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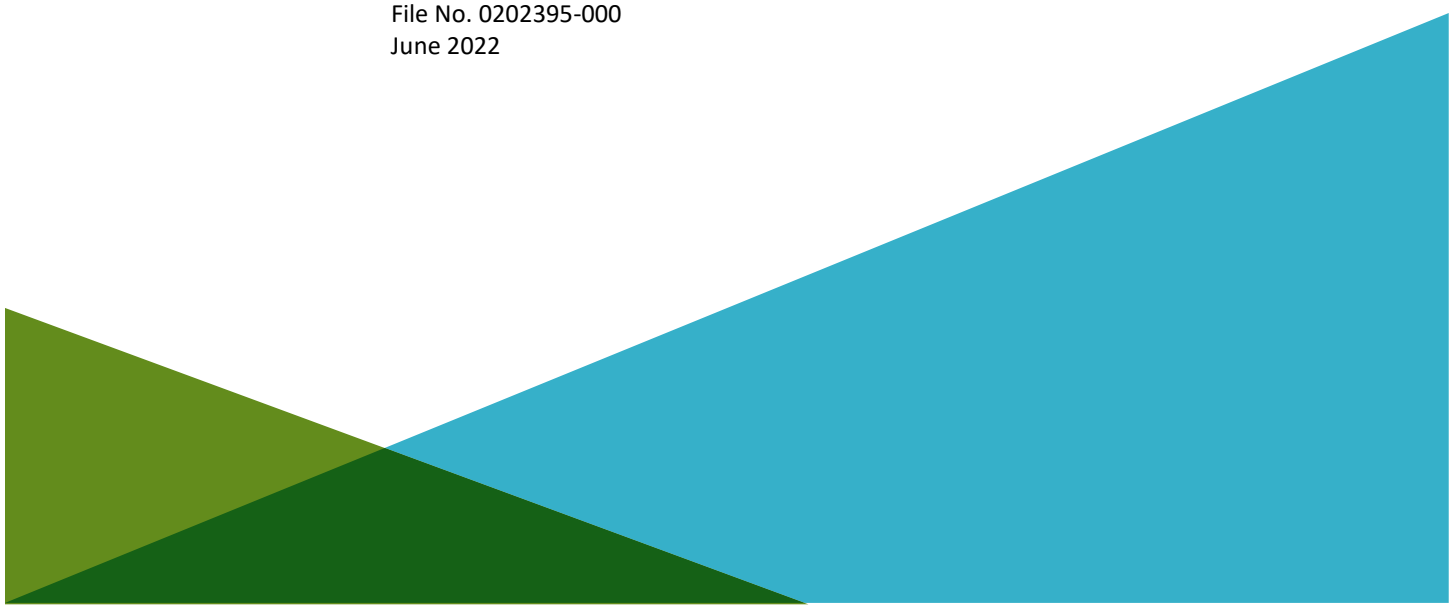
REPORT ON

SIMPLOT GROWERS SOLUTIONS GROUNDWATER ASSESSMENT MOXEE, WASHINGTON

by
Haley & Aldrich, Inc.
Spokane, Washington

for
J.R. Simplot Company
Boise, Idaho

File No. 0202395-000
June 2022



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REPORT ON
SIMPLOT GROWERS SOLUTIONS
GROUNDWATER ASSESSMENT
MOXEE, WASHINGTON

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1. Introduction

This report summarizes data gap assessment activities completed in March 2022, at the J.R. Simplot Growers Solution property (Subject Property), located at 7528 Postman Road in Moxee, Washington, as depicted in "Vicinity Map", Figure 1. The Subject Property is owned by the J.R. Simplot Company (Simplot) and is operated as a retail outlet for crop nutrition and crop protection products; these products are stored and sometimes blended on site. The site is developed with several structures, a tank farm, truck scale, product mixing/dispensing equipment, and storage areas for vehicles and product totes.

Haley and Aldrich, Inc. (Haley & Aldrich), conducted site assessment activities to fill data gaps from previous site assessments, and to evaluate the potential for impacts to the Subject Property from off-site nitrate and/or sulfate contamination from hydraulically upgradient sources. Our scope of services included conducting a subsurface investigation east and northeast of the Subject Property using direct-push drilling methods; collecting soil samples from the borings; collecting grab groundwater samples from temporary wells installed in the borings; collecting groundwater samples from existing monitoring wells; submitting soil and groundwater samples for chemical analyses; and conducting a downgradient groundwater receptor survey.

Locations of exploration and monitoring well locations are shown on "Site Plan", Figure 2. Additional details regarding the background of the Subject Property, subsurface geology, field activities conducted, chemical analytical results, and our findings and recommendations are summarized in the sections below.

2. Background

2.1 SUBJECT PROPERTY DESCRIPTION

The Subject Property is approximately 3.74 acres and is bounded on the north by Postma Road, on the south by BNSF rail lines, and State Route 24, a card-lock fuel facility and agricultural land to the east, and the Moxee City Shop to the west. The Moxee City Shop facility to the west is a former sewage treatment plant with documented petroleum releases. According to the Yakima County Assessor, the first structure constructed on the Subject Property was in 1950, and additional structures were added in the 1980s and 2000s. The facility has an aboveground storage tank (AST) farm containing about sixteen ASTs that are used to store retail agricultural products.

Generally, the land surrounding the Subject Property and north of Highway 24 is a mixture of commercial operations and farmland, and the land south of Highway 24 is a mixture of residential and farmland. Aerial photographs and maps accessed from the Yakima County website also show several irrigation and drainage ditches north and east of the Subject Property.

2.2 GEOLOGY AND HYDROGEOLOGY

The Subject Property is located within the Yakima River Basin in south central Washington. The local geology is comprised of high ridges of basalt thrusted upward by the tectonic event that created the Yakima Fold Belt: "…a series of anticlinal- ridges and synclinal valleys that covers about 14,000 square kilometers of the western Columbia Plateau. The fold belt formed as basalt flows of the Columbia River Basalt Group intercalated sediments of the Ellensburg Formation…" (Reidel and Campbell, 1987).

The Subject Property is located within the Yakima Valley bordered by two east-west trending Basalt ridges. The low-lying land in the area typically is overlain by alluvium and/or windblown sediment. The local groundwater generally flows east to west towards the Yakima River, about 2.86 miles west of the Subject Property. Static groundwater levels measured in local domestic drinking water wells range between 4.7 and 32 feet below ground surface (bgs). The local hydrogeologic and surface water systems are heavily influenced by agricultural activities. Based on our field observations during assessment activities, the surface and subsurface east/northeast of the property consists of alluvium and fill material. According to HDR Engineering (HDR), the Subject Property is underlain by silt loam soils of the Umapine silt loam soil series and the regional geology consists of loess that overlies glacial flood deposits (HDR, 2021).

Groundwater elevations from monitoring events conducted by HDR in 2017 and 2018, indicate that the inferred groundwater flow direction varies seasonally between about 294.5 degrees from north (generally northwest) and 241.8 degrees from north (generally south-southwest) (HDR, 2018). This variable groundwater flow direction is depicted in "Potential Downgradient Groundwater Receptors", Figure 3.

2.3 PREVIOUS SITE ASSESSMENTS

In 2014, the Washington State Department of Ecology (Ecology) notified Simplot of potential releases of nutrient contaminants from the Subject Property to the subsurface. Ecology informed Simplot that recent borings drilled on the Subject Property by GeoEngineers, Inc. (GeoEngineers) while assessing

petroleum releases on the Moxee City Shop property, identified elevated concentrations of nitrate and sulfate in soil and groundwater. GeoEngineers concluded that "groundwater anion data support the suggestion that a source area exists near and east of the Moxee City Shop/Simplot property boundary and downgradient transport via groundwater flow are ongoing" (GeoEngineers 2014). Based on these assessment results, Ecology assigned a Site Number to the Subject Property (Site Number 84612438) and Simplot entered Ecology's Voluntary Cleanup Program (VCP) under VCP Number CE0419.

HDR conducted additional assessments on the Subject Property in 2015 and 2016. Assessment activities included drilling a series of direct-push borings and installing five monitoring wells on the Subject Property and one monitoring well on the Moxee City Shop property. Results of these assessments concluded that elevated concentrations of nitrates were present in soil and groundwater beneath the Subject Property. Groundwater monitoring results from events conducted between 2018 and 2020 indicate that nitrates, sulfates, and/or total dissolved solids (TDS) in groundwater exceed Maximum Contaminant Levels (MCLs) in each of the five on-site monitoring wells and two additional monitoring wells on the Moxee City Shop property.

HDR conducted an off-site assessment, downgradient of the Subject Property in October 2020. HDR advanced six, direct-push borings in the right-of-way adjacent to State Route 24 southeast of the Subject Property, and collected groundwater samples from temporary wells in each boring. Groundwater was encountered in these borings at depths ranging between about 6 and 7 feet bgs. HDR collected grab groundwater samples between 12 and 19 feet bgs; analytical results from the assessment indicate that nitrates, sulfates, and/or TDS exceeded the MCLs in each boring. Nitrate concentrations were highest in groundwater samples taken at deeper depths (16 to 19 feet bgs). Another possible source of nitrates in the groundwater could be from the 12-inch-diameter sewer line present south of the Subject Property; the sewer line reportedly is located less than 5 feet bgs.

Based on the inferred groundwater flow regimes, potential sources upgradient of the Subject Property include the agricultural and commercial lands north of Postma Road and agricultural lands to the east. The irrigation channels and ditches also could be potential sources of contaminants to the subsurface. Additionally, following the discovery of a release of petroleum from an underground storage tank (UST) on the Moxee City Shop property, the City conducted on-site remediation of petroleum contaminated soil (PCS). According to the 1996 "Limited Remedial Action Report for Moxee Sewer Treatment Plant Facility," prepared by Maxim Technologies, Inc., the PCS was remediated by mixing it with a soil amendment called "Oil Sponge" inside the UST remedial excavation after the excavation was lined with 6 mil plastic.

Protocols for using the Oil Sponge product state that "additional nutrients (i.e., miracle grow [sic], triple 16 fertilizer) should be added every 15 days" during soil treatment. The report is silent on whether or not these nutrients were added to the excavation or by what method; however, these nutrient amendments also constitute another potential source of nitrates and sulfates.

3. Scope of Services

The goals of our services were to: assess potential upgradient, off-site sources that might be contributing to subsurface contamination beneath the Subject Property; to better understand groundwater conditions beneath the Subject Property; and to evaluate potential downgradient receptors that could be affected by nitrate and sulfate contaminated groundwater. The objectives of our services included:

- assessing upgradient soil and groundwater conditions by advancing five direct-push borings;
- collecting soil samples for field-screening and laboratory analyses;
- collecting grab groundwater samples from borings during drilling;
- conducting a groundwater monitoring event using five existing on-site and three existing off-site monitoring wells;
- submitting select soil and groundwater samples for chemical analyses and comparing analytical results with previously collected data and Ecology's Model Toxics Control Act (MTCA) cleanup levels; and
- conducting a receptor survey of existing water supply wells downgradient of the Subject Property.

4. Field Activities

Haley & Aldrich conducted two site visits as part of our assessment activities. The first site visit was conducted on February 24, 2022, to assess the general layout of the proposed exploration locations in the field and to mark boring locations for utility locate notifications. During this site visit, Haley & Aldrich also conducted a survey of potential downgradient groundwater receptors. The second site visit was conducted on March 2 and 3, 2022, which included conducting groundwater monitoring activities on March 2, 2022, and conducting subsurface explorations on March 3, 2022.

4.1 UTILITY LOCATES

After marking proposed boring locations on February 24, 2022, Haley & Aldrich notified the local utilities of our planned subsurface assessment activities by calling the utility notification center (811) as required by state law. Haley & Aldrich also subcontracted Utilities Plus, LLC (Utilities Plus) to locate underground, conductible utilities near the proposed boring locations prior to the start of subsurface activities. Utilities Plus conducted their locating services on March 3, 2022.

Prior to exploration activities on March 3, 2022, the Haley & Aldrich field representative met with a City of Moxee public works official at the Subject Property to discuss as-built conditions of the City's sewer line located south of direct-push boring DP-5. The City employee marked the sewer line location south of the Subject Property and north of the BNSF rail line, and stated that the sewer line is a 12-inch-diameter pipe installed approximately 5 feet bgs and parallel to Highway 24.

4.2 EXPLORATION ACTIVITIES

Haley & Aldrich subcontracted Holocene Drilling, Incorporated (Holocene) to advance five direct-push borings (DP-1 through DP-5). Two of the borings (DP-1 and DP-2) were drilled north of the Subject Property and within the public right-of-way of Postma Road, and three borings (DP-3 through DP-5) were drilled east of the Subject Property on the adjacent agricultural land (see Figure 2 for boring locations). The borings were drilled on March 3, 2022, using a Geoprobe 7800 truck mounted drill rig. Holocene advanced soil borings DP-1 through DP-5 to depths of 20 feet bgs utilizing a 2-inch macro sampler equipped with disposable acrylic sleeves.

Holocene utilized an electric powered jackhammer to remove the asphalt and concrete in the public right-of-way prior to advancing borings DP-1 and DP-2; borings DP-3 through DP-5 were bare ground and not paved at the surface. Holocene used a hand auger to advance the borings to 5 feet bgs as a precaution against damaging utilities that might have been present. Holocene then proceeded to use the Geoprobe to advance the borings to their total depths of about 20 feet bgs. A Haley & Aldrich representative logged the materials encountered during drilling, collected soil samples for field-screening and chemical analyses, and groundwater samples for chemical analyses.

After each soil boring was completed, Holocene abandoned each borehole using 3/8-inch bentonite chips. Holocene used quick-set concrete to patch the surface of the borings drilled in the public right-of-way (DP-1 and DP-2); the concrete was installed between about 1 foot bgs and the paved surface elevation.

Groundwater was encountered in the borings between about 7 and 9 feet bgs. The soil units encountered during drilling are summarized below and additional details are provided on the boring logs presented in Appendix A. Generally, two geologic units (Units A and B) were encountered during drilling:

- Unit A consists of a brown-to-light brown silt with sand, to clay between 2 and 20 feet bgs. Sand encountered in Unit A varies from medium- to fine-grained. Unit A was encountered between 2 and 20 feet bgs in borings DP-1 and DP-2, and between 7 and 20 feet bgs in borings DP-3 through DP-5.
- Unit B consists of a brown, poorly-graded, loose, fine sand with variable amounts of fines. Unit B was encountered between 0 and 20 feet bgs in borings DP-3 through DP-5, but was not encountered in borings DP-1 or DP-2.

4.3 SOIL SAMPLING AND FIELD SCREENING

Haley & Aldrich field-screened soil samples collected from the macro-core sampler to assess for potential contaminants of concern (COC). Our field representative screened recovered soil from the borings using visual and olfactory observations. Odor screening consisted of noting any unusual odors emitted from the soil sample; visual screening consists of noting unusual discoloration/staining within the soil. Field-screening did not indicate potential contamination in the soil recovered. Field-screening results are included on the boring logs in Appendix A.

Haley & Aldrich transferred soil samples from the macro-core sampler into laboratory-provided, 4-ounce, borosilicate sample jars; the jars were placed in a zip-top bag; and the sample was placed in an insulated cooler with ice until delivered to the laboratory under chain-of-custody. One sample was collected for every foot explored; samples were identified according to the boring number and depth range of sample (i.e., “DP-1(6-7)” indicates direct-push boring number 1 and the sample was collected from between 6 and 7 feet bgs).

Haley & Aldrich submitted the soil samples to Eurofins Test America (ETA) in Spokane Valley, Washington for analyses. ETA analyzed the samples for nitrate-nitrogen and sulfate using Environmental Protection Agency (EPA) Method 300.0. Haley & Aldrich submitted the soil samples collected from immediately above the observed saturated zone in each of the five borings (between 5 and 9 feet bgs) for chemical analyses.

4.4 GROUNDWATER SAMPLING

Haley & Aldrich sampled five monitoring wells (MW-1 through 5) on the Subject Property, and three monitoring wells on the adjacent Moxee City Shop property to the west (wells CS-6, CS-4, and MW-6) on March 2, 2022. Haley & Aldrich also collected five grab groundwater samples from the direct-push borings using disposable, temporary well screens on March 3, 2022. Monitoring well and grab groundwater sample locations are shown on Figure 2. Monitoring well and temporary well construction details are summarized in “Monitoring Well Construction Details”, Table 1.

4.4.1 Monitoring Well Sampling

Prior to sampling the monitoring wells, Haley & Aldrich measured depth to water (DTW) using a Waterline, electronic, water level indicator probe. We referenced DTW to the surveyed top of casing in each well (typically the north side unless otherwise indicated on the well casing), we then calculated the groundwater elevations by subtracting the measured depths to water from the surveyed top of casing

elevations. The calculated values are summarized in “Depth to Groundwater, Elevations, & Water Quality Parameters”, Table 2. We then used the calculated groundwater elevations to generate interpreted groundwater contours and flow direction as shown on “Groundwater Elevations with Nitrate Concentrations October 2020 & March 2022”, Figure 4, and “Groundwater Elevations with Sulfate Concentrations October 2020 & March 2022”, Figure 5.

After measuring DTW, we purged each well using low flow/low stress techniques and a peristaltic pump fitted with new, disposable, polyethylene tubing; we placed the tubing inlet at approximately the middle of the well screen in each well. During purging, Haley & Aldrich used a Pro DSS YSI multimeter equipped with a flow through cell to measure and record water quality parameters (pH, temperature, conductivity, dissolved oxygen, turbidity, and oxidation-reduction potential [ORP]). Recorded water quality parameters at the time of sampling are provided in Table 2.

Haley & Aldrich collected groundwater samples from each well when the water quality parameters reached stabilization; wells were considered stabilized when readings 1 minute apart were +/- 10 percent of the previous reading or a maximum of 30 minutes of purging time had elapsed. Haley & Aldrich collected groundwater samples by allowing the groundwater to freely flow from the sample tubing into laboratory-provided, 250 milliliter sample containers. The filled sample containers were then placed into zip-top bags and stored in an insulated cooler with ice until delivered to the laboratory under chain-of-custody.

Haley & Aldrich submitted groundwater samples to ETA for nitrate-nitrogen and sulfate analyses by EPA Method 300.0, ammonia-nitrogen by EPA Method 350.1, and TDS by Standard Method (SM) 2540C.

4.4.2 Temporary Well Sampling

Haley & Aldrich collected grab groundwater samples from the five borings, DP-1 through DP-5, after the borings were drilled to their target depths of 20 feet bgs. After the target depth of the boring had been reached, Holocene installed a temporary, disposable, 3/4-inch diameter, 0.01-inch slot size, polyvinyl chloride (PVC) well screen in each boring and the temporary well was allowed to sit for approximately 1 hour to allow water turbidity to reduce prior to sampling. Holocene placed the well screens between 7 and 12 feet bgs, and Haley & Aldrich placed the sample tubing inlet at about 10 feet bgs. Prior to sampling the monitoring wells, Haley & Aldrich recorded DTW measurements, referenced to ground surface next to the boring, and purged each temporary well using low flow/low stress techniques as previously described. Recorded water quality parameters at the time of sampling are provided in Table 2.

Haley & Aldrich collected grab groundwater samples by allowing the groundwater to freely flow from the sample tubing into laboratory-provided, 250 milliliter sample containers. The sample containers were placed into zip-top bags and stored in an insulated cooler with ice until delivered to the laboratory under chain-of-custody. Haley & Aldrich submitted grab groundwater samples to ETA for nitrate-nitrogen and sulfate analyses by EPA Method 300.0 and TDS by SM 2540C.

In general, temperatures measured in the monitoring wells and temporary wells DP-1 and DP-2 were similar, ranging between 11.4 and 14.8 Celsius (C); temperatures in temporary wells DP-2 through DP-5 ranged between 8.1 and 9.7 C. pH, conductivity, and dissolved oxygen measurement generally were similar between the monitoring wells and the temporary wells (see Table 2); however, ORP and turbidity varied by at least one order of magnitude between the monitoring wells and temporary wells. ORP in

the monitoring wells ranged between 120.5 and 258.4 millivolts (mV), and between -46.6 and -191.9 mV in the temporary wells. Turbidity in the monitoring wells ranged between 2 and 29 nephelometric turbidity units (NTU), and ranged between 648.7 and 1025 NTU in the temporary wells.

4.5 DOWNGRADIENT GROUNDWATER RECEPTOR SURVEY

During the February 24, 2020 site visit to mark borings for utility locates, Haley & Aldrich also conducted a door-to-door survey in an attempt to identify potential groundwater receptors hydraulically downgradient of the Subject Property. The Haley & Aldrich field representative visited nine residential and commercial properties located southwest of the Subject Property and across State Route 24. We interviewed landowners regarding their use of supply wells for drinking and irrigation on their property. Haley & Aldrich was able to confirm that five of the nine property owners surveyed use on-site supply wells for drinking and/or irrigation water. These five properties are within 0.17 mile of the Subject Property and, based on publicly-available well logs, static groundwater levels in these wells range between 4.7 and 16 feet bgs. Depths of the supply wells on these five properties range between about 45 and 142 feet bgs. The properties with confirmed supply wells in-use are highlighted on Figure 3.

Haley & Aldrich also contacted public works officials at the City of Moxee and inquired about the availability of potable water and sewer services from the City's utility department. The City informed us that properties located south of State Route 24 are not within City of Moxee limits and, therefore, do not have access to City utilities. Therefore, residential and commercial properties south of State Route 24 near the Subject Property likely rely on private or communal water supply wells for drinking/irrigation water and on-site septic systems for sewer.

5. Chemical Analytical Results

Haley & Aldrich collected ninety-five soil samples and thirteen water samples for potential chemical analyses. We submitted five soil samples and thirteen groundwater samples to ETA for chemical analyses. ETA analyzed the soil and groundwater samples for Nitrate - Nitrogen and Sulfate by EPA Method 300.0. Groundwater samples were additionally analyzed Nitrogen-Ammonia by EPA Method 350.1 and TDS by SM 2540C. Results of chemical analyses are summarized below; the laboratory reports are provided in Appendix B. Analytical results for nitrate and sulfate concentrations in groundwater also are depicted as isopachs on Figures 4 and 5, respectively.

5.1 CHEMICAL ANALYTICAL RESULTS - SOIL

Chemical analytical results indicate that nitrate was detected at concentrations of 17 and 7.4 milligrams per kilogram (mg/kg) in samples DP-2(5-6) and DP-4(5-6), respectively; nitrate was not detected at concentrations greater than the method reporting limit (MRL) in the remaining samples analyzed. Chemical analytical results indicate that sulfate was detected in samples from borings DP-2 through DP-5 at concentrations ranging between 35 and 4,400 mg/kg (samples DP-5(8-9) and DP-2(5-6),respectively); sulfate was not detected at concentrations greater than the MRL in boring DP-1. Soil Chemical analytical results are summarized in “Soil Analytical Results”, Table 3.

5.2 CHEMICAL ANALYTICAL RESULTS – MONITORING WELLS

Chemical analytical results indicate TDS were detected in each monitoring well sample and concentrations ranged between 510 and 2,300 milligrams per liter (mg/L) (monitoring wells MW-6 and MW-5, respectively). Sulfate was detected at concentrations between 23 and 470 mg/L (monitoring wells MW-5 and CS-4, respectively). Nitrate as nitrogen was detected at concentrations between 3.8 and 34 mg/L (monitoring wells in MW-3 and MW-2, respectively); however, nitrate as nitrogen was not detected at concentrations greater than the MRL in wells MW-6 and CS-4. Ammonia as nitrogen was detected in MW-4 at a concentration of 5.4 mg/L; ammonia as nitrogen was not detected at concentrations greater than the MRL in the remaining monitoring wells. Analytical results for the monitoring well samples analyzed are summarized in “Groundwater Analytical Results”, Table 4.

5.3 CHEMICAL ANALYTICAL RESULTS – TEMPORARY WELLS

Chemical analytical results indicate the TDS, nitrate as nitrogen, and sulfate were detected in each of the grab groundwater samples at concentrations greater than the MRL. TDS concentrations ranged between 620 and 6,300 mg/L (DP-2 and DP-4, respectively); sulfate concentrations ranged between 12.5 and 96 mg/L (DP-3 and DP-5, respectively); and nitrate as nitrogen concentrations ranged between 0.24 and 2.9 mg/L (DP-5 and DP-2, respectively). Analytical results for the temporary monitoring well samples are summarized in Table 4.

6. Findings

Haley & Aldrich analyzed groundwater elevation and chemical analytical data to develop interpretations and findings for the March 2022 assessment. We used groundwater elevation data to prepare groundwater contour maps and interpreted groundwater flow direction for the March 2, 2022 (see Figures 4 and 5) assessment event. We also used chemical analytical results to prepare isopach maps for the nitrate and sulfate plumes beneath the Subject Property (see Figures 4 and 5, respectively). The isopach maps also include data collected from the downgradient temporary wells installed during the 2020 off-site, downgradient assessment. Our findings from these analyses are further discussed below.

Nitrate concentrations detected in grab groundwater samples from borings (DP-1 through DP-5) north and east of the property were less than the primary MCL of 10 mg/L, and were below the nitrate concentrations detected in monitoring wells MW-1 through MW-5 on the Subject Property. Based on these results and documented groundwater flow directions observed to date, it appears that at least a portion of the nitrate contamination in groundwater is originating from the Subject Property. However, analytical data from the downgradient assessment conducted in 2020 indicates that an additional source of nitrates might be present south of the Subject Property, possibly released from the City of Moxee sewer line south of the property boundary. The plumes appear to be comingled and/or overlapping vertically in the aquifer because the nitrate contamination south of the Subject Property was detected at higher concentrations, deeper in the borings. Installation of additional monitoring wells and seasonal monitoring would be required to confirm or deny this possibility.

The sulfate isopach map shown in Figure 5 indicates that the sulfate plume is originating from an upgradient source, east of the Subject Property. The highest concentration of sulfate detected in groundwater during the March 2022 was observed in direct-push boring DP-4. Sulfate detected in groundwater in DP-4 was more than ten times greater than secondary MCLs for groundwater quality. Additionally, it was noted that detected nitrate concentrations were less than detected sulfate concentrations by at least one order of magnitude. Because dissolved oxygen measurements in groundwater also generally were low (between 0.6 and 4.7 mg/L), this likely indicates increased microbial activity: microorganisms will use nitrate as an electron acceptor when oxygen becomes depleted.

References

1. HDR Engineering. “Groundwater Monitoring Well Sampling Report for 2017”. Simplot Growers Solutions Facility Site Number: 84612438 VCP Number CE0419. February 2018.

2. HDR Engineering. “Offsite Groundwater Investigation Report”. Simplot Grower Solutions Facility Site Number: 84612438 VCP Number: CE0419. January 2021.

3. Reidel & Campbell. “Guide to the structure of the Yakima Fold Belt”, Geologic Guidebook for Washington and adjacent areas, Washington Division of Geology and Earth Resources Information Circular 86. 275 304. 1987.

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TABLES

TABLE 1

MONITORING WELL CONSTRUCTION DETAIL

DATA GAP AND GROUNDWATER ASSESSMENT AND GROUNDWATER MONITORING REPORT

0202395-000

MOXEE, WASHINGTON

Location ID	Bottom of Boring (feet bgs)	Top of Screen (feet bgs)	Bottom of Screen (feet bgs)	Sample Depth (feet bgs)
Monitoring Well Sample				
MW-1	15.5	5.0	15.0	10.00
MW-2	15.5	5.0	15.0	10.00
MW-3	15.5	5.0	15.0	10.00
MW-4	15.5	5.0	15.0	10.00
MW-5	15.5	5.0	15.0	10.00
MW-6	25.0	14.0	25.0	20.0
CS-4	12.0	4.0	12.0	8.0
CS-6	12.5	3.0	12.5	7.0
March 2022 Direct -Push Boring Groundwater Sample				
DP-1	20.0	7.0	12.0	10.0
DP-2	20.0	7.0	12.0	10.0
DP-3	20.0	7.0	12.0	10.0
DP-4	20.0	7.0	12.0	10.0
DP-5	20.0	7.0	12.0	10.0

Notes:

bgs = below ground surface.

TABLE 2

DEPTH TO GROUNDWATER, ELEVATIONS, AND WATER QUALITY PARAMETERS

DATA GAP AND GROUNDWATER ASSESSMENT AND GROUNDWATER MONITORING REPORT

0202395-000

MOXEE, WASHINGTON

Location ID	Date of Sampling	Depth to Water (feet)	Groundwater Elevation (feet NAVD88)	Temperature (C°)	pH	Specific Conductivity (mS/cm)	ORP (mV)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
Monitoring Well Sample									
MW-1	3/2/2022	8.53	1022.62	12.1	7.68	1.6	169.1	17	0.8
MW-2	3/2/2022	8.66	1022.2	11.4	8.17	2.9	237.2	2	0.7
MW-3	3/2/2022	8.11	1020.86	12.9	8.5	1.1	240.3	2	0.7
MW-4	3/2/2022	5.03	1021.52	12.6	7.81	2.0	222.8	29	0.7
MW-5	3/2/2022	9.64	1020.84	12.4	7.9	3.3	258.4	2	4.7
MW-6	3/3/2022	5.24	--	14.9	8.79	0.6	120.5	33	0.6
CS-4	3/3/2022	5.34	1020.33	12.1	7.8	1.3	134.1	13	2.9
CS-6	3/3/2022	4.99	1020.51	12.2	7.6	1.9	156.8	22.5	1.4
March 2022 Direct -Push Boring Groundwater Sample									
DP-1	3/3/2022	6.89	--	14.8	7.4	1.0	-191.9	982.0	0.8
DP-2	3/3/2022	6.3	--	14.8	7.7	0.9	-131.8	1025.0	2.1
DP-3	3/3/2022	5.3	--	9.7	7.7	3.2	-46.6	648.7	0.8
DP-4	3/3/2022	5.55	--	9.0	7.5	6.9	-85.0	850.0	1.0
DP-5	3/3/2022	6.05	--	8.1	8.1	0.9	-94.5	888.4	1.4

Notes:

°C = degrees Celsius.

DO = dissolved oxygen.

DP = Direct Push

mg/L = milligrams per liter.

mS/cm = millisiemens per centimeter.

mV = millivolts.

MW = monitoring well

NAVD88 = North American Vertical Datum of 1988

NTU = nephelometric turbidity units.

ORP = oxidation-reduction potential.

Depth to water is reference from top of casing for monitoring wells and ground surface for DP-1 thorugh DP-5

-- = not measured/calculated

TABLE 3

SOIL ANALYTICAL RESULTS

DATA GAP AND GROUNDWATER ASSESSMENT AND GROUNDWATER MONITORING REPORT

0202395-000

MOXEE, WASHINGTON

Sample ID	Sampling Date	Analyte[1]			
		Nitrate-Nitrogen (mg/kg)	Q	Sulfate (mg/kg)	Q
DP-1 (6-7)	3/3/2022	*1.9*	U	*25*	U
DP-2 (5-6)	3/3/2022	**17**		**51**	
DP-3 (6-7)	3/3/2022	*1.8*	U	**260**	
DP-4 (5-6)	3/3/2022	**7.4**		**4400**	
DP-5 (8-9)	3/3/2022	*1.9*	U	**35**	

Notes:

[1] Nitrate - Nitrogen and Sulfate analyzed by Environmental Protection Agency (EPA) Method 300.0

BOLD = detections above method reporting limits

mg/kg = milligrams per kilograms

Sample ID = Boring ID (depth below ground surface in feet)

Q= Laboratory qualifier

U= Analyte not detected at or above method reporting limits indicated.

TABLE 4

GROUNDWATER ANALYTICAL RESULTS

DATA GAP AND GROUNDWATER ASSESSMENT AND GROUNDWATER MONITORING REPORT

0202395-000

MOXEE, WASHINGTON

Sample ID	Sample Date	Analyte							
		Nitrate-Nitrogen (mg/L)	Q	Ammonia-Nitrogen (mg/L)	Q	Sulfate (mg/L)	Q	TDS (mg/L)	Q
Monitoring Well Groundwater Samples									
MW-1	09/01/19	24.6		ND		395		1360	
	03/01/20	45		ND		358		1570	
	10/06/20	15.7		*0.10*	U	219		1050	
	03/02/22	11		*0.50*	U	140		1100	
MW-2	09/01/19	141		ND		442		2470	
	03/01/20	80.9		ND		260		1710	
	10/06/20	46.3		*0.10*	U	213		1220	
	03/02/22	34		*0.50*	U	330		2100	
MW-3	09/01/19	24.3		4.8		130		986	
	03/01/20	8.8		0.35		57.4		666	
	10/06/20	12.8		*0.10*	U	78		756	
	03/02/22	3.8		*0.50*	U	69		740	
MW-4	09/01/19	103		131		668		1640	
	03/01/20	NS							
	10/06/20	130		120		360		1490	
	03/02/22	33		54		240		1300	
MW-5	09/01/19	105		ND		634		2890	
	03/01/20	97.5		ND		408		2480	
	10/06/20	119		*0.10*	U	683		2990	
	03/02/22	24		*0.50*	U	470		2300	
MW-6	09/01/19	NS							
	03/01/20	91.1		ND		290		1610	
	10/06/20	95.5		*0.10*	U	434		2040	
	03/02/22	*3.0*	U	*0.50*	U	54		510	
CS-4	09/01/19	ND		ND		28.2		217	
	03/01/20	4.9		ND		30.3		560	
	10/06/20	*1.5*	U	*0.10*	U	31		448	
	03/02/22	*3.0*	U	*0.50*	U	23		820	
CS-6	09/01/19	105		ND		411		1560	
	03/01/20	178		ND		407		1680	
	10/06/20	208		*0.10*	U	381		1890	
	03/02/22	31		*0.50*	U	310		1400	

TABLE 4

GROUNDWATER ANALYTICAL RESULTS

DATA GAP AND GROUNDWATER ASSESSMENT AND GROUNDWATER MONITORING REPORT

0202395-000

MOXEE, WASHINGTON

Sample ID	Sample Date	Analyte							
		Nitrate-Nitrogen (mg/L)	Q	Ammonia-Nitrogen (mg/L)	Q	Sulfate (mg/L)	Q	TDS (mg/L)	Q
Direct -Push Boring Groundwater Sample									
DP-1	03/03/22	**0.56**		--		**33**		**680**	
DP-2	03/03/22	**2.9**		--		**54**		**620**	
DP-3	03/03/22	**0.38**		--		**250**		**2400**	
DP-4	03/03/22	**0.92**		--		**2600**		**6300**	
DP-5	03/03/22	**0.24**		--		**96**		**790**	
Groundwater Qualtiy Criteria	**Primary Standards**	**10**		**--**		**--**		**--**	
	Secondary Standards	**--**		**--**		**250**		**500**	

Notes:

March 3, 2022 samples were analyzed by Eurofins TestAmerica in Spokane, WA for Nitrate - Nitrogen and Sulfate by Environmental Protection Agency (EPA)Method 300.0 and total dissolved solids (TDS) by Standard Method (SM) 2540C. Monitoring well samples were additionally analyzed for Nitrogen-Ammonia by EPA Method 350.1.

Chemical analyses from 2019 and 2020 events were analyzed by Pace Analytical in Minneapolis, Minnesota for Nitrate - Nitrite by EPA Method 353.2; Nitrogen-Ammonia by EPA Method 350.1; Sulfate by EPA Method 300.0; and TDS by SM 2540C.

BOLD = detections at or above method reporting limits (MRL)

BOLD = detections at or above primary groundwater criteria standards.

BOLD = detections at or above secondary groundwater criteria standards.

ND = Not detected at or above Reporting Limit

NS = Not sampled

mg/L = milligrams per liter

Q= Laboratory qualifier

TDS = Total Dissolved Solids

U= Analyte not detected at or above MRL indicated.

-- = Not applicable

FIGURES

HARTCROWSER
A division of Haley & Aldrich

SIMPLOT MOXEE DATA GAP ASSESSMENT
7528 POSTMA ROAD
MOXEE, WASHINGTON

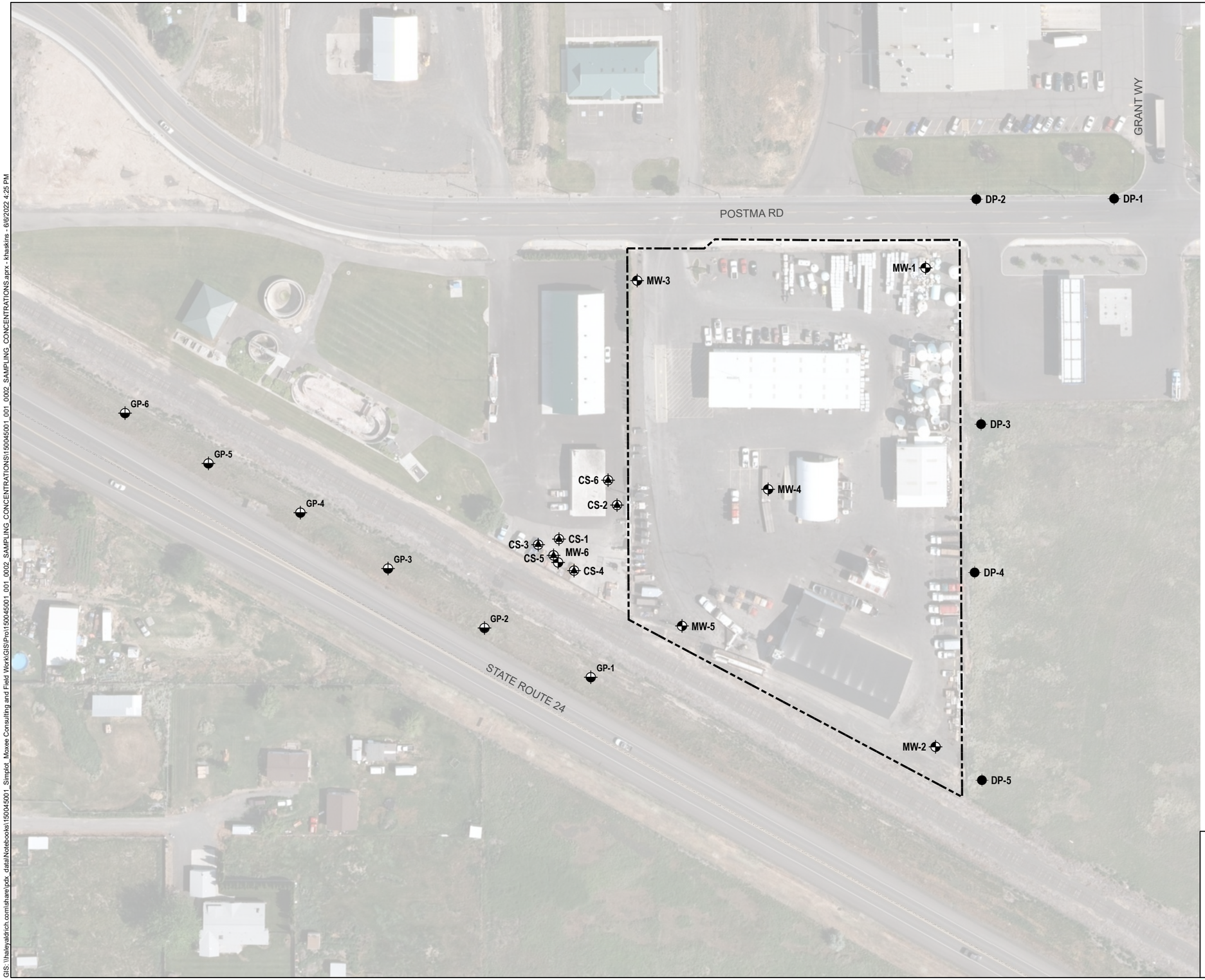
VICINITY MAP

MAP SOURCE: ESRI
SITE COORDINATES: 46°33'42.564"N, 120°23'59.854"W

APPROXIMATE SCALE: 1 IN = 2000 FT
JULY 2021

FIGURE 1

GIS: \\haleyaldrich.com\share\pdx_data\Notebooks\150045001_Simplot_Moxee Consulting and Field Work\GIS\MGIS\150045001_001_0001_VICINITY_MAP.mxd - elindquist - 7/2/2021 12:47:31 AM



LEGEND

- MARCH 2022 DIRECT-PUSH SOIL BORING
- EXISTING MONITORING WELL
- EXISTING CITY MONITORING WELL
- OCTOBER 2020 DIRECT-PUSH SOIL BORING
- PROPERTY BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: ESRI

N

0 100 200
SCALE IN FEET

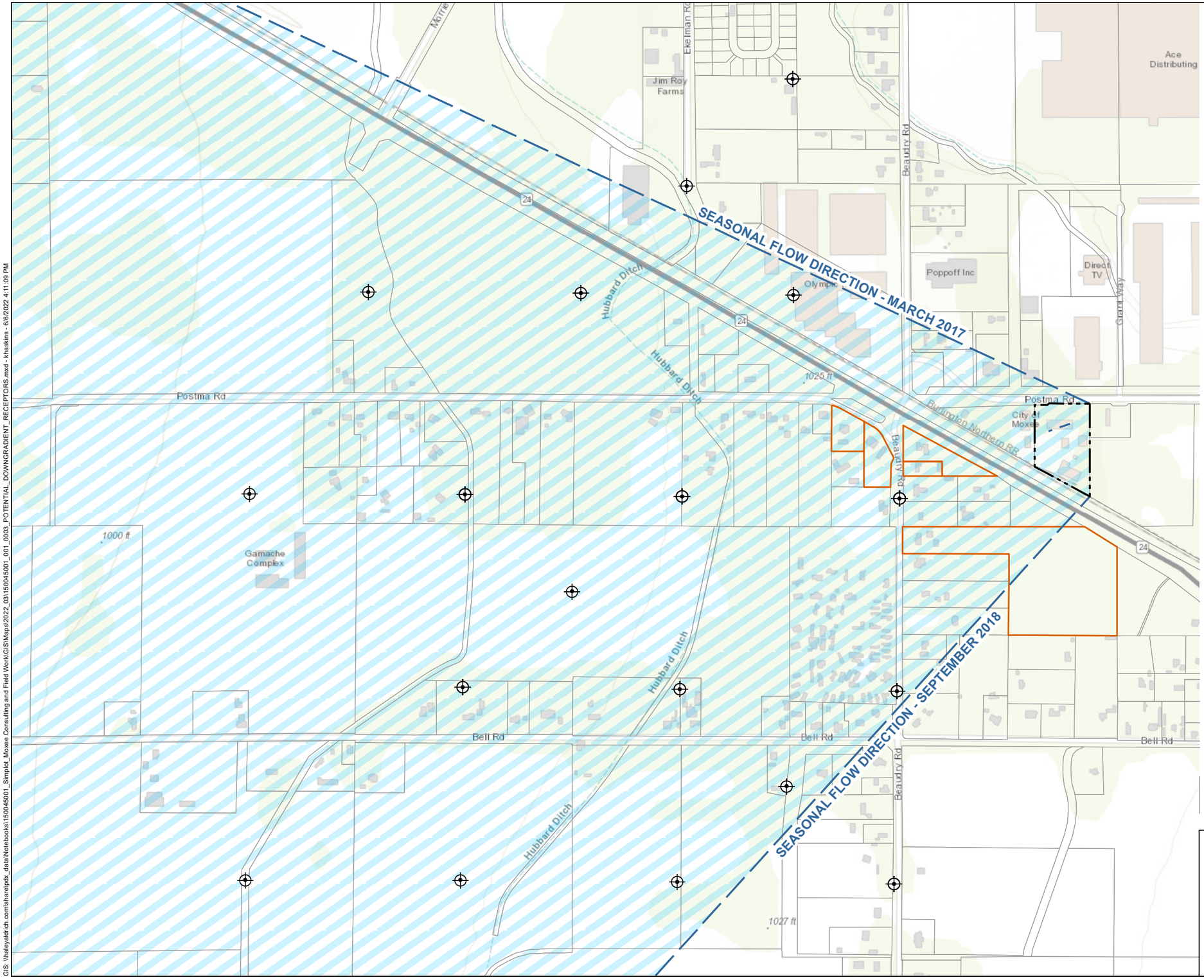
HALEY ALDRICH

SIMPLOT MOXEE DATA GAP ASSESSMENT
7528 POSTMA ROAD
MOXEE, WASHINGTON

SITE PLAN

JUNE 2022

FIGURE 2



LEGEND

- WELL
- SEASONAL INFERRED GROUNDWATER FLOW DOWNGRADIENT FROM SITE - DATA COLLECTED MARCH 2017 THROUGH MARCH 2020 (SOURCE: HDR)
- PROJECT SITE
- PROPERTY WITH CONFIRMED DOMESTIC DRINKING AND IRRIGATION WELLS
- PARCEL

NOTES

1. ASSESSOR PARCEL DATA SOURCE: YAKIMA COUNTY
2. BASE MAP SOURCE: ESRI

N

0 600 1,200
SCALE IN FEET

HALEY ALDRICH

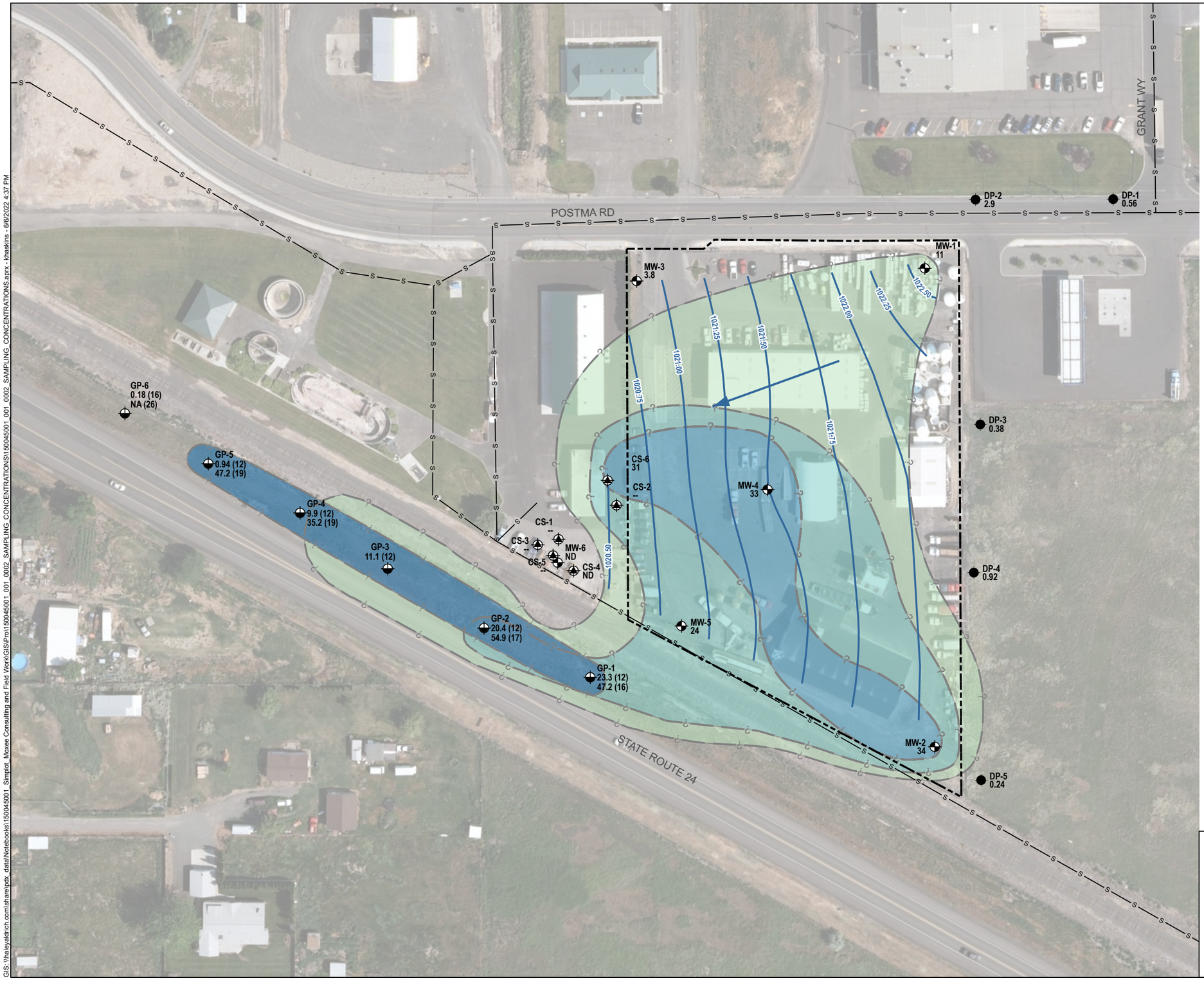
MOXEE SGS RECEPTOR SURVEY
MOXEE, WASHINGTON

POTENTIAL DOWNGRADIENT GROUNDWATER RECEPTORS

JUNE 2022

FIGURE 3

GIS: \\haleyaldrich.com\share\pdx_data\Notebooks\150045001_Simplot_Moxee Consulting and Field Work\GIS\Maps\2022_03\150045001_001_0003_POTENTIAL_DOWNGRADIENT_RECEPTORS.mxd - khaskins - 6/6/2022 4:11:09 PM



LEGEND

- MARCH 2022 DIRECT-PUSH BORING WITH NITRATE CONCENTRATION
- MONITORING WELL WITH NITRATE CONCENTRATION (DEPTH SAMPLED IN FEET BGS)
- CITY MONITORING WELL WITH NITRATE CONCENTRATION
- OCTOBER 2020 DIRECT-PUSH BORING WITH NITRATE CONCENTRATION (DEPTH SAMPLED IN FEET BGS)
- INFERRED GROUNDWATER ELEVATION CONTOUR, IN FEET
- GENERAL GROUNDWATER FLOW DIRECTION MARCH 2022
- SEWER LINE (SOURCE: CITY OF MOXEE)

INFERRED NITRATE CONCENTRATION (mg/L)

- 10 TO 20
- 20 TO 30
- 30 TO 40
- >40 (INFERRED DEEPER PLUME)
- PROPERTY BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. GP-1 THROUGH GP-6 SAMPLED IN OCTOBER 2020 BY HDR.
3. CONCENTRATIONS IN MILLIGRAMS PER LITER (mg/L)
4. ND = NITRATES NOT DETECTED AT OR ABOVE METHOD REPORTING LIMITS
5. -- = NOT ANALYZED
6. BGS = BELOW GROUND SURFACE
7. AERIAL IMAGERY SOURCE: ESRI

N

0 100 200
SCALE IN FEET

HALEY ALDRICH

SIMPLOT MOXEE DATA GAP ASSESSMENT
7528 POSTMA ROAD
MOXEE, WASHINGTON

GROUNDWATER ELEVATIONS WITH NITRATE CONCENTRATIONS OCTOBER 2020 AND MARCH 2022

JUNE 2022

FIGURE 4

GIS: \\haleyaldrich.com\share\pdx_data\Notebooks\150045001_Simplot_Moxee Consulting and Field Work\GIS\Pro\150045001_001_0002_SAMPLING_CONCENTRATIONS\150045001_001_0002_SAMPLING_CONCENTRATIONS.aprx - khaskins - 6/6/2022 4:37 PM

POSTMA RD

GRANT WY

STATE ROUTE 24

DP-2
54

DP-1
33

MW-3
69

MW-1
140

1022.50

1022.25

1022.00

1021.75

1021.50

1021.25

1021.00

1020.75

1020.50

GP-6
236 (16)
220 (26)

GP-5
148 (12)
263 (19)

GP-4
518 (12)
320 (19)

CS-6
310

CS-2
--

CS-1
--

CS-3
--

CS-5
--

MW-6
54

CS-4
23

GP-3
466 (12)

GP-2
1430 (12)
365 (17)

GP-1
1530 (12)
502 (16)

MW-4
240

MW-5
470

DP-3
250

DP-4
2600

MW-2
330

DP-5
96

LEGEND

- MARCH 2022 DIRECT-PUSH BORING WITH SULFATE CONCENTRATION
- MONITORING WELL WITH SULFATE CONCENTRATION (DEPTH SAMPLED IN FEET BGS)
- CITY MONITORING WELL WITH SULFATE CONCENTRATION
- OCTOBER 2020 DIRECT-PUSH BORING WITH SULFATE CONCENTRATION (DEPTH SAMPLED IN FEET BGS)
- INFERRED GROUNDWATER ELEVATION CONTOUR, IN FEET
- GENERAL GROUNDWATER FLOW DIRECTION MARCH 2022
- SEWER LINE (SOURCE: CITY OF MOXEE)

INFERRED SULFATE CONCENTRATION (mg/L)

- 250 TO 500
- 500 TO 750
- 750 TO 1000
- >1000
- PROPERTY BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. GP-1 THROUGH GP-6 SAMPLED IN OCTOBER 2020 BY HDR.
3. CONCENTRATIONS IN MILLIGRAMS PER LITER (mg/L)
4. ND = SULFATE NOT DETECTED AT OR ABOVE METHOD REPORTING LIMITS
5. -- = NOT ANALYZED
6. BGS = BELOW GROUND SURFACE
7. AERIAL IMAGERY SOURCE: ESRI

N

0 100 200
SCALE IN FEET

HALEY ALDRICH

SIMPLOT MOXEE DATA GAP ASSESSMENT
7528 POSTMA ROAD
MOXEE, WASHINGTON

GROUNDWATER ELEVATIONS WITH SULFATE CONCENTRATIONS OCTOBER 2020 AND MARCH 2022

JUNE 2022

FIGURE 5

GIS: \\haleyaldrich.com\share\pdx_data\Notebooks\150045001_Simplot_Moxee Consulting and Field Work\GIS\Pro\150045001_001_0002_SAMPLING_CONCENTRATIONS\150045001_001_0002_SAMPLING_CONCENTRATIONS.aprx - khaskins - 6/6/2022 4:25 PM

APPENDIX A
Boring Logs

Sample Description

Identification of soils in this report is based on visual field and laboratory observations which include density/consistency, moisture condition, grain size, and plasticity estimates and should not be construed to imply field nor laboratory testing unless presented herein. ASTM D 2488 visual-manual identification methods were used as a guide. Where laboratory testing confirmed visual-manual identifications, then ASTM D 2487 was used to classify the soils.

Relative Density/Consistency

Soil density/consistency in borings is related primarily to the standard penetration resistance (N). Soil density/consistency in test pits and probes is estimated based on visual observation and is presented parenthetically on the logs.

SAND or GRAVEL Relative Density	N (Blows/Foot)	SILT or CLAY Consistency	N (Blows/Foot)
Very loose	0 to 4	Very soft	0 to 1
Loose	5 to 10	Soft	2 to 4
Medium dense	11 to 30	Medium stiff	5 to 8
Dense	31 to 50	Stiff	9 to 15
Very dense	>50	Very stiff	16 to 30
		Hard	>30

Moisture

Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

USCS Soil Classification Chart (ASTM D 2487)

Major Divisions			Symbols: Graph	Symbols: USCS	Typical Descriptions
Coarse Grained Soils — More than 50% of Material Retained on No. 200 Sieve	Gravel and Gravelly Soils — More than 50% of Coarse Fraction Retained on No. 4 Sieve	Clean Gravels (<5% fines)		GW	Well-Graded Gravel; Well-Graded Gravel with Sand
				GP	Poorly Graded Gravel; Poorly Graded Gravel with Sand
		Gravels (5-12% fines)		GW-GM	Well-Graded Gravel with Silt; Well-Graded Gravel with Silt and Sand
				GW-GC	Well-Graded Gravel with Clay; Well-Graded Gravel with Clay and Sand
				GP-GM	Poorly Graded Gravel with Silt; Poorly Graded Gravel with Silt and Sand
				GP-GC	Poorly Graded Gravel with Clay; Poorly Graded Gravel with Clay and Sand
		Gravels with Fines (>12% fines)		GM	Silty Gravel; Silty Gravel with Sand
				GC	Clayey Gravel; Clayey Gravel with Sand
	Sand and Sandy Soils — More than 50% of Coarse Fraction Passing No. 4 Sieve	Sands with few Fines (<5% fines)		SW	Well-Graded Sand; Well-Graded Sand with Gravel
				SP	Poorly Graded Sand; Poorly Graded Sand with Gravel
		Sands (5-12% fines)		SW-SM	Well-Graded Sand with Silt Well-Graded Sand with Silt and Gravel
				SW-SC	Well-Graded Sand with Clay; Well-Graded Sand with Clay and Gravel
				SP-SM	Poorly Graded Sand with Silt; Poorly Graded Sand with Silt and Gravel
				SP-SC	Poorly Graded Sand with Clay; Poorly Graded Sand with Clay and Gravel
		Sands with Fines (>12% fines)		SM	Silty Sand; Silty Sand with Gravel
				SC	Clayey Sand; Clayey Sand with Gravel
Fine Grained Soils — More than 50% of Material Passing No. 200 Sieve	Silts			ML	Silt; Silt with Sand or Gravel; Sandy or Gravelly Silt
				MH	Elastic Silt; Elastic Silt with Sand or Gravel; Sandy or Gravelly Elastic Silt
	Silty Clay (based on Atterberg Limits)			CL-ML	Silty Clay; Silty Clay with Sand or Gravel; Gravelly or Sandy Silty Clay
	Clays			CL	Lean Clay; Lean Clay with Sand or Gravel; Sandy or Gravelly Lean Clay
				CH	Fat Clay; Fat Clay with Sand or Gravel; Sandy or Gravelly Fat Clay
	Organics			OL/OH	Organic Soil; Organic Soil with Sand or Gravel; Sandy or Gravelly Organic Soil
Highly Organic (>50% organic material)				PT	Peat - Decomposing Vegetation - Fibrous to Amorphous Texture

Minor Constituents

	Estimated Percentage
Sand, Gravel	
Trace	<5
Few	5 - 15
Cobbles, Boulders	
Trace	<5
Few	5 - 10
Little	15 - 25
Some	30 - 45

Soil Test Symbols

%F	Percent Passing No. 200 Sieve
AL	Atterberg Limits (%)
	Liquid Limit (LL)
	Water Content (WC)
	Plastic Limit (PL)
CA	Chemical Analysis
CAUC	Consolidated Anisotropic Undrained Compression
CAUE	Consolidated Anisotropic Undrained Extension
CBR	California Bearing Ratio
CIDC	Consolidated Drained Isotropic Triaxial Compression
CIUC	Consolidated Isotropic Undrained Compression
CK0DC	Consolidated Drained k0 Triaxial Compression
CK0DSS	Consolidated k0 Undrained Direct Simple Shear
CK0UC	Consolidated k0 Undrained Compression
CK0UE	Consolidated k0 Undrained Extension
CRSCN	Constant Rate of Strain Consolidation
DS	Direct Shear
DSS	Direct Simple Shear
DT	In Situ Density
GS	Grain Size Classification
HYD	Hydrometer
ILCN	Incremental Load Consolidation
K0CN	k0 Consolidation
kc	Constant Head Permeability
kf	Falling Head Permeability
MD	Moisture Density Relationship
OC	Organic Content
OT	Tests by Others
P	Pressuremeter
PID	Photoionization Detector Reading
PP	Pocket Penetrometer
SG	Specific Gravity
TRS	Torsional Ring Shear
TV	Torvane
UC	Unconfined Compression
UUC	Unconsolidated Undrained Triaxial Compression
VS	Vane Shear
WC	Water Content (%)

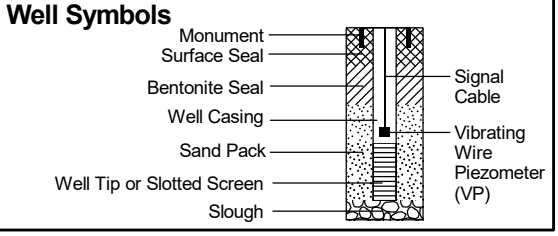
Groundwater Indicators

- Groundwater Level on Date or At Time of Drilling (ATD)
- Groundwater Level on Date Measured in Piezometer
- Groundwater Seepage (Test Pits)

Sample Symbols

- 1.5" I.D. Split Spoon
- 3.0" I.D. Split Spoon
- Modified California Sampler
- Rock Core Run
- Sonic Core
- Thin-walled Sampler
- Grab
- Cuttings
- Push Probe

Well Symbols



HARTCROWSER A division of Haley & Aldrich	Project: Simplot Moxee Data Gap Assessment Location: Moxee, Washington Project No.: 150-045-001	**Key to Exploration Logs**	Figure **A-1** Sheet **1 of 1**

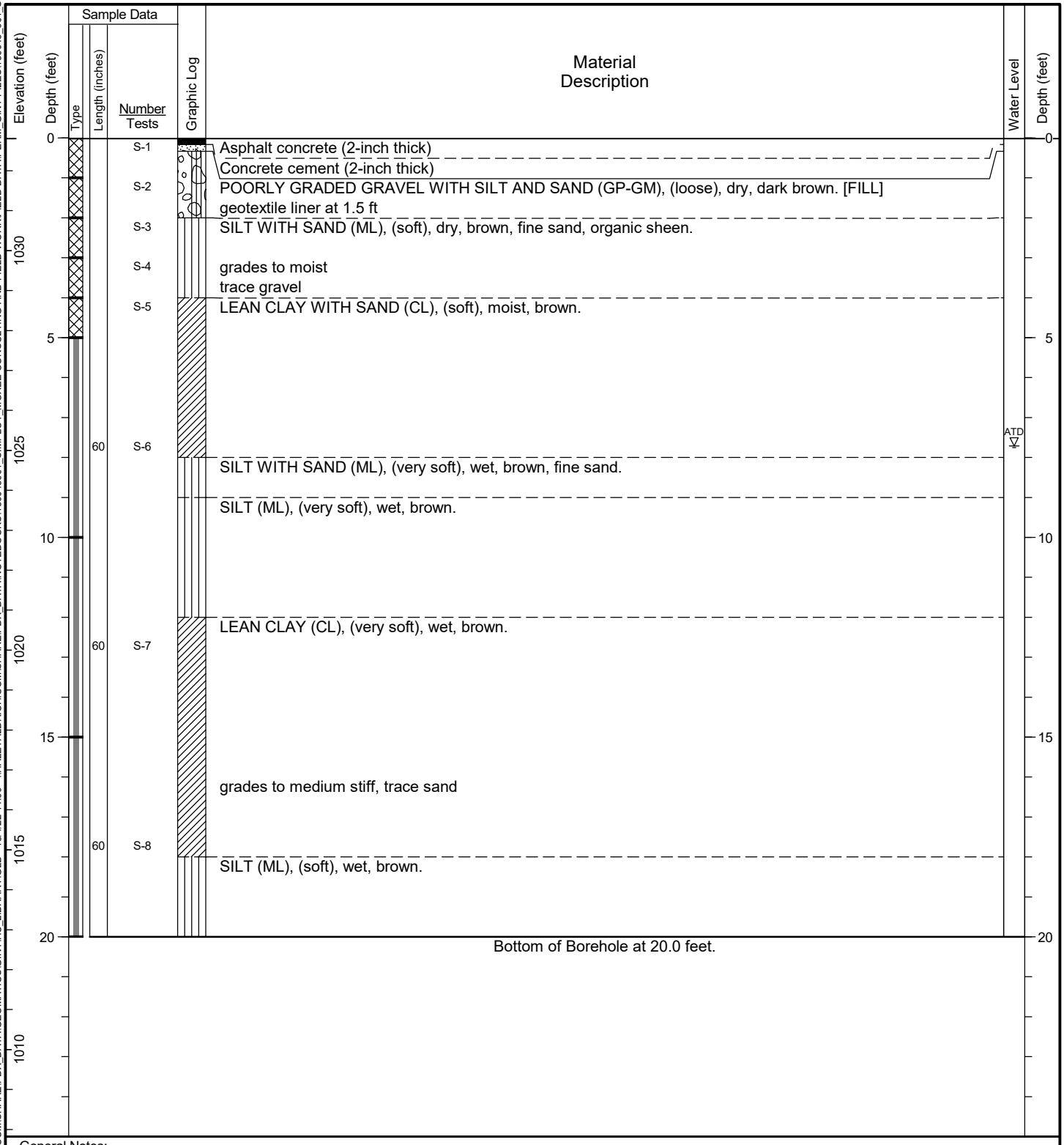
Date Started: 03/03/2022 Date Completed: 03/03/2022 Contractor/Crew: Holocene Drilling, Inc. / Casey

Logged by: K. Huddleston Checked by: W. McDonald Rig Model/Type: GeoProbe® 7800

Location: Lat: 46.562590 Long: -120.398663 (WGS 84) Hole Diameter: 2 inches Well Casing Diameter: NA

Ground Surface Elevation: 1,032.82 feet (NAVD 88) Total Depth: 20 feet Depth to Groundwater: 7.71 feet

Comments:



General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

HARTCROWSER A division of Haley & Aldrich

Project: Simplot Moxee Data Gap Assessment
Location: Moxee, Washington
Project No.: 150-045-001

Push Probe Log
DP-1

Figure **A-2**
Sheet **1 of 1**

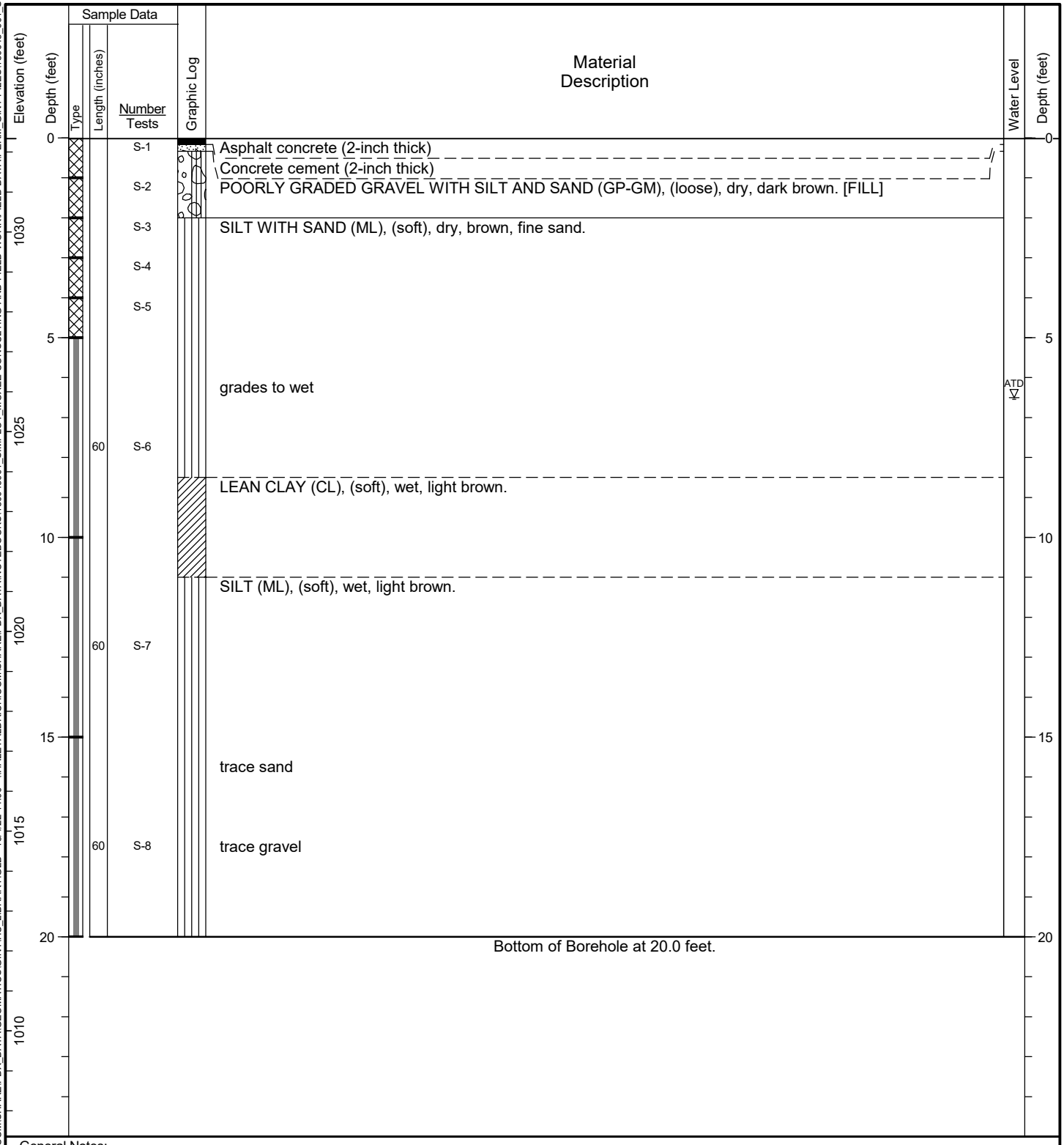
Date Started: 03/03/2022 Date Completed: 03/03/2022 Contractor/Crew: Holocene Drilling, Inc. / Casey

Logged by: K. Huddleston Checked by: W. McDonald Rig Model/Type: GeoProbe® 7800

Location: Lat: 46.562591 Long: -120.399225 (WGS 84) Hole Diameter: 2 inches Well Casing Diameter: NA

Ground Surface Elevation: 1,032.35 feet (NAVD 88) Total Depth: 20 feet Depth to Groundwater: 6.5 feet

Comments:



General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

HARTCROWSER A division of Haley & Aldrich

Project: Simplot Moxee Data Gap Assessment
Location: Moxee, Washington
Project No.: 150-045-001

Push Probe Log
DP-2

Figure **A-3**
Sheet **1 of 1**

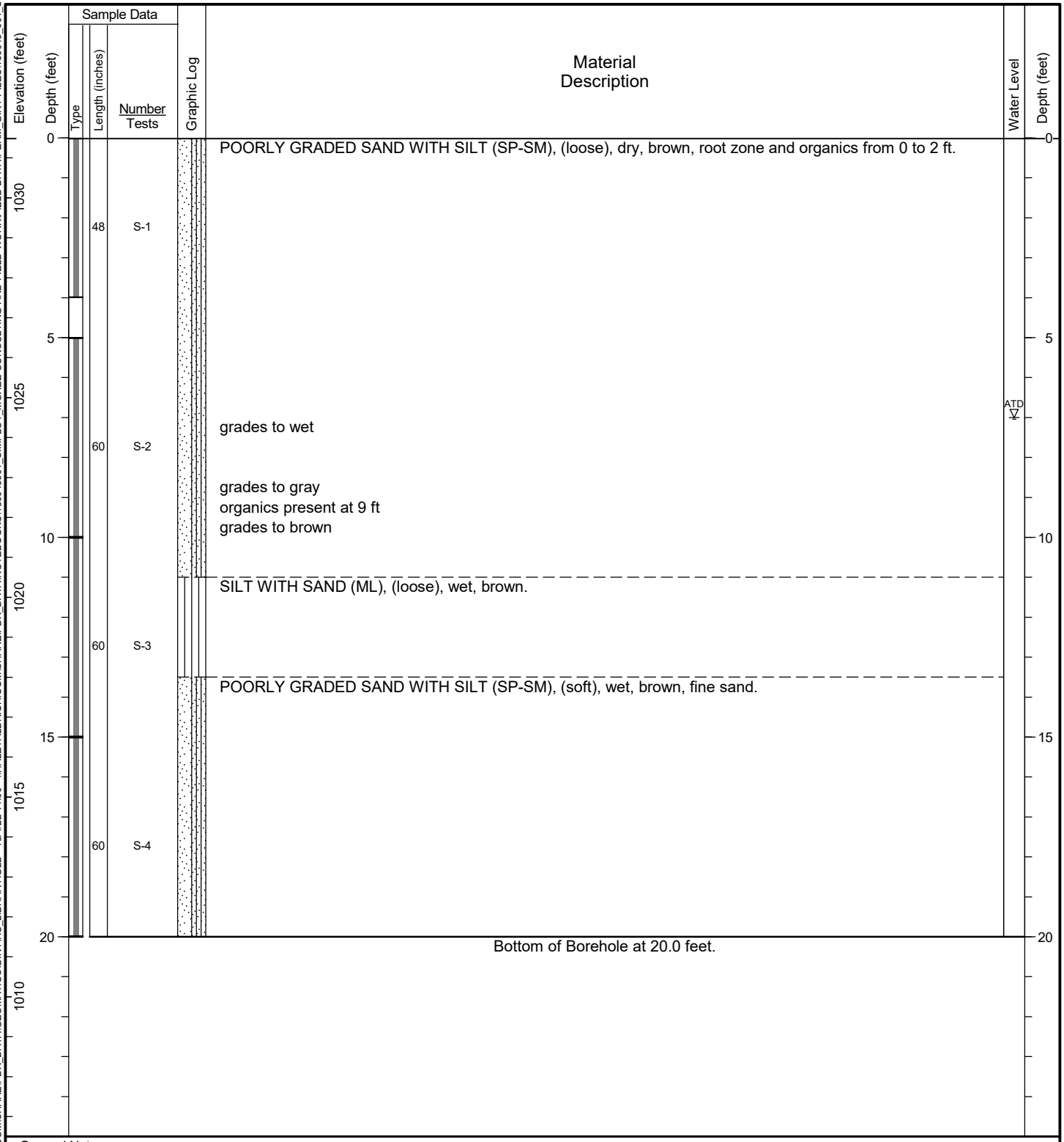
Date Started: 03/03/2022 Date Completed: 03/03/2022 Contractor/Crew: Holocene Drilling, Inc. / Casey

Logged by: K. Huddleston Checked by: W. McDonald Rig Model/Type: GeoProbe® 7800

Location: Lat: 46.561959 Long: -120.399210 (WGS 84) Hole Diameter: 2 inches Well Casing Diameter: NA

Ground Surface Elevation: 1,031.50 feet (NAVD 88) Total Depth: 20 feet Depth to Groundwater: 7 feet

Comments:



General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

HARTCROWSER A division of Haley & Aldrich	Project: Simplot Moxee Data Gap Assessment Location: Moxee, Washington Project No.: 150-045-001	Push Probe Log **DP-3**	Figure **A-4** Sheet **1 of 1**

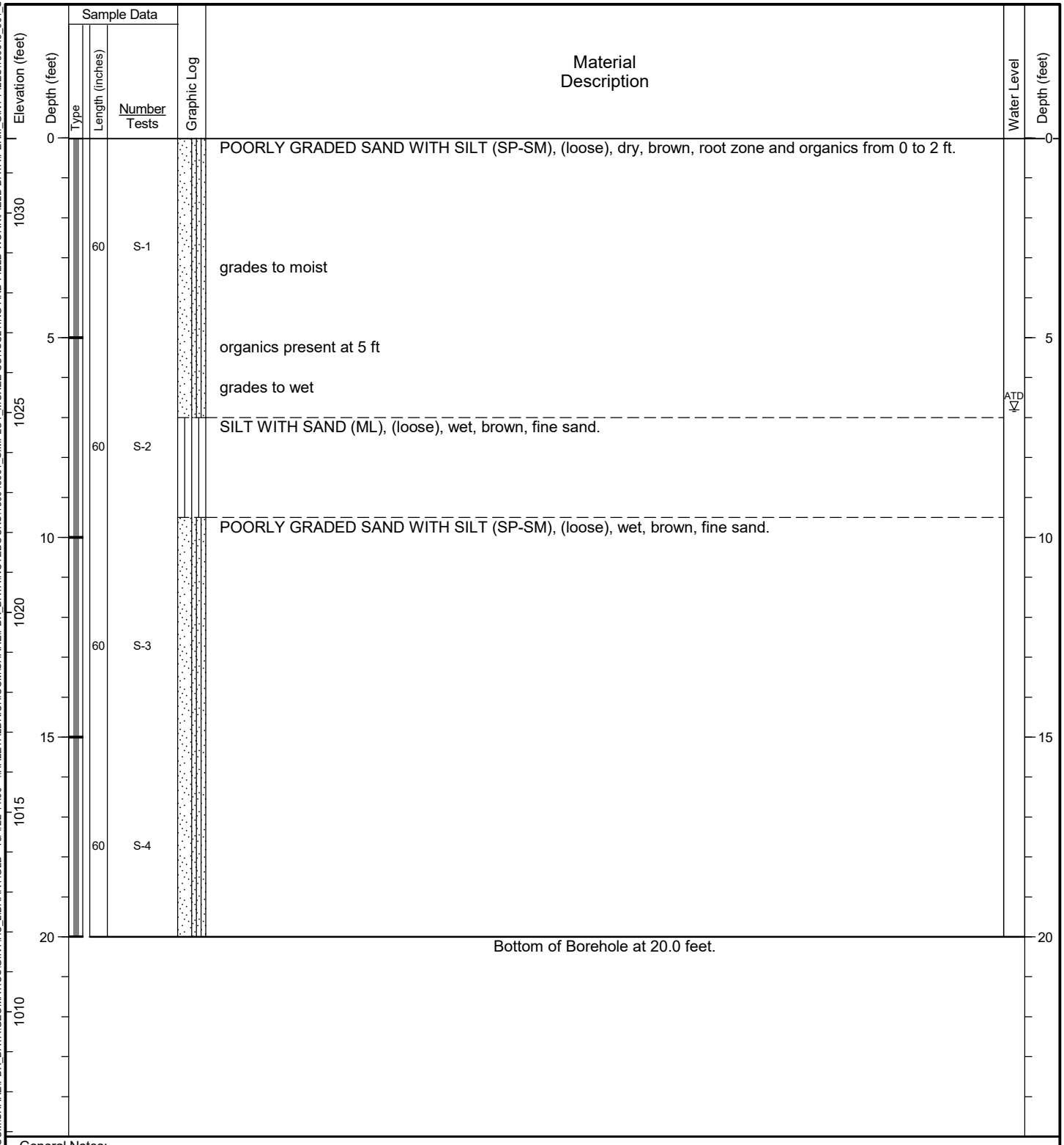
Date Started: 03/03/2022 Date Completed: 03/03/2022 Contractor/Crew: Holocene Drilling, Inc. / Casey

Logged by: K. Huddleston Checked by: W. McDonald Rig Model/Type: GeoProbe® 7800

Location: Lat: 46.561542 Long: -120.399240 (WGS 84) Hole Diameter: 2 inches Well Casing Diameter: NA

Ground Surface Elevation: 1,031.88 feet (NAVD 88) Total Depth: 20 feet Depth to Groundwater: 6.81 feet

Comments:



General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

HARTCROWSER A division of Haley & Aldrich

Project: Simplot Moxee Data Gap Assessment
Location: Moxee, Washington
Project No.: 150-045-001

Push Probe Log
DP-4

Figure **A-5**
Sheet **1 of 1**

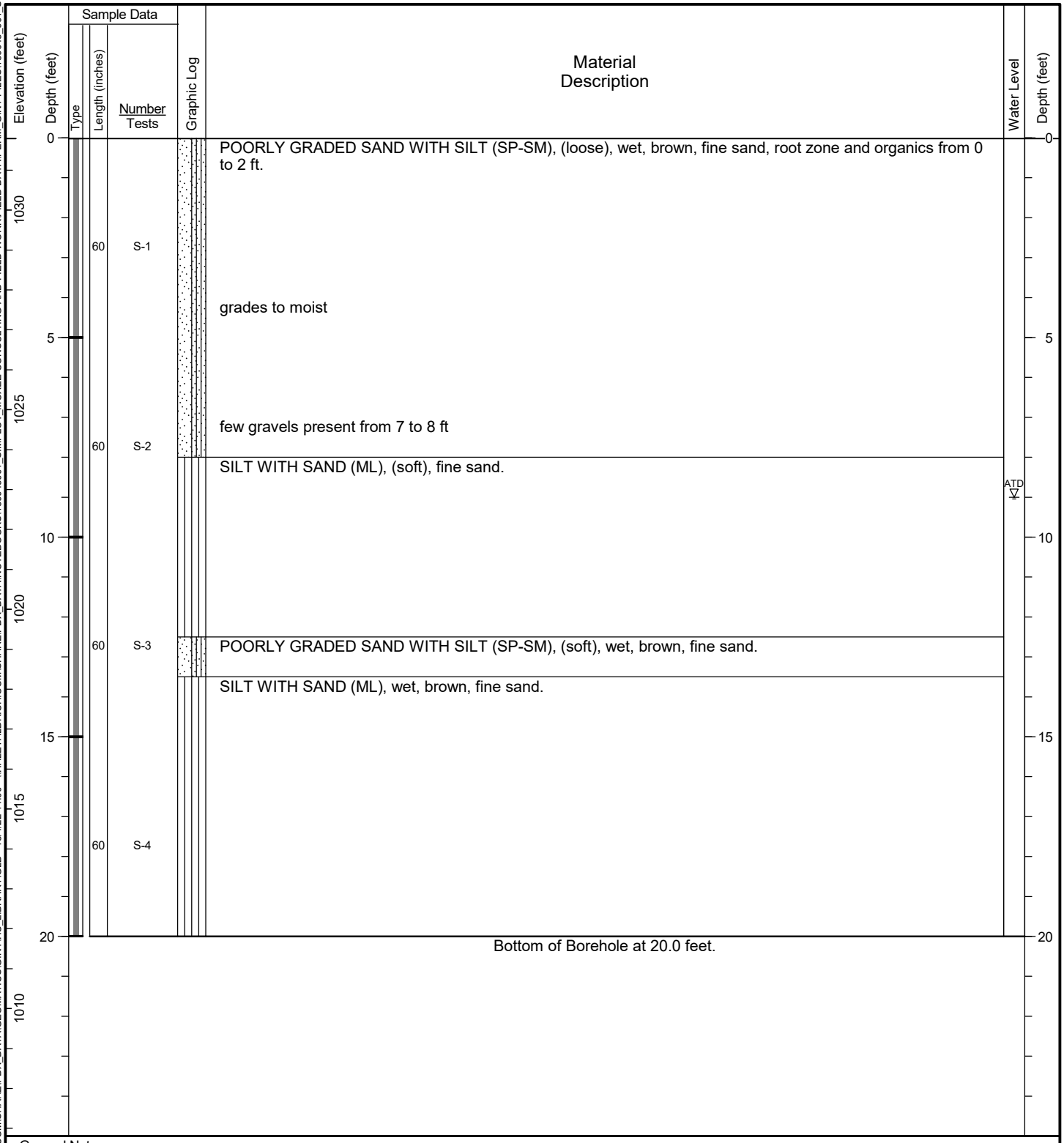
Date Started: 03/03/2022 Date Completed: 03/03/2022 Contractor/Crew: Holocene Drilling, Inc. / Casey

Logged by: K. Huddleston Checked by: W. McDonald Rig Model/Type: GeoProbe® 7800

Location: Lat: 46.560957 Long: -120.399215 (WGS 84) Hole Diameter: 2 inches Well Casing Diameter: NA

Ground Surface Elevation: 1,031.81 feet (NAVD 88) Total Depth: 20 feet Depth to Groundwater: 9 feet

Comments:



General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

HARTCROWSER A division of Haley & Aldrich

Project: Simplot Moxee Data Gap Assessment
Location: Moxee, Washington
Project No.: 150-045-001

Push Probe Log
DP-5

Figure **A-6**
Sheet **1 of 1**

APPENDIX B
Laboratory Reports

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ANALYTICAL REPORT

Eurofins Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-17024-1
Client Project/Site: Simplot/Moxee

For:
Hart Crowser, Inc.
505 West Riverside Avenue, Suite 205
Spokane, Washington 99201

Attn: John Haney

Authorized for release by:
3/24/2022 2:03:09 PM

Randee Arrington, Lab Director
(509)924-9200
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Table of Contents

Case Narrative

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17024-1

Job ID: 590-17024-1

Laboratory: Eurofins Spokane

Narrative

Receipt
The samples were received on 3/3/2022 4:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.2º C.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method SM 2540C: Due to the matrix, the initial volumes used for the following samples deviated from the standard procedure: MW-1 (590-17024-1), MW-2 (590-17024-2), MW-3 (590-17024-3), MW-4 (590-17024-4), MW-5 (590-17024-5), MW-6 (590-17024-6), CS-4 (590-17024-7), CS-6 (590-17024-8) and (590-17024-B-1 DU). The reporting limits (RLs) have been adjusted proportionately.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17024-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-17024-1	MW-1	Water	03/02/22 15:20	03/03/22 16:20
590-17024-2	MW-2	Water	03/02/22 16:44	03/03/22 16:20
590-17024-3	MW-3	Water	03/02/22 17:43	03/03/22 16:20
590-17024-4	MW-4	Water	03/02/22 16:02	03/03/22 16:20
590-17024-5	MW-5	Water	03/02/22 17:15	03/03/22 16:20
590-17024-6	MW-6	Water	03/03/22 10:25	03/03/22 16:20
590-17024-7	CS-4	Water	03/03/22 11:30	03/03/22 16:20
590-17024-8	CS-6	Water	03/03/22 12:35	03/03/22 16:20

Definitions/Glossary

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17024-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17024-1

Client Sample ID: MW-1
Lab Sample ID: 590-17024-1
Date Collected: 03/02/22 15:20
Matrix: Water
Date Received: 03/03/22 16:20

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**140**		5.0		mg/L			03/08/22 13:48	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	ND		0.50		mg/L		03/12/22 15:48	03/12/22 20:14	1
Nitrate Nitrite as N	**11**		3.0		mg/L			03/23/22 14:30	20
Total Dissolved Solids	**1100**		130		mg/L			03/09/22 14:43	1

Client Sample ID: MW-2
Lab Sample ID: 590-17024-2
Date Collected: 03/02/22 16:44
Matrix: Water
Date Received: 03/03/22 16:20

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**330**		5.0		mg/L			03/08/22 14:01	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	ND		0.50		mg/L		03/12/22 15:48	03/12/22 20:14	1
Nitrate Nitrite as N	**34**		15		mg/L			03/23/22 14:30	100
Total Dissolved Solids	**2100**		130		mg/L			03/09/22 14:43	1

Client Sample ID: MW-3
Lab Sample ID: 590-17024-3
Date Collected: 03/02/22 17:43
Matrix: Water
Date Received: 03/03/22 16:20

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**69**		0.50		mg/L			03/04/22 16:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	ND		0.50		mg/L		03/12/22 15:48	03/12/22 20:14	1
Nitrate Nitrite as N	**3.8**		3.0		mg/L			03/23/22 14:30	20
Total Dissolved Solids	**740**		130		mg/L			03/09/22 14:43	1

Client Sample ID: MW-4
Lab Sample ID: 590-17024-4
Date Collected: 03/02/22 16:02
Matrix: Water
Date Received: 03/03/22 16:20

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**240**		5.0		mg/L			03/08/22 14:14	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	**54**		5.0		mg/L		03/12/22 15:48	03/12/22 20:14	10
Nitrate Nitrite as N	**33**		3.0		mg/L			03/23/22 14:30	20
Total Dissolved Solids	**1300**		130		mg/L			03/09/22 14:43	1

Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17024-1

Client Sample ID: MW-5

Lab Sample ID: 590-17024-5
Date Collected: 03/02/22 17:15
Matrix: Water
Date Received: 03/03/22 16:20

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**470**		10		mg/L			03/08/22 14:26	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	ND		0.50		mg/L		03/12/22 15:48	03/12/22 20:14	1
Nitrate Nitrite as N	**24**		15		mg/L			03/23/22 14:30	100
Total Dissolved Solids	**2300**		130		mg/L			03/09/22 14:43	1

Client Sample ID: MW-6

Lab Sample ID: 590-17024-6
Date Collected: 03/03/22 10:25
Matrix: Water
Date Received: 03/03/22 16:20

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**54**		5.0		mg/L			03/08/22 12:32	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	ND		0.50		mg/L		03/12/22 15:48	03/12/22 20:14	1
Nitrate Nitrite as N	ND		3.0		mg/L			03/23/22 14:30	20
Total Dissolved Solids	**510**		130		mg/L			03/09/22 14:43	1

Client Sample ID: CS-4

Lab Sample ID: 590-17024-7
Date Collected: 03/03/22 11:30
Matrix: Water
Date Received: 03/03/22 16:20

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**23**		5.0		mg/L			03/08/22 13:23	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	ND		0.50		mg/L		03/12/22 15:48	03/12/22 20:14	1
Nitrate Nitrite as N	ND		3.0		mg/L			03/23/22 14:30	20
Total Dissolved Solids	**820**		130		mg/L			03/09/22 14:43	1

Client Sample ID: CS-6

Lab Sample ID: 590-17024-8
Date Collected: 03/03/22 12:35
Matrix: Water
Date Received: 03/03/22 16:20

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**310**		5.0		mg/L			03/08/22 13:36	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	ND		0.50		mg/L		03/12/22 15:48	03/12/22 20:14	1
Nitrate Nitrite as N	**31**		15		mg/L			03/23/22 14:30	100
Total Dissolved Solids	**1400**		130		mg/L			03/09/22 14:43	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 590-35234/1003
Matrix: Water
Analysis Batch: 35234

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		0.50		mg/L			03/04/22 10:21	1

Lab Sample ID: LCS 590-35234/1004
Matrix: Water
Analysis Batch: 35234

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			12.5	11.7		mg/L		94	90 - 110		

Lab Sample ID: MB 590-35251/1003
Matrix: Water
Analysis Batch: 35251

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		0.50		mg/L			03/08/22 12:07	1

Lab Sample ID: LCS 590-35251/1004
Matrix: Water
Analysis Batch: 35251

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			12.5	12.7		mg/L		102	90 - 110		

Lab Sample ID: 590-17024-6 MS
Matrix: Water
Analysis Batch: 35251

Client Sample ID: MW-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	54		114	168		mg/L		100	80 - 120		

Lab Sample ID: 590-17024-6 MSD
Matrix: Water
Analysis Batch: 35251

Client Sample ID: MW-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	54		114	168		mg/L		100	80 - 120	0	10

Lab Sample ID: 590-17024-6 DU
Matrix: Water
Analysis Batch: 35251

Client Sample ID: MW-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	54			54.4		mg/L				0.08	15.7

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17024-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 580-383683/1-A
Matrix: Water
Analysis Batch: 383685

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 383683

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	ND		0.50		mg/L		03/12/22 15:48	03/12/22 20:14	1

Lab Sample ID: LCS 580-383683/2-A
Matrix: Water
Analysis Batch: 383685

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 383683

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia as N	2.00	1.94		mg/L		97	90 - 110

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 580-384889/5
Matrix: Water
Analysis Batch: 384889

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.15		mg/L			03/23/22 14:30	1

Lab Sample ID: LCS 580-384889/6
Matrix: Water
Analysis Batch: 384889

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.500	0.497		mg/L		99	90 - 110

Lab Sample ID: LCSD 580-384889/7
Matrix: Water
Analysis Batch: 384889

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.500	0.502		mg/L		100	90 - 110	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 590-35294/1
Matrix: Water
Analysis Batch: 35294

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		25		mg/L			03/09/22 14:43	1

Lab Sample ID: LCS 590-35294/2
Matrix: Water
Analysis Batch: 35294

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	504	505		mg/L		100	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 590-17024-1 DU
Matrix: Water
Analysis Batch: 35294

Client Sample ID: MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1100			1140		mg/L				1	10

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17024-1

Client Sample ID: MW-1
Date Collected: 03/02/22 15:20
Date Received: 03/03/22 16:20

Lab Sample ID: 590-17024-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			35251	03/08/22 13:48	NMI	TAL SPK
Total/NA	Prep	Distill/Ammonia			50 mL	50 mL	383683	03/12/22 15:48	MLT	FGS SEA
Total/NA	Analysis	350.1		1	50 mL	50 mL	383685	03/12/22 20:14	MLT	FGS SEA
Total/NA	Analysis	353.2		20	50 mL	50 mL	384889	03/23/22 14:30	R1K	FGS SEA
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	35294	03/09/22 14:43	AMB	TAL SPK

Client Sample ID: MW-2
Date Collected: 03/02/22 16:44
Date Received: 03/03/22 16:20

Lab Sample ID: 590-17024-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			35251	03/08/22 14:01	NMI	TAL SPK
Total/NA	Prep	Distill/Ammonia			50 mL	50 mL	383683	03/12/22 15:48	MLT	FGS SEA
Total/NA	Analysis	350.1		1	50 mL	50 mL	383685	03/12/22 20:14	MLT	FGS SEA
Total/NA	Analysis	353.2		100	50 mL	50 mL	384889	03/23/22 14:30	R1K	FGS SEA
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	35294	03/09/22 14:43	AMB	TAL SPK

Client Sample ID: MW-3
Date Collected: 03/02/22 17:43
Date Received: 03/03/22 16:20

Lab Sample ID: 590-17024-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			35234	03/04/22 16:55	AMB	TAL SPK
Total/NA	Prep	Distill/Ammonia			50 mL	50 mL	383683	03/12/22 15:48	MLT	FGS SEA
Total/NA	Analysis	350.1		1	50 mL	50 mL	383685	03/12/22 20:14	MLT	FGS SEA
Total/NA	Analysis	353.2		20	50 mL	50 mL	384889	03/23/22 14:30	R1K	FGS SEA
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	35294	03/09/22 14:43	AMB	TAL SPK

Client Sample ID: MW-4
Date Collected: 03/02/22 16:02
Date Received: 03/03/22 16:20

Lab Sample ID: 590-17024-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			35251	03/08/22 14:14	NMI	TAL SPK
Total/NA	Prep	Distill/Ammonia			50 mL	50 mL	383683	03/12/22 15:48	MLT	FGS SEA
Total/NA	Analysis	350.1		10	50 mL	50 mL	383685	03/12/22 20:14	MLT	FGS SEA
Total/NA	Analysis	353.2		20	50 mL	50 mL	384889	03/23/22 14:30	R1K	FGS SEA
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	35294	03/09/22 14:43	AMB	TAL SPK

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17024-1

Client Sample ID: MW-5
Date Collected: 03/02/22 17:15
Date Received: 03/03/22 16:20

Lab Sample ID: 590-17024-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20			35251	03/08/22 14:26	NMI	TAL SPK
Total/NA	Prep	Distill/Ammonia			50 mL	50 mL	383683	03/12/22 15:48	MLT	FGS SEA
Total/NA	Analysis	350.1		1	50 mL	50 mL	383685	03/12/22 20:14	MLT	FGS SEA
Total/NA	Analysis	353.2		100	50 mL	50 mL	384889	03/23/22 14:30	R1K	FGS SEA
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	35294	03/09/22 14:43	AMB	TAL SPK

Client Sample ID: MW-6
Date Collected: 03/03/22 10:25
Date Received: 03/03/22 16:20

Lab Sample ID: 590-17024-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			35251	03/08/22 12:32	NMI	TAL SPK
Total/NA	Prep	Distill/Ammonia			50 mL	50 mL	383683	03/12/22 15:48	MLT	FGS SEA
Total/NA	Analysis	350.1		1	50 mL	50 mL	383685	03/12/22 20:14	MLT	FGS SEA
Total/NA	Analysis	353.2		20	50 mL	50 mL	384889	03/23/22 14:30	R1K	FGS SEA
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	35294	03/09/22 14:43	AMB	TAL SPK

Client Sample ID: CS-4
Date Collected: 03/03/22 11:30
Date Received: 03/03/22 16:20

Lab Sample ID: 590-17024-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			35251	03/08/22 13:23	NMI	TAL SPK
Total/NA	Prep	Distill/Ammonia			50 mL	50 mL	383683	03/12/22 15:48	MLT	FGS SEA
Total/NA	Analysis	350.1		1	50 mL	50 mL	383685	03/12/22 20:14	MLT	FGS SEA
Total/NA	Analysis	353.2		20	50 mL	50 mL	384889	03/23/22 14:30	R1K	FGS SEA
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	35294	03/09/22 14:43	AMB	TAL SPK

Client Sample ID: CS-6
Date Collected: 03/03/22 12:35
Date Received: 03/03/22 16:20

Lab Sample ID: 590-17024-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			35251	03/08/22 13:36	NMI	TAL SPK
Total/NA	Prep	Distill/Ammonia			50 mL	50 mL	383683	03/12/22 15:48	MLT	FGS SEA
Total/NA	Analysis	350.1		1	50 mL	50 mL	383685	03/12/22 20:14	MLT	FGS SEA
Total/NA	Analysis	353.2		100	50 mL	50 mL	384889	03/23/22 14:30	R1K	FGS SEA
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	35294	03/09/22 14:43	AMB	TAL SPK

Laboratory References:

FGS SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

TAL SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17024-1

Laboratory: Eurofins Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-23

Laboratory: Eurofins Seattle

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-25
ANAB	Dept. of Defense ELAP	L2236	01-19-25
ANAB	Dept. of Energy	L2236	01-19-25
ANAB	ISO/IEC 17025	L2236	01-19-25
California	State	2954	07-07-22
Florida	NELAP	E87575	06-30-22
Louisiana	NELAP	03073	06-30-22
Maine	State	2020012	05-02-22
Montana (UST)	State	NA	04-14-27
New Jersey	NELAP	WA014	06-30-22
New York	NELAP	11662	04-01-22
Oregon	NELAP	4167	07-07-22
US Fish & Wildlife	US Federal Programs	058448	05-31-22
USDA	US Federal Programs	P330-20-00031	02-10-23
Washington	State	C788	07-13-22
Wisconsin	State	399133460	08-31-22

Method Summary

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17024-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL SPK
350.1	Nitrogen, Ammonia	MCAWW	FGS SEA
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	FGS SEA
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL SPK
Distill/Ammonia	Distillation, Ammonia	None	FGS SEA

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

FGS SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

TAL SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Address _____

Chain of Custody Record

559846 eurofins | Environment Testing TestAmerica

Regulatory Program ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TAL-8210

Client Contact	Project Manager: John Haney	Site Contact: Chad	Date	COC No:
Company Name: Hart Crowser	Tel/Email	Lab Contact:	Carrier:	1 of 1 COCs
Address: 3131 Elliot Ave Suite 600	Analysis Turnaround Time			Sampler:
City/State/Zip: Seattle, WA 98121	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 206 324 9530	TAT if different from Below _____			Walk-in Client.
Fax:	☒ 2 weeks			Lab Sampling
Project Name: Simplot/Moxee	☐ 1 week			
Site	☐ 2 days			Job / SDG No
P O #: 1500450-01	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Nitrate-N EPA 353.2	Ammonia-N EPA 350.1	TDS SM 2540C	Sulfate EPA 300.0	Sample Specific Notes
MW-1	3/2/22	15:20		H_2O	2			X	X	X	X	
MW-2		16:44			2			X	X	X	X	
MW-3		17:43			2			X	X	X	X	
MW-4		16:02			2			X	X	X	X	
MW-5		17:15			2			X	X	X	X	
MW-6	3/3/22	10:25			2			X	X	X	X	
CS-4		11:30			2			X	X	X	X	
CS-6		12:35			2			X	X	X	X	

590-17024 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification

Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments

48 hr hold time

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No	Cooler Temp (°C). Obs'd 2.0 Corr'd 2.2	Therm ID No. IR006

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
[signature]	HC 3/3/22	16.20	[signature]	ECT SPO	3/3/22 16 20
Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Relinquished by	Company	Date/Time:	Received in Laboratory by	Company	Date/Time:

Eurofins Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone: 509-924-9200 Fax: 509-924-9290

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arrington, Randee E	Carrier Tracking No(s):	COC No: 590-6691.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Randee.Arrington@Eurofinset.com	State of Origin: Washington	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest,		Accreditations Required (See note): State Program - Washington		Job #: 590-17024-1
Address: 5755 8th Street East, ,	Due Date Requested: 3/17/2022			
City: Tacoma	TAT Requested (days):			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #:			
Email:	WO #:			
Project Name: Simplot/Moxee	Project #: 59001939			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	350.1/Distill_Ammonia Ammonia	353.2/353.2_Prep Nitrogen, Nitrate	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
MW-1 (590-17024-1)	3/2/22	15:20 Pacific		Water			X	X	1	
MW-2 (590-17024-2)	3/2/22	16:44 Pacific		Water			X	X	1	
MW-3 (590-17024-3)	3/2/22	17:43 Pacific		Water			X	X	1	
MW-4 (590-17024-4)	3/2/22	16:02 Pacific		Water			X	X	1	
MW-5 (590-17024-5)	3/2/22	17:15 Pacific		Water			X	X	1	
MW-6 (590-17024-6)	3/3/22	10:25 Pacific		Water			X	X	1	
CS-4 (590-17024-7)	3/3/22	11:30 Pacific		Water			X	X	1	
CS-6 (590-17024-8)	3/3/22	12:35 Pacific		Water			X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northwest, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northwest, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	M. Vaught	3/7/22 15:45	EES 580		3/8/22 935	EFGS
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: IR8 0.2/0.0

Login Sample Receipt Checklist

Client: Hart Crowser, Inc.

Job Number: 590-17024-1

Login Number: 17024
List Number: 1
Creator: Vaughan, Madison 1

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Hart Crowser, Inc.

Job Number: 590-17024-1

Login Number: 17024
List Number: 2
Creator: Blankinship, Tom X

List Source: Eurofins Seattle
List Creation: 03/08/22 03:53 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.2°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	False	Preservation labels on samples match COC
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

Laboratory Job ID: 590-17038-1
Client Project/Site: Simplot/Moxee

For:
Hart Crowser, Inc.
505 West Riverside Avenue, Suite 205
Spokane, Washington 99201

Attn: John Haney

Authorized for release by:
3/18/2022 4:41:07 PM

Randee Arrington, Lab Director
(509)924-9200
Randee.Arrington@Eurofinset.com

Table of Contents

Case Narrative

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17038-1

Job ID: 590-17038-1

Laboratory: Eurofins Spokane

Narrative

Receipt
The samples were received on 3/4/2022 11:35 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.2º C.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method SM 2540C: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: DP-5 (590-17038-1), DP-4 (590-17038-2), DP-3 (590-17038-3), DP-2 (590-17038-4), DP-1 (590-17038-5) and (590-17038-A-1 DU). The reporting limits (RLs) have been adjusted proportionately.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17038-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-17038-1	DP-5	Water	03/03/22 19:00	03/04/22 11:35
590-17038-2	DP-4	Water	03/03/22 19:20	03/04/22 11:35
590-17038-3	DP-3	Water	03/03/22 19:35	03/04/22 11:35
590-17038-4	DP-2	Water	03/03/22 14:25	03/04/22 11:35
590-17038-5	DP-1	Water	03/03/22 12:15	03/04/22 11:35
590-17038-6	DP-5 (8-9)	Solid	03/03/22 15:30	03/04/22 11:35
590-17038-7	DP-4 (5-6)	Solid	03/03/22 16:44	03/04/22 11:35
590-17038-8	DP-3 (6-7)	Solid	03/03/22 17:30	03/04/22 11:35
590-17038-9	DP-2 (5-6)	Solid	03/03/22 13:02	03/04/22 11:35
590-17038-10	DP-1 (6-7)	Solid	03/03/22 10:06	03/04/22 11:35

Definitions/Glossary

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17038-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17038-1

Client Sample ID: DP-5

Lab Sample ID: 590-17038-1
Date Collected: 03/03/22 19:00
Matrix: Water
Date Received: 03/04/22 11:35

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.24		0.20		mg/L			03/04/22 15:26	1
Sulfate	96		0.50		mg/L			03/04/22 15:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	790		130		mg/L			03/10/22 16:00	1

Client Sample ID: DP-4

Lab Sample ID: 590-17038-2
Date Collected: 03/03/22 19:20
Matrix: Water
Date Received: 03/04/22 11:35

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.92		0.20		mg/L			03/04/22 15:39	1
Sulfate	2600		50		mg/L			03/08/22 15:04	100

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	6300		130		mg/L			03/10/22 16:00	1

Client Sample ID: DP-3

Lab Sample ID: 590-17038-3
Date Collected: 03/03/22 19:35
Matrix: Water
Date Received: 03/04/22 11:35

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.38		0.20		mg/L			03/04/22 15:51	1
Sulfate	250		10		mg/L			03/08/22 15:17	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2400		130		mg/L			03/10/22 16:00	1

Client Sample ID: DP-2

Lab Sample ID: 590-17038-4
Date Collected: 03/03/22 14:25
Matrix: Water
Date Received: 03/04/22 11:35

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.9		0.20		mg/L			03/04/22 16:04	1
Sulfate	54		0.50		mg/L			03/04/22 16:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	620		130		mg/L			03/10/22 16:00	1

Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17038-1

Client Sample ID: DP-1

Lab Sample ID: 590-17038-5
Date Collected: 03/03/22 12:15
Matrix: Water
Date Received: 03/04/22 11:35

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.56**		0.20		mg/L			03/04/22 16:17	1
Sulfate	**33**		0.50		mg/L			03/04/22 16:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**680**		130		mg/L			03/10/22 16:00	1

Client Sample ID: DP-5 (8-9)

Lab Sample ID: 590-17038-6
Date Collected: 03/03/22 15:30
Matrix: Solid
Date Received: 03/04/22 11:35
Percent Solids: 72.5

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		1.9		mg/Kg	☼		03/17/22 01:33	1
Sulfate	**35**		25		mg/Kg	☼		03/17/22 01:33	1

Client Sample ID: DP-4 (5-6)

Lab Sample ID: 590-17038-7
Date Collected: 03/03/22 16:44
Matrix: Solid
Date Received: 03/04/22 11:35
Percent Solids: 74.0

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**7.4**		1.9		mg/Kg	☼		03/17/22 01:56	1
Sulfate	**4400**		130		mg/Kg	☼		03/17/22 02:08	5

Client Sample ID: DP-3 (6-7)

Lab Sample ID: 590-17038-8
Date Collected: 03/03/22 17:30
Matrix: Solid
Date Received: 03/04/22 11:35
Percent Solids: 75.6

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		1.8		mg/Kg	☼		03/17/22 03:18	1
Sulfate	**260**		24		mg/Kg	☼		03/17/22 03:18	1

Client Sample ID: DP-2 (5-6)

Lab Sample ID: 590-17038-9
Date Collected: 03/03/22 13:02
Matrix: Solid
Date Received: 03/04/22 11:35
Percent Solids: 77.4

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**17**		1.9		mg/Kg	☼		03/17/22 03:42	1
Sulfate	**51**		25		mg/Kg	☼		03/17/22 03:42	1

Client Sample ID: DP-1 (6-7)

Lab Sample ID: 590-17038-10
Date Collected: 03/03/22 10:06
Matrix: Solid
Date Received: 03/04/22 11:35
Percent Solids: 75.2

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		1.9		mg/Kg	☼		03/17/22 03:53	1
Sulfate	ND		25		mg/Kg	☼		03/17/22 03:53	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 590-35233/1003
Matrix: Water
Analysis Batch: 35233

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20		mg/L			03/04/22 10:21	1

Lab Sample ID: LCS 590-35233/1004
Matrix: Water
Analysis Batch: 35233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	5.00	4.68		mg/L		94	90 - 110

Lab Sample ID: MB 590-35234/1003
Matrix: Water
Analysis Batch: 35234

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		0.50		mg/L			03/04/22 10:21	1

Lab Sample ID: LCS 590-35234/1004
Matrix: Water
Analysis Batch: 35234

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	12.5	11.7		mg/L		94	90 - 110

Lab Sample ID: MB 590-35251/1003
Matrix: Water
Analysis Batch: 35251

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		0.50		mg/L			03/08/22 12:07	1

Lab Sample ID: LCS 590-35251/1004
Matrix: Water
Analysis Batch: 35251

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	12.5	12.7		mg/L		102	90 - 110

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 580-384120/1-A
Matrix: Solid
Analysis Batch: 384252

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		1.5		mg/Kg			03/17/22 00:23	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 580-384120/2-A
Matrix: Solid
Analysis Batch: 384252

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N			50.0	48.5		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 580-384120/3-A
Matrix: Solid
Analysis Batch: 384252

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N			50.0	48.1		mg/Kg		96	90 - 110	1	15

Lab Sample ID: 590-17038-10 MS
Matrix: Solid
Analysis Batch: 384252

Client Sample ID: DP-1 (6-7)
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N	ND		63.4	62.1		mg/Kg	☼	96	90 - 110		

Lab Sample ID: 590-17038-10 MSD
Matrix: Solid
Analysis Batch: 384252

Client Sample ID: DP-1 (6-7)
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	ND		63.4	62.2		mg/Kg	☼	96	90 - 110	0	15

Lab Sample ID: MB 580-384120/1-A
Matrix: Solid
Analysis Batch: 384258

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		20		mg/Kg			03/17/22 00:23	1

Lab Sample ID: LCS 580-384120/2-A
Matrix: Solid
Analysis Batch: 384258

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			500	486		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 580-384120/3-A
Matrix: Solid
Analysis Batch: 384258

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate			500	483		mg/Kg		97	90 - 110	1	15

Lab Sample ID: 590-17038-10 MS
Matrix: Solid
Analysis Batch: 384258

Client Sample ID: DP-1 (6-7)
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	ND		634	628		mg/Kg	☼	97	90 - 110		

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17038-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 590-17038-10 MSD
Matrix: Solid
Analysis Batch: 384258

Client Sample ID: DP-1 (6-7)
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	ND		634	629		mg/Kg	☼	97	90 - 110	0	15

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 590-35317/1
Matrix: Water
Analysis Batch: 35317

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		25		mg/L			03/10/22 16:00	1

Lab Sample ID: LCS 590-35317/2
Matrix: Water
Analysis Batch: 35317

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			504	507		mg/L		101	80 - 120		

Lab Sample ID: 590-17038-1 DU
Matrix: Water
Analysis Batch: 35317

Client Sample ID: DP-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	790			805		mg/L				2	10

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17038-1

Client Sample ID: DP-5
Date Collected: 03/03/22 19:00
Date Received: 03/04/22 11:35

Lab Sample ID: 590-17038-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			35233	03/04/22 15:26	AMB	TAL SPK
Total/NA	Analysis	300.0		1			35234	03/04/22 15:26	AMB	TAL SPK
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	35317	03/10/22 16:00	AMB	TAL SPK

Client Sample ID: DP-4
Date Collected: 03/03/22 19:20
Date Received: 03/04/22 11:35

Lab Sample ID: 590-17038-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			35233	03/04/22 15:39	AMB	TAL SPK
Total/NA	Analysis	300.0		100			35251	03/08/22 15:04	NMI	TAL SPK
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	35317	03/10/22 16:00	AMB	TAL SPK

Client Sample ID: DP-3
Date Collected: 03/03/22 19:35
Date Received: 03/04/22 11:35

Lab Sample ID: 590-17038-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			35233	03/04/22 15:51	AMB	TAL SPK
Total/NA	Analysis	300.0		20			35251	03/08/22 15:17	NMI	TAL SPK
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	35317	03/10/22 16:00	AMB	TAL SPK

Client Sample ID: DP-2
Date Collected: 03/03/22 14:25
Date Received: 03/04/22 11:35

Lab Sample ID: 590-17038-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			35233	03/04/22 16:04	AMB	TAL SPK
Total/NA	Analysis	300.0		1			35234	03/04/22 16:04	AMB	TAL SPK
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	35317	03/10/22 16:00	AMB	TAL SPK

Client Sample ID: DP-1
Date Collected: 03/03/22 12:15
Date Received: 03/04/22 11:35

Lab Sample ID: 590-17038-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			35233	03/04/22 16:17	AMB	TAL SPK
Total/NA	Analysis	300.0		1			35234	03/04/22 16:17	AMB	TAL SPK
Total/NA	Analysis	SM 2540C		1	20 mL	100 mL	35317	03/10/22 16:00	AMB	TAL SPK

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17038-1

Client Sample ID: DP-5 (8-9)
Date Collected: 03/03/22 15:30
Date Received: 03/04/22 11:35

Lab Sample ID: 590-17038-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			384160	03/17/22 10:23	TOA	FGS SEA

Client Sample ID: DP-5 (8-9)
Date Collected: 03/03/22 15:30
Date Received: 03/04/22 11:35

Lab Sample ID: 590-17038-6
Matrix: Solid
Percent Solids: 72.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.4944 g	50 mL	384120	03/16/22 19:01	JHR	FGS SEA
Soluble	Analysis	300.0		1	5 mL	5 mL	384252	03/17/22 01:33	JHR	FGS SEA
Soluble	Leach	DI Leach			5.4944 g	50 mL	384120	03/16/22 19:01	JHR	FGS SEA
Soluble	Analysis	300.0		1	5 mL	5 mL	384258	03/17/22 01:33	JHR	FGS SEA

Client Sample ID: DP-4 (5-6)
Date Collected: 03/03/22 16:44
Date Received: 03/04/22 11:35

Lab Sample ID: 590-17038-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			384160	03/17/22 10:23	TOA	FGS SEA

Client Sample ID: DP-4 (5-6)
Date Collected: 03/03/22 16:44
Date Received: 03/04/22 11:35

Lab Sample ID: 590-17038-7
Matrix: Solid
Percent Solids: 74.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.2335 g	50 mL	384120	03/16/22 19:01	JHR	FGS SEA
Soluble	Analysis	300.0		1	5 mL	5 mL	384252	03/17/22 01:56	JHR	FGS SEA
Soluble	Leach	DI Leach			5.2335 g	50 mL	384120	03/16/22 19:01	JHR	FGS SEA
Soluble	Analysis	300.0		5	5 mL	5 mL	384258	03/17/22 02:08	JHR	FGS SEA

Client Sample ID: DP-3 (6-7)
Date Collected: 03/03/22 17:30
Date Received: 03/04/22 11:35

Lab Sample ID: 590-17038-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			384160	03/17/22 10:23	TOA	FGS SEA

Client Sample ID: DP-3 (6-7)
Date Collected: 03/03/22 17:30
Date Received: 03/04/22 11:35

Lab Sample ID: 590-17038-8
Matrix: Solid
Percent Solids: 75.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.4710 g	50 mL	384120	03/16/22 19:01	JHR	FGS SEA
Soluble	Analysis	300.0		1	5 mL	5 mL	384252	03/17/22 03:18	JHR	FGS SEA
Soluble	Leach	DI Leach			5.4710 g	50 mL	384120	03/16/22 19:01	JHR	FGS SEA
Soluble	Analysis	300.0		1	5 mL	5 mL	384258	03/17/22 03:18	JHR	FGS SEA

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17038-1

Client Sample ID: DP-2 (5-6)
Date Collected: 03/03/22 13:02
Date Received: 03/04/22 11:35

Lab Sample ID: 590-17038-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			384160	03/17/22 10:23	TOA	FGS SEA

Client Sample ID: DP-2 (5-6)
Date Collected: 03/03/22 13:02
Date Received: 03/04/22 11:35

Lab Sample ID: 590-17038-9
Matrix: Solid
Percent Solids: 77.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.1845 g	50 mL	384120	03/16/22 19:01	JHR	FGS SEA
Soluble	Analysis	300.0		1	5 mL	5 mL	384252	03/17/22 03:42	JHR	FGS SEA
Soluble	Leach	DI Leach			5.1845 g	50 mL	384120	03/16/22 19:01	JHR	FGS SEA
Soluble	Analysis	300.0		1	5 mL	5 mL	384258	03/17/22 03:42	JHR	FGS SEA

Client Sample ID: DP-1 (6-7)
Date Collected: 03/03/22 10:06
Date Received: 03/04/22 11:35

Lab Sample ID: 590-17038-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			384160	03/17/22 10:23	TOA	FGS SEA

Client Sample ID: DP-1 (6-7)
Date Collected: 03/03/22 10:06
Date Received: 03/04/22 11:35

Lab Sample ID: 590-17038-10
Matrix: Solid
Percent Solids: 75.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.2437 g	50 mL	384120	03/16/22 19:03	JHR	FGS SEA
Soluble	Analysis	300.0		1	5 mL	5 mL	384252	03/17/22 03:53	JHR	FGS SEA
Soluble	Leach	DI Leach			5.2437 g	50 mL	384120	03/16/22 19:03	JHR	FGS SEA
Soluble	Analysis	300.0		1	5 mL	5 mL	384258	03/17/22 03:53	JHR	FGS SEA

Laboratory References:

FGS SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

TAL SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17038-1

Laboratory: Eurofins Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-23

Laboratory: Eurofins Seattle

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-25
ANAB	Dept. of Defense ELAP	L2236	01-19-25
ANAB	Dept. of Energy	L2236	01-19-25
ANAB	ISO/IEC 17025	L2236	01-19-25
California	State	2954	07-07-22
Florida	NELAP	E87575	06-30-22
Louisiana	NELAP	03073	06-30-22
Maine	State	2020012	05-02-22
Montana (UST)	State	NA	04-14-27
New Jersey	NELAP	WA014	06-30-22
New York	NELAP	11662	04-01-22
Oregon	NELAP	4167	07-07-22
US Fish & Wildlife	US Federal Programs	058448	05-31-22
USDA	US Federal Programs	P330-20-00031	02-10-23
Washington	State	C788	07-13-22
Wisconsin	State	399133460	08-31-22

Method Summary

Client: Hart Crowser, Inc.
Project/Site: Simplot/Moxee

Job ID: 590-17038-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL SPK
2540G	SM 2540G	SM22	FGS SEA
300.0	Anions, Ion Chromatography	MCAWW	FGS SEA
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL SPK
DI Leach	Deionized Water Leaching Procedure	ASTM	FGS SEA

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

Laboratory References:

FGS SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

TAL SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Address. _____

Chain of Custody Record 559847

eurofins | Environment Testing TestAmerica

Regulatory Program ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TAL-8210

Client Contact	Project Manager: John Haney	Site Contact:	Date	COC No:
Company Name: Haley & Aldrich	Tel/Email	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only
Phone:	TAT if different from Below: 10 days			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling
Project Name: Simpat / Moxee	☐ 1 week			
Site:	☐ 2 days			Job / SDG No.
PO# 1500450 01	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Nitrate nitrogen (300.0)	Sulfate (300.0)	Alkalinity (SM 2320B)	TDS (SM 2540C)	Sample Specific Notes.
DP 5	3/3/22	19 00		Water	1			x	x		x	
DP 4		19 20			1			x	x		x	
DP 3		19 35			1			x	x		x	
DP 2		14 25			1			x	x		x	
DP-1		12 15			1			x	x		x	
DP 5 (8 1)		15 30		Soil	1			x	x			
DP 4 (5-6)		16 44			1			x	x			
DP 3 (6 7)		17 30			1			x	x			
DP 2 (6-6)		13 02			1			x	x			
DP 1 (6 7)		10 06			1			x	x			

590-17038 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No | Cooler Temp (°C): Obs'd 5.0 Corr'd 5.2 | Therm ID No IR006

	Company	Date/Time		Company	Date/Time
Relinquished by: Kaylin Hotchkiss	H&A	3/4 11 35	Received by: M. Vaughn	EDT SDG	3/4/22 11 35
Relinquished by:	Company:	Date/Time	Received by:	Company:	Date/Time
Relinquished by:	Company:	Date/Time	Received in Laboratory by:	Company:	Date/Time

3/18/2022

Eurofins Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone: 509-924-9200 Fax: 509-924-9290

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arrington, Randee E	Carrier Tracking No(s):	COC No: 590-6691.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Randee.Arrington@Eurofinset.com	State of Origin: Washington	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest,		Accreditations Required (See note): State Program - Washington		Job #: 590-17038-1
Address: 5755 8th Street East, ,	Due Date Requested: 3/17/2022			
City: Tacoma	TAT Requested (days):			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #:			
Email:	WO #:			
Project Name: Simplot/Moxee	Project #: 59001939			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_48HR/DI_LEACH (MOD) Nitrate	300.0_28D/DI_LEACH (MOD) Sulfate	Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X				X	
DP-5 (8-9) (590-17038-6)	3/3/22	15:30 Pacific		Solid			X	X	X	1	
DP-4 (5-6) (590-17038-7)	3/3/22	16:44 Pacific		Solid			X	X	X	1	
DP-3 (6-7) (590-17038-8)	3/3/22	17:30 Pacific		Solid			X	X	X	1	
DP-2 (5-6) (590-17038-9)	3/3/22	13:02 Pacific		Solid			X	X	X	1	
DP-1 (6-7) (590-17038-10)	3/3/22	10:06 Pacific		Solid			X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northwest, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northwest, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	M. Vaylor	3/3/22 15:45	EET SPO		3/8/22 935	EFSpo
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: IR8 8.2/0.0

Login Sample Receipt Checklist

Client: Hart Crowser, Inc.

Job Number: 590-17038-1

Login Number: 17038
List Number: 1
Creator: Vaughan, Madison 1

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Hart Crowser, Inc.

Job Number: 590-17038-1

Login Number: 17038
List Number: 2
Creator: Blankinship, Tom X

List Source: Eurofins Seattle
List Creation: 03/08/22 03:45 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.2°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	