2020 Annual Groundwater Monitoring and Site Inspection Report

Ultra Yield Micronutrients

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Prepared For:
Washington State Department of Ecology
Hazardous Waste & Toxics Reduction Program
Central Regional Office
1250 W Alder Street
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On Behalf Of:
Ultra Yield Micronutrients
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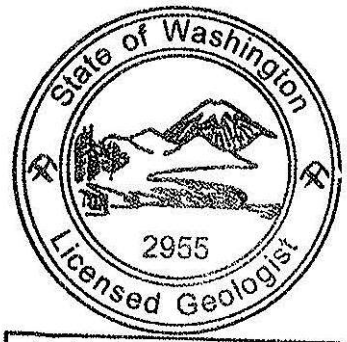

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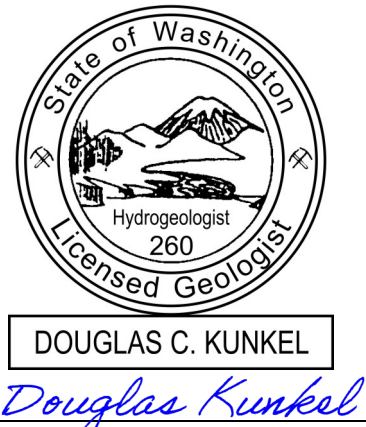

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LIST OF ABBREVIATIONS AND ACRONYMS

Abbreviation/ Acronym	Definition
ALS	ALS Environmental
AO	October 2009 amendment to Agreed Order DE02HWTRCR-4661
asl	Above sea level
bgs	Below ground surface
COCs	Constituents of concern
CUL	Cleanup level
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
mg/L	Milligrams per liter
PVC	Polyvinyl chloride
SMP	Site Management Plan
UYM	Ultra Yield Micronutrients

1. Introduction

This 2020 Annual Groundwater Monitoring and Site Inspection Report (Report) presents a comprehensive discussion of the semiannual groundwater monitoring events in April and October 2020 and an evaluation of the data obtained during the annual monitoring cycle at the Ultra Yield Micronutrients (UYM) Facility located at 213 Moxee Avenue in Moxee, Washington (the Site). This Report also presents the results from the Annual Site Inspection conducted on October 14, 2020. Figure 1 presents the location of the Site and Figure 2 is a site representation that depicts the property features, monitoring well locations, and improvements.

Groundwater at the Site is impacted by sulfate, chloride, and dissolved metals. The cleanup action approved by the Washington State Department of Ecology (Ecology) is monitored natural attenuation (MNA). UYM conducts semiannual groundwater monitoring per the Washington State Department of Ecology (Ecology) October 2009 Amendment to Agreed Order DE02HWTRCR-4661 (AO).

2. Site Description and Physical Setting

2.1. Site Description

The Site is located near the western edge of Moxee, Washington, approximately 6 miles east of Yakima (Figure 1). The Site comprises maintenance, storage, and processing buildings and structures, along with an office, lab, and staff buildings on approximately 11 acres of land. Approximately 60 percent of the Site is covered by buildings, asphalt, or concrete pavement. The surrounding properties are not fully developed but are characterized by light industrial and agricultural land use.

2.2. Physical Setting

The region around Moxee is semi-arid, receiving approximately 7 to 9 inches of precipitation per year. The land surface is quite level, though it slopes very slightly towards the northwest across the Site. Two irrigation canals and an irrigation drain, identified as the Selah/Moxee and Roza Irrigation Canals and the Moxee Drain, respectively are within 1 mile of the Site. These canals typically contain water from March through October.

2.2.1. Geology

As noted previously, approximately 60 percent of the Site is covered by pavement or buildings. Significant portions of the remaining unpaved areas have had fill materials (soil, gravel, rocks, and concrete/asphalt debris) placed upon it. In areas that appear less disturbed, the soil consists predominantly of silty clay to silty sand. Soil borings commonly indicate some fill materials and/or gravel ballast beneath paved areas, underlain by silty clay to silty sand.

2.2.2. Groundwater

Three aquifers are present in the subsurface at the Site and are separated by a confining layer or aquitard. The uppermost aquifer is within the silty clay to silty sand surficial layer

found across the Site and extends to a depth of approximately 20 to 28 feet below ground surface (bgs). Depth to groundwater in the upper aquifer typically occurs at 2 to 11 feet bgs, which varies during the year due to regional irrigation practices. Groundwater flow in the uppermost aquifer is predominantly to the west-northwest, following the general topography of the Site. The uppermost aquifer is unconfined and is underlain by a 15- to 17-feet-thick silt and clay layer that serves as an aquitard.

A continuous gravel and sandy gravel unit underlies the aquitard and forms the lower aquifer at the Site. The lower aquifer is confined and varies in thickness from 11 to 20 feet. The lower aquifer, in turn, is underlain by a clay confining zone approximately 50 feet thick.

Below the clay confining zone is the deep, confined aquifer within the Ellensburg Formation, lying at a depth of 90 to 160 feet bgs. Most of the water wells in the area are completed in the Ellensburg Formation. The deep aquifer is the shallowest aquifer suitable for domestic and irrigation use..

3. Groundwater Monitoring and Sampling Procedures

Groundwater monitoring and sampling procedures were conducted under the AO. The current groundwater monitoring well network for semiannual monitoring comprises wells MW-1B, MW-2, MW-3, MW-5, MW-8, MW-9, MW-10 and MW-12, which are completed in the uppermost aquifer.

On April 27, 2020 and October 20, 2020, UYM measured depth to groundwater and sampled groundwater from the monitoring wells. Groundwater samples were submitted to ALS Environmental (ALS) in Kelso, Washington for chemical analysis, as described in Section 3.2.

The following subsections describe the groundwater monitoring and sampling procedures for both semiannual events performed in 2020.

3.1. Depth-to-Groundwater Measurements

Depth-to-groundwater measurements were collected from the surveyed monitoring wells and piezometers using a decontaminated electronic water level indicator to the nearest 0.01 foot from the surveyed measuring point locations at the top of the PVC well casing in each well (i.e., the north side of the top of the PVC casing). During the October 2020 event, depth-to-groundwater measurements were also collected from five piezometers (BH-1 through BH-5) installed in February 2020 to facilitate the development of a Site-wide groundwater elevation contour and flow direction map. The depth to groundwater measurements were subtracted from the surveyed elevation to establish a piezometric elevation for the water table.

The water level indicator was decontaminated with an Alconox® solution (or non-detergent, biodegradable cleaning solution) and deionized water prior to use at each well. The depth to groundwater measurements for each well were recorded on a groundwater field data sheet. Table 1 presents the top of casing elevation, depth to water measurement and corresponding groundwater elevation for each well.

3.2. Groundwater Sampling and Analysis

After collection of water level data, each well was purged using a peristaltic pump and dedicated tubing until three wetted casing volumes had been removed. At the completion of each well purge, temperature and pH measurements were recorded for the well. Purge water was stored on-Site in properly labeled 55-gallon drums pending characterization for permitted disposal.

Wells were sampled using the same tubing and peristaltic pump used for purging. At each well, the groundwater samples for sulfate, chloride, and pH were collected first, then a single-use 0.45 micron in-line filter was attached and the samples for zinc, manganese, and cadmium were collected. Samples were collected in appropriate pre-labeled sample containers supplied by the laboratory. Immediately upon collection, each sample container was labeled and placed in an iced cooler pending submittal to the analytical laboratory. All samples were handled and transported under standard chain-of-custody protocols.

Groundwater samples were submitted for the following analyses:

- Chloride by U.S. Environmental Protection Agency (EPA) Method 300.0
- Sulfate by EPA Method 300.0
- Dissolved cadmium by EPA 200.8
- Dissolved manganese by EPA 200.8
- Dissolved zinc by EPA 200.8

4. Findings and Conclusions

This section presents the findings and conclusions of the semiannual groundwater monitoring events conducted in April and October 2020.

4.1. Piezometric Conditions

The piezometric elevation data indicate that groundwater generally flows toward the west. During the April 2020 monitoring event, groundwater flow is toward the southwest at an average hydraulic gradient of 0.005 foot/foot. However, the April 2020 event did not include groundwater elevation data from piezometers BH-1 through BH-5 located in the southern portion of the Site. When those data are included in development of the groundwater elevation map, the inferred groundwater flow direction is typically more towards the west.

During the October 2020 monitoring event, which included groundwater elevation data from the five piezometers (BH-1 through BH-5), groundwater flow in the northern portion of the Site is towards the west-southwest with an average hydraulic gradient of 0.004 foot/foot. In the southern portion of the Site, groundwater flow is toward the northwest at an average hydraulic gradient of 0.011 foot/foot. The piezometric conditions during the October 2020 event, when data from all Site wells and piezometers is used to develop the groundwater elevation map, are consistent with previous findings at the Site.

A summary of groundwater elevation data for the Site is included in Table 1. Site representations with groundwater elevations and piezometric contours for the April and October semiannual events are included as Figures 3 and 4, respectively. A graph showing the groundwater elevation measurements over time is included in Appendix A (Graph A-1).

4.2. Groundwater Analytical Results

Groundwater analytical results for both 2020 semiannual events are presented in Table 2 and summarized on Figure 5. Laboratory analytical reports are included in Appendix B.

According to the AO, the constituents of concern (COCs) for the Site are chloride, sulfate, dissolved cadmium, dissolved manganese, and dissolved zinc. Graphs of COC concentrations over time are included in Appendix A.

The analytical results from each 2020 semiannual event are discussed below.

4.2.1. April 2020 Groundwater Monitoring Event

Chloride was detected in all nine groundwater samples (eight wells and one field duplicate) at concentrations exceeding the laboratory reporting limit. The chloride concentrations in samples from wells MW-8, MW-9, and the duplicate sample from MW-9 exceeded the target cleanup level (CUL) of 250 milligrams per liter (mg/L) at concentrations of 503 mg/L, 387 mg/L, and 400 mg/L, respectively.

Sulfate was detected in all nine groundwater samples at concentrations exceeding the laboratory reporting limit. The sulfate concentrations in samples from all wells except MW-1B and MW-5 exceeded the target CUL of 250 mg/L, with concentrations ranging from 787 mg/L to 1,540 mg/L.

Dissolved cadmium was not detected at the laboratory reporting limit in samples from MW-2, MW-5, MW-9, and MW-10. Dissolved cadmium was detected in samples from the remaining four of the eight groundwater samples at concentrations exceeding the target CUL of 0.005 mg/L. ALS did not report dissolved cadmium results for the field duplicate sample. The dissolved cadmium concentrations in samples from wells MW-1B, MW-3, MW-8, and MW-12 ranged from 0.008 mg/L to 0.136 mg/L.

Dissolved manganese was detected in all nine groundwater samples at concentrations exceeding the laboratory reporting limit. The dissolved manganese concentrations in samples from all wells except MW-1B and MW-2 exceeded the target CUL of 0.05 mg/L, with concentrations ranging from 0.075 mg/L to 29.3 mg/L.

Dissolved zinc was detected in all nine groundwater samples at concentrations exceeding the laboratory reporting limit. The dissolved zinc concentrations in samples from wells MW-1B, MW-3, MW-8, and MW-12 exceeded the target CUL of 5 mg/L, with concentrations of 8.05 mg/L, 14.5 mg/L, 36.9 mg/L and 8.60 mg/L, respectively.

4.2.2. October 2020 Groundwater Monitoring Event

Chloride was detected in all nine groundwater samples at concentrations exceeding the laboratory reporting limit. The chloride concentrations in samples from wells MW-8, MW-9, and the duplicate sample exceeded the target CUL of 250 mg/L at concentrations of 476 mg/L, 365 mg/L, and 341 mg/L, respectively.

Sulfate was detected in all nine groundwater samples at concentrations exceeding the laboratory reporting limit. The sulfate concentrations in samples from all wells except MW-1B and MW-5 exceeded the target CUL of 250 mg/L, with concentrations ranging from 403 mg/L to 1,510 mg/L.

Dissolved cadmium was not detected at the laboratory reporting limit in samples from MW-2, MW-5, MW-9, and MW-10. Dissolved cadmium was detected in samples from the remaining four of the eight groundwater samples at concentrations exceeding the target CUL of 0.005 mg/L. ALS did not report dissolved cadmium results for the field duplicate sample. The dissolved cadmium concentrations in samples from wells MW-1B, MW-3, MW-8, and MW-12 ranged from 0.006 mg/L to 0.158 mg/L.

Dissolved manganese was detected in all nine groundwater samples at concentrations exceeding the laboratory reporting limit. The dissolved manganese concentrations in samples from all wells except MW-1B and MW-5 exceeded the target CUL of 0.05 mg/L, with concentrations ranging from 0.231 mg/L to 26.6 mg/L.

Dissolved zinc was detected in all nine groundwater samples at concentrations exceeding the laboratory reporting limit. The dissolved zinc concentrations in samples from wells MW-1B, MW-3, MW-8, and MW-12 exceeded the target CUL of 5 mg/L, with concentrations of5.74 mg/L, 14.3 mg/L, 20.6 mg/L, and 13.8 mg/L, respectively.

4.3. Conclusions and Recommendations

The following conclusions and recommendations are based on the results of the April and October 2020 semiannual groundwater monitoring events:

- Chloride concentrations are less than the CUL of 250 mg/L in all wells except MW-8 and MW-9. Chloride concentrations in MW-8 and MW-9 show a generally declining trend over the monitoring period (Graph A-2).
- Sulfate concentrations are greater than the CUL of 250 mg/L in all wells except MW-1B and MW-5. Sulfate concentrations in have fluctuated historically and have remained relatively stable over the 2020 monitoring period (Graph A-3).
- Dissolved cadmium concentrations are less than the CUL of 0.005 mg/L in all wells except MW-1B, MW-3, and MW-12. Dissolved cadmium concentrations have fluctuated historically and show stable (MW-8) or slightly increasing trends (MW-3) over the 2020 monitoring period (Graph A-4).
- Dissolved manganese concentrations are greater than the CUL of 0.05 mg/L in all wells except MW-1B, MW-2 (in April), and MW-5 (in October). Dissolved manganese concentrations in well MW-3 have fluctuated historically with an increasing trend since April 2019. The long-term trend in wells MW-8 and MW-9 has been slightly increasing (Graph A-5).
- Dissolved zinc concentrations are less than the CUL of 5 mg/L in four wells. Dissolved zinc trends are declining in all wells historically and this trend continued during the 2020 monitoring period (Graph A-6).

- Trends for all COCs are stable or declining in downgradient well MW-10, with sulfate and dissolved manganese as the only COCs at concentrations greater than the CULs in samples from that well.

5. 2020 Annual Site Inspection

The Annual Site Inspection for the Site was conducted on October 14, 2020 by Mr. Terry Kelley.

The Annual Site Inspection is required under the AO and to be completed as outlined in the 2007 Site Management Plan (SMP; Linebach & Funkhouser 2007). The goal of the inspection is to ensure material serving as an environmental cover is being maintained and to identify any potential breaches in the cover such that the underlying affected soils could be exposed. The following areas required per the SMP to be inspected annually are shown on Figure 2 and include:

- **Parking / Asphalt Paved Areas**: The asphalt and paved areas are annually inspected in the Spring after complete thaw of snow and ice. If any discrepancies are observed, a contractor will be contacted to clean, fill, and seal cracks as needed to prevent contaminants or water from flowing into the soil under the pavement. This includes inspections of the following three areas:
  1) West Warehouse entryway and adjoining areas south of the East and West Storage Buildings.
  2) Area northeast of the West Warehouse and north of the East and West Storage Buildings.
  3) Corridor between West Warehouse and West Storage Building.
- **Unpaved areas (Soil or Gravel Covered)**: All unpaved areas of the Site covering affected soils are inspected annually. The inspection should identify any signs of subsidence (e.g., obvious visible low areas where standing water may accumulate) or any large cracks on the surface. Significant erosion that may lead to exposure of underlying affected soil should be documented.
- **Monitoring Wells**: The condition of each monitoring well is inspected, noting the condition of the concrete pad and steel protective casing. Inspection should confirm that each well is properly closed with a locking plug and steel protective casing.
- **Bone yard:** Bone yard has been removed and inspection is no longer required.
- **Railroad spur:** Interim actions to address a September 2019 acid spill on the rail spur are documented in the *Interim Action Report* (TRC 2020) submitted to Ecology on September 11, 2020 and approved by Ecology on November 6, 2020.

Key findings from the inspection and actions to address these findings are documented on the checklist in Appendix C and summarized below.

- There were no open cracks observed in the asphalt areas where equipment or production material are moved.

- The unpaved soil surrounding well DW-11A had dropped with a crack observed running from the well to the West Warehouse.
- The southwest and northeast corners and the west side of the concrete pad surrounding the well casing for well MW-1A are broken off, but the well casing and concrete surrounding the well casing are intact. Gravel and soil were placed around the well to protect the casing.
- There are slight cracks in the berm along the east fence located directly east of the loading dock (approximately AOC-2-2). There is a slight crack slanted toward the new building that should also be monitored.
- There did not appear to be any areas of concern with the unpaved restricted areas.
- The containment areas have no interior cracks.
- No odors were observed in any area of the Site during the inspection.

6. Bibliography

Linebach & Funkhouser. 2007. Site Management Plan, Bay Zinc Company Facility, Moxee, Washington. 5 February.

TRC Environmental Corporation (TRC). 2020. *Interim Action Report, Ultra Yield Micronutrients Site, Moxee, Washington*. 11 September.

Washington State Department of Ecology (Ecology). 2009. October 2009 Amendment to Agreed Order No. DE02HWTRCR-4661.

Tables

Table 1
Groundwater Elevation Data
2020 Annual Groundwater Monitoring Report
Ultra Yield Micronutrients Facility
213 West Moxee Avenue, Moxee, Washington

Well ID	Date Collected	Top of Casing Elevation (ft asl)	Depth to Water (ft btoc)	Groundwater Elevation (ft asl)
BH-1	2/18/2020	1,038.68	5.28	1,033.40
	3/25/2020		5.67	1,033.01
	7/7/2020		7.80	1,030.88
	10/20/2020		7.28	1,031.40
BH-2	2/18/2020	1,038.10	5.12	1,032.98
	3/25/2020		5.42	1,032.68
	7/7/2020		7.82	1,030.28
	10/20/2020		7.45	1,030.65
BH-3	2/18/2020	1,040.06	5.31	1,034.75
	3/25/2020		5.70	1,034.36
	7/7/2020		7.89	1,032.17
	10/20/2020		7.35	1,032.71
BH-4	2/18/2020	1,038.97	4.62	1,034.35
	3/25/2020		5.06	1,033.91
	7/7/2020		7.47	1,031.50
	10/20/2020		6.71	1,032.26
BH-5	2/18/2020	1,038.41	4.46	1,033.95
	3/25/2020		4.62	1,033.79
	7/7/2020		7.08	1,031.33
	10/20/2020		6.35	1,032.06
MW-1B	3/25/2020	1,040.83	6.05	1,034.78
	4/27/2020		6.77	1,034.06
	7/7/2020		9.12	1,031.71
	10/20/2020		8.28	1,032.55
	01/25/08		5.92	1,034.91
	02/13/08		5.01	1,035.82
	03/24/08		5.67	1,035.16
	04/28/08		6.27	1,034.56
	05/22/08		7.54	1,033.29
	06/16/08		8.56	1,032.27
	07/16/08		10.38	1,030.45
	08/18/08		10.56	1,030.27
	09/15/08		9.83	1,031.00
	10/13/08		8.17	1,032.66
	11/17/08		7.33	1,033.50
	12/23/08		7.08	1,033.75
	01/20/09		5.33	1,035.50
	02/17/09		5.63	1,035.20
	03/16/09		6.06	1,034.77
	04/20/09		5.83	1,035.00
	05/15/09		6.40	1,034.43
	06/15/09		8.75	1,032.08
	07/22/09		10.00	1,030.83
	08/24/09		10.00	1,030.83
	09/22/09		9.17	1,031.66
	10/20/09		7.52	1,033.31
	11/09/09		7.00	1,033.83
	12/21/09		6.50	1,034.33
	01/11/10		7.00	1,033.83
	02/15/10		4.38	1,036.45
	03/22/10		5.13	1,035.70
	04/20/10		6.71	1,034.12
	05/18/10		6.73	1,034.10
	06/23/10		6.92	1,033.91
	07/20/10		9.17	1,031.66
	08/20/10		10.00	1,030.83
	09/20/10		8.92	1,031.91
	10/29/10		7.46	1,033.37
	11/19/10		7.00	1,033.83
	12/20/10		9.58	1,031.25
	01/17/11		3.08	1,037.75
	02/22/11		4.88	1,035.95
	03/28/11		5.00	1,035.83
	04/11/11		6.53	1,034.30
	05/16/11		4.29	1,036.54
	06/20/11		7.00	1,033.83
	07/18/11		8.32	1,032.51
	08/15/11		9.00	1,031.83
	09/19/11		8.63	1,032.20
	10/17/11		6.92	1,033.91
	11/21/11		6.42	1,034.41
	12/19/11		6.50	1,034.33
	01/16/12		6.54	1,034.29
	02/20/12		5.00	1,035.83
	03/26/12		5.44	1,035.39
	04/17/12		5.44	1,035.39
	05/21/12		6.83	1,034.00
	09/17/12		8.54	1,032.29
	03/18/13		5.50	1,035.33

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Well ID	Date Collected	Top of Casing Elevation (ft asl)	Depth to Water (ft btoc)	Groundwater Elevation (ft asl)
MW-1B	09/16/13	1,040.83	8.00	1,032.83
	03/17/14		5.13	1,035.70
	09/29/14		8.00	1,032.83
	03/23/15		6.19	1,034.64
	09/14/15		9.56	1,031.27
	03/23/16		2.83	1,038.00
	09/26/16		8.50	1,032.33
	04/04/17		2.75	1,038.08
	10/17/17		6.75	1,034.08
	04/11/18		5.25	1,035.58
	10/04/18		9.00	1,031.83
	04/24/19		5.28	1,035.55
	10/08/19		8.17	1,032.66
	3/25/2020		6.05	1,034.78
	04/27/20		6.77	1,034.06
	7/7/2020		9.12	1,031.71
	10/22/20		8.28	1,032.55
MW-2	01/25/08	1,039.52	6.17	1,033.35
	02/13/08		5.48	1,034.04
	03/24/08		6.10	1,033.42
	04/28/08		6.33	1,033.19
	05/22/08		7.42	1,032.10
	06/16/08		8.46	1,031.06
	07/16/08		10.08	1,029.44
	08/18/08		10.00	1,029.52
	09/15/08		9.38	1,030.14
	10/13/08		7.92	1,031.60
	11/17/08		7.33	1,032.19
	12/23/08		7.42	1,032.10
	01/20/09		5.63	1,033.89
	02/17/09		6.08	1,033.44
	03/16/09		6.46	1,033.06
	04/20/09		6.96	1,032.56
	05/15/09		6.46	1,033.06
	06/15/09		8.42	1,031.10
	07/22/09		9.75	1,029.77
	08/24/09		9.63	1,029.89
	09/22/09		8.88	1,030.64
	10/20/09		7.50	1,032.02
	11/09/09		7.17	1,032.35
	12/21/09		6.92	1,032.60
	01/11/10		6.23	1,033.29
	02/15/10		4.79	1,034.73
	03/22/10		5.46	1,034.06
	04/20/10		6.88	1,032.64
	05/18/10		6.63	1,032.89
	06/23/10		6.71	1,032.81
	07/20/10		8.79	1,030.73
	08/20/10		9.56	1,029.96
	09/20/10		6.58	1,032.94
	10/29/10		7.63	1,031.89
	11/19/10		7.25	1,032.27
	12/20/10		5.58	1,033.94
	01/17/11		4.54	1,034.98
	02/22/11		5.04	1,034.48
	03/28/11		5.50	1,034.02
	04/11/11		5.06	1,034.46
	05/16/11		4.24	1,035.28
	06/20/11		7.00	1,032.52
	07/18/11		8.08	1,031.44
	08/15/11		8.79	1,030.73
	09/19/11		8.58	1,030.94
	10/17/11		7.08	1,032.44
	11/21/11		6.88	1,032.64
	12/19/11		7.00	1,032.52
	01/16/12		6.88	1,032.64
	02/20/12		5.53	1,033.99
	03/26/12		6.00	1,033.52
	04/17/12		5.75	1,033.77
	05/21/12		7.08	1,032.44
	09/17/12		8.38	1,031.14
	03/18/13		6.00	1,033.52
	09/16/13		7.67	1,031.85
	03/17/14		5.52	1,034.00
	09/29/14		7.96	1,031.56
	03/23/15		5.67	1,033.85
	09/14/15		9.23	1,030.29
	03/23/16		3.33	1,036.19
	09/26/16		8.50	1,031.02
	04/04/17		3.25	1,036.27

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Well ID	Date Collected	Top of Casing Elevation (ft asl)	Depth to Water (ft btoc)	Groundwater Elevation (ft asl)
MW-2	10/17/17	1,039.52	6.50	1,033.02
	04/11/18		6.75	1,032.77
	10/04/18		9.08	1,030.44
	04/24/19		6.56	1,032.96
	10/08/19		8.33	1,031.19
	03/25/20		6.55	1,032.97
	04/27/20		7.06	1,032.46
	07/07/20		9.11	1,030.41
	10/22/20		8.44	1,031.08
MW-3	01/25/08	1,039.62	6.25	1,033.37
	02/13/08		5.50	1,034.12
	03/24/08		6.15	1,033.47
	04/28/08		6.46	1,033.16
	05/22/08		7.58	1,032.04
	06/16/08		8.67	1,030.95
	07/16/08		10.29	1,029.33
	08/18/08		10.42	1,029.20
	09/15/08		9.67	1,029.95
	10/13/08		8.21	1,031.41
	11/17/08		7.50	1,032.12
	12/23/08		7.50	1,032.12
	01/20/09		5.50	1,034.12
	02/17/09		6.17	1,033.45
	03/16/09		5.46	1,034.16
	04/20/09		6.00	1,033.62
	05/15/09		6.79	1,032.83
	06/15/09		9.88	1,029.74
	07/22/09		10.13	1,029.49
	08/24/09		10.00	1,029.62
	09/22/09		9.08	1,030.54
	10/20/09		7.69	1,031.93
	11/09/09		7.27	1,032.35
	12/21/09		7.00	1,032.62
	01/11/10		6.33	1,033.29
	02/15/10		4.71	1,034.91
	03/22/10		5.52	1,034.10
	04/20/10		5.92	1,033.70
	05/18/10		6.83	1,032.79
	06/23/10		6.92	1,032.70
	07/20/10		9.08	1,030.54
	08/20/10		10.00	1,029.62
	09/20/10		8.83	1,030.79
	10/29/10		7.75	1,031.87
	11/19/10		7.33	1,032.29
	12/20/10		5.67	1,033.95
	01/17/11		4.50	1,035.12
	02/22/11		4.06	1,035.56
	03/28/11		5.56	1,034.06
	04/11/11		5.83	1,033.79
	05/16/11		4.08	1,035.54
	06/20/11		7.08	1,032.54
	07/18/11		8.29	1,031.33
	08/15/11		9.08	1,030.54
	09/19/11		8.79	1,030.83
	10/17/11		7.25	1,032.37
	11/21/11		7.00	1,032.62
	12/19/11		7.08	1,032.54
	01/16/12		6.83	1,032.79
	02/20/12		5.42	1,034.20
	03/26/12		6.00	1,033.62
	04/17/12		5.86	1,033.76
	05/21/12		7.17	1,032.45
	09/17/12		8.63	1,030.99
	03/18/13		6.00	1,033.62
	09/16/13		8.00	1,031.62
	03/17/14		5.58	1,034.04
	09/29/14		8.00	1,031.62
	03/23/15		5.67	1,033.95
	09/14/15		9.50	1,030.12
	03/23/16		3.33	1,036.29
	09/26/16		9.00	1,030.62
	04/04/17		3.00	1,036.62
	10/17/17		4.25	1,035.37
	04/11/18		5.75	1,033.87
	10/04/18		8.39	1,031.23
	04/24/19		5.58	1,034.04
	10/08/19		8.67	1,030.95
	03/25/20		6.59	1,033.03
	04/27/20		7.11	1,032.51
	07/07/20		9.18	1,030.44
	10/22/20		8.54	1,031.08

Table 1
Groundwater Elevation Data
2020 Annual Groundwater Monitoring Report
Ultra Yield Micronutrients Facility
213 West Moxee Avenue, Moxee, Washington

Well ID	Date Collected	Top of Casing Elevation (ft asl)	Depth to Water (ft btoc)	Groundwater Elevation (ft asl)
MW-5	01/25/08	1,040.53	5.58	1,034.95
	02/13/08		4.83	1,035.70
	03/24/08		5.13	1,035.40
	04/28/08		6.00	1,034.53
	05/22/08		7.35	1,033.18
	06/16/08		9.42	1,031.11
	07/16/08		10.29	1,030.24
	08/18/08		10.71	1,029.82
	09/15/08		9.85	1,030.68
	10/13/08		8.04	1,032.49
	11/17/08		7.00	1,033.53
	12/23/08		6.83	1,033.70
	01/20/09		4.92	1,035.61
	02/17/09		5.31	1,035.22
	03/16/09		4.75	1,035.78
	04/20/09		5.46	1,035.07
	05/15/09		6.25	1,034.28
	06/15/09		8.71	1,031.82
	07/22/09		9.92	1,030.61
	08/24/09		10.00	1,030.53
	09/22/09		9.08	1,031.45
	10/20/09		7.35	1,033.18
	11/09/09		6.67	1,033.86
	12/21/09		6.27	1,034.26
	01/11/10		6.65	1,033.88
	02/15/10		4.00	1,036.53
	03/22/10		4.71	1,035.82
	04/20/10		5.50	1,035.03
	05/18/10		6.46	1,034.07
	06/23/10		6.73	1,033.80
	07/20/10		9.08	1,031.45
	08/20/10		10.00	1,030.53
	09/20/10		8.67	1,031.86
	10/29/10		7.21	1,033.32
	11/19/10		6.75	1,033.78
	12/20/10		5.00	1,035.53
	01/17/11		3.79	1,036.74
	02/22/11		4.63	1,035.90
	03/28/11		4.63	1,035.90
	04/11/11		5.17	1,035.36
	05/16/11		4.21	1,036.32
	06/20/11		6.83	1,033.70
	07/18/11		8.21	1,032.32
	08/15/11		8.83	1,031.70
	09/19/11		8.38	1,032.15
	10/17/11		6.75	1,033.78
	11/21/11		6.19	1,034.34
	12/19/11		6.21	1,034.32
	01/16/12		6.17	1,034.36
	02/20/12		4.70	1,035.83
	03/26/12		5.00	1,035.53
	04/17/12		5.00	1,035.53
	05/21/12		6.67	1,033.86
	09/17/12		8.33	1,032.20
	03/18/13		5.13	1,035.40
	09/16/13		7.71	1,032.82
	03/17/14		4.71	1,035.82
	09/29/14		7.06	1,033.47
	03/23/15		5.00	1,035.53
	09/14/15		9.40	1,031.13
	03/23/16		2.17	1,038.36
	09/26/16		8.50	1,032.03
	04/04/17		2.17	1,038.36
	10/17/17		6.50	1,034.03
	04/11/18		5.00	1,035.53
	10/04/18		8.67	1,031.86
	04/24/19		5.00	1,035.53
	10/08/19		7.50	1,033.03
	03/25/20		5.63	1,034.90
	04/27/20		6.39	1,034.14
	07/07/20		8.88	1,031.65
	10/22/20		7.82	1,032.71
MW-6	03/25/20	1,039.34	6.53	1,032.81
	4/27/2020		7.01	1,032.33
	07/07/20		8.96	1,030.38
	10/20/2020		7.55	1,031.79

Table 1
Groundwater Elevation Data
2020 Annual Groundwater Monitoring Report
Ultra Yield Micronutrients Facility
213 West Moxee Avenue, Moxee, Washington

Well ID	Date Collected	Top of Casing Elevation (ft asl)	Depth to Water (ft btoc)	Groundwater Elevation (ft asl)
MW-7	03/25/20	1,038.62	6.58	1,032.04
	4/27/2020		6.12	1,032.50
	07/07/20		8.25	1,030.37
	10/20/2020		7.55	1,031.07
MW-8	01/25/08	1,039.88	5.83	1,034.05
	02/13/08		5.00	1,034.88
	03/24/08		5.73	1,034.15
	04/28/08		6.08	1,033.80
	05/22/08		7.04	1,032.84
	06/16/08		8.19	1,031.69
	07/16/08		9.83	1,030.05
	08/18/08		10.13	1,029.75
	09/15/08		9.25	1,030.63
	10/13/08		8.27	1,031.61
	11/17/08		7.04	1,032.84
	12/23/08		7.00	1,032.88
	01/20/09		5.58	1,034.30
	02/17/09		5.58	1,034.30
	03/16/09		6.00	1,033.88
	04/20/09		5.54	1,034.34
	05/15/09		6.25	1,033.63
	06/15/09		8.00	1,031.88
	07/22/09		9.42	1,030.46
	08/24/09		9.29	1,030.59
	09/22/09		8.54	1,031.34
	10/20/09		7.17	1,032.71
	11/09/09		6.73	1,033.15
	12/21/09		6.56	1,033.32
	01/11/10		5.92	1,033.96
	02/15/10		4.29	1,035.59
	03/22/10		6.00	1,033.88
	04/20/10		5.42	1,034.46
	05/18/10		6.26	1,033.62
	06/23/10		6.17	1,033.71
	07/20/10		8.42	1,031.46
	08/20/10		9.46	1,030.42
	09/20/10		7.46	1,032.42
	10/29/10		7.00	1,032.88
	11/19/10		9.04	1,030.84
	12/20/10		5.17	1,034.71
	01/17/11		4.08	1,035.80
	02/22/11		4.15	1,035.73
	03/28/11		5.00	1,034.88
	04/11/11		5.35	1,034.53
	05/16/11		4.00	1,035.88
	06/20/11		6.42	1,033.46
	07/18/11		7.08	1,032.80
	08/15/11		8.42	1,031.46
	09/19/11		8.27	1,031.61
	10/17/11		6.58	1,033.30
	11/21/11		6.33	1,033.55
	12/19/11		6.46	1,033.42
	01/16/12		6.25	1,033.63
	02/20/12		4.83	1,035.05
	03/26/12		5.42	1,034.46
	04/17/12		5.17	1,034.71
	05/21/12		7.58	1,032.30
	09/17/12		8.21	1,031.67
	03/18/13		5.46	1,034.42
	09/16/13		7.29	1,032.59
	03/17/14		5.00	1,034.88
	09/29/14		7.42	1,032.46
	03/23/15		5.15	1,034.73
	09/14/15		9.21	1,030.67
	03/23/16		2.92	1,036.96
	09/26/16		8.33	1,031.55
	04/04/17		3.00	1,036.88
	10/17/17		9.25	1,030.63
	04/11/18		5.50	1,034.38
	10/04/18		8.58	1,031.30
	04/24/19		9.75	1,030.13
	10/08/19		7.37	1,032.51
	03/25/20		6.03	1,033.85
	04/27/20		6.92	1,032.96
	07/07/20		8.71	1,031.17
	10/22/20		7.94	1,031.94
MW-9	01/25/08	1,041.15	7.33	1,033.82
	02/13/08		6.63	1,034.52
	03/24/08		7.27	1,033.88
	04/28/08		7.63	1,033.52

Table 1
Groundwater Elevation Data
2020 Annual Groundwater Monitoring Report
Ultra Yield Micronutrients Facility
213 West Moxee Avenue, Moxee, Washington

Well ID	Date Collected	Top of Casing Elevation (ft asl)	Depth to Water (ft btoc)	Groundwater Elevation (ft asl)
MW-9	05/22/08	1,041.15	8.60	1,032.55
	06/16/08		9.73	1,031.42
	07/16/08		11.33	1,029.82
	08/18/08		11.50	1,029.65
	09/15/08		10.75	1,030.40
	10/13/08		9.33	1,031.82
	11/17/08		8.58	1,032.57
	12/23/08		8.50	1,032.65
	01/20/09		6.71	1,034.44
	02/17/09		7.67	1,033.48
	03/16/09		6.60	1,034.55
	04/20/09		7.13	1,034.02
	05/15/09		7.92	1,033.23
	06/15/09		9.75	1,031.40
	07/22/09		11.08	1,030.07
	08/24/09		11.00	1,030.15
	09/22/09		10.17	1,030.98
	10/20/09		8.83	1,032.32
	11/09/09		8.38	1,032.77
	12/21/09		8.00	1,033.15
	01/11/10		7.42	1,033.73
	02/15/10		6.00	1,035.15
	03/22/10		6.65	1,034.50
	04/20/10		8.00	1,033.15
	05/18/10		7.92	1,033.23
	06/23/10		8.06	1,033.09
	07/20/10		10.04	1,031.11
	08/20/10		11.13	1,030.02
	09/20/10		10.00	1,031.15
	10/29/10		7.83	1,033.32
	11/19/10		8.42	1,032.73
	12/20/10		7.08	1,034.07
	01/17/11		5.75	1,035.40
	02/22/11		6.50	1,034.65
	03/28/11		6.58	1,034.57
	04/11/11		7.00	1,034.15
	05/16/11		5.42	1,035.73
	06/20/11		8.00	1,033.15
	07/18/11		9.25	1,031.90
	08/15/11		9.83	1,031.32
	09/19/11		10.00	1,031.15
	10/17/11		8.38	1,032.77
	11/21/11		8.00	1,033.15
	12/19/11		8.00	1,033.15
	01/16/12		8.00	1,033.15
	02/20/12		6.57	1,034.58
	03/26/12		7.00	1,034.15
	04/17/12		7.08	1,034.07
	05/21/12		8.25	1,032.90
	09/17/12		9.79	1,031.36
	03/18/13		7.00	1,034.15
	09/16/13		9.00	1,032.15
	03/17/14		7.17	1,033.98
	09/29/14		9.08	1,032.07
	03/23/15		6.92	1,034.23
	09/14/15		10.60	1,030.55
	03/23/16		6.67	1,034.48
	09/26/16		9.00	1,032.15
	04/04/17		4.33	1,036.82
	10/17/17		8.25	1,032.90
	04/11/18		7.00	1,034.15
	10/04/18		10.25	1,030.90
	04/24/19		7.00	1,034.15
	10/08/19		9.58	1,031.57
	03/25/20		7.67	1,033.48
	04/27/20		8.42	1,032.73
	07/07/20		10.31	1,030.84
	10/22/20		9.56	1,031.59
MW-10	01/25/08	1,038.98	6.13	1,032.85
	02/13/08		5.33	1,033.65
	03/24/08		6.00	1,032.98
	04/28/08		6.25	1,032.73
	05/22/08		7.46	1,031.52
	06/16/08		8.44	1,030.54
	07/16/08		10.00	1,028.98
	08/18/08		9.75	1,029.23
	09/15/08		9.33	1,029.65
	10/13/08		9.90	1,029.08
	11/17/08		7.44	1,031.54
	12/23/08		7.33	1,031.65

Table 1
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213 West Moxee Avenue, Moxee, Washington

Well ID	Date Collected	Top of Casing Elevation (ft asl)	Depth to Water (ft btoc)	Groundwater Elevation (ft asl)
MW-10	01/20/09	1,038.98	5.42	1,033.56
	02/17/09		6.00	1,032.98
	03/16/09		5.38	1,033.60
	04/20/09		5.92	1,033.06
	05/15/09		6.52	1,032.46
	06/15/09		8.50	1,030.48
	07/22/09		9.92	1,029.06
	08/24/09		9.67	1,029.31
	09/22/09		8.92	1,030.06
	10/20/09		7.42	1,031.56
	11/09/09		7.08	1,031.90
	12/21/09		6.79	1,032.19
	01/11/10		6.13	1,032.85
	02/15/10		4.67	1,034.31
	03/22/10		5.40	1,033.58
	04/20/10		6.81	1,032.17
	05/18/10		6.60	1,032.38
	06/23/10		6.75	1,032.23
	07/20/10		9.06	1,029.92
	08/20/10		9.67	1,029.31
	09/20/10		8.58	1,030.40
	10/29/10		7.56	1,031.42
	11/19/10		7.25	1,031.73
	12/20/10		5.54	1,033.44
	01/17/11		4.04	1,034.94
	02/22/11		5.25	1,033.73
	03/28/11		5.38	1,033.60
	04/11/11		5.83	1,033.15
	05/16/11		4.19	1,034.79
	06/20/11		6.47	1,032.51
	07/18/11		8.08	1,030.90
	08/15/11		8.83	1,030.15
	09/19/11		8.60	1,030.38
	10/17/11		6.92	1,032.06
	11/21/11		6.83	1,032.15
	12/19/11		6.75	1,032.23
	01/16/12		6.84	1,032.14
	02/20/12		5.38	1,033.60
	03/26/12		5.75	1,033.23
	04/17/12		5.69	1,033.29
	05/21/12		7.08	1,031.90
	09/17/12		8.38	1,030.60
	03/18/13		6.00	1,032.98
	09/16/13		7.65	1,031.33
	03/17/14		5.42	1,033.56
	09/29/14		8.00	1,030.98
	03/23/15		8.54	1,030.44
	09/14/15		9.10	1,029.88
	03/23/16		3.00	1,035.98
	09/26/16		8.73	1,030.25
	04/04/17		2.67	1,036.31
	10/17/17		7.25	1,031.73
	04/11/18		4.50	1,034.48
	10/04/18		9.00	1,029.98
	04/24/19		5.56	1,033.42
	10/08/19		8.25	1,030.73
	03/25/20		6.41	1,032.57
	04/27/20		7.02	1,031.96
	07/07/20		8.99	1,029.99
	10/22/20		8.34	1,030.64
MW-12	03/25/20	1,039.54	5.62	1,033.92
	4/27/2020		7.46	1,032.08
	07/07/20		8.05	1,031.49
	10/20/2020		7.46	1,032.08

Notes:
Groundwater elevation = Top of Casing elevation - Depth to water
ft asl Feet above sea level.
ft btoc Feet below top of casing

Table 2
Groundwater Analytical Results[a]
2020 Annual Groundwater Monitoring Report
Ultra Yield Micronutrients Facility
213 West Moxee Avenue, Moxee, Washington

Sample Location	Sample Date	Chloride[b]	Sulfate[b]	Metals			pH[d] (unitless)	Temperature[e] (in degrees Celsius)
				Dissolved Cadmium[c]	Dissolved Manganese[c]	Dissolved Zinc[c]		
MW-1B	1/31/03	89.8	2,190	0.2	1.39	286	--	--
	6/16/03	64	1,450	0.13	1.29	175	--	--
	9/16/03	42	805	0.073	0.45	73	--	--
	12/9/03	46	613	0.052	0.083	47	--	--
	3/17/04	50	1,610	0.10	0.17	190	--	--
	6/16/04	29	566	0.042	0.071	79	--	--
	9/20/04	20	114	0.01	0.13	25	--	--
	12/13/04	25	188	0.015	0.06	27	--	--
	3/21/05	26	356	0.028	0.022	50	--	--
	6/21/05	22.5	102	ND	0.09	15	--	--
	9/19/05	22.5	89	0.009	0.1	15	--	--
	11/14/05	23.4	93.8	0.01	0.053	17	--	--
	3/27/06	--	--	--	--	--	--	--
	4/5/06	48	1,500	0.1	0.24	170	--	--
	6/12/06	60.2	1,830	0.081	0.17	130	--	--
	9/11/06	30.4	--	0.025	0.12	43	--	--
	11/9/06	66	399	0.03	0.052	55	--	--
	3/26/07	172	1,840	ND	0.14	200	--	--
	6/18/07	49.5	977	ND	ND	110	--	--
	8/27/07	29	317	0.014	0.093	31	--	--
	11/19/07	29.9	252	ND	ND	25	--	--
	3/24/08	78.5	1,180	0.094	0.088	130	--	--
	6/16/08	44.5	602	0.047	0.23	80	--	--
	8/18/08	30	290	0.023	0.043	32	--	--
	11/17/08	26.5	138	0.02	ND	22	--	--
	3/16/09	50	824	0.089	0.037	128	--	--
	6/15/09	30.8	329	0.042	0.037	54.5	--	--
	8/24/09	26	163	0.014	0.032	20.2	--	--
	3/22/10	60	1,070	0.081	0.0419	110	--	--
	9/20/10	21.8	208	0.0179	0.0281	19.6	--	--
	3/28/11	52.8	925	0.0582	0.0171	86.1	--	--
	9/19/11	24.5	172	0.0145	0.0077	19	--	--
	3/26/12	25	472	0.0309	0.0081	41	7.04	15.0
	9/17/12	21	107	0.0105	0.0065	11	6.83	18.4
	3/18/13	22.8	253	0.02	0.0064	23.8	6.92	16.1
	9/16/13	26	232	0.014	0.0186	15.4	6.54	17.3
	3/17/14	40	579	0.0305	0.0075	40.7	6.58	14.2
	9/29/14	21	95.7	0.0086	0.0089	9.53	6.73	17.4
	3/23/15	65	1,060	0.0052	0.0276	59.2	7.02	12.5
	9/14/15	22.9	141	0.0119	0.0123	12.9	7.00	16.3
	3/23/16	249	2,320	0.061	0.17	71.4	6.81	16.1
	9/26/16	69	805	0.0197	0.043	21.8	6.59	18.4
	4/4/17	185	1,950	0.032	0.45	36.70	6.82	19.9
	10/17/17	71	904	0.18	0.24	16.1	7.06	11.2
	4/11/18	70	540	0.016	0.009	16.10	6.90	11.9
	10/4/18	25.5	118	0.006	0.021	5.31	7.02	11.1
	4/28/19	46.8	600	0.018	0.003	16.60	6.85	16.0
	10/8/19	25	107	0.006	0.009	5.46	7.53	14.5
	4/27/20	24	189	0.008	0.003	8.05	7.73	12.8
	10/20/20	23.3	86.5	0.006	0.016	5.74	7.70	15.0
MW-2	1/31/03	487	1,117	ND	0.28	0.097	--	--
	6/16/03	416	416	ND	0.73	0.035	--	--
	9/16/03	42	71.8	0.001	0.63	0.25	--	--
	12/9/03	71	ND	ND	0.44	0.061	--	--
	3/17/04	410	1,020	ND	0.24	0.035	--	--
	6/16/04	71	113	0.003	0.032	0.22	--	--
	9/20/04	43	83	ND	0.47	0.003	--	--
	12/13/04	59	98.1	ND	0.74	0.18	--	--
	3/21/05	160	273	ND	0.026	0.46	--	--
	6/21/05	51	118	ND	0.029	0.025	--	--
	9/19/05	122	233	ND	0.77	0.023	--	--
	11/14/05	88.4	126	ND	0.99	0.009	--	--
	3/27/06	521	1,130	0.006	0.28	0.099	--	--
	4/5/06	--	--	--	--	--	--	--
	6/12/06	417	733	ND	1.3	0.072	--	--
	9/11/06	169	--	ND	1	0.27	--	--
	11/9/06	118	284	ND	1.4	0.16	--	--
	3/26/07	582	1,390	0.026	0.24	0.078	--	--
	6/18/07	180	355	ND	0.17	ND	--	--
	8/27/07	115	280	0.009	0.36	0.015	--	--
	11/19/07	210	319	ND	1.2	0.061	--	--
	3/24/08	555	1,110	ND	0.33	0.026	--	--
	6/16/08	284	499	ND	2.3	0.022	--	--
	8/18/08	121	292	ND	1.4	ND	--	--
	11/17/08	203	361	ND	2.1	ND	--	--
	3/16/09	484	1,070	ND	0.259	0.081	--	--
	6/15/09	416	1,050	ND	2.29	ND	--	--
	8/24/09	146	642	ND	2.02	ND	--	--

Table 2
Groundwater Analytical Results[a]
2020 Annual Groundwater Monitoring Report
Ultra Yield Micronutrients Facility
213 West Moxee Avenue, Moxee, Washington

Sample Location	Sample Date	Chloride[b]	Sulfate[b]	Metals			pH[d] (unitless)	Temperature[e] (in degrees Celsius)
				Dissolved Cadmium[c]	Dissolved Manganese[c]	Dissolved Zinc[c]		
MW-2	3/22/10	**402**	**1,380**	ND	**0.14**	**0.0045**	--	--
	9/20/10	**137**	**503**	ND	**2.88**	**0.0032**	--	--
	3/28/11	**445**	**1,710**	ND	**0.254**	**0.0051**	--	--
	9/19/11	**131**	**550**	ND	**2.06**	**0.0309**	--	--
	3/26/12	**368**	**1,270**	ND	**0.0339**	ND	7.37	15.1
	9/17/12	**139**	**594**	ND	**3.05**	ND	7.46	19.8
	3/18/13	**341**	**1,280**	ND	**0.0154**	**0.0041**	7.46	16.5
	9/16/13	**113**	**583**	ND	**0.617**	**0.006**	7.35	18.3
	3/17/14	**363**	**1,170**	ND	**0.0052**	ND	7.20	15.6
	9/29/14	**140**	**615**	ND	**3.04**	**0.0035**	7.43	15.9
	3/23/15	**354**	**992**	ND	**0.0039**	ND	7.35	11.5
	9/14/15	**111**	**413**	ND	**0.293**	ND	7.68	16.9
	3/23/16	**404**	**1,320**	ND	**0.140**	**0.005**	7.36	14.8
	9/26/16	**121**	**390**	ND	**0.006**	**0.005**	7.23	17.4
	4/4/17	**420**	**1,380**	ND	**0.159**	**0.01**	7.09	20.8
	10/17/17	**134**	**386**	ND	**0.09**	**0.003**	7.39	11.1
	4/11/18	**348**	**1,370**	ND	**0.083**	**0.006**	7.21	13.9
	10/4/18	**203**	**393**	ND	**0.003**	**0.004**	7.62	11.2
	4/28/19	**331**	**1,130**	ND	**0.002**	**0.024**	7.50	18.5
	10/8/19	**239**	**574**	ND	**0.007**	**0.008**	7.74	15.4
	4/27/20	**260**	**807**	ND	**0.028**	**0.009**	7.90	15.0
	10/20/20	**236**	**665**	ND	**2.410**	**0.022**	8.06	16.4
MW-3	1/31/03	**105**	**1,191**	**0.84**	**3.4**	**13.6**	--	--
	6/16/03	**203**	**2,020**	**0.14**	**5.24**	**19**	--	--
	9/16/03	**70**	**480**	**0.043**	**1.5**	**5**	--	--
	12/9/03	**87**	**609**	**0.031**	**1.5**	**4.2**	--	--
	3/17/04	**180**	**1,540**	**0.23**	**11**	**45**	--	--
	6/16/04	**110**	**642**	**0.082**	**5.7**	**12**	--	--
	9/20/04	**42**	**174**	**0.007**	**1.2**	**1.8**	--	--
	12/13/04	**85**	**516**	**0.041**	**3.3**	**5.4**	--	--
	3/21/05	**190**	**1,080**	**0.21**	**13**	**41**	--	--
	6/21/05	**92**	**610**	**0.08**	**5.8**	**12**	--	--
	9/19/05	**192**	**1,860**	**0.26**	**25**	**54**	--	--
	11/14/05	**225**	**1,680**	**0.27**	**19**	**47**	--	--
	3/27/06	**151**	**1,300**	**0.084**	**6.5**	**16**	--	--
	4/5/06	--	--	--	--	--	--	--
	6/12/06	**158**	**2,050**	**0.14**	**8.7**	**38**	--	--
	9/11/06	**181**	--	**0.077**	**6.5**	**12**	--	--
	11/9/06	**155**	**1,380**	**0.063**	**5.2**	**10**	--	--
	3/26/07	**216**	**1,460**	**0.022**	**8.9**	**30**	--	--
	6/18/07	**181**	**1,500**	ND	**8.4**	**21**	--	--
	8/27/07	**113**	**805**	**0.054**	**4.9**	**8.9**	--	--
	11/19/07	**164**	**1,140**	**0.013**	**9.5**	**19**	--	--
	3/24/08	**220**	**1,460**	**0.29**	**16**	**43**	--	--
	6/16/08	**170**	**1,170**	**0.15**	**11**	**25**	--	--
	8/18/08	**101**	**492**	**0.052**	**4.1**	**6.7**	--	--
	11/17/08	**130**	**839**	**0.08**	**6.4**	**9.9**	--	--
	3/16/09	**160**	**921**	**0.154**	**9.25**	**26.2**	--	--
	6/15/09	**116**	**750**	**0.106**	**6.26**	**17.3**	--	--
	8/24/09	**116**	**748**	**0.044**	**4.05**	**5.68**	--	--
	3/22/10	**81.7**	**601**	**0.067**	**4.39**	**10.9**	--	--
	9/20/10	**135**	**731**	**0.0422**	**5.1**	**4.51**	--	--
	3/28/11	**63**	**463**	**0.0556**	**4.01**	**9.27**	--	--
	9/19/11	**166**	**828**	**0.049**	**4.76**	**5.66**	--	--
	3/26/12	**101**	**980**	**0.152**	**11.2**	**23.7**	7.11	16.2
	9/17/12	**151**	**885**	**0.0683**	**6.32**	**6.56**	7.05	19.6
	3/18/13	**123**	**1,110**	**0.19**	**14**	**28.3**	7.09	16.7
	9/16/13	**115**	**809**	**0.0656**	**4.78**	**7.06**	7.01	18.2
	3/17/14	**140**	**1,080**	**0.145**	**10**	**24.5**	6.80	16.1
	9/29/14	**128**	**904**	**0.0701**	**6.79**	**7.24**	6.98	16.8
	3/23/15	**114**	**884**	**0.176**	**11.4**	**22.6**	7.00	13.5
	9/14/15	**118**	**786**	**0.0789**	**6.81**	**7.87**	7.28	17.9
	3/23/16	**99**	**859**	**0.039**	**1.64**	**5.93**	6.95	14.8
	9/26/16	**138**	**971**	**0.0502**	**1.22**	**5.67**	6.90	17.8
	4/4/17	**63**	**788**	**0.033**	**1.43**	**4.6**	6.98	19.9
	10/17/17	**143**	**1,190**	**0.100**	**4.85**	**11.4**	7.09	11.7
	4/11/18	**107**	**896**	**0.125**	**7.59**	**15.00**	7.08	13.5
	10/4/18	**173**	**843**	**0.091**	**4.19**	**7.72**	7.06	11.6
	4/28/19	**59.9**	**589**	**0.067**	**3.43**	**7.0**	7.61	16.6
	10/8/19	**161**	**926**	**0.096**	**5.77**	**8.00**	7.59	15.1
	4/27/20	**115**	**949**	**0.136**	**7.63**	**14.5**	7.62	15.0
	10/20/20	**168**	**940**	**0.158**	**9.75**	**14.30**	7.56	15.3
MW-5	1/31/03	**19.5**	**46.3**	ND	**0.11**	**0.014**	--	--
	6/16/03	**18.4**	**42.4**	ND	**0.033**	**0.008**	--	--
	9/16/03	**19**	**42.5**	ND	**0.039**	**0.076**	--	--
	12/9/03	**21**	ND	ND	ND	**0.11**	--	--
	3/17/04	**19**	**108**	ND	**0.027**	**0.037**	--	--
	6/16/04	**19**	**52**	**0.006**	**0.11**	**0.38**	--	--

Table 2
Groundwater Analytical Results[a]
2020 Annual Groundwater Monitoring Report
Ultra Yield Micronutrients Facility
213 West Moxee Avenue, Moxee, Washington

Sample Location	Sample Date	Chloride[b]	Sulfate[b]	Metals			pH[d] (unitless)	Temperature[e] (in degrees Celsius)
				Dissolved Cadmium[c]	Dissolved Manganese[c]	Dissolved Zinc[c]		
MW-5	9/20/04	**20**	**50.6**	ND	**0.051**	**0.052**	--	--
	12/13/04	**20**	**35.9**	ND	**0.047**	**0.085**	--	--
	3/21/05	**23**	**53**	ND	**0.033**	**0.1**	--	--
	6/21/05	**19.5**	**58.8**	ND	**0.001**	**0.063**	--	--
	9/19/05	**22.5**	**56.1**	ND	**0.082**	**0.082**	--	--
	11/14/05	**21.4**	**46.8**	ND	**0.072**	**0.031**	--	--
	3/27/06	**19**	**62.3**	ND	**0.057**	**0.03**	--	--
	4/5/06	--	--	--	--	--	--	--
	6/12/06	**23.2**	**130**	ND	**0.096**	**0.022**	--	--
	9/11/06	**22.2**	--	ND	**0.048**	**0.01**	--	--
	11/9/06	**21.8**	**59**	ND	**0.084**	**0.009**	--	--
	3/26/07	**23.3**	**65.1**	ND	**0.067**	**0.81**	--	--
	6/18/07	**22.9**	**60**	ND	ND	**0.087**	--	--
	8/27/07	**22.7**	**71**	ND	**0.063**	**0.021**	--	--
	11/19/07	**21.9**	**52**	ND	ND	ND	--	--
	3/24/08	**27.5**	**54.3**	ND	**0.059**	ND	--	--
	6/16/08	**24**	**52**	ND	**0.072**	ND	--	--
	8/18/08	**23**	**52.7**	ND	**0.022**	**0.036**	--	--
	11/17/08	**22.5**	**31.9**	ND	ND	ND	--	--
	3/16/09	**21**	**287**	ND	**0.054**	**0.037**	--	--
	6/15/09	**21.2**	**68.8**	ND	**0.045**	**0.038**	--	--
	8/24/09	**23.2**	**75.6**	ND	**0.028**	ND	--	--
	3/22/10	**17.9**	**46.3**	ND	**0.0646**	**0.0025**	--	--
	9/20/10	**18.2**	**48**	ND	**0.0273**	ND	--	--
	3/28/11	**18.9**	**47.4**	ND	**0.0614**	**0.0022**	--	--
	9/19/11	**20.3**	**48.2**	ND	**0.0323**	**0.0022**	--	--
	3/26/12	**17.7**	**44.4**	ND	**0.0664**	ND	8.17	16.5
	9/17/12	**20.4**	**46.1**	ND	**0.0293**	**0.0039**	7.96	19.1
	3/18/13	**16.5**	**41.6**	ND	**0.0624**	ND	8.14	17.2
	9/16/13	**19**	**46.9**	ND	**0.017**	**0.0025**	7.92	16.9
	3/17/14	**21.5**	**49.4**	ND	**0.0537**	**0.002**	7.87	13.4
	9/29/14	**21.5**	**50.4**	ND	**0.0216**	ND	7.78	16.4
	3/23/15	**19.2**	**44.8**	ND	**0.0637**	ND	8.04	13.7
	9/14/15	**23.3**	**50.8**	ND	**0.0094**	ND	7.98	16.3
	3/23/16	**22.6**	**49.5**	ND	**0.053**	ND	7.89	15.9
	9/26/16	**22.8**	**51.1**	ND	**0.009**	**0.0025**	7.54	17.3
	4/4/17	**22.8**	**49.4**	ND	**0.036**	ND	7.51	20.1
	10/17/17	**23.4**	**58.1**	ND	**0.031**	**0.004**	7.71	11.2
	4/11/18	**23.5**	**51.4**	ND	**0.067**	**0.004**	7.89	14.1
	10/4/18	**23**	**53.8**	ND	**0.014**	**0.009**	7.96	12.8
	4/28/19	**23.4**	**51.9**	ND	**0.071**	**0.004**	8.01	12.3
	10/8/19	**23.4**	**50.9**	ND	**0.021**	**0.003**	7.89	14.5
	4/27/20	**22.3**	**51.3**	ND	**0.075**	**0.002**	8.44	14.4
	10/20/20	**23.1**	**53.7**	ND	**0.016**	**0.012**	8.22	14.7
MW-8	1/31/03	**418**	**1,518**	ND	**25.2**	**0.014**	--	--
	6/16/03	--	--	--	--	--	--	--
	9/16/03	**160**	**580**	**0.006**	**3.3**	**3.1**	--	--
	12/9/03	**150**	**677**	**0.004**	**2.5**	**2.8**	--	--
	3/17/04	**140**	**630**	**0.006**	**3.4**	**3.4**	--	--
	6/16/04	**440**	**1,170**	**0.095**	**18**	**41**	--	--
	9/20/04	**130**	**46**	ND	**3.4**	**2.8**	--	--
	12/13/04	**130**	**488**	**0.01**	**3.8**	**4.4**	--	--
	3/21/05	**120**	**460**	**0.005**	**3.5**	**3.7**	--	--
	6/21/05	**129**	**370**	**0.005**	**3.9**	**3.7**	--	--
	9/19/05	**300**	**1,290**	**0.019**	**12**	**12**	--	--
	11/14/05	**390**	**1,290**	**0.054**	**16**	**28**	--	--
	3/27/06	**295**	**1,340**	**0.051**	**14**	**38**	--	--
	4/5/06	--	--	--	--	--	--	--
	6/12/06	**110**	**659**	**0.009**	**3.5**	**5.2**	--	--
	9/11/06	**79**	--	ND	**2.1**	**0.94**	--	--
	11/9/06	**143**	**722**	**0.014**	**5.3**	**7.9**	--	--
	3/26/07	**313**	**1,740**	ND	**18**	**20**	--	--
	6/18/07	**330**	**2,000**	ND	**19**	**89**	--	--
	8/27/07	**168**	**1,150**	**0.014**	**7.7**	**20**	--	--
	11/19/07	**277**	**1,480**	ND	**15**	**38**	--	--
	3/24/08	**350**	**1,540**	**0.066**	**29**	**95**	--	--
	6/16/08	**303**	**1,570**	**0.062**	**25**	**97**	--	--
	8/18/08	**242**	**1,250**	**0.044**	**17**	**68**	--	--
	11/17/08	**269**	**1,380**	**0.044**	**22**	**84**	--	--
	3/16/09	**374**	**1,530**	**0.068**	**28.5**	**140**	--	--
	6/15/09	**336**	**1,490**	**0.077**	**24.4**	**125**	--	--
	8/24/09	**244**	**1,210**	**0.021**	**2.02**	**44.1**	--	--
	3/22/10	**310**	**1,750**	**0.083**	**28**	**131**	--	--
	9/20/10	**264**	**1,110**	**0.0277**	**12.4**	**27.6**	--	--
	3/28/11	**377**	**1,810**	**0.112**	**24.3**	**124**	--	--
	9/19/11	**352**	**1,340**	**0.0391**	**15.2**	**38.5**	--	--
	3/26/12	**426**	**1,780**	**0.189**	**33.6**	**11.7**	7.01	16.9
	9/17/12	**405**	**1,360**	**0.0485**	**17.6**	**35.2**	7.05	19.4

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Sample Location	Sample Date	Chloride[b]	Sulfate[b]	Metals			pH[d] (unitless)	Temperature[e] (in degrees Celsius)
				Dissolved Cadmium[c]	Dissolved Manganese[c]	Dissolved Zinc[c]		
MW-8	3/18/13	**406**	**1,610**	**0.132**	**28.5**	**79.9**	7.13	17.8
	9/16/13	**390**	**1,330**	**0.0319**	**15.2**	**22.8**	6.95	16.6
	3/17/14	**579**	**1,870**	**0.064**	**31.1**	**60.4**	6.79	16.0
	9/29/14	**478**	**1,600**	**0.0245**	**18.2**	**20.5**	6.94	15.8
	3/23/15	**507**	**1,740**	**0.0646**	**33.9**	**57.4**	7.00	14.9
	9/14/15	**213**	**689**	**0.0108**	**8.65**	**10.7**	7.37	18.0
	3/23/16	**568**	**1,760**	**0.056**	**35.7**	**52.8**	6.91	15.0
	9/26/16	**376**	**1,140**	**0.0185**	**18.00**	**17.6**	6.91	10.0
	4/4/17	**537**	**1,600**	**0.0497**	**30.2**	**54.4**	6.71	16.7
	10/17/17	**530**	**1,570**	**0.05**	**24.0**	**32.1**	6.90	13.1
	4/11/18	**602**	**1,660**	**0.066**	**27.3**	**47.3**	6.79	14.9
	10/4/18	**555**	**1,430**	**0.03**	**22.10**	**22.10**	7.67	11.5
	11/27/18	--	--	--	--	--	6.82	11.5
	4/28/19	**604**	**1,870**	**0.086**	**33.60**	**53.6**	7.24	12.3
	10/8/19	**470**	**1,350**	**0.03**	**21.70**	**20.40**	7.39	15.0
	12/29/2019	**524**	**1,460**	**0.036**	**23.70**	**27.80**	6.46	--
	1/29/2020	**515**	**1,520**	**0.040**	**33.2**	**35.20**	7.61	--
	3/2/2020	**521**	**1,432**	**0.034**	**23.6**	**25.1**	6.78	--
	4/27/20	**503**	**1,520**	**0.051**	**29.3**	**36.9**	7.64	14.7
	6/29/2020	**554**	**1,580**	**0.047**	**30.6**	**36.5**	7.51	--
	7/22/2020	**556**	**1,580**	**0.054**	**34.3**	**40.0**	7.27	--
	10/20/20	**476**	**1,400**	**0.026**	**26.60**	**20.60**	7.40	15.3
MW-9	1/31/03	**448**	**727**	ND	**0.99**	**0.30**	--	--
	6/16/03	--	--	--	--	--	--	--
	9/16/03	**600**	**1,020**	ND	**0.02**	**0.34**	--	--
	12/9/03	**650**	**1,030**	ND	**0.11**	**0.14**	--	--
	3/17/04	**800**	**1,420**	ND	**0.11**	**0.18**	--	--
	6/16/04	**450**	**797**	**0.003**	**2.20**	**0.25**	--	--
	9/20/04	**720**	**1,610**	ND	**2.90**	**0.21**	--	--
	12/13/04	**800**	**1,430**	ND	**3.5**	**0.16**	--	--
	3/21/05	**620**	**796**	ND	**2.40**	**0.11**	--	--
	6/21/05	**600**	**1,350**	ND	**2.40**	**0.098**	--	--
	9/19/05	**650**	**950**	ND	**2.50**	**0.078**	--	--
	11/14/05	**648**	**978**	**0.002**	**2.80**	**0.063**	--	--
	3/27/06	**550**	**935**	ND	**1.10**	**0.059**	--	--
	4/5/06	--	--	--	--	--	--	--
	6/12/06	**606**	**1,540**	ND	**1.70**	**0.13**	--	--
	9/11/06	**535**	--	ND	**1.80**	**0.047**	--	--
	11/9/06	**650**	**1,440**	ND	**2.30**	**0.068**	--	--
	3/26/07	**683**	**1,140**	ND	**1.60**	**0.22**	--	--
	6/18/07	**800**	**1,490**	ND	**1.20**	**0.37**	--	--
	8/27/07	**650**	**1,300**	ND	**2.20**	**0.050**	--	--
	11/19/07	**745**	**1,120**	ND	**2.60**	**0.14**	--	--
	3/24/08	**700**	**1,030**	ND	**2.00**	**0.050**	--	--
	6/16/08	**678**	**1,340**	ND	**2.00**	**0.069**	--	--
	8/18/08	**567**	**1,140**	ND	**2.50**	**0.12**	--	--
	11/17/08	**601**	**1,100**	ND	**2.60**	**0.23**	--	--
	3/16/09	**632**	**984**	ND	**2.04**	**0.107**	--	--
	6/15/09	**690**	**1,040**	ND	**2.23**	**0.047**	--	--
	8/24/09	**500**	**1,390**	ND	**2.49**	**0.034**	--	--
	3/22/10	**522**	**1,210**	ND	**2.93**	**0.019**	--	--
	9/20/10	**425**	**1,190**	ND	**2.91**	**0.018**	--	--
	3/28/11	**600**	**1,480**	ND	**3.13**	**0.021**	--	--
	9/19/11	**590**	**1,520**	ND	**6.01**	**0.0215**	--	--
	3/26/12	**573**	**1,540**	ND	**4.66**	**0.0316**	7.72	17.1
	9/17/12	**628**	**1,710**	ND	**4.85**	**0.0338**	7.64	19.5
	3/18/13	**579**	**1,660**	ND	**4.37**	**0.025**	7.87	17.6
	9/16/13	**560**	**1,830**	ND	**4.55**	**0.0397**	7.57	17.1
	3/17/14	**607**	**1,790**	ND	**5.18**	**0.021**	7.47	16.7
	9/29/14	**610**	**1,910**	ND	**5.52**	**0.039**	7.41	17.6
	3/23/15	**440**	**1,420**	ND	**6**	**0.026**	7.59	13.3
	9/14/15	**612**	**1,750**	ND	**5**	**0.028**	7.60	17.4
	3/23/16	**562**	**1,580**	ND	**6.54**	**0.025**	7.52	15.6
	9/26/16	**609**	**1,840**	ND	**6.33**	**0.0025**	7.24	18.2
	4/4/17	**432**	**1,400**	ND	**5.11**	**0.022**	7.33	18.9
	10/17/17	**419**	**1,790**	ND	**5.22**	**0.032**	7.52	13.3
	4/11/18	**405**	**1,530**	ND	**4.57**	**0.019**	7.61	15.3
	10/4/18	**521**	**1,820**	ND	**5.51**	**0.024**	7.23	11.3
	11/27/18	--	--	--	--	--	7.33	11.3
	4/28/19	**434**	**1,710**	ND	**4.14**	**0.022**	7.98	18.3
	10/8/19	**439**	**1,540**	ND	**4.86**	**0.019**	7.09	14.8
	12/29/2019	**398**	**1,590**	ND	**4.56**	**0.19**	7.19	--
	1/29/2020	**302**	**1,430**	ND	**4.36**	**0.015**	8.3	--
	3/2/2020	**367**	**1,470**	ND	**4.27**	**0.0166**	7.33	--
	4/27/20	**387**	**1,530**	ND	**4.91**	**0.022**	8.12	14.4
	6/29/2020	**391**	**1,600**	ND	**5.16**	**30.3**	8.06	--
	7/22/2020	**388**	**1,580**	ND	**5.40**	**0.0253**	7.81	--
	10/20/20	**365**	**1,510**	ND	**5.25**	**0.023**	7.95	16.7

Table 2
Groundwater Analytical Results[a]
2020 Annual Groundwater Monitoring Report
Ultra Yield Micronutrients Facility
213 West Moxee Avenue, Moxee, Washington

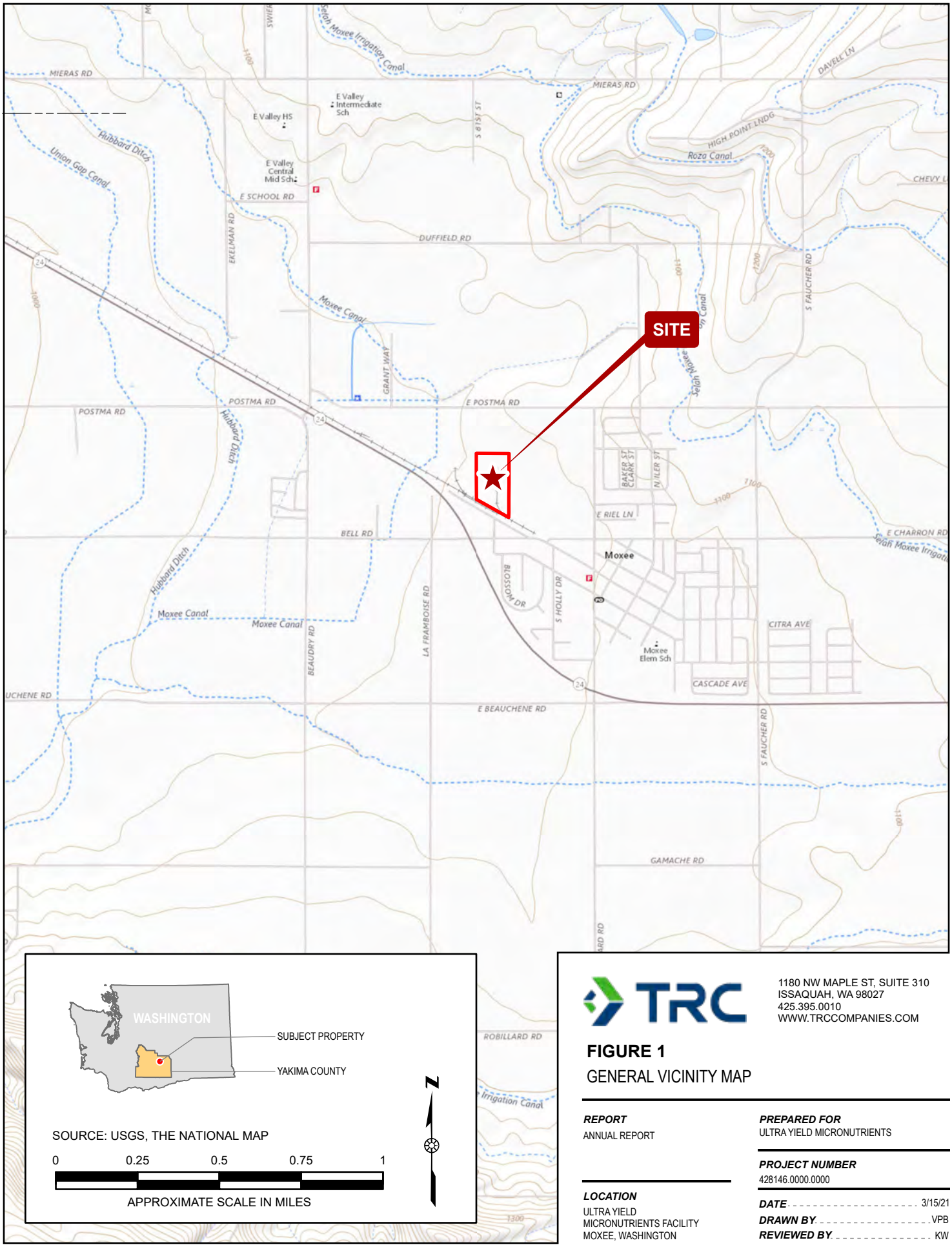
Sample Location	Sample Date	Chloride[b]	Sulfate[b]	Metals			pH[d] (unitless)	Temperature[e] (in degrees Celsius)
				Dissolved Cadmium[c]	Dissolved Manganese[c]	Dissolved Zinc[c]		
MW-10	1/31/03	**543**	**1,576**	ND	**0.4**	**0.021**	--	--
	6/16/03	**212**	**1,574**	ND	**0.097**	**0.011**	--	--
	9/16/03	**130**	**615**	ND	**0.63**	**0.059**	--	--
	12/9/03	**110**	**630**	ND	**0.29**	**0.048**	--	--
	3/17/04	**120**	**605**	ND	**0.005**	ND	--	--
	6/16/04	**110**	**578**	**0.004**	**0.031**	**0.081**	--	--
	9/20/04	**110**	**538**	ND	**0.27**	**0.033**	--	--
	12/13/04	**120**	**578**	ND	**0.61**	**0.053**	--	--
	3/21/05	**120**	**588**	ND	**0.016**	**0.036**	--	--
	6/21/05	**125**	**589**	ND	**0.37**	**0.005**	--	--
	9/19/05	**122**	**752**	ND	**1.1**	**0.004**	--	--
	11/14/05	**160**	**693**	ND	**0.82**	**0.006**	--	--
	3/27/06	--	--	--	--	--	--	--
	4/5/06	**410**	**1,800**	ND	**1.2**	**0.048**	--	--
	6/12/06	**322**	**2,170**	ND	**1.4**	**0.022**	--	--
	9/11/06	**364**	--	ND	**2.1**	**0.016**	--	--
	11/9/06	**303**	**1,440**	ND	**1.9**	**0.044**	--	--
	3/26/07	**661**	**2,860**	ND	**0.023**	**0.036**	--	--
	6/18/07	**725**	**3,700**	ND	**2**	ND	--	--
	8/27/07	**463**	**2,320**	ND	**2.4**	**0.006**	--	--
	11/19/07	**320**	**1,500**	ND	**1.4**	ND	--	--
	3/24/08	**245**	**1,050**	ND	**0.11**	**0.028**	--	--
	6/16/08	**200**	**986**	ND	**0.28**	ND	--	--
	8/18/08	**155**	**840**	ND	**0.41**	ND	--	--
	11/17/08	**136**	**717**	ND	**0.31**	ND	--	--
	3/16/09	**380**	**1,320**	ND	**0.219**	**0.054**	--	--
	6/15/09	**266**	**1,250**	ND	**0.292**	ND	--	--
	8/24/09	**196**	**1,510**	ND	**0.335**	ND	--	--
	3/22/10	**388**	**1,450**	ND	**0.159**	**0.0022**	--	--
	9/20/10	**114**	**498**	ND	**0.23**	ND	--	--
	3/28/11	**353**	**1,230**	ND	**0.0925**	ND	--	--
	9/19/11	**152**	**847**	ND	**0.0957**	**0.0036**	--	--
	3/26/12	**168**	**855**	ND	**0.0269**	**0.0038**	7.80	17.3
	9/17/12	**90**	**608**	ND	**0.0501**	ND	7.87	19.5
	3/18/13	**203**	**924**	ND	**0.109**	ND	7.97	17.0
	9/16/13	**84**	**609**	ND	**0.142**	**0.0071**	7.72	18.4
	3/17/14	**339**	**1,240**	ND	**0.222**	ND	7.53	17.7
	9/29/14	**136**	**747**	ND	**0.149**	ND	7.57	16.5
	3/23/15	**213**	**918**	ND	**0.185**	ND	7.62	13.8
	9/14/15	**75**	**380**	ND	**0.118**	ND	7.73	18.2
	3/23/16	**418**	**1,440**	ND	**0.31**	ND	7.61	15.6
	9/26/16	**141**	**600**	ND	**0.22**	**0.0031**	7.51	18.5
	4/4/17	**256**	**1,010**	ND	**0.31**	**0.003**	7.30	20.1
	10/17/17	**133**	**541**	ND	**0.27**	**0.012**	7.89	14.3
	4/11/18	**298**	**1,080**	ND	**0.004**	**0.002**	7.59	12.1
	10/4/18	**137**	**341**	ND	**0.106**	**0.011**	7.85	11.2
	4/28/19	**469**	**1,630**	ND	**1.42**	**0.013**	8.09	18.7
	10/8/19	**217**	**508**	ND	**0.187**	ND	7.64	14.6
	4/27/20	**243**	**815**	ND	**0.780**	**0.008**	8.20	14.4
	10/20/20	**177**	**403**	ND	**0.231**	**0.01**	7.90	15.0
MW-12	12/29/2019	**70.3**	**1,240**	**0.058**	**21.20**	**20.50**	6.55	--
	1/29/2020	**67.6**	**940**	**0.043**	**16.80**	**15.90**	7.55	--
	3/2/2020	**69.17**	**891**	**0.030**	**12.20**	**11.30**	7.12	--
	4/27/20	**65.8**	**787**	**0.024**	**11.3**	**8.60**	7.69	15.0
	6/29/2020	**67.9**	**864**	**0.031**	**12.90**	**11.30**	7.67	--
	7/22/2020	**140**	**1,850**	**0.040**	**15.70**	**15.10**	7.49	--
	10/20/20	**80.2**	**920**	**0.041**	**16.7**	**13.8**	7.49	16.6
DUP	4/27/2020	**400**	**1,540**	--	**4.73**	**0.018**	--	--
	10/20/2020	**341**	**1,430**	--	**5.17**	**0.022**	--	--
Target Cleanup Level[f]		**250**	**250**	**0.005**	**0.05**	**5**	NA	NA

Notes:

All results presented in milligrams per liter (mg/L), unless otherwise indicated.

Bold	Bold results exceed the laboratory reporting limit.
	Shaded results exceed the cleanup level.
a	TRC only had access to analytical laboratory reports for April and October 2020 monitoring events, so was only able to verify those data presented in this table.
b	Analyzed by EPA Method 300.0.
c	Analyzed by EPA Method 200.8.
d	Analyzed by SM 4500-H+ B.
e	Field measurement.
f	Target Cleanup Level based on Model Toxics Control Act (MTCA) Method B Groundwater Cleanup Level as indicated in the Washington State Department of Ecology 2018 Corrective Action Plan.
--	Not sampled, not analyzed, or data not available.
NA	Not applicable.
ND	Not detected above laboratory detection limit.

Figures



1180 NW MAPLE ST, SUITE 310
ISSAQUAH, WA 98027
425.395.0010
WWW.TRCCOMPANIES.COM

FIGURE 1

GENERAL VICINITY MAP

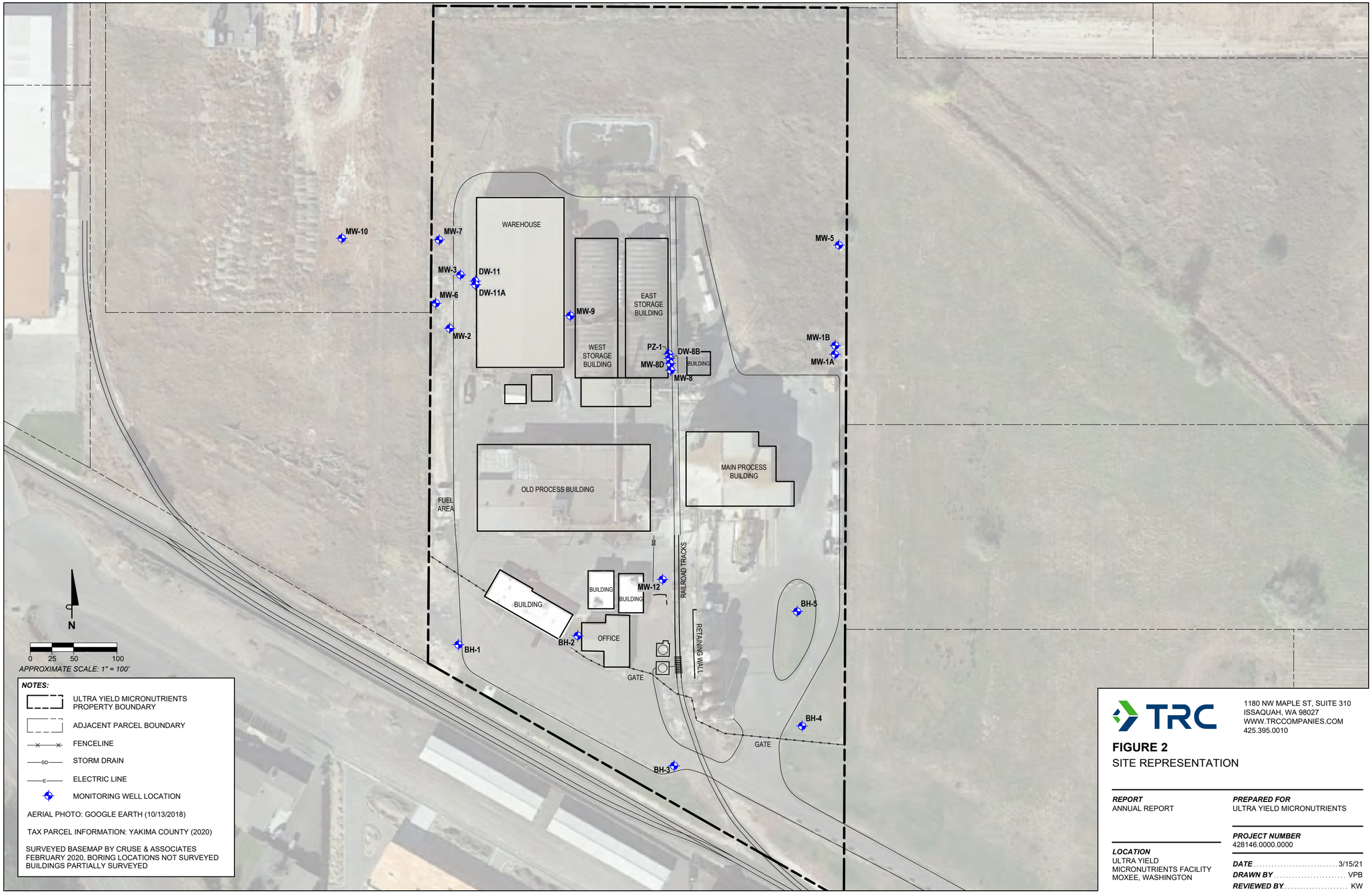
REPORT
ANNUAL REPORT

PREPARED FOR
ULTRA YIELD MICRONUTRIENTS

PROJECT NUMBER
428146.0000.0000

LOCATION
ULTRA YIELD
MICRONUTRIENTS FACILITY
MOXEE, WASHINGTON

DATE 3/15/21
DRAWN BY VPB
REVIEWED BY KW



NOTES:

- ULTRA YIELD MICRONUTRIENTS PROPERTY BOUNDARY
- ADJACENT PARCEL BOUNDARY
- FENCELINE
- STORM DRAIN
- ELECTRIC LINE
- MONITORING WELL LOCATION

AERIAL PHOTO: GOOGLE EARTH (10/13/2018)

TAX PARCEL INFORMATION: YAKIMA COUNTY (2020)

SURVEYED BASEMAP BY CRUSE & ASSOCIATES
FEBRUARY 2020, BORING LOCATIONS NOT SURVEYED
BUILDINGS PARTIALLY SURVEYED

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FIGURE 2
SITE REPRESENTATION

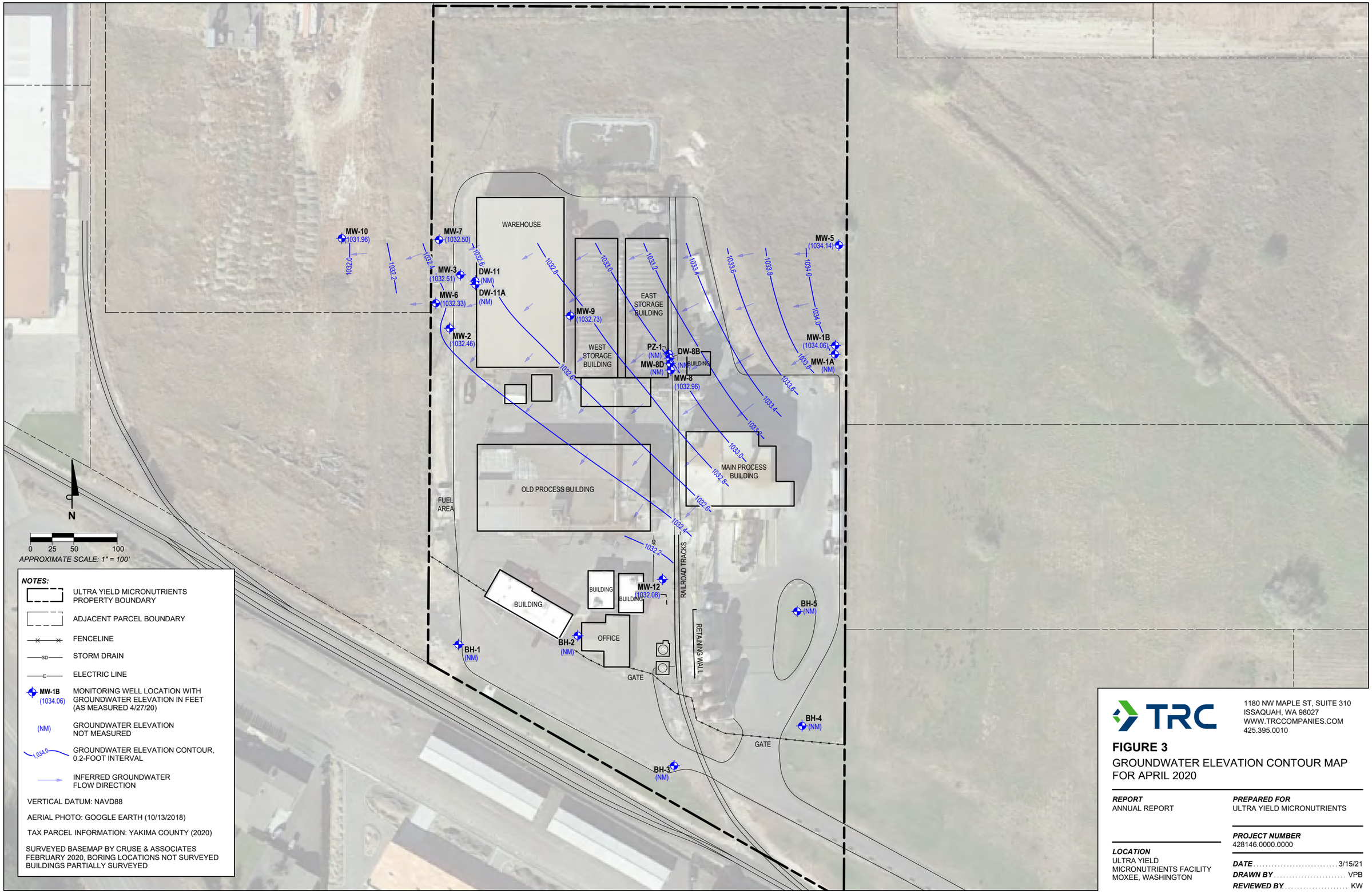
REPORT
ANNUAL REPORT

PREPARED FOR
ULTRA YIELD MICRONUTRIENTS

PROJECT NUMBER
428146.0000.0000

LOCATION
ULTRA YIELD
MICRONUTRIENTS FACILITY
MOXEE, WASHINGTON

DATE 3/15/21
DRAWN BY ..... VPB
REVIEWED BY ..... KW



NOTES:

- ULTRA YIELD MICRONUTRIENTS PROPERTY BOUNDARY
- ADJACENT PARCEL BOUNDARY
- FENCELINE
- STORM DRAIN
- ELECTRIC LINE
- **MW-1B** (1034.06) — MONITORING WELL LOCATION WITH GROUNDWATER ELEVATION IN FEET (AS MEASURED 4/27/20)
- (NM) — GROUNDWATER ELEVATION NOT MEASURED
- 1,034.0 — GROUNDWATER ELEVATION CONTOUR, 0.2-FOOT INTERVAL
- INFERRED GROUNDWATER FLOW DIRECTION

VERTICAL DATUM: NAVD88

AERIAL PHOTO: GOOGLE EARTH (10/13/2018)

TAX PARCEL INFORMATION: YAKIMA COUNTY (2020)

SURVEYED BASEMAP BY CRUSE & ASSOCIATES FEBRUARY 2020, BORING LOCATIONS NOT SURVEYED BUILDINGS PARTIALLY SURVEYED

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FIGURE 3

GROUNDWATER ELEVATION CONTOUR MAP FOR APRIL 2020

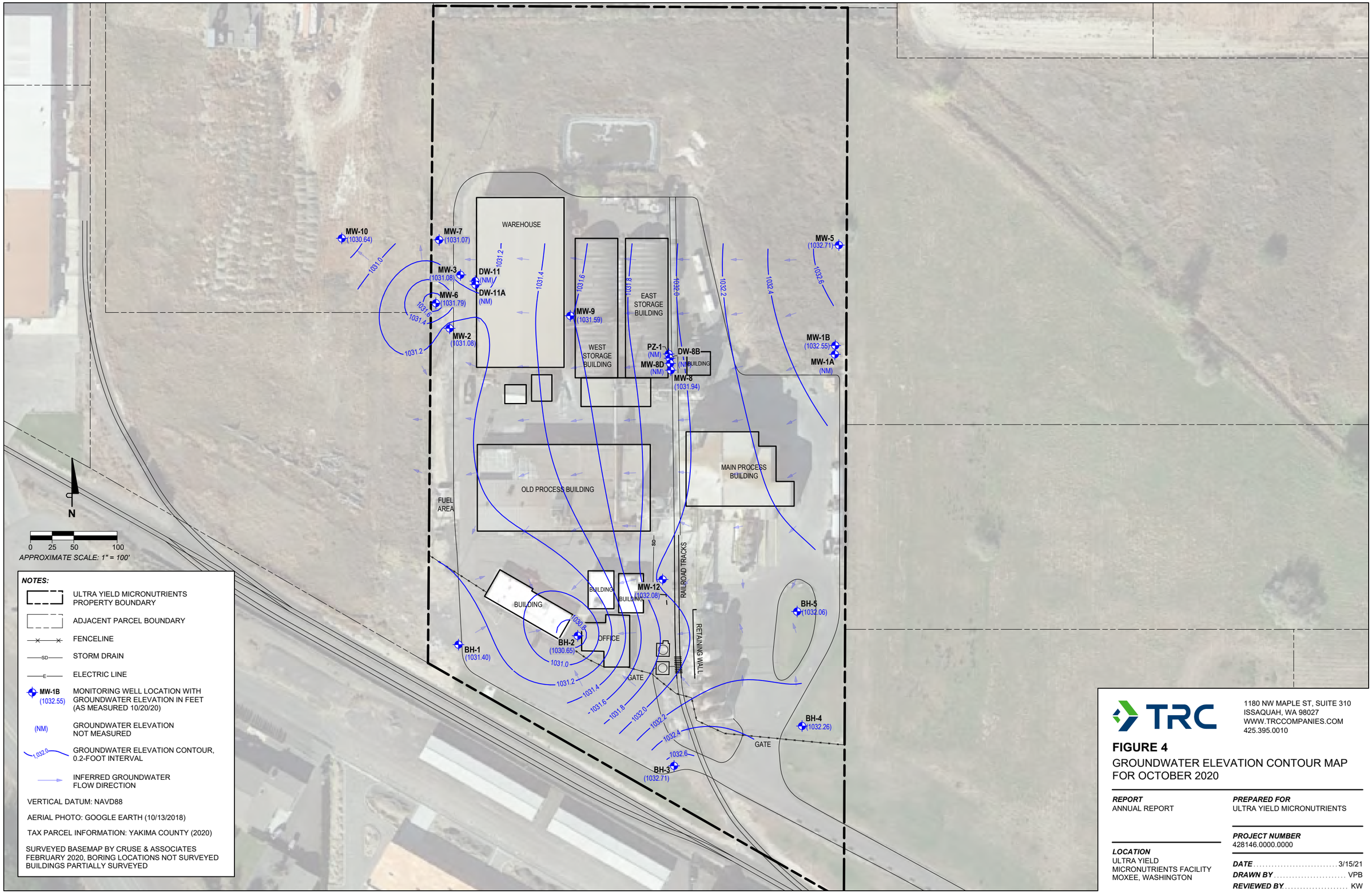
REPORT
ANNUAL REPORT

PREPARED FOR
ULTRA YIELD MICRONUTRIENTS

LOCATION
ULTRA YIELD
MICRONUTRIENTS FACILITY
MOXEE, WASHINGTON

PROJECT NUMBER
428146.0000.0000

DATE 3/15/21
DRAWN BY ..... VPB
REVIEWED BY ..... KW



NOTES:

- ULTRA YIELD MICRONUTRIENTS PROPERTY BOUNDARY
- ADJACENT PARCEL BOUNDARY
- FENCELINE
- STORM DRAIN
- ELECTRIC LINE
- **MW-1B** (1032.55) — MONITORING WELL LOCATION WITH GROUNDWATER ELEVATION IN FEET (AS MEASURED 10/20/20)
- (NM) — GROUNDWATER ELEVATION NOT MEASURED
- 1032.0 — GROUNDWATER ELEVATION CONTOUR, 0.2-FOOT INTERVAL
- INFERRED GROUNDWATER FLOW DIRECTION

VERTICAL DATUM: NAVD88

AERIAL PHOTO: GOOGLE EARTH (10/13/2018)

TAX PARCEL INFORMATION: YAKIMA COUNTY (2020)

SURVEYED BASEMAP BY CRUSE & ASSOCIATES FEBRUARY 2020, BORING LOCATIONS NOT SURVEYED BUILDINGS PARTIALLY SURVEYED

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FIGURE 4

GROUNDWATER ELEVATION CONTOUR MAP FOR OCTOBER 2020

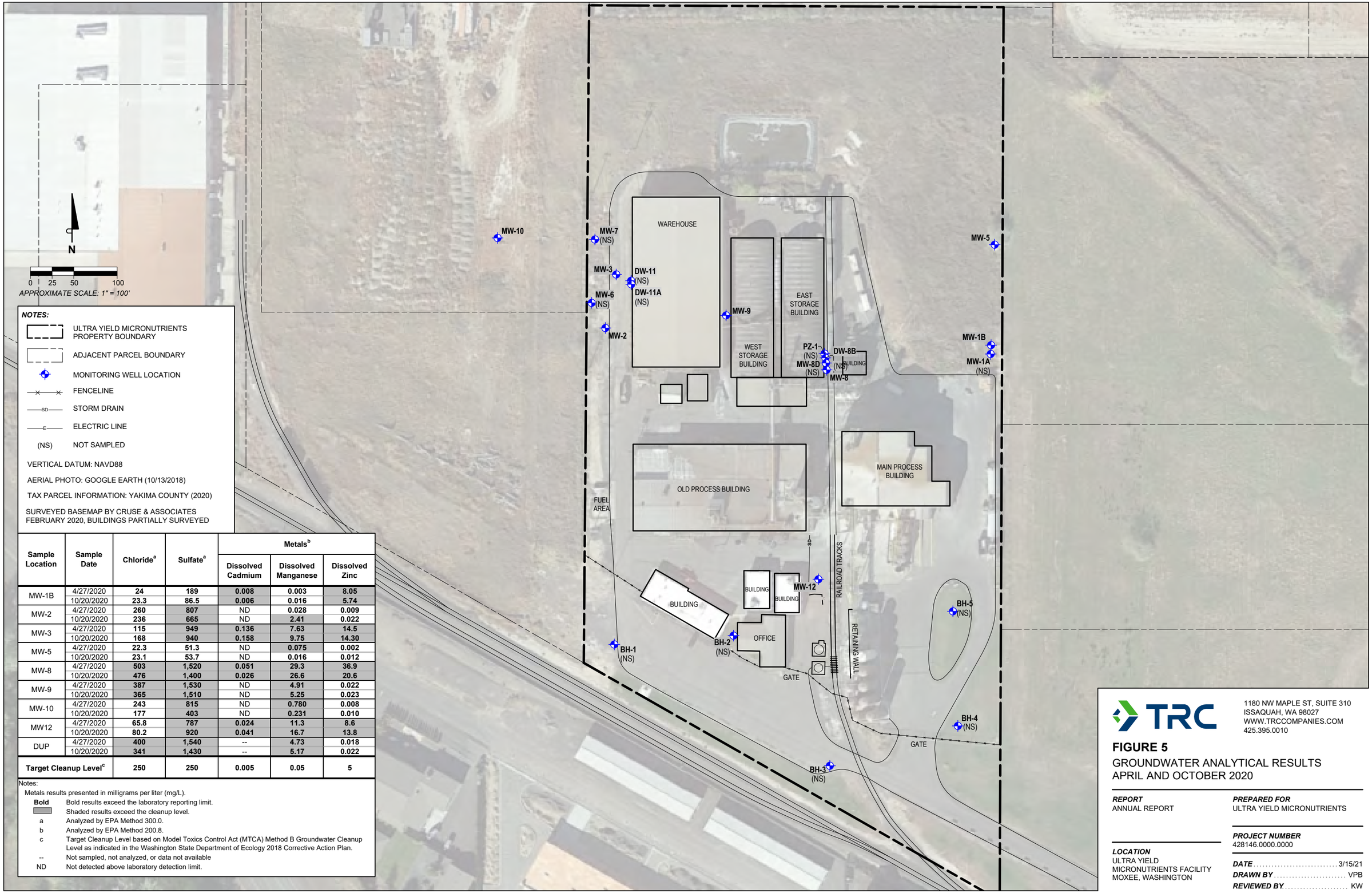
REPORT
ANNUAL REPORT

PREPARED FOR
ULTRA YIELD MICRONUTRIENTS

LOCATION
ULTRA YIELD
MICRONUTRIENTS FACILITY
MOXEE, WASHINGTON

PROJECT NUMBER
428146.0000.0000

DATE 3/15/21
DRAWN BY VPB
REVIEWED BY KW



Sample Location	Sample Date	Chloride[a]	Sulfate[a]	Metals[b]		
				Dissolved Cadmium	Dissolved Manganese	Dissolved Zinc
MW-1B	4/27/2020	**24**	**189**	**0.008**	**0.003**	**8.05**
	10/20/2020	**23.3**	**86.5**	**0.006**	**0.016**	**5.74**
MW-2	4/27/2020	**260**	**807**	ND	**0.028**	**0.009**
	10/20/2020	**236**	**665**	ND	**2.41**	**0.022**
MW-3	4/27/2020	**115**	**949**	**0.136**	**7.63**	**14.5**
	10/20/2020	**168**	**940**	**0.158**	**9.75**	**14.30**
MW-5	4/27/2020	**22.3**	**51.3**	ND	**0.075**	**0.002**
	10/20/2020	**23.1**	**53.7**	ND	**0.016**	**0.012**
MW-8	4/27/2020	**503**	**1,520**	**0.051**	**29.3**	**36.9**
	10/20/2020	**476**	**1,400**	**0.026**	**26.6**	**20.6**
MW-9	4/27/2020	**387**	**1,530**	ND	**4.91**	**0.022**
	10/20/2020	**365**	**1,510**	ND	**5.25**	**0.023**
MW-10	4/27/2020	**243**	**815**	ND	**0.780**	**0.008**
	10/20/2020	**177**	**403**	ND	**0.231**	**0.010**
MW12	4/27/2020	**65.8**	**787**	**0.024**	**11.3**	**8.6**
	10/20/2020	**80.2**	**920**	**0.041**	**16.7**	**13.8**
DUP	4/27/2020	**400**	**1,540**	--	**4.73**	**0.018**
	10/20/2020	**341**	**1,430**	--	**5.17**	**0.022**
Target Cleanup Level[c]		**250**	**250**	**0.005**	**0.05**	**5**

Notes:
Metals results presented in milligrams per liter (mg/L).
Bold Bold results exceed the laboratory reporting limit.
Shaded results exceed the cleanup level.
a Analyzed by EPA Method 300.0.
b Analyzed by EPA Method 200.8.
c Target Cleanup Level based on Model Toxics Control Act (MTCA) Method B Groundwater Cleanup Level as indicated in the Washington State Department of Ecology 2018 Corrective Action Plan.
-- Not sampled, not analyzed, or data not available
ND Not detected above laboratory detection limit.

TRC
1180 NW MAPLE ST, SUITE 310
ISSAQUAH, WA 98027
WWW.TRCCOMPANIES.COM
425.395.0010

FIGURE 5
GROUNDWATER ANALYTICAL RESULTS APRIL AND OCTOBER 2020

REPORT
ANNUAL REPORT

PREPARED FOR
ULTRA YIELD MICRONUTRIENTS

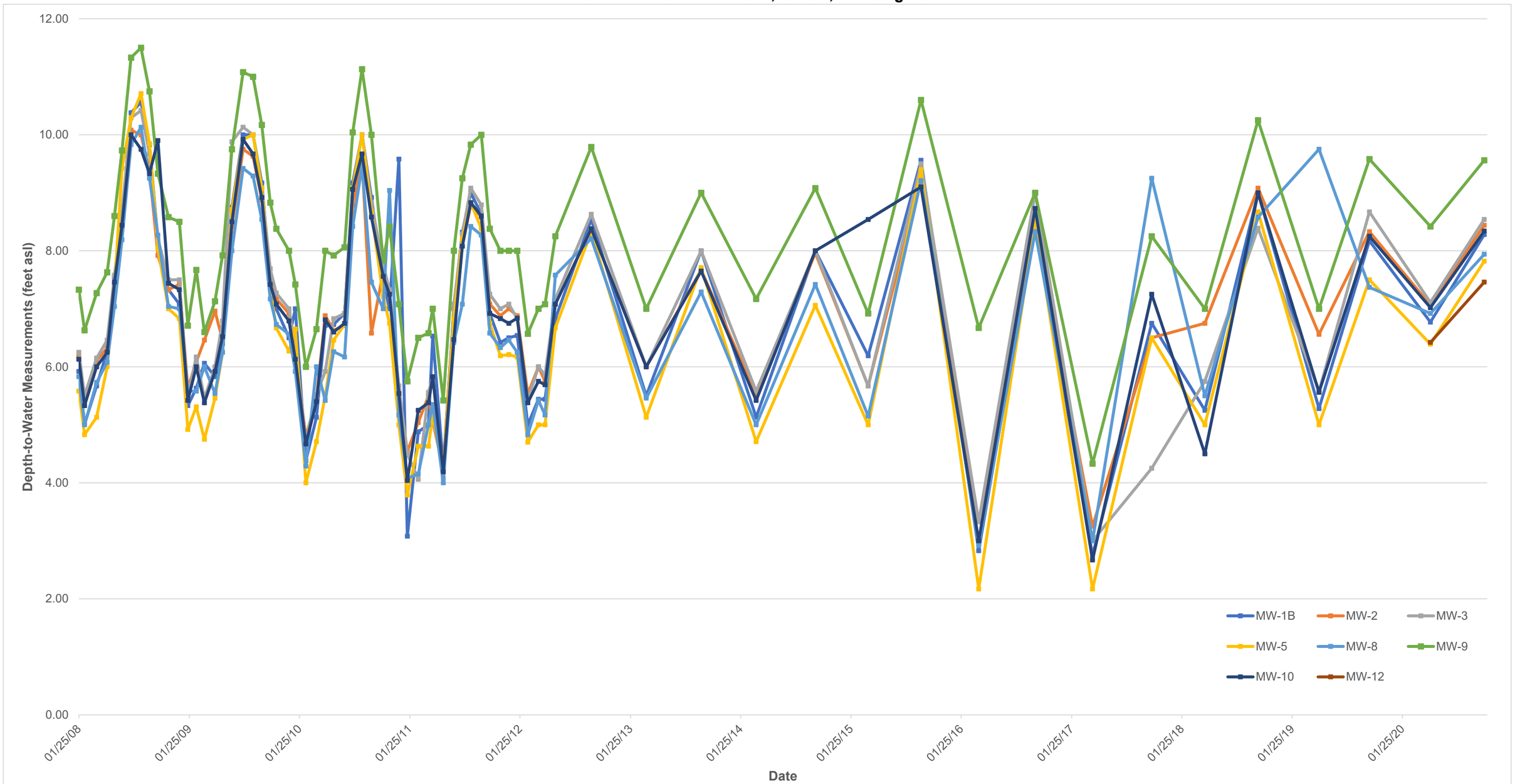
LOCATION
ULTRA YIELD
MICRONUTRIENTS FACILITY
MOXEE, WASHINGTON

PROJECT NUMBER
428146.0000.0000

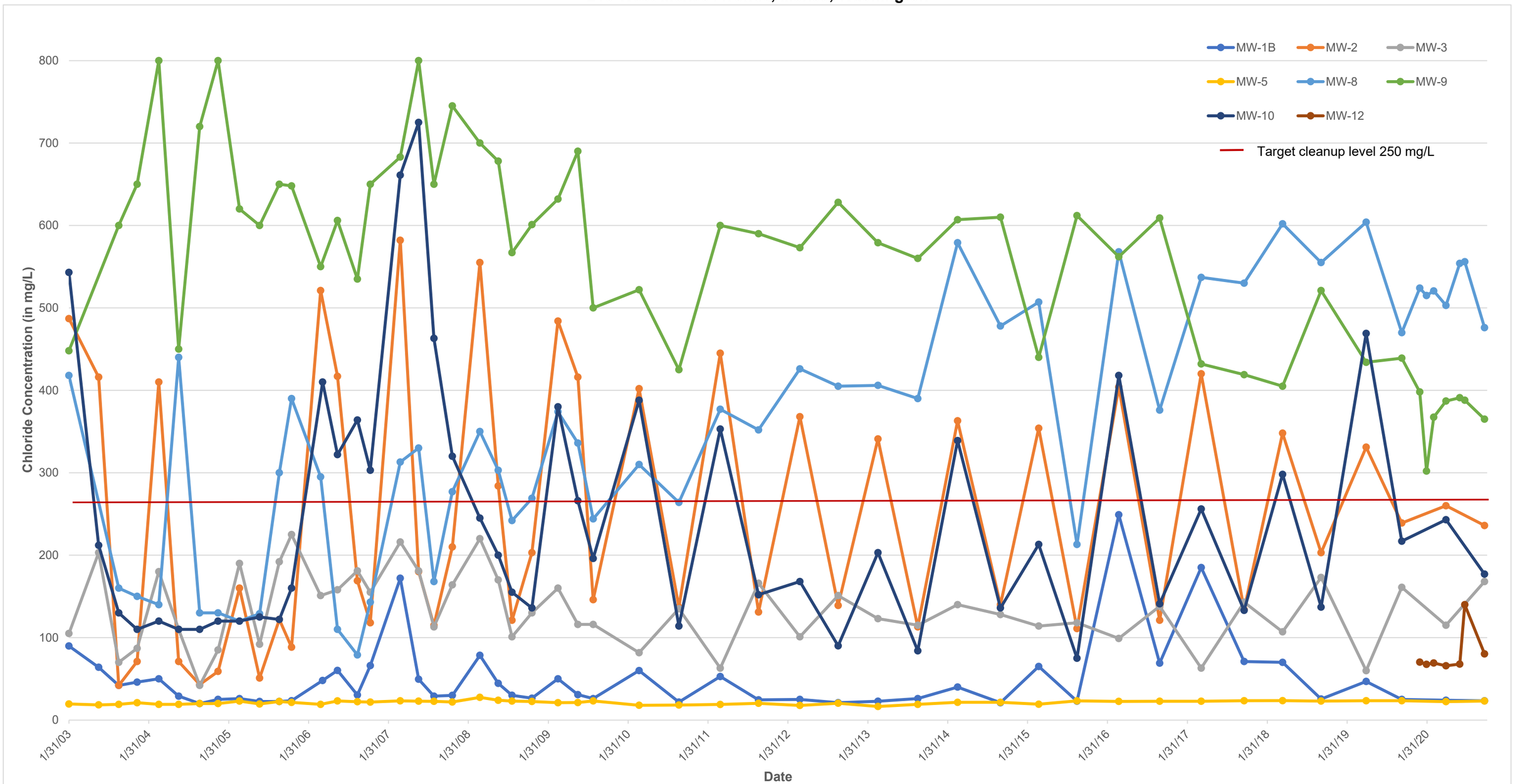
DATE 3/15/21
DRAWN BY VPB
REVIEWED BY KW

Appendix A
Time Series Graphs

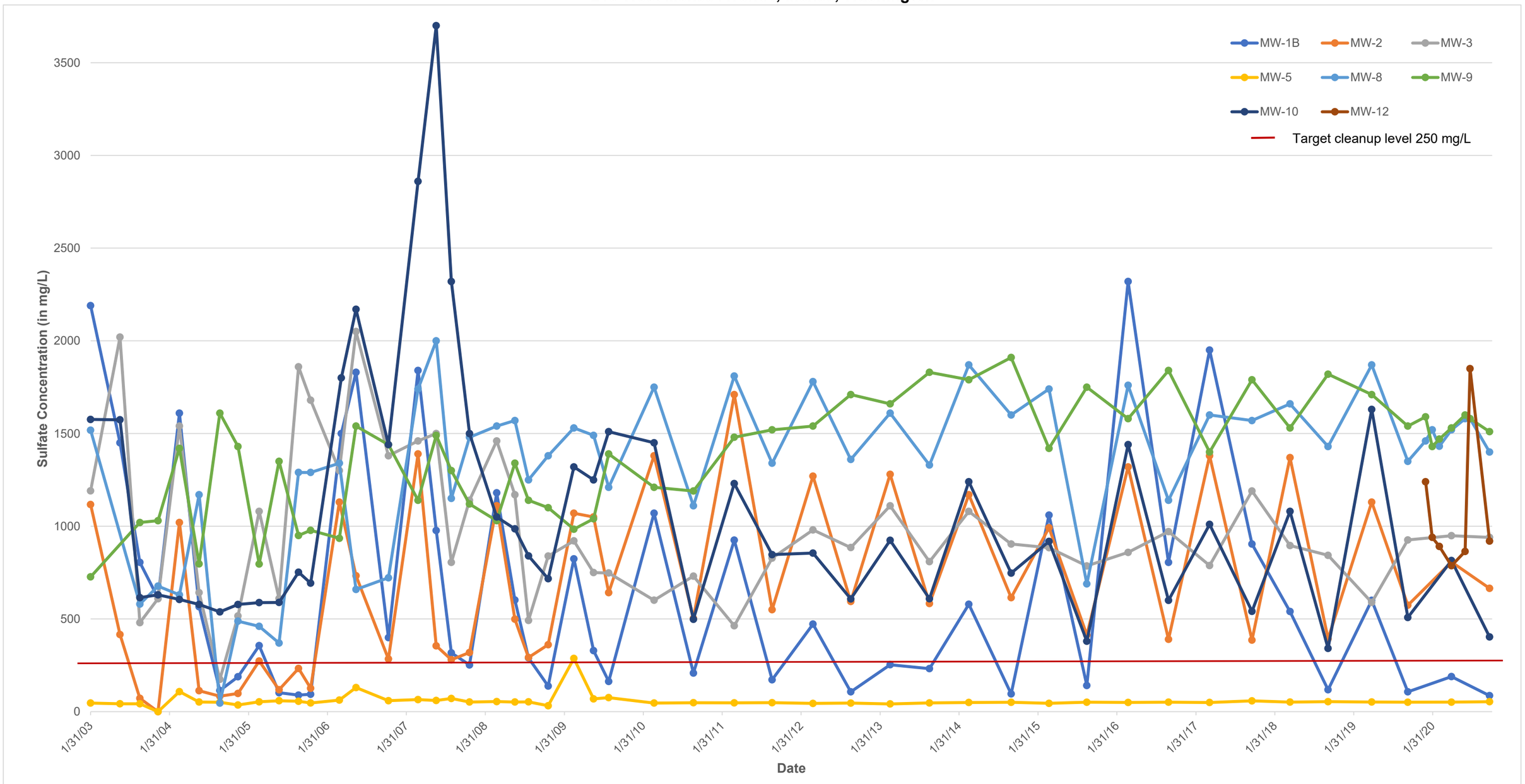
Graph A-1
Depth-to-Water Measurements
2020 Annual Groundwater Monitoring and Site Inspection Report
Ultra-Yield Micronutrients Facility
213 West Moxee Avenue, Moxee, Washington



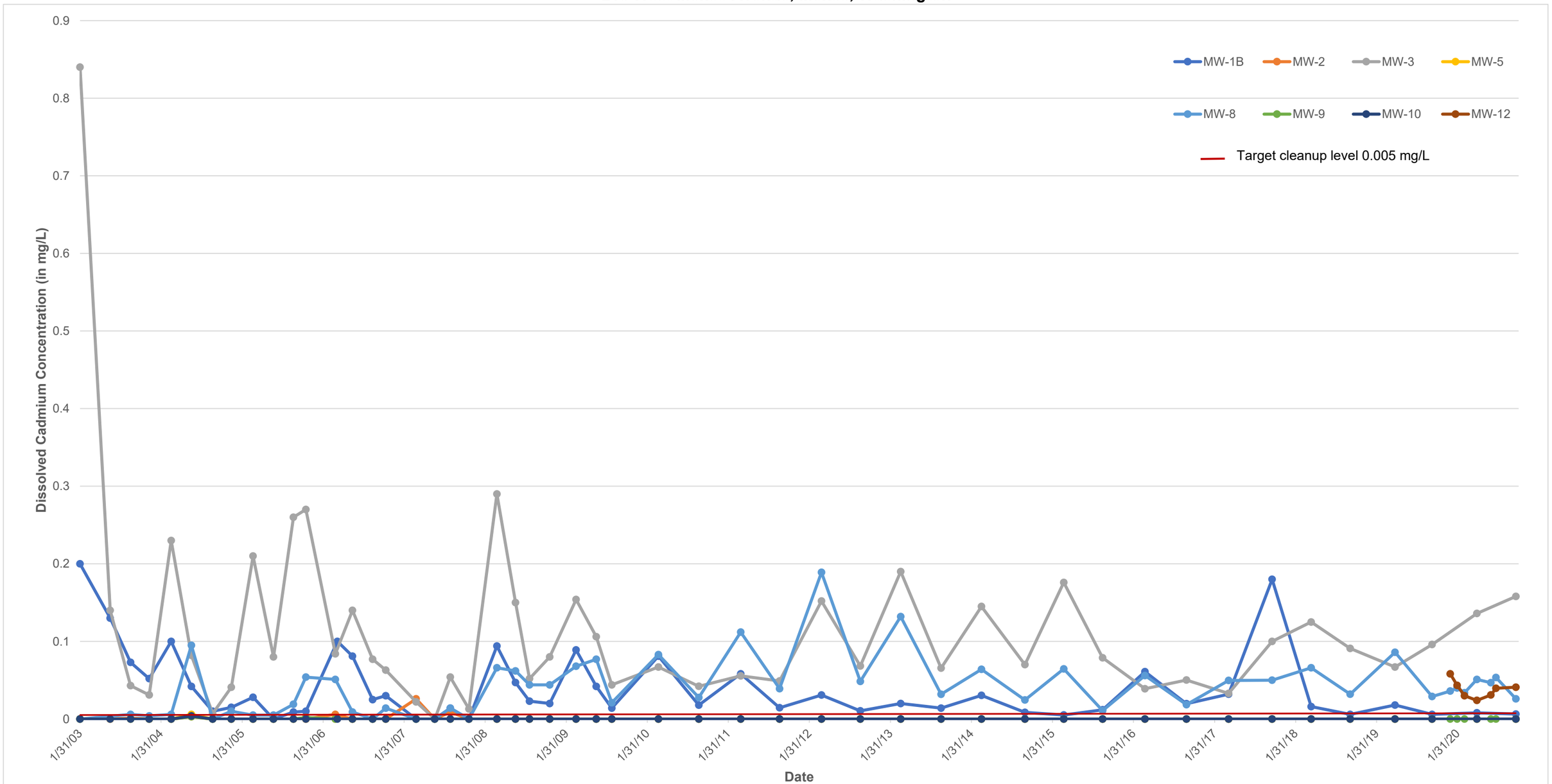
Graph A-2
Chloride vs. Time
2020 Annual Groundwater Monitoring and Site Inspection Report
Ultra-Yield Micronutrients Facility
213 West Moxee Avenue, Moxee, Washington



Graph A-3
Sulfate vs. Time
2020 Annual Groundwater Monitoring and Site Inspection Report
Ultra-Yield Micronutrients Facility
213 West Moxee Avenue, Moxee, Washington

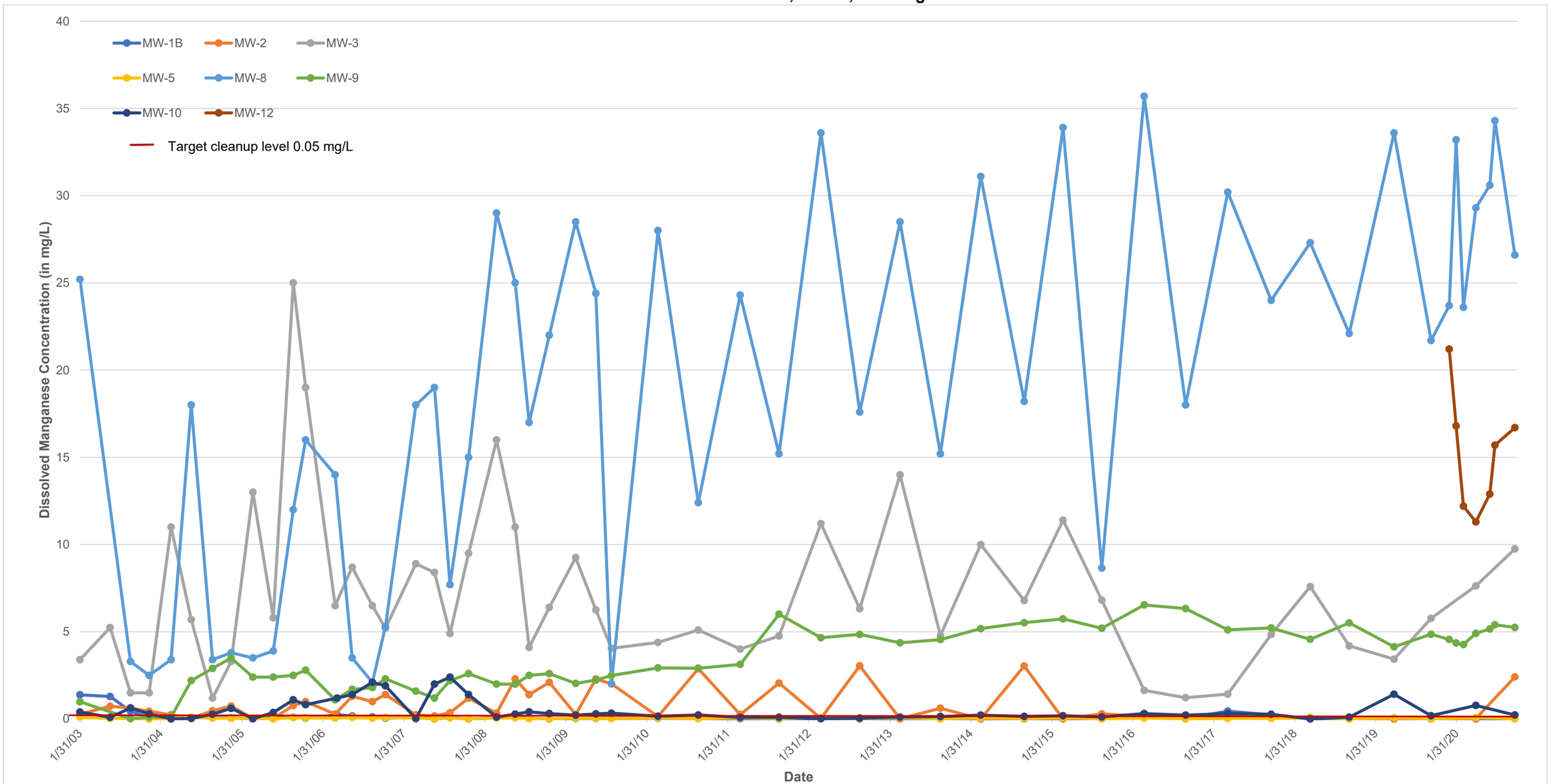


Graph A-4
Disolved Cadmium vs. Time
2020 Annual Groundwater Monitoring and Site Inspection Report
Ultra-Yield Micronutrients Facility
213 West Moxee Avenue, Moxee, Washington



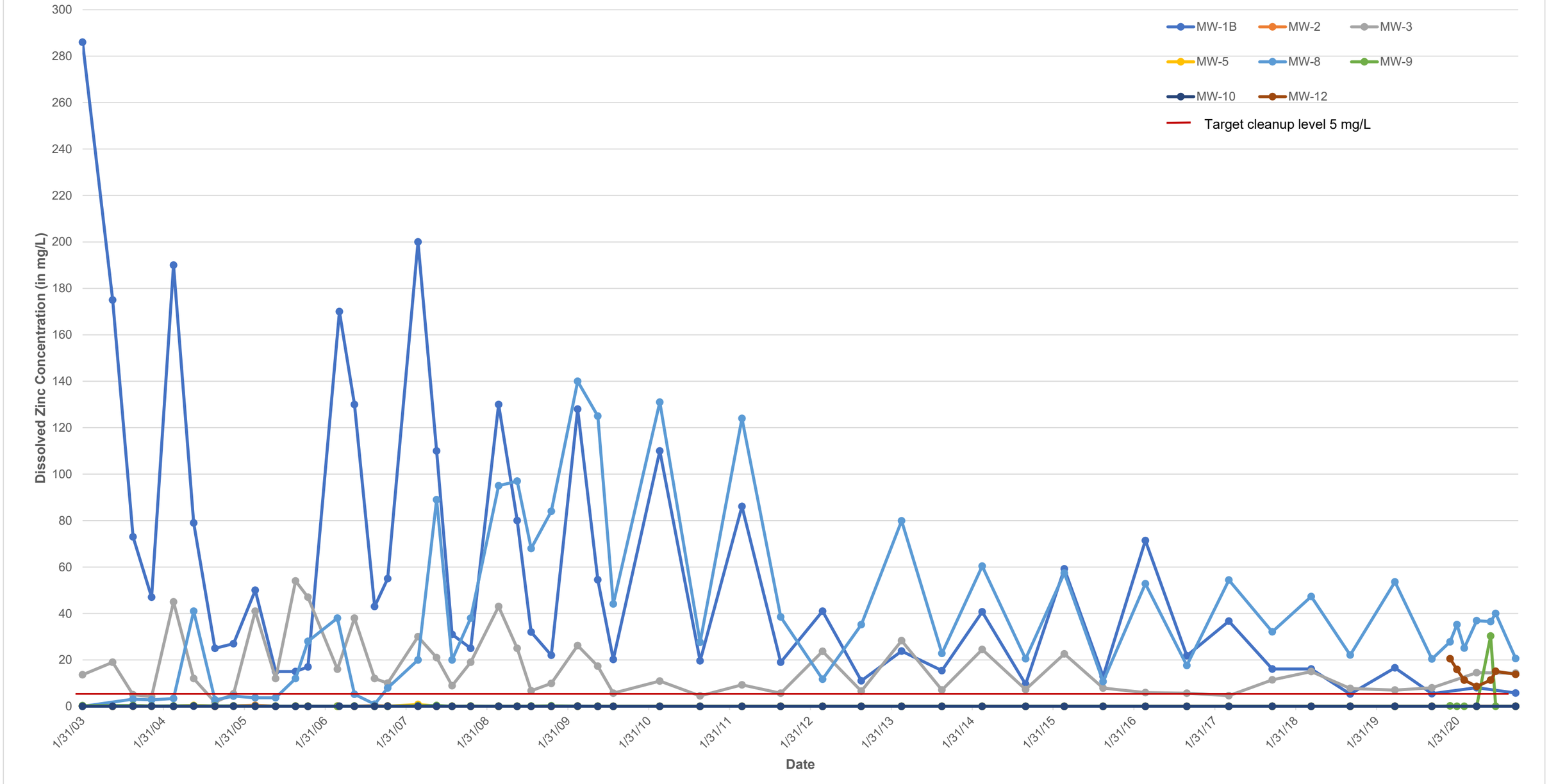
TRC

Graph A-5
Disolved Manganese vs. Time
2020 Annual Groundwater Monitoring and Site Inspection Report
Ultra-Yield Micronutrients Facility
213 West Moxee Avenue, Moxee, Washington



TRC

Graph A-6
Disolved Zinc vs. Time
2020 Annual Groundwater Monitoring and Site Inspection Report
Ultra-Yield Micronutrients Facility
213 West Moxee Avenue, Moxee, Washington



Appendix B
Laboratory Analytical Report

May 04, 2020 Service Request No:K2003457

Terry Kelley
Ultra Yield Micronutrients
213 W. Moxee Avenue
P.O. Box 1167
Moxee, WA 98936

Laboratory Results for: Spring 2020 Well Testing

Dear Terry,

Enclosed are the results of the sample(s) submitted to our laboratory April 29, 2020
For your reference, these analyses have been assigned our service request number **K2003457.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3350. You may also contact me via email at Kelley.Lovejoy@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Kelley Lovejoy

Kelley Lovejoy
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Ultra Yield Micronutrients
Project: Spring 2020 Well Testing
Sample Matrix: Water

Service Request: K2003457
Date Received: 04/29/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Nine water samples were received for analysis at ALS Environmental on 04/29/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

General Chemistry:

Method 300.0, 04/29/2020: The duplicate matrix spike recovery of Sulfate for sample MW-01 was outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicated the analytical batch was in control. The matrix spike outlier suggested a potential low bias in this matrix. No further corrective action was appropriate.

Approved by Kelley Lovejoy Date 05/04/2020

SAMPLE DETECTION SUMMARY

CLIENT ID: MW-12			Lab ID: K2003457-001			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Chloride	65.8			2.0	mg/L	300.0
pH	7.69				pH Units	SM 4500-H+ B
Sulfate	787			40	mg/L	300.0
Cadmium, Dissolved	23.7			0.50	ug/L	200.8
Manganese, Dissolved	11300			60	ug/L	200.8
Zinc, Dissolved	8600			200	ug/L	200.8

CLIENT ID: MW-10			Lab ID: K2003457-002			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Chloride	243			10	mg/L	300.0
pH	8.20				pH Units	SM 4500-H+ B
Sulfate	815			20	mg/L	300.0
Manganese, Dissolved	780			0.60	ug/L	200.8
Zinc, Dissolved	7.9			2.0	ug/L	200.8

CLIENT ID: MW-03			Lab ID: K2003457-003			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Chloride	115			10	mg/L	300.0
pH	7.62				pH Units	SM 4500-H+ B
Sulfate	949			20	mg/L	300.0
Cadmium, Dissolved	136			0.50	ug/L	200.8
Manganese, Dissolved	7630			60	ug/L	200.8
Zinc, Dissolved	14500			200	ug/L	200.8

CLIENT ID: MW-02			Lab ID: K2003457-004			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Chloride	260			10	mg/L	300.0
pH	7.90				pH Units	SM 4500-H+ B
Sulfate	807			20	mg/L	300.0
Manganese, Dissolved	28.2			0.60	ug/L	200.8
Zinc, Dissolved	9.0			2.0	ug/L	200.8

CLIENT ID: MW-05			Lab ID: K2003457-005			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Chloride	22.3			1.0	mg/L	300.0
pH	8.44				pH Units	SM 4500-H+ B
Sulfate	51.3			2.0	mg/L	300.0
Manganese, Dissolved	75.1			0.60	ug/L	200.8
Zinc, Dissolved	2.4			2.0	ug/L	200.8

CLIENT ID: MW-01			Lab ID: K2003457-006			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Chloride	24.0			2.0	mg/L	300.0
pH	7.73				pH Units	SM 4500-H+ B

SAMPLE DETECTION SUMMARY

CLIENT ID: MW-01			Lab ID: K2003457-006			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Sulfate	189			4.0	mg/L	300.0
Cadmium, Dissolved	7.92			0.50	ug/L	200.8
Manganese, Dissolved	2.78			0.60	ug/L	200.8
Zinc, Dissolved	8050			200	ug/L	200.8

CLIENT ID: MW-09			Lab ID: K2003457-007			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Chloride	387			5.0	mg/L	300.0
pH	8.12				pH Units	SM 4500-H+ B
Sulfate	1530			100	mg/L	300.0
Manganese, Dissolved	4910			60	ug/L	200.8
Zinc, Dissolved	21.7			2.0	ug/L	200.8

CLIENT ID: MW-08			Lab ID: K2003457-008			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Chloride	503			50	mg/L	300.0
pH	7.64				pH Units	SM 4500-H+ B
Sulfate	1520			100	mg/L	300.0
Cadmium, Dissolved	51.3			0.50	ug/L	200.8
Manganese, Dissolved	29300			60	ug/L	200.8
Zinc, Dissolved	36900			200	ug/L	200.8

CLIENT ID: duplicate			Lab ID: K2003457-009			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Chloride	400			5.0	mg/L	300.0
pH	7.94				pH Units	SM 4500-H+ B
Sulfate	1540			100	mg/L	300.0
Manganese, Dissolved	4730			60	ug/L	200.8
Zinc, Dissolved	18.8			2.0	ug/L	200.8

Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
K2003457-001	MW-12	4/27/2020	0815
K2003457-002	MW-10	4/27/2020	0905
K2003457-003	MW-03	4/27/2020	0945
K2003457-004	MW-02	4/27/2020	1020
K2003457-005	MW-05	4/27/2020	1105
K2003457-006	MW-01	4/27/2020	1210
K2003457-007	MW-09	4/27/2020	1325
K2003457-008	MW-08	4/27/2020	1455
K2003457-009	duplicate	4/27/2020	1600

Chain of Custody

ALS Environmental
ADDRESS 1317 South 13th Ave., Kelso, WA 98626
PHONE 1 360 577 7222 FAX 1 360 636 1068

Chain of Custody 107031

K 200357

Project Manager:	Terry Kelley		**Bill to:**	Ultra Yield Micronutrients	
Client Name:	Ultra Yield Micronutrients (UYM)		**Company:**	Ultra Yield Micronutrients	
Address:	213 West Moxee Avenue		**Address:**	PO Box 1167	
City, State ZIP:	Moxee Washington 98936		**City, State ZIP:**	Moxee Wa 98936	
Email:	tkelley@ultrayieldmicros.com	**Phone:** (509) 248-4911	**Email:**	tkelley@ultrayieldmicros.com	
Project Name:	Spring 2020 well testing				
Project Number:	2020-01				
P.O. Number:	195616				
Sampler's Name:	Terry Kelley				

SAMPLE RECEIPT

Temperature (°C):		Temp Blank Present		
Received Intact:	Yes	No	N/A	Wet Ice / Blue Ice
Cooler Custody Seals:	Yes	No	N/A	Total Containers:
Sample Custody Seals:	Yes	No	N/A	

REQUESTED ANALYSIS

TAT

- [x] Routine
- [ ] Same Day ***
- [ ] Next Day ***
- [ ] 5 Day
- [ ] 7 Day

*** Please call for availability

Due Date:

Sample Identification	Matrix	Date Sampled	Time Sampled	Lab ID	No. of Containers	300 D / chloride	300 D / SO4	200.8 / Metals D	pH	Comments
MW-12	Water	4/27/2020	8:15	1	2	x	x	x	x	
MW-10	Water	4/27/2020	9:05	2	2	x	x	x	x	
MW-03	Water	4/27/2020	9:45	3	2	x	x	x	x	
MW-02	Water	4/27/2020	10:20	4	2	x	x	x	x	
MW-05	Water	4/27/2020	11:05	5	2	x	x	x	x	
MW-01	Water	4/27/2020	12:10	6	2	x	x	x	x	
MW-09	Water	4/27/2020	13:25	7	2	x	x	x	x	
MW-08	Water	4/27/2020	14:55	8	2	x	x	x	x	
duplicate	Water	4/27/2020	16:00	9	2	x	x	x	x	

Dissolved	Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Si, Sn, Sr, Tl, V, Zn, Zr
Total	Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Si, Sn, Sr, Tl, V, Zn, Zr

Additional Methods Available Upon Request

RELINQUISHED BY			RECEIVED BY		
Print Name	Signature	Date/Time	Print Name	Signature	Date/Time
Terry Kelley	Terry L Kelley	4/28/2020 11:30	Cody Graves		4/29/2020 1000

Revised: 4/28/2020

PC

Cooler Receipt and Preservation Form

Client Ultra Yield Micronutrients Service Request K20 03457

Received: 4/29/2020 Opened: 4/29/2020 By: CG Unloaded: 4/29/2020 By: CG

1. Samples were received via? *USPS* *Fed Ex* (*UPS*) *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) (*Cooler*) *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA (Y) N If yes, how many and where? 1 Front 1 Right
   If present, were custody seals intact? (Y) N If present, were they signed and dated? (Y) N

Temp Blank	Sample 1	Sample 2	Sample 3	Sample 4	IR GUN	Cooler / COC ID (NA)	Tracking Number NA	Filed
11.2	5.7	6.0	4.5	4.0	3980H88WS		1Z843982136494 3546	

4. Packing material: *Inserts* *Baggies* (*Bubble Wrap*) (*Gel Packs*) *Wet Ice* *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA (Y) N
   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA (Y) CG 4/29 (N)
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y (N)
11. Were VOA vials received without headspace? *Indicate in the table below.* (NA) Y N
12. Was C12/Res negative? (NA) Y N

Sample ID on Bottle	Sample ID on COC	Identified by:
MW-01 B	MW-01	Elimination

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
MW-09	1-125mL, P				X	HNO_3	0.5mL	RE1-54-C	CG	1030

Notes, Discrepancies, & Resolutions: Temp okay, temp blank sitting on on top of samples / bubble wrap

SHORT HOLD TIME

Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: Ultra Yield Micronutrients **Service Request:** K2003457
Project: Spring 2020 Well Testing/2020-01

Sample Name: MW-12 **Date Collected:** 04/27/20
Lab Code: K2003457-001 **Date Received:** 04/29/20
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
200.8	ABOYER	JCHAN
300.0		MRODRIGUEZ
SM 4500-H+ B		ACHEATLEY

Sample Name: MW-10 **Date Collected:** 04/27/20
Lab Code: K2003457-002 **Date Received:** 04/29/20
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
200.8	ABOYER	JCHAN
300.0		MRODRIGUEZ
SM 4500-H+ B		ACHEATLEY

Sample Name: MW-03 **Date Collected:** 04/27/20
Lab Code: K2003457-003 **Date Received:** 04/29/20
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
200.8	ABOYER	JCHAN
300.0		MRODRIGUEZ
SM 4500-H+ B		ACHEATLEY

Sample Name: MW-02 **Date Collected:** 04/27/20
Lab Code: K2003457-004 **Date Received:** 04/29/20
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
200.8	ABOYER	JCHAN
300.0		MRODRIGUEZ
SM 4500-H+ B		ACHEATLEY

Client: Ultra Yield Micronutrients **Service Request:** K2003457
Project: Spring 2020 Well Testing/2020-01

Sample Name: MW-05 **Date Collected:** 04/27/20
Lab Code: K2003457-005 **Date Received:** 04/29/20
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
200.8	ABOYER	JCHAN
300.0		MRODRIGUEZ
SM 4500-H+ B		ACHEATLEY

Sample Name: MW-01 **Date Collected:** 04/27/20
Lab Code: K2003457-006 **Date Received:** 04/29/20
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
200.8	ABOYER	JCHAN
300.0		MRODRIGUEZ
SM 4500-H+ B		ACHEATLEY

Sample Name: MW-09 **Date Collected:** 04/27/20
Lab Code: K2003457-007 **Date Received:** 04/29/20
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
200.8	ABOYER	JCHAN
300.0		MRODRIGUEZ
SM 4500-H+ B		ACHEATLEY

Sample Name: MW-08 **Date Collected:** 04/27/20
Lab Code: K2003457-008 **Date Received:** 04/29/20
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
200.8	ABOYER	JCHAN
300.0		MRODRIGUEZ
SM 4500-H+ B		ACHEATLEY

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01		

Sample Name:	duplicate	**Date Collected:**	04/27/20
Lab Code:	K2003457-009	**Date Received:**	04/29/20
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
200.8	ABOYER	JCHAN
300.0		MRODRIGUEZ
SM 4500-H+ B		ACHEATLEY

Sample Results

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Metals

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Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20 08:15
Sample Matrix:	Water	**Date Received:**	04/29/20 10:00
Sample Name:	MW-12	**Basis:**	NA
Lab Code:	K2003457-001		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	**23.7**	ug/L	0.50	1	05/01/20 11:59	04/30/20	
Manganese	200.8	**11300**	ug/L	60	100	05/01/20 13:13	04/30/20	
Zinc	200.8	**8600**	ug/L	200	100	05/01/20 13:13	04/30/20	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20 09:05
Sample Matrix:	Water	**Date Received:**	04/29/20 10:00
Sample Name:	MW-10	**Basis:**	NA
Lab Code:	K2003457-002		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	ND U	ug/L	0.50	1	05/01/20 12:04	04/30/20	
Manganese	200.8	**780**	ug/L	0.60	1	05/01/20 12:04	04/30/20	
Zinc	200.8	**7.9**	ug/L	2.0	1	05/01/20 12:04	04/30/20	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20 09:45
Sample Matrix:	Water	**Date Received:**	04/29/20 10:00
Sample Name:	MW-03	**Basis:**	NA
Lab Code:	K2003457-003		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	**136**	ug/L	0.50	1	05/01/20 12:06	04/30/20	
Manganese	200.8	**7630**	ug/L	60	100	05/01/20 13:18	04/30/20	
Zinc	200.8	**14500**	ug/L	200	100	05/01/20 13:18	04/30/20	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20 10:20
Sample Matrix:	Water	**Date Received:**	04/29/20 10:00
Sample Name:	MW-02	**Basis:**	NA
Lab Code:	K2003457-004		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	ND U	ug/L	0.50	1	05/01/20 12:08	04/30/20	
Manganese	200.8	**28.2**	ug/L	0.60	1	05/01/20 12:08	04/30/20	
Zinc	200.8	**9.0**	ug/L	2.0	1	05/01/20 12:08	04/30/20	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20 11:05
Sample Matrix:	Water	**Date Received:**	04/29/20 10:00
Sample Name:	MW-05	**Basis:**	NA
Lab Code:	K2003457-005		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	ND U	ug/L	0.50	1	05/01/20 12:10	04/30/20	
Manganese	200.8	**75.1**	ug/L	0.60	1	05/01/20 12:10	04/30/20	
Zinc	200.8	**2.4**	ug/L	2.0	1	05/01/20 12:10	04/30/20	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20 12:10
Sample Matrix:	Water	**Date Received:**	04/29/20 10:00
Sample Name:	MW-01	**Basis:**	NA
Lab Code:	K2003457-006		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	**7.92**	ug/L	0.50	1	05/01/20 12:11	04/30/20	
Manganese	200.8	**2.78**	ug/L	0.60	1	05/01/20 12:11	04/30/20	
Zinc	200.8	**8050**	ug/L	200	100	05/01/20 13:20	04/30/20	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20 13:25
Sample Matrix:	Water	**Date Received:**	04/29/20 10:00
Sample Name:	MW-09	**Basis:**	NA
Lab Code:	K2003457-007		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	ND U	ug/L	0.50	1	05/01/20 12:17	04/30/20	
Manganese	200.8	**4910**	ug/L	60	100	05/01/20 13:22	04/30/20	
Zinc	200.8	**21.7**	ug/L	2.0	1	05/01/20 12:17	04/30/20	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20 14:55
Sample Matrix:	Water	**Date Received:**	04/29/20 10:00
Sample Name:	MW-08	**Basis:**	NA
Lab Code:	K2003457-008		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	**51.3**	ug/L	0.50	1	05/01/20 12:19	04/30/20	
Manganese	200.8	**29300**	ug/L	60	100	05/01/20 13:24	04/30/20	
Zinc	200.8	**36900**	ug/L	200	100	05/01/20 13:24	04/30/20	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20 16:00
Sample Matrix:	Water	**Date Received:**	04/29/20 10:00
Sample Name:	duplicate	**Basis:**	NA
Lab Code:	K2003457-009		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	ND U	ug/L	0.50	1	05/01/20 12:20	04/30/20	
Manganese	200.8	**4730**	ug/L	60	100	05/01/20 13:29	04/30/20	
Zinc	200.8	**18.8**	ug/L	2.0	1	05/01/20 12:20	04/30/20	

General Chemistry

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Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20 08:15
Sample Matrix:	Water	**Date Received:**	04/29/20 10:00
Sample Name:	MW-12	**Basis:**	NA
Lab Code:	K2003457-001		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	**65.8**	mg/L	2.0	20	04/29/20 19:29	
pH	SM 4500-H+ B	**7.69**	pH Units	-	1	04/30/20 15:12	H
Sulfate	300.0	**787**	mg/L	40	200	04/29/20 19:40	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20 09:05
Sample Matrix:	Water	**Date Received:**	04/29/20 10:00
Sample Name:	MW-10	**Basis:**	NA
Lab Code:	K2003457-002		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	**243**	mg/L	10	100	04/29/20 19:50	
pH	SM 4500-H+ B	**8.20**	pH Units	-	1	04/30/20 15:15	H
Sulfate	300.0	**815**	mg/L	20	100	04/29/20 19:50	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20 09:45
Sample Matrix:	Water	**Date Received:**	04/29/20 10:00
Sample Name:	MW-03	**Basis:**	NA
Lab Code:	K2003457-003		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	**115**	mg/L	10	100	04/29/20 20:01	
pH	SM 4500-H+ B	**7.62**	pH Units	-	1	04/30/20 15:16	H
Sulfate	300.0	**949**	mg/L	20	100	04/29/20 20:01	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20 10:20
Sample Matrix:	Water	**Date Received:**	04/29/20 10:00
Sample Name:	MW-02	**Basis:**	NA
Lab Code:	K2003457-004		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	**260**	mg/L	10	100	04/29/20 20:11	
pH	SM 4500-H+ B	**7.90**	pH Units	-	1	04/30/20 15:19	H
Sulfate	300.0	**807**	mg/L	20	100	04/29/20 20:11	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20 11:05
Sample Matrix:	Water	**Date Received:**	04/29/20 10:00
Sample Name:	MW-05	**Basis:**	NA
Lab Code:	K2003457-005		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	**22.3**	mg/L	1.0	10	04/29/20 20:22	
pH	SM 4500-H+ B	**8.44**	pH Units	-	1	04/30/20 15:21	H
Sulfate	300.0	**51.3**	mg/L	2.0	10	04/29/20 20:22	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20 12:10
Sample Matrix:	Water	**Date Received:**	04/29/20 10:00
Sample Name:	MW-01	**Basis:**	NA
Lab Code:	K2003457-006		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	**24.0**	mg/L	2.0	20	04/29/20 20:33	
pH	SM 4500-H+ B	**7.73**	pH Units	-	1	04/30/20 15:22	H
Sulfate	300.0	**189**	mg/L	4.0	20	04/29/20 20:33	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20 13:25
Sample Matrix:	Water	**Date Received:**	04/29/20 10:00
Sample Name:	MW-09	**Basis:**	NA
Lab Code:	K2003457-007		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	**387**	mg/L	5.0	50	04/29/20 20:43	
pH	SM 4500-H+ B	**8.12**	pH Units	-	1	04/30/20 15:39	H
Sulfate	300.0	**1530**	mg/L	100	500	04/29/20 21:15	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20 14:55
Sample Matrix:	Water	**Date Received:**	04/29/20 10:00
Sample Name:	MW-08	**Basis:**	NA
Lab Code:	K2003457-008		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	**503**	mg/L	50	500	04/29/20 21:37	
pH	SM 4500-H+ B	**7.64**	pH Units	-	1	04/30/20 15:40	H
Sulfate	300.0	**1520**	mg/L	100	500	04/29/20 21:37	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20 16:00
Sample Matrix:	Water	**Date Received:**	04/29/20 10:00
Sample Name:	duplicate	**Basis:**	NA
Lab Code:	K2003457-009		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	**400**	mg/L	5.0	50	04/29/20 21:47	
pH	SM 4500-H+ B	**7.94**	pH Units	-	1	04/30/20 15:42	H
Sulfate	300.0	**1540**	mg/L	100	500	04/30/20 10:11	

QC Summary Forms

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Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	KQ2005796-01		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	ND U	ug/L	0.50	1	05/01/20 11:55	04/30/20	
Manganese	200.8	ND U	ug/L	0.60	1	05/01/20 11:55	04/30/20	
Zinc	200.8	ND U	ug/L	2.0	1	05/01/20 11:55	04/30/20	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20
Sample Matrix:	Water	**Date Received:**	04/29/20
		Date Analyzed:	05/1/20
		Date Extracted:	04/30/20

Matrix Spike Summary
Dissolved Metals

Sample Name:	MW-12	**Units:**	ug/L
Lab Code:	K2003457-001	**Basis:**	NA
Analysis Method:	200.8		
Prep Method:	EPA CLP ILM04.0		

Matrix Spike
KQ2005796-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Cadmium	23.7	48.8	25.0	101	70-130
Manganese	11300	11900	25	2353 #	70-130
Zinc	8600	9190	30	2363 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20
Sample Matrix:	Water	**Date Received:**	04/29/20
		Date Analyzed:	05/01/20

Replicate Sample Summary
Dissolved Metals

Sample Name:	MW-12	**Units:**	ug/L
Lab Code:	K2003457-001	**Basis:**	NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample KQ2005796-03 Result	Average	RPD	RPD Limit
Cadmium	200.8	0.50	23.7	23.7	23.7	<1	20
Manganese	200.8	60	11300	12100	11700	7	20
Zinc	200.8	200	8600	9230	8920	7	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Ultra Yield Micronutrients
Project: Spring 2020 Well Testing/2020-01
Sample Matrix: Water

Service Request: K2003457
Date Analyzed: 05/01/20

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2005796-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Cadmium	200.8	25.9	25.0	104	85-115
Manganese	200.8	25.9	25.0	104	85-115
Zinc	200.8	26.2	25.0	105	85-115

General Chemistry

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Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	K2003457-MB1		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	ND U	mg/L	0.10	1	04/29/20 11:37	
Sulfate	300.0	ND U	mg/L	0.20	1	04/29/20 11:37	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	K2003457-MB2		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	ND U	mg/L	0.10	1	04/30/20 10:00	
Sulfate	300.0	ND U	mg/L	0.20	1	04/30/20 10:00	

QA/QC Report

Client: Ultra Yield Micronutrients
Project: Spring 2020 Well Testing/2020-01
Sample Matrix: Water

Service Request:K2003457
Date Collected:04/27/20
Date Received:04/29/20
Date Analyzed:4/30/20

Duplicate Matrix Spike Summary
General Chemistry Parameters

Sample Name: MW-01
Lab Code: K2003457-006

Units:mg/L
Basis:NA

			Matrix Spike K2003457-006MS			Duplicate Matrix Spike K2003457-006DMS					
Analyte Name	**Method**	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Chloride	300.0	24.0	114	100	90	114	100	90	90-110	<1	20
Sulfate	300.0	189	279	100	90	274	100	85 *	90-110	2	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20
Sample Matrix:	Water	**Date Received:**	04/29/20
		Date Analyzed:	04/30/20

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	MW-12	**Units:**	pH Units
Lab Code:	K2003457-001	**Basis:**	NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample K2003457-001DUP Result	Average	RPD	RPD Limit
pH	SM 4500-H+ B	-	7.69	7.62	7.66	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project	Spring 2020 Well Testing/2020-01	**Date Collected:**	04/27/20
Sample Matrix:	Water	**Date Received:**	04/29/20
		Date Analyzed:	04/29/20

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	MW-01	**Units:**	mg/L
Lab Code:	K2003457-006	**Basis:**	NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample K2003457-006DUP Result	Average	RPD	RPD Limit
Chloride	300.0	2.0	24.0	23.9	24.0	<1	20
Sulfate	300.0	4.0	189	190	190	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	Ultra Yield Micronutrients	**Service Request:**	K2003457
Project:	Spring 2020 Well Testing/2020-01	**Date Analyzed:**	04/30/20
Sample Matrix:	Water	**Date Extracted:**	NA

Lab Control Sample Summary
pH

Analysis Method:	SM 4500-H+ B	**Units:**	pH Units
Prep Method:	None	**Basis:**	NA
		Analysis Lot:	678502

Sample Name	Lab Code	Result	Spike Amount	% Rec	% Rec Limits
Lab Control Sample	K2003457-LCS2	6.62	6.61	100	85-115

Client: Ultra Yield Micronutrients
Project: Spring 2020 Well Testing/2020-01
Sample Matrix: Water

Service Request: K2003457
Date Analyzed: 04/29/20

Duplicate Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

			Lab Control Sample		Duplicate Lab Control Sample					
			K2003457-LCS1		K2003457-DLCS1					
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Chloride	300.0	4.74	5.00	95	4.82	5.00	96	90-110	2	20
Sulfate	300.0	4.93	5.00	99	5.01	5.00	100	90-110	2	20

November 16, 2020 Service Request No:K2009578

Terry Kelley
Ultra Yield Micronutrients
213 W. Moxee Avenue
P.O. Box 1167
Moxee, WA 98936

Laboratory Results for: Fall 2020 Well Testing

Dear Terry,

Enclosed are the results of the sample(s) submitted to our laboratory October 22, 2020
For your reference, these analyses have been assigned our service request number **K2009578.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3350. You may also contact me via email at Kelley.Lovejoy@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

for Kelley Lovejoy
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Ultra Yield Micronutrients
Project: Fall 2020 Well Testing
Sample Matrix: Water

Service Request: K2009578
Date Received: 10/22/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Nine water samples were received for analysis at ALS Environmental on 10/22/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

General Chemistry:

No significant anomalies were noted with this analysis.

Approved by _____ Date 11/16/2020

SAMPLE DETECTION SUMMARY

CLIENT ID: MW-12			Lab ID: K2009578-001			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Chloride	80.2			1.0	mg/L	300.0
pH	7.49				pH Units	SM 4500-H+ B
Sulfate	920			40	mg/L	300.0
Cadmium, Dissolved	40.9			0.50	ug/L	200.8
Manganese, Dissolved	16700			30	ug/L	200.8
Zinc, Dissolved	13800			100	ug/L	200.8

CLIENT ID: MW-10			Lab ID: K2009578-002			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Chloride	177			10	mg/L	300.0
pH	7.90				pH Units	SM 4500-H+ B
Sulfate	403			20	mg/L	300.0
Manganese, Dissolved	231			0.60	ug/L	200.8
Zinc, Dissolved	10.1			2.0	ug/L	200.8

CLIENT ID: MW-05			Lab ID: K2009578-003			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Chloride	23.1			1.0	mg/L	300.0
pH	8.22				pH Units	SM 4500-H+ B
Sulfate	53.7			2.0	mg/L	300.0
Manganese, Dissolved	15.8			0.60	ug/L	200.8
Zinc, Dissolved	11.7			2.0	ug/L	200.8

CLIENT ID: MW-01B			Lab ID: K2009578-004			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Chloride	23.3			1.0	mg/L	300.0
pH	7.70				pH Units	SM 4500-H+ B
Sulfate	86.5			2.0	mg/L	300.0
Cadmium, Dissolved	6.36			0.50	ug/L	200.8
Manganese, Dissolved	15.8			0.60	ug/L	200.8
Zinc, Dissolved	5740			100	ug/L	200.8

CLIENT ID: MW-03			Lab ID: K2009578-005			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Chloride	168			5.0	mg/L	300.0
pH	7.56				pH Units	SM 4500-H+ B
Sulfate	940			40	mg/L	300.0
Cadmium, Dissolved	158			0.50	ug/L	200.8
Manganese, Dissolved	9750			30	ug/L	200.8
Zinc, Dissolved	14300			100	ug/L	200.8

CLIENT ID: MW-02			Lab ID: K2009578-006			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Chloride	236			10	mg/L	300.0

SAMPLE DETECTION SUMMARY

CLIENT ID: MW-02			Lab ID: K2009578-006			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
pH	8.06				pH Units	SM 4500-H+ B
Sulfate	665			20	mg/L	300.0
Manganese, Dissolved	2410			0.60	ug/L	200.8
Zinc, Dissolved	22.3			2.0	ug/L	200.8

CLIENT ID: MW-09			Lab ID: K2009578-007			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Chloride	365			40	mg/L	300.0
pH	7.95				pH Units	SM 4500-H+ B
Sulfate	1510			80	mg/L	300.0
Manganese, Dissolved	5250			3.0	ug/L	200.8
Zinc, Dissolved	23			10	ug/L	200.8

CLIENT ID: MW-08			Lab ID: K2009578-008			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Chloride	476			40	mg/L	300.0
pH	7.40				pH Units	SM 4500-H+ B
Sulfate	1400			80	mg/L	300.0
Cadmium, Dissolved	26.3			2.5	ug/L	200.8
Manganese, Dissolved	26600			30	ug/L	200.8
Zinc, Dissolved	20600			100	ug/L	200.8

CLIENT ID: Duplicate			Lab ID: K2009578-009			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Chloride	341			40	mg/L	300.0
pH	8.07				pH Units	SM 4500-H+ B
Sulfate	1430			80	mg/L	300.0
Manganese, Dissolved	5170			3.0	ug/L	200.8
Zinc, Dissolved	22			10	ug/L	200.8

Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Ultra Yield Micronutrients **Service Request:**K2009578
Project: Fall 2020 Well Testing/2020-02

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
K2009578-001	MW-12	10/20/2020	0835
K2009578-002	MW-10	10/20/2020	0930
K2009578-003	MW-05	10/20/2020	1025
K2009578-004	MW-01B	10/20/2020	1127
K2009578-005	MW-03	10/20/2020	1200
K2009578-006	MW-02	10/20/2020	1230
K2009578-007	MW-09	10/20/2020	1345
K2009578-008	MW-08	10/20/2020	1515
K2009578-009	Duplicate	10/20/2020	1600

Chain of Custody

ALS Environmental
ADDRESS 1317 South 13th Ave., Kelso, WA 98626
PHONE 1 360 577 7222 FAX 1 360 636 1068

Chain of Custody
112036

KJ009598

Project Manager:	Terry Kelley			**Bill to:**	Ultra Yield Micronutrients
Client Name:	Ultra Yield Micronutrients (UYM)			**Company:**	Ultra Yield Micronutrients
Address:	213 West Moxee Avenue			**Address:**	PO Box 1167
City, State ZIP:	Moxee Washington 98936			**City, State ZIP:**	Moxee Wa 98936
Email:	tkelley@ultrayieldmicros.com	**Phone:**	(509) 248-4911	**Email:**	tkelley@ultrayieldmicros.com
Project Name:	Fall 2020 well testing				
Project Number:	2020-02				
P.O. Number:	112036				
Sampler's Name:	Terry Kelley				

SAMPLE RECEIPT

Temperature (°C):		Temp Blank Present		
Received Intact:	Yes	No	N/A	Wet Ice / Blue Ice
Cooler Custody Seals:	Yes	No	N/A	Total Containers:
Sample Custody Seals:	Yes	No	N/A	

REQUESTED ANALYSIS

TAT

- [x] Routine
- [ ] Same Day ***
- [ ] Next Day ***
- [ ] 5 Day
- [ ] 7 Day

***** Please call for availability**

Due Date:

Sample Identification	Matrix	Date Sampled	Time Sampled	Lab ID	No. of Containers	300 D / chloride	300 D / SO4	200.8 / Metals D	pH
MW-12	Water	10/20/20	8:35		2	x	x	x	x
MW-10	Water	10/20/20	9:30		2	x	x	x	x
MW-05	Water	10/20/20	10:25		2	x	x	x	x
MW-01B	Water	10/20/20	11:27		2	x	x	x	x
MW-03	Water	10/20/20	12:00		2	x	x	x	x
MW-02	Water	10/20/20	12:30		2	x	x	x	x
MW-09	Water	10/20/20	13:45		2	x	x	x	x
MW-08	Water	10/20/20	15:15		2	x	x	x	x
duplicate	Water	10/20/20	16:00		2	x	x	x	x

Comments

Dissolved	Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Si, Sn, Sr, Tl, V, Zn, Zr
Total	Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Si, Sn, Sr, Tl, V, Zn, Zr

Additional Methods Available Upon Request

RELINQUISHED BY			RECEIVED BY		
Print Name	**Signature**	**Date/Time**	**Print Name**	**Signature**	**Date/Time**
Terry Kelley	Terry Kelley	**10/21/2020 11:30**	Naomi Pedersen		10/22/20 0930

PM_____

Cooler Receipt and Preservation Form

Client Ultra Yield Micronutrients Service Request K20 09528

Received: 10/22/20 Opened: 10/22/20 By: NP Unloaded: 10/22/20 By: NP

1. Samples were received via? *USPS* *Fed Ex* *(UPS)* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *(Cooler)* *Box* *Envelope* *Other*_____ *NA*
3. Were custody seals on coolers? NA (N) N If yes, how many and where? 1 front 1 side
   If present, were custody seals intact? (Y) N If present, were they signed and dated? (Y) N
4. Was a Temperature Blank present in cooler? NA (Y) N If yes, notate the temperature in the appropriate column below:
   If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
5. Were samples received within the method specified temperature ranges? NA (Y) N
   If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. (NA) Y N

If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number NA	Filed
(R04)	—	IR01		—	—	1Z 843 982 01 6342	
4.6						0250	

6. Packing material: *Inserts* *Baggies* *(Bubble Wrap)* *(Gel Packs)* *Wet Ice* *Dry Ice* *Sleeves* _____
7. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
8. Were samples received in good condition (unbroken) NA (Y) N
9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA (Y) N
10. Did all sample labels and tags agree with custody papers? NA (Y) N
11. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
12. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA (Y) N
13. Were VOA vials received without headspace? *Indicate in the table below.* (NA) Y N
14. Was C12/Res negative? (NA) Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
	SHORT HOLD TIME								

Notes, Discrepancies, Resolutions:_____

Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: Ultra Yield Micronutrients
Project: Fall 2020 Well Testing/2020-02
Service Request: K2009578

Sample Name: MW-12
Lab Code: K2009578-001
Sample Matrix: Water
Date Collected: 10/20/20
Date Received: 10/22/20

Analysis Method	Extracted/Digested By	Analyzed By
200.8	ABOYER	EMCALLISTER
300.0		JCHAN
300.0		MKANALY
SM 4500-H+ B		ACHEATLEY

Sample Name: MW-12
Lab Code: K2009578-001.R01
Sample Matrix: Water
Date Collected: 10/20/20
Date Received: 10/22/20

Analysis Method	Extracted/Digested By	Analyzed By
300.0		MKANALY

Sample Name: MW-10
Lab Code: K2009578-002
Sample Matrix: Water
Date Collected: 10/20/20
Date Received: 10/22/20

Analysis Method	Extracted/Digested By	Analyzed By
200.8	ABOYER	EMCALLISTER
300.0		JCHAN
SM 4500-H+ B		ACHEATLEY

Sample Name: MW-10
Lab Code: K2009578-002.R01
Sample Matrix: Water
Date Collected: 10/20/20
Date Received: 10/22/20

Analysis Method	Extracted/Digested By	Analyzed By
300.0		MKANALY

Client: Ultra Yield Micronutrients **Service Request:** K2009578
Project: Fall 2020 Well Testing/2020-02

Sample Name: MW-05 **Date Collected:** 10/20/20
Lab Code: K2009578-003 **Date Received:** 10/22/20
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
200.8	ABOYER	EMCALLISTER
300.0		MKANALY
SM 4500-H+ B		ACHEATLEY

Sample Name: MW-01B **Date Collected:** 10/20/20
Lab Code: K2009578-004 **Date Received:** 10/22/20
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
200.8	ABOYER	EMCALLISTER
300.0		MKANALY
SM 4500-H+ B		ACHEATLEY

Sample Name: MW-03 **Date Collected:** 10/20/20
Lab Code: K2009578-005 **Date Received:** 10/22/20
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
200.8	ABOYER	EMCALLISTER
300.0		JCHAN
SM 4500-H+ B		ACHEATLEY

Sample Name: MW-03 **Date Collected:** 10/20/20
Lab Code: K2009578-005.R01 **Date Received:** 10/22/20
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
300.0		MKANALY

Client: Ultra Yield Micronutrients
Project: Fall 2020 Well Testing/2020-02
Service Request: K2009578

Sample Name: MW-02
Lab Code: K2009578-006
Sample Matrix: Water
Date Collected: 10/20/20
Date Received: 10/22/20

Analysis Method	Extracted/Digested By	Analyzed By
200.8	ABOYER	EMCALLISTER
300.0		JCHAN
SM 4500-H+ B		ACHEATLEY

Sample Name: MW-02
Lab Code: K2009578-006.R01
Sample Matrix: Water
Date Collected: 10/20/20
Date Received: 10/22/20

Analysis Method	Extracted/Digested By	Analyzed By
300.0		MKANALY

Sample Name: MW-09
Lab Code: K2009578-007
Sample Matrix: Water
Date Collected: 10/20/20
Date Received: 10/22/20

Analysis Method	Extracted/Digested By	Analyzed By
200.8	ABOYER	EMCALLISTER
300.0		JCHAN
SM 4500-H+ B		ACHEATLEY

Sample Name: MW-09
Lab Code: K2009578-007.R01
Sample Matrix: Water
Date Collected: 10/20/20
Date Received: 10/22/20

Analysis Method	Extracted/Digested By	Analyzed By
300.0		MKANALY

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02		

Sample Name:	MW-08	**Date Collected:**	10/20/20
Lab Code:	K2009578-008	**Date Received:**	10/22/20
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
200.8	ABOYER	EMCALLISTER
300.0		JCHAN
SM 4500-H+ B		ACHEATLEY

Sample Name:	MW-08	**Date Collected:**	10/20/20
Lab Code:	K2009578-008.R01	**Date Received:**	10/22/20
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
300.0		MKANALY

Sample Name:	Duplicate	**Date Collected:**	10/20/20
Lab Code:	K2009578-009	**Date Received:**	10/22/20
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
200.8	ABOYER	EMCALLISTER
300.0		JCHAN
SM 4500-H+ B		ACHEATLEY

Sample Name:	Duplicate	**Date Collected:**	10/20/20
Lab Code:	K2009578-009.R01	**Date Received:**	10/22/20
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
300.0		MKANALY

Sample Results

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Metals

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Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20 08:35
Sample Matrix:	Water	**Date Received:**	10/22/20 09:30
Sample Name:	MW-12	**Basis:**	NA
Lab Code:	K2009578-001		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	**40.9**	ug/L	0.50	1	11/03/20 15:14	10/29/20	
Manganese	200.8	**16700**	ug/L	30	50	11/03/20 16:25	10/29/20	
Zinc	200.8	**13800**	ug/L	100	50	11/03/20 16:25	10/29/20	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20 09:30
Sample Matrix:	Water	**Date Received:**	10/22/20 09:30
Sample Name:	MW-10	**Basis:**	NA
Lab Code:	K2009578-002		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	ND U	ug/L	0.50	1	11/03/20 15:27	10/29/20	
Manganese	200.8	**231**	ug/L	0.60	1	11/03/20 15:27	10/29/20	
Zinc	200.8	**10.1**	ug/L	2.0	1	11/03/20 15:27	10/29/20	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20 10:25
Sample Matrix:	Water	**Date Received:**	10/22/20 09:30
Sample Name:	MW-05	**Basis:**	NA
Lab Code:	K2009578-003		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	ND U	ug/L	0.50	1	11/03/20 15:31	10/29/20	
Manganese	200.8	**15.8**	ug/L	0.60	1	11/03/20 15:31	10/29/20	
Zinc	200.8	**11.7**	ug/L	2.0	1	11/03/20 15:31	10/29/20	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20 11:27
Sample Matrix:	Water	**Date Received:**	10/22/20 09:30
Sample Name:	MW-01B	**Basis:**	NA
Lab Code:	K2009578-004		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	**6.36**	ug/L	0.50	1	11/03/20 16:00	10/29/20	
Manganese	200.8	**15.8**	ug/L	0.60	1	11/03/20 16:00	10/29/20	
Zinc	200.8	**5740**	ug/L	100	50	11/03/20 16:50	10/29/20	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20 12:00
Sample Matrix:	Water	**Date Received:**	10/22/20 09:30
Sample Name:	MW-03	**Basis:**	NA
Lab Code:	K2009578-005		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	**158**	ug/L	0.50	1	11/03/20 16:04	10/29/20	
Manganese	200.8	**9750**	ug/L	30	50	11/03/20 16:54	10/29/20	
Zinc	200.8	**14300**	ug/L	100	50	11/03/20 16:54	10/29/20	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20 12:30
Sample Matrix:	Water	**Date Received:**	10/22/20 09:30
Sample Name:	MW-02	**Basis:**	NA
Lab Code:	K2009578-006		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	ND U	ug/L	0.50	1	11/03/20 16:08	10/29/20	
Manganese	200.8	**2410**	ug/L	0.60	1	11/03/20 16:08	10/29/20	
Zinc	200.8	**22.3**	ug/L	2.0	1	11/03/20 16:08	10/29/20	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20 13:45
Sample Matrix:	Water	**Date Received:**	10/22/20 09:30
Sample Name:	MW-09	**Basis:**	NA
Lab Code:	K2009578-007		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	ND U	ug/L	2.5	5	11/03/20 16:58	10/29/20	
Manganese	200.8	**5250**	ug/L	3.0	5	11/03/20 16:58	10/29/20	
Zinc	200.8	**23**	ug/L	10	5	11/03/20 16:58	10/29/20	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20 15:15
Sample Matrix:	Water	**Date Received:**	10/22/20 09:30
Sample Name:	MW-08	**Basis:**	NA
Lab Code:	K2009578-008		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	**26.3**	ug/L	2.5	5	11/03/20 17:07	10/29/20	
Manganese	200.8	**26600**	ug/L	30	50	11/03/20 17:11	10/29/20	
Zinc	200.8	**20600**	ug/L	100	50	11/03/20 17:11	10/29/20	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20 16:00
Sample Matrix:	Water	**Date Received:**	10/22/20 09:30
Sample Name:	Duplicate	**Basis:**	NA
Lab Code:	K2009578-009		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	ND U	ug/L	2.5	5	11/03/20 17:15	10/29/20	
Manganese	200.8	**5170**	ug/L	3.0	5	11/03/20 17:15	10/29/20	
Zinc	200.8	**22**	ug/L	10	5	11/03/20 17:15	10/29/20	

General Chemistry

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Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20 08:35
Sample Matrix:	Water	**Date Received:**	10/22/20 09:30
Sample Name:	MW-12	**Basis:**	NA
Lab Code:	K2009578-001		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	**80.2**	mg/L	1.0	10	11/10/20 11:57	
pH	SM 4500-H+ B	**7.49**	pH Units	-	1	10/22/20 15:54	H
Sulfate	300.0	**920**	mg/L	40	200	11/12/20 16:27	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20 09:30
Sample Matrix:	Water	**Date Received:**	10/22/20 09:30
Sample Name:	MW-10	**Basis:**	NA
Lab Code:	K2009578-002		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	**177**	mg/L	10	100	11/12/20 16:37	
pH	SM 4500-H+ B	**7.90**	pH Units	-	1	10/22/20 15:58	H
Sulfate	300.0	**403**	mg/L	20	100	11/12/20 16:37	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20 10:25
Sample Matrix:	Water	**Date Received:**	10/22/20 09:30
Sample Name:	MW-05	**Basis:**	NA
Lab Code:	K2009578-003		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	**23.1**	mg/L	1.0	10	11/10/20 12:16	
pH	SM 4500-H+ B	**8.22**	pH Units	-	1	10/22/20 15:59	H
Sulfate	300.0	**53.7**	mg/L	2.0	10	11/10/20 12:16	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20 11:27
Sample Matrix:	Water	**Date Received:**	10/22/20 09:30
Sample Name:	MW-01B	**Basis:**	NA
Lab Code:	K2009578-004		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	**23.3**	mg/L	1.0	10	11/10/20 12:45	
pH	SM 4500-H+ B	**7.70**	pH Units	-	1	10/22/20 16:03	H
Sulfate	300.0	**86.5**	mg/L	2.0	10	11/10/20 12:45	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20 12:00
Sample Matrix:	Water	**Date Received:**	10/22/20 09:30
Sample Name:	MW-03	**Basis:**	NA
Lab Code:	K2009578-005		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	**168**	mg/L	5.0	50	11/12/20 16:46	
pH	SM 4500-H+ B	**7.56**	pH Units	-	1	10/22/20 16:05	H
Sulfate	300.0	**940**	mg/L	40	200	11/12/20 16:56	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20 12:30
Sample Matrix:	Water	**Date Received:**	10/22/20 09:30
Sample Name:	MW-02	**Basis:**	NA
Lab Code:	K2009578-006		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	**236**	mg/L	10	100	11/12/20 17:05	
pH	SM 4500-H+ B	**8.06**	pH Units	-	1	10/22/20 16:07	H
Sulfate	300.0	**665**	mg/L	20	100	11/12/20 17:05	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20 13:45
Sample Matrix:	Water	**Date Received:**	10/22/20 09:30
Sample Name:	MW-09	**Basis:**	NA
Lab Code:	K2009578-007		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	**365**	mg/L	40	400	11/12/20 17:35	
pH	SM 4500-H+ B	**7.95**	pH Units	-	1	10/22/20 16:10	H
Sulfate	300.0	**1510**	mg/L	80	400	11/12/20 17:35	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20 15:15
Sample Matrix:	Water	**Date Received:**	10/22/20 09:30
Sample Name:	MW-08	**Basis:**	NA
Lab Code:	K2009578-008		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	**476**	mg/L	40	400	11/12/20 17:44	
pH	SM 4500-H+ B	**7.40**	pH Units	-	1	10/22/20 16:13	H
Sulfate	300.0	**1400**	mg/L	80	400	11/12/20 17:44	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20 16:00
Sample Matrix:	Water	**Date Received:**	10/22/20 09:30
Sample Name:	Duplicate	**Basis:**	NA
Lab Code:	K2009578-009		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	**341**	mg/L	40	400	11/12/20 18:02	
pH	SM 4500-H+ B	**8.07**	pH Units	-	1	10/22/20 16:16	H
Sulfate	300.0	**1430**	mg/L	80	400	11/12/20 18:02	

QC Summary Forms

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Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	KQ2016449-01		

Dissolved Metals

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Cadmium	200.8	ND U	ug/L	0.50	1	11/03/20 14:08	10/29/20	
Manganese	200.8	ND U	ug/L	0.60	1	11/03/20 14:08	10/29/20	
Zinc	200.8	ND U	ug/L	2.0	1	11/03/20 14:08	10/29/20	

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20
Sample Matrix:	Water	**Date Received:**	10/22/20
		Date Analyzed:	11/3/20
		Date Extracted:	10/29/20

Matrix Spike Summary
Dissolved Metals

Sample Name:	MW-12	**Units:**	ug/L
Lab Code:	K2009578-001	**Basis:**	NA
Analysis Method:	200.8		
Prep Method:	EPA CLP ILM04.0		

Matrix Spike
KQ2016449-06

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Cadmium	40.9	65.6	25.0	99	70-130
Manganese	16700	16400	25	-1219 #	70-130
Zinc	13800	13700	30	-387 #	70-130

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

QA/QC Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20
Sample Matrix:	Water	**Date Received:**	10/22/20
		Date Analyzed:	11/03/20

Replicate Sample Summary
Dissolved Metals

Sample Name:	MW-12	**Units:**	ug/L
Lab Code:	K2009578-001	**Basis:**	NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample KQ2016449-05 Result	Average	RPD	RPD Limit
Cadmium	200.8	0.50	40.9	41.4	41.2	1	20
Manganese	200.8	30	16700	16800	16800	<1	20
Zinc	200.8	100	13800	13800	13800	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Ultra Yield Micronutrients
Project: Fall 2020 Well Testing/2020-02
Sample Matrix: Water

Service Request: K2009578
Date Analyzed: 11/03/20

Lab Control Sample Summary
Dissolved Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2016449-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Cadmium	200.8	24.6	25.0	98	85-115
Manganese	200.8	24.1	25.0	96	85-115
Zinc	200.8	24.8	25.0	99	85-115

General Chemistry

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Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	K2009578-MB1		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	ND U	mg/L	0.10	1	11/10/20 09:46	
Sulfate	300.0	ND U	mg/L	0.20	1	11/10/20 09:46	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	K2009578-MB2		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	ND U	mg/L	0.10	1	11/10/20 19:02	
Sulfate	300.0	ND U	mg/L	0.20	1	11/10/20 19:02	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	K2009578-MB3		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	ND U	mg/L	0.10	1	11/10/20 20:20	
Sulfate	300.0	ND U	mg/L	0.20	1	11/10/20 20:20	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	K2009578-MB4		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	ND U	mg/L	0.10	1	11/12/20 09:52	
Sulfate	300.0	ND U	mg/L	0.20	1	11/12/20 09:52	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	K2009578-MB5		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	ND U	mg/L	0.10	1	11/12/20 15:29	
Sulfate	300.0	ND U	mg/L	0.20	1	11/12/20 15:29	

Analytical Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project:	Fall 2020 Well Testing/2020-02	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	K2009578-MB6		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Chloride	300.0	ND U	mg/L	0.10	1	11/12/20 19:49	
Sulfate	300.0	ND U	mg/L	0.20	1	11/12/20 19:49	

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QA/QC Report

Client:	Ultra Yield Micronutrients	**Service Request:**	K2009578
Project	Fall 2020 Well Testing/2020-02	**Date Collected:**	10/20/20
Sample Matrix:	Water	**Date Received:**	10/22/20
		Date Analyzed:	10/22/20

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	MW-12	**Units:**	pH Units
Lab Code:	K2009578-001	**Basis:**	NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample K2009578-001DUP Result	Average	RPD	RPD Limit
pH	SM 4500-H+ B	-	7.49	7.25	7.37	3	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Ultra Yield Micronutrients
Project: Fall 2020 Well Testing/2020-02
Sample Matrix: Water

Service Request: K2009578
Date Analyzed: 11/10/20

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
K2009578-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Chloride	300.0	5.05	5.00	101	90-110
Sulfate	300.0	4.92	5.00	98	90-110

Client: Ultra Yield Micronutrients
Project: Fall 2020 Well Testing/2020-02
Sample Matrix: Water

Service Request: K2009578
Date Analyzed: 10/22/20

Lab Control Sample Summary
General Chemistry Parameters

Units:pH Units
Basis:NA

Lab Control Sample
K2009578-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
pH	SM 4500-H+ B	6.56	6.61	99	85-115

Client: Ultra Yield Micronutrients
Project: Fall 2020 Well Testing/2020-02
Sample Matrix: Water

Service Request: K2009578
Date Analyzed: 11/10/20

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
K2009578-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Chloride	300.0	5.07	5.00	101	90-110
Sulfate	300.0	4.97	5.00	99	90-110

Client: Ultra Yield Micronutrients
Project: Fall 2020 Well Testing/2020-02
Sample Matrix: Water

Service Request: K2009578
Date Analyzed: 11/10/20

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
K2009578-LCS3

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Chloride	300.0	5.06	5.00	101	90-110
Sulfate	300.0	4.90	5.00	98	90-110

Client: Ultra Yield Micronutrients
Project: Fall 2020 Well Testing/2020-02
Sample Matrix: Water

Service Request: K2009578
Date Analyzed: 11/12/20

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
K2009578-LCS4

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Chloride	300.0	5.10	5.00	102	90-110
Sulfate	300.0	5.02	5.00	100	90-110

Client: Ultra Yield Micronutrients
Project: Fall 2020 Well Testing/2020-02
Sample Matrix: Water

Service Request: K2009578
Date Analyzed: 11/12/20

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
K2009578-LCS5

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Chloride	300.0	5.13	5.00	103	90-110
Sulfate	300.0	5.06	5.00	101	90-110

Client: Ultra Yield Micronutrients
Project: Fall 2020 Well Testing/2020-02
Sample Matrix: Water

Service Request: K2009578
Date Analyzed: 11/12/20

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
K2009578-LCS6

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Chloride	300.0	5.08	5.00	102	90-110
Sulfate	300.0	5.03	5.00	101	90-110

Appendix C
2020 Annual Inspection and Monitoring Checklist

Operation and Maintenance
Annual Inspection and Monitoring Checklist
Ultra Yield Micronutrients Facility Moxee, Washington

The following is a checklist that was developed to assist Ultra Yield Micronutrients with implementing the environmental Operations and Maintenance (OM) activities specified in Site Management Plan.

O&M Component				
1.0 Field Survey/Payment Cover/Inspection				
Perform a walking survey/inspection to ensure that the material serving as an environmental cover is being maintained and to detect any potential breaches in the cover such that the underlying affected soils could be exposed. Survey/Inspection should include the following areas.				**Corrective Action Maintenance Plan**
*	Parking / Asphalt Paved Areas Observe paved areas covering affected soil (See figure 2 Site Management Plan). Note any odors, visible discoloration, or cracks or other breaches where underlying fill may be exposed.	Inspection Completed Yes	No open cracks were observed in the asphalt areas where equipment or production material are moved. Area will be inspected again in spring after cold weather has subsided.	No action required.
-	West Warehouse Entryway and Adjoining Areas South of the East and West Storage Buildings	Yes		No action required
-	Area Northeast of the West Warehouse/North of the East and West Storage Buildings	Yes		No action required
-	Corridor Between Warehouse and West Storage Building	Yes		No action required
*	Unpaved Areas (Soil / Graveled Covered) Observe all unpaved areas of the site covering affected soils (See figure 2 Site Management Plan). Note any signs of subsidence (e.g. obvious visible low areas where standing water may accumulate). Check for the presence of large cracks on the surface. Note any signs of significant erosion that may lead to exposure of underlying affected soil.	Yes	The ground around Well 11A had sunk in with a crack in the dirt from it to the Warehouse. Well is not used as part of the well monitoring process. The well itself is intact.	Gravel and soil were placed around the well.
*	Monitoring Wells Observe the condition of each monitoring well, noting the condition of the concrete pad and steel protective casing. Ensure that each well is properly closed with a locking plug and steel protective casing.	Yes	MW-1A has the SW and NE corners and W side of the concrete pad broken off, but the area around the casing is fine.	No action required
-	Bone Yard	No	Not Applicable	Bone Yard removed. Inspection no longer required.

Operation and Maintenance
Annual Inspection and Monitoring Checklist
Ultra Yield Micronutrients Facility Moxee, Washington

-	Railroad Spur	Yes		As corrective measure following acid spill and interim action to remove acid-impacted soil, new railbed was installed with additional containment to capture spills.
	A release of sulfuric acid from a railcar occurred on September 22, 2019 that exceeded TPQ and was reported. Ultra Yield Micronutrients completed interim actions under the direction of the Washington State Department of Ecology (Ecology) to evaluate and remove acid-impacted soil to the extent practicable and monitor groundwater quality over four consecutive quarters following the soil removal. The interim action was completed in July 2020 and an Interim Action Report (IAR) was submitted to Ecology on September 11, 2020 and approved by Ecology on November 6, 2020.			
2.0 Recording Keeping				
Within 30 days following each inspection, a copy of the following information should be provided to the Washington Department of Ecology, Hazardous Waste and Toxics Reduction Program in Yakima. Originals should be filed on-site with other pertinent environment records maintained by Ultra Yield Micronutrients representative responsible for environmental, health and safety issues.				
-	Date, nature of work, and names & affiliations of involved parties when asphalt/pavement/gravel/soil is disturbed in deed restricted areas. Attach photographs and a map noting the specific locations disturbed.	Yes	Interim Action to address acid spill on rail spur completed in July 2020. IAR submitted to Ecology on 9/11/2020 and approved by Ecology on 11/6/2020.	Post-excavation quarterly (4 events) groundwater monitoring of wells MW-8, MW-9, and MW-12 ongoing and reports submitted to Ecology under separate cover. Two additional quarterly performance monitoring reports to be completed in March 2021 and June 2021. Quarterly reports to be submitted to Ecology.
-	Laboratory results of soil waste profile testing for any soil from deed-restricted areas that is excavated and disposed of off-site.	Yes	Soil analytical data from confirmation soil sampled collected during July 2020 interim action provided in IAR.	No action required
-	Bill-of-lading or manifest pertaining to soil disposed of.	Yes	Bills-of-lading from soil removed during July 2020 interim action provided in IAR.	No action required
-	Copy of any pertinent reports, surveys or studies involving future assessment/removal of affected soil conducted by engineers/consultants.	No	Not Applicable	No action required

Operation and Maintenance
Annual Inspection and Monitoring Checklist
Ultra Yield Micronutrients Facility Moxee, Washington

3.0 Miscellaneous Comments			
Any additional comments or Observations made during annual inspection?	No	None provided	

Inspected By: _____ Date: ____14 Oct 2020_____

Terry Kelley, EH&S Supervisor, Ultra Yield Micronutrients