"/> TPH Fingerprint
<input type="checkbox"/> 8270PAH	<input type="checkbox"/> 8270ABN	<input type="checkbox"/> 625.1	<input type="checkbox"/> 8270PAH
<input type="checkbox"/> 8082 PCB	<input type="checkbox"/> 8081 Pesticides	<input type="checkbox"/> 608.3 Pest/PCB	<input type="checkbox"/> 8082 PCB
<input type="checkbox"/> PFAS 537.1	<input checked="" type="checkbox"/> PFAS 533	<input type="checkbox"/> PFAS isotope dilution	<input checked="" type="checkbox"/> PFAS 537.1
<input type="checkbox"/> O&G 1664	<input type="checkbox"/> Mineral O&G 1664		<input type="checkbox"/> O&G 1664
<input type="checkbox"/> pH	<input type="checkbox"/> BOD	<input type="checkbox"/> Conductivity	<input type="checkbox"/> Turbidity
<input type="checkbox"/> TSS	<input type="checkbox"/> TDS	<input type="checkbox"/> TS	<input type="checkbox"/> TVS
<input type="checkbox"/> RCRA Metals	<input type="checkbox"/> Priority Pollutant Metals	<input type="checkbox"/> TAL Metals	<input type="checkbox"/> Hardness
<input type="checkbox"/> Total Metals-list:			
<input type="checkbox"/> Dissolved Metals-list:			
<input type="checkbox"/> Ammonia	<input type="checkbox"/> COD	<input type="checkbox"/> TKN	<input type="checkbox"/> TN
<input type="checkbox"/> T-Phosphorus	<input type="checkbox"/> Bacteria P/A	<input type="checkbox"/> Bacteria MPN	<input type="checkbox"/> Enterococci
<input type="checkbox"/> Cyanide	<input type="checkbox"/> Sulfide	<input type="checkbox"/> Nitrate + Nitrite	<input type="checkbox"/> Ortho P
<input type="checkbox"/> Nitrate	<input type="checkbox"/> Nitrite	<input type="checkbox"/> Chloride	<input type="checkbox"/> Sulfate
<input type="checkbox"/> Corrosivity	<input type="checkbox"/> Ignitibility/FP		
<input type="checkbox"/> TCLP Metals	<input type="checkbox"/> TCLP VOC	<input type="checkbox"/> TCLP SVOC	<input type="checkbox"/> TCLP Pesticide
Subcontract: <input type="checkbox"/> Grain Size <input type="checkbox"/> Herbicides <input type="checkbox"/> Asbestos			
Grab (G) or Composite (C)			

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix			Preservation Method					Sampling		
			WATER	SOLID	OTHER	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	DATE	TIME	SAMPLER
66255-01	S071723L1	2	✓								7/17/23	12:37	AJ
-02	S071723L2	2	✓								7/17/23	12:50	AJ
-03	S071723L3	2	✓								7/17/23	12:19	AJ
-04	S071723L4	2	✓								7/17/23	12:29	AJ

PFBA, PFPeA, PFBS, PFHxA, PFHpA, PFHxS, PFOA, PFNA, PFOS.

TAT REQUESTED

Priority (24 hr)*

Expedited (48 hr)*

Standard

(10 Business Days)

*Date Needed _____

Invoice To: _____

Email: _____

PO #: _____

Quote #: _____

NH Reimbursement Pricing

SPECIAL INSTRUCTIONS

Please email to customerservice@seacoastanalytical.com

Re: _____

Thanks!

coastanalytical.com

RECEIVED ON ICE YES NO

TEMPERATURE **6** °C

CUSTODY RECORD QSD-01 Revision 07/27/2022	Relinquished by Sampler:	Date	Time	Received by:	Date	Time
	Relinquished by: <i>[Signature]</i>	7/24/23	14:07	<i>[Signature]</i>	7/24/23	14:07
	Relinquished by:	Date	Time	Received by Laboratory:	Date	Time



**Drinking Water and Groundwater Bureau
Analysis Request Form
CHEMICAL**

July 17, 2023

Page 1 of 3

Compliance Sample Site(s) per Master Sampling Schedule

PWS ID: 2041010

System Name: RYE WATER DIST

PWS Town: RYE

Date/Time Sample Collected: 7/17/2023 12:50

Collected By: ARIK JONES

Signature:
(Print Name)

I certify that all samples taken are from the site(s) listed below and all information provided on this form to the lab is valid.

Phone Number: 603-817-1344

Locator ID#: 501

Sample Site Location: DEP TAP/PUMPHOUSE /AFTER TREATMENT/001

Sample Period: Q1 Q2 Q3 Q4 Year: 2023

Sample Type: Routine Confirmation Make-up

Check Test(s) Requested	# of Containers	Lab Sample ID	Check Test(s) Requested	# of Containers	Lab Sample ID
NITRITE * (see note)			Compliance Gross Alpha (see note)***		
NITRATE * (see note)			Combined Radium		
VOC			Uranium mass		
SOC			PFAS	<input checked="" type="checkbox"/> 2	S071723L2
IOC			Cyanide ** (see note)		
Manganese			OTHER:		

* NOTE: Samples collected for NITRATE/NITRITE analysis NEED to be collected prior to chlorination. Check with Lab.

** CYANIDE samples NEED to be collected prior to chlorination. Check with Lab.

*** In order to calculate Compliance Gross Alpha, a sample for Uranium must be taken on the same day.

FOR LAB USE: Temp C (upon receipt): 15 On Ice? /N Batch ID (if different than sample ID prefix): _____ List QUALIFIERS (if any): _____

Relinquished by: Received by: _____ Date/Time: _____

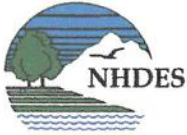
Relinquished by: _____ Received at Lab by: Date/Time: _____

Lab Conducting Analysis: _____ Signature: _____ Lab Accred. ID: _____ Phone: _____

Reporting Lab (if different): _____ Signature: _____ Lab Accred. ID: _____ Phone: _____

NOTE: THIS IS NOT A REPORTING FORM. Results to be reported must include all information specified in Env-Dw 719, Reporting Monitoring Data.

Results must be reported to DES within 2 business days of analysis completion unless acute contaminants are exceeded which must be reported within 24 hours.



Drinking Water and Groundwater Bureau
Analysis Request Form

July 17, 2023

Page 2 of 3

CHEMICAL

Compliance Sample Site(s) per Master Sampling Schedule

PWS ID: 2041010

System Name: RYE WATER DIST

PWS Town: RYE

Date/Time Sample Collected: 7/17/2023 12:19

Collected By: ARIK JONES

Signature: [Signature]
(Print Name)

I certify that all samples taken are from the site(s) listed below and all information provided on this form to the lab is valid.

Phone Number: 603-817-1344

Locator ID#: 502

Sample Site Location: TREATMENT FAC/008/CEDAR BRW

Sample Period: Q1 Q2 Q3 Q4 Year: 2023

Sample Type: Routine Confirmation Make-up

Check Test(s) Requested	# of Containers	Lab Sample ID	Check Test(s) Requested	# of Containers	Lab Sample ID
NITRITE * (see note)			Compliance Gross Alpha (see note)***		
NITRATE * (see note)			Combined Radium		
VOC			Uranium mass		
SOC			PFAS	<input checked="" type="checkbox"/>	2 5071723L3
IOC			Cyanide ** (see note)		
Manganese			OTHER:		

* NOTE: Samples collected for NITRATE/NITRITE analysis NEED to be collected prior to chlorination. Check with Lab.

** CYANIDE samples NEED to be collected prior to chlorination. Check with Lab.

*** In order to calculate Compliance Gross Alpha, a sample for Uranium must be taken on the same day.

FOR LAB USE: Temp C (upon receipt): 15 On Ice? Y/N Batch ID (if different than sample ID prefix): _____ List QUALIFIERS (if any): _____

Relinquished by: [Signature] Received by: [Signature] Date/Time: _____

Relinquished by: _____ Received at Lab by: _____ Date/Time: _____

Lab Conducting Analysis: _____ Signature: _____ Lab Accred. ID: _____ Phone: _____

Reporting Lab (if different): _____ Signature: _____ Lab Accred. ID: _____ Phone: _____

NOTE: THIS IS NOT A REPORTING FORM. Results to be reported must include all information specified in Env-Dw 719, Reporting Monitoring Data. Results must be reported to DES within 2 business days of analysis completion unless acute contaminants are exceeded which must be reported within 24 hours.



Drinking Water and Groundwater Bureau
Analysis Request Form

July 17, 2023

Page 3 of 3

CHEMICAL

Compliance Sample Site(s) per Master Sampling Schedule

PWS ID: 2041010

System Name: RYE WATER DIST

PWS Town: RYE

Date/Time Sample Collected: 7/17/2023 12:29

Collected By: ARIK JONES

Signature: [Signature]
(Print Name)

I certify that all samples taken are from the site(s) listed below and all information provided on this form to the lab is valid.

Phone Number: 603-817-1344

Locator ID#: 506

Sample Site Location: TREATMENT FAC/006/BAILEY BROOK BRW

Sample Period: Q1 Q2 Q3 Q4 Year: 2023

Sample Type: Routine Confirmation Make-up

Check Test(s) Requested	# of Containers	Lab Sample ID	Check Test(s) Requested	# of Containers	Lab Sample ID
NITRITE * (see note)			Compliance Gross Alpha (see note)***		
NITRATE * (see note)			Combined Radium		
VOC			Uranium mass		
SOC			PFAS	<input checked="" type="checkbox"/>	2 5071723L4
IOC			Cyanide ** (see note)		
Manganese			OTHER:		

* NOTE: Samples collected for NITRATE/NITRITE analysis NEED to be collected prior to chlorination. Check with Lab.

** CYANIDE samples NEED to be collected prior to chlorination. Check with Lab.

*** In order to calculate Compliance Gross Alpha, a sample for Uranium must be taken on the same day.

FOR LAB USE: Temp C (upon receipt): 15 On Ice? N Batch ID (if different than sample ID prefix): _____ List QUALIFIERS (if any): _____

Relinquished by: [Signature] Received by: [Signature] Date/Time: _____

Relinquished by: _____ Received at Lab by: _____ Date/Time: _____

Lab Conducting Analysis: _____ Signature: _____ Lab Accred. ID: _____ Phone: _____

Reporting Lab (if different): _____ Signature: _____ Lab Accred. ID: _____ Phone: _____

NOTE: THIS IS NOT A REPORTING FORM. Results to be reported must include all information specified in Env-Dw 719, Reporting Monitoring Data.

Results must be reported to DES within 2 business days of analysis completion unless acute contaminants are exceeded which must be reported within 24 hours.

Sample Receipt Condition Report

66255 SAS

Absolute Resource Associates

Job Number: _____

Samples Received from: -UPS -FedEx -USPS -Lab Courier -Client Drop-off -_____

Custody Seals - present & intact: -Yes -No -N/A CoC signed: -Yes -No

Receipt Temp: 6 °C Samples on ice? -Yes -No -N/A Sampled < 24 hrs ago? -Yes -No

PFAS-only real ice? -Yes -No -N/A Any signs of freezing? -Yes -No

Comments: _____

Preservation / Analysis	Bottle Size/Type & Quantity						Check pH for ALL applicable* samples and document:
HCl	40mL(G)	250mL(P)	500mL(P)	1L(G)			
HNO ₃	125mL(P)	250mL(P)	500mL(P)				
H ₂ SO ₄	40mL(G)	60mL(P)	125mL(P)	250mL(P)	500mL(P)		
NaOH	125mL(P)	250mL(P)					
(NH ₄) ₂ SO ₄	60mL(P)	125mL(P)	250mL(P)				
ZnAc-NaOH	125mL(P)	250mL(P)					
Trizma	125mL(P)	250mL (P)					*pH ✓ by analyst: VOC, PFAS, TOC, O&G
NH ₄ Ac	125mL(P)	250mL (P) B					Residual Cl not present: ABN625 _____ Pest608 _____
Na ₂ S ₂ O ₃	40mL(G)	120mL(P)					Bacteria ResCl ✓ by analyst
MeOH	20mL(G)	40mL(G)					PC Dry applicable? Y (N)
None (solid)	2oz(G)	4oz(G)	8oz(G)	Syringe			1L(G) 1L(P)
None (water)	40ml (G)	60mL(P)	125mL(P)	250mL(P)	500mL(P)		
Mold	Cassette	Bulk	Plate	Tape Lift			
Asbestos	Cassette	Bulk					
Lead	Cassette	Bulk	Wipe				

Login Review	Yes	No	NA	Comments
Proper lab sample containers/enough volume/correct preservative?	X			
Analyses marked on COC match bottles received?	X			
VOC & TOC Water-no headspace?			X	
VOC Solid-MeOH covers solid, no leaks, Prep Expiration OK?			X	
PFAS: ARA bottles & samples/FRB same Lot#? QC rec'd, if req'd?	X			Lot ID#: PB-29, PB-32
Bacteria bottles provided by ARA?			X	
Samples within holding time?	X			
Immediate tests communicated in writing: NO ₃ , NO ₂ -O-PO ₄ , pH, BOD, Coliform/ <i>E. coli</i> (P/A or MPN), Enterococci, Color Surfactants, Turbidity, Odor, CrVI, Ferrous Iron, Dissolved Oxygen, Unpres 624			X	
Date, time & ID on samples match CoC?	X			
Rushes communicated to analyst in writing?			X	
Subcontracted samples sent to sub lab?			X	Date Prep'd: _____ Date sent: _____
Pesticides EPA 608 pH5-9?			X	
Compliance samples have no discrepancies/require no flags?	X			(Or must be rejected)
Log-in Supervisor notified immediately of following items:			X	Discrepancies, compliance samples (NHDES, MADEP, DoD etc.) or uncommon requests.

Inspected and Received By: AMN

Date/Time: **07/24/23 14:50**

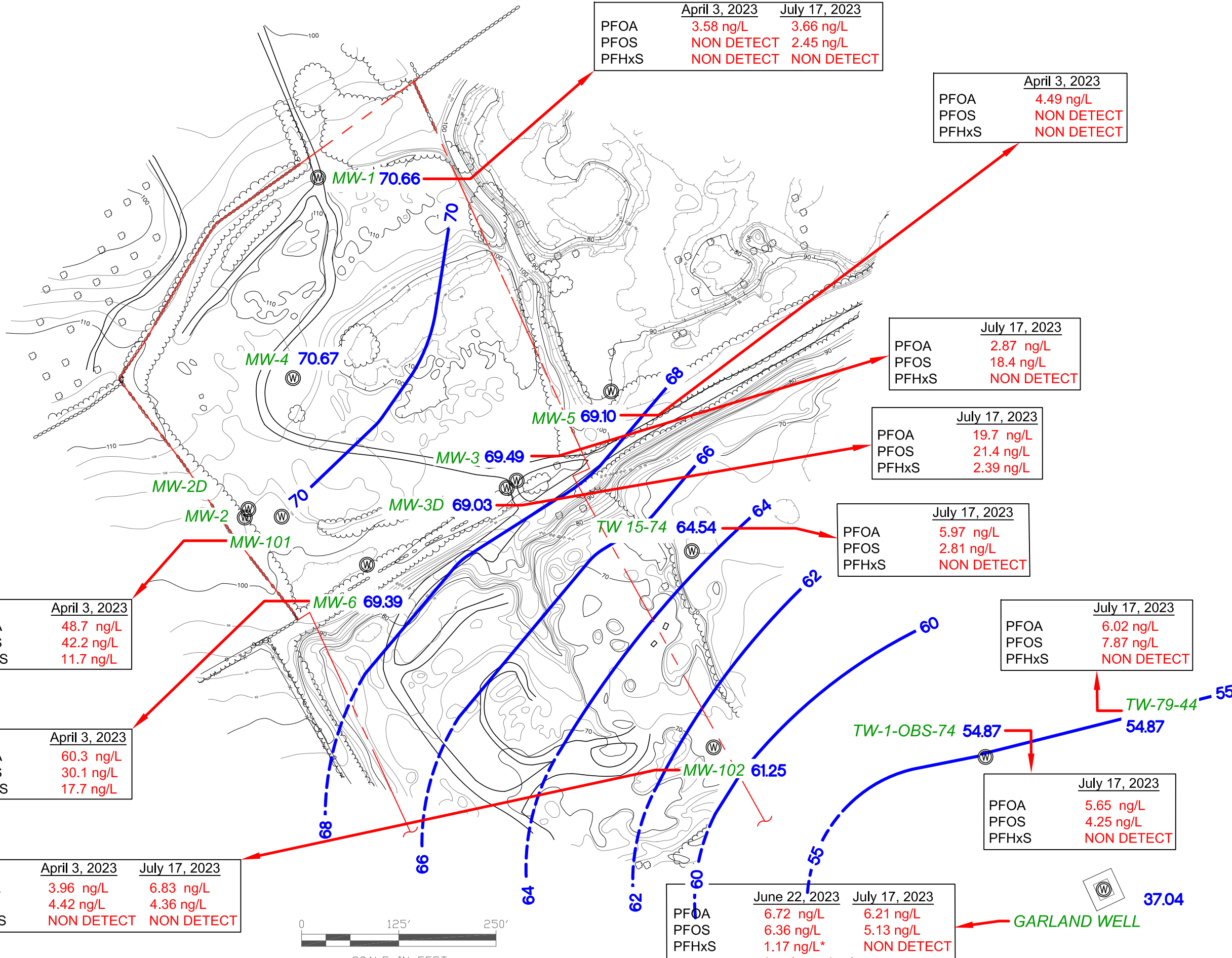
Peer Review Checklist

<input type="checkbox"/> Client ID/Project Manager	<input type="checkbox"/> On Ice, Temperature OK?	<input type="checkbox"/> Sample IDs	<input type="checkbox"/> Analyses in Correctly
<input type="checkbox"/> Project Name	<input type="checkbox"/> PO# (if provided)	<input type="checkbox"/> Matrix	-references
<input type="checkbox"/> TAT/rushes communicated	<input type="checkbox"/> Sub samples sent? Shipping Charge?	<input type="checkbox"/> Date/Time collected	-wastewater methods
<input type="checkbox"/> Received Date/Time	<input type="checkbox"/> Issues noted above communicated?	<input type="checkbox"/> Short HTs communicated	<input type="checkbox"/> Notes from CoC in LIMS

Reviewed By: _____ Date: _____

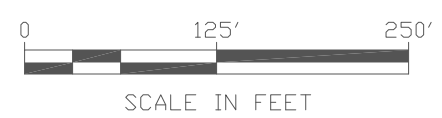
Notes: (continue on back as needed)

Initials	Date	What was sent?
Uploaded / PDF _____	_____	Report / Data / EDD / Invoice
Uploaded / PDF _____	_____	Report / Data / EDD / Invoice
Uploaded / PDF _____	_____	Report / Data / EDD / Invoice



- Notes:**
1. Base topography by Eastern Topographics, Inc. and provided by Roy F. Weston, Inc.
 2. Property line survey based on survey performed by Richard P. Millette and Assoc. Imported onto plan using common monitoring points.
 3. Groundwater levels measured on June 2, 2023 or July 21, 2023, unless otherwise noted.
 4. Groundwater Management Zone (GMZ) from Rye Tax map.
 5. Water table with elevations at MW-101 and MW-2.

- Legend:**
- 80 — 10' Contour
 - Edge of Pavement
 - Treeline
 - MW-5 (W) Groundwater Monitoring Well
 - - - GMZ Boundary
 - Water Table (June 2023)
 - - - Water table inferred from CEH measurements (1998)
 - PFOA, PFOS, PFHxS PFAS concentrations (April 2023 or as noted)



CMA ENGINEERS
 CIVIL/ENVIRONMENTAL/STRUCTURAL
 Portsmouth, NH • Manchester, NH • Portland, ME
 603/431-6196 • 603/627-0708 • 207/541-4223
 c m a e n g i n e e r s . c o m

Town of Rye, NH
 Grove Road Municipal Landfill
 Rye, New Hampshire
 Updated Conceptual Site Model

Figure 1 July 2023 Scale: 1" = 125'