

Luetje Geological Services, LLC
Ed Luetje, LG
153 Flying Point Road
Freeport, Maine 04032

June 9, 2023

Ms. Katie Haley
Town Manager
Town of Fryeburg
16 Lovewell Pond Road
Fryeburg, Maine 04037

RE: Q1 2023 Reporting – Rainmaker Spring Site (on behalf of Poland Spring)

INTRODUCTION

Luetje Geological Services (LGS), an independent hydrogeologic consulting firm, has been contracted by Poland Spring to collect and compile the monitoring data from the Rainmaker Spring site. This quarterly report (Q1 – January - March 2023) presents monitoring results for the Rainmaker Spring site and satisfies the requirements under local Town Ordinance 17G: *Groundwater and/or Spring Water Extraction*, the Approved Land Use Authorization. Monitoring activities include the following:

- Weekly depth to water measurements in five monitoring wells and four piezometers;
- Weekly monitoring of surface water elevation on Wards Pond at Route 113 and west of the site proximate to Spring 2, when possible;
- Weekly flow measurements from Spring 1 and 2, when possible;
- Record of groundwater withdrawal (gallons pumped); and
- Precipitation tracking (Fryeburg Eastern Slopes Airport (ICAO Station KIZG, Northeast Regional Climate Center)).

Figure 1 (Site Map) is provided at the end of this letter report and shows all monitoring locations.

GROUNDWATER

Groundwater levels are measured in five monitoring wells at locations shown in Figure 1. All monitoring data is tabulated and located in Table 1. A graphical representation of groundwater elevations, and weekly precipitation, is provided in Figure 2.

During Q1 2023, groundwater levels, as measured in MW-1 through MW-5, showed an increase in groundwater levels (approximately ½ foot) until the beginning of February, at which point a decline in groundwater levels (approximately ¼ foot) was observed. The increase in groundwater levels represents the continuation of fall recharge from 2022, and the decline in groundwater levels represents typical winter conditions whereby groundwater levels decline due to limited recharge and frozen conditions.

The Palmer Hydrological Drought Index measures hydrological impacts of drought which take longer to develop and longer to recover from, characterizing groundwater conditions more accurately. According to the Palmer Hydrological Drought Index, the Fryeburg area experienced moderately moist to normal conditions from January through March 2023¹.

1. <https://www.ncei.noaa.gov/access/monitoring/historical-palmers/>

SURFACE WATER

Surface water monitoring is conducted at two locations. SG-1 is located in Wards Pond west of Spring-2. WPMP-1 is located on the upstream side of Route 113 in Wards Pond (see Figure 1). A graphical representation of surface water elevations is shown in Figure 3.

No surface water measurements were made at SG-1 during Q1 2023 due to frozen conditions followed by flooded conditions. At WPMP-1, surface water elevations ranged between 397.01 to 397.23 feet NAVD88 during Q1 2023, when measurements were available. Frozen conditions were recorded between monitoring dates 1/27/2023 through 3/3/2023.

PIEZOMETER WATER LEVELS

Water levels are measured at two piezometers located adjacent to each spring. PZ-21D and PZ-21S are located near Spring 1 and P-1 and P-2 are located near Spring 2 (see Figure 1). A graphical representation of piezometer water elevations is shown in Figure 3.

Water levels in all piezometers demonstrated similar seasonal trends through Q1 2023. Water levels generally remained steady until the end of Q1 when a slight increase in levels was observed, representing the initial stages of spring recharge.

SPRING FLOW

During Q1 2023, Spring-1 flow was measured during all but three monitoring events. Flooded conditions were observed during those three monitoring events. Flow from Spring-1 ranged from 5.45 to 13.33 liters per minute. Spring-2 flow is more difficult to measure due to its lack of gradient; however, flowing conditions were observed throughout Q1 2023. Flow measurement data is presented in Table 1.

PRECIPITATION

Precipitation data has been obtained from the Fryeburg Eastern Slopes Airport (ICAO Station KIZG, Northeast Regional Climate Center), located approximately two miles to the south of the site. Missing data from the airport station are supplemented with data collected from an on-site rain gauge located at the Evergreen Spring load station. During Q1 2023 (between the dates 12/30/2022 – 3/30/2023), KIZG recorded 8.16 inches of precipitation (Figure 2 and Figure 3).

WITHDRAWALS

Poland Spring did not withdraw any water from the Rainmaker Spring site production well during Q1 2022.

CONCLUSIONS

- During Q1 2023, groundwater elevations demonstrated typical seasonal trends; the continuation of fall recharge followed by a slight winter decline. Piezometer water levels were steady until the very end of Q1, when a slight increase in levels was observed representing the beginning of spring recharge.

- During Q1 2023, no surface water measurements were made at SG-1 due to frozen and flooded conditions. Surface water levels at WPMP-1 ranged from 397.01 to 397.23 feet NAVD88 when conditions were not frozen.
- During Q1 2023 (between the dates 12/30/2022 – 3/30/2023), KIZG recorded 8.16 inches of precipitation.
- During Q1 2023, flow from Spring-1 ranged from 5.45 to 13.33 liters per minute. Flow from Spring-2 is more difficult to measure; however, flowing conditions were observed throughout Q1 2023.
- Poland Spring did not withdraw any water from the Rainmaker Spring site production well during Q1 2023.

If you have any questions regarding the data included in this report, please do not hesitate to contact me at (207) 415-9898.

Sincerely,
Luetje Geological Services, LLC



Ed Luetje L.G.

cc: Poland Spring (Mr. Mark Dubois)
Poland Spring (Mr. Iain Kurry)
Town of Fryeburg, CEO ()

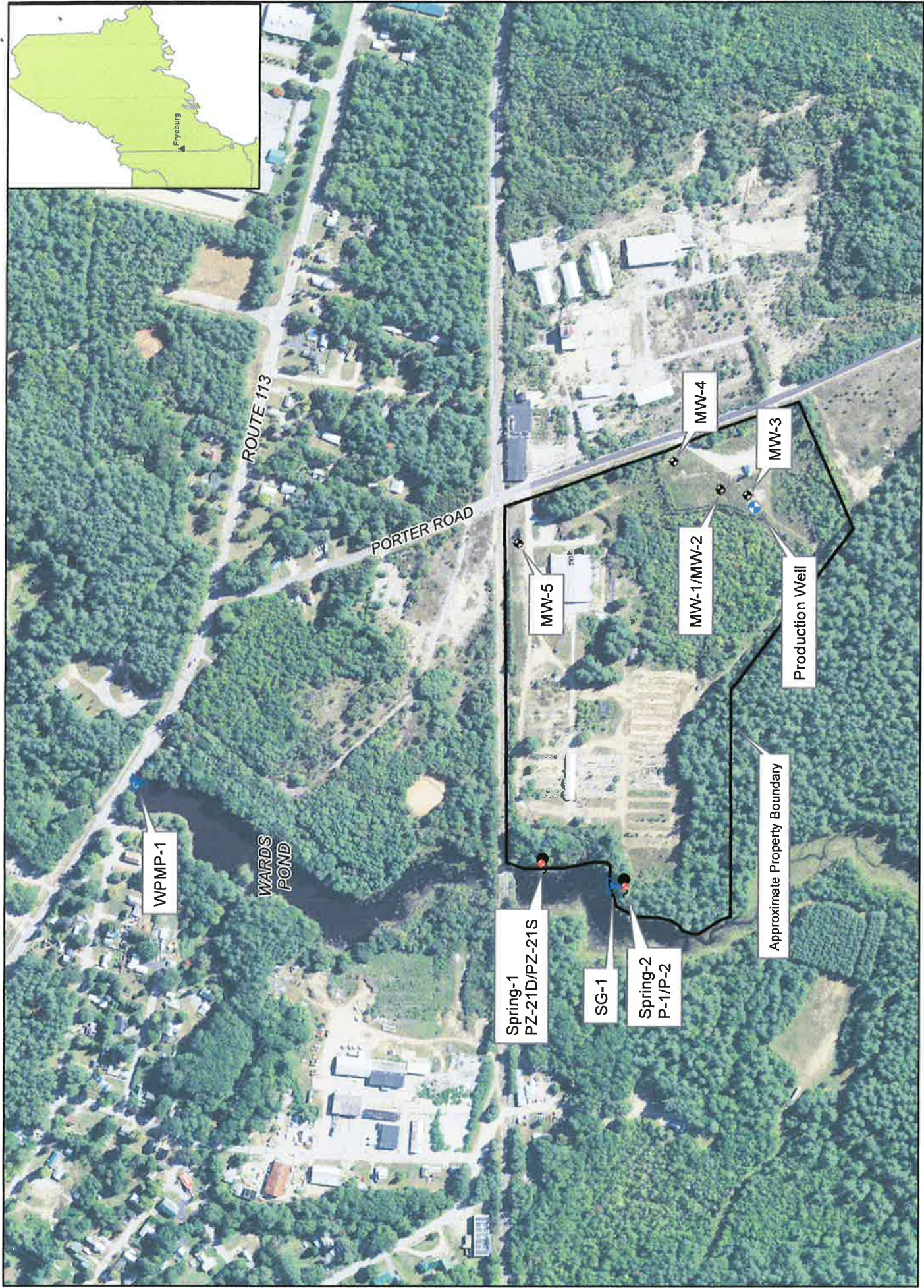


FIGURE 1
 RAINMAKER SPRING SITE MAP
 FRYEBURG, MAINE

0 250 500 1,000 Feet

Notes:
 1. Imagery provided by USDA National Agricultural
 Imagery Program 2018.

Lucy's Geological Services
 153 Flying Point Road
 Fryeburg, Maine 04032
 info@lucysgeological.com
 Date:
 12/17/2022

FIGURE 2
GROUNDWATER ELEVATION DATA - WEEKLY PRECIPITATION

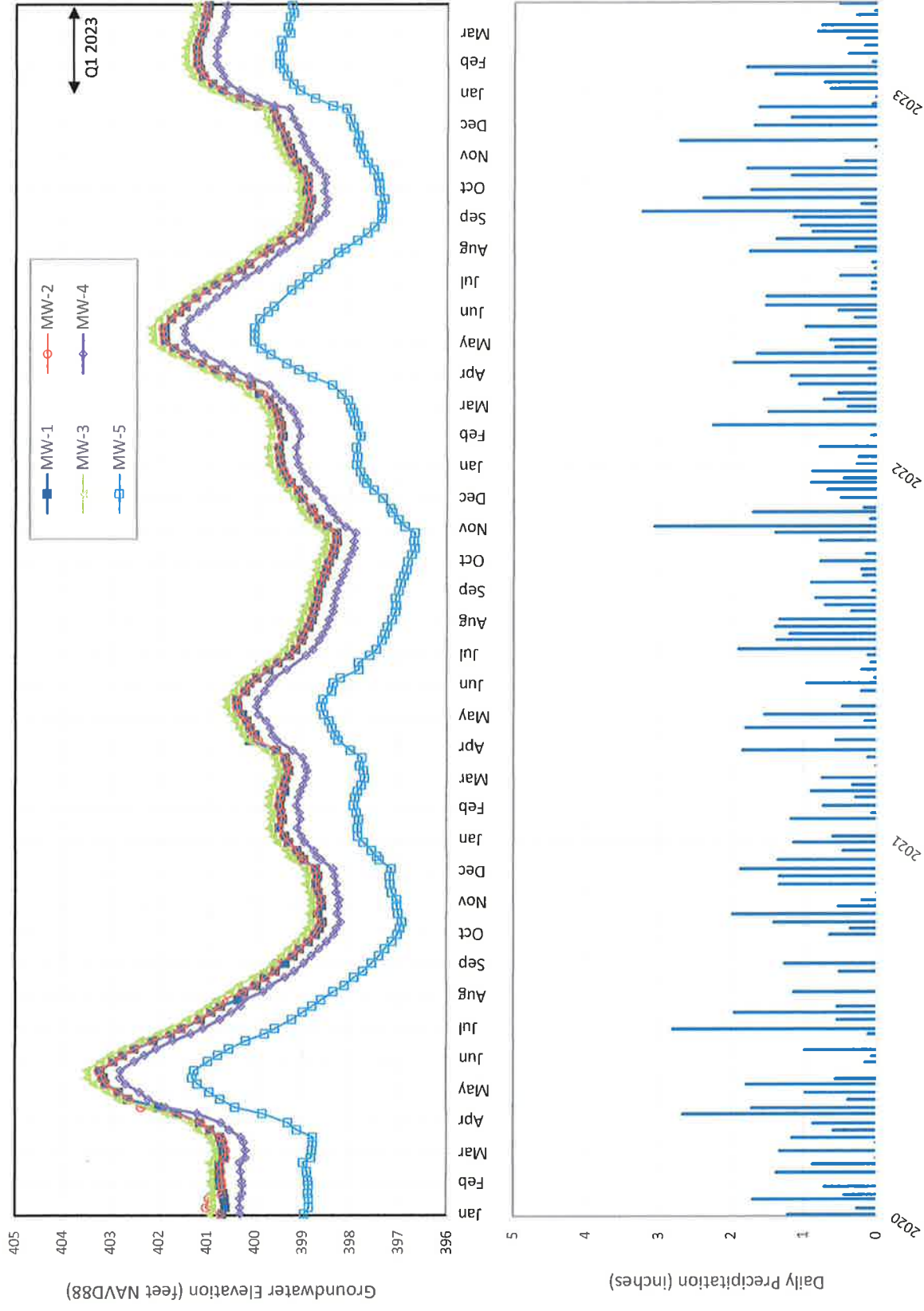


TABLE 1
MONITORING DATA
RAINMAKER SPRING SITE
FRYEBURG, MAINE

GROUNDWATER ELEVATION (feet NAVD83)										PEZMETERS @ SPRING 1 (feet NAVD83)				PEZMETERS @ SPRING 2 (feet NAVD83)				SURFACE WATER				SPRING FLOW (g/min)		PRECIPITATION EASTERN SLOPES AIRPORT	
MW-1	MW-2	MW-3	MW-4	MW-5	PE-21D	PE-21S	P-1	P-2	WPM-1	SG-1	Spring-1	Spring-2													
New Measuring Point (NMP Elevations (feet NAVD83))										418.75		419.30		423.11		403.99		405.40		404.35		406.83		406.08	
Old Measuring Point (OMP Elevations)										418.27		419.10		423.11		403.27		404.76		403.67		406.19		398.49	
Water	Depth to Water (feet below ground surface)	Water	Depth to Water (feet below ground surface)	Water	Depth to Water (feet below ground surface)	Water	Depth to Water (feet below ground surface)	Water	Depth to Water (feet below ground surface)	Water	Depth to Water (feet below ground surface)	Water	Depth to Water (feet below ground surface)	Water	Depth to Water (feet below ground surface)	Water	Depth to Water (feet below ground surface)	Water	Depth to Water (feet below ground surface)	Water	Depth to Water (feet below ground surface)	Water	Depth to Water (feet below ground surface)		
10/7/2018	20.14	398.54	21.49	398.84	21.01	399.59	5.83	399.48	5.83	399.48	3.97	400.35	2.98	398.24	1.70	398.40	5.45	2.48	0.83						
10/10/2018	20.16	398.56	21.50	398.85	21.02	399.60	5.84	399.49	5.84	399.49	3.98	400.36	2.99	398.25	1.71	398.41	4.29	1.50	0.00						
10/13/2018	20.17	398.57	21.51	398.86	21.03	399.61	5.85	399.50	5.85	399.50	3.99	400.37	3.00	398.26	1.72	398.42	4.29	1.50	0.00						
10/16/2018	20.18	398.58	21.52	398.87	21.04	399.62	5.86	399.51	5.86	399.51	3.99	400.38	3.01	398.27	1.73	398.43	4.29	1.50	0.00						
10/19/2018	20.19	398.59	21.53	398.88	21.05	399.63	5.87	399.52	5.87	399.52	3.99	400.39	3.02	398.28	1.74	398.44	4.29	1.50	0.00						
11/7/2018	19.93	398.64	20.71	398.88	21.03	399.61	5.85	399.47	5.85	399.47	3.97	400.33	2.98	398.24	1.70	398.40	5.45	2.48	0.83						
11/14/2018	19.40	399.35	20.26	399.33	21.01	399.55	5.83	399.45	5.83	399.45	3.97	400.33	2.98	398.24	1.70	398.40	5.45	2.48	0.83						
11/20/2018	19.41	399.34	20.21	399.38	21.04	399.53	5.84	399.46	5.84	399.46	3.97	400.34	2.99	398.25	1.71	398.41	4.29	1.50	0.00						
12/6/2018	19.36	399.39	20.15	399.44	21.06	399.60	5.86	399.07	5.86	399.07	3.98	400.37	3.00	398.27	1.72	398.42	4.29	1.50	0.00						
12/13/2018	19.36	399.39	20.15	399.44	21.06	399.60	5.86	399.07	5.86	399.07	3.98	400.37	3.00	398.27	1.72	398.42	4.29	1.50	0.00						
12/20/2018	19.35	399.40	20.07	399.52	21.04	399.68	5.84	399.68	5.84	399.68	3.98	400.36	2.99	398.26	1.71	398.41	4.29	1.50	0.00						
1/2/2019	19.21	399.54	20.04	399.69	21.03	399.75	5.83	399.75	5.83	399.75	3.97	400.35	2.98	398.25	1.70	398.40	5.45	2.48	0.83						
1/8/2019	19.11	399.64	19.98	399.61	21.01	399.78	5.81	399.61	5.81	399.61	3.95	400.32	2.96	398.22	1.68	398.38	5.45	2.48	0.83						
1/15/2019	19.11	399.64	19.98	399.61	21.01	399.78	5.81	399.61	5.81	399.61	3.95	400.32	2.96	398.22	1.68	398.38	5.45	2.48	0.83						
2/2/2019	18.95	399.60	19.76	399.66	21.03	399.82	5.83	399.66	5.83	399.66	3.97	400.34	2.98	398.24	1.70	398.40	5.45	2.48	0.83						
2/9/2019	18.95	399.60	19.76	399.66	21.03	399.82	5.83	399.66	5.83	399.66	3.97	400.34	2.98	398.24	1.70	398.40	5.45	2.48	0.83						
2/15/2019	18.91	399.62	19.71	399.68	21.01	399.84	5.81	399.68	5.81	399.68	3.95	400.32	2.96	398.22	1.68	398.38	5.45	2.48	0.83						
2/23/2019	18.90	399.63	19.71	399.68	21.01	399.84	5.81	399.68	5.81	399.68	3.95	400.32	2.96	398.22	1.68	398.38	5.45	2.48	0.83						
3/5/2019 could not locate																									
3/12/2019 could not locate																									
3/18/2019	19.12	399.63	19.98	399.61	21.01	399.82	5.83	399.61	5.83	399.61	3.97	400.34	2.98	398.24	1.70	398.40	5.45	2.48	0.83						
4/1/2019	18.94	399.61	19.76	399.63	21.02	399.84	5.82	399.63	5.82	399.63	3.96	400.33	2.97	398.23	1.69	398.39	5.45	2.48	0.83						
4/11/2019	18.41	400.19	19.40	400.19	20.82	400.04	19.88	399.87	24.63	398.48	3.56	400.43	5.67	399.93	3.47	399.93	3.47	399.93	3.47	399.93	3.47	399.93	3.47		
4/16/2019	18.29	400.46	19.11	400.48	20.58	400.68	19.64	400.11	24.34	398.47	3.79	400.52	5.42	399.98	3.40	399.98	3.40	399.98	3.40	399.98	3.40	399.98	3.40		
4/26/2019	18.85	401.90	17.70	401.89	19.15	402.11	18.26	401.49	22.96	400.35	3.79	400.52	5.42	399.98	3.40	399.98	3.40	399.98	3.40	399.98	3.40	399.98	3.40		
5/1/2019	16.03	402.72	16.85	402.73	17.61	402.85	16.81	402.34	22.21	400.93	3.70	400.29	5.37	400.03	3.40	400.03	3.40	400.03	3.40	400.03	3.40	400.03	3.40		
5/10/2019	15.99	403.16	16.80	403.31	17.61	403.04	16.71	403.04	21.68	401.43	4.07	399.92	5.34	399.86	3.40	399.86	3.40	399.86	3.40	399.86	3.40	399.86	3.40		
5/22/2019	15.25	403.41	16.15	403.44	17.55	403.71	16.71	402.98	21.76	401.35	4.03	399.95	5.33	399.87	3.40	399.87	3.40	399.87	3.40	399.87	3.40	399.87	3.40		
5/30/2019	15.32	403.43	16.15	403.44	17.55	403.71	16.71	402.98	21.76	401.35	4.03	399.95	5.33	399.87	3.40	399.87	3.40	399.87	3.40	399.87	3.40	399.87	3.40		
6/4/2019	15.33	403.41	16.16	403.41	17.78	403.68	16.98	402.71	21.96	401.35	3.98	400.01	5.52	399.88	3.40	399.88	3.40	399.88	3.40	399.88	3.40	399.88	3.40		
6/10/2019	15.33	403.41	16.16	403.41	17.78	403.68	16.98	402.71	21.96	401.35	3.98	400.01	5.52	399.88	3.40	399.88	3.40	399.88	3.40	399.88	3.40	399.88	3.40		
6/19/2019	15.84	402.91	16.20	402.91	17.73	403.63	17.13	403.63	22.13	400.98	3.94	400.05	5.52	399.88	3.40	399.88	3.40	399.88	3.40	399.88	3.40	399.88	3.40		
6/26/2019	15.99	402.72	16.85	402.74	17.61	402.85	16.81	402.34	22.21	400.93	3.70	400.29	5.37	400.03	3.40	400.03	3.40	400.03	3.40	400.03	3.40	400.03	3.40		
7/3/2019	16.21	402.54	17.03	402.56	18.44	402.82	18.44	402.82	22.60	400.91	3.70	400.29	5.37	400.03	3.40	400.03	3.40	400.03	3.40	400.03	3.40	400.03	3.40		
7/11/2019	16.41	402.34	17.61	402.33	18.65	402.81	17.87	401.88	22.63	400.91	3.70	400.29	5.37	400.03	3.40	400.03	3.40	400.03	3.40	400.03	3.40	400.03	3.40		
7/18/2019	16.60	402.15	17.61	402.15	18.83	402.83	18.03	401.72	22.95	400.91	3.70	400.29	5.37	400.03	3.40	400.03	3.40	400.03	3.40	400.03	3.40	400.03	3.40		
7/24/2019	16.78	401.97	17.60	401.99	19.02	402.16	18.21	401.54	23.12	399.99	3.95	400.04	5.52	399.88	3.40	399.88	3.40	399.88	3.40	399.88	3.40	399.88	3.40		
7/31/2019	16.84	401.90	17.60	401.90	19.10	402.16	18.46	401.29	23.31	399.60	3.95	400.04	5.52	399.88	3.40	399.88	3.40	399.88	3.40	399.88	3.40	399.88	3.40		
8/6/2019	16.87	401.86	17.64	401.75	19.57	401.50	18.79	400.96	23.43	399.68	3.95	400.04	5.52	399.88	3.40	399.88	3.40	399.88	3.40	399.88	3.40	399.88	3.40		
8/14/2019	16.57	401.25	18.34	401.25	19.76	401.50	18.93	400.82	23.63	399.24	4.06	399.95	5.64	399.76	4.87	401.16	3.38	400.97	4.34	396.94	4.34	396.94	4.34		
8/21/2019	17.77	400.98	18.56	400.91	20.01	401.25	19.15	400.56	24.05	399.06	3.99	400.00	5.57	399.83	4.87	401.16	3.38	400.97	4.34	396.94	4.34	396.94	4.34		
8/28/2019	17.81	400.94	18.66	400.93	20.01	401.25	19.15	400.56	24.05	399.06	3.99	400.00	5.57	399.83	4.87	401.16	3.38	400.97	4.34	396.94	4.34	396.94	4.34		
9/4/2019	18.00	400.75	18.82	400.77	20.25	401.01	19.42	400.13	24.21	398.90	4.01	399.96	5.60	399.80	4.86	401.17	3.33	401.02	4.12	397.00	4.12	397.00	4.12		
9/11/2019	18.09	400.66	18.94	400.65	20.38	400.98	19.56	400.34	24.38	398.68	4.05	399.96	5.60	399.80	4.86	401.17	3.33	401.02	4.12	397.00	4.12	397.00	4.12		
9/19/2019	18.27	400.49	19.11	400.48	20.51	400.97	19.75	399.90	24.59	398.54	4.12	399.87	5.70	399.70	5.03	401.06	3.47	400.86	4.23	396.95	4.23	396.95	4.23		
9/26/2019	18.44	400.31	19.26	400.41	20.63	400.97	19.85	399.80	24.75	398.38	4.16	399.85	5.71	399.63	5.11	400.92	3.55	400.80	4.23	396.90	4.23	396.90	4.23		
10/3/2019	18.58	400.07	19.48	400.11	21.04	400.92	20.14	399.51	24.82	398.28	4.24	399.86	5.71	399.63	5.11	400.92	3.55	400.80	4.23	396.90	4.23	396.90	4.23		
10/10/2019	18.70	399.97	19.60	400.01	21.08	400.92	20.18	399.51	24.82	398.28	4.24	399.86	5.71	399.63	5.11	400.92	3.55	400.80	4.23	396.90	4.23	396.90	4.23		
10/18/2019	18.81	399.94	19.63	399.96	21.08	400.93	20.13	399.52	24.83	398.29	4.24	399.87	5.71	399.63	5.11	400.92	3.55	400.80	4.23	396.90	4.23	396.90	4.23		
10/24/2019	18.81	400.14	19.59																						

TABLE 1
MONITORING DATA
RAINMAKER SPRING SITE
FRYEBURG, MAINE

GROUNDWATER ELEVATION (feet NAVD83)										PIEZOMETERS @ SPRING 1 (feet NAVD83)										PIEZOMETERS @ SPRING 2 (feet NAVD83)										SURFACE WATER										SPRING FLOW (ft ³ /min)		PRECIPITATION EASTERN SLOPES AIRPORT																																																																																																																																																																																																																																																																																																																																																													
MW-1		MW-2		MW-3		MW-4		MW-5		PZ-12		PZ-21S		P-1		P-2		WPM-1		S6-1		Spring-1		Spring-2		K026																																																																																																																																																																																																																																																																																																																																																																													
Date	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth 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below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (ft)	Depth to Water below (

Notes:
NM = no measurement
UW = under water
nI = no flow

TABLE 1
MONITORING DATA
RAINMAKER SPRING SITE
FRYEBURG, MAINE

TABLE 1 CONT.	GROUNDWATER ELEVATION (feet NAVD83)										PIEDIMETERS @ SPRING 1 (feet NAVD83)				PIEDIMETERS @ SPRING 2 (feet NAVD83)				SURFACE WATER				SPRING FLOW (ft ³ /min)	PRECIPITATION EASTERN SLOPES AIRPORT																				
	MW-1		MW-2		MW-3		MW-4		MW-5		P2-21D		P2-21S		P-1		P-2		WPMP-1		SG-1																							
	Date	Depth to Water (feet)	Water Level (feet)	Date	Depth to Water (feet)	Water Level (feet)	Date	Depth to Water (feet)	Water Level (feet)	Date	Depth to Water (feet)	Water Level (feet)	Date	Depth to Water (feet)	Water Level (feet)	Date	Depth to Water (feet)	Water Level (feet)	Date	Depth to Water (feet)	Water Level (feet)	Date			Depth to Water (feet)	Water Level (feet)																		
Measuring Point (MPL Elevations feet NAVD83)	1/1/2022	19.38	399.47	20.11	399.48	21.54	399.71	20.05	399.10	25.23	397.68	4.20	399.70	4.50	399.60	5.38	399.70	3.71	400.64	3.02	399.44	401.14	1/1/2022	19.38	399.47	20.11	399.48	21.54	399.71	20.05	399.10	25.23	397.68	4.20	399.70	4.50	399.60	5.38	399.70	3.71	400.64	3.02	399.44	401.14
	1/11/2022	19.36	399.49	20.08	399.51	21.50	399.73	20.05	399.10	25.21	397.69	4.30	399.69	4.55	399.75	5.31	399.75	3.71	400.64	3.02	399.44	401.14	1/11/2022	19.36	399.49	20.08	399.51	21.50	399.73	20.05	399.10	25.21	397.69	4.30	399.69	4.55	399.75	5.31	399.75	3.71	400.64	3.02	399.44	401.14
	1/21/2022	19.32	399.43	20.12	399.47	21.57	399.69	20.08	399.07	25.31	397.60	4.31	399.68	4.57	399.76	5.35	399.76	3.71	400.64	3.02	399.44	401.14	1/21/2022	19.32	399.43	20.12	399.47	21.57	399.69	20.08	399.07	25.31	397.60	4.31	399.68	4.57	399.76	5.35	399.76	3.71	400.64	3.02	399.44	401.14
	2/1/2022	19.28	399.47	20.10	399.49	21.55	399.71	20.06	399.09	25.33	397.60	4.30	399.69	4.56	399.76	5.36	399.76	3.71	400.64	3.02	399.44	401.14	2/1/2022	19.28	399.47	20.10	399.49	21.55	399.71	20.06	399.09	25.33	397.60	4.30	399.69	4.56	399.76	5.36	399.76	3.71	400.64	3.02	399.44	401.14
	2/16/2022	19.24	399.51	20.06	399.53	21.53	399.73	20.05	399.15	25.19	397.92	3.54	400.06	4.16	400.15	5.14	400.15	3.67	400.08	2.73	398.49	401.14	2/16/2022	19.24	399.51	20.06	399.53	21.53	399.73	20.05	399.15	25.19	397.92	3.54	400.06	4.16	400.15	5.14	400.15	3.67	400.08	2.73	398.49	401.14
	3/9/2022	19.03	399.73	19.86	399.77	21.13	399.95	20.46	399.29	25.02	398.00	3.95	400.04	4.17	399.82	5.18	400.85	3.61	400.38	2.87	398.35	401.14	3/9/2022	19.03	399.73	19.86	399.77	21.13	399.95	20.46	399.29	25.02	398.00	3.95	400.04	4.17	399.82	5.18	400.85	3.61	400.38	2.87	398.35	401.14
	3/16/2022	18.82	399.93	19.78	399.85	21.07	400.19	20.16	399.99	24.91	398.00	3.92	400.37	4.17	400.15	5.16	400.85	3.61	400.38	2.87	398.35	401.14	3/16/2022	18.82	399.93	19.78	399.85	21.07	400.19	20.16	399.99	24.91	398.00	3.92	400.37	4.17	400.15	5.16	400.85	3.61	400.38	2.87	398.35	401.14
	3/22/2022	18.55	400.10	19.45	400.13	20.93	400.35	20.03	399.72	24.72	398.98	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14	3/22/2022	18.55	400.10	19.45	400.13	20.93	400.35	20.03	399.72	24.72	398.98	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14
	4/5/2022	18.35	400.30	19.25	400.33	20.73	400.55	20.03	399.72	24.52	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14	4/5/2022	18.35	400.30	19.25	400.33	20.73	400.55	20.03	399.72	24.52	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14
	4/12/2022	18.15	400.50	19.05	400.53	20.53	400.75	20.03	399.72	24.32	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14	4/12/2022	18.15	400.50	19.05	400.53	20.53	400.75	20.03	399.72	24.32	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14
	4/19/2022	17.95	400.70	18.85	400.73	20.33	400.95	20.03	399.72	24.12	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14	4/19/2022	17.95	400.70	18.85	400.73	20.33	400.95	20.03	399.72	24.12	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14
	4/26/2022	17.75	400.90	18.65	400.93	20.13	401.15	20.03	399.72	23.92	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14	4/26/2022	17.75	400.90	18.65	400.93	20.13	401.15	20.03	399.72	23.92	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14
	5/3/2022	17.55	401.10	18.45	401.13	19.93	401.35	20.03	399.72	23.72	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14	5/3/2022	17.55	401.10	18.45	401.13	19.93	401.35	20.03	399.72	23.72	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14
	5/10/2022	17.35	401.30	18.25	401.33	19.73	401.55	20.03	399.72	23.52	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14	5/10/2022	17.35	401.30	18.25	401.33	19.73	401.55	20.03	399.72	23.52	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14
	5/17/2022	17.15	401.50	18.05	401.53	19.53	401.75	20.03	399.72	23.32	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14	5/17/2022	17.15	401.50	18.05	401.53	19.53	401.75	20.03	399.72	23.32	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14
	5/24/2022	16.95	401.70	17.85	401.73	19.33	401.95	20.03	399.72	23.12	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14	5/24/2022	16.95	401.70	17.85	401.73	19.33	401.95	20.03	399.72	23.12	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14
	5/31/2022	16.75	401.90	17.65	401.93	19.13	402.15	20.03	399.72	22.92	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14	5/31/2022	16.75	401.90	17.65	401.93	19.13	402.15	20.03	399.72	22.92	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14
	6/7/2022	16.55	402.10	17.45	402.13	18.93	402.35	20.03	399.72	22.72	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14	6/7/2022	16.55	402.10	17.45	402.13	18.93	402.35	20.03	399.72	22.72	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14
	6/14/2022	16.35	402.30	17.25	402.33	18.73	402.55	20.03	399.72	22.52	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14	6/14/2022	16.35	402.30	17.25	402.33	18.73	402.55	20.03	399.72	22.52	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14
	6/21/2022	16.15	402.50	17.05	402.53	18.53	402.75	20.03	399.72	22.32	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14	6/21/2022	16.15	402.50	17.05	402.53	18.53	402.75	20.03	399.72	22.32	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14
6/28/2022	15.95	402.70	16.85	402.73	18.33	402.95	20.03	399.72	22.12	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14	6/28/2022	15.95	402.70	16.85	402.73	18.33	402.95	20.03	399.72	22.12	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14	
7/5/2022	15.75	402.90	16.65	402.93	18.13	403.15	20.03	399.72	21.92	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14	7/5/2022	15.75	402.90	16.65	402.93	18.13	403.15	20.03	399.72	21.92	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14	
7/12/2022	15.55	403.10	16.45	403.13	17.93	403.35	20.03	399.72	21.72	399.00	3.31	400.68	3.48	400.84	5.03	400.84	3.35	397.48	2.91	397.48	401.14																							

TABLE 1
MONITORING DATA
RAINMAKER SPRING SITE
FRYEBURG, MAINE

TABLE 1 CONT.	GROUNDWATER ELEVATION (feet NAVD83)										PIEZOMETERS @ SPRING 1 (feet NAVD83)				PIEZOMETERS @ SPRING 2 (feet NAVD83)				SURFACE WATER				SPRING FLOW (K/min)		PRECIPITATION EASTERN SLOPES AIRPORT INCH
	MW-1		MW-2		MW-3		MW-4		MW-5		PZ-21D		PZ-21S		P-1		P-2		WPM-1		SG-1				
	Depth to Water Below Ground Surface	Water Elevation	Depth to Water Below Ground Surface	Water Elevation	Depth to Water Below Ground Surface	Water Elevation	Depth to Water Below Ground Surface	Water Elevation	Depth to Water Below Ground Surface	Water Elevation	Depth to Water Below Ground Surface	Water Elevation	Depth to Water Below Ground Surface	Water Elevation	Depth to Water Below Ground Surface	Water Elevation	Depth to Water Below Ground Surface	Water Elevation	Depth to Water Below Ground Surface	Water Elevation	Depth to Water Below Ground Surface	Water Elevation	Depth to Water Below Ground Surface		
Measuring Point (MP) Elevations (feet NAVD83)	418.75		419.59		421.26		419.75		423.11		403.59		404.32		406.83		404.35				397.44		397.44		
1/6/2023	17.83	420.92	18.66	420.93	20.11	401.15	19.40	400.35	24.03	399.08	3.48	400.35	4.13	400.19	4.98	401.01	3.71	400.98	5.99	397.23	Ice				Included
1/12/2023	17.83	420.92	18.66	420.93	20.11	401.15	19.40	400.35	24.03	399.08	3.48	400.35	4.13	400.19	4.98	401.01	3.71	400.98	5.99	397.23	Ice				0.65
1/20/2023	17.64	421.11	18.50	421.09	19.91	401.35	19.06	400.69	23.76	399.35	3.95	400.64	4.11	400.31	4.99	401.05	3.41	400.94	4.17	397.05	Ice				0.73
1/27/2023	17.57	421.18	18.40	421.19	19.84	401.42	18.99	400.76	23.68	399.43	3.99	400.64	4.11	400.31	4.99	401.05	3.41	400.94	4.17	397.05	Ice				1.41
2/1/2023	17.53	421.22	18.34	421.25	19.77	401.49	18.92	400.83	23.60	399.51	4.01	399.98	4.16	400.18	4.99	401.04	3.42	400.93	4.17	397.05	Ice				2.80
2/9/2023	17.52	421.23	18.35	421.24	19.76	401.50	18.92	400.83	23.59	399.52	3.97	400.02	4.17	400.12	5.02	401.01	3.45	400.90	4.17	397.05	Ice				0.07
2/17/2023	17.51	421.24	18.35	421.24	19.77	401.49	18.92	400.83	23.63	399.46	4.04	399.95	4.17	400.15	5.04	400.99	3.49	400.86	4.17	397.05	Ice				0.18
2/24/2023	17.55	421.20	18.37	421.22	19.81	401.45	18.94	400.81	23.62	399.29	4.04	399.95	4.17	400.15	5.04	400.99	3.49	400.86	4.17	397.05	Ice				0.18
3/2/2023	17.61	421.14	18.43	421.15	19.87	401.39	19.03	400.72	23.77	399.34	4.03	399.96	4.16	400.05	5.04	400.99	3.49	400.86	4.17	397.05	Ice				0.43
3/9/2023	17.65	421.10	18.49	421.10	19.93	401.33	19.10	400.65	23.82	399.29	4.03	399.96	4.17	400.10	5.04	400.99	3.48	400.87	4.17	397.05	Ice				0.77
3/19/2023	17.68	421.07	18.51	421.08	19.93	401.33	19.10	400.65	23.89	399.22	4.03	399.96	4.17	400.12	5.04	400.99	3.48	400.87	4.17	397.05	Ice				0.30
3/23/2023	17.73	421.02	18.55	421.04	19.98	401.38	19.11	400.64	23.89	399.22	4.03	399.96	4.17	400.12	5.04	400.99	3.48	400.87	4.17	397.05	Ice				0.05
3/30/2023	17.75	421.00	18.55	421.04	20.00	401.36	19.14	400.61	23.85	399.25	3.82	400.17	4.04	400.28	4.98	401.05	3.42	400.93	4.05	397.17	hooded				0.52