

2019 Rainmaker Spring Annual Report Fryeburg, Maine

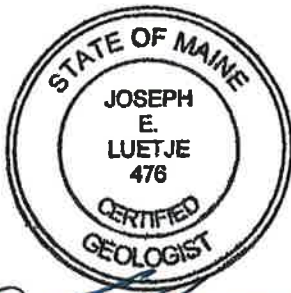
Prepared for:

Nestlé Waters North America Inc.
(d/b/a Poland Spring)
123 Preservation Way
Poland Spring, Maine 04274



Prepared by:

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March 2020

**2019 RAINMAKER SPRING ANNUAL REPORT
FRYEBURG, MAINE**

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1.0 INTRODUCTION

Pursuant to the Natural Resources Protection Act (NRPA) Significant Groundwater Well Permit #L-24280-GW-A-N, issued in February 2009, LGS presents this 2019 Rainmaker Spring Annual Report. This annual report also satisfies the requirements under local Town Ordinance 17G: *Groundwater and/or Spring Water Extraction*, the Approved Land Use Authorization, dated April 20, 2004 and June 29, 2004.

Nestle Waters North America Inc. (Poland Spring) acquired the Rainmaker Spring site (herein 'Site') on August 7, 2017. 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. 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;
- Weekly flow measurements from Spring-1 and 2;
- 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.

2.0 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 has been supplemented with data collected from an on-site rain gauge located at the nearby Evergreen Spring load station. Between the monitoring dates of 1/2/2019 and 1/2/2020, KIZG recorded 45.79 inches of precipitation. Precipitation data is included in Table 1, and is shown on Figures 2 and 3 as 'weekly precipitation', or the amount recorded between monitoring dates.

From 1992 to 2019, the Fryeburg area has received an average of approximately 48 inches of precipitation per year. This average was calculated from data primarily recorded at the Fryeburg Eastern Slopes Airport weather station (ICAO Station KIZG, Northeast Regional Climate Center). Data from an on-site rain gauge at the Evergreen Spring load-out was used where gaps in the KIZG record occurred. For the 2019 calendar year, the KIZG station recorded 46.57 inches, or approximately 1.5 inches below the long term mean for this station.

3.0 GROUNDWATER MONITORING

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

During the 2019 calendar year groundwater levels, as measured in the on-site monitoring wells, exhibited typical seasonal fluctuations. A fall recharge period that began in late-2018 extended to late February 2019, followed by a short winter decline from late February to late March 2019. A spring recharge period extended from late March to late May 2019, and groundwater levels rose by approximately four feet. From late May to mid-October, groundwater levels experienced a typical summer decline as a result of increased evapotranspiration and reduced recharge during warmer and drier summer months, lowering groundwater levels across the Site by approximately 3.5 feet. From mid-October to the end of 2019, groundwater levels rebounded by approximately 0.5 feet, representing fall recharge.

4.0 SURFACE WATER MONITORING

Surface water monitoring is conducted at two locations: SG-1 is located in Wards Pond to the west of and adjacent to Spring-2 and WPMP-1 is located on the upstream side of Route 113 in Wards Pond (Figure 1). A graphical representation of surface water levels from SG-1 and WPMP-1 is included in Figure 3.

During the first five months of 2019, surface water levels at WPMP-1 were artificially high due to beaver debris clogging the culvert under Route 113. On May 23rd 2019, a beaver deterrent apparatus was installed on the upstream side of the culvert. As seen in Figure 3, surface water levels at WPMP-1 fell by approximately two feet following this installation, and remained near this lower elevation (397 feet NAVD88) for the rest of 2019.

Surface water level measurements at SG-1 were first made in 2019 on 4/26/2019 (Figure 3). Prior to 4/26/2019, ice conditions were present from January thru March, followed by high surface water levels in Wards Pond, submerging the gauge thru most of April. From May thru June, surface water levels at SG-1 fluctuated near 399 feet NAVD88. A summer decline in surface water levels at SG-1 was then observed extending from July to early October. On four occasions, the surface water level fell below the gauge and could not be measured (8/14, 9/26, 10/4 and the 10/11/2019 monitoring events). By mid-October, surface water levels at SG-1 rebounded to between 399 and 400 feet NAVD88. SG-1 became submerged by the 11/4/2019 monitoring event, and then iced over for the remainder of 2019.

5.0 PIEZOMETER MONITORING

Water levels are measured at two piezometer sets located adjacent to each spring. PZ-21D and PZ-21S are located near Spring-1 and P1 and P2 are located near Spring-2. As seen in Figure 3, both piezometer sets showed relatively stable levels throughout the 2019 calendar year. Piezometer set PZ-21 groundwater level fluctuated near 400 feet NAVD88, and the groundwater level at P1 and P2 fluctuated around 401 feet NAVD88. Although fairly stable levels were

observed for 2019, seasonal trends can still be seen, and more clearly in P1 and P2. A small winter decline ended in late March, followed by spring recharge conditions lasting until mid-May. This was followed by a summer decline that ended in mid-October. The remainder of the year exhibited increasing levels representing fall recharge.

6.0 SPRING MONITORING

Spring flow measurements from Spring-1 and Spring-2 were first made during the 4/26/19 monitoring event. Prior to this date, spring catchment areas were either frozen or under water. From the 4/26/19 – 10/18/19 monitoring events, flow from Spring-1 ranged from 9.09 – 17.22 liters per minute. The maximum measured flow occurred during the 5/22/19 monitoring event, and the minimum measured flow occurred on the 9/26/19 monitoring event.

From the 4/26/19 – 11/8/19 monitoring events, flow from Spring-2 ranged from 1.67 – 15.00 liters per minute. The maximum flow was observed during the 7/18/19 monitoring event, and the minimum measured flow was observed during the 10/31/19 monitoring event. Both spring locations became submerged by the 11/14/19 monitoring event and remained so for the rest of 2019.

7.0 WITHDRAWALS

Poland Spring did not withdraw any water from the Rainmaker Spring site production well during the 2019 calendar year.

8.0 CONCLUSIONS and RECOMMENDATIONS

Groundwater levels for 2019, as measured in the on-site monitoring wells, exhibited normal seasonal variations and responses to aquifer recharge. A fall recharge period that began in 2018 extended to late February 2019, followed by a small winter decline from late February to late March 2019. A spring recharge period extended from late March to late May 2020, and groundwater levels rose by approximately four feet. From late May to mid-October, groundwater levels experienced a typical summer decline as a result of increased evapotranspiration and reduced recharge during warmer and drier summer months, lowering groundwater levels across the Site. From mid-October to the end of 2019, groundwater levels rebounded, representing fall recharge.

Surface water levels at WPMP-1 were primarily influenced by the installation of a beaver deterrent apparatus on the upstream side of Route 113. After this installation (May 23rd 2019), surface water levels at WPMP-1 fell by around two feet and remained at this lower level for the remainder of 2019. Surface water levels at SG-1 were made from the 4/26/19 to the 11/4/19 monitoring events (when conditions allowed). The surface water elevation at SG-1 fluctuated from approximately 398 to 400 feet NAVD88 during 2019.

During 2019, both piezometer sets exhibited relatively stable water levels. Piezometer set PZ-21 *groundwater level fluctuated near 400 feet NAVD88, and the groundwater level at P1 and P2*

fluctuated around 401 feet NAVD88. Although fairly stable levels were observed for 2019, seasonal trends could still be seen, and more clearly in P1 and P2. Spring-1 flow ranged from 9.09 liters per minute to 17.22 liters per minute. Spring-2 flow ranged from 1.67 liters per minute to 15.00 liters per minute. Total precipitation as recorded at the Fryeburg Eastern Slopes Airport, and between the dates of 1/2/2019 to 1/2/2020, totaled 45.79 inches, approximately two inches below the station's period of record mean (1992 – 2019) of 48 inches. Poland Spring did not withdraw any water from the production well during the 2019 calendar year.

Based on this compilation and analysis of groundwater and surface water data collected at the Rainmaker Spring Site in Fryeburg, Maine, and given that Poland Spring did not withdraw any water from the Site in 2019, Luetje Geological Service has not observed any adverse impact to waters of the State, water-related natural resources and existing uses as a result of this acquisition.

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 C.G.

cc: Poland Spring (Mr. Mark Dubois, Mr. Joshua Bowe)

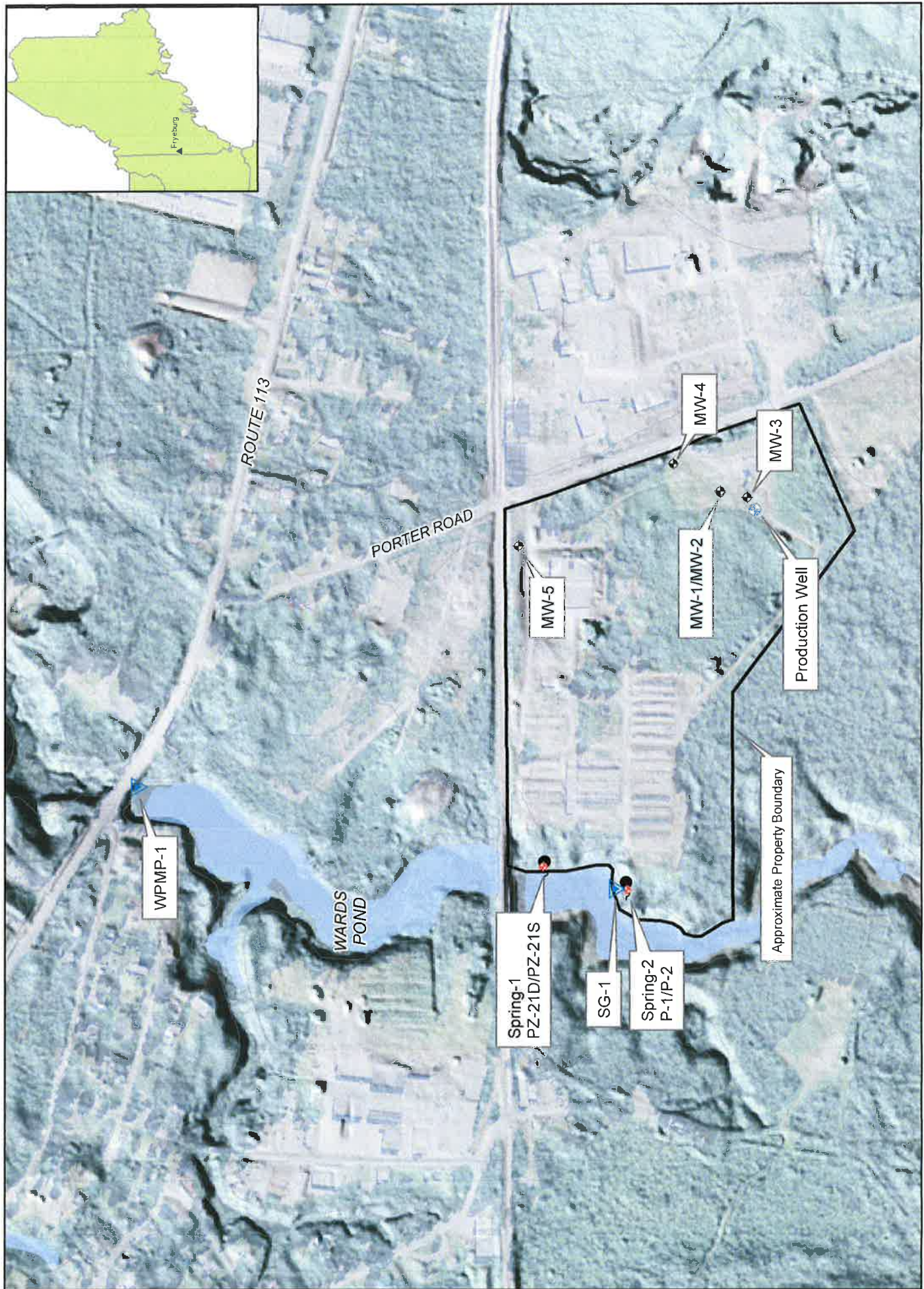


FIGURE 1
RAINMAKER SPRING SITE MAP
FRYEBURG, MAINE



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Date
11/27/2017

FIGURE 2
GROUNDWATER ELEVATION DATA - WEEKLY PRECIPITATION

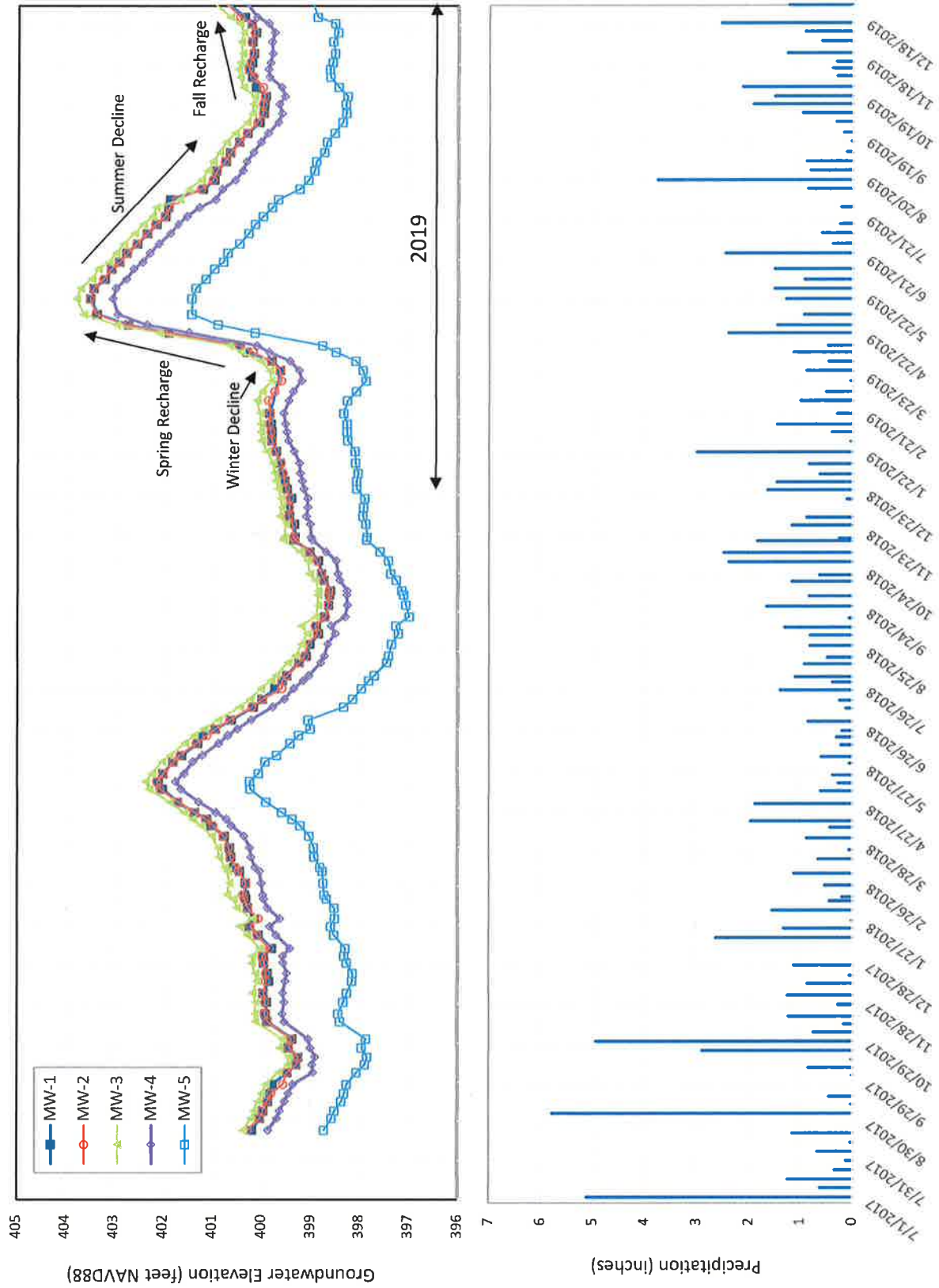


FIGURE 3
SURFACE WATER and PIEZOMETER ELEVATION DATA - WEEKLY PRECIPITATION

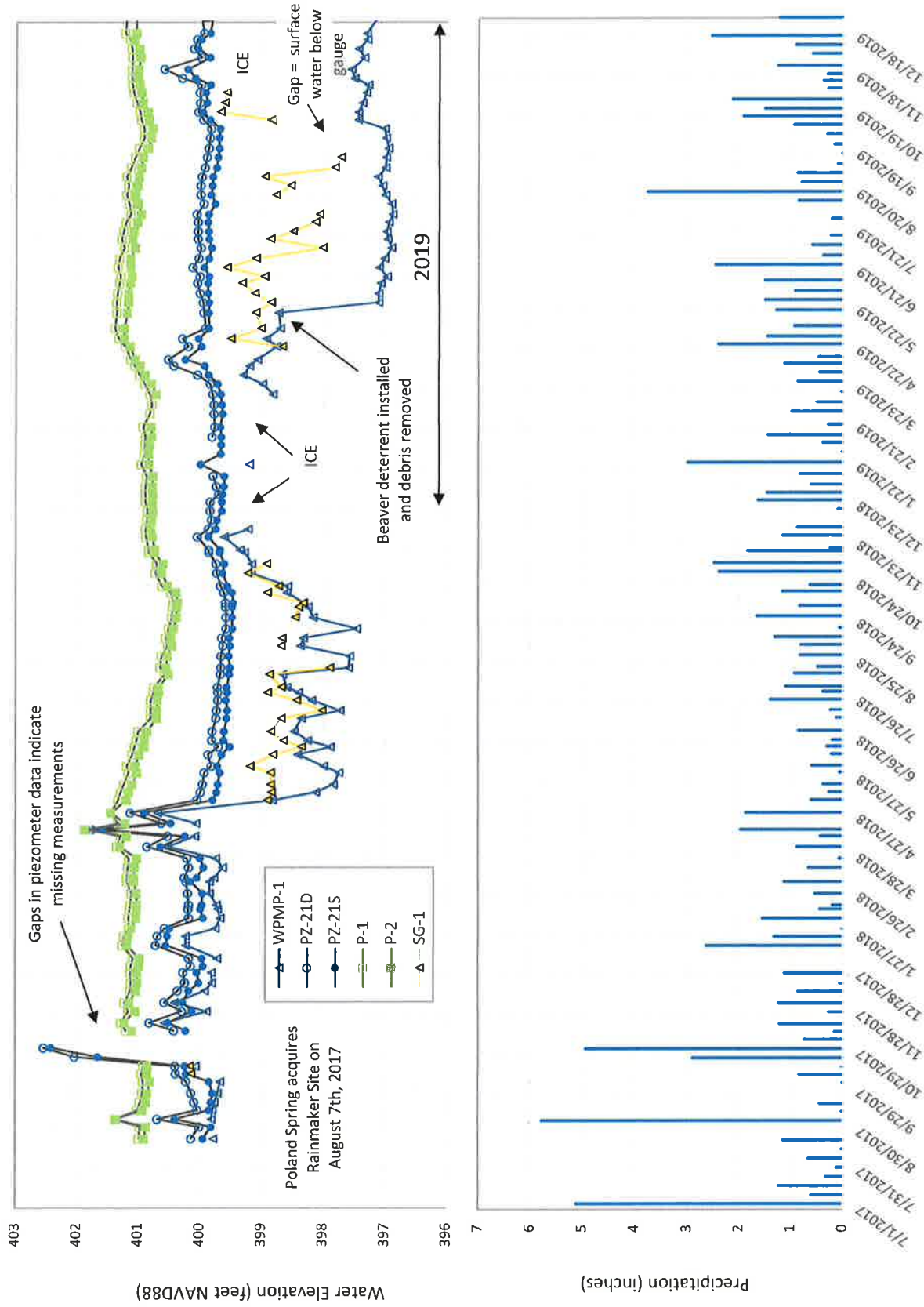


TABLE 1 CONT.

Notes:
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