Offsite Groundwater Investigation Report

Simplot Grower Solutions
Facility Site Number: 84612438
VCP Number: CE0419

Moxee, Washington
January 2021

Prepared for:

Simplot

J.R. Simplot Company
1099 W. Front Street
Boise, Idaho 83702

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Prepared by:

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Acronyms

Acronym	Definition
CRBG	Columbia River Basalt Group
Ecology	Washington Department of Ecology
GeoEngineers	GeoEngineers, Inc.
HDR	HDR Engineering, Inc.
mg/L	milligrams per liter
SGS	Simplot Grower Solutions
Simplot	J.R. Simplot Company
SOP	standard operating procedure
TDS	total dissolved solids

1 Introduction

The purpose of this report is to describe the results of the off-site groundwater investigation activities conducted under the *Offsite Groundwater Investigation Work Plan* (HDR 2020) at the Simplot Grower Solutions (SGS) site at 7528 Postma Road in Moxee, Washington (Facility Site Number 84612438; VCP Number CE0419).

1.1 Background

On July 2, 2014, the J.R. Simplot Company (Simplot) received an Early Notice Letter from Washington Department of Ecology (Ecology) regarding the potential release of hazardous substances from the SGS facility at 7528 Postma Road, Moxee, Washington (**Figure 1**, Appendix A). Ecology encouraged Simplot to enter into a voluntary clean-up arrangement to address potential site contamination. Ecology's findings are based on information provided by GeoEngineers, Inc. (GeoEngineers), a consulting firm contracted with Ecology, who were conducting site investigation activities at the Moxee City Shop, located at 7520 Postma Road, which is immediately adjacent and west of the SGS facility (**Figure 2**, Appendix A). GeoEngineers summarized their field activities and findings in the April 3, 2014, *Data Gap Investigation Report– Moxee City Shop and former Sewage Treatment Plant (STP), Moxee, Washington*.

During the summer of 2015, HDR Engineering Inc. (HDR), conducted groundwater and soil sampling using a GeoProbe sampling system, and published findings in the *Preliminary Site Investigation Report*, which revealed elevated levels of nitrate in soil and groundwater at the SGS facility (HDR 2015). Using this information and information from past investigations at the facility, HDR prepared a *Groundwater Monitoring Well and Sampling Work Plan* (2016) in response to the Early Notice Letter. Simplot entered into Ecology's Voluntary Cleanup Program, which Ecology acknowledged in a letter dated December 16, 2014.

After obtaining Ecology's approval of the field activities proposed in the 2016 work plan, HDR installed five on-site monitoring wells in October 2016 in accordance with the work plan, and subsequently sampled, on a quarterly basis, those five on-site wells and two off-site city wells on the Moxee City Shop property to the west of the SGS facility. In July 2019, HDR also installed new monitoring well (MW-6) at the Moxee City Shop site to monitor groundwater at a deeper interval than the other monitoring wells associated with the site. HDR has conducted quarterly or semi-annual groundwater sampling since October 2016; the most recent sampling event was in October 2020 (most recent groundwater sampling events occurred during other site investigation work).

Table 1 (Appendix B) presents a chronology of site investigation activities. The reader is referred to the 2020 work plan (HDR 2020) for a summary of past sampling activities and results.

1.2 Simplot's Moxee Facility

The SGS site, located at 7528 Postma Road in Moxee, Washington, occupies approximately 3.4 acres. The property is bounded by a railroad line and State Route 24 on the south, a municipal maintenance shop facility to the west (Moxee City Shop), and commercial properties on the north and east (**Figure 2**, Appendix A), including a fueling station northeast of the property. The SGS facility is an agricultural products retail location. Five structures are on the property ranging from retail space to product storage warehouse. Fertilizers are delivered to the facility and are stored on site, some custom blending of fertilizers occurs, and fertilizers are loaded on trucks for delivery to farmers. Fertilizers are in both solid and liquid forms and are primarily formulations of nitrogen (N), phosphorus (P_2O_5), and potassium (K_2O), including ammonium sulfate and triple super phosphate. The facility has served as a retail outlet for agrichemicals that include fertilizers, pesticides, and soil amendments.

1.3 Area Setting

The SGS site and the City of Moxee are located in a relatively flat valley that rises in topography to Rattlesnake Hills to the south and the Yakima Ridge to the north. The elevation of the SGS site is approximately 1,030 feet above mean sea level. The base of the Yakima Ridge is located approximately 2.5 miles to the north. The base of Rattlesnake Hills is approximately 2.5 miles to the south. A small ditch flowing along the north side of Postma Road was visible on historical aerial photography until 1992, but was apparently abandoned, or routed underground, after the area to the north was converted from agricultural use to commercial use. A ditch 900 feet to the east of the SGS site is still in use. Yakima River is located 3 miles to the west.

According to the Western Regional Climate Center (WRCC) from 1946 to 2016, the City of Moxee received an average of approximately 7.87 inches of precipitation per year. The maximum average monthly precipitation occurs in December at 1.01 inches. The driest months are July and August with an average precipitation of 0.31 inches. Minimum average temperatures occur in January, while maximum average temperatures occur in July.

1.3.1 Soil

Based on soil sampling activities and observations by HDR, on-site soils are a silt loam texture (NRCS classification) with a relatively uniform texture and soil structure from surface to groundwater (0 to approximately 5 feet below ground surface). Free lime (calcium carbonate) is found throughout the soil profile, and pH is high, ranging from 7.9 to 8.6 (unitless). The Natural Resources Conservation Service (NRCS), has mapped the SGS site and adjoining properties comprised of Umapine silt loam soil series, which is characterized as somewhat poorly drained with the most limiting layer to transit water (Ksat) as moderately high to high (0.6 to 2.0 inches/hour) (NRCS, Web Soil Survey (usda.gov).

1.3.2 Hydrogeology

The SGS site is located within the Yakima Fold and Thrust Belt of the Columbia Basin Province in Washington. The Yakima Fold Belt is a region of high folding and faulting and is one of the three subprovinces of the Columbia Plateau. The region consists of loess overlying glacial flood

deposits, which are underlain by the Columbia River Basalt Group (CRBG) (Washington DNR 2018).

Moxee is located within the Yakima Basin (also known as the Ahtanum-Moxee Basin) that is located within the Yakima River Basin (Vaccaro et al 2009). Surface hydrogeologic units within the Moxee area consist primarily of basin fill deposits. These fill deposits and basalt lava flows of the CRBG are important sources of groundwater within the basin and comprise the Yakima River Basin aquifer system. Due to the diverse nature of these deposits, the hydraulic characteristics of the aquifers are also diverse.

There are four hydrogeological units described within the Yakima Basin. Unit 1 consists of alluvial deposits. Unit 2 consists of unconsolidated deposits, including loess, glacial, lacustrine, alluvial, and flood deposits. Unit 3 consists of consolidated deposits that are made up of continental sedimentary deposits (Vaccaro et al 2009). Unit 4 consists of basalt (Ecology 2007). Most of the shallow domestic wells are completed in Units 1 and 2, mostly associated with alluvium deposits. Groundwater flow in the Moxee Valley is to the west toward Yakima River and depth to groundwater is typically between 5 and 20 feet below the ground surface (bgs) (Ecology 2007).

1.4 Groundwater Monitoring

To date, Simplot had had HDR install, develop, and survey five on-site groundwater monitoring wells (MW-1 through MW-5), and one off-site well (MW-6). Simplot also uses two off-site wells constructed by Ecology (City Shop wells CS-4 and CS-5). Well construction details are summarized in **Table 2** (Appendix B) and well locations are illustrated in **Figure 3** (Appendix A).

Groundwater sampling activities have followed *Standard Operating Procedure for Groundwater Sampling* that was included in Appendix A of the *Groundwater Monitoring Well and Sampling Work Plan* (HDR 2016).

Results of quarterly groundwater monitoring, including the October 2020 sampling event, are presented in Section 2.

2 October 2020 Groundwater Investigation Activities

This section presents the data objectives and needs determined in the 2020 work plan (HDR 2020) and the subsequent results of the off-site groundwater investigation activities.

2.1 Data Objectives and Needs

On site groundwater is elevated in nitrate and is above the groundwater quality standard of 10 milligrams per liter (mg/L). Downgradient, off-site wells CS-6 and MW-6 had elevated levels of nitrate-N, sulfate, and total dissolved solids (TDS), with the nitrate-N concentration recorded at 178 mg/L at CS-6 and 91.1 mg/L at MW-6 in March 2020, whereas downgradient well CS-4 had nitrate-N detected at 4.9 mg/L in March 2020. The downgradient extent of elevated nitrates has not been determined.

Therefore, the objectives of the October 2020 activities were as follows:

1. Characterize off-site groundwater quality by conducting GeoProbe groundwater sampling downgradient of the site along Highway 24 within the right-of-way (ROW).
2. Sample monitoring wells on and off site.
3. Survey new downgradient well MW-6 (currently being scheduled).

2.2 Site Investigation Activities

2.2.1 Off-Site Groundwater Investigation

To characterize groundwater quality further downgradient and off site, Environmental West Exploration (Environmental West) conducted GeoProbe sampling activities on October 7 and 8, 2020, with HDR providing oversight following standard operating procedures (SOPs) for GeoProbe sampling as presented in the 2020 work plan (HDR 2020). The GeoProbe operates using a truck- or track-mounted hydraulic push probe that collects undisturbed soil cores (October 2020 work was completed with a truck-mounted probe). Six borings were advanced to either a total depth of 30 feet or refusal, whichever occurred first (**Figure 4**, Appendix A). Boring locations were selected based on groundwater flow direction beneath the site in 2018 and 2019 (see groundwater isopleth maps in Appendix F).

Prior to advancing GeoProbe borings, Simplot contacted the Washington Utilities Coordinating council (Call Before You Dig, 1-800-424-5555) to locate the public utilities. In addition, Utilities Plus, a private utility coordinator, came out to the site prior to drilling to mark private utilities in the vicinity of the boring locations.

Groundwater samples were collected using a GroProbe in accordance with the 2020 work plan (HDR 2020) and associated Standard Operating Procedures (SOPs). Samples were collected by placing a temporary well point at the desired depth interval and by pumping with a peristaltic pump. Samples were collected with minimal purging, and water production was low (wells kept going dry and had to be recharged, due to fine sediment).

The original intent was to collect three samples from each boring (based on recommendations from Ecology), one at the groundwater interface, one 10 feet deeper, and one another 10 feet deeper; however, the GeoProbe rig was not successful in getting the deeper (third) sample due to the hole backfilling (the saturated silt at deeper intervals tended to swell) or due to the density of the silt preventing the GeoProbe from drilling deeper. At each boring, two groundwater samples were collected: one at the groundwater interface, and a second approximately 5 to 10 feet deeper (or at refusal). The exception to this was BH-03, where only one sample was collected (refusal was reached at the first sample depth).

Samples were identified with the boring number (GP-1 through GP-6), followed by "W" to indicate water as the sample matrix, followed by the sample depth. For example, a groundwater sample collected at borehole GP-2 at a depth of 5 feet would be labeled GP-2-W-5.

For the GeoProbe sampling, a field duplicate sample was collected along with a field blank. The duplicate was collected from borehole GP-5 at the 19-foot sampling depth (original sample: GP-7-W-19 and the duplicate was GP-7-W-19) using the same sampling technique as the original sample. The field blank was created by pouring laboratory supplied distilled water directly into the appropriate sample bottle. Results for the duplicate and blank are presented in the data validation report (Appendix D).

The GeoProbe probes, bits, and samplers were pressure washed between boreholes to prevent cross-contamination as outlined in the 2020 work plan (HDR 2020).

HDR followed standard chain-of-custody procedures from the time samples were collected until the samples were delivered to the laboratory. All samples were immediately labeled and placed in a clean ice chest and chilled until delivery to the laboratory.

After sampling, borings were plugged with bentonite clay and capped with soil cuttings to match the existing ground surface at each boring. Appendix C shows boring logs for the six borings. Photographs documenting site activities are presented in Appendix E.

2.2.1.1 LABORATORY RESULTS

Groundwater samples were sent to Pace Analytical Services, LLC in Minneapolis, Minnesota. Pace Analytical is certified in the State of Washington for air, drinking water, non-potable water, and solid and chemical materials (accreditation # C486-18a). Laboratory analyses for groundwater samples are summarized in **Table 3** (Appendix B). Laboratory reports are presented in Appendix D.

Results of the off-site groundwater sampling are summarized in **Table 4** (Appendix B). Values that exceed state groundwater quality criteria (Table 1 in WAC 173-200-040) are highlighted.

In general, the deeper groundwater sample had a higher nitrate concentration (except for boring GP-6). **Figure 5** (Appendix A) presents a post plot of nitrate-N concentration as a function of location.

2.2.2 Monitoring Well Sampling

In addition to off-site GeoProbe groundwater sampling, HDR sampled the on- and off-site monitoring wells associated with the SGS site. Sampling followed *Standard Operating Procedure for Groundwater Sampling* that was included in Appendix A of the 2016 work plan (HDR 2016).

Each monitoring well was purged and sampled using a peristaltic pump with disposable tubing (new tubing was used for each well). Purged water was monitored for temperature, pH, dissolved oxygen, and electrical conductivity. Purging continued until there was less than a 10 percent variance in parameter measurements after three consecutive readings or a minimum of three static well casing volumes had been removed. Field sampling sheets are presented in Appendix G.

A field duplicate sample was collected along with a field blank. The duplicate was collected from monitoring well MW-4 (duplicate labeled as MW-2) using the same sampling technique as the original sample. The field blank was created by pouring laboratory supplied distilled water directly into the appropriate sample bottle. Results for the duplicate and blank are presented in the data validation report (Appendix D).

Groundwater samples were sent to Pace Analytical in Minneapolis, Minnesota following standard chain-of-custody procedures.

HDR collected depth to water measurements at each monitoring well before collecting samples. Groundwater elevations from the last four sampling events are presented in **Table 5** (Appendix B). Groundwater isopleth maps for 2020 are presented in Appendix F**.**

Groundwater flow direction was generally to the west-southwest (see Appendix F). Flow direction and hydraulic gradient for all sampling events are shown in **Table 6** (Appendix B) and are generally consistent with groundwater flow conditions under the Moxee City Shop property in 2013 (GeoEngineers 2013). **Table 7** (Appendix B) presents groundwater sampling results from the last five sampling events.

2.2.3 Well Survey

The survey for monitoring well MW-6 will be conducted by a Washington-licensed surveyor in order to be tied into the existing monitoring well network. This survey is being scheduled for January 2021.

2.3 Summary and Conclusions

As illustrated in **Figure 5**, elevated concentrations of nitrate-N were found in the off-site GeoProbe groundwater samples (sulfate and TDS were also elevated). Furthermore, nitrate concentrations increased in the deeper sample for GP-1, GP-2, GP-4, and GP-5 compared to the shallower sample in the same boring. This increase in concentration could be due to a vertical hydraulic gradient in groundwater. However, TDS and sulfate do not show the same trend of increase concentration with depth. Another explanation may be that nitrate at the groundwater/vadose zone interface undergoes denitrification in the area of the Moxee City Shop

underground storage tank (UST), where historic petroleum releases have occurred. Microorganisms that biodegrade hydrocarbons will use nitrate as an electron acceptor when oxygen becomes depleted. This nitrate is converted to nitrogen gas. Regardless, nitrate is elevated in off-site groundwater and further characterization of upgradient and downgradient conditions is warranted.

The following recommendations are made:

- Simplot should develop a work plan for additional investigation with focus on:
    - Additional borings and groundwater samples to the north and east (upgradient locations), as upgradient groundwater quality has not been established.
    - Receptor evaluation - In September 2019, HDR conducted a well construction search to determine domestic wells within a ½ mile radius of the SGS facility. Several wells downgradient of the SGS site and on the west side of Highway 24 were identified. One goal of the current GeoProbe sampling (presented herein) was to assess if nitrates were potentially migrating west across Highway 24 at concentrations of concern. Given the data presented herein, it is recommended that Simplot update the 2019 well search and identify any downgradient wells that should be further investigated.

3 References

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A

Figures

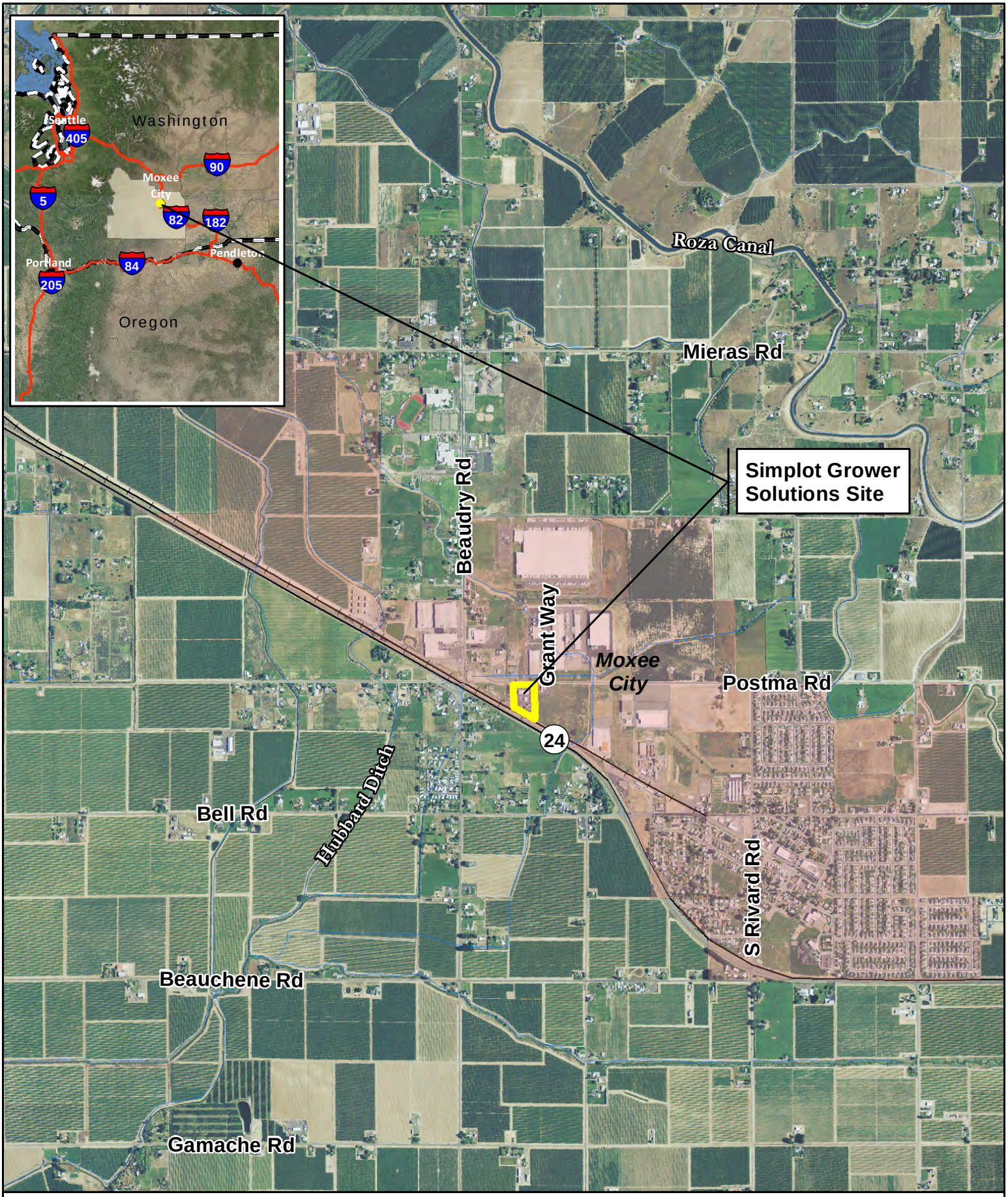

Figure 1: Project Vicinity
Simplot Grower Solutions, Moxee, WA

Imagery: 2013 NAIP, I meter resolution
Source: USDA/NRCS Digitatl Gateway

Map Date: 10/14/2014
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Feet

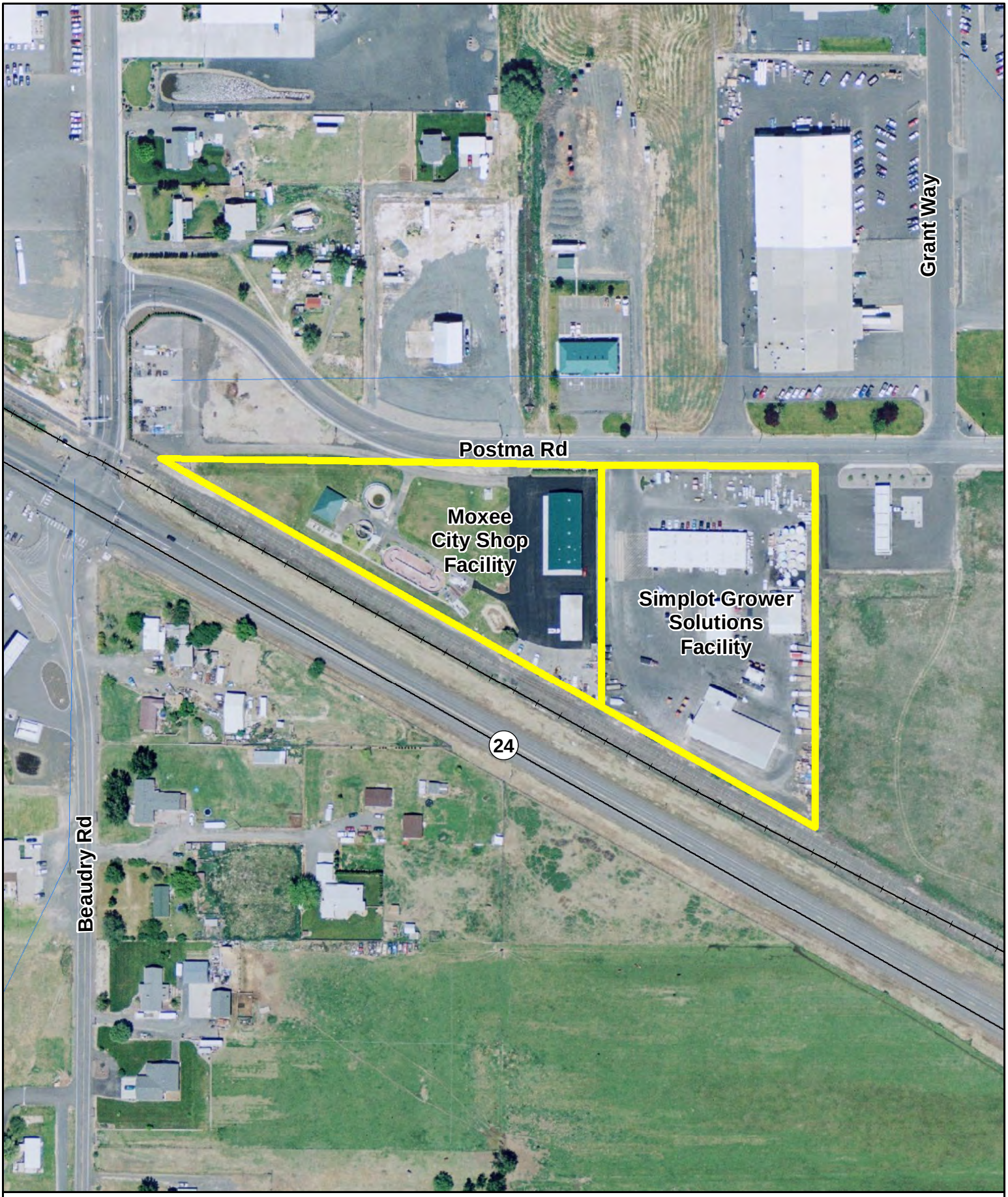

Figure 2: Site Map

Simplot Grower Solutions, Moxee, WA

Imagery: ESRI World Imagery, June 2011 Imagery
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Map Date: 10/14/2014
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0 200 400
Feet

Figure 3. Existing Monitoring Well Network
Simplot Grower Solutions, Moxee, WA

Imagery: ESRI World Imagery, July 2019 Imagery Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Map Date: 12/22/2020
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Feet

Figure 4. GeoProbe Boring Locations (October 2020)
Simplot Grower Solutions, Moxee, WA

Imagery: ESRI World Imagery, July 2019 Imagery
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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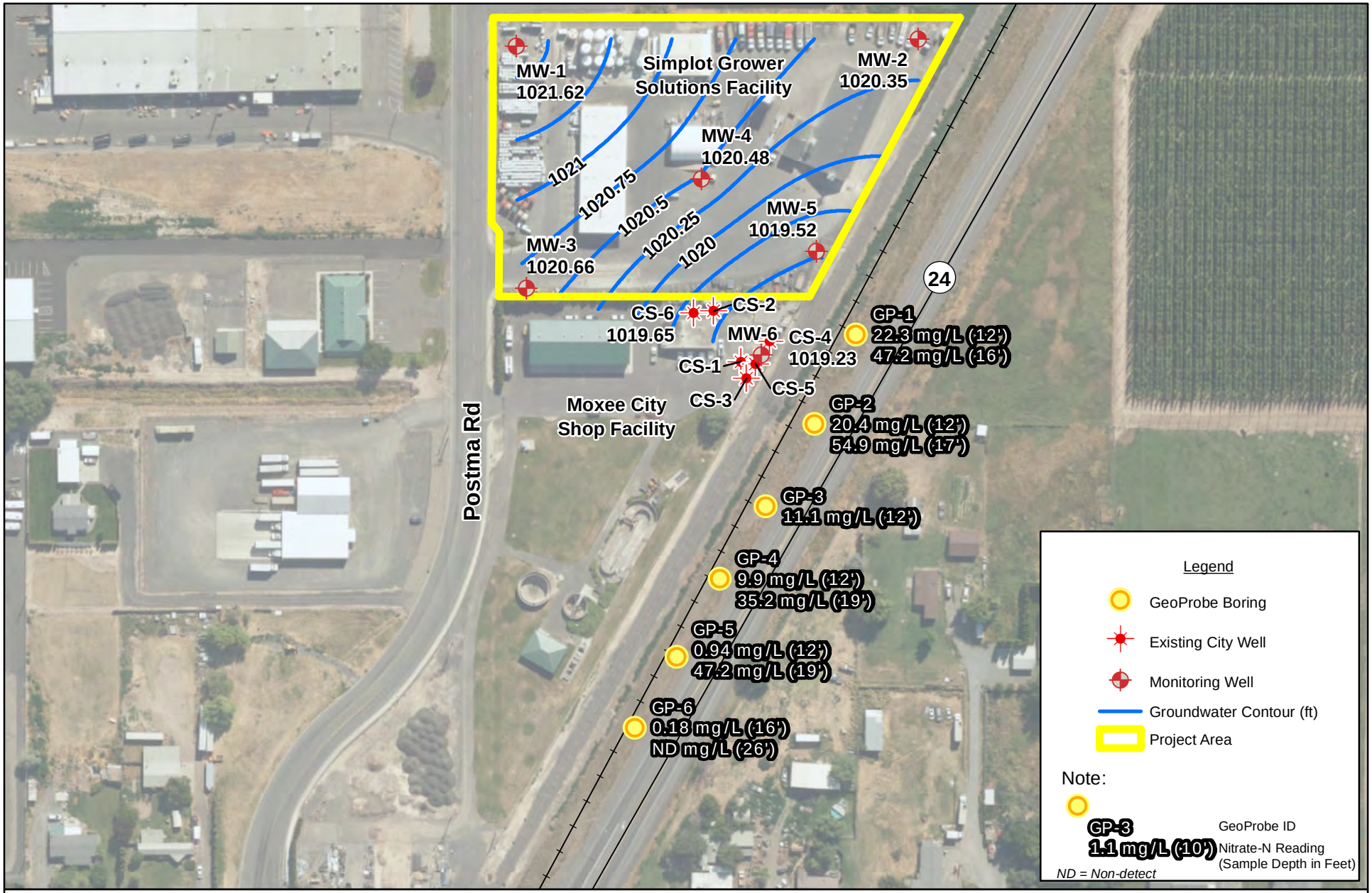

Figure 5. October 2020 Groundwater Isopleth Map
Simplot Grower Solutions, Moxee, WA

Imagery: ESRI World Imagery, July 2019 Imagery
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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0 100 200
Feet

B

Tables

Table 1. Simplot Moxee Site Investigation Chronology

2012/2013	Ecology conducted soil and groundwater assessment of Moxee City Shop associated with petroleum underground storage tanks (USTs). Included GeoProbe sampling of soil and groundwater and installation of six monitoring wells. Ecology found elevated nitrate and sulfate in upgradient wells (adjacent to Simplot facility).
Jul. 2014	Early Notice Letter from Ecology to Simplot regarding elevated nitrates and sulfates.
Jul. 2014	Simplot collected water samples from scale drain.
Dec. 2014	Simplot and Ecology enter Voluntary Cleanup Program
Aug. 2015	Simplot conducted GeoProbe investigation, 8 borings, soil and groundwater samples.
Oct. 2016	Simplot constructed five on-site groundwater monitoring wells (MW-1 through MW-5).
Oct. 2016	Groundwater samples collected from 5 on-site monitoring wells (MW-1 through MW-5) and two from City wells (CS-4 and CS-6).
Mar. 2017	Groundwater samples collected from 5 on-site monitoring wells (MW-1 through MW-5) and two from City wells (CS-4 and CS-6).
June 2017	Groundwater samples collected from 5 on-site monitoring wells (MW-1 through MW-5) and two from City wells (CS-4 and CS-6).
Jan. 2018	Groundwater samples collected from 5 on-site monitoring wells (MW-1 through MW-5) and two from City wells (CS-4 and CS-6).
Mar. 2018	Groundwater samples collected from 5 on-site monitoring wells (MW-1 through MW-5) and two from City wells (CS-4 and CS-6).
Jun. 2018	Groundwater samples collected from 5 on-site monitoring wells (MW-1 through MW-5) and two from City wells (CS-4 and CS-6).
2018	Simplot conducted additional GeoProbe investigation; 24 shallow borings, soil samples.
Sep. 2018	Groundwater samples collected from 5 on-site monitoring wells (MW-1 through MW-5) and 2 from City wells (CS-4 and CS-6).
Nov. 2018	Groundwater samples collected from 5 on-site monitoring wells (MW-1 through MW-5) and 2 from City wells (CS-4 and CS-6).
July 2019	Simplot installed off-site monitoring wells MW-6 at the Moxee City Shop.
Mar. 2019	Groundwater samples collected from 5 on-site monitoring wells (MW-1 through MW-5), and 3 off-site wells (MW-6, CS-4 and CS-6).
Sep. 2019	Groundwater samples collected from 5 on-site monitoring wells (MW-1 through MW-5), and 3 off-site wells (MW-6, CS-4 and CS-6).
Mar. 2020	Groundwater samples collected from 5 on-site monitoring wells (MW-1 through MW-5), and 3 off-site wells (MW-6, CS-4 and CS-6).
Oct. 2020	Groundwater samples collected from 5 on-site monitoring wells (MW-1 through MW-5), and 3 off-site wells (MW-6, CS-4 and CS-6).
Oct 2020	Simplot conducted off-site GeoProbe Sampling (this report).

Table 2. Groundwater Monitoring Well Construction Details

Well ID	Well Construction Date	Elevation of Top of PVC	Ground Surface or Concrete Pad Elevation	Drilled Depth	Well Casing Depth	Well Diameter	Screen Interval	Filter Pack Interval	SWL When Drilled
MW-1	10/18/2016	1031.15	1028.08	15.5	15	2	5 to 15	4 to 15.5	7.94
MW-2	10/17/2016	1030.86	1028.05	15.5	15	2	5 to 15	4 to 15.5	8.77
MW-3	10/18/2016	1028.97	1026.06	15.5	15	2	5 to 15	4 to 15.5	7.55
MW-4	10/18/2016	1026.55	1026.20	15.5	15	2	5 to 15	3 to 15.5	4.19
MW-5	10/17/2016	1030.48	1027.42	15.5	15	2	5 to 15	4 to 15.5	9.22
MW-6	7/12/2019	NA	NA	25	25	2	15 to 25	12 to 25	12
CS-4	10/31/2012	1025.67	1026.01	12	12	2	4 to 12	3 to 12	7
CS-6	12/12/2013	1025.50	1026.04	12.5	12.5	2	3 to 12.5	2.5 to 12.5	5

SWL = static water level

Table 3. Laboratory Analyses

Analytical Parameter	Method	Preservative
Nitrate-N	EPA 353.2	Sulfuric Acid
Ammonia-N	EPA 350.1	Sulfuric Acid
TDS	SM 2540C	None
Sulfate	EPA 300.0	None

EPA = U.S. Environmental Protection Agency

Table 4. Summary of October 2020 GeoProbe Groundwater Sampling Results

Boring ID[1]	Sample ID	Depth (ft)	Nitrate-Nitrite, as N (mg/L)	Ammonia-N (mg/L)	TDS (mg/L)[1]	Sulfate (mg/L)
GP-1	GP-01-W-12	12	**22.3**	0.33	**5300**	**1530**
	GP-01-W-16	16	**47.2**	2.6	**2280**	**502**
GP-2	GP-02-W-12	12	**20.4**	0.17	**4570**	**1430**
	GP-02-W-17	17	**54.9**	2.1	**2310**	**635**
GP-3	GP-03-W-12	12	**11.1**	0.50	**1980**	**466**
GP-4	GP-04-W-12	12	9.9	0.28	**2190**	**518**
	GP-04-W-19	19	**35.2**	0.31	**1710**	**320**
GP-5	GP-05-W-12	12	0.94	0.38	**2600**	148
	GP-05-W-19	19	**47.2**	0.45	**1340**	**263**
GP-6	GP-06-W-16	16	0.18	0.48	**1430**	236
	GP-06-W-26	26	ND	0.22	**1530**	220

[1] Shaded cells indicated constituent exceeds Washington groundwater quality criteria (WAC 173-200-040).
ft = feet; mg/L = milligrams per liter; TDS = total dissolved solids

Table 5. Groundwater Elevation Measurements

Well	Measured Depth to Water from top of casing (feet)	Reference Elevation[1] (feet)	Groundwater Elevation (feet)
March 2019			
MW-1	7.51	1031.15	1023.64
MW-2	7.11	1030.86	1023.75
MW-3	7.02	1028.97	1021.95
MW-4	3.36	1026.55	1023.19
MW-5	7.99	1030.48	1022.49
CS-4	3.52	1025.67	1022.15
CS-6	3.64	1025.50	1021.86
September 2019			
MW-1	9.58	1031.15	1021.57
MW-2	10.78	1030.86	1020.08
MW-3	8.10	1028.97	1020.87
MW-4	6.14	1026.55	1020.41
MW-5	11.10	1030.48	1019.38
MW-6[3]	N/A	--	N/A
CS-4	6.31	1025.67	1019.36
CS-6	5.99	1025.50	1019.51
March 2020			
MW-1	8.97	1031.15	1022.18
MW-2	9.33	1030.86	1021.53
MW-3	8.5	1028.97	1020.47
MW-4[4]	NS	1026.55	NS
MW-5	10.26	1030.48	1020.22
MW-6[5]	5.72	--	--
CS-4[2]	5.86	1025.67	1019.81
CS-6[2]	5.47	1025.50	1020.03
October 2020			
MW-1	9.53	1031.15	1021.62
MW-2	10.51	1030.86	1020.35
MW-3	8.31	1028.97	1020.66
MW-4[4]	6.07	1026.55	1020.48
MW-5	10.96	1030.48	1019.52
MW-6[5]	6.12	--	
CS-4[2]	6.44	1025.67	1019.23
CS-6[2]	5.85	1025.5	1019.65

[1] Top of PVC casing elevation surveyed by Permit Surveying, Inc.
[2] CS = Wells located on adjacent Moxee City Shop property and installed for other monitoring related to the City Shop.
[3] MW-6 was not sampled in September 2019 as field crew for the event sampled the wrong well (appear to have sampled either CS-3 or CS-6; MW-6 may have been covered by vehicle or other equipment)
[4] MW-4 was not sampled in March 2020 as the well cap handle broke. Will be sampled once well cap is replaced and can seal the well (well monument fills with stormwater).
[5] MW-6 has not been surveyed yet.

Table 6. Flow Direction and Hydraulic Gradient

Sampling Event	Flow Direction (degrees from North)	Hydraulic Gradient (feet per foot)
March 2017	294.5	0.007
June 2017	262.7	0.008
September 2017	241.8	0.005
January 2018	255.9	0.005
March 2018	259.5	0.006
June 2018	240.1	0.006
September 2018	222.2	0.005
November 2018	247.9	0.005
March 2019	276.4	0.005
September 2019	225.6	0.005
March 2020	256.2	0.006

Table 7. Summary of Compounds Detected in Groundwater – Last Five Sampling Events

Detected Compounds	WA GWQC [2]	November 2018		March 2019		September 2019		March 2020		October 2020	
		Results (mg/L)	Lab Qualifier[1]	Results (mg/L)	Lab Qualifier	Results (mg/L)	Lab Qualifier	Results (mg/L)	Lab Qualifier	Results (mg/L)	Lab Qualifier
MW-1											
TDS	500	1331	--	2850	--	1360	--	1570	--	1050	--
Ammonia-Nitrogen	NA	ND	--	ND	--	ND	--	ND	--	ND	--
Nitrate-Nitrite	10	21.8	--	145	--	24.6	--	45	M6	15.7	--
Sulfate	250	353	--	742	M6	395	--	358	--	219	--
MW-2											
TDS	500	1620	--	2470	--	2470	--	1710	--	1220	--
Ammonia-Nitrogen	NA	ND	--	ND	--	ND	--	ND	--	ND	--
Nitrate-Nitrite	10	92.4	--	181	--	141	--	80.9	--	46.3	--
Sulfate	250	359	--	401	--	442	--	260	--	213	--
MW-3											
TDS	500	764	--	970	--	986	--	666	--	756	--
Ammonia-Nitrogen	NA	3.1	--	3.7	--	4.8	--	0.35	--	1.4	--
Nitrate-Nitrite	10	27	--	21.6	--	24.3	--	8.8	--	12.8	--
Sulfate	250	92.4	--	166	--	130	--	57.4	--	78.3	--
MW-4											
TDS	500	2110	--	1520	--	1640	--	NS	NS	1490	--
Ammonia-Nitrogen	NA	110	--	90	--	131	--	NS	NS	120	--
Nitrate-Nitrite	10	170	--	106	--	103	--	NS	NS	130	--
Sulfate	250	680	--	589	--	668	--	NS	NS	360	--
MW-5											
TDS	500	2560	--	3090	--	2890	--	2480	--	2990	--
Ammonia-Nitrogen	NA	ND	--	ND	--	ND	--	ND	--	ND	--
Nitrate-Nitrite	10	158	--	136	--	105	M6	97.5	--	119	--
Sulfate	250	524	--	550	--	634	--	408	--	683	--

Table 7. Summary of Compounds Detected in Groundwater – Last Five Sampling Events

Detected Compounds	WA GWQC [2]	November 2018		March 2019		September 2019		March 2020		October 2020	
		Results (mg/L)	Lab Qualifier[1]	Results (mg/L)	Lab Qualifier	Results (mg/L)	Lab Qualifier	Results (mg/L)	Lab Qualifier	Results (mg/L)	Lab Qualifier
MW-6											
TDS	500	NA	NA	NA	NA	NA	NA	1610	--	2040	--
Ammonia-Nitrogen	NA	NA	NA	NA	NA	NA	NA	ND	--	ND	--
Nitrate-Nitrite	10	NA	NA	NA	NA	NA	NA	91.1	--	95.5	--
Sulfate	250	NA	NA	NA	NA	NA	NA	290	--	434	--
CS-4											
TDS	500	607	--	614	--	217	--	560	--	448	--
Ammonia-Nitrogen	NA	ND	--	ND	--	ND	--	ND	--	ND	--
Nitrate-Nitrite	10	3.3	--	5.1	--	ND	--	4.9	--	1.5	--
Sulfate	250	39	--	30.6	--	28.2	--	30.3	M1	31	--
CS-6											
TDS	500	1130	--	1170	--	1560	--	1680	--	1890	--
Ammonia-Nitrogen	NA	ND	--	ND	--	ND	--	ND	--	ND	--
Nitrate-Nitrite	10	89.9	--	74.3	--	105	--	178	--	208	--
Sulfate	250	314	--	341	--	411	--	407	M1	381	--

[1]Data Qualifiers: M1 = matrix spike recovery exceeded QC Limits; M6 = matrix spike and matrix spike duplicate recovery not evaluated due to sample dilution.

[2] Washington Groundwater Quality Criteria – Table 1. WAC 173-200-040. Shaded cell indicated constituent exceeds WA criteria.

WA GWQC = Washington state groundwater quality criteria; NA = not applicable; ND = non detect; NS = not sampled; TDS = total dissolved solids; mg/L = milligrams per liter

C

Boring Logs

Boring Log

Project Name	Project No.	Drilling Company
Simplot-Moxee	10101457	Environmental West

Boring No	Location	Drilling Rig Type and Drilling Method
GP-1	Moxee, WA	GeoProbe

Sample No.	PID Reading (ppm)	Depth (feet)	Completion	Description (USCS)	Elevation (feet)	Remarks
			Backfilled with bentonite chips	0-4 ft: silt, no sand, brown, dry to moist from 0-3 ft, wet at 3.5-4 ft, soft to medium stiff, non-plastic (ML)		70% recovery
		5		4-5 ft: silt, trace fine sand, moist; wet at 5 ft, some fine sand at 5 ft; trace clay from 6-8 ft; back to trace fine sand from 7 to 8 feet; soft, non to low plastic (ML)		
				8-12 ft: soft, brown, silt with trace fine sand, trace clay, moist from 8-8.5 ft, satruated from 8.5-12 ft; 2-in lense of fine to medium sand at 10.5 ft. non to low plastic (ML)		
		10				
GP-01-W-12 @ 1155						no recovery from 12-16 feet due to the point from the first GW sample
		15				
GP-01-W-16 @ 1311				End of boring at 16 feet		Refusal at 16 feet, point won't go deeper
		20				
FB @ 1340						
		25				
		30				
		35				

Water Level			Logged By:	Drilled/Sampled By:
			Alyssa Veatch	Randy Wilder
While Drilling:	After Drilling:	Hours After:	Date Started: 10/8/2020	Date Completed: 10/8/2020

Boring Log

Project Name	Project No.	Drilling Company
Simplot-Moxee	10101457	Environmental West

Boring No	Location	Drilling Rig Type and Drilling Method
GP-02	Moxee, WA	GeoProbe

Sample No.	PID Reading (ppm)	Depth (feet)	Completion	Description (USCS)	Elevation (feet)	Remarks
			Backfilled with bentonite chips	0-4 ft: silt, brown, moist, trace fine sand, more fine sand near 4 ft; soft, non-plastic (ML)		
		5		4-8 ft: same, wet; saturated at 7 ft.		100% recovery
				8-10 ft: same (ML)		
GP-02-W-12 @ 1028		10		10-12 ft: clayey silt with trace fine sand, wet, high plasticity, medium stiff (CL/ML)		
		15				Can't get point deeper than 17 feet; hole keeps backfilling due to swelling fines
GP-02-W-17 @ 1058				End of boring at 17 feet		
		20				
		25				
		30				
		35				

Water Level			Logged By:	Drilled/Sampled By:
			Alyssa Veatch	Randy Wilder
While Drilling:	After Drilling:	Hours After:	Date Started: 10/8/2020	Date Completed: 10/8/2020

Boring Log

Project Name	Project No.	Drilling Company
Simplot-Moxee	10101457	Environmental West

Boring No	Location	Drilling Rig Type and Drilling Method
GP-3	Moxee, WA	GeoProbe

Sample No.	PID Reading (ppm)	Depth (feet)	Completion	Description (USCS)	Elevation (feet)	Remarks
GP-03-W-12 @ 0907		5 10 15 20 25 30 35	Backfilled with benonite chips	0-4 ft: top 6 in veg and silt; 0.5-3.5 ft: dry, brown, silt, trace fine sand, soft, non-plastic (ML); 3.5-4 ft: f. sandy silt, moist, brown, soft, non-plastic (ML). 4-8 ft: same, wet from 4-5 ft, moist at 5-7 ft, saturated at 7-8 ft (ML) 8-10 ft: wet, same, f. sandy silt (ML) 10-12 ft: silt with some clay (med stiff/med plastic) (CL/ML). 12-15 ft: fine silty sand (ML), trace fine gravel, saturated, brown, med-stiff, non-plastic; silty clay/clayey silt at 14.5-15 ft, low plastic, med-stiff (CL) End of boring at 16 feet		80% recovery 80% recovery 100% recovery 100% recovery Can't get macro core past 16 feet.

Water Level			Logged By:	Drilled/Sampled By:
			Alyssa Veatch	Randy Wilder
While Drilling:	After Drilling:	Hours After:	Date Started:	Date Completed:
			10/8/2020	10/8/2020

Boring Log

Page 1 of 1

Project Name	Project No.	Drilling Company
Simplot-Moxee	10101457	Environmental West

Boring No	Location	Drilling Rig Type and Drilling Method
GP-4	Moxee, WA	GeoProbe

Sample No.	PID Reading (ppm)	Depth (feet)	Completion	Description (USCS)	Elevation (feet)	Remarks
			Backfilled with bentonite chips	0-4 ft: brown, dry (moist at 3-4 ft), silt with trace fine sand, soft, non-plastic (ML)		
		5		4-8 ft: same, wet to 6 ft, then some f. sand, trace clay, saturated from 7-8 ft (ML)		
				8-12 ft: same, saturated (ML)		90% recovery
GP-04-W-12 @ 1343		10				
		15		no cuttings from 12-19.5 feet as the point from the first groundwater sample kept samples from entering macro core; just drove the point deeper.		
GP-04-W-19 @1414						refusal at 19.5 ft; too dense to drive point further
		20		End of boring at 19.5 feet		
		25				
		30				
		35				

Water Level			Logged By:	Drilled/Sampled By:
			Alyssa Veatch	Randy Wilder
While Drilling:	After Drilling:	Hours After:	Date Started: 12/7/2020	Date Completed: 12/7/2020

Boring Log

Page 1 of 1

Project Name	Project No.	Drilling Company
Simplot-Moxee	10101457	Environmental West

Boring No	Location	Drilling Rig Type and Drilling Method
GP-5	Moxee, WA	GeoProbe

Sample No.	PID Reading (ppm)	Depth (feet)	Completion	Description (USCS)	Elevation (feet)	Remarks
			Backfilled with bentonite chips	0-4 ft: dry, brown, silt with clay, trace fine sand, moist at 3-4 ft, soft to med-stiff, low to med plastic; trace coarse gravel in first 0.5 ft (ML/CL)		80% recovery
		5		4-8 ft: dry from 4-4.5 ft, then moist to 5 ft, and wet/saturated at 7 feet; silt with some fine sand, soft, non-plastic (ML)		80% recovery
		10		8-12 ft: same (ML), 6 inch lense of moist sandy gravel (fine to coarse for both) at 8-8.5 ft.		100% recovery
GP-05-W-12 @ 1243		15		no soil cuttings from 12-19.5 feet due to the screen point from the first groundwater sample.		
GP-05-W-19 @ 1304 Duplicate: GP-07-W-19 @ 0913		20		End of boring at 19.5 feet		Could not drive point deeper
		25				
		30				
		35				

Water Level			Logged By:	Drilled/Sampled By:
			Alyssa Veatch	Randy Wilder
While Drilling:	After Drilling:	Hours After:	Date Started:	Date Completed:
			10/7/2020	10/7/2020

Boring Log

Page 1 of 1

Project Name	Project No.	Drilling Company
Simplot-Moxee	10101457	Environmental West

Boring No	Location	Drilling Rig Type and Drilling Method
GP-6	Moxee, WA	GeoProbe

Sample No.	PID Reading (ppm)	Depth (feet)	Completion	Description (USCS)	Elevation (feet)	Remarks
			Backfilled with bentonite chips	0-4 ft: 0-2 ft, dry, brown, f. silt with some f. sand; 2-4 ft: brown, moist, silt with some fine sand, trace clay, medium stiff, non-plastic (ML)		80% recovery
		5		4-8 ft: wet, saturated at 6 ft, silt with trace fine sand, trace clay, soft to medium stiff, non to low plastic (ML)		tried to collect water sample at 8 feet, no water
		10				
GP-06-W-16 @ 1027		15		no cutting due to the point from the well screen installed during the attempt to collect a groundwater sample at 8 feet.		
		20				
GP-06-W-26 @ 1047		25		End of boring at 26 feet		
		30				
		35				

Water Level			Logged By:	Drilled/Sampled By:
			Alyssa Veatch	Randy Wilder
While Drilling:	After Drilling:	Hours After:	Date Started: 10/7/2020	Date Completed: 10/7/2020

D

Laboratory Reports and Data Validation Report

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

October 26, 2020

Alyssa Veatch
HDR Engineering
412 E Parkcenter Blvd
Suite 100
Boise, ID 83706

RE: Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Dear Alyssa Veatch:

Enclosed are the analytical results for sample(s) received by the laboratory on October 10, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jennifer Gross
jennifer.gross@pacelabs.com
(612)607-1700
Project Manager

Enclosures

cc: Mike Murray, HDR Engineering, Inc.

Pace Analytical Services, LLC
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Minneapolis, MN 55414
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CERTIFICATIONS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Pace Analytical Services - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab
A2LA Certification #: 2926.01*
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009*
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014*
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605*
Georgia Certification #: 959
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086*
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064*
Maryland Certification #: 322
Massachusetts DWP Certification #: via MN 027-053-137
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137*
Minnesota Dept of Ag Certifcation #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240*
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081*
New Jersey Certification #: MN002
New York Certification #: 11647*
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507*
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001*
Pennsylvania Certification #: 68-00563*
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192*
Utah Certification #: MN00064*
Vermont Certification #: VT-027053137
Virginia Certification #: 460163*
Washington Certification #: C486*
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208
*Please Note: Applicable air certifications are denoted with an asterisk (*).

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10535133001	**MW-1**	Water	10/06/20 12:27	10/10/20 09:00
10535133002	**MW-2**	Water	10/06/20 10:13	10/10/20 09:00
10535133003	**MW-3**	Water	10/06/20 15:57	10/10/20 09:00
10535133004	**MW-4**	Water	10/06/20 11:20	10/10/20 09:00
10535133005	**MW-5**	Water	10/06/20 09:28	10/10/20 09:00
10535133006	**MW-6**	Water	10/06/20 13:38	10/10/20 09:00
10535133007	**CS-4**	Water	10/06/20 14:10	10/10/20 09:00
10535133008	**CS-6**	Water	10/06/20 14:51	10/10/20 09:00
10535133009	**MW-20**	Water	10/06/20 08:51	10/10/20 09:00
10535133010	**Field Blank**	Water	10/06/20 13:29	10/10/20 09:00
10535133011	**GP-06-W-16**	Water	10/07/20 10:27	10/10/20 09:00
10535133012	**GP-06-W-26**	Water	10/07/20 10:47	10/10/20 09:00
10535133013	**GP-05-W-12**	Water	10/07/20 12:43	10/10/20 09:00
10535133014	**GP-05-W-19**	Water	10/07/20 13:04	10/10/20 09:00
10535133015	**GP-07-W-19**	Water	10/07/20 09:13	10/10/20 09:00
10535133016	**GP-04-W-12**	Water	10/07/20 13:43	10/10/20 09:00
10535133017	**GP-04-W-19**	Water	10/07/20 14:14	10/10/20 09:00
10535133018	**GP-03-W-12**	Water	10/08/20 09:07	10/10/20 09:00
10535133019	**GP-02-W-12**	Water	10/08/20 10:28	10/10/20 09:00
10535133020	**GP-02-W-17**	Water	10/08/20 10:58	10/10/20 09:00
10535133021	**GP-01-W-12**	Water	10/08/20 11:55	10/10/20 09:00
10535133022	**GP-01-W-16**	Water	10/08/20 13:11	10/10/20 09:00
10535133023	**FB-2**	Water	10/08/20 13:40	10/10/20 09:00

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10535133001	**MW-1**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133002	**MW-2**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133003	**MW-3**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133004	**MW-4**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133005	**MW-5**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133006	**MW-6**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133007	**CS-4**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133008	**CS-6**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133009	**MW-20**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133010	**Field Blank**	SM 2540C	EPT	1	PASI-M

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133011	**GP-06-W-16**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133012	**GP-06-W-26**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133013	**GP-05-W-12**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133014	**GP-05-W-19**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133015	**GP-07-W-19**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133016	**GP-04-W-12**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133017	**GP-04-W-19**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133018	**GP-03-W-12**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133019	**GP-02-W-12**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133020	**GP-02-W-17**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133021	**GP-01-W-12**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133022	**GP-01-W-16**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M
10535133023	**FB-2**	SM 2540C	EPT	1	PASI-M
		EPA 300.0	KEO	1	PASI-M
		EPA 350.1	JFP	1	PASI-M
		EPA 353.2	JFP	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

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PROJECT NARRATIVE

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: HDR Engineering, Inc.
Date: October 26, 2020

General Information:
23 samples were analyzed for SM 2540C by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: 704014

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.
- DUP (Lab ID: 3761077)
  - Total Dissolved Solids

QC Batch: 704613

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.
- DUP (Lab ID: 3764329)
  - Total Dissolved Solids

Additional Comments:

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PROJECT NARRATIVE

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Method: **EPA 300.0**
Description: 300.0 IC Anions
Client: HDR Engineering, Inc.
Date: October 26, 2020

General Information:
23 samples were analyzed for EPA 300.0 by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Method: **EPA 350.1**
Description: 350.1 Ammonia
Client: HDR Engineering, Inc.
Date: October 26, 2020

General Information:
23 samples were analyzed for EPA 350.1 by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Method: **EPA 353.2**
Description: 353.2 Nitrate + Nitrite
Client: HDR Engineering, Inc.
Date: October 26, 2020

General Information:
23 samples were analyzed for EPA 353.2 by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 704715

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10535133021,10535429001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 3764803)
  - Nitrogen, NO2 plus NO3
- MSD (Lab ID: 3764804)
  - Nitrogen, NO2 plus NO3

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: MW-1 **Lab ID: 10535133001** Collected: 10/06/20 12:27 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**1050**	mg/L	50.0	1		10/13/20 10:15		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**219**	mg/L	12.0	10		10/17/20 09:03	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	ND	mg/L	0.10	1		10/21/20 10:22	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**15.7**	mg/L	2.0	20		10/15/20 14:01		

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: MW-2 **Lab ID: 10535133002** Collected: 10/06/20 10:13 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**1220**	mg/L	10.0	1		10/13/20 10:15		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**213**	mg/L	6.0	5		10/17/20 22:55	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	ND	mg/L	0.10	1		10/21/20 10:26	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**46.3**	mg/L	5.0	50		10/15/20 14:05		

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: MW-3 **Lab ID: 10535133003** Collected: 10/06/20 15:57 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**756**	mg/L	20.0	1		10/13/20 10:15		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**78.3**	mg/L	1.2	1		10/16/20 13:00	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	**1.4**	mg/L	0.10	1		10/21/20 10:34	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**12.8**	mg/L	2.0	20		10/15/20 14:08		

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: MW-4 **Lab ID: 10535133004** Collected: 10/06/20 11:20 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**1490**	mg/L	100	1		10/13/20 10:15		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**360**	mg/L	12.0	10		10/17/20 10:24	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	**120**	mg/L	4.0	40		10/21/20 10:57	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**130**	mg/L	10.0	100		10/15/20 15:10		

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: MW-5 **Lab ID: 10535133005** Collected: 10/06/20 09:28 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**2990**	mg/L	100	1		10/13/20 10:15		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**683**	mg/L	12.0	10		10/17/20 22:38	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	ND	mg/L	0.10	1		10/21/20 10:37	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**119**	mg/L	10.0	100		10/15/20 14:13		

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: MW-6 **Lab ID: 10535133006** Collected: 10/06/20 13:38 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**2040**	mg/L	100	1		10/13/20 10:15		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**434**	mg/L	12.0	10		10/17/20 10:06	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	ND	mg/L	0.10	1		10/21/20 10:39	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**95.5**	mg/L	5.0	50		10/15/20 14:14		

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: CS-4 **Lab ID: 10535133007** Collected: 10/06/20 14:10 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**448**	mg/L	10.0	1		10/13/20 10:15		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**31.5**	mg/L	1.2	1		10/16/20 16:20	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	ND	mg/L	0.10	1		10/21/20 10:40	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**1.5**	mg/L	0.50	5		10/15/20 14:15		

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: CS-6 **Lab ID: 10535133008** Collected: 10/06/20 14:51 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**1890**	mg/L	100	1		10/13/20 10:15		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**381**	mg/L	12.0	10		10/18/20 01:00	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	ND	mg/L	0.10	1		10/21/20 10:42	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**208**	mg/L	20.0	200		10/15/20 15:11		

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: MW-20 **Lab ID: 10535133009** Collected: 10/06/20 08:51 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**1660**	mg/L	100	1		10/13/20 10:15		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**359**	mg/L	12.0	10		10/18/20 01:17	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	**91.4**	mg/L	10.0	100		10/21/20 10:59	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**135**	mg/L	20.0	200		10/15/20 15:12		

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: Field Blank **Lab ID: 10535133010** Collected: 10/06/20 13:29 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**11.0**	mg/L	10.0	1		10/13/20 10:15		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	ND	mg/L	1.2	1		10/16/20 17:36	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	ND	mg/L	0.10	1		10/21/20 10:47	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**0.21**	mg/L	0.10	1		10/15/20 15:13		

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: GP-06-W-16 **Lab ID: 10535133011** Collected: 10/07/20 10:27 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**1430**	mg/L	100	1		10/13/20 12:55		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**236**	mg/L	6.0	5		10/18/20 06:32	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	**0.48**	mg/L	0.10	1		10/21/20 10:49	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**0.18**	mg/L	0.10	1		10/15/20 14:19		FS

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: GP-06-W-26 **Lab ID: 10535133012** Collected: 10/07/20 10:47 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**1530**	mg/L	100	1		10/13/20 12:55		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**220**	mg/L	6.0	5		10/17/20 22:20	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	**0.22**	mg/L	0.10	1		10/21/20 10:50	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	ND	mg/L	1.0	10		10/15/20 15:14		FS

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: GP-05-W-12 **Lab ID: 10535133013** Collected: 10/07/20 12:43 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**2600**	mg/L	100	1		10/13/20 12:55		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**148**	mg/L	12.0	10		10/18/20 01:35	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	**0.38**	mg/L	0.10	1		10/21/20 10:52	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**0.94**	mg/L	0.10	1		10/15/20 14:22		FS

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: GP-05-W-19 **Lab ID: 10535133014** Collected: 10/07/20 13:04 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**1340**	mg/L	100	1		10/13/20 12:55		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**263**	mg/L	12.0	10		10/18/20 01:52	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	**0.45**	mg/L	0.10	1		10/21/20 10:53	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**47.2**	mg/L	4.0	40		10/15/20 15:35		FS

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: GP-07-W-19 **Lab ID: 10535133015** Collected: 10/07/20 09:13 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**1460**	mg/L	100	1		10/13/20 12:55		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**273**	mg/L	6.0	5		10/18/20 02:10	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	**0.14**	mg/L	0.10	1		10/21/20 10:54	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**52.4**	mg/L	4.0	40		10/15/20 15:36		FS

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: GP-04-W-12 **Lab ID: 10535133016** Collected: 10/07/20 13:43 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**2190**	mg/L	100	1		10/13/20 12:55		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**518**	mg/L	12.0	10		10/18/20 04:13	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	**0.28**	mg/L	0.10	1		10/21/20 10:56	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**9.9**	mg/L	1.0	10		10/15/20 15:20		FS

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: GP-04-W-19 **Lab ID: 10535133017** Collected: 10/07/20 14:14 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**1710**	mg/L	100	1		10/13/20 12:55		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**320**	mg/L	6.0	5		10/18/20 04:31	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	**0.31**	mg/L	0.10	1		10/21/20 14:36	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**35.2**	mg/L	2.0	20		10/15/20 15:21		FS

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: GP-03-W-12 **Lab ID: 10535133018** Collected: 10/08/20 09:07 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**1980**	mg/L	100	1		10/15/20 15:15		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**466**	mg/L	12.0	10		10/18/20 04:48	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	**0.50**	mg/L	0.10	1		10/21/20 14:37	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**11.1**	mg/L	1.0	10		10/15/20 15:22		FS

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: GP-02-W-12 **Lab ID: 10535133019** Collected: 10/08/20 10:28 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**4570**	mg/L	333	1		10/15/20 15:15		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**1430**	mg/L	60.0	50		10/18/20 05:05	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	**0.17**	mg/L	0.10	1		10/21/20 14:39	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**20.4**	mg/L	2.0	20		10/15/20 15:37		FS

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: GP-02-W-17 **Lab ID: 10535133020** Collected: 10/08/20 10:58 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**2310**	mg/L	100	1		10/15/20 15:15		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**635**	mg/L	12.0	10		10/18/20 05:23	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	**2.1**	mg/L	0.10	1		10/21/20 14:40	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**54.9**	mg/L	10.0	100		10/15/20 15:25		FS

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: GP-01-W-12 **Lab ID: 10535133021** Collected: 10/08/20 11:55 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**5300**	mg/L	100	1		10/15/20 15:15		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**1530**	mg/L	60.0	50		10/18/20 05:57	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	**0.33**	mg/L	0.10	1		10/21/20 14:42	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**22.3**	mg/L	5.0	50		10/15/20 15:26		FS

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: GP-01-W-16 **Lab ID: 10535133022** Collected: 10/08/20 13:11 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**2280**	mg/L	50.0	1		10/15/20 15:15		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	**502**	mg/L	12.0	10		10/18/20 06:15	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	**2.6**	mg/L	0.10	1		10/21/20 14:43	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**47.2**	mg/L	4.0	40		10/15/20 15:38		FS

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ANALYTICAL RESULTS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Sample: FB-2 **Lab ID: 10535133023** Collected: 10/08/20 13:40 Received: 10/10/20 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Minneapolis							
Total Dissolved Solids	**14.0**	mg/L	10.0	1		10/15/20 15:15		
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Minneapolis							
Sulfate	ND	mg/L	1.2	1		10/17/20 10:39	14808-79-8	
350.1 Ammonia	Analytical Method: EPA 350.1 Pace Analytical Services - Minneapolis							
Nitrogen, Ammonia	ND	mg/L	0.10	1		10/21/20 14:45	7664-41-7	
353.2 Nitrate + Nitrite	Analytical Method: EPA 353.2 Pace Analytical Services - Minneapolis							
Nitrogen, NO2 plus NO3	**0.17**	mg/L	0.10	1		10/15/20 14:41		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

QC Batch: 704014
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10535133001, 10535133002, 10535133003, 10535133004, 10535133005, 10535133006, 10535133007, 10535133008, 10535133009, 10535133010

METHOD BLANK: 3761075 Matrix: Water
Associated Lab Samples: 10535133001, 10535133002, 10535133003, 10535133004, 10535133005, 10535133006, 10535133007, 10535133008, 10535133009, 10535133010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10/13/20 10:15	

LABORATORY CONTROL SAMPLE: 3761076

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	1000	100	80-120	

SAMPLE DUPLICATE: 3761077

Parameter	Units	10535102007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	6550	7030	7	5	D6

SAMPLE DUPLICATE: 3761078

Parameter	Units	10535102008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	11900	12100	2	5	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

QC Batch: 704016 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10535133011, 10535133012, 10535133013, 10535133014, 10535133015, 10535133016, 10535133017

METHOD BLANK: 3761084 Matrix: Water
Associated Lab Samples: 10535133011, 10535133012, 10535133013, 10535133014, 10535133015, 10535133016, 10535133017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10/13/20 12:55	

LABORATORY CONTROL SAMPLE: 3761085

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	1050	105	80-120	

SAMPLE DUPLICATE: 3761086

Parameter	Units	10534852004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	227	234	3	5	

SAMPLE DUPLICATE: 3761790

Parameter	Units	10534833005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	485	476	2	5	

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QUALITY CONTROL DATA

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

QC Batch: 704613 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10535133018, 10535133019, 10535133020, 10535133021, 10535133022, 10535133023

METHOD BLANK: 3764327 Matrix: Water
Associated Lab Samples: 10535133018, 10535133019, 10535133020, 10535133021, 10535133022, 10535133023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10/15/20 15:15	

LABORATORY CONTROL SAMPLE: 3764328

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	1010	101	80-120	

SAMPLE DUPLICATE: 3764329

Parameter	Units	10535195003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	358	334	7	5	D6

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QUALITY CONTROL DATA

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

QC Batch: 703948
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10535133001, 10535133002, 10535133003, 10535133004, 10535133005, 10535133006, 10535133007, 10535133008, 10535133009, 10535133010, 10535133011, 10535133012, 10535133013, 10535133014, 10535133015, 10535133016, 10535133017, 10535133018, 10535133019, 10535133020

METHOD BLANK: 3760753
Matrix: Water
Associated Lab Samples: 10535133001, 10535133002, 10535133003, 10535133004, 10535133005, 10535133006, 10535133007, 10535133008, 10535133009, 10535133010, 10535133011, 10535133012, 10535133013, 10535133014, 10535133015, 10535133016, 10535133017, 10535133018, 10535133019, 10535133020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.2	10/16/20 17:51	

LABORATORY CONTROL SAMPLE: 3760754

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	50	51.8	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3760755 3760756

Parameter	Units	10535133001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	219	500	500	642	638	85	84	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3760757 3760758

Parameter	Units	10535133002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	213	500	500	632	627	84	83	80-120	1	20	

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QUALITY CONTROL DATA

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

QC Batch: 704886
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10535133021, 10535133022, 10535133023

METHOD BLANK: 3765726 Matrix: Water
Associated Lab Samples: 10535133021, 10535133022, 10535133023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.2	10/16/20 20:38	

LABORATORY CONTROL SAMPLE: 3765727

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	50	50.1	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3765728 3765729

Parameter	Units	10535642007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	<0.42	50	50	49.5	48.9	99	97	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3765730 3765731

Parameter	Units	10535688003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	<1.2	50	50	46.2	46.7	92	93	80-120	1	20	

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QUALITY CONTROL DATA

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

QC Batch: 705793
QC Batch Method: EPA 350.1
Analysis Method: EPA 350.1
Analysis Description: 350.1 Ammonia
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10535133001, 10535133002, 10535133003, 10535133004, 10535133005, 10535133006, 10535133007, 10535133008, 10535133009, 10535133010, 10535133011, 10535133012, 10535133013, 10535133014, 10535133015, 10535133016

METHOD BLANK: 3770647
Matrix: Water
Associated Lab Samples: 10535133001, 10535133002, 10535133003, 10535133004, 10535133005, 10535133006, 10535133007, 10535133008, 10535133009, 10535133010, 10535133011, 10535133012, 10535133013, 10535133014, 10535133015, 10535133016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	10/21/20 10:13	

LABORATORY CONTROL SAMPLE: 3770648

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	2.5	2.5	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3770649 3770650

Parameter	Units	10535133001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	ND	2.5	2.5	2.5	2.5	101	100	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3770651 3770652

Parameter	Units	10535133002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	ND	2.5	2.5	2.6	2.5	103	100	90-110	3	20	

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QUALITY CONTROL DATA

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

QC Batch: 705830
QC Batch Method: EPA 350.1
Analysis Method: EPA 350.1
Analysis Description: 350.1 Ammonia
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10535133017, 10535133018, 10535133019, 10535133020, 10535133021, 10535133022, 10535133023

METHOD BLANK: 3770788 Matrix: Water
Associated Lab Samples: 10535133017, 10535133018, 10535133019, 10535133020, 10535133021, 10535133022, 10535133023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	10/21/20 14:33	

LABORATORY CONTROL SAMPLE: 3770789

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	2.5	2.5	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3770790 3770791

Parameter	Units	10535116001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	0.065J	2.5	2.5	2.6	2.5	101	97	90-110	4	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3770792 3770793

Parameter	Units	10535987001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	ND	2.5	2.5	2.6	2.6	102	103	90-110	1	20	

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QUALITY CONTROL DATA

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

QC Batch: 704711 — Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 — Analysis Description: 353.2 Nitrate + Nitrite, preserved
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10535133001, 10535133002, 10535133003, 10535133004, 10535133005, 10535133006, 10535133007, 10535133008, 10535133009, 10535133010, 10535133011, 10535133012, 10535133013, 10535133014, 10535133015, 10535133016, 10535133017, 10535133018, 10535133019, 10535133020

METHOD BLANK: 3764791 — Matrix: Water
Associated Lab Samples: 10535133001, 10535133002, 10535133003, 10535133004, 10535133005, 10535133006, 10535133007, 10535133008, 10535133009, 10535133010, 10535133011, 10535133012, 10535133013, 10535133014, 10535133015, 10535133016, 10535133017, 10535133018, 10535133019, 10535133020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	0.10	10/15/20 14:33	FS

LABORATORY CONTROL SAMPLE: 3764792

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	1	0.94	94	90-110	FS

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3764793 3764794

Parameter	Units	10535133001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	15.7	20	20	35.6	37.0	100	107	90-110	4	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3764795 3764796

Parameter	Units	10535133002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	46.3	50	50	99.0	99.5	105	106	90-110	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

QC Batch: 704715
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, preserved
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10535133021, 10535133022, 10535133023

METHOD BLANK: 3764799 Matrix: Water
Associated Lab Samples: 10535133021, 10535133022, 10535133023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	0.10	10/15/20 15:08	FS

LABORATORY CONTROL SAMPLE: 3764800

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	1	0.96	96	90-110	FS

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3764801 3764802

Parameter	Units	10535133021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	22.3	50	50	75.0	75.5	105	106	90-110	1	20	FS

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3764803 3764804

Parameter	Units	10535429001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	0.11	1	1	0.78	0.74	67	62	90-110	6	20	M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
FS	The sample was filtered in the laboratory prior to analysis.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10535133001	MW-1	SM 2540C	704014		
10535133002	MW-2	SM 2540C	704014		
10535133003	MW-3	SM 2540C	704014		
10535133004	MW-4	SM 2540C	704014		
10535133005	MW-5	SM 2540C	704014		
10535133006	MW-6	SM 2540C	704014		
10535133007	CS-4	SM 2540C	704014		
10535133008	CS-6	SM 2540C	704014		
10535133009	MW-20	SM 2540C	704014		
10535133010	Field Blank	SM 2540C	704014		
10535133011	GP-06-W-16	SM 2540C	704016		
10535133012	GP-06-W-26	SM 2540C	704016		
10535133013	GP-05-W-12	SM 2540C	704016		
10535133014	GP-05-W-19	SM 2540C	704016		
10535133015	GP-07-W-19	SM 2540C	704016		
10535133016	GP-04-W-12	SM 2540C	704016		
10535133017	GP-04-W-19	SM 2540C	704016		
10535133018	GP-03-W-12	SM 2540C	704613		
10535133019	GP-02-W-12	SM 2540C	704613		
10535133020	GP-02-W-17	SM 2540C	704613		
10535133021	GP-01-W-12	SM 2540C	704613		
10535133022	GP-01-W-16	SM 2540C	704613		
10535133023	FB-2	SM 2540C	704613		
10535133001	MW-1	EPA 300.0	703948		
10535133002	MW-2	EPA 300.0	703948		
10535133003	MW-3	EPA 300.0	703948		
10535133004	MW-4	EPA 300.0	703948		
10535133005	MW-5	EPA 300.0	703948		
10535133006	MW-6	EPA 300.0	703948		
10535133007	CS-4	EPA 300.0	703948		
10535133008	CS-6	EPA 300.0	703948		
10535133009	MW-20	EPA 300.0	703948		
10535133010	Field Blank	EPA 300.0	703948		
10535133011	GP-06-W-16	EPA 300.0	703948		
10535133012	GP-06-W-26	EPA 300.0	703948		
10535133013	GP-05-W-12	EPA 300.0	703948		
10535133014	GP-05-W-19	EPA 300.0	703948		
10535133015	GP-07-W-19	EPA 300.0	703948		
10535133016	GP-04-W-12	EPA 300.0	703948		
10535133017	GP-04-W-19	EPA 300.0	703948		
10535133018	GP-03-W-12	EPA 300.0	703948		
10535133019	GP-02-W-12	EPA 300.0	703948		
10535133020	GP-02-W-17	EPA 300.0	703948		
10535133021	GP-01-W-12	EPA 300.0	704886		
10535133022	GP-01-W-16	EPA 300.0	704886		
10535133023	FB-2	EPA 300.0	704886		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 10101457 Simplot Moxee
Pace Project No.: 10535133

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10535133001	MW-1	EPA 350.1	705793		
10535133002	MW-2	EPA 350.1	705793		
10535133003	MW-3	EPA 350.1	705793		
10535133004	MW-4	EPA 350.1	705793		
10535133005	MW-5	EPA 350.1	705793		
10535133006	MW-6	EPA 350.1	705793		
10535133007	CS-4	EPA 350.1	705793		
10535133008	CS-6	EPA 350.1	705793		
10535133009	MW-20	EPA 350.1	705793		
10535133010	Field Blank	EPA 350.1	705793		
10535133011	GP-06-W-16	EPA 350.1	705793		
10535133012	GP-06-W-26	EPA 350.1	705793		
10535133013	GP-05-W-12	EPA 350.1	705793		
10535133014	GP-05-W-19	EPA 350.1	705793		
10535133015	GP-07-W-19	EPA 350.1	705793		
10535133016	GP-04-W-12	EPA 350.1	705793		
10535133017	GP-04-W-19	EPA 350.1	705830		
10535133018	GP-03-W-12	EPA 350.1	705830		
10535133019	GP-02-W-12	EPA 350.1	705830		
10535133020	GP-02-W-17	EPA 350.1	705830		
10535133021	GP-01-W-12	EPA 350.1	705830		
10535133022	GP-01-W-16	EPA 350.1	705830		
10535133023	FB-2	EPA 350.1	705830		
10535133001	MW-1	EPA 353.2	704711		
10535133002	MW-2	EPA 353.2	704711		
10535133003	MW-3	EPA 353.2	704711		
10535133004	MW-4	EPA 353.2	704711		
10535133005	MW-5	EPA 353.2	704711		
10535133006	MW-6	EPA 353.2	704711		
10535133007	CS-4	EPA 353.2	704711		
10535133008	CS-6	EPA 353.2	704711		
10535133009	MW-20	EPA 353.2	704711		
10535133010	Field Blank	EPA 353.2	704711		
10535133011	GP-06-W-16	EPA 353.2	704711		
10535133012	GP-06-W-26	EPA 353.2	704711		
10535133013	GP-05-W-12	EPA 353.2	704711		
10535133014	GP-05-W-19	EPA 353.2	704711		
10535133015	GP-07-W-19	EPA 353.2	704711		
10535133016	GP-04-W-12	EPA 353.2	704711		
10535133017	GP-04-W-19	EPA 353.2	704711		
10535133018	GP-03-W-12	EPA 353.2	704711		
10535133019	GP-02-W-12	EPA 353.2	704711		
10535133020	GP-02-W-17	EPA 353.2	704711		
10535133021	GP-01-W-12	EPA 353.2	704715		
10535133022	GP-01-W-16	EPA 353.2	704715		
10535133023	FB-2	EPA 353.2	704715		

REPORT OF LABORATORY ANALYSIS

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY

The Chain-of-Custody is a LEGAL D

WO# : 10535133

10535133

Page: 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	HDR Engineering	Report To:	Alyssa Veatch	Attention:	Accounts Payable
Address:	412 E. Parkcenter Blvd	Copy To:		Company Name:	HDR Engineering
	Suite 100, Boise, ID 83706			Address:	412 E Parkcenter Blvd, Suite 100 Boise, ID 83706
Email:	alyssa.veatch@hdrinc.com	Purchase Order #:		Pace Quote:	00046313; Chris Norman
Phone:	208-387-7113 Fax	Project Name:	Simplot Moxee	Pace Project Manager:	jennifer.gross@pacelabs.com,
Requested Due Date:	10 Day Standard Turn	Project #:	10101457	Pace Profile #:	38721

Regulatory Agency

State / Location: WA / Moxee

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Nitrate+Nitrite by 353.2	Ammonia by 350.1	Sulfate by 300.0	TDS by 2540	Residual Chlorine (Y/N)	
1	MW-1	GW	G	10/6/2020		1207			2	X	X								X	X	X	X		001
2	MW-2					1013				X	X								X	X	X	X		002
3	MW-3					1657				X	X								X	X	X	X		003
4	MW-4					1120				X	X								X	X	X	X		004
5	MW-5					0928				X	X								X	X	X	X		005
6	MW-6					1338				X	X								X	X	X	X		006
7	CS-4					1410				X	X								X	X	X	X		007
8	CS-6					1451				X	X								X	X	X	X		008
9	MW-20					0851				X	X								X	X	X	X		009
10	Field Blank		↓			1329				X	X								X	X	X	X		010
11	GP-06-W-16			10/7/20		1027				X	X								X	X	X	X		011
12	GP-06-W-26	↓	↓	↓		1047		↓	↓	X	X								X	X	X	X		012

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature] / HDR	10/9/20	16:00	[signature] Pace	10-10-20	9:00	2-3 1-3	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Alyssa Veatch

SIGNATURE of SAMPLER: [signature] DATE Signed: 10/9/2020

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	HDR Engineering	Report To:	Alyssa Veatch	Attention:	Accounts Payable
Address:	412 E. Parkcenter Blvd	Copy To:		Company Name:	HDR Engineering
	Suite 100, Boise, ID 83706			Address:	412 E Parkcenter Blvd, Suite 100 Boise, ID 83706
Email:	alyssa.veatch@hdrinc.com	Purchase Order #:		Pace Quote:	00046313; Chris Norman
Phone:	208-387-7113 Fax	Project Name:	Simplot Moxee	Pace Project Manager:	jennifer.gross@pacelabs.com,
Requested Due Date:	10 Day Standard Turn	Project #:	10101457	Pace Profile #:	38721

Regulatory Agency	
State / Location	WA / Moxee

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N)	Analyses Test: Nitrate+Nitrite by 353.2	Ammonia by 350.1	Sulfate by 300.0	TDS by 2540	Residual Chlorine (Y/N)	
1	GP-05-W-12	WT	G	10/7/20		1243			2	X	X								X	X	X			013
2	GP-05-W-19					1304				X	X								X	X	X			014
3	GP-07-W-19					0913				X	X								X	X	X			015
4	GP-04-W-12					1343				X	X								X	X	X			016
5	GP-04-W-19			↓		1414				X	X								X	X	X			017
6	GP-03-W-12			10/8/20		0907				X	X								X	X	X			018
7	GP-02-W-12					1026				X	X								X	X	X			019
8	GP-02-W-17					1058				X	X								X	X	X			020
9	GP-01-W-12					1155				X	X								X	X	X			021
10	GP-01-W-16					1311				X	X								X	X	X			022
11	FB-2	↓	↓	↓		1340			↓	X	X								X	X	X			023
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature] / HDR	10/9/20	16:00	[signature] / Pace	10-10-20	9:00	2.2 1.4	Y	Y	Y

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	Alyssa Veatch		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER:	[signature]	DATE Signed: 10/9/2020				

Pace Analytical®	Document Name: **Sample Condition Upon Receipt (SCUR) - MN**	Document Revised: 12Aug2020 **Page 1 of 1**
	Document No.: **ENV-FRM-MIN4-0150 Rev.01**	Pace Analytical Services - **Minneapolis**

Sample Condition Upon Receipt

Client Name: HDR

Project #:

WO#: 10535133

PM: JMG **Due Date: 10/26/20**

CLIENT: HDR_WA

Courier: ☐ Fed Ex ☒ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial

Tracking Number: 1Z 63W 957 41 6797 3309 6559 9692 See Exceptions ☐ ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No **Seals Intact?** ☒ Yes ☐ No **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other:_____ **Temp Blank?** ☒ Yes ☐ No

Thermometer: ☐ T1(0461) ☒ T2(1336) ☐ T3(0459) ☐ T4(0254) ☐ T5(0489) **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☐ Dry ☐ Melted

Did Samples Originate in West Virginia? ☐ Yes ☒ No **Were All Container Temps Taken?** ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6°C **Cooler Temp Read w/temp blank:** 2.2, 1.4 °C **Average Corrected Temp (no temp blank only):** _____ °C ☐ See Exceptions ENV-FRM-MIN4-0142 ☐ 1 Container

Correction Factor: TNC **Cooler Temp Corrected w/temp blank:** 2.2, 1.4 °C

USDA Regulated Soil: (☒ N/A, water sample/Other:_____)
Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐ Yes ☐ No

Date/Initials of Person Examining Contents: KRL 10-12-20
Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present and Filled Out?	☒ Yes	☐ No		1.
Chain of Custody Relinquished?	☒ Yes	☐ No		2.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	3.
Samples Arrived within Hold Time?	☒ Yes	☐ No		4.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E coli ☐ BOD/cBOD ☐ Hex Chrome ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other_____
Rush Turn Around Time Requested?	☐ Yes	☒ No		6.
Sufficient Volume?	☒ Yes	☐ No		7.
Correct Containers Used? -Pace Containers Used?	☒ Yes ☒ Yes	☐ No ☐ No		8.
Containers Intact?	☒ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC? Matrix: ☒ Water ☐ Soil ☐ Oil ☐ Other_____	☒ Yes	☐ No		11. **If no, write ID/ Date/Time on Container Below:** **See Exception** ☐ ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☒ Yes	☐ No	☐ N/A	12. Sample # 1-23
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	☐ Yes	☒ No	☐ N/A	☐ NaOH ☐ HNO_3 ☒ H_2SO_4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	☐ Yes	☐ No	☒ N/A	Positive for Res. Chlorine? ☐ Yes ☐ No **pH Paper Lot#** **See Exception** ☒ ENV-FRM-MIN4-0142
				Res. Chlorine: 0-6 Roll 203619; 0-6 Strip 232518V; 0-14 Strip
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☒ N/A	13. **See Exception** ☐ ENV-FRM-MIN4-0140
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☒ N/A	
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	14.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	Pace Trip Blank Lot # (if purchased):_____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted:_____ Date/Time:_____

Comments/Resolution:_____

Project Manager Review: JENNI GROSS **Date:** 10/13/20

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled by: KRL

Pace Analytical®	Document Name: **Sample Condition Upon Receipt (SCUR) Exception Form**	Document Revised: 04Jun2020 **Page 1 of 1**
	Document No.: **ENV-FRM-MIN4-0142 Rev.01**	Pace Analytical Services - **Minneapolis**

SCUR Exceptions:

Workorder #:

Out of Temp Sample IDs	Container Type	# of Containers

PM Notified? ☐Yes ☐No

If yes, indicate who was contacted/date/time.
If no, indicate reason why.

Multiple Cooler Project? ☐Yes ☐No
If you answered yes, fill out information to the left.

No Temp Blank		
Read Temp	Corrected Temp	Average Temp

Tracking Number/Temperature	

Issue Type: Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preserv.	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance after addition?	Initials
GP-06-W-16	H_2SO_4	6.0	10-12-20	1420	1.0	3117051	1.5	☒Yes ☐No	KKC
GP-05-W-19	↓	3.0	↓	↓	↓	↓	1.5	☒Yes ☐No	KKC
GP-04-W-12		6.0					1.0	☒Yes ☐No	KKC
GP-03-W-12		3.0					1.0	☒Yes ☐No	KKC

Comments:

Pace Analytical®	Document Name: **Sample Condition Upon Receipt (SCUR) Exception Form**	Document Revised: 04Jun2020 **Page 1 of 1**
	Document No.: **ENV-FRM-MIN4-0142 Rev.01**	Pace Analytical Services - **Minneapolis**

SCUR Exceptions:

Workorder #:

Out of Temp Sample IDs	Container Type	# of Containers

PM Notified? ☐Yes ☐No

If yes, indicate who was contacted/date/time.
If no, indicate reason why.

Multiple Cooler Project? ☐Yes ☐No
If you answered yes, fill out information to the left.

No Temp Blank		
Read Temp	Corrected Temp	Average Temp

Tracking Number/Temperature	

Issue Type: Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preserv.	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance after addition?	Initials
GP-02-W-12	H_2SO_4	76.0	10-12-20	1420	1.0	3117051	1.5	☒Yes ☐No	KKI
GP-01-W-12	↓	6.0	↓	↓	↓	↓	1.5	☒Yes ☐No	KKI
GP-01-W-16	↓	6.0	↓	↓	↓	↓	1.5	☒Yes ☐No	KKI
								☐Yes ☐No	

Comments:

Simplot Grower Solutions
Moxee, Washington Site

DATA VALIDATION REPORT
FOR
OCTOBER 2020 GROUNDWATER SAMPLING EVENT

Introduction

This report summarizes the data validation performed on the groundwater analytical results of the GeoProbe and monitoring well samples collected on October 6 through 8, 2020. These samples were collected and analyzed in accordance with the procedures and protocols specified in the February 2016 *Groundwater Monitoring Well and Sampling Work Plan* (updated June 2016) and August 2020 *Off-site Groundwater Investigation Work Plan*.

The data validation for groundwater samples considered the following elements:

- Sampling procedures
- Holding times
- Reporting limits and dilution factors
- Surrogate spike recoveries
- Laboratory method blank
- Laboratory control sample
- Field blanks
- Laboratory spikes and spike duplicates
- Duplicate field samples

Sampling Procedures

Groundwater samples were collected from the eight monitoring wells at the Simplot Grower Solutions site in Moxee, Washington, on October 6, 2020. Each monitoring well was purged and sampled using a peristaltic pump with disposable tubing. Purged water was monitored for temperature, pH, dissolved oxygen, and electrical conductivity. Purging continued until there was less than a 10 percent variance in parameter measurements after three consecutive readings or a minimum of three static well casing volumes had been removed.

Groundwater samples were additionally collected from six GeoProbe borings drilling within the WDOT SH-24 right-of-way, downgradient of the Simplot Grower Solutions site. Samples were collected by placing a temporary well point at the desired depth interval and by pumping with a peristaltic pump. Samples were collected with minimal purging, and water production was low (wells kept going dry and had to be recharged, due to fine sediment).

Samples were labeled, sealed, placed in a cooler, and shipped to Pace Analytical in Minneapolis, Minnesota.

Pace Analytical analyzed samples for the following constituents:

- Sulfate – Method 300.0
- Nitrate-nitrite – Method 353.2

- Total Dissolved Solids (TDS) – Method 2540C
- Ammonium-Nitrogen - Method 350.1

Holding Times

A total of 19 water samples were submitted to Pace Analytical, as well as two duplicates and two field blanks. Holding times were met for all analytes.

Reporting Limit and Dilution Factor

Reporting limits are specified by the analytical methods. Dilution factors for the monitoring well samples ranged as follows:

- TDS (Method 2540C) – 1
- Ammonia Nitrogen (Method 350.1) – 1-100
- Nitrate-nitrite (Method 353.2) – 5-200
- Sulfate (Method 300.0) – 1-10

Laboratory Method Blank

No compounds were detected at or above the method reporting limits in the laboratory method blanks.

Laboratory Control Sample

Relative percent differences for the laboratory control sample duplicates were within limits with the following exceptions:

- The laboratory control sample duplicates for TDS (sample duplicate 3761077) had an RPD of 7 compared to a laboratory max RPD of 5.

- The laboratory control sample duplicate for TDS (sample duplicate 3764329) had an RPD of 7 compared to a laboratory max RPD of 5.

Percent recoveries of the laboratory control samples were reported within acceptance limits.

Field Blank

Two field blanks were collected with the samples and analyzed for all constituents. One field blank was collected with the GeoProbe groundwater samples, and another with the monitoring well samples. The first field blank (Field Blank; collected with the monitoring well samples) was below detection limits for all constituents with the following exceptions:

- TDS was detected at 11.0 mg/L.

- Nitrate + Nitrite, as N was detected at 0.21 mg/L.

The second field blank (FB-2; collected with the GeoProbe samples) was below detection limits for all constituents with the following exceptions:

- TDS was detected at 14.0 mg/L.

- Nitrate + Nitrite, as N was detected at 0.17 mg/L.

Laboratory Spikes and Spike Duplicates

Matrix spikes (MS) and matrix spike duplicates (MSD) were performed on random samples selected by the laboratory for each batch run. The samples selected for the MS and MSD were other project sites. Thus, the matrix result, while reflective of laboratory precision, may not reflect matrix interferences from the Moxee project site. Percent recoveries for all constituents were within limits with the following exception:

- Nitrate + Nitrite, as N in the MS/MSD (sample 3764803 and 3764804) had percent recoveries below recovery limits (recovery of 67% [MS] and 62% [MSD] vs limits of 90-110%). These were qualified as M1 indicating that the matrix spike recovery exceeded QC limits and that the batch was accepted based on LCS recovery.

Duplicate Field Sample

A duplicate sample was secured from monitoring well MW-4 (Duplicate: MW-20) and from GP-05-W-19 (Duplicate: GP-07-W-19). The results of the duplicates are presented in **Table 1** and **Table 2**. The duplicates are within the acceptable range indicating acceptable precision of results with the exception of ammonia-N in both duplicate samples.

Table 1. Relative Percent Difference (RPD) of Detected Compounds for Duplicate Sample from MW-4 (October 6, 2020)

Detected Compound	MW-4 (mg/L)	DUPLICATE (mg/L)	RPD
TDS	1490	1660	10.79%
Ammonia-nitrogen	120	91.4	27.1%
Nitrate-nitrite	130	135	3.77%
Sulfate	360	359	0.28%

RPD (relative percent difference) = [MW-4 – MW-20]/ [mean (MW-4, MW-20)] X 100
mg/L = milligrams per liter

Table 2. Relative Percent Difference (RPD) of Detected Compounds for Duplicate Sample from GP-05-W-19 (October 7, 2020)

Detected Compound	GP-05-W-19 (mg/L)	DUPLICATE (mg/L)	RPD
TDS	1340	1460	8.57%
Ammonia-nitrogen	0.45	0.14	105.08%
Nitrate-nitrite	47.2	52.4	10.44%
Sulfate	263	273	3.73%

RPD (relative percent difference) = [GP-05-W-19 – GP-07-W-19]/ [mean (GP-05-W-19, GP-07-W-19)] X 100
mg/L = milligrams per liter

E

Site Photographs

Photo 1. View of GP-6 drilling location and marking (orange flags by railroad tracks are communications utilities).

Photo 2. GeoProbe setup at GP-05.

Photo 3. Soil cuttings from GP-1 at 0 to 4 feet. Soils in other borings at this depth interval are similar.

Photo 4. Soil cuttings from GP-1 at 4 to 8 feet. Soils in other borings at this depth interval are similar.

Photo 5. Soil cuttings from GP-1 at 8 to 12 feet. Soils in other borings at this depth interval are similar.

Photo 6. Soil cuttings from GP-4 at 0 to 4 feet. Soils in other borings at this depth interval are similar.

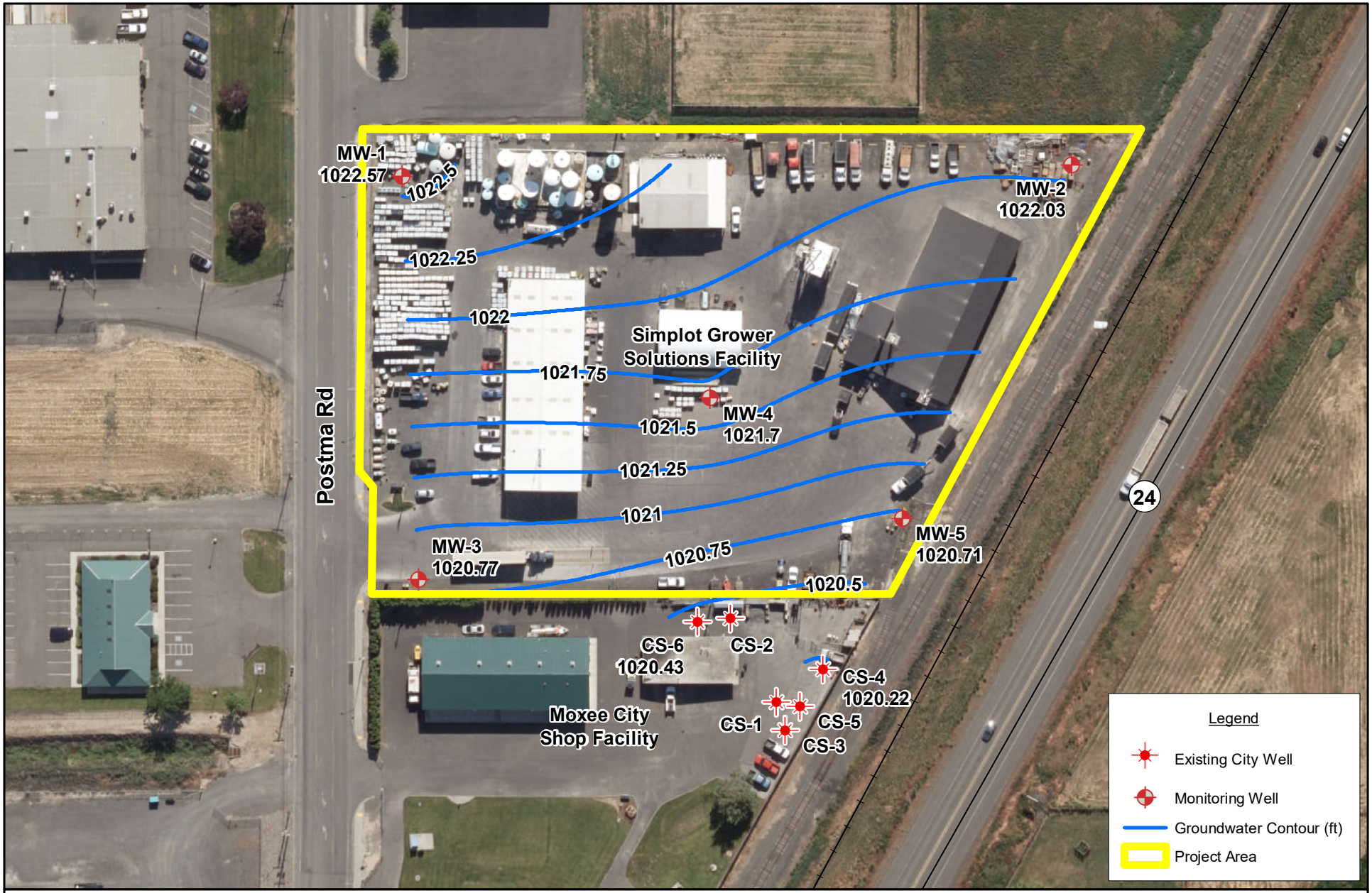
Photo 7. Soil cuttings from GP-4 at 4 to 8 feet. Soils in other borings at this depth interval are similar.

Photo 8. Soil cuttings from GP-4 at 8 to 12 feet. Soils in other borings at this depth interval are similar.

Photo 9. Backfilled boring. All borings were backfilled and look the same.

F

Groundwater Contour Maps



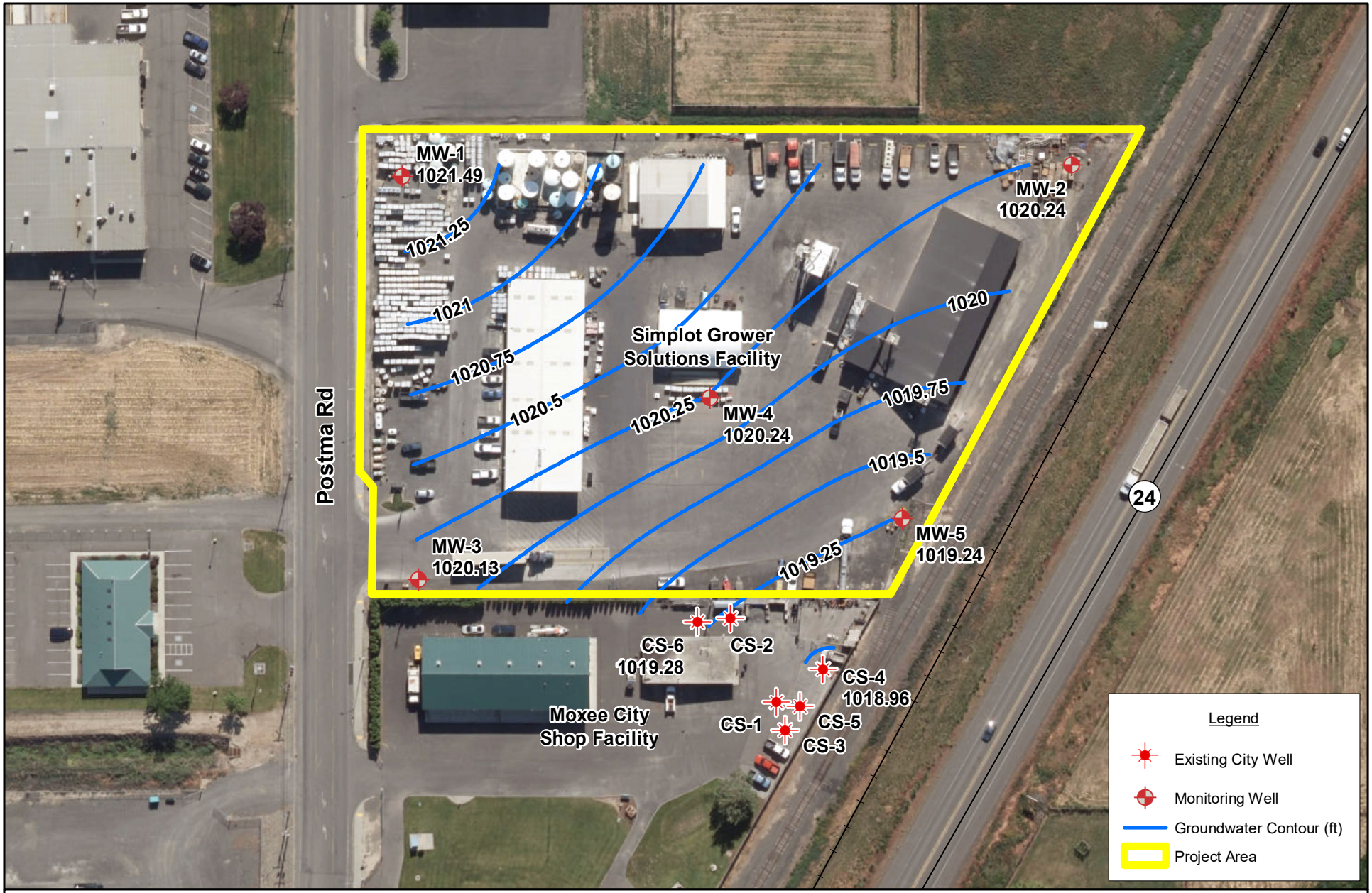
March 2018 Groundwater Isopleth Map

Simplot Grower Solutions, Moxee, WA

Imagery: ESRI World Imagery, June 2017 Imagery
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Map Date: 11/20/2018
Q:\Simplot\Moxee\map_docs\Site_LetLand.mxd

0 80 160
Feet



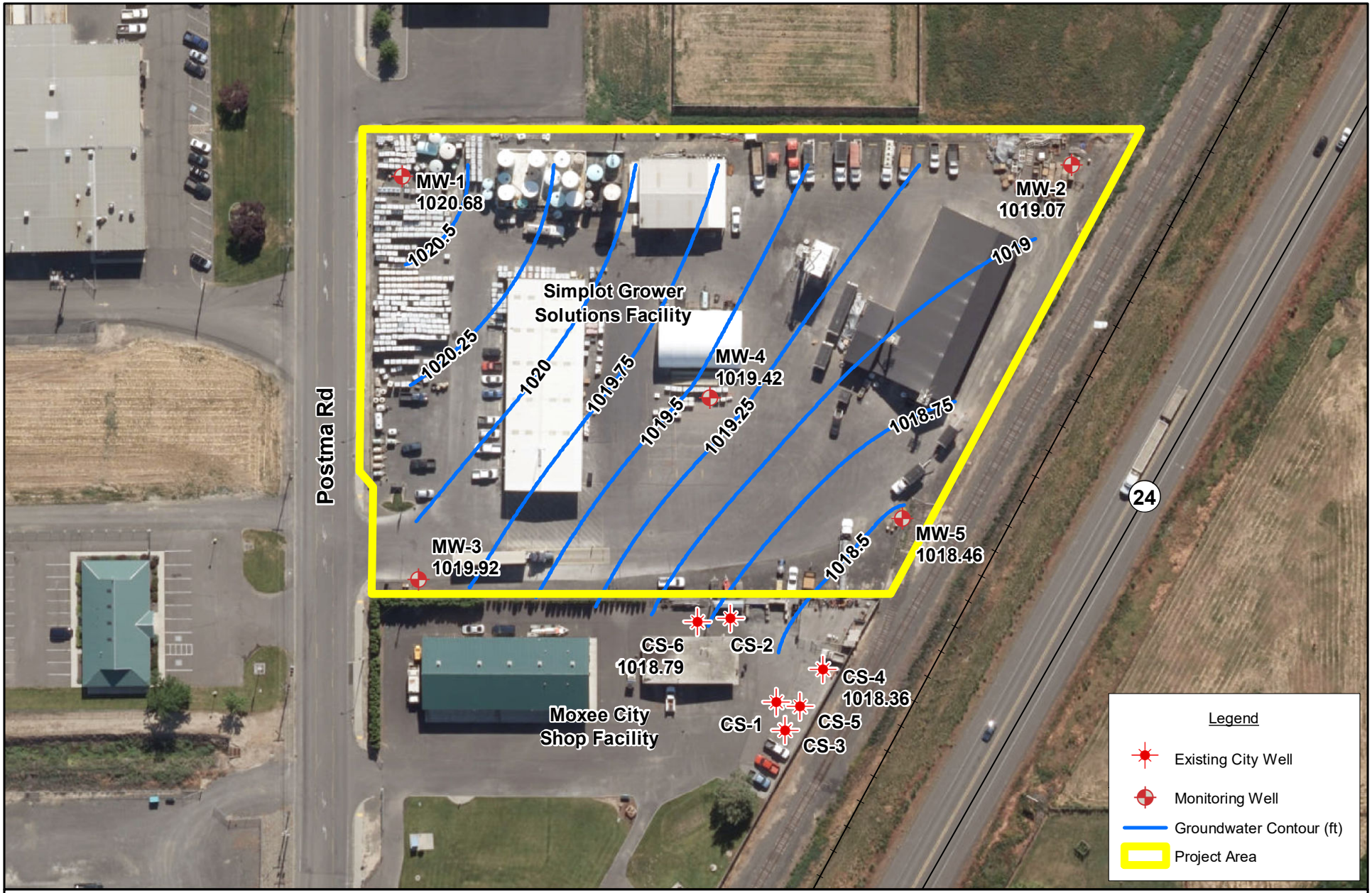
June 2018 Groundwater Isopleth Map

Simplot Grower Solutions, Moxee, WA

Imagery: ESRI World Imagery, June 2017 Imagery
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Map Date: 11/20/2018
Q:\Simplot\Moxee\map_docs\Site_LetLand.mxd

0 80 160
Feet



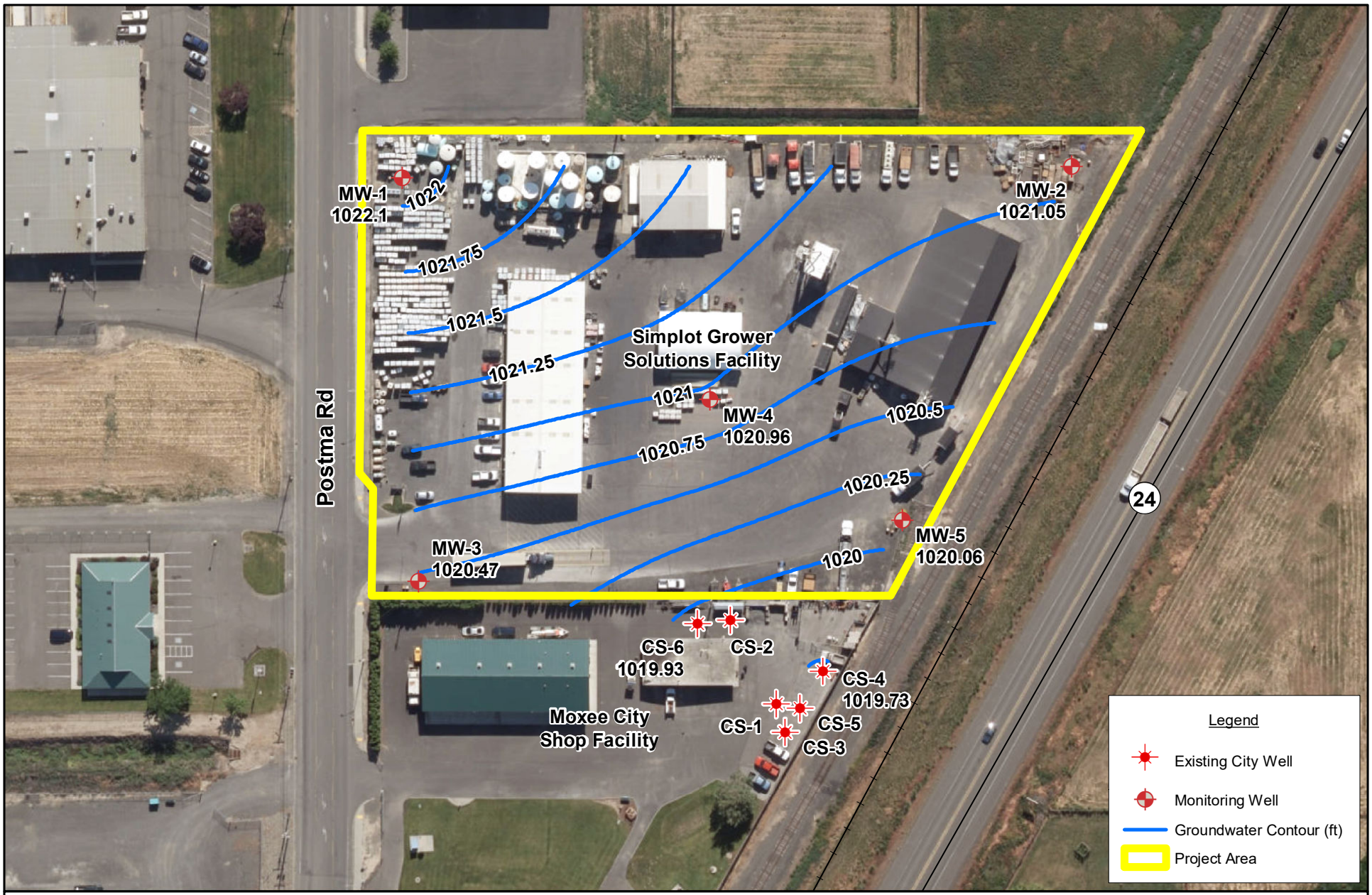
September 2018 Groundwater Isopleth Map

Simplot Grower Solutions, Moxee, WA

Imagery: ESRI World Imagery, June 2017 Imagery
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Map Date: 11/20/2018
Q:\Simplot\Moxee\map_docs\Site_LetLand.mxd

0 80 160
Feet



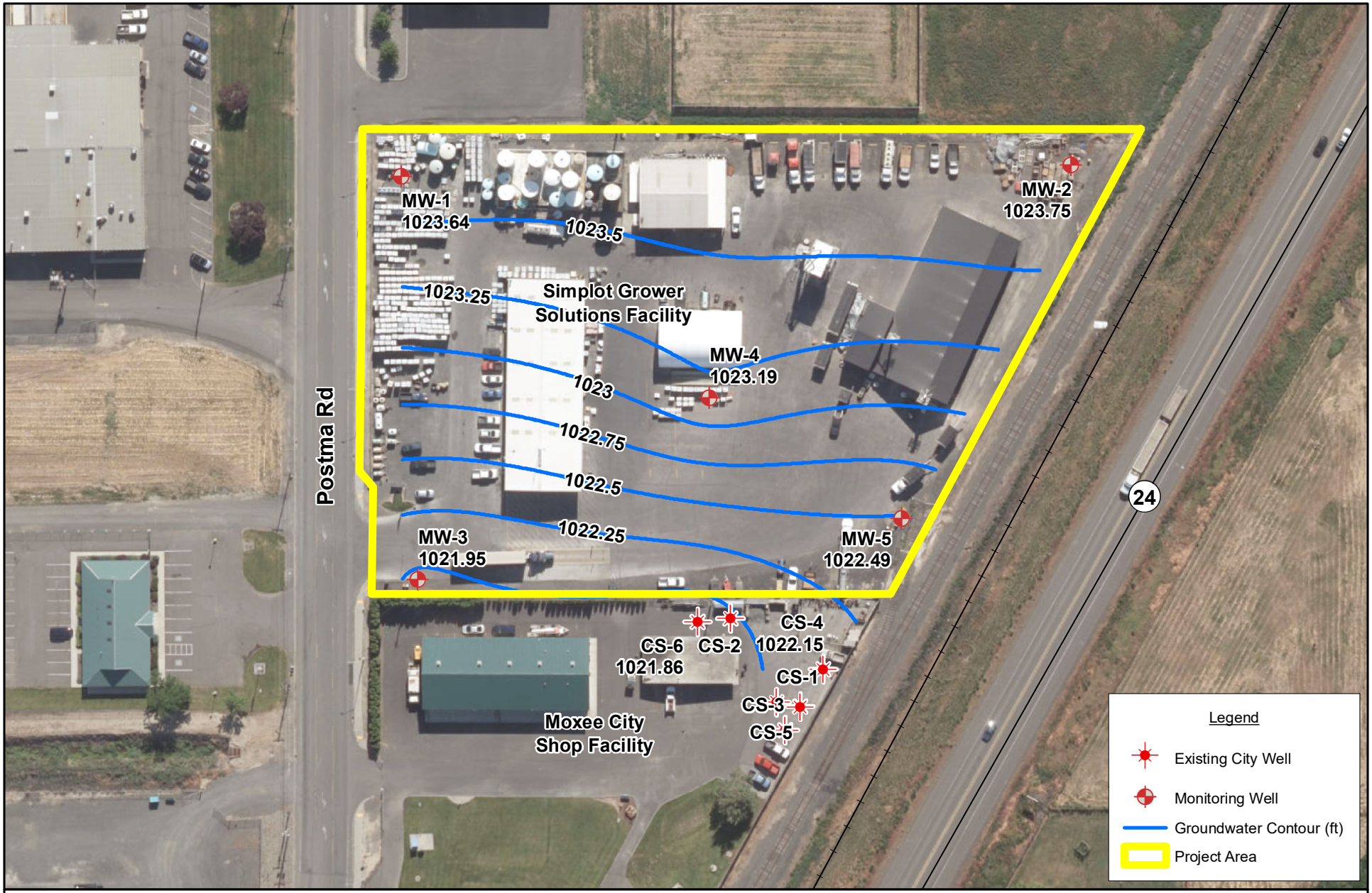
November 2018 Groundwater Isopleth Map

Simplot Grower Solutions, Moxee, WA

Imagery: ESRI World Imagery, June 2017 Imagery
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Map Date: 11/20/2018
Q:\Simplot\Moxee\map_docs\Site_LetLand.mxd

0 80 160
Feet



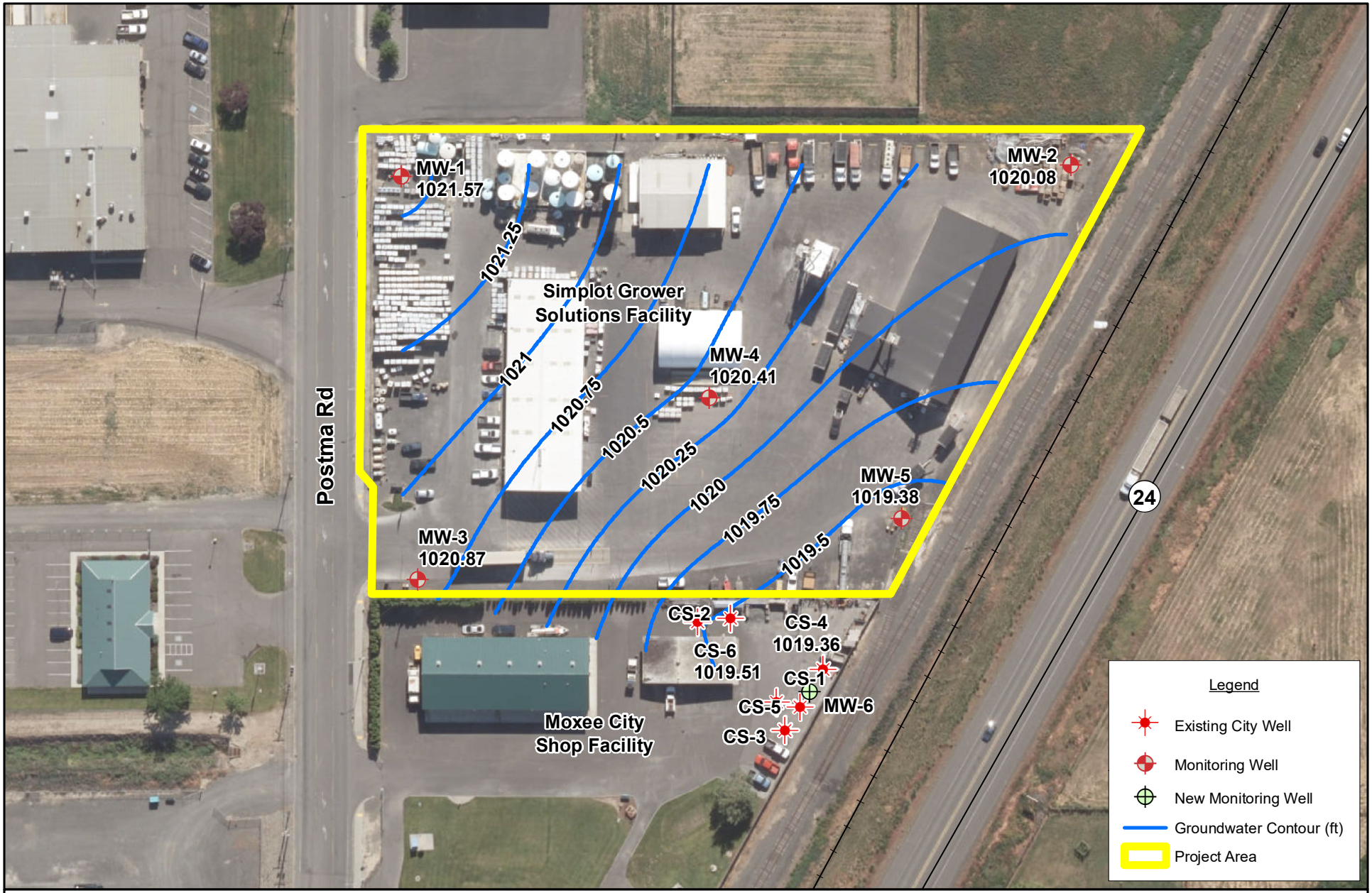
March 2019 Groundwater Isopleth Map

Simplot Grower Solutions, Moxee, WA

Imagery: ESRI World Imagery, June 2017 Imagery
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Map Date: 8/6/2019
Q:\Simplot\Moxee\map_docs\Site_LetLand2019.mxd

0 100 200
Feet



September 2019 Groundwater Isopleth Map

Simplot Grower Solutions, Moxee, WA

Imagery: ESRI World Imagery, June 2017 Imagery
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Map Date: 12/13/2019
Q:\Simplot\Moxee\map_docs\Site_LetLand2019.mxd

0 100 200
Feet

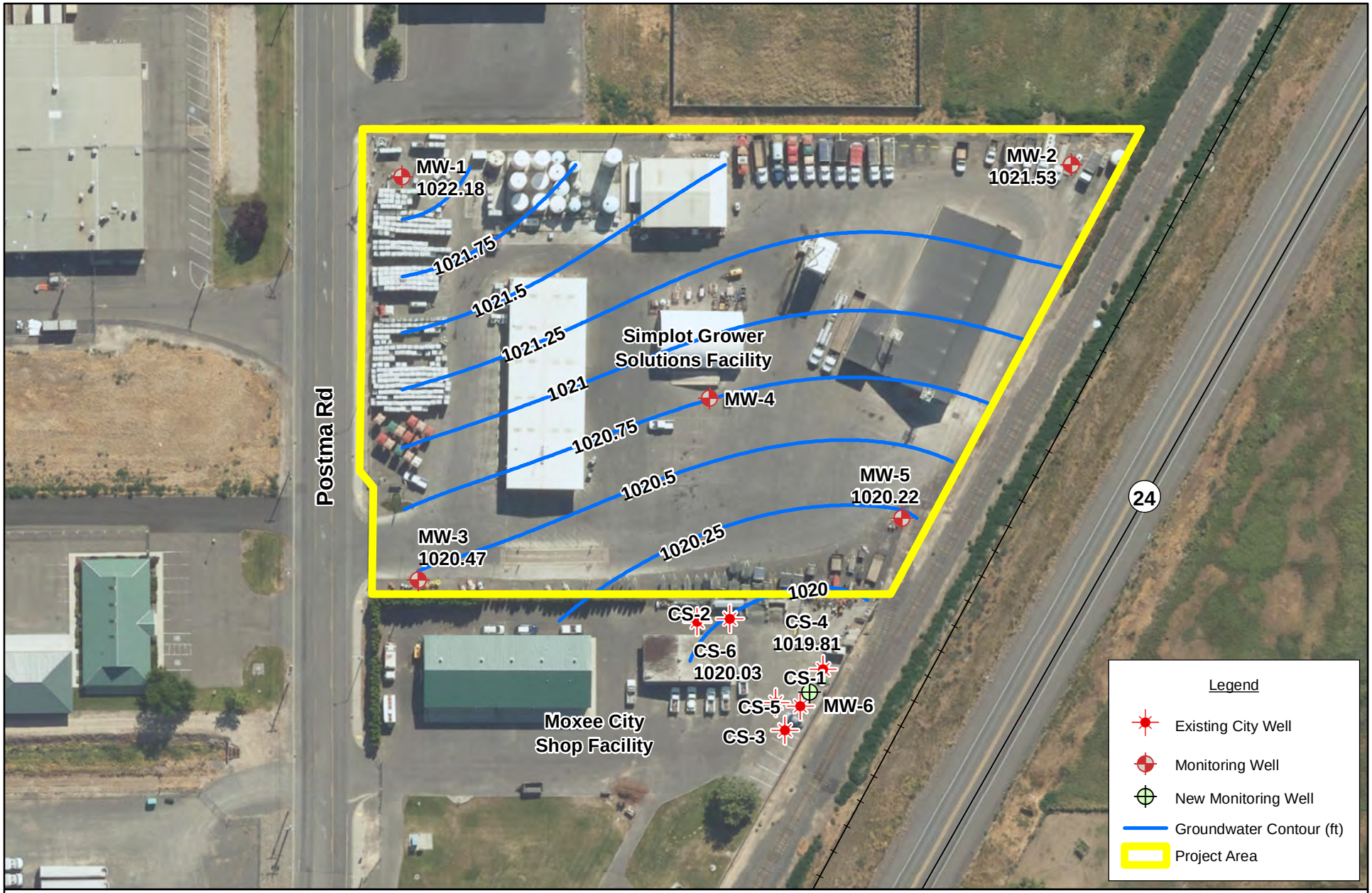


Figure N. March 2020 Groundwater Isopleth Map
Simplot Grower Solutions, Moxee, WA

Imagery: ESRI World Imagery, July 2019 Imagery Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Map Date: 6/4/2020
Q:\Simplot\Moxee\map_docs\Site_LetLand2020.mxd

0 100 200
Feet

G

Field Sampling Forms

Groundwater Sampling Information

Sample ID: MW-1		**Date:** 10/06/2020	
Project: Simplot Grower Solutions		Project No: 10101457	
Location: Moxee, WA			
Depth to Water: 9.53		Measuring Point: TPVC	
Well Depth: 18.40	Water Ht. 8.87	Measuring Point: TPVC	
Casing Diameter: 2 inch	Factor: 1 inch = 0.04	2 inch = 0.16	4 inch = 0.66
One Casing Volume (gallons): 1.4192		Three Casing Volumes (gallons): 4.2576	
Sampling Method: Peristaltic Pump			
Sampling Equipment: new tubing			
Pump: Peristaltic Pump		Pump Intake: NA	
Decontamination: None required (disposable tubing)			

Time	pH (SI units)	Temp. (Degrees C)	Conductivity (ms or us)	Clarity	Cumulative Volume Purged (gallons)
1201	-	-	-	-	0
1205	6.07	18.00	1.65	clear (slight)	1
1209	7.16	18.25	1.62	" "	1.5
1210	7.38	18.22	1.61	" "	2
1214	7.55	18.30	1.62	" "	2.5
1216	7.66	18.16	1.62	" "	3
1219	7.73	18.19	1.63	" "	3.5
1221	7.76	18.09	1.64	" "	4
1224	7.79	18.10	1.67	" "	4.5

Sample Time: 1224	Appearance/Odor: Clear/no odor
Analytical Laboratory: Pace Analytical in Minneapolis, Minnesota	
Duplicate: NA	MS/MD: NA
Comments:	
Signature:	Company: HDR

Groundwater Sampling Information

Sample ID: ~~MW-5~~ MW-2		Date: 10/6/2020	
Project: Simplot Grower Solutions		Project No: 10101457	
Location: Moxee, WA			
Depth to Water: 10.51		Measuring Point: TPVC	
Well Depth: ~~18.18~~ 17.80	Water Ht. 7.29	Measuring Point: TPVC	
Casing Diameter: 2 inch	Factor: 1 inch = 0.04	2 inch = 0.16	4 inch = 0.66
One Casing Volume (gallons): 1.1664		Three Casing Volumes (gallons): 3.4992	
Sampling Method: Peristaltic Pump			
Sampling Equipment: new tubing			
Pump: Peristaltic Pump		Pump Intake: NA	
Decontamination: None required (disposable tubing)			

Time	pH (SI units)	Temp. (Degrees C)	Conductivity (ms or us)	Clarity	Cumulative Volume Purged (gallons)
0952	-	-	-	-	0
0955	6.21	15.93	1.84	clear	0.5
0958	7.26	16.27	1.84	clear	1
1001	7.74	16.19	1.85	"	1.5
1003	7.98	16.08	1.87	"	2
1006	8.15	15.99	1.88	"	2.5
1008	8.23	15.89	1.89	"	3
1011	8.29	15.70	1.93	"	3.5
					~~4~~

Sample Time: 1013	Appearance/Odor: clear/no odor
Analytical Laboratory: Pace Analytical in Minneapolis, Minnesota	
Duplicate: NA	MS/MD: NA
Comments:	
Signature: Alyssa Veitch	Company: HDR

Groundwater Sampling Information

Sample ID: MW-3		**Date:** 10/6/2020	
Project: Simplot Grower Solutions		Project No: 10101457	
Location: Moxee, WA			
Depth to Water: 8.31		Measuring Point: TPVC	
Well Depth: 18.10	Water Ht. 9.79	Measuring Point: TPVC	
Casing Diameter: 2 inch	Factor: 1 inch = 0.04	2 inch = 0.16	4 inch = 0.66
One Casing Volume (gallons): 1.5664		Three Casing Volumes (gallons): 4.6992	
Sampling Method: Peristaltic Pump			
Sampling Equipment: new tubing			
Pump: Peristaltic Pump		Pump Intake: NA	
Decontamination: None required (disposable tubing)			

Time	pH (SI units)	Temp. (Degrees C)	Conductivity (ms or us)	Clarity	Cumulative Volume Purged (gallons)
1535	-	-	-	-	0
1539	6.00	19.64	1.126	Clear	1
1544	7.81	19.37	1.137	"	2
1546	8.25	19.29	1.118	"	2.5
1548	8.40	19.16	1.110	"	3
1550	8.45	19.19	1.106	"	3.5
1553	8.48	19.18	1.107	"	4
1554	8.51	19.09	1.103	"	4.5
1555	8.53	19.05	1.100	"	5
Sample Time: 1557			Appearance/Odor:		

Analytical Laboratory: Pace Analytical in Minneapolis, Minnesota	
Duplicate: NA	MS/MD: NA
Comments:	
Signature: [signature]	Company: HDR

Groundwater Sampling Information

Sample ID: MW-4		**Date:** 10/06/2020	
Project: Simplot Grower Solutions		Project No: ~~10021429~~ 10101457	
Location: Moxee, WA			
Depth to Water: 6.07		Measuring Point: TPVC	
Well Depth: 14.91	Water Ht. 8.84	Measuring Point: TPVC	
Casing Diameter: 2 inch	Factor: 1 inch = 0.04	2 inch = 0.16	4 inch = 0.66
One Casing Volume (gallons): 1.4144		Three Casing Volumes (gallons): 4.24	
Sampling Method: Peristaltic Pump			
Sampling Equipment: new tubing			
Pump: Peristaltic Pump		Pump Intake: NA	
Decontamination: None required (disposable tubing)			

Time	pH (SI units)	Temp. (Degrees C)	Conductivity (ms or us)	Clarity	Cumulative Volume Purged (gallons)
1050	-	-	-	-	0
1055	5.87	18.63	2.82	clear	1
1058	7.00	19.24	2.80	clear	1.5
1101	7.46	19.32	2.82	clear	2
1104	7.61	19.30	2.82	clear	2.5
1107	7.66	19.25	2.81	"	3
1110	7.71	19.15	2.81	"	3.5
1113	7.74	19.10	2.81	"	4
1116	7.76	19.00	2.81	"	4.5
Sample Time: 1120			Appearance/Odor: clear/no odor		

Analytical Laboratory: ~~ESC in Mt. Juliet TN~~ Pace Analytical	
Duplicate: ~~MW-10~~ MW-20@0851	MS/MD: NA
Comments: replaced well cap	
Signature: [signature]	Company: HDR

Groundwater Sampling Information

Sample ID: MW-5		**Date:** 10/6/2020	
Project: Simplot Grower Solutions		**Project No:** ~~10021429~~ 10104457	
Location: Moxee, WA			
Depth to Water: 10.96		**Measuring Point: TPVC**	
Well Depth: 18.18	**Water Ht.** 7.22	**Measuring Point: TPVC**	
Casing Diameter: 2 inch	**Factor: 1 inch = 0.04**	**2 inch = 0.16**	**4 inch = 0.66**
One Casing Volume (gallons): 1.1552		**Three Casing Volumes (gallons):** 3.4656	
Sampling Method: Peristaltic Pump			
Sampling Equipment: new tubing			
Pump: Peristaltic Pump		**Pump Intake: NA**	
Decontamination: None required (disposable tubing)			

Time	pH (SI units)	Temp. (Degrees C)	Conductivity (ms or us)	Clarity	Cumulative Volume Purged (gallons)
0907	-	-	-	-	0
0909	6.47	17.73	5.13	clear	0.5
0913	7.27	18.40	4.75	clear	1
0915	7.51	18.70	4.28	clear	1.5
0918	7.64	18.83	4.21	clear	2
0921	7.68	18.82	4.29	clear	2.5
0923	7.72	18.72	4.30	clear	3
0926	7.74	18.73	4.27	clear	3.5

Sample Time: 0928	**Appearance/Odor:** clear/no odor
Analytical Laboratory: ~~ESC in Mt. Juliet TN~~ Pace Analytical	
Duplicate: NA	**MS/MD: NA**
Comments: Calibrated hydrolab @ 0858	
Signature:	**Company: HDR**

Groundwater Sampling Information

Sample ID: ~~MW-4~~ MW-6		**Date:** 10/06/2020	
Project: Simplot Grower Solutions		**Project No:** 10101457	
Location: Moxee, WA			
Depth to Water: 6.192		**Measuring Point:** TPVC	
Well Depth: ~~14.91~~ 24.2	**Water Ht.** 18.08	**Measuring Point:** TPVC	
Casing Diameter: 2 inch	**Factor:** 1 inch = 0.04	2 inch = 0.16	4 inch = 0.66
One Casing Volume (gallons): 2.8928		**Three Casing Volumes (gallons):** 8.678	
Sampling Method: Peristaltic Pump			
Sampling Equipment: new tubing			
Pump: Peristaltic Pump		**Pump Intake:** NA	
Decontamination: None required (disposable tubing)			

Time	pH (SI units)	Temp. (Degrees C)	Conductivity (ms or us)	Clarity	Cumulative Volume Purged (gallons)
1250	-	-	-	-	0
1300	5.81	17.64 W	3.17	clear	2
1304	7.01	~~17.5~~ 17.48	3.15	"	3
1311	~~7.48~~	17.38	3.15	"	4
1317	7.63	17.22	3.13	"	5
1321	7.70	17.30	3.12	"	6
1326	7.74	17.23	3.11	"	7
1331	7.77	17.25	3.12	"	8
1336	7.78	17.16	3.10	"	9
Sample Time: 1338			**Appearance/Odor:** clear/no odor		

Analytical Laboratory: Pace Analytical in Minneapolis, Minnesota	
Duplicate: N/A	MS/MD: NA
Comments: Field Blank @ 1329	
Signature: Alyssa Veatch	**Company:** HDR

Groundwater Sampling Information

Sample ID: CS-4		**Date:** 10/06/2020	
Project: Simplot Grower Solutions		Project No: 10101457	
Location: Moxee, WA			
Depth to Water: 6.44		Measuring Point: TPVC	
Well Depth: 11.05	Water Ht. 4.61	Measuring Point: TPVC	
Casing Diameter: 2 inch	Factor: 1 inch = 0.04	2 inch = 0.16	4 inch = 0.66
One Casing Volume (gallons): 0.7376		Three Casing Volumes (gallons): 2.21	
Sampling Method: Peristaltic Pump			
Sampling Equipment: new tubing			
Pump: Peristaltic Pump		Pump Intake: NA	
Decontamination: None required (disposable tubing)			

Time	pH (SI units)	Temp. (Degrees C)	Conductivity (ms or us)	Clarity	Cumulative Volume Purged (gallons)
1355	-	-	-	-	0
1358	6.21	20.84	0.889	Clear/slightly	0.5
1401	6.99	21.34	0.845	Clear	1
1403	7.53	21.20	0.831	"	1.5
1405	7.54	21.13	0.795	"	2
1408	7.80	21.00	0.691	"	2.5

Sample Time: 1410	Appearance/Odor: Clear/no odor
Analytical Laboratory: Pace Analytical in Minneapolis, Minnesota	
Duplicate: NA	MS/MD: NA
Comments:	
Signature:	Company: HDR

Groundwater Sampling Information

Sample ID: CS-6		**Date:** 10/6/2020	
Project: Simplot Grower Solutions		Project No: 10101457	
Location: Moxee, WA			
Depth to Water: 5.85		Measuring Point: TPVC	
Well Depth: 12.16	Water Ht. 6.31	Measuring Point: TPVC	
Casing Diameter: 2 inch	Factor: 1 inch = 0.04	2 inch = 0.16	4 inch = 0.66
One Casing Volume (gallons): 1.0096		Three Casing Volumes (gallons): 3.0288	
Sampling Method: Peristaltic Pump			
Sampling Equipment: new tubing			
Pump: Peristaltic Pump		Pump Intake: NA	
Decontamination: None required (disposable tubing)			

Time	pH (SI units)	Temp. (Degrees C)	Conductivity (ms or us)	Clarity	Cumulative Volume Purged (gallons)
1431	-	-	-	-	0
1434	5.81	20.14	2.32	clear	0.5
1437	6.74	20.37	2.41	clear	1
1441	7.16	20.15	2.54	clear	1.5
1443	7.30	~~20.6~~ 19.99	2.59	clear	2
1444	7.43	19.86	2.61	"	2.5
1447	7.52	19.78	2.60	"	3
					3.25

Sample Time: 1451	Appearance/Odor:
Analytical Laboratory: Pace Analytical in Minneapolis, Minnesota	
Duplicate: NA	MS/MD: NA
Comments:	
Signature:	Company: HDR