



# Groundwater Monitoring Well Construction and Sampling Report

## Simplot Grower Solutions

Facility Site Number: 84612438

VCP Number: CE0419

*Moxee, Washington*

**January 2017**

Prepared for:



J.R. Simplot Company

999 Main Street

Boise, Idaho 83707

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Prepared by:

A handwritten signature in blue ink, appearing to read "Michael R. Murray", with a long, sweeping flourish extending to the right.

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Michael R. Murray, Ph.D.



A handwritten signature in blue ink, appearing to read "Nancy Nething", written in a cursive style.

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Nancy Nething, LG





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- Appendix A: Quality Assurance Plan, Field Sampling Forms, and Laboratory Reports
- Appendix B: Well Logs
- Appendix C: Survey



## Acronyms

Acronym	Definition
bgs	below ground surface
Ecology	Washington Department of Ecology
EPA	U.S. Environmental Protection Agency
GeoEngineers	GeoEngineers, Inc.
HDR	HDR Engineering, Inc.
MCL	maximum contaminant level
msl	mean sea level
MTCA	Model Toxics Control Act
RCRA	Resource Conservation and Recovery Act
RPD	relative percent difference
Simplot	J.R. Simplot Company
SOP	standard operating procedure
TDS	total dissolved solids
VOC	volatile organic compound
WAC	Washington Administrative Code
Work Plan	<i>Groundwater Monitoring Well and Sampling Work Plan</i>





# 1 Introduction

The purpose of this *Groundwater Monitoring Well Construction and Sampling Report* is to describe the construction of groundwater monitoring wells and sampling of these wells at the Simplot Grower Solutions site at 7528 Postma Road in Moxee, Washington (Facility Site Number 84612438; VCP Number CE0419).

## 1.1 Background

On July 2, 2014, the J.R. Simplot Company (Simplot) received an Early Notice Letter from Washington Department of Ecology (Ecology) regarding the potential release of hazardous substances from Simplot's Grower Solutions facility in Moxee (**Figure 1**). To address potential site contamination, Simplot entered into Ecology's Voluntary Cleanup Program, which Ecology acknowledged in a letter dated December 16, 2014.

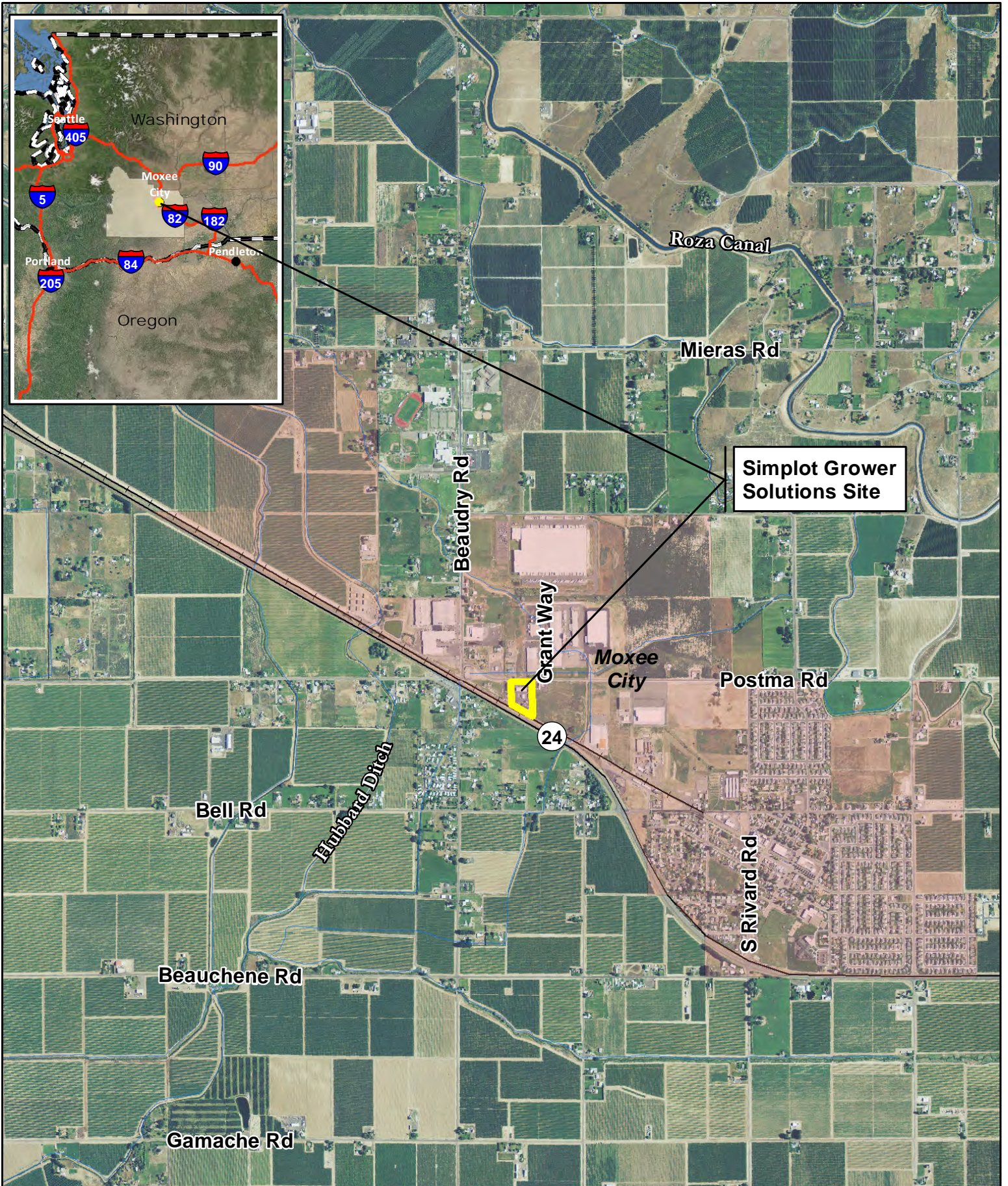
Ecology contracted with GeoEngineers, Inc. (GeoEngineers), a consulting firm, who conducted site investigation activities at the Moxee City Shop, located at 7520 Postma Road, located immediately adjacent and west of the facility (**Figure 2**). Between 2013 and 2015, GeoEngineers drilled and sampled soil borings, installed monitoring wells, and then sampled them on a quarterly basis through June 2015. Results of the field program indicated soil and groundwater had been impacted by nitrates and sulfates originating from the Simplot facility.

During summer 2015, HDR Engineering, Inc. (HDR) sampled groundwater and soil using a GeoProbe sampling system. Investigation findings, published in the *Preliminary Site Investigation Report* (HDR 2015) revealed elevated levels of nitrate in soil and groundwater at the facility. Using the information gathered from investigations at the facility and Moxee City Shop sites, HDR worked with Simplot to prepare the *Groundwater Monitoring Well and Sampling Work Plan* (work plan; HDR 2016) to determine the potential source location(s) of the nitrates and sulfates within the facility boundary. Ecology provided technical comments via email (Jennifer Lind, May 6 and May 23, 2016). HDR conducted field activities in October 2016 following the work plan.

## 1.2 Simplot's Moxee Facility

The Simplot Grower Solutions facility is located at 7528 Postma Road in Moxee, Washington, and occupies approximately 3.4 acres. The property is bounded by a railroad line and State Route 24 on the south, a municipal maintenance shop facility to the west (Moxee City Shop), and commercial properties on the north and east (**Figure 2**), including a fueling station northeast of the property. The facility operates as an agricultural products retail location. Five structures on the property range from retail space to product storage warehouses. Fertilizers are delivered to the facility by rail or truck and stored onsite either in bulk tanks or retail size containers. In addition, Simplot creates some custom fertilizer blends. Fertilizers are in both solid and liquid forms and are primarily formulations of nitrogen (N), phosphorus (P<sub>2</sub>O<sub>5</sub>), and potassium (K<sub>2</sub>O), including ammonium sulfate and triple super phosphate. The facility has served as a retail outlet for agrichemicals that include fertilizers, pesticides, and soil amendments.



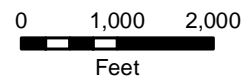


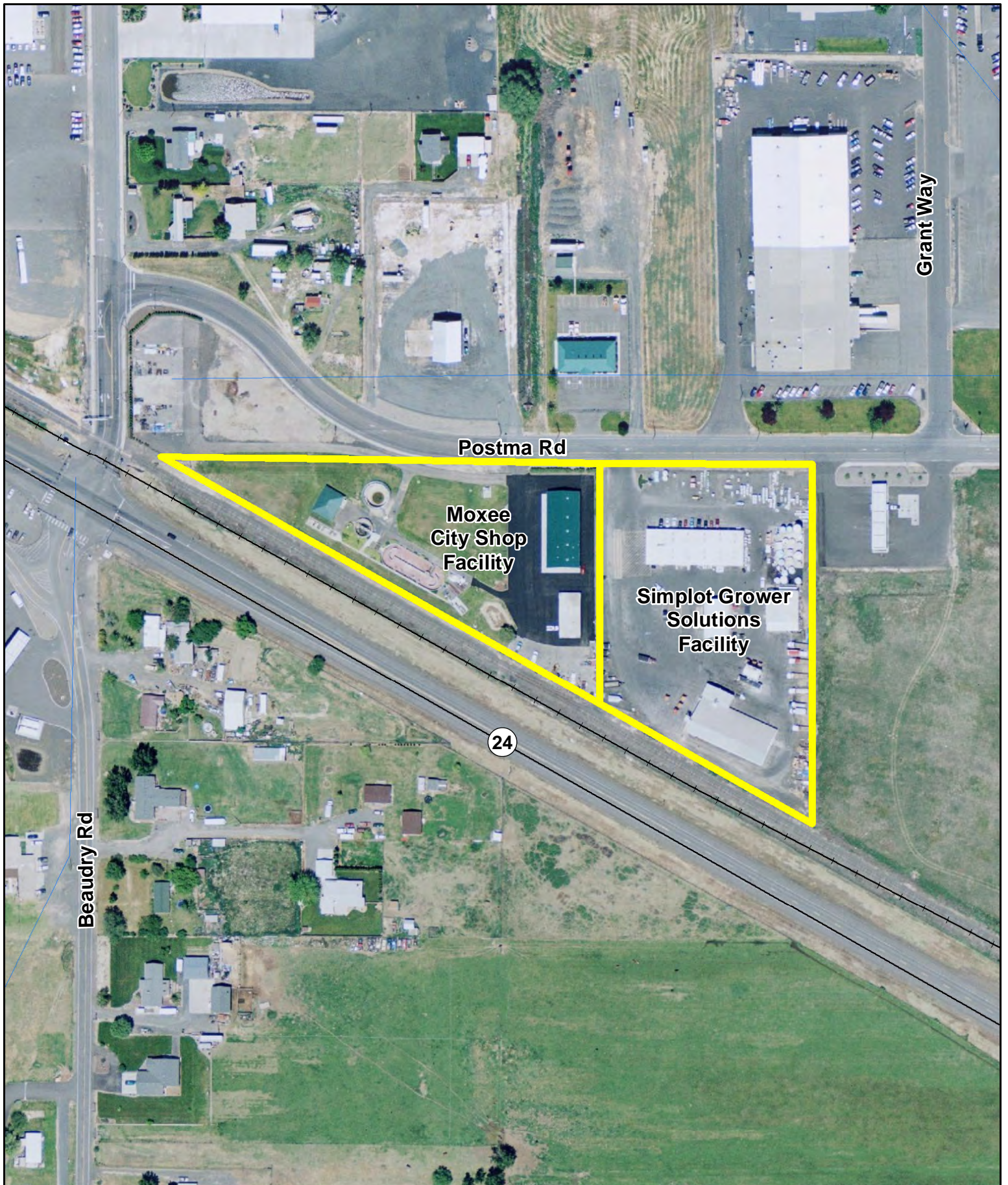
**Figure 1: Project Vicinity**  
**Simplot Grower Solutions, Moxee, WA**



Imagery: 2013 NAIP, 1 meter resolution  
 Source: USDA/NRCS Digital Gateway

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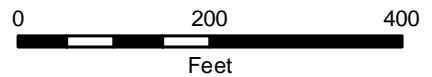


**Figure 2: Site Map**  
**Simplot Grower Solutions, Moxee, WA**



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

Map Date: 10/14/2014  
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### 1.3 Area Setting

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

According to the National Oceanic and Atmospheric Administration, from 1950 to 1999, the City of Moxee received an average of approximately 8.1 inches of precipitation per year. The maximum average monthly precipitation occurs in December at 1.14 inches. The driest months are July and August with an average precipitation of 0.24 inches. Minimum average temperatures occur in January, while maximum average temperatures occur in July. **Table 1** summarizes precipitation and temperature averages for Moxee.

**Table 1. Summary of Climatological Characteristics for the City of Moxee**

Month	Avg. Min Temp (°F)	Avg. Max Temp (°F)	Avg. Precip (in)
January	25	38	0.91
February	27	45	0.59
March	31	55	0.67
April	35	62	0.71
May	42	71	0.79
June	48	78	0.75
July	53	87	0.24
August	53	86	0.24
September	46	77	0.39
October	37	62	0.67
November	29	47	0.98
December	22	35	1.14

°F = degrees Fahrenheit; in = inches

#### 1.3.1 Soil

According to the Natural Resources Conservation Service, the Simplot site and adjoining properties are mainly comprised of Umapine silt loam, making up approximately 90 percent of nearby soil composition. This soil possesses moderately high to high hydraulic conductivity (0.57 to 1.98 inches per hour), and the depth to the water table encountered in nearby monitoring wells is about 5 feet. The remaining mapped soils are small areas of other silt loams, loamy fine sand, and fine sandy loam typical of alluvial, lacustrine, and eolian deposits.



### 1.3.2 Soil and Groundwater Conditions

In response to Ecology’s letter regarding potential nitrate and sulfate sources on Simplot’s property, Simplot collected two water samples from its scale drain in July 2014. This water is associated with stormwater entering the drain. **Table 2** summarizes the analysis results of these samples.

**Table 2. Summary of Scale Drain Sampling by Simplot (2014)**

Description	Nitrate-N	Sulfate	Chloride
	(mg/L)		
Scale Drain	76.1	1640	187
Load Out Drain	169	1584	228

mg/L = milligrams per liter

Nitrate-N and sulfate in the two drain samples were elevated compared to typical groundwater levels and were above Washington groundwater standards.

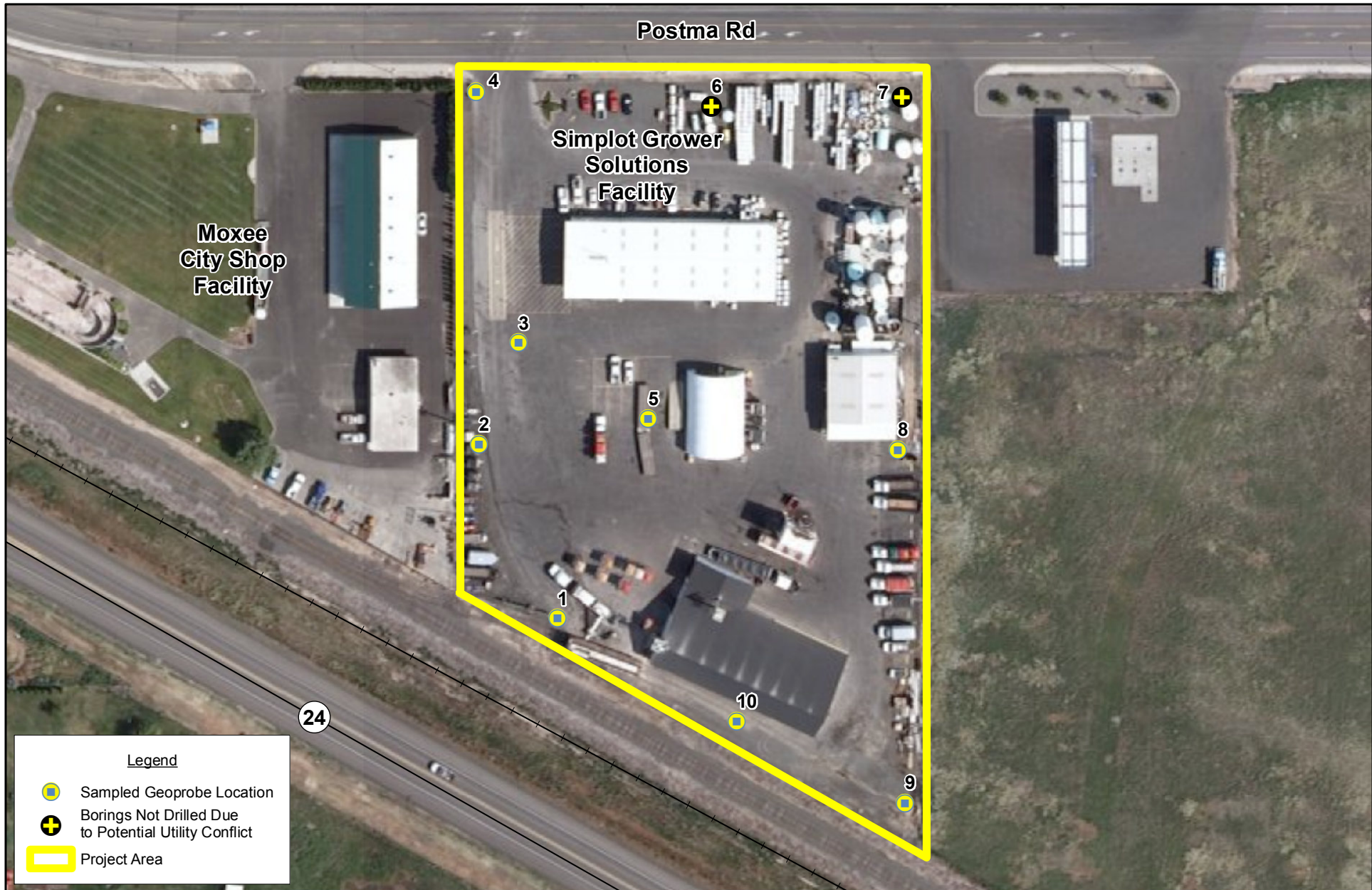
During the summer of 2015, HDR performed a preliminary investigation of up and downgradient groundwater quality conditions (**Figure 3**). Simplot had eight GeoProbe borings drilled along the west, south, and east perimeter of the facility. One boring was located within the site’s interior. Two borings were planned for the east half of the north perimeter, but were not drilled due to utility conflicts.

HDR collected three soil samples from each boring location; the first sample near the surface, the second sample between the surface and groundwater table, and the third sample near the soil/groundwater interface. Kuo Laboratories conducted soil sample analyses.

After collecting soil samples, HDR used the GeoProbe system to collect groundwater grab samples in the same borings using a stainless steel screen and ¼-inch tubing equipped with a peristaltic pump to convey water to the surface. They collected one groundwater sample at each boring location (eight locations) and sent the samples to Environmental Science Corporation Lab Sciences (ESC Lab Sciences) to be analyzed for nitrate-nitrite, ammonia-N, sulfate, and total dissolved solids (TDS).

Nitrate-nitrogen, ammonia-nitrogen, sulfate, and soluble salts were detected in all soil samples (**Table 3**). None of the soil samples exceeded the Model Toxics Control Act (MTCA) Method B cleanup level (CUL) for nitrate-nitrogen set at 8,000 milligrams per kilogram (this threshold value does not account for groundwater protection). A CUL is not available for ammonia-nitrogen, sulfate, or soluble salts. In general, nitrate-N, ammonia, sulfate, and salt concentrations were highest in the surface sample and decreased with depth.

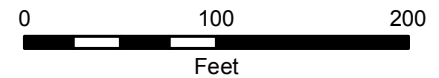
Nitrate-N exceeded Washington groundwater quality criteria of 10 milligrams per liter in all samples, except B3 and B4 (**Table 4**). The highest nitrate-N concentration was in B9 at 304 milligrams per liter. Boring B9 also had the highest soil nitrate concentrations measured in samples. Ammonia-N was detected in all samples with the highest concentrations in groundwater correlated with soil ammonium concentrations. The Washington groundwater quality criteria for sulfate is 250 milligrams per liter, which was exceeded in groundwater samples collected from B1, B2, B5, B9, and B10. For TDS, all samples exceeded the groundwater quality criteria of 500 milligrams per liter.



Imagery: ESRI World Imagery, July 2013 Imagery  
 Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Map Date: 9/15/2015  
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**Table 3. Soil Sample Results (July 2015)**

Boring	B1	B2	B3	B4	B5	B8	B9	B10	B11 <sup>1</sup>
Depth (ft)	0.0-1.0	0.0-1.0	1.0-2.0	1.0-2.0	2.0-3.0	1.0-2.0	1.0-2.0	0.5-1.5	7.0-8.0
	5.0-6.0	5.0-6.0	4.0-5.0	5.0-6.0	4.0-5.0	4.0-5.0	5.5-6.5	4.5-5.5	
	9.0-10.0	8.0-9.0	7.0-8.0	7.5-10.5	7.0-8.0	6.0-7.0	7.0-8.0	7.5-8.5	
<b>Nitrate-Nitrogen and Ammonia-Nitrogen - 1N KCl Method (mg/kg)</b>									
Nitrate-Nitrogen	52.8	21.8	7.3	6.0	171.0	71.0	616.3	28.0	33.3
	20.0	15.3	0.8	6.5	40.3	11.5	295.0	24.0	
	10.0	15.5	11.5	4.5	27.0	5.3	67.0	37.0	
Ammonia-Nitrogen	9.8	38.5	392.3	18.5	484.8	19.5	76.5	7.8	233
	4.0	4.3	584.5	21.3	238.3	6.8	14.8	5.0	
	4.3	8.0	21.8	259.3	283.8	4.3	5.3	6.5	
<b>Sulfate – NAPT S11.10 Method (mg/kg)</b>									
Sulfate	835	54	10	17	42	58	171	66	27
	48	47	9	13	25	72	120	35	
	33	87	8	7	27	13	50	68	
<b>Soluble Salts – Sat. Extract Method (mmhos/cm)</b>									
Soluble Salts	3.16	0.83	0.57	0.57	1.48	1.52	4.60	0.97	0.61
	0.62	0.63	0.56	0.46	0.74	0.65	2.19	0.75	
	0.77	0.89	0.40	0.43	0.66	0.66	1.18	0.85	

<sup>1</sup> Duplicate for B5 7.0-8.0.

ft = feet; mg/kg = milligrams per kilogram; mmhos/cm = millimhos per centimeter; NAPT = North American Proficiency Testing

**Table 4. Groundwater Sample Results (July 2015)**

Boring:	B1	B2	B3	B4	B5	B8	B9	B10	B11 <sup>1</sup>	Washington Groundwater Quality Criteria
Approx. Sample Depth (ft)	12	12	10	11	11	11	12	11		
<b>Nitrate-Nitrite - EPA Method 353.2 (mg/L)</b>										
Nitrate-N	107	65.0	9.02	6.25	211	33.1	304	144	214	10
<b>Ammonia Nitrogen - EPA Method 350.1 (mg/L)</b>										
Ammonia-N	0.154	0.162	73.1	38.2	184	0.117	0.163	0.420	190	N/A
<b>Sulfate - EPA Method 9056 (mg/L)</b>										
Sulfate	389	1500	157	69.4	381	161	763	550	384	250
<b>Dissolved Solids – EPA Method (mg/L)</b>										
TDS	2400	3900	670	870	2100	1100	3700	1900	2100	500

<sup>1</sup> Duplicate for B5

EPA = U.S. Environmental Protection Agency; ft = feet; mg/L = milligrams per liter; TDS = total dissolved solids

The results for the limited groundwater sampling indicate that Washington’s groundwater quality criteria (Table 1 in Washington Administrative Code [WAC] 173-200-050) were exceeded for nitrate-N in six of eight samples, for sulfate in four of eight samples, and for TDS in all eight samples.





## 2 October 2016 Investigation Activities

This section presents data objectives, needs, field activities, and sampling results for the October and November 2016 site investigation.

### 2.1 Data Objectives and Needs

The work plan outlined activities to construct five on-site groundwater monitoring wells, and sample these wells on a quarterly basis for analysis for chemicals of concern, using appropriate U.S. Environmental Protection Agency (EPA) or state methodology by a qualified laboratory. Groundwater monitoring wells provide information on groundwater flow direction, seasonal variations on direction and gradient, and an indication of groundwater quality both up and downgradient of the facility.

### 2.2 Regulatory Setting - Model Toxics Control Act

The MTCA Cleanup Regulation, chapter 173-340 WAC, sets forth the requirements and procedures to develop soil and groundwater cleanup standards. Cleanup levels must be based on the reasonable maximum exposure expected to occur under both current and future site conditions. The regulation allows for the establishment of soil cleanup levels based on two types of land use – unrestricted land use and industrial land use.

Taking a conservative approach, HDR compared the soil sample results from the preliminary site investigation to cleanup levels for unrestricted land use. For unrestricted land use, the regulation provides two options to establish soil cleanup levels – Method A and Method B. Method B cleanup levels are based on the reasonable maximum exposure expected to occur under residential land use conditions and may be used to establish soil cleanup levels at any site. Method B cleanup levels include those set for constituents as carcinogens and non-carcinogens.

The establishment of groundwater cleanup levels depends on the classification of groundwater under the regulation as either potable or non-potable. The groundwater beneath the site is expected to be classified as potable. Method B may be used to establish cleanup levels for potable groundwater at any site.

### 2.3 On-site Investigation Activities

Site investigation activities included installing five groundwater monitoring wells, developing and surveying the wells, and conducting the first round of quarterly groundwater sampling. Wells were installed and soil samples collected on October 17 and 18, 2016. Groundwater sampling was conducted October 19, 2016. The wells were surveyed (top of casing elevations and easting and northing) on November 3, 2016.

#### 2.3.1 Well Locations

In order to assess groundwater conditions under the facility, monitoring wells MW-1, 2, 3 and 5 were located at the four corners of the facility, and one well, MW-4 was installed in the center of the facility. The pattern was chosen to determine groundwater flow direction and gradient, as well as assess water quality conditions and potential contaminant source locations across the



site. In addition to the five monitoring wells on the facility, water levels were measured in two of the Moxee City shop wells: CS-4 and CS-6. Based on the on-site and adjacent site investigations, groundwater flow was anticipated to be toward the southwest, which is what was found and further described in the following sections.

### **2.3.2 Utilities**

HDR located and staked the monitoring locations prior to drilling, and called the Washington Utilities Coordinating Council (Call Before you Dig, 1-800-424-5555) to locate underground utilities prior to field work. During the 2015 on-site GeoProbe investigation, HDR contracted ULS, a utility location services company, to assess for the presence of utilities in the area of proposed borings. No new utilities have been installed on site. In the northeast corner area, ULS was not able to trace out a high-pressure water line that provides water to the facility and Simplot did not have plan sets that showed the exact location of the water utility. Therefore, prior to installing monitoring well MW-1, potholing (vacuum truck extraction) was used to help locate an area with no water lines, so that a monitoring well could be installed in that area. Potholing was also used at MW-3 to determine the location of a drain pipe.




### **2.3.3 Monitoring Well Drilling and Construction**

**Figure 5** shows the general construction details of the completed groundwater monitoring wells. Well drilling and construction activities adhered to the following guidelines:

- All drilling equipment was steam-cleaned prior to being brought onsite and between the drilling of each monitoring well.
- The well boreholes were drilled using hollow stem augers.
- A professional engineer supervised the drilling crew and logged and documented lithology monitoring well construction activities.
- A Washington-licensed geologist oversaw well construction design and reporting.
- A split-spoon sampler was used to collect two soil samples from 1.5 to 3 feet and 5 to 6.5 feet below ground surface (bgs) within each boring for laboratory analysis.
- The monitoring well drilling and construction were completed in conformance with local and state regulations.



**Legend**

-  Existing City Well
-  Monitoring Well
-  Project Area

**Figure 4. Monitoring Well Network  
Simplot Grower Solutions, Moxee, WA**



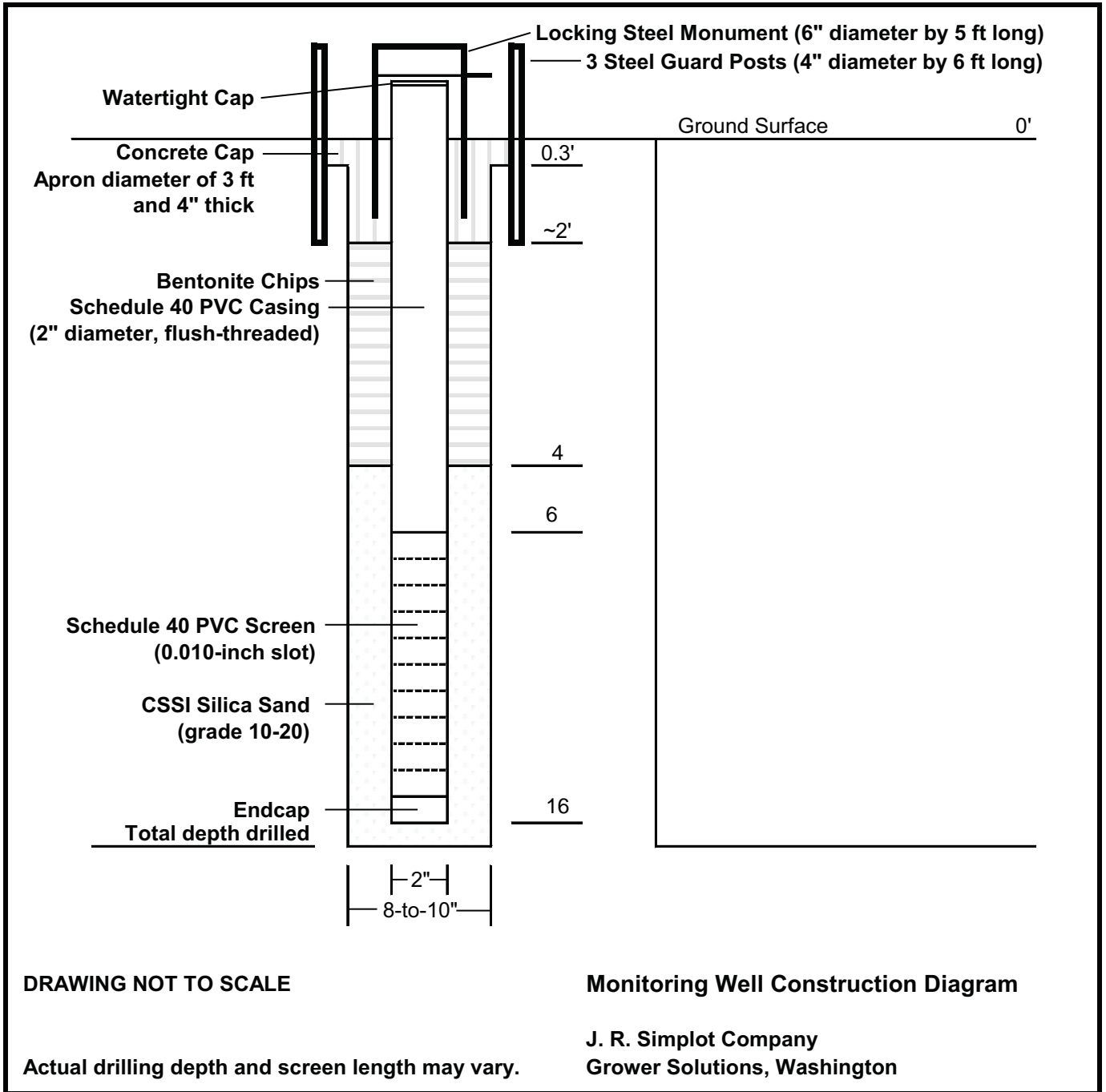


FIGURE 5. WELL CONSTRUCTION



The driller (Environmental West Exploration, Inc.) used hollow stem augers with an 8-inch-outside-diameter to drill down to the total depth of each well boring. The anticipated depth to water in the site vicinity was 5 to 8 feet bgs. The driller drilled wells to a depth of approximately 15 feet bgs, or approximately 8.8 to 10.5 feet beyond the depth of the static water level. Well construction details are summarized in **Table 5** and well logs are provided in Appendix B.

**Table 5. Well Construction Details**

Monitoring Well	Top PVC Elevation (feet above msl)	Depth of Well (feet bgs)	Screen Depth Interval (feet bgs)
MW-1	1031.15	15.5	5-15
MW-2	1030.86	15.5	5-15
MW-3	1028.97	15.5	5-15
MW-4	1026.55	15.5	5-15
MW-5	1030.48	15.5	5-15

msl=mean sea level; bgs=below ground surface

The monitoring wells were completed as follows:

- 2-inch-diameter, flush-threaded, Schedule 40 PVC casing
- 10 feet of factory-slotted well screen (0.010 slot size) set in each well
- Top 1 to 2 feet of the well screen set above the water table as possible
- End caps threaded to the base of the well screens.
- CSSI silica sand (Grade 10-20) used as a filter pack surrounding the well screens from total depth to approximately 2 feet above the top of the well screens.

An approximately 3-foot thick bentonite pellet annular seal was placed directly above the filter pack in each well. The pellets were dry-poured from the surface down the annular space between the PVC casing and hollow stem augers. Potable water was poured down the annulus to hydrate the pellets after placement. The remainder well casing was backfilled with dry granulated bentonite to within a few feet of the ground surface. The fill level of the filter pack and bentonite seal were monitored with a weighted sounding tape, as the augers were withdrawn, to ensure proper placement by keeping the fill level slightly above the base of the auger bit.

The wellheads of each well were secured using a lockable, 5-foot-long, 6-inch-diameter, protective steel monument, which was placed over the well and centered in a concrete pad. The top 2 feet of the annular space surrounding the well were filled with concrete. Steel guard posts were sunk into the ground around each well monument and filled with concrete to serve as a protective barrier against collision damage (except MW-4, which has a flush-mount wellhead).

### **2.3.4 Well Development**

Following well installation, the driller used a bailer and a pump to develop each well by surging and pumping to set the filter pack and remove fine sediment from the well. Surging the well forces groundwater to flow in and out of the well, breaking any particle bridges and setting the sand filter pack up against the well screen. The well was then pumped to remove fine sand that



was pulled through the screen during surging. Development was considered complete when the well was relatively free of sediment; at a minimum, 10 well casing volumes were removed.

**2.3.5 Well Surveying**

Permit Surveying, Inc., a Washington-licensed surveyor, surveyed the location of each monitoring well and the elevations to the top of the PVC well casing and to the ground surface at the base of the protective well casing. These measurements were used to determine the groundwater elevations and flow direction. To ensure consistent elevations, Permit Surveying also surveyed wells CS-4 and CS-6 on the adjacent Moxee City Shop property. Results of the survey are presented in Appendix C

**2.3.6 Waste Handling Procedures**

The driller containerized soil cuttings, development water, and purge water in Department of Transportation-approved 55-gallon drums. Pending laboratory analysis, labels were affixed, and the drums were stored onsite.

Results from groundwater sampling were used to assess the quality of purge water and well development water.

**2.3.7 Analytical Testing**

HDR sent samples to ESC Lab Sciences in Mt. Juliet, Tennessee. ESC Lab Sciences is certified in the State of Washington for analysis of air, drinking water, Resource Conservation and Recovery Act (RCRA), underground storage tanks, and wastewater (Certificate #C1915). Sample parameters were chosen based on the findings in the preliminary site investigation report (HDR 2015) and comments provided by Ecology to the February 2016 work plan (HDR 2016). Analytical parameters, methodologies, and results for both soil and groundwater sampling are further discussed in Section 2.3.

**2.3.8 Quality Control Samples**

**Table 6** summarizes quality assurance/quality control (QA/QC) field samples that HDR collected during the initial sampling event. These QA/QC field samples will be collected for each quarterly groundwater sampling event.

**Table 6. Quality Assurance and Quality Control Field Samples**

QA/QC Type	Number of Samples	Description
Duplicate	1 groundwater sample per event	Duplicate is collected using the same sampling technique as the original sample.
Trip Blank	1 trip blank per event	Water sample in sample bottle provided by laboratory and accompanies sample bottles.
Field Sample Blank	1 water blank sample	Pour distilled water directly into appropriate sample bottles.

In addition to the field QA/QC samples described in **Table 5**, ESC Lab Sciences followed appropriate laboratory QA/QC procedures as dictated by the EPA method and the laboratory’s standard operating procedures (SOPs). A groundwater data validation report is presented in Appendix A.



## 2.4 Soil and Groundwater Sampling

### 2.4.1 Soil Boring Samples

HDR collected two soil samples from each well boring. The sample depth was from 1.5 to 3 feet and 5 to 6.5 feet bgs. Soils were tested for the parameters listed in **Table 7**. Analytical results are presented in **Table 8**. Appendix A contains the laboratory results for the soil boring samples.

**Table 7. Analyses for Soil Boring Samples**

Analytical Parameter	Method	Preservative	Constituents of Concern Included
Nitrate-N	2M KCl Extraction <sup>1</sup>	None	Nitrate-Nitrogen
Sulfate	NAPT S11.10	None	Sulfate-Sulfur
Soluble Salts	Sat. Extract	None	Soluble salts

**Table 8. Soil Boring Sample Results**

Field Sample ID	Laboratory ID	Depth (ft)	Nitrate-N (mg/kg)	Ammonia-N	Sulfate	Soluble Salts
			(mg/Kg)			(mmhos/cm)
MW-1	1279	1.5 - 3	137.9	4.3	226	3.24
MW-1	1280	5 - 6.5	154.3	3.5	173	2.29
MW-2	1281	1.5 - 3	127.9	3.8	94	2.22
MW-2	1282	5 - 6.5	74.4	2.8	46	1.47
MW-3	1283	1.5 - 3	14.8	4.0	27	0.42
MW-3	1284	5 - 6.5	3.9	84.9	11	0.48
MW-4	1285	1.5 - 3	60.8	158.3	43	1.11
MW-4	1286	5 - 6.5	40.9	162.6	37	0.94
MW-5	1287	1.5 - 3	76.9	6.3	67	1.40
MW-5	1288	5 - 6.5	30.1	5.6	99	1.46

ft = feet; mg/kg = milligrams per kilogram; mmhos/cm = millimhos per centimeter; SS = soluble salts,

### 2.4.2 Monitoring Well Sampling

Groundwater monitoring wells will be sampled quarterly for 1 year. The first sampling occurred after well development in October, and the remaining three events will occur at 3-month intervals. For the first quarterly sampling event, HDR followed the *Standard Operating Procedure for Groundwater Sampling* that was included in Appendix A of the work plan (HDR 2016).

Before the samples were collected on October 19, 2016, HDR measured depth to groundwater at each monitoring well; the measurements are presented in **Table 9**. Groundwater elevations from the sampling event are presented in **Figure 6**. Groundwater flow direction was to the west-southwest at 249° and a gradient of approximately 0.008 feet per feet. This was consistent with groundwater flow conditions under the Moxee City Shop property in 2013. GeoEngineers reported a southwesterly flow direction and an average gradient of approximately 0.005 feet per feet at that time.



**Table 9. Groundwater Elevation Measurements, October 19, 2016**

Well	Measured Depth to Water from top of casing (feet)	Reference Elevation <sup>1</sup> (feet)	Groundwater Elevation (feet)
MW-1	7.94	1031.15	1023.21
MW-2	8.77	1030.86	1022.09
MW-3	7.55	1028.97	1021.42
MW-4	4.19	1026.55	1022.36
MW-5	9.22	1030.48	1021.26
CS-4 <sup>2</sup>	4.67	1025.67	1021.00
CS-6 <sup>2</sup>	4.33	1025.50	1021.17

<sup>1</sup> Top of PVC casing elevation surveyed by Permit Surveying, Inc.

<sup>2</sup> CS = Wells located on adjacent Moxee City Shop property.

Based on the observed southeasterly groundwater flow in October 2016, the wells constructed on site and the adjacent Moxee City Shop wells are deemed up, down, or cross-gradient as follows:

- MW-1 – upgradient well
- MW-2 – side or downgradient well
- MW-3 – side or downgradient well
- MW-4 – downgradient well
- MW-5 – downgradient well
- CS-4 – downgradient well
- CS-6 – downgradient well

HDR collected groundwater samples following static water measurements. Wells were purged with a peristaltic pump. Field pH, conductivity, and temperature measurements were recorded during purging. Samples were taken once field parameters were stable (three consecutive measurements within ten percent) or when at least three well bore volumes had been purged. Sample bottles were preserved according to analyses to be performed as summarized in **Table 10**. Sampling information forms for each well are provided in Appendix A.



**Figure 6. October 2016 Groundwater Isopleth Map  
Simplot Grower Solutions, Moxee, WA**







**Table 10. Analyses Conducted on Groundwater Samples**

Analytical Parameter	Method	Preservative	Holding Times
Volatile Organic Compounds (VOCs)	EPA 8260B	4°C, pH < 2 with HCl	14 days
Polynuclear Aromatic Hydrocarbons	EPA 8270sim	4°C	7 days
Chlorinated Herbicides (full list)	EPA 8151A	4°C	7 days
Total Petroleum Hydrocarbon (TPH)	NWTPHGX NWTPHDX	4°C, pH < 2 with HCl	7 days
Phosphate, Total	SM4500P	4°C, pH < 2 with H <sub>2</sub> SO <sub>4</sub>	6 months
Potassium and Magnesium	EPA 6010/6020	4°C, pH < 2 with HNO <sub>3</sub>	6 months
Sulfate	EPA 300.0	4°C	
Nitrate-N	EPA 353.2 or EPA 300.0	Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	28 Days
TDS	SM2540D	4°C	
Ammonium-N	SM20 4500 NH3 D or 350.1	4°C, pH < 2 H <sub>2</sub> SO <sub>4</sub>	28 days

**Table 11** presents groundwater sampling results from the October 2016 groundwater sampling event. A data validation report and laboratory reports are provided in Appendix A.

**Table 11. Summary of Compounds Detected in Groundwater, October 2016**

Detected Compounds	Results (mg/L)	Laboratory Qualifier <sup>1</sup>
<b>MW-1</b>		
Total Dissolved Solids	1,330	
Nitrate-Nitrite	41.4	
Phosphorus (dissolved)	0.541	
Sulfate	300	
Magnesium	140	
Potassium	4.81	
TPH; Diesel Range Organics	0.0353	J
Naphthalene	0.0000769	B,J
Phenanthrene	0.0000118	J
1-Methylnaphthalene	0.00000886	J
2-Methylnaphthalene	0.0000133	J



**Table 11. Summary of Compounds Detected in Groundwater, October 2016**

Detected Compounds	Results (mg/L)	Laboratory Qualifier <sup>1</sup>
<b>MW-2</b>		
Total Dissolved Solids	2,180	
Ammonia-Nitrogen	0.078	J
Nitrate-Nitrite	106	
Phosphorus (dissolved)	1.59	
Sulfate	500	
Magnesium	14.5	
Potassium	5.96	
TPH; Diesel Range Organics	0.15	
Benzo(b)fluoranthene	0.0000615	B J
Benzo(g,h,i)perylene	0.0000409	B J
Naphthalene	0.0000558	B J
1-Methylnaphthalene	0.0000831	J
2-Methylnaphthalene	0.0000128	J
<b>MW-3</b>		
Total Dissolved Solids	840	
Ammonia-Nitrogen	0.814	
Nitrate-Nitrite	8.08	
Phosphorus (dissolved)	0.361	
Sulfate	105	
Magnesium	5.49	
Potassium	3.14	
Bromomethane	0.000936	J
TPH; Diesel Range Organics	0.135	
Naphthalene	0.0000905	B J
Phenanthrene	0.000011	J
1-Methylnaphthalene	0.0000114	J
2-Methylnaphthalene	0.0000165	J
<b>MW-4</b>		
Total Dissolved Solids	1,430	
Ammonia-Nitrogen	113	
Nitrate-Nitrite	119	
Phosphorus (dissolved)	0.27	
Sulfate	355	
Magnesium	48.9	
Potassium	52.8	



**Table 11. Summary of Compounds Detected in Groundwater, October 2016**

Detected Compounds	Results (mg/L)	Laboratory Qualifier <sup>1</sup>
TPH; Diesel Range Organics	1.2	
2,4-D	0.00118	J
Benzo(b)fluoranthene	0.00000452	B J
Benzo(g,h,i)perylene	0.00000373	B J
Naphthalene	0.0000698	B J
Phenanthrene	0.0000121	J
1-Methylnaphthalene	0.0000109	J
2-Methylnaphthalene	0.0000104	J
<b>MW-5</b>		
Total Dissolved Solids	3,160	
Ammonia-Nitrogen	0.21	J
Nitrate-Nitrite	95	
Phosphorus (dissolved)	0.456	
Sulfate	977	
Magnesium	64.3	
Potassium	10.1	
TPH; Diesel Range Organics	0.0659	
Benzo(b)fluoranthene	0.00000449	B J
Benzo(g,h,i)perylene	0.00000258	B J
Naphthalene	0.000029	B J
Phenanthrene	0.00000862	J
<b>CS-4</b>		
Dissolved Solids	521	
Nitrate-Nitrite	5.58	
Phosphorus (dissolved)	0.995	
Sulfate	29.4	
Magnesium	3.17	
Potassium	2.47	
TPH; Diesel Range Organics	0.185	
Benzo(b)fluoranthene	0.00000356	B J
Benzo(g,h,i)perylene	0.00000291	B J
Naphthalene	0.0000571	B J
Phenanthrene	0.0000137	J
2-Methylnaphthalene	0.00001	J
<b>CS-6</b>		
Total Dissolved Solids	2,420	



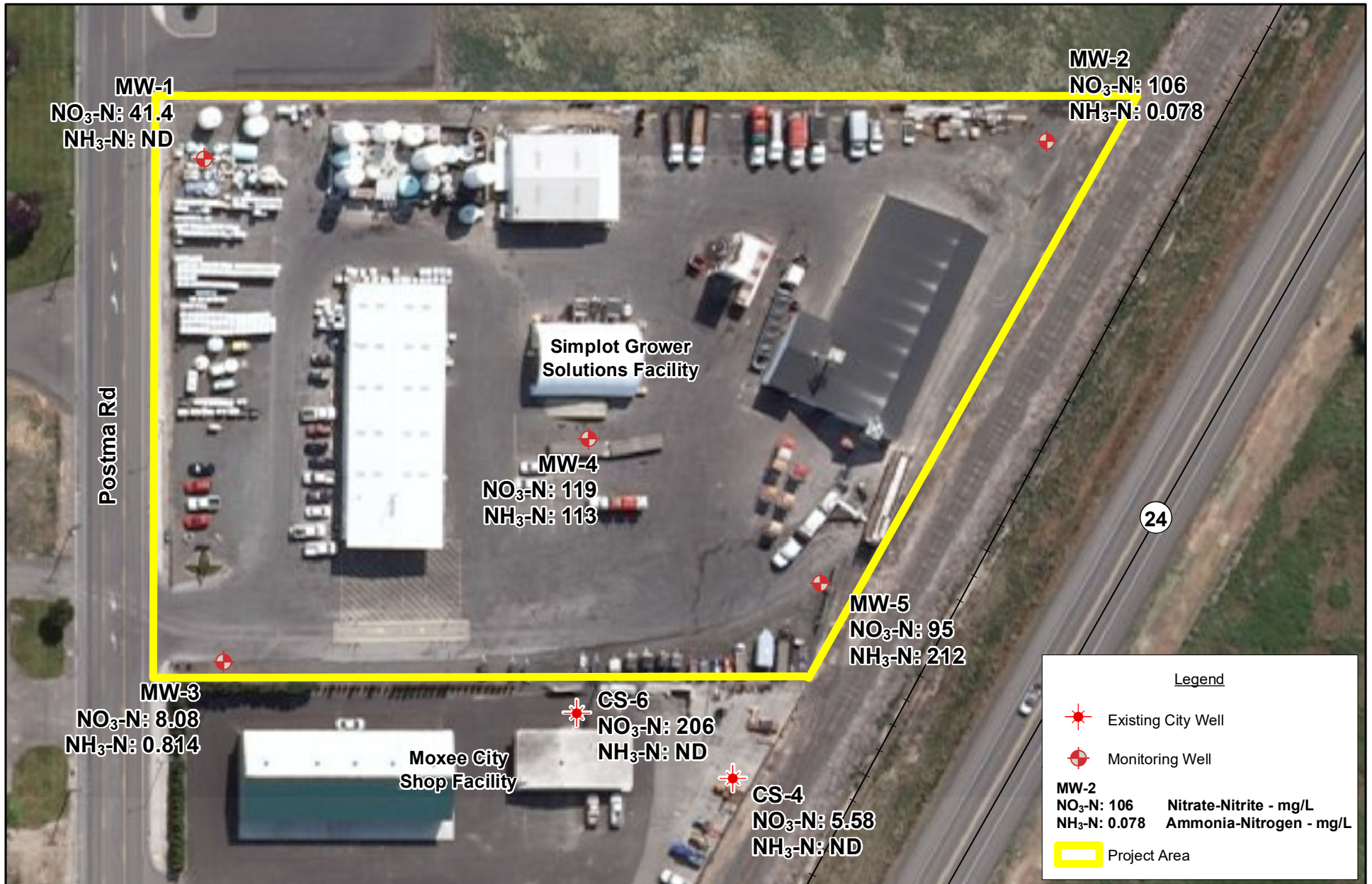
**Table 11. Summary of Compounds Detected in Groundwater, October 2016**

Detected Compounds	Results (mg/L)	Laboratory Qualifier <sup>1</sup>
Nitrate-Nitrite	206	
Phosphorus (dissolved)	0.464	
Sulfate	829	
Magnesium	239	
Potassium	4.88	
TPH; Diesel Range Organics	0.325	
Benzo(b)fluoranthene	0.00000319	B J
Benzo(g,h,i)perylene	0.00000314	B J
Naphthalene	0.0000818	B J
Phenanthrene	0.0000126	J
2-Methylnaphthalene	0.0000121	J

<sup>1</sup>Data Qualifiers: B the same analyte is found in the laboratory blank. J = Identification of analyte is acceptable, the reported value is an estimate as sample value if below laboratory reporting limit but above the method detection limit

A post plot of nitrate-nitrogen and ammonia-nitrogen is provided in **Figure 7**. **Table 12** provides a summary of comparison values for compounds detected in groundwater.

**Table 13** summarizes those compounds whose comparison values were exceeded in groundwater samples.



**Figure 7. October 2016 Post Plot, Nitrate and Ammonia  
Simplot Grower Solutions, Moxee, WA**





**Table 12. Summary of Comparison Values for Compounds Detected in Groundwater**

Compound	Federal MCL (mg/L)	State MCL (mg/L)	MTCA Groundwater, Method A, Table Value (mg/L)	MTCA Groundwater, Method B, Standard Formula Value, Carcinogen (mg/L)	MTCA Groundwater, Method B, Standard Formula Value, Non-carcinogen (mg/L)
1-Methylnaphthalene	N/A	N/A	N/A	0.0015	0.560
2-Methylnaphthalene	N/A	N/A	N/A	0.032	N/A
2,4-D	0.07	N/A	N/A	N/A	N/A
Ammonia-Nitrogen	N/A	N/A	N/A	N/A	N/A
Benzo(b)fluoranthene	N/A	N/A	N/A	N/A	N/A
Benzo(g,h,i)perylene	N/A	N/A	NA	N/A	N/A
Bromomethane	N/A	NA	NA	N/A	0.0112
Magnesium	N/A	NA	N/A	N/A	N/A
Naphthalene	N/A	N/A	0.16	N/A	0.16
Nitrate-Nitrogen	10	10	25.6	N/A	N/A
Phenanthrene	N/A	NA	NA	N/A	N/A
Phosphorus	N/A	NA	NA	N/A	0.00016
Potassium	N/A	NA	NA	N/A	N/A
Sulfate	N/A	250	N/A	N/A	N/A
TPH; Diesel Range Organics	N/A	NA	0.5	N/A	N/A
Total Dissolved Solids	500	500	NA	N/A	N/A

MCL = Drinking Water Maximum Contaminant Level; MTCA = Model Toxics Control Act; N/A = Not Applicable; mg/L=milligrams per liter

**Table 13. Summary of Comparison Values Exceeded by Compounds Detected in Groundwater, October 2016**

Compound	Comparison Value(s) Exceeded	By Well(s)
Nitrate-Nitrogen	Federal MCL State MCL	MW-1, MW-2, MW-4, MW-5, CS-4, CS-6
Phosphorus	MTCA Method B Non-Carcinogen	MW-1, MW-2, MW-3, MW-4, MW-5, CS-4, CS-6
Sulfate	State MCL	MW-1, MW-2, MW-4, MW-5, CS-6
Total Dissolved Solids	State MCL	MW-1, MW-2, MW-3, MW-4, MW-5, CS-4, CS-6
TPH; Diesel Range Organics	MTCA Method A Table Value	MW-4

MCL = Drinking Water Maximum Contaminant Level; MTCA = Model Toxics Control Act





### 3 Summary

Per the work plan (HDR 2016), HDR collected the first of four quarterly samples in October 2016, following monitoring well installation and development. Groundwater sample results are summarized in Section 2.4.2 of this report. A summary of comparison values (MCL and MTCA) exceeded by compounds detected in groundwater in October 2016 is provided in **Table 13**.

The next quarterly sampling event is scheduled for March 2017. A second report summarizing the four quarters of groundwater sampling will be submitted following receipt of laboratory data following the fourth-quarter sampling.







## 4 References

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Custom Soil Resource Report for Yakima County Area, Washington Moxee Soil Map.  
<http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm> Viewed January 29, 2015.

HDR Engineering, Inc. Preliminary Site Investigation Report, Simplot Grower Solutions, Moxee, Washington. October 2015.

HDR Engineering, Inc. Groundwater Monitoring Well and Sampling Work Plan. February 2016 (updated June 2016).





# A

Data Validation, Field  
Sampling Forms, and  
Laboratory Reports

**SIMPLOT GROWER SOLUTIONS  
MOXEE, WASHINGTON SITE**

**DATA VALIDATION REPORT  
FOR  
OCTOBER 2016 GROUNDWATER SAMPLING EVENT**

**INTRODUCTION**

This report summarizes the data validation performed on the groundwater analytical results of the samples collected on October 19, 2016. Collection and analysis of these samples were conducted in accordance with the procedures and protocols specified in the February 2016 *Groundwater Monitoring Well and Sampling Work Plan* and comments from the Washington State Department of Ecology.

The data validation for groundwater samples considered the following elements:

- Sampling Procedures
- Holding Times
- Detection Limit
- Surrogate Spike Recoveries
- Laboratory Method Blank
- Laboratory Control Sample
- Trip Blank
- Laboratory Spikes and Spike Duplicates
- Duplicate Field Sample

**SAMPLING PROCEDURES**

Groundwater samples were collected from monitoring wells at the Simplot Grower Solutions site in Moxee, Washington on October 19, 2016. Each monitoring well was purged and sampled using a peristaltic pump. Purged water was monitored for temperature, pH, and electrical conductivity. Purging continued until there was less than a 10 percent variance in parameter measurements after three consecutive readings or a minimum of three static well casing volumes had been removed.

Samples were labeled, sealed, placed in a cooler, and shipped to ESC Lab Sciences of Mt. Juliet, Tennessee. The samples for Sulfate were field filtered and arrived at the lab unpreserved. The pH was adjusted at the lab, when the samples were received.

ESC Lab Sciences analyzed samples for the following constituents:

- Ammonia Nitrogen – Method 350.1
- Sulfate – Method 9056A
- Nitrate-Nitrite – Method 353.2
- Total Dissolved Solids – Method SM2540D
- Volatile Organics – Method 8260B
- Polynuclear Aromatic Hydrocarbons – Method 8270C-SIM
- Chlorinated Herbicides – Method 8151A
- Total Petroleum Hydrocarbons – Method 8015D/GRO, 3511/8015
- Phosphate, Total – Method 365.1
- Potassium and Magnesium – Method 6010B

### **HOLDING TIMES**

A total of nine water samples were submitted to ESC Lab Sciences, including a trip blank. Holding times were met for all analytes.

### **DETECTION LIMIT**

Detection limits are specified by the analytical methods. Dilution factors ranged as follows:

- Ammonia Nitrogen (Method 350.1) – 1-10
- Sulfate (Method 9056a) – 1-20
- Nitrate-Nitrite (Method 353.2) – 1-100
- Total Dissolved Solids (Method SM2540 C-2011) – 1
- Volatile Organics (Method 8260B) – 1
- Polynuclear Aromatic Hydrocarbons (Method 8270C-SIM) – 1
- Chlorinated Herbicides (Method 8151A) – 1
- Total Petroleum Hydrocarbons (Method 8015D/GRO, 3511/8015) – 1
- Phosphate, Total (Method 365.1) – 1
- Potassium and Magnesium – (Method 6010B) – 1

### **SURROGATE SPIKE RECOVERIES**

Surrogate spike recoveries were reviewed and evaluated for adherence to the control limits specified for their respective methods. The surrogate recoveries were within control limits.

### **LABORATORY METHOD BLANK**

Several compounds were detected in the laboratory blank and have qualifier “B”

### **LABORATORY CONTROL SAMPLE**

Relative percent differences for the laboratory control sample duplicates were within limits. Percent recoveries of the laboratory control samples were reported within acceptance limits with the

exception of 1,2-Dichlorobenzene and 1,4-Dichlorobenzene. The percent recoveries were high. Neither constituent was detected in the samples submitted to the lab.

**TRIP BLANK**

A trip blank was included with the sample bottle shipment and was analyzed for volatile organic compounds (Method 8260B). The trip blank was below detection limits for all constituents.

**Field Blank**

A field blank (labeled “Blank”) consisting of deionized water was filled at the sample location and was included with the sample bottle shipment. The field blank was analyzed for the same constituents as the samples collected from the monitoring wells and was above the method reporting limit for dissolved solids. The method reporting limit is 10.0 mg/L and the concentration for the field blank was 16.0 mg/L.

**LABORATORY SPIKES AND SPIKE DUPLICATES**

Matrix spikes (MS) and matrix spike duplicates (MSD) were performed on random samples selected by the laboratory for each batch run. The samples selected for the MS and MSD were other project sites except MS sample for Nitrate-Nitrite. Thus, the matrix result while reflective of laboratory precision may not reflect matrix interferences from the Moxee project site. Of the 35 constituents with relative difference outside acceptance limits, only Bromobenzene and Naphthalene, was detected in the samples submitted to the lab.

**DUPLICATE FIELD SAMPLE**

A duplicate sample was secured from monitoring well MW-4 (Duplicate: MW-8). The results of the duplicate are presented in Table 1. The duplicate is within the acceptable range indicating acceptable precision of results.

**Table 1. Relative Percent Difference (RPD) of Detected Compounds for Duplicate Sample from MW-4 (October 19, 2016)**

Detected Compound	MW-4 (mg/L)	DUPLICATE (mg/L) (labeled MW-6)	RPD
Dissolved Solids	1450	1430	1.4%
Ammonia-Nitrogen	115	113	1.8%
Nitrate-Nitrite	138	119	14.8%
Phosphorus (dissolved)	0.289	0.27	6.8%
Sulfate	353	355	-0.6%
Magnesium	49.3	48.9	0.8%
Potassium	52.8	52.8	0.0%
TPH (GC/FID) High Fraction	1.24	1.2	3.3%
2,4-D	0.00117	0.00118	-0.9%

Benzo(b)fluoranthene	0.00000336	0.00000452	-29.4%
Benzo(g,h,i)perylene	0.00000258	0.00000373	-36.5%
Benzo(k)fluoranthene	0.0000156	ND	NA
Naphthalene	0.0000644	0.0000698	-8.0%
Phenanthrene	0.0000223	0.0000121	59.3%
1-Methylnaphthalene	0.0000118	0.0000109	7.9%
2-Methylnaphthalene	0.0000105	0.0000104	1.0%

RPD = [MW-4 – MW-8]/[mean(MW-4,MW-8)] X 100





### Groundwater Sampling Information

<b>Sample ID: MW-1</b>			<b>Date: 10/19/2016</b>		
Project: Simplot Grower Solutions			Project No: 10021429		
Location: Moxee, WA					
Depth to Water: 7.94			Measuring Point: TPVC		
Well Depth: 18.40		Water Ht. 10.46		Measuring Point: TPVC	
Casing Diameter: 2 inch		Factor: 1 inch = 0.04		2 inch = 0.16	4 inch = 0.66
One Casing Volume (gallons): 1.67			Three Casing Volumes (gallons): 5.0		
Sampling Method: Peristaltic Pump					
Sampling Equipment: new tubing					
Pump: Peristaltic Pump			Pump Intake: NA		
Decontamination: None required (disposable tubing)					
Time	pH (SI units)	Temp. (Degrees C)	Conductivity (ms or us)	Clarity	Cumulative Volume Purged (gallons)
0806	-	-	-	-	0
0814	7.0	17.1	1.61	sl. Cloudy	0.5
0820	7.1	17.2	1.75	sl. Cloudy	1.5
0827	7.2	17.2	1.80	sl. Cloudy	2.5
0832	7.3	17.3	1.76	sl. Cloudy	3.0
0836	7.3	17.3	1.82	sl. Cloudy	4.0
0840	7.3	17.3	1.89	sl. Cloudy	4.5
0844	7.3	17.3	1.92	sl. Cloudy	5.0
0850	7.3	17.3	1.94	sl. Cloudy	5.5
Sample Time: 0900			Appearance/Odor:		
Light brown, slightly cloudy; no odor					
Analytical Laboratory: ESC in Mt. Juliet TN					
Duplicate: NA			MS/MD: NA		
Comments: Calibrated HydroLab at 0740 for pH 4.0, 7.0, 10.0 and conductivity 1.412 Filled one sample with DI water at MW-1 and placed it in cooler. 15 containers					
Signature: M.Rauhut			Company: HDR		



### Groundwater Sampling Information

<b>Sample ID: MW-2</b>			<b>Date: 10/19/2016</b>		
Project: Simplot Grower Solutions			Project No: 10021429		
Location: Moxee, WA					
Depth to Water: 8.77			Measuring Point: TPVC		
Well Depth: 17.80		Water Ht. 9.03		Measuring Point: TPVC	
Casing Diameter: 2 inch		Factor: 1 inch = 0.04		2 inch = 0.16	4 inch = 0.66
One Casing Volume (gallons): 1.44			Three Casing Volumes (gallons): 4.33		
Sampling Method: Peristaltic Pump					
Sampling Equipment: new tubing					
Pump: Peristaltic Pump			Pump Intake: NA		
Decontamination: None required (disposable tubing)					
Time	pH (SI units)	Temp. (Degrees C)	Conductivity (ms or us)	Clarity	Cumulative Volume Purged (gallons)
0924	-	-	-	-	0
0928	7.6	16.7	2.87	sl. Cloudy	0.5
0933	7.7	16.5	2.96	sl. Cloudy	1.0
0940	7.7	16.2	3.12	sl. Cloudy	2.0
0944	7.7	16.0	3.14	sl. Cloudy	2.5
0948	7.7	16.0	3.13	sl. Cloudy	3.0
0953	7.7	16.0	3.18	sl. Cloudy	3.5
0957	7.7	16.0	3.19	sl. Cloudy	4.0
1001	7.7	16.0	3.20	sl. Cloudy	4.5
Sample Time: 1015			Appearance/Odor:		
Light brown, slightly cloudy; no odor					
Analytical Laboratory: ESC in Mt. Juliet TN					
Duplicate: NA			MS/MD: NA		
Comments: 15 containers					
Signature: M.Rauhut			Company: HDR		



### Groundwater Sampling Information

<b>Sample ID: MW-3</b>			<b>Date: 10/19/2016</b>		
Project: Simplot Grower Solutions			Project No: 10021429		
Location: Moxee, WA					
Depth to Water: 7.55			Measuring Point: TPVC		
Well Depth: 18.15		Water Ht. 10.60		Measuring Point: TPVC	
Casing Diameter: 2 inch		Factor: 1 inch = 0.04		2 inch = 0.16	4 inch = 0.66
One Casing Volume (gallons): 1.70			Three Casing Volumes (gallons): 5.10		
Sampling Method: Peristaltic Pump					
Sampling Equipment: new tubing					
Pump: Peristaltic Pump			Pump Intake: NA		
Decontamination: None required (disposable tubing)					
Time	pH (SI units)	Temp. (Degrees C)	Conductivity (ms or us)	Clarity	Cumulative Volume Purged (gallons)
1040	-	-	-	-	0
1044	8.4	19.6	1.256	sl. Cloudy	0.5
1048	8.5	19.3	1.236	sl. Cloudy	1.0
1056	8.4	18.9	1.247	sl. Cloudy	2.0
1104	8.4	18.6	1.296	sl. Cloudy	3.0
1112	8.4	18.5	1.312	sl. Cloudy	4.0
1119	8.3	18.6	1.320	sl. Cloudy	5.0
1127	8.3	18.6	1.320	sl. Cloudy	6.0
Sample Time: 1130			Appearance/Odor:		
Light brown, slightly cloudy; no odor					
Analytical Laboratory: ESC in Mt. Juliet TN					
Duplicate: NA			MS/MD: NA		
Comments: 15 containers					
Signature: M.Rauhut			Company: HDR		



### Groundwater Sampling Information

<b>Sample ID: CS-4</b>			<b>Date: 10/19/2016</b>		
Project: Simplot Grower Solutions			Project No: 10021429		
Location: Moxee, WA					
Depth to Water: 4.67			Measuring Point: TPVC		
Well Depth: 11.05		Water Ht. 6.38		Measuring Point: TPVC	
Casing Diameter: 2 inch		Factor: 1 inch = 0.04		2 inch = 0.16	4 inch = 0.66
One Casing Volume (gallons): 1.02			Three Casing Volumes (gallons): 3.06		
Sampling Method: Peristaltic Pump					
Sampling Equipment: new tubing					
Pump: Peristaltic Pump			Pump Intake: NA		
Decontamination: None required (disposable tubing)					
Time	pH (SI units)	Temp. (Degrees C)	Conductivity (ms or us)	Clarity	Cumulative Volume Purged (gallons)
1155	-	-	-	-	0
1200	7.3	20.5	1.056	sl. Cloudy	0.5
1205	7.5	20.7	1.007	sl. Cloudy	1.0
1208	7.6	20.7	0.944	sl. Cloudy	1.5
1211	7.6	20.7	0.921	sl. Cloudy	2.0
1214	7.7	20.8	0.937	sl. Cloudy	2.5
1218	7.7	20.7	0.871	sl. Cloudy	3.0
1226	7.7	20.7	0.889	sl. Cloudy	4.0
1233	7.7	20.7	0.884	sl. Cloudy	4.5
Sample Time: 1245			Appearance/Odor:		
Light brown, slightly cloudy; no odor					
Analytical Laboratory: ESC in Mt. Juliet TN					
Duplicate: NA			MS/MD: NA		
Comments: 15 containers					
Signature: M.Rauhut			Company: HDR		



### Groundwater Sampling Information

<b>Sample ID: CS-6</b>			<b>Date: 10/19/2016</b>		
Project: Simplot Grower Solutions			Project No: 10021429		
Location: Moxee, WA					
Depth to Water: 4.33			Measuring Point: TPVC		
Well Depth: 12.16		Water Ht. 7.83		Measuring Point: TPVC	
Casing Diameter: 2 inch		Factor: 1 inch = 0.04		2 inch = 0.16	4 inch = 0.66
One Casing Volume (gallons): 1.25			Three Casing Volumes (gallons): 3.76		
Sampling Method: Peristaltic Pump					
Sampling Equipment: new tubing					
Pump: Peristaltic Pump			Pump Intake: NA		
Decontamination: None required (disposable tubing)					
Time	pH (SI units)	Temp. (Degrees C)	Conductivity (ms or us)	Clarity	Cumulative Volume Purged (gallons)
1305	-	-	-	-	0
1309	-	20.5	-	sl. Brown	0.5
1313	7.4	20.1	2.15	sl. Brown	1.0
1317	7.3	19.9	2.60	sl. Brown	1.5
1322	7.4	19.8	2.75	sl. Brown*	2.0
1325	7.4	19.7	2.84	sl. Brown	2.5
1331	7.3	19.7	2.95	sl. Brown	3.5
1337	7.4	19.6	3.01	sl. Brown	4.5
1344	7.4	19.6	3.03	sl. Brown	5.5
Sample Time: 1400			Appearance/Odor:		
Light brown, slightly cloudy; no odor					
Analytical Laboratory: ESC in Mt. Juliet TN					
Duplicate: NA			MS/MD: NA		
Comments: 15 containers *water gradually clearing up after 3.0 gallons Forgot to note down pH and conductivity at 0.5 gallons one 1 liter amber did not have Teflon under lid					
Signature: M.Rauhut			Company: HDR		



### Groundwater Sampling Information

<b>Sample ID: MW-4</b>			<b>Date: 10/19/2016</b>		
Project: Simplot Grower Solutions			Project No: 10021429		
Location: Moxee, WA					
Depth to Water: 4.19			Measuring Point: TPVC		
Well Depth: 14.91		Water Ht. 10.72		Measuring Point: TPVC	
Casing Diameter: 2 inch		Factor: 1 inch = 0.04		2 inch = 0.16	4 inch = 0.66
One Casing Volume (gallons): 1.72			Three Casing Volumes (gallons): 5.14		
Sampling Method: Peristaltic Pump					
Sampling Equipment: new tubing					
Pump: Peristaltic Pump			Pump Intake: NA		
Decontamination: None required (disposable tubing)					
Time	pH (SI units)	Temp. (Degrees C)	Conductivity (ms or us)	Clarity	Cumulative Volume Purged (gallons)
1431	-	-	-	-	0
1438	7.3	19.1	2.78	sl. Cloudy	1.0
1450	7.3	18.8	2.81	sl. Cloudy	2.5
1454	7.3	18.9	2.75	sl. Cloudy	3.0
1502	7.3	18.9	2.70	sl. Cloudy	4.0
1511	7.3	18.9	2.71	sl. Cloudy	5.0
1515	7.3	18.9	2.70	sl. Cloudy	5.5
Sample Time: 1530			Appearance/Odor:		
Light brown, slightly cloudy; no odor					
Analytical Laboratory: ESC in Mt. Juliet TN					
<b>Duplicate: MW-6 at 1600</b>			MS/MD: NA		
Comments: 15 containers					
Signature: M.Rauhut			Company: HDR		



### Groundwater Sampling Information

<b>Sample ID: MW-5</b>			<b>Date: 10/19/2016</b>		
Project: Simplot Grower Solutions			Project No: 10021429		
Location: Moxee, WA					
Depth to Water: 9.22			Measuring Point: TPVC		
Well Depth: 18.18		Water Ht. 8.96		Measuring Point: TPVC	
Casing Diameter: 2 inch		Factor: 1 inch = 0.04		2 inch = 0.16	4 inch = 0.66
One Casing Volume (gallons): 1.43			Three Casing Volumes (gallons): 4.30		
Sampling Method: Peristaltic Pump					
Sampling Equipment: new tubing					
Pump: Peristaltic Pump			Pump Intake: NA		
Decontamination: None required (disposable tubing)					
Time	pH (SI units)	Temp. (Degrees C)	Conductivity (ms or us)	Clarity	Cumulative Volume Purged (gallons)
1604	-	-	-	-	0
1609	7.3	19.7	3.59	sl. Cloudy	0.5
1614	7.3	19.6	3.78	sl. Cloudy	1.0
1618	7.3	19.2	4.00	sl. Cloudy	1.5
1624	7.3	19.0	4.29	sl. Cloudy	2.5
1627	7.3	18.9	4.38	sl. Cloudy	3.5
1633	7.3	18.6	4.42	sl. Cloudy	4.5
1636	7.3	18.6	4.47	sl. Cloudy	5.0
1640	7.3	18.6	4.45	sl. Cloudy	5.5
Sample Time: 1730			Appearance/Odor:		
Light brown, slightly cloudy; no odor					
Analytical Laboratory: ESC in Mt. Juliet TN					
Duplicate: NA			MS/MD: NA		
Comments: 15 containers					
Signature: M.Rauhut			Company: HDR		

## HDR - Boise, ID

Sample Delivery Group: L867699  
Samples Received: 10/21/2016  
Project Number: SIMPLOT MOXEE  
Description: Moxee  
Site: MOXEE  
Report To: Manuel Rauhut  
412 E. Parkcenter Blvd., Suite 100  
Boise, ID 83706

Entire Report Reviewed By:



Shane Gambill  
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.





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<sup>1</sup> Cp
<sup>2</sup> Tc
<sup>3</sup> Ss
<sup>4</sup> Cn
<sup>5</sup> Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
<sup>9</sup> Sc

# SAMPLE SUMMARY

## BLANK L867699-01 GW

						Collected by	Collected date/time	Received date/time
						Manual Rauhut	10/19/16 07:00	10/21/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Chlorinated Acid Herbicides (GC) by Method 8151	WG920539	1	10/26/16 10:26	10/27/16 02:36	KLM			
Gravimetric Analysis by Method 2540 C-2011	WG919763	1	10/26/16 02:49	10/26/16 04:07	JM			
Metals (ICP) by Method 6010B	WG920181	1	10/24/16 21:48	10/25/16 00:57	LTB			
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG920693	1	10/25/16 17:31	10/27/16 04:44	FMB			
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG919944	1	10/25/16 13:40	10/26/16 20:57	TRF			
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG919913	1	10/24/16 18:32	10/24/16 18:32	DAH			
Volatile Organic Compounds (GC/MS) by Method 8260B	WG920020	1	10/27/16 01:03	10/27/16 01:03	LRL			
Wet Chemistry by Method 350.1	WG920846	1	10/28/16 00:18	10/28/16 00:18	DR			
Wet Chemistry by Method 353.2	WG920364	1	10/25/16 13:54	10/25/16 13:54	DR			
Wet Chemistry by Method 365.1	WG921183	1	10/27/16 15:53	10/27/16 20:42	ASK			
Wet Chemistry by Method 9056A	WG920261	1	10/25/16 11:07	10/25/16 11:07	CM			

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

## MW-1 L867699-02 GW

						Collected by	Collected date/time	Received date/time
						Manual Rauhut	10/19/16 09:00	10/21/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Chlorinated Acid Herbicides (GC) by Method 8151	WG920539	1	10/26/16 10:26	10/27/16 02:50	KLM			
Gravimetric Analysis by Method 2540 C-2011	WG919763	1	10/26/16 02:49	10/26/16 04:07	JM			
Metals (ICP) by Method 6010B	WG920181	1	10/24/16 21:48	10/25/16 01:05	LTB			
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG920693	1	10/25/16 17:31	10/27/16 05:06	FMB			
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG919944	1	10/25/16 13:40	10/26/16 21:18	TRF			
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG919913	1	10/24/16 20:09	10/24/16 20:09	DAH			
Volatile Organic Compounds (GC/MS) by Method 8260B	WG920020	1	10/27/16 01:41	10/27/16 01:41	LRL			
Wet Chemistry by Method 350.1	WG920846	1	10/28/16 00:20	10/28/16 00:20	DR			
Wet Chemistry by Method 353.2	WG920364	10	10/25/16 13:57	10/25/16 13:57	DR			
Wet Chemistry by Method 365.1	WG921183	1	10/27/16 15:53	10/27/16 20:44	ASK			
Wet Chemistry by Method 9056A	WG920261	5	10/25/16 16:06	10/25/16 16:06	CM			

## MW-2 L867699-03 GW

						Collected by	Collected date/time	Received date/time
						Manual Rauhut	10/19/16 10:15	10/21/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Chlorinated Acid Herbicides (GC) by Method 8151	WG920539	1	10/26/16 10:26	10/27/16 03:04	KLM			
Gravimetric Analysis by Method 2540 C-2011	WG919763	1	10/26/16 02:49	10/26/16 04:07	JM			
Metals (ICP) by Method 6010B	WG920181	1	10/24/16 21:48	10/25/16 00:41	LTB			
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG920693	1	10/25/16 17:31	10/27/16 05:28	FMB			
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG919944	1	10/25/16 13:40	10/26/16 21:38	TRF			
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG919913	1	10/24/16 20:34	10/24/16 20:34	DAH			
Volatile Organic Compounds (GC/MS) by Method 8260B	WG920020	1	10/27/16 02:00	10/27/16 02:00	LRL			
Wet Chemistry by Method 350.1	WG920846	1	10/28/16 00:22	10/28/16 00:22	DR			
Wet Chemistry by Method 353.2	WG920364	100	10/25/16 13:58	10/25/16 13:58	DR			
Wet Chemistry by Method 365.1	WG921183	1	10/27/16 15:53	10/27/16 20:46	ASK			
Wet Chemistry by Method 9056A	WG920261	10	10/25/16 11:37	10/25/16 11:37	CM			

## MW-3 L867699-04 GW

						Collected by	Collected date/time	Received date/time
						Manual Rauhut	10/19/16 11:30	10/21/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst			
Chlorinated Acid Herbicides (GC) by Method 8151	WG920539	1	10/26/16 10:26	10/27/16 03:18	KLM			
Gravimetric Analysis by Method 2540 C-2011	WG919763	1	10/26/16 02:49	10/26/16 04:07	JM			
Metals (ICP) by Method 6010B	WG920181	1	10/24/16 21:48	10/25/16 01:08	LTB			
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG920693	1	10/25/16 17:31	10/27/16 05:50	FMB			

# SAMPLE SUMMARY



## MW-3 L867699-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG919944	1	10/25/16 13:40	10/26/16 21:58	TRF
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG919913	1	10/24/16 20:58	10/24/16 20:58	DAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG920020	1	10/27/16 02:19	10/27/16 02:19	LRL
Wet Chemistry by Method 350.1	WG920846	1	10/28/16 00:23	10/28/16 00:23	DR
Wet Chemistry by Method 353.2	WG920364	5	10/25/16 13:59	10/25/16 13:59	DR
Wet Chemistry by Method 365.1	WG921183	1	10/27/16 15:53	10/27/16 20:47	ASK
Wet Chemistry by Method 9056A	WG920261	5	10/25/16 16:21	10/25/16 16:21	CM

Collected by Manual Rauhut  
Collected date/time 10/19/16 11:30  
Received date/time 10/21/16 09:00

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

## CS-4 L867699-05 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Chlorinated Acid Herbicides (GC) by Method 8151	WG920539	1	10/26/16 10:26	10/27/16 03:32	KLM
Gravimetric Analysis by Method 2540 C-2011	WG919763	1	10/26/16 02:49	10/26/16 04:07	JM
Metals (ICP) by Method 6010B	WG920181	1	10/24/16 21:48	10/25/16 01:11	LTB
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG920693	1	10/25/16 17:31	10/27/16 06:11	FMB
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG919944	1	10/25/16 13:40	10/26/16 22:19	TRF
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG919913	1	10/24/16 21:22	10/24/16 21:22	DAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG920020	1	10/27/16 02:38	10/27/16 02:38	LRL
Wet Chemistry by Method 350.1	WG920846	1	10/28/16 00:25	10/28/16 00:25	DR
Wet Chemistry by Method 353.2	WG920364	5	10/25/16 15:04	10/25/16 15:04	DR
Wet Chemistry by Method 365.1	WG921183	1	10/27/16 15:53	10/27/16 20:48	ASK
Wet Chemistry by Method 9056A	WG920261	1	10/25/16 12:52	10/25/16 12:52	CM

Collected by Manual Rauhut  
Collected date/time 10/19/16 12:45  
Received date/time 10/21/16 09:00

## CS-6 L867699-06 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Chlorinated Acid Herbicides (GC) by Method 8151	WG920539	1	10/26/16 10:26	10/27/16 03:46	KLM
Gravimetric Analysis by Method 2540 C-2011	WG919763	1	10/26/16 02:49	10/26/16 04:07	JM
Metals (ICP) by Method 6010B	WG920181	1	10/24/16 21:48	10/25/16 01:13	LTB
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG920693	1	10/25/16 17:31	10/27/16 06:33	FMB
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG919944	1	10/25/16 13:40	10/26/16 22:39	TRF
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG919913	1	10/24/16 21:46	10/24/16 21:46	DAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG920020	1	10/29/16 17:48	10/29/16 17:48	JHH
Wet Chemistry by Method 350.1	WG920846	1	10/28/16 00:33	10/28/16 00:33	DR
Wet Chemistry by Method 353.2	WG920364	100	10/25/16 15:05	10/25/16 15:05	DR
Wet Chemistry by Method 365.1	WG921183	1	10/27/16 15:53	10/27/16 20:52	ASK
Wet Chemistry by Method 9056A	WG920261	10	10/25/16 16:51	10/25/16 16:51	CM

Collected by Manual Rauhut  
Collected date/time 10/19/16 14:00  
Received date/time 10/21/16 09:00

## MW-4 L867699-07 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Chlorinated Acid Herbicides (GC) by Method 8151	WG920539	1	10/26/16 10:26	10/27/16 04:00	KLM
Gravimetric Analysis by Method 2540 C-2011	WG919763	1	10/26/16 02:49	10/26/16 04:07	JM
Metals (ICP) by Method 6010B	WG920181	1	10/24/16 21:48	10/25/16 01:16	LTB
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG920693	1	10/25/16 17:31	10/27/16 06:55	FMB
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG919944	1	10/25/16 13:40	10/26/16 22:59	TRF
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG919913	1	10/24/16 22:11	10/24/16 22:11	DAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG920020	1	10/27/16 03:16	10/27/16 03:16	LRL
Wet Chemistry by Method 350.1	WG920846	10	10/28/16 01:21	10/28/16 01:21	DR

Collected by Manual Rauhut  
Collected date/time 10/19/16 15:30  
Received date/time 10/21/16 09:00

# SAMPLE SUMMARY



## MW-4 L867699-07 GW

			Collected by	Collected date/time	Received date/time
			Manual Rauhut	10/19/16 15:30	10/21/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 353.2	WG920364	100	10/25/16 15:06	10/25/16 15:06	DR
Wet Chemistry by Method 365.1	WG921183	1	10/27/16 15:53	10/27/16 20:53	ASK
Wet Chemistry by Method 9056A	WG920261	10	10/25/16 17:05	10/25/16 17:05	CM

1 Cp

2 Tc

3 Ss

## MW-6 L867699-08 GW

			Collected by	Collected date/time	Received date/time
			Manual Rauhut	10/19/16 16:00	10/21/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Chlorinated Acid Herbicides (GC) by Method 8151	WG920539	1	10/26/16 10:26	10/27/16 04:14	KLM
Gravimetric Analysis by Method 2540 C-2011	WG919763	1	10/26/16 02:49	10/26/16 04:07	JM
Metals (ICP) by Method 6010B	WG920181	1	10/24/16 21:48	10/25/16 01:19	LTB
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG920693	1	10/25/16 17:31	10/27/16 07:17	FMB
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG919944	1	10/25/16 13:40	10/26/16 23:19	TRF
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG919913	1	10/24/16 22:35	10/24/16 22:35	DAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG920020	1	10/27/16 03:36	10/27/16 03:36	LRL
Wet Chemistry by Method 350.1	WG920846	10	10/28/16 01:23	10/28/16 01:23	DR
Wet Chemistry by Method 353.2	WG920364	50	10/25/16 15:07	10/25/16 15:07	DR
Wet Chemistry by Method 365.1	WG921183	1	10/27/16 15:53	10/27/16 20:55	ASK
Wet Chemistry by Method 9056A	WG920261	10	10/25/16 17:20	10/25/16 17:20	CM

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## TRIP BLANK L867699-09 GW

			Collected by	Collected date/time	Received date/time
			Manual Rauhut	10/19/16 00:00	10/21/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG920020	1	10/27/16 01:22	10/27/16 01:22	LRL

## MW-5 L867699-10 GW

			Collected by	Collected date/time	Received date/time
			Manual Rauhut	10/19/16 17:30	10/21/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Chlorinated Acid Herbicides (GC) by Method 8151	WG920539	1	10/26/16 10:26	10/27/16 04:28	KLM
Gravimetric Analysis by Method 2540 C-2011	WG919763	1	10/26/16 02:49	10/26/16 04:07	JM
Metals (ICP) by Method 6010B	WG920181	1	10/24/16 21:48	10/25/16 01:22	LTB
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG920693	1	10/25/16 17:31	10/27/16 07:37	FMB
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG919944	1	10/25/16 13:40	10/26/16 23:39	TRF
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG919913	1	10/24/16 22:59	10/24/16 22:59	DAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG920020	1	10/27/16 03:55	10/27/16 03:55	LRL
Wet Chemistry by Method 350.1	WG920846	1	10/28/16 00:41	10/28/16 00:41	DR
Wet Chemistry by Method 353.2	WG920364	20	10/25/16 15:08	10/25/16 15:08	DR
Wet Chemistry by Method 365.1	WG921183	1	10/27/16 15:53	10/27/16 20:56	ASK
Wet Chemistry by Method 9056A	WG920261	20	10/25/16 13:52	10/25/16 13:52	CM



All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Shane Gambill  
 Technical Service Representative

Sample Handling and Receiving

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VOC pH outside of method requirement.

<u>ESC Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
<a href="#">L867699-10</a>	<a href="#">MW-5</a>	8260B

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



## Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	16.0		2.82	10.0	1	10/26/2016 04:07	<a href="#">WG919763</a>

## Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ammonia Nitrogen	U		0.0380	0.250	1	10/28/2016 00:18	<a href="#">WG920846</a>

## Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	0.0370	<a href="#">B J J6 P1</a>	0.0197	0.100	1	10/25/2016 13:54	<a href="#">WG920364</a>

## Wet Chemistry by Method 365.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Phosphorus,Dissolved	0.0556	<a href="#">J</a>	0.0333	0.100	1	10/27/2016 20:42	<a href="#">WG921183</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Sulfate	U		0.0774	5.00	1	10/25/2016 11:07	<a href="#">WG920261</a>

## Metals (ICP) by Method 6010B

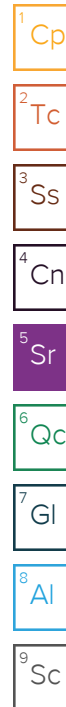
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Magnesium	U		0.0111	1.00	1	10/25/2016 00:57	<a href="#">WG920181</a>
Potassium	U		0.102	1.00	1	10/25/2016 00:57	<a href="#">WG920181</a>

## Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/24/2016 18:32	<a href="#">WG919913</a>
(S) a, a, a-Trifluorotoluene(FID) 106				62.0-128		10/24/2016 18:32	<a href="#">WG919913</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0100	0.0500	1	10/27/2016 01:03	<a href="#">WG920020</a>
Acrolein	U		0.00887	0.0500	1	10/27/2016 01:03	<a href="#">WG920020</a>
Acrylonitrile	U		0.00187	0.0100	1	10/27/2016 01:03	<a href="#">WG920020</a>
Benzene	U		0.000331	0.00100	1	10/27/2016 01:03	<a href="#">WG920020</a>
Bromobenzene	U		0.000352	0.00100	1	10/27/2016 01:03	<a href="#">WG920020</a>
Bromodichloromethane	U		0.000380	0.00100	1	10/27/2016 01:03	<a href="#">WG920020</a>
Bromoform	U		0.000469	0.00100	1	10/27/2016 01:03	<a href="#">WG920020</a>
Bromomethane	U		0.000866	0.00500	1	10/27/2016 01:03	<a href="#">WG920020</a>
n-Butylbenzene	U		0.000361	0.00100	1	10/27/2016 01:03	<a href="#">WG920020</a>
sec-Butylbenzene	U		0.000365	0.00100	1	10/27/2016 01:03	<a href="#">WG920020</a>
tert-Butylbenzene	U		0.000399	0.00100	1	10/27/2016 01:03	<a href="#">WG920020</a>
Carbon tetrachloride	U		0.000379	0.00100	1	10/27/2016 01:03	<a href="#">WG920020</a>
Chlorobenzene	U		0.000348	0.00100	1	10/27/2016 01:03	<a href="#">WG920020</a>
Chlorodibromomethane	U		0.000327	0.00100	1	10/27/2016 01:03	<a href="#">WG920020</a>
Chloroethane	U		0.000453	0.00500	1	10/27/2016 01:03	<a href="#">WG920020</a>





Collected date/time: 10/19/16 07:00

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## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch	
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	10/27/2016 01:03	WG920020	1 Cp
Chloroform	U		0.000324	0.00500	1	10/27/2016 01:03	WG920020	2 Tc
Chloromethane	U		0.000276	0.00250	1	10/27/2016 01:03	WG920020	
2-Chlorotoluene	U		0.000375	0.00100	1	10/27/2016 01:03	WG920020	3 Ss
4-Chlorotoluene	U		0.000351	0.00100	1	10/27/2016 01:03	WG920020	
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/27/2016 01:03	WG920020	4 Cn
1,2-Dibromoethane	U		0.000381	0.00100	1	10/27/2016 01:03	WG920020	
Dibromomethane	U		0.000346	0.00100	1	10/27/2016 01:03	WG920020	
1,2-Dichlorobenzene	U	J4	0.000349	0.00100	1	10/27/2016 01:03	WG920020	5 Sr
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/27/2016 01:03	WG920020	
1,4-Dichlorobenzene	U	J4	0.000274	0.00100	1	10/27/2016 01:03	WG920020	6 Qc
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/27/2016 01:03	WG920020	
1,1-Dichloroethane	U		0.000259	0.00100	1	10/27/2016 01:03	WG920020	
1,2-Dichloroethane	U		0.000361	0.00100	1	10/27/2016 01:03	WG920020	7 Gl
1,1-Dichloroethene	U		0.000398	0.00100	1	10/27/2016 01:03	WG920020	
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/27/2016 01:03	WG920020	8 Al
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/27/2016 01:03	WG920020	
1,2-Dichloropropane	U		0.000306	0.00100	1	10/27/2016 01:03	WG920020	
1,1-Dichloropropene	U		0.000352	0.00100	1	10/27/2016 01:03	WG920020	9 Sc
1,3-Dichloropropane	U		0.000366	0.00100	1	10/27/2016 01:03	WG920020	
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/27/2016 01:03	WG920020	
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/27/2016 01:03	WG920020	
2,2-Dichloropropane	U		0.000321	0.00100	1	10/27/2016 01:03	WG920020	
Di-isopropyl ether	U		0.000320	0.00100	1	10/27/2016 01:03	WG920020	
Ethylbenzene	U		0.000384	0.00100	1	10/27/2016 01:03	WG920020	
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/27/2016 01:03	WG920020	
Isopropylbenzene	U		0.000326	0.00100	1	10/27/2016 01:03	WG920020	
p-Isopropyltoluene	U		0.000350	0.00100	1	10/27/2016 01:03	WG920020	
2-Butanone (MEK)	U		0.00393	0.0100	1	10/27/2016 01:03	WG920020	
Methylene Chloride	U		0.00100	0.00500	1	10/27/2016 01:03	WG920020	
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/27/2016 01:03	WG920020	
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/27/2016 01:03	WG920020	
Naphthalene	U		0.00100	0.00500	1	10/27/2016 01:03	WG920020	
n-Propylbenzene	U		0.000349	0.00100	1	10/27/2016 01:03	WG920020	
Styrene	U		0.000307	0.00100	1	10/27/2016 01:03	WG920020	
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/27/2016 01:03	WG920020	
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/27/2016 01:03	WG920020	
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/27/2016 01:03	WG920020	
Tetrachloroethene	U		0.000372	0.00100	1	10/27/2016 01:03	WG920020	
Toluene	U		0.000780	0.00500	1	10/27/2016 01:03	WG920020	
1,2,3-Trichlorobenzene	0.000231	J	0.000230	0.00100	1	10/27/2016 01:03	WG920020	
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/27/2016 01:03	WG920020	
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/27/2016 01:03	WG920020	
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/27/2016 01:03	WG920020	
Trichloroethene	U		0.000398	0.00100	1	10/27/2016 01:03	WG920020	
Trichlorofluoromethane	U		0.00120	0.00500	1	10/27/2016 01:03	WG920020	
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/27/2016 01:03	WG920020	
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/27/2016 01:03	WG920020	
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/27/2016 01:03	WG920020	
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/27/2016 01:03	WG920020	
Vinyl chloride	U		0.000259	0.00100	1	10/27/2016 01:03	WG920020	
Xylenes, Total	U		0.00106	0.00300	1	10/27/2016 01:03	WG920020	
(S) Toluene-d8	99.3			90.0-115		10/27/2016 01:03	WG920020	
(S) Dibromofluoromethane	99.8			79.0-121		10/27/2016 01:03	WG920020	
(S) 4-Bromofluorobenzene	92.5			80.1-120		10/27/2016 01:03	WG920020	



Collected date/time: 10/19/16 07:00

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## Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.111		0.0247	0.100	1	10/26/2016 20:57	<a href="#">WG919944</a>
(S) o-Terphenyl	127			50.0-150		10/26/2016 20:57	<a href="#">WG919944</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Chlorinated Acid Herbicides (GC) by Method 8151

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2,4-D	U		0.000400	0.00200	1	10/27/2016 02:36	<a href="#">WG920539</a>
Dalapon	U		0.000300	0.00200	1	10/27/2016 02:36	<a href="#">WG920539</a>
2,4-DB	U		0.000700	0.00400	1	10/27/2016 02:36	<a href="#">WG920539</a>
Dicamba	U		0.000300	0.00200	1	10/27/2016 02:36	<a href="#">WG920539</a>
Dichloroprop	U		0.000400	0.00200	1	10/27/2016 02:36	<a href="#">WG920539</a>
Dinoseb	U		0.000500	0.00200	1	10/27/2016 02:36	<a href="#">WG920539</a>
MCPA	U		0.0500	0.200	1	10/27/2016 02:36	<a href="#">WG920539</a>
MCPP	U		0.0500	0.200	1	10/27/2016 02:36	<a href="#">WG920539</a>
2,4,5-T	U		0.000300	0.00200	1	10/27/2016 02:36	<a href="#">WG920539</a>
2,4,5-TP (Silvex)	U		0.000300	0.00200	1	10/27/2016 02:36	<a href="#">WG920539</a>
(S) 2,4-Dichlorophenyl Acetic Acid	96.3			20.0-138		10/27/2016 02:36	<a href="#">WG920539</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2016 04:44	<a href="#">WG920693</a>
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2016 04:44	<a href="#">WG920693</a>
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2016 04:44	<a href="#">WG920693</a>
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2016 04:44	<a href="#">WG920693</a>
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2016 04:44	<a href="#">WG920693</a>
Benzo(b)fluoranthene	0.00000415	<u>B</u> <u>J</u>	0.00000212	0.0000500	1	10/27/2016 04:44	<a href="#">WG920693</a>
Benzo(g,h,i)perylene	0.00000346	<u>B</u> <u>J</u>	0.00000227	0.0000500	1	10/27/2016 04:44	<a href="#">WG920693</a>
Benzo(k)fluoranthene	0.0000377	<u>J</u>	0.0000136	0.0000500	1	10/27/2016 04:44	<a href="#">WG920693</a>
Chrysene	U		0.0000108	0.0000500	1	10/27/2016 04:44	<a href="#">WG920693</a>
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2016 04:44	<a href="#">WG920693</a>
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2016 04:44	<a href="#">WG920693</a>
Fluorene	U		0.00000850	0.0000500	1	10/27/2016 04:44	<a href="#">WG920693</a>
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2016 04:44	<a href="#">WG920693</a>
Naphthalene	0.0000937	<u>B</u> <u>J</u>	0.0000198	0.000250	1	10/27/2016 04:44	<a href="#">WG920693</a>
Phenanthrene	0.0000160	<u>J</u>	0.00000820	0.0000500	1	10/27/2016 04:44	<a href="#">WG920693</a>
Pyrene	U		0.0000117	0.0000500	1	10/27/2016 04:44	<a href="#">WG920693</a>
1-Methylnaphthalene	0.00000991	<u>J</u>	0.00000821	0.000250	1	10/27/2016 04:44	<a href="#">WG920693</a>
2-Methylnaphthalene	0.0000141	<u>J</u>	0.00000902	0.000250	1	10/27/2016 04:44	<a href="#">WG920693</a>
2-Chloronaphthalene	U		0.00000647	0.000250	1	10/27/2016 04:44	<a href="#">WG920693</a>
(S) Nitrobenzene-d5	109			33.8-179		10/27/2016 04:44	<a href="#">WG920693</a>
(S) 2-Fluorobiphenyl	108			55.5-150		10/27/2016 04:44	<a href="#">WG920693</a>
(S) p-Terphenyl-d14	116			46.2-163		10/27/2016 04:44	<a href="#">WG920693</a>





## Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	1330		2.82	10.0	1	10/26/2016 04:07	<a href="#">WG919763</a>

## Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ammonia Nitrogen	U		0.0380	0.250	1	10/28/2016 00:20	<a href="#">WG920846</a>

## Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	41.4		0.197	1.00	10	10/25/2016 13:57	<a href="#">WG920364</a>

## Wet Chemistry by Method 365.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Phosphorus,Dissolved	0.541		0.0333	0.100	1	10/27/2016 20:44	<a href="#">WG921183</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Sulfate	300		0.387	25.0	5	10/25/2016 16:06	<a href="#">WG920261</a>

## Metals (ICP) by Method 6010B

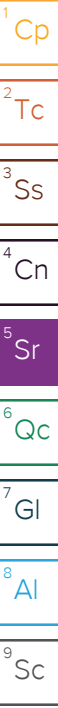
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Magnesium	140		0.0111	1.00	1	10/25/2016 01:05	<a href="#">WG920181</a>
Potassium	4.81		0.102	1.00	1	10/25/2016 01:05	<a href="#">WG920181</a>

## Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/24/2016 20:09	<a href="#">WG919913</a>
(S) a, a, a-Trifluorotoluene(FID) 106				62.0-128		10/24/2016 20:09	<a href="#">WG919913</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0100	0.0500	1	10/27/2016 01:41	<a href="#">WG920020</a>
Acrolein	U		0.00887	0.0500	1	10/27/2016 01:41	<a href="#">WG920020</a>
Acrylonitrile	U		0.00187	0.0100	1	10/27/2016 01:41	<a href="#">WG920020</a>
Benzene	U		0.000331	0.00100	1	10/27/2016 01:41	<a href="#">WG920020</a>
Bromobenzene	U		0.000352	0.00100	1	10/27/2016 01:41	<a href="#">WG920020</a>
Bromodichloromethane	U		0.000380	0.00100	1	10/27/2016 01:41	<a href="#">WG920020</a>
Bromoform	U		0.000469	0.00100	1	10/27/2016 01:41	<a href="#">WG920020</a>
Bromomethane	U		0.000866	0.00500	1	10/27/2016 01:41	<a href="#">WG920020</a>
n-Butylbenzene	U		0.000361	0.00100	1	10/27/2016 01:41	<a href="#">WG920020</a>
sec-Butylbenzene	U		0.000365	0.00100	1	10/27/2016 01:41	<a href="#">WG920020</a>
tert-Butylbenzene	U		0.000399	0.00100	1	10/27/2016 01:41	<a href="#">WG920020</a>
Carbon tetrachloride	U		0.000379	0.00100	1	10/27/2016 01:41	<a href="#">WG920020</a>
Chlorobenzene	U		0.000348	0.00100	1	10/27/2016 01:41	<a href="#">WG920020</a>
Chlorodibromomethane	U		0.000327	0.00100	1	10/27/2016 01:41	<a href="#">WG920020</a>
Chloroethane	U		0.000453	0.00500	1	10/27/2016 01:41	<a href="#">WG920020</a>





Collected date/time: 10/19/16 09:00

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## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	10/27/2016 01:41	WG920020
Chloroform	U		0.000324	0.00500	1	10/27/2016 01:41	WG920020
Chloromethane	U		0.000276	0.00250	1	10/27/2016 01:41	WG920020
2-Chlorotoluene	U		0.000375	0.00100	1	10/27/2016 01:41	WG920020
4-Chlorotoluene	U		0.000351	0.00100	1	10/27/2016 01:41	WG920020
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/27/2016 01:41	WG920020
1,2-Dibromoethane	U		0.000381	0.00100	1	10/27/2016 01:41	WG920020
Dibromomethane	U		0.000346	0.00100	1	10/27/2016 01:41	WG920020
1,2-Dichlorobenzene	U	J4	0.000349	0.00100	1	10/27/2016 01:41	WG920020
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/27/2016 01:41	WG920020
1,4-Dichlorobenzene	U	J4	0.000274	0.00100	1	10/27/2016 01:41	WG920020
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/27/2016 01:41	WG920020
1,1-Dichloroethane	U		0.000259	0.00100	1	10/27/2016 01:41	WG920020
1,2-Dichloroethane	U		0.000361	0.00100	1	10/27/2016 01:41	WG920020
1,1-Dichloroethene	U		0.000398	0.00100	1	10/27/2016 01:41	WG920020
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/27/2016 01:41	WG920020
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/27/2016 01:41	WG920020
1,2-Dichloropropane	U		0.000306	0.00100	1	10/27/2016 01:41	WG920020
1,1-Dichloropropene	U		0.000352	0.00100	1	10/27/2016 01:41	WG920020
1,3-Dichloropropane	U		0.000366	0.00100	1	10/27/2016 01:41	WG920020
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/27/2016 01:41	WG920020
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/27/2016 01:41	WG920020
2,2-Dichloropropane	U		0.000321	0.00100	1	10/27/2016 01:41	WG920020
Di-isopropyl ether	U		0.000320	0.00100	1	10/27/2016 01:41	WG920020
Ethylbenzene	U		0.000384	0.00100	1	10/27/2016 01:41	WG920020
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/27/2016 01:41	WG920020
Isopropylbenzene	U		0.000326	0.00100	1	10/27/2016 01:41	WG920020
p-Isopropyltoluene	U		0.000350	0.00100	1	10/27/2016 01:41	WG920020
2-Butanone (MEK)	U		0.00393	0.0100	1	10/27/2016 01:41	WG920020
Methylene Chloride	U		0.00100	0.00500	1	10/27/2016 01:41	WG920020
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/27/2016 01:41	WG920020
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/27/2016 01:41	WG920020
Naphthalene	U		0.00100	0.00500	1	10/27/2016 01:41	WG920020
n-Propylbenzene	U		0.000349	0.00100	1	10/27/2016 01:41	WG920020
Styrene	U		0.000307	0.00100	1	10/27/2016 01:41	WG920020
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/27/2016 01:41	WG920020
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/27/2016 01:41	WG920020
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/27/2016 01:41	WG920020
Tetrachloroethene	U		0.000372	0.00100	1	10/27/2016 01:41	WG920020
Toluene	U		0.000780	0.00500	1	10/27/2016 01:41	WG920020
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/27/2016 01:41	WG920020
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/27/2016 01:41	WG920020
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/27/2016 01:41	WG920020
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/27/2016 01:41	WG920020
Trichloroethene	U		0.000398	0.00100	1	10/27/2016 01:41	WG920020
Trichlorofluoromethane	U		0.00120	0.00500	1	10/27/2016 01:41	WG920020
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/27/2016 01:41	WG920020
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/27/2016 01:41	WG920020
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/27/2016 01:41	WG920020
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/27/2016 01:41	WG920020
Vinyl chloride	U		0.000259	0.00100	1	10/27/2016 01:41	WG920020
Xylenes, Total	U		0.00106	0.00300	1	10/27/2016 01:41	WG920020
(S) Toluene-d8	98.3			90.0-115		10/27/2016 01:41	WG920020
(S) Dibromofluoromethane	99.4			79.0-121		10/27/2016 01:41	WG920020
(S) 4-Bromofluorobenzene	91.9			80.1-120		10/27/2016 01:41	WG920020

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 10/19/16 09:00

L867699

## Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0353	J	0.0247	0.100	1	10/26/2016 21:18	WG919944
(S) o-Terphenyl	124			50.0-150		10/26/2016 21:18	WG919944

## Chlorinated Acid Herbicides (GC) by Method 8151

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2,4-D	U		0.000400	0.00200	1	10/27/2016 02:50	WG920539
Dalapon	U		0.000300	0.00200	1	10/27/2016 02:50	WG920539
2,4-DB	U		0.000700	0.00400	1	10/27/2016 02:50	WG920539
Dicamba	U		0.000300	0.00200	1	10/27/2016 02:50	WG920539
Dichloroprop	U		0.000400	0.00200	1	10/27/2016 02:50	WG920539
Dinoseb	U		0.000500	0.00200	1	10/27/2016 02:50	WG920539
MCPA	U		0.0500	0.200	1	10/27/2016 02:50	WG920539
MCPP	U		0.0500	0.200	1	10/27/2016 02:50	WG920539
2,4,5-T	U		0.000300	0.00200	1	10/27/2016 02:50	WG920539
2,4,5-TP (Silvex)	U		0.000300	0.00200	1	10/27/2016 02:50	WG920539
(S) 2,4-Dichlorophenyl Acetic Acid	109			20.0-138		10/27/2016 02:50	WG920539

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2016 05:06	WG920693
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2016 05:06	WG920693
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2016 05:06	WG920693
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2016 05:06	WG920693
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2016 05:06	WG920693
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2016 05:06	WG920693
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2016 05:06	WG920693
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2016 05:06	WG920693
Chrysene	U		0.0000108	0.0000500	1	10/27/2016 05:06	WG920693
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2016 05:06	WG920693
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2016 05:06	WG920693
Fluorene	U		0.00000850	0.0000500	1	10/27/2016 05:06	WG920693
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2016 05:06	WG920693
Naphthalene	0.0000769	B J	0.0000198	0.000250	1	10/27/2016 05:06	WG920693
Phenanthrene	0.0000118	J	0.00000820	0.0000500	1	10/27/2016 05:06	WG920693
Pyrene	U		0.0000117	0.0000500	1	10/27/2016 05:06	WG920693
1-Methylnaphthalene	0.00000886	J	0.00000821	0.000250	1	10/27/2016 05:06	WG920693
2-Methylnaphthalene	0.0000133	J	0.00000902	0.000250	1	10/27/2016 05:06	WG920693
2-Chloronaphthalene	U		0.00000647	0.000250	1	10/27/2016 05:06	WG920693
(S) Nitrobenzene-d5	101			33.8-179		10/27/2016 05:06	WG920693
(S) 2-Fluorobiphenyl	108			55.5-150		10/27/2016 05:06	WG920693
(S) p-Terphenyl-d14	111			46.2-163		10/27/2016 05:06	WG920693

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	2180		2.82	10.0	1	10/26/2016 04:07	<a href="#">WG919763</a>

## Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ammonia Nitrogen	0.0780	J	0.0380	0.250	1	10/28/2016 00:22	<a href="#">WG920846</a>

## Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	106		1.97	10.0	100	10/25/2016 13:58	<a href="#">WG920364</a>

## Wet Chemistry by Method 365.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Phosphorus,Dissolved	1.59		0.0333	0.100	1	10/27/2016 20:46	<a href="#">WG921183</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Sulfate	500		0.774	50.0	10	10/25/2016 11:37	<a href="#">WG920261</a>

## Metals (ICP) by Method 6010B

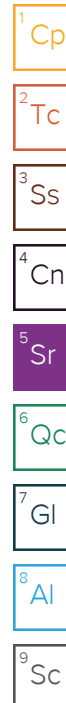
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Magnesium	14.5		0.0111	1.00	1	10/25/2016 00:41	<a href="#">WG920181</a>
Potassium	5.96		0.102	1.00	1	10/25/2016 00:41	<a href="#">WG920181</a>

## Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/24/2016 20:34	<a href="#">WG919913</a>
(S) a, a, a-Trifluorotoluene(FID) 106				62.0-128		10/24/2016 20:34	<a href="#">WG919913</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0100	0.0500	1	10/27/2016 02:00	<a href="#">WG920020</a>
Acrolein	U		0.00887	0.0500	1	10/27/2016 02:00	<a href="#">WG920020</a>
Acrylonitrile	U		0.00187	0.0100	1	10/27/2016 02:00	<a href="#">WG920020</a>
Benzene	U		0.000331	0.00100	1	10/27/2016 02:00	<a href="#">WG920020</a>
Bromobenzene	U		0.000352	0.00100	1	10/27/2016 02:00	<a href="#">WG920020</a>
Bromodichloromethane	U		0.000380	0.00100	1	10/27/2016 02:00	<a href="#">WG920020</a>
Bromoform	U		0.000469	0.00100	1	10/27/2016 02:00	<a href="#">WG920020</a>
Bromomethane	U		0.000866	0.00500	1	10/27/2016 02:00	<a href="#">WG920020</a>
n-Butylbenzene	U		0.000361	0.00100	1	10/27/2016 02:00	<a href="#">WG920020</a>
sec-Butylbenzene	U		0.000365	0.00100	1	10/27/2016 02:00	<a href="#">WG920020</a>
tert-Butylbenzene	U		0.000399	0.00100	1	10/27/2016 02:00	<a href="#">WG920020</a>
Carbon tetrachloride	U		0.000379	0.00100	1	10/27/2016 02:00	<a href="#">WG920020</a>
Chlorobenzene	U		0.000348	0.00100	1	10/27/2016 02:00	<a href="#">WG920020</a>
Chlorodibromomethane	U		0.000327	0.00100	1	10/27/2016 02:00	<a href="#">WG920020</a>
Chloroethane	U		0.000453	0.00500	1	10/27/2016 02:00	<a href="#">WG920020</a>





Collected date/time: 10/19/16 10:15

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## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	10/27/2016 02:00	WG920020
Chloroform	U		0.000324	0.00500	1	10/27/2016 02:00	WG920020
Chloromethane	U		0.000276	0.00250	1	10/27/2016 02:00	WG920020
2-Chlorotoluene	U		0.000375	0.00100	1	10/27/2016 02:00	WG920020
4-Chlorotoluene	U		0.000351	0.00100	1	10/27/2016 02:00	WG920020
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/27/2016 02:00	WG920020
1,2-Dibromoethane	U		0.000381	0.00100	1	10/27/2016 02:00	WG920020
Dibromomethane	U		0.000346	0.00100	1	10/27/2016 02:00	WG920020
1,2-Dichlorobenzene	U	J4	0.000349	0.00100	1	10/27/2016 02:00	WG920020
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/27/2016 02:00	WG920020
1,4-Dichlorobenzene	U	J4	0.000274	0.00100	1	10/27/2016 02:00	WG920020
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/27/2016 02:00	WG920020
1,1-Dichloroethane	U		0.000259	0.00100	1	10/27/2016 02:00	WG920020
1,2-Dichloroethane	U		0.000361	0.00100	1	10/27/2016 02:00	WG920020
1,1-Dichloroethene	U		0.000398	0.00100	1	10/27/2016 02:00	WG920020
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/27/2016 02:00	WG920020
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/27/2016 02:00	WG920020
1,2-Dichloropropane	U		0.000306	0.00100	1	10/27/2016 02:00	WG920020
1,1-Dichloropropene	U		0.000352	0.00100	1	10/27/2016 02:00	WG920020
1,3-Dichloropropane	U		0.000366	0.00100	1	10/27/2016 02:00	WG920020
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/27/2016 02:00	WG920020
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/27/2016 02:00	WG920020
2,2-Dichloropropane	U		0.000321	0.00100	1	10/27/2016 02:00	WG920020
Di-isopropyl ether	U		0.000320	0.00100	1	10/27/2016 02:00	WG920020
Ethylbenzene	U		0.000384	0.00100	1	10/27/2016 02:00	WG920020
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/27/2016 02:00	WG920020
Isopropylbenzene	U		0.000326	0.00100	1	10/27/2016 02:00	WG920020
p-Isopropyltoluene	U		0.000350	0.00100	1	10/27/2016 02:00	WG920020
2-Butanone (MEK)	U		0.00393	0.0100	1	10/27/2016 02:00	WG920020
Methylene Chloride	U		0.00100	0.00500	1	10/27/2016 02:00	WG920020
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/27/2016 02:00	WG920020
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/27/2016 02:00	WG920020
Naphthalene	U		0.00100	0.00500	1	10/27/2016 02:00	WG920020
n-Propylbenzene	U		0.000349	0.00100	1	10/27/2016 02:00	WG920020
Styrene	U		0.000307	0.00100	1	10/27/2016 02:00	WG920020
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/27/2016 02:00	WG920020
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/27/2016 02:00	WG920020
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/27/2016 02:00	WG920020
Tetrachloroethene	U		0.000372	0.00100	1	10/27/2016 02:00	WG920020
Toluene	U		0.000780	0.00500	1	10/27/2016 02:00	WG920020
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/27/2016 02:00	WG920020
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/27/2016 02:00	WG920020
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/27/2016 02:00	WG920020
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/27/2016 02:00	WG920020
Trichloroethene	U		0.000398	0.00100	1	10/27/2016 02:00	WG920020
Trichlorofluoromethane	U		0.00120	0.00500	1	10/27/2016 02:00	WG920020
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/27/2016 02:00	WG920020
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/27/2016 02:00	WG920020
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/27/2016 02:00	WG920020
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/27/2016 02:00	WG920020
Vinyl chloride	U		0.000259	0.00100	1	10/27/2016 02:00	WG920020
Xylenes, Total	U		0.00106	0.00300	1	10/27/2016 02:00	WG920020
(S) Toluene-d8	97.8			90.0-115		10/27/2016 02:00	WG920020
(S) Dibromofluoromethane	97.5			79.0-121		10/27/2016 02:00	WG920020
(S) 4-Bromofluorobenzene	94.2			80.1-120		10/27/2016 02:00	WG920020

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 10/19/16 10:15

L867699

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	0.150		0.0247	0.100	1	10/26/2016 21:38	WG919944
(S) o-Terphenyl	124			50.0-150		10/26/2016 21:38	WG919944

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Chlorinated Acid Herbicides (GC) by Method 8151

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2,4-D	U		0.000400	0.00200	1	10/27/2016 03:04	WG920539
Dalapon	U		0.000300	0.00200	1	10/27/2016 03:04	WG920539
2,4-DB	U		0.000700	0.00400	1	10/27/2016 03:04	WG920539
Dicamba	U		0.000300	0.00200	1	10/27/2016 03:04	WG920539
Dichloroprop	U		0.000400	0.00200	1	10/27/2016 03:04	WG920539
Dinoseb	U		0.000500	0.00200	1	10/27/2016 03:04	WG920539
MCPA	U		0.0500	0.200	1	10/27/2016 03:04	WG920539
MCPP	U		0.0500	0.200	1	10/27/2016 03:04	WG920539
2,4,5-T	U		0.000300	0.00200	1	10/27/2016 03:04	WG920539
2,4,5-TP (Silvex)	U		0.000300	0.00200	1	10/27/2016 03:04	WG920539
(S) 2,4-Dichlorophenyl Acetic Acid	99.7			20.0-138		10/27/2016 03:04	WG920539

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Anthracene	U		0.0000140	0.0000500	1	10/27/2016 05:28	WG920693
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2016 05:28	WG920693
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2016 05:28	WG920693
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2016 05:28	WG920693
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2016 05:28	WG920693
Benzo(b)fluoranthene	0.00000615	<u>B J</u>	0.00000212	0.0000500	1	10/27/2016 05:28	WG920693
Benzo(g,h,i)perylene	0.00000409	<u>B J</u>	0.00000227	0.0000500	1	10/27/2016 05:28	WG920693
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2016 05:28	WG920693
Chrysene	U		0.0000108	0.0000500	1	10/27/2016 05:28	WG920693
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2016 05:28	WG920693
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2016 05:28	WG920693
Fluorene	U		0.00000850	0.0000500	1	10/27/2016 05:28	WG920693
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2016 05:28	WG920693
Naphthalene	0.0000558	<u>B J</u>	0.0000198	0.000250	1	10/27/2016 05:28	WG920693
Phenanthrene	U		0.00000820	0.0000500	1	10/27/2016 05:28	WG920693
Pyrene	U		0.0000117	0.0000500	1	10/27/2016 05:28	WG920693
1-Methylnaphthalene	0.00000831	<u>J</u>	0.00000821	0.000250	1	10/27/2016 05:28	WG920693
2-Methylnaphthalene	0.0000128	<u>J</u>	0.00000902	0.000250	1	10/27/2016 05:28	WG920693
2-Chloronaphthalene	U		0.00000647	0.000250	1	10/27/2016 05:28	WG920693
(S) Nitrobenzene-d5	105			33.8-179		10/27/2016 05:28	WG920693
(S) 2-Fluorobiphenyl	111			55.5-150		10/27/2016 05:28	WG920693
(S) p-Terphenyl-d14	113			46.2-163		10/27/2016 05:28	WG920693



## Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	840		2.82	10.0	1	10/26/2016 04:07	<a href="#">WG919763</a>

## Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ammonia Nitrogen	0.814		0.0380	0.250	1	10/28/2016 00:23	<a href="#">WG920846</a>

## Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	8.08		0.0985	0.500	5	10/25/2016 13:59	<a href="#">WG920364</a>

## Wet Chemistry by Method 365.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Phosphorus,Dissolved	0.361		0.0333	0.100	1	10/27/2016 20:47	<a href="#">WG921183</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Sulfate	105		0.387	25.0	5	10/25/2016 16:21	<a href="#">WG920261</a>

## Metals (ICP) by Method 6010B

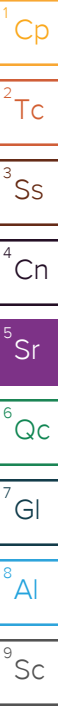
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Magnesium	5.49		0.0111	1.00	1	10/25/2016 01:08	<a href="#">WG920181</a>
Potassium	3.14		0.102	1.00	1	10/25/2016 01:08	<a href="#">WG920181</a>

## Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/24/2016 20:58	<a href="#">WG919913</a>
(S) a, a, a-Trifluorotoluene(FID) 106				62.0-128		10/24/2016 20:58	<a href="#">WG919913</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0100	0.0500	1	10/27/2016 02:19	<a href="#">WG920020</a>
Acrolein	U		0.00887	0.0500	1	10/27/2016 02:19	<a href="#">WG920020</a>
Acrylonitrile	U		0.00187	0.0100	1	10/27/2016 02:19	<a href="#">WG920020</a>
Benzene	U		0.000331	0.00100	1	10/27/2016 02:19	<a href="#">WG920020</a>
Bromobenzene	U		0.000352	0.00100	1	10/27/2016 02:19	<a href="#">WG920020</a>
Bromodichloromethane	U		0.000380	0.00100	1	10/27/2016 02:19	<a href="#">WG920020</a>
Bromoform	U		0.000469	0.00100	1	10/27/2016 02:19	<a href="#">WG920020</a>
Bromomethane	0.000936	J	0.000866	0.00500	1	10/27/2016 02:19	<a href="#">WG920020</a>
n-Butylbenzene	U		0.000361	0.00100	1	10/27/2016 02:19	<a href="#">WG920020</a>
sec-Butylbenzene	U		0.000365	0.00100	1	10/27/2016 02:19	<a href="#">WG920020</a>
tert-Butylbenzene	U		0.000399	0.00100	1	10/27/2016 02:19	<a href="#">WG920020</a>
Carbon tetrachloride	U		0.000379	0.00100	1	10/27/2016 02:19	<a href="#">WG920020</a>
Chlorobenzene	U		0.000348	0.00100	1	10/27/2016 02:19	<a href="#">WG920020</a>
Chlorodibromomethane	U		0.000327	0.00100	1	10/27/2016 02:19	<a href="#">WG920020</a>
Chloroethane	U		0.000453	0.00500	1	10/27/2016 02:19	<a href="#">WG920020</a>





Collected date/time: 10/19/16 11:30

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## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	10/27/2016 02:19	WG920020
Chloroform	U		0.000324	0.00500	1	10/27/2016 02:19	WG920020
Chloromethane	U		0.000276	0.00250	1	10/27/2016 02:19	WG920020
2-Chlorotoluene	U		0.000375	0.00100	1	10/27/2016 02:19	WG920020
4-Chlorotoluene	U		0.000351	0.00100	1	10/27/2016 02:19	WG920020
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/27/2016 02:19	WG920020
1,2-Dibromoethane	U		0.000381	0.00100	1	10/27/2016 02:19	WG920020
Dibromomethane	U		0.000346	0.00100	1	10/27/2016 02:19	WG920020
1,2-Dichlorobenzene	U	J4	0.000349	0.00100	1	10/27/2016 02:19	WG920020
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/27/2016 02:19	WG920020
1,4-Dichlorobenzene	U	J4	0.000274	0.00100	1	10/27/2016 02:19	WG920020
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/27/2016 02:19	WG920020
1,1-Dichloroethane	U		0.000259	0.00100	1	10/27/2016 02:19	WG920020
1,2-Dichloroethane	U		0.000361	0.00100	1	10/27/2016 02:19	WG920020
1,1-Dichloroethene	U		0.000398	0.00100	1	10/27/2016 02:19	WG920020
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/27/2016 02:19	WG920020
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/27/2016 02:19	WG920020
1,2-Dichloropropane	U		0.000306	0.00100	1	10/27/2016 02:19	WG920020
1,1-Dichloropropene	U		0.000352	0.00100	1	10/27/2016 02:19	WG920020
1,3-Dichloropropane	U		0.000366	0.00100	1	10/27/2016 02:19	WG920020
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/27/2016 02:19	WG920020
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/27/2016 02:19	WG920020
2,2-Dichloropropane	U		0.000321	0.00100	1	10/27/2016 02:19	WG920020
Di-isopropyl ether	U		0.000320	0.00100	1	10/27/2016 02:19	WG920020
Ethylbenzene	U		0.000384	0.00100	1	10/27/2016 02:19	WG920020
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/27/2016 02:19	WG920020
Isopropylbenzene	U		0.000326	0.00100	1	10/27/2016 02:19	WG920020
p-Isopropyltoluene	U		0.000350	0.00100	1	10/27/2016 02:19	WG920020
2-Butanone (MEK)	U		0.00393	0.0100	1	10/27/2016 02:19	WG920020
Methylene Chloride	U		0.00100	0.00500	1	10/27/2016 02:19	WG920020
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/27/2016 02:19	WG920020
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/27/2016 02:19	WG920020
Naphthalene	U		0.00100	0.00500	1	10/27/2016 02:19	WG920020
n-Propylbenzene	U		0.000349	0.00100	1	10/27/2016 02:19	WG920020
Styrene	U		0.000307	0.00100	1	10/27/2016 02:19	WG920020
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/27/2016 02:19	WG920020
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/27/2016 02:19	WG920020
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/27/2016 02:19	WG920020
Tetrachloroethene	U		0.000372	0.00100	1	10/27/2016 02:19	WG920020
Toluene	U		0.000780	0.00500	1	10/27/2016 02:19	WG920020
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/27/2016 02:19	WG920020
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/27/2016 02:19	WG920020
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/27/2016 02:19	WG920020
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/27/2016 02:19	WG920020
Trichloroethene	U		0.000398	0.00100	1	10/27/2016 02:19	WG920020
Trichlorofluoromethane	U		0.00120	0.00500	1	10/27/2016 02:19	WG920020
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/27/2016 02:19	WG920020
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/27/2016 02:19	WG920020
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/27/2016 02:19	WG920020
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/27/2016 02:19	WG920020
Vinyl chloride	U		0.000259	0.00100	1	10/27/2016 02:19	WG920020
Xylenes, Total	U		0.00106	0.00300	1	10/27/2016 02:19	WG920020
(S) Toluene-d8	97.7			90.0-115		10/27/2016 02:19	WG920020
(S) Dibromofluoromethane	100			79.0-121		10/27/2016 02:19	WG920020
(S) 4-Bromofluorobenzene	94.5			80.1-120		10/27/2016 02:19	WG920020

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Collected date/time: 10/19/16 11:30

L867699

## Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.135		0.0247	0.100	1	10/26/2016 21:58	<a href="#">WG919944</a>
(S) o-Terphenyl	137			50.0-150		10/26/2016 21:58	<a href="#">WG919944</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Chlorinated Acid Herbicides (GC) by Method 8151

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2,4-D	U		0.000400	0.00200	1	10/27/2016 03:18	<a href="#">WG920539</a>
Dalapon	U		0.000300	0.00200	1	10/27/2016 03:18	<a href="#">WG920539</a>
2,4-DB	U		0.000700	0.00400	1	10/27/2016 03:18	<a href="#">WG920539</a>
Dicamba	U		0.000300	0.00200	1	10/27/2016 03:18	<a href="#">WG920539</a>
Dichloroprop	U		0.000400	0.00200	1	10/27/2016 03:18	<a href="#">WG920539</a>
Dinoseb	U		0.000500	0.00200	1	10/27/2016 03:18	<a href="#">WG920539</a>
MCPA	U		0.0500	0.200	1	10/27/2016 03:18	<a href="#">WG920539</a>
MCPP	U		0.0500	0.200	1	10/27/2016 03:18	<a href="#">WG920539</a>
2,4,5-T	U		0.000300	0.00200	1	10/27/2016 03:18	<a href="#">WG920539</a>
2,4,5-TP (Silvex)	U		0.000300	0.00200	1	10/27/2016 03:18	<a href="#">WG920539</a>
(S) 2,4-Dichlorophenyl Acetic Acid	81.3			20.0-138		10/27/2016 03:18	<a href="#">WG920539</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2016 05:50	<a href="#">WG920693</a>
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2016 05:50	<a href="#">WG920693</a>
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2016 05:50	<a href="#">WG920693</a>
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2016 05:50	<a href="#">WG920693</a>
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2016 05:50	<a href="#">WG920693</a>
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2016 05:50	<a href="#">WG920693</a>
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2016 05:50	<a href="#">WG920693</a>
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2016 05:50	<a href="#">WG920693</a>
Chrysene	U		0.0000108	0.0000500	1	10/27/2016 05:50	<a href="#">WG920693</a>
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2016 05:50	<a href="#">WG920693</a>
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2016 05:50	<a href="#">WG920693</a>
Fluorene	U		0.00000850	0.0000500	1	10/27/2016 05:50	<a href="#">WG920693</a>
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2016 05:50	<a href="#">WG920693</a>
Naphthalene	0.0000905	<b>B J</b>	0.0000198	0.000250	1	10/27/2016 05:50	<a href="#">WG920693</a>
Phenanthrene	0.0000110	<b>J</b>	0.00000820	0.0000500	1	10/27/2016 05:50	<a href="#">WG920693</a>
Pyrene	U		0.0000117	0.0000500	1	10/27/2016 05:50	<a href="#">WG920693</a>
1-Methylnaphthalene	0.0000114	<b>J</b>	0.00000821	0.000250	1	10/27/2016 05:50	<a href="#">WG920693</a>
2-Methylnaphthalene	0.0000165	<b>J</b>	0.00000902	0.000250	1	10/27/2016 05:50	<a href="#">WG920693</a>
2-Chloronaphthalene	U		0.00000647	0.000250	1	10/27/2016 05:50	<a href="#">WG920693</a>
(S) Nitrobenzene-d5	109			33.8-179		10/27/2016 05:50	<a href="#">WG920693</a>
(S) 2-Fluorobiphenyl	112			55.5-150		10/27/2016 05:50	<a href="#">WG920693</a>
(S) p-Terphenyl-d14	115			46.2-163		10/27/2016 05:50	<a href="#">WG920693</a>



## Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	521		2.82	10.0	1	10/26/2016 04:07	<a href="#">WG919763</a>

## Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ammonia Nitrogen	U		0.0380	0.250	1	10/28/2016 00:25	<a href="#">WG920846</a>

## Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	5.58		0.0985	0.500	5	10/25/2016 15:04	<a href="#">WG920364</a>

## Wet Chemistry by Method 365.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Phosphorus,Dissolved	0.995		0.0333	0.100	1	10/27/2016 20:48	<a href="#">WG921183</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Sulfate	29.4		0.0774	5.00	1	10/25/2016 12:52	<a href="#">WG920261</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Magnesium	3.17		0.0111	1.00	1	10/25/2016 01:11	<a href="#">WG920181</a>
Potassium	2.47		0.102	1.00	1	10/25/2016 01:11	<a href="#">WG920181</a>

## Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/24/2016 21:22	<a href="#">WG919913</a>
(S) a, a, a-Trifluorotoluene(FID) 106				62.0-128		10/24/2016 21:22	<a href="#">WG919913</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0100	0.0500	1	10/27/2016 02:38	<a href="#">WG920020</a>
Acrolein	U		0.00887	0.0500	1	10/27/2016 02:38	<a href="#">WG920020</a>
Acrylonitrile	U		0.00187	0.0100	1	10/27/2016 02:38	<a href="#">WG920020</a>
Benzene	U		0.000331	0.00100	1	10/27/2016 02:38	<a href="#">WG920020</a>
Bromobenzene	U		0.000352	0.00100	1	10/27/2016 02:38	<a href="#">WG920020</a>
Bromodichloromethane	U		0.000380	0.00100	1	10/27/2016 02:38	<a href="#">WG920020</a>
Bromoform	U		0.000469	0.00100	1	10/27/2016 02:38	<a href="#">WG920020</a>
Bromomethane	U		0.000866	0.00500	1	10/27/2016 02:38	<a href="#">WG920020</a>
n-Butylbenzene	U		0.000361	0.00100	1	10/27/2016 02:38	<a href="#">WG920020</a>
sec-Butylbenzene	U		0.000365	0.00100	1	10/27/2016 02:38	<a href="#">WG920020</a>
tert-Butylbenzene	U		0.000399	0.00100	1	10/27/2016 02:38	<a href="#">WG920020</a>
Carbon tetrachloride	U		0.000379	0.00100	1	10/27/2016 02:38	<a href="#">WG920020</a>
Chlorobenzene	U		0.000348	0.00100	1	10/27/2016 02:38	<a href="#">WG920020</a>
Chlorodibromomethane	U		0.000327	0.00100	1	10/27/2016 02:38	<a href="#">WG920020</a>
Chloroethane	U		0.000453	0.00500	1	10/27/2016 02:38	<a href="#">WG920020</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 10/19/16 12:45

L867699

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	10/27/2016 02:38	WG920020
Chloroform	U		0.000324	0.00500	1	10/27/2016 02:38	WG920020
Chloromethane	U		0.000276	0.00250	1	10/27/2016 02:38	WG920020
2-Chlorotoluene	U		0.000375	0.00100	1	10/27/2016 02:38	WG920020
4-Chlorotoluene	U		0.000351	0.00100	1	10/27/2016 02:38	WG920020
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/27/2016 02:38	WG920020
1,2-Dibromoethane	U		0.000381	0.00100	1	10/27/2016 02:38	WG920020
Dibromomethane	U		0.000346	0.00100	1	10/27/2016 02:38	WG920020
1,2-Dichlorobenzene	U	J4	0.000349	0.00100	1	10/27/2016 02:38	WG920020
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/27/2016 02:38	WG920020
1,4-Dichlorobenzene	U	J4	0.000274	0.00100	1	10/27/2016 02:38	WG920020
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/27/2016 02:38	WG920020
1,1-Dichloroethane	U		0.000259	0.00100	1	10/27/2016 02:38	WG920020
1,2-Dichloroethane	U		0.000361	0.00100	1	10/27/2016 02:38	WG920020
1,1-Dichloroethene	U		0.000398	0.00100	1	10/27/2016 02:38	WG920020
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/27/2016 02:38	WG920020
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/27/2016 02:38	WG920020
1,2-Dichloropropane	U		0.000306	0.00100	1	10/27/2016 02:38	WG920020
1,1-Dichloropropene	U		0.000352	0.00100	1	10/27/2016 02:38	WG920020
1,3-Dichloropropane	U		0.000366	0.00100	1	10/27/2016 02:38	WG920020
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/27/2016 02:38	WG920020
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/27/2016 02:38	WG920020
2,2-Dichloropropane	U		0.000321	0.00100	1	10/27/2016 02:38	WG920020
Di-isopropyl ether	U		0.000320	0.00100	1	10/27/2016 02:38	WG920020
Ethylbenzene	U		0.000384	0.00100	1	10/27/2016 02:38	WG920020
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/27/2016 02:38	WG920020
Isopropylbenzene	U		0.000326	0.00100	1	10/27/2016 02:38	WG920020
p-Isopropyltoluene	U		0.000350	0.00100	1	10/27/2016 02:38	WG920020
2-Butanone (MEK)	U		0.00393	0.0100	1	10/27/2016 02:38	WG920020
Methylene Chloride	U		0.00100	0.00500	1	10/27/2016 02:38	WG920020
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/27/2016 02:38	WG920020
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/27/2016 02:38	WG920020
Naphthalene	U		0.00100	0.00500	1	10/27/2016 02:38	WG920020
n-Propylbenzene	U		0.000349	0.00100	1	10/27/2016 02:38	WG920020
Styrene	U		0.000307	0.00100	1	10/27/2016 02:38	WG920020
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/27/2016 02:38	WG920020
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/27/2016 02:38	WG920020
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/27/2016 02:38	WG920020
Tetrachloroethene	U		0.000372	0.00100	1	10/27/2016 02:38	WG920020
Toluene	U		0.000780	0.00500	1	10/27/2016 02:38	WG920020
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/27/2016 02:38	WG920020
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/27/2016 02:38	WG920020
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/27/2016 02:38	WG920020
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/27/2016 02:38	WG920020
Trichloroethene	U		0.000398	0.00100	1	10/27/2016 02:38	WG920020
Trichlorofluoromethane	U		0.00120	0.00500	1	10/27/2016 02:38	WG920020
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/27/2016 02:38	WG920020
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/27/2016 02:38	WG920020
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/27/2016 02:38	WG920020
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/27/2016 02:38	WG920020
Vinyl chloride	U		0.000259	0.00100	1	10/27/2016 02:38	WG920020
Xylenes, Total	U		0.00106	0.00300	1	10/27/2016 02:38	WG920020
(S) Toluene-d8	99.1			90.0-115		10/27/2016 02:38	WG920020
(S) Dibromofluoromethane	101			79.0-121		10/27/2016 02:38	WG920020
(S) 4-Bromofluorobenzene	93.1			80.1-120		10/27/2016 02:38	WG920020

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 10/19/16 12:45

L867699

## Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.185		0.0247	0.100	1	10/26/2016 22:19	<a href="#">WG919944</a>
(S) o-Terphenyl	123			50.0-150		10/26/2016 22:19	<a href="#">WG919944</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Chlorinated Acid Herbicides (GC) by Method 8151

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2,4-D	U		0.000400	0.00200	1	10/27/2016 03:32	<a href="#">WG920539</a>
Dalapon	U		0.000300	0.00200	1	10/27/2016 03:32	<a href="#">WG920539</a>
2,4-DB	U		0.000700	0.00400	1	10/27/2016 03:32	<a href="#">WG920539</a>
Dicamba	U		0.000300	0.00200	1	10/27/2016 03:32	<a href="#">WG920539</a>
Dichloroprop	U		0.000400	0.00200	1	10/27/2016 03:32	<a href="#">WG920539</a>
Dinoseb	U		0.000500	0.00200	1	10/27/2016 03:32	<a href="#">WG920539</a>
MCPA	U		0.0500	0.200	1	10/27/2016 03:32	<a href="#">WG920539</a>
MCPP	U		0.0500	0.200	1	10/27/2016 03:32	<a href="#">WG920539</a>
2,4,5-T	U		0.000300	0.00200	1	10/27/2016 03:32	<a href="#">WG920539</a>
2,4,5-TP (Silvex)	U		0.000300	0.00200	1	10/27/2016 03:32	<a href="#">WG920539</a>
(S) 2,4-Dichlorophenyl Acetic Acid	82.0			20.0-138		10/27/2016 03:32	<a href="#">WG920539</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2016 06:11	<a href="#">WG920693</a>
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2016 06:11	<a href="#">WG920693</a>
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2016 06:11	<a href="#">WG920693</a>
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2016 06:11	<a href="#">WG920693</a>
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2016 06:11	<a href="#">WG920693</a>
Benzo(b)fluoranthene	0.00000356	<u>B</u> <u>J</u>	0.00000212	0.0000500	1	10/27/2016 06:11	<a href="#">WG920693</a>
Benzo(g,h,i)perylene	0.00000291	<u>B</u> <u>J</u>	0.00000227	0.0000500	1	10/27/2016 06:11	<a href="#">WG920693</a>
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2016 06:11	<a href="#">WG920693</a>
Chrysene	U		0.0000108	0.0000500	1	10/27/2016 06:11	<a href="#">WG920693</a>
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2016 06:11	<a href="#">WG920693</a>
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2016 06:11	<a href="#">WG920693</a>
Fluorene	U		0.00000850	0.0000500	1	10/27/2016 06:11	<a href="#">WG920693</a>
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2016 06:11	<a href="#">WG920693</a>
Naphthalene	0.0000571	<u>B</u> <u>J</u>	0.0000198	0.000250	1	10/27/2016 06:11	<a href="#">WG920693</a>
Phenanthrene	0.0000137	<u>J</u>	0.00000820	0.0000500	1	10/27/2016 06:11	<a href="#">WG920693</a>
Pyrene	U		0.0000117	0.0000500	1	10/27/2016 06:11	<a href="#">WG920693</a>
1-Methylnaphthalene	U		0.00000821	0.000250	1	10/27/2016 06:11	<a href="#">WG920693</a>
2-Methylnaphthalene	0.0000100	<u>J</u>	0.00000902	0.000250	1	10/27/2016 06:11	<a href="#">WG920693</a>
2-Chloronaphthalene	U		0.00000647	0.000250	1	10/27/2016 06:11	<a href="#">WG920693</a>
(S) Nitrobenzene-d5	103			33.8-179		10/27/2016 06:11	<a href="#">WG920693</a>
(S) 2-Fluorobiphenyl	109			55.5-150		10/27/2016 06:11	<a href="#">WG920693</a>
(S) p-Terphenyl-d14	109			46.2-163		10/27/2016 06:11	<a href="#">WG920693</a>



## Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	2420		2.82	10.0	1	10/26/2016 04:07	<a href="#">WG919763</a>

## Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ammonia Nitrogen	U		0.0380	0.250	1	10/28/2016 00:33	<a href="#">WG920846</a>

## Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	206		1.97	10.0	100	10/25/2016 15:05	<a href="#">WG920364</a>

## Wet Chemistry by Method 365.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Phosphorus,Dissolved	0.464		0.0333	0.100	1	10/27/2016 20:52	<a href="#">WG921183</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Sulfate	829		0.774	50.0	10	10/25/2016 16:51	<a href="#">WG920261</a>

## Metals (ICP) by Method 6010B

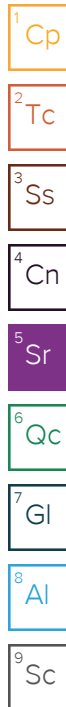
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Magnesium	239		0.0111	1.00	1	10/25/2016 01:13	<a href="#">WG920181</a>
Potassium	4.88		0.102	1.00	1	10/25/2016 01:13	<a href="#">WG920181</a>

## Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/24/2016 21:46	<a href="#">WG919913</a>
(S) a, a, a-Trifluorotoluene(FID) 106				62.0-128		10/24/2016 21:46	<a href="#">WG919913</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0100	0.0500	1	10/29/2016 17:48	<a href="#">WG920020</a>
Acrolein	U		0.00887	0.0500	1	10/29/2016 17:48	<a href="#">WG920020</a>
Acrylonitrile	U		0.00187	0.0100	1	10/29/2016 17:48	<a href="#">WG920020</a>
Benzene	U		0.000331	0.00100	1	10/29/2016 17:48	<a href="#">WG920020</a>
Bromobenzene	U		0.000352	0.00100	1	10/29/2016 17:48	<a href="#">WG920020</a>
Bromodichloromethane	U		0.000380	0.00100	1	10/29/2016 17:48	<a href="#">WG920020</a>
Bromoform	U		0.000469	0.00100	1	10/29/2016 17:48	<a href="#">WG920020</a>
Bromomethane	U		0.000866	0.00500	1	10/29/2016 17:48	<a href="#">WG920020</a>
n-Butylbenzene	U		0.000361	0.00100	1	10/29/2016 17:48	<a href="#">WG920020</a>
sec-Butylbenzene	U		0.000365	0.00100	1	10/29/2016 17:48	<a href="#">WG920020</a>
tert-Butylbenzene	U		0.000399	0.00100	1	10/29/2016 17:48	<a href="#">WG920020</a>
Carbon tetrachloride	U		0.000379	0.00100	1	10/29/2016 17:48	<a href="#">WG920020</a>
Chlorobenzene	U		0.000348	0.00100	1	10/29/2016 17:48	<a href="#">WG920020</a>
Chlorodibromomethane	U		0.000327	0.00100	1	10/29/2016 17:48	<a href="#">WG920020</a>
Chloroethane	U		0.000453	0.00500	1	10/29/2016 17:48	<a href="#">WG920020</a>





Collected date/time: 10/19/16 14:00

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## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	10/29/2016 17:48	WG920020
Chloroform	U		0.000324	0.00500	1	10/29/2016 17:48	WG920020
Chloromethane	U		0.000276	0.00250	1	10/29/2016 17:48	WG920020
2-Chlorotoluene	U		0.000375	0.00100	1	10/29/2016 17:48	WG920020
4-Chlorotoluene	U		0.000351	0.00100	1	10/29/2016 17:48	WG920020
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/29/2016 17:48	WG920020
1,2-Dibromoethane	U		0.000381	0.00100	1	10/29/2016 17:48	WG920020
Dibromomethane	U		0.000346	0.00100	1	10/29/2016 17:48	WG920020
1,2-Dichlorobenzene	U	J4	0.000349	0.00100	1	10/29/2016 17:48	WG920020
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/29/2016 17:48	WG920020
1,4-Dichlorobenzene	U	J4	0.000274	0.00100	1	10/29/2016 17:48	WG920020
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/29/2016 17:48	WG920020
1,1-Dichloroethane	U		0.000259	0.00100	1	10/29/2016 17:48	WG920020
1,2-Dichloroethane	U		0.000361	0.00100	1	10/29/2016 17:48	WG920020
1,1-Dichloroethene	U		0.000398	0.00100	1	10/29/2016 17:48	WG920020
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/29/2016 17:48	WG920020
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/29/2016 17:48	WG920020
1,2-Dichloropropane	U		0.000306	0.00100	1	10/29/2016 17:48	WG920020
1,1-Dichloropropene	U		0.000352	0.00100	1	10/29/2016 17:48	WG920020
1,3-Dichloropropane	U		0.000366	0.00100	1	10/29/2016 17:48	WG920020
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/29/2016 17:48	WG920020
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/29/2016 17:48	WG920020
2,2-Dichloropropane	U		0.000321	0.00100	1	10/29/2016 17:48	WG920020
Di-isopropyl ether	U		0.000320	0.00100	1	10/29/2016 17:48	WG920020
Ethylbenzene	U		0.000384	0.00100	1	10/29/2016 17:48	WG920020
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/29/2016 17:48	WG920020
Isopropylbenzene	U		0.000326	0.00100	1	10/29/2016 17:48	WG920020
p-Isopropyltoluene	U		0.000350	0.00100	1	10/29/2016 17:48	WG920020
2-Butanone (MEK)	U		0.00393	0.0100	1	10/29/2016 17:48	WG920020
Methylene Chloride	U		0.00100	0.00500	1	10/29/2016 17:48	WG920020
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/29/2016 17:48	WG920020
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/29/2016 17:48	WG920020
Naphthalene	U		0.00100	0.00500	1	10/29/2016 17:48	WG920020
n-Propylbenzene	U		0.000349	0.00100	1	10/29/2016 17:48	WG920020
Styrene	U		0.000307	0.00100	1	10/29/2016 17:48	WG920020
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/29/2016 17:48	WG920020
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/29/2016 17:48	WG920020
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/29/2016 17:48	WG920020
Tetrachloroethene	U		0.000372	0.00100	1	10/29/2016 17:48	WG920020
Toluene	U		0.000780	0.00500	1	10/29/2016 17:48	WG920020
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/29/2016 17:48	WG920020
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/29/2016 17:48	WG920020
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/29/2016 17:48	WG920020
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/29/2016 17:48	WG920020
Trichloroethene	U		0.000398	0.00100	1	10/29/2016 17:48	WG920020
Trichlorofluoromethane	U		0.00120	0.00500	1	10/29/2016 17:48	WG920020
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/29/2016 17:48	WG920020
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/29/2016 17:48	WG920020
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/29/2016 17:48	WG920020
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/29/2016 17:48	WG920020
Vinyl chloride	U		0.000259	0.00100	1	10/29/2016 17:48	WG920020
Xylenes, Total	U		0.00106	0.00300	1	10/29/2016 17:48	WG920020
(S) Toluene-d8	103			90.0-115		10/29/2016 17:48	WG920020
(S) Dibromofluoromethane	97.0			79.0-121		10/29/2016 17:48	WG920020
(S) 4-Bromofluorobenzene	116			80.1-120		10/29/2016 17:48	WG920020

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 10/19/16 14:00

L867699

## Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.325		0.0247	0.100	1	10/26/2016 22:39	WG919944
(S) o-Terphenyl	131			50.0-150		10/26/2016 22:39	WG919944

## Chlorinated Acid Herbicides (GC) by Method 8151

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2,4-D	U		0.000400	0.00200	1	10/27/2016 03:46	WG920539
Dalapon	U		0.000300	0.00200	1	10/27/2016 03:46	WG920539
2,4-DB	U		0.000700	0.00400	1	10/27/2016 03:46	WG920539
Dicamba	U		0.000300	0.00200	1	10/27/2016 03:46	WG920539
Dichloroprop	U		0.000400	0.00200	1	10/27/2016 03:46	WG920539
Dinoseb	U		0.000500	0.00200	1	10/27/2016 03:46	WG920539
MCPA	U		0.0500	0.200	1	10/27/2016 03:46	WG920539
MCPP	U		0.0500	0.200	1	10/27/2016 03:46	WG920539
2,4,5-T	U		0.000300	0.00200	1	10/27/2016 03:46	WG920539
2,4,5-TP (Silvex)	U		0.000300	0.00200	1	10/27/2016 03:46	WG920539
(S) 2,4-Dichlorophenyl Acetic Acid	93.8			20.0-138		10/27/2016 03:46	WG920539

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2016 06:33	WG920693
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2016 06:33	WG920693
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2016 06:33	WG920693
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2016 06:33	WG920693
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2016 06:33	WG920693
Benzo(b)fluoranthene	0.00000319	<u>B</u> <u>J</u>	0.00000212	0.0000500	1	10/27/2016 06:33	WG920693
Benzo(g,h,i)perylene	0.00000314	<u>B</u> <u>J</u>	0.00000227	0.0000500	1	10/27/2016 06:33	WG920693
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2016 06:33	WG920693
Chrysene	U		0.0000108	0.0000500	1	10/27/2016 06:33	WG920693
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2016 06:33	WG920693
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2016 06:33	WG920693
Fluorene	U		0.00000850	0.0000500	1	10/27/2016 06:33	WG920693
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2016 06:33	WG920693
Naphthalene	0.0000818	<u>B</u> <u>J</u>	0.0000198	0.000250	1	10/27/2016 06:33	WG920693
Phenanthrene	0.0000126	<u>J</u>	0.00000820	0.0000500	1	10/27/2016 06:33	WG920693
Pyrene	U		0.0000117	0.0000500	1	10/27/2016 06:33	WG920693
1-Methylnaphthalene	U		0.00000821	0.000250	1	10/27/2016 06:33	WG920693
2-Methylnaphthalene	0.0000121	<u>J</u>	0.00000902	0.000250	1	10/27/2016 06:33	WG920693
2-Chloronaphthalene	U		0.00000647	0.000250	1	10/27/2016 06:33	WG920693
(S) Nitrobenzene-d5	110			33.8-179		10/27/2016 06:33	WG920693
(S) 2-Fluorobiphenyl	109			55.5-150		10/27/2016 06:33	WG920693
(S) p-Terphenyl-d14	113			46.2-163		10/27/2016 06:33	WG920693

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Dissolved Solids	1430		2.82	10.0	1	10/26/2016 04:07	<a href="#">WG919763</a>

## Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Ammonia Nitrogen	113		0.380	2.50	10	10/28/2016 01:21	<a href="#">WG920846</a>

## Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Nitrate-Nitrite	119		1.97	10.0	100	10/25/2016 15:06	<a href="#">WG920364</a>

## Wet Chemistry by Method 365.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Phosphorus,Dissolved	0.270		0.0333	0.100	1	10/27/2016 20:53	<a href="#">WG921183</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Sulfate	355		0.774	50.0	10	10/25/2016 17:05	<a href="#">WG920261</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Magnesium	48.9		0.0111	1.00	1	10/25/2016 01:16	<a href="#">WG920181</a>
Potassium	52.8		0.102	1.00	1	10/25/2016 01:16	<a href="#">WG920181</a>

## Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/24/2016 22:11	<a href="#">WG919913</a>
(S) a, a, a-Trifluorotoluene(FID) 106				62.0-128		10/24/2016 22:11	<a href="#">WG919913</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Acetone	U		0.0100	0.0500	1	10/27/2016 03:16	<a href="#">WG920020</a>
Acrolein	U		0.00887	0.0500	1	10/27/2016 03:16	<a href="#">WG920020</a>
Acrylonitrile	U		0.00187	0.0100	1	10/27/2016 03:16	<a href="#">WG920020</a>
Benzene	U		0.000331	0.00100	1	10/27/2016 03:16	<a href="#">WG920020</a>
Bromobenzene	U		0.000352	0.00100	1	10/27/2016 03:16	<a href="#">WG920020</a>
Bromodichloromethane	U		0.000380	0.00100	1	10/27/2016 03:16	<a href="#">WG920020</a>
Bromoform	U		0.000469	0.00100	1	10/27/2016 03:16	<a href="#">WG920020</a>
Bromomethane	U		0.000866	0.00500	1	10/27/2016 03:16	<a href="#">WG920020</a>
n-Butylbenzene	U		0.000361	0.00100	1	10/27/2016 03:16	<a href="#">WG920020</a>
sec-Butylbenzene	U		0.000365	0.00100	1	10/27/2016 03:16	<a href="#">WG920020</a>
tert-Butylbenzene	U		0.000399	0.00100	1	10/27/2016 03:16	<a href="#">WG920020</a>
Carbon tetrachloride	U		0.000379	0.00100	1	10/27/2016 03:16	<a href="#">WG920020</a>
Chlorobenzene	U		0.000348	0.00100	1	10/27/2016 03:16	<a href="#">WG920020</a>
Chlorodibromomethane	U		0.000327	0.00100	1	10/27/2016 03:16	<a href="#">WG920020</a>
Chloroethane	U		0.000453	0.00500	1	10/27/2016 03:16	<a href="#">WG920020</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Collected date/time: 10/19/16 15:30

L867699

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	10/27/2016 03:16	WG920020
Chloroform	U		0.000324	0.00500	1	10/27/2016 03:16	WG920020
Chloromethane	U		0.000276	0.00250	1	10/27/2016 03:16	WG920020
2-Chlorotoluene	U		0.000375	0.00100	1	10/27/2016 03:16	WG920020
4-Chlorotoluene	U		0.000351	0.00100	1	10/27/2016 03:16	WG920020
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/27/2016 03:16	WG920020
1,2-Dibromoethane	U		0.000381	0.00100	1	10/27/2016 03:16	WG920020
Dibromomethane	U		0.000346	0.00100	1	10/27/2016 03:16	WG920020
1,2-Dichlorobenzene	U	J4	0.000349	0.00100	1	10/27/2016 03:16	WG920020
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/27/2016 03:16	WG920020
1,4-Dichlorobenzene	U	J4	0.000274	0.00100	1	10/27/2016 03:16	WG920020
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/27/2016 03:16	WG920020
1,1-Dichloroethane	U		0.000259	0.00100	1	10/27/2016 03:16	WG920020
1,2-Dichloroethane	U		0.000361	0.00100	1	10/27/2016 03:16	WG920020
1,1-Dichloroethene	U		0.000398	0.00100	1	10/27/2016 03:16	WG920020
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/27/2016 03:16	WG920020
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/27/2016 03:16	WG920020
1,2-Dichloropropane	U		0.000306	0.00100	1	10/27/2016 03:16	WG920020
1,1-Dichloropropene	U		0.000352	0.00100	1	10/27/2016 03:16	WG920020
1,3-Dichloropropane	U		0.000366	0.00100	1	10/27/2016 03:16	WG920020
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/27/2016 03:16	WG920020
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/27/2016 03:16	WG920020
2,2-Dichloropropane	U		0.000321	0.00100	1	10/27/2016 03:16	WG920020
Di-isopropyl ether	U		0.000320	0.00100	1	10/27/2016 03:16	WG920020
Ethylbenzene	U		0.000384	0.00100	1	10/27/2016 03:16	WG920020
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/27/2016 03:16	WG920020
Isopropylbenzene	U		0.000326	0.00100	1	10/27/2016 03:16	WG920020
p-Isopropyltoluene	U		0.000350	0.00100	1	10/27/2016 03:16	WG920020
2-Butanone (MEK)	U		0.00393	0.0100	1	10/27/2016 03:16	WG920020
Methylene Chloride	U		0.00100	0.00500	1	10/27/2016 03:16	WG920020
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/27/2016 03:16	WG920020
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/27/2016 03:16	WG920020
Naphthalene	U		0.00100	0.00500	1	10/27/2016 03:16	WG920020
n-Propylbenzene	U		0.000349	0.00100	1	10/27/2016 03:16	WG920020
Styrene	U		0.000307	0.00100	1	10/27/2016 03:16	WG920020
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/27/2016 03:16	WG920020
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/27/2016 03:16	WG920020
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/27/2016 03:16	WG920020
Tetrachloroethene	U		0.000372	0.00100	1	10/27/2016 03:16	WG920020
Toluene	U		0.000780	0.00500	1	10/27/2016 03:16	WG920020
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/27/2016 03:16	WG920020
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/27/2016 03:16	WG920020
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/27/2016 03:16	WG920020
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/27/2016 03:16	WG920020
Trichloroethene	U		0.000398	0.00100	1	10/27/2016 03:16	WG920020
Trichlorofluoromethane	U		0.00120	0.00500	1	10/27/2016 03:16	WG920020
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/27/2016 03:16	WG920020
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/27/2016 03:16	WG920020
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/27/2016 03:16	WG920020
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/27/2016 03:16	WG920020
Vinyl chloride	U		0.000259	0.00100	1	10/27/2016 03:16	WG920020
Xylenes, Total	U		0.00106	0.00300	1	10/27/2016 03:16	WG920020
(S) Toluene-d8	98.4			90.0-115		10/27/2016 03:16	WG920020
(S) Dibromofluoromethane	99.1			79.0-121		10/27/2016 03:16	WG920020
(S) 4-Bromofluorobenzene	92.2			80.1-120		10/27/2016 03:16	WG920020

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 10/19/16 15:30

L867699

## Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.20		0.0247	0.100	1	10/26/2016 22:59	WG919944
(S) o-Terphenyl	127			50.0-150		10/26/2016 22:59	WG919944

## Chlorinated Acid Herbicides (GC) by Method 8151

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2,4-D	0.00118	J	0.000400	0.00200	1	10/27/2016 04:00	WG920539
Dalapon	U		0.000300	0.00200	1	10/27/2016 04:00	WG920539
2,4-DB	U		0.000700	0.00400	1	10/27/2016 04:00	WG920539
Dicamba	U		0.000300	0.00200	1	10/27/2016 04:00	WG920539
Dichloroprop	U		0.000400	0.00200	1	10/27/2016 04:00	WG920539
Dinoseb	U		0.000500	0.00200	1	10/27/2016 04:00	WG920539
MCPA	U		0.0500	0.200	1	10/27/2016 04:00	WG920539
MCPP	U		0.0500	0.200	1	10/27/2016 04:00	WG920539
2,4,5-T	U		0.000300	0.00200	1	10/27/2016 04:00	WG920539
2,4,5-TP (Silvex)	U		0.000300	0.00200	1	10/27/2016 04:00	WG920539
(S) 2,4-Dichlorophenyl Acetic Acid	86.6			20.0-138		10/27/2016 04:00	WG920539

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2016 06:55	WG920693
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2016 06:55	WG920693
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2016 06:55	WG920693
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2016 06:55	WG920693
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2016 06:55	WG920693
Benzo(b)fluoranthene	0.00000452	B J	0.00000212	0.0000500	1	10/27/2016 06:55	WG920693
Benzo(g,h,i)perylene	0.00000373	B J	0.00000227	0.0000500	1	10/27/2016 06:55	WG920693
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2016 06:55	WG920693
Chrysene	U		0.0000108	0.0000500	1	10/27/2016 06:55	WG920693
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2016 06:55	WG920693
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2016 06:55	WG920693
Fluorene	U		0.00000850	0.0000500	1	10/27/2016 06:55	WG920693
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2016 06:55	WG920693
Naphthalene	0.0000698	B J	0.0000198	0.000250	1	10/27/2016 06:55	WG920693
Phenanthrene	0.0000121	J	0.00000820	0.0000500	1	10/27/2016 06:55	WG920693
Pyrene	U		0.0000117	0.0000500	1	10/27/2016 06:55	WG920693
1-Methylnaphthalene	0.0000109	J	0.00000821	0.000250	1	10/27/2016 06:55	WG920693
2-Methylnaphthalene	0.0000104	J	0.00000902	0.000250	1	10/27/2016 06:55	WG920693
2-Chloronaphthalene	U		0.00000647	0.000250	1	10/27/2016 06:55	WG920693
(S) Nitrobenzene-d5	107			33.8-179		10/27/2016 06:55	WG920693
(S) 2-Fluorobiphenyl	108			55.5-150		10/27/2016 06:55	WG920693
(S) p-Terphenyl-d14	108			46.2-163		10/27/2016 06:55	WG920693

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Dissolved Solids	1450		2.82	10.0	1	10/26/2016 04:07	<a href="#">WG919763</a>

## Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Ammonia Nitrogen	115		0.380	2.50	10	10/28/2016 01:23	<a href="#">WG920846</a>

## Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Nitrate-Nitrite	138		0.985	5.00	50	10/25/2016 15:07	<a href="#">WG920364</a>

## Wet Chemistry by Method 365.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Phosphorus,Dissolved	0.289		0.0333	0.100	1	10/27/2016 20:55	<a href="#">WG921183</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Sulfate	353		0.774	50.0	10	10/25/2016 17:20	<a href="#">WG920261</a>

## Metals (ICP) by Method 6010B

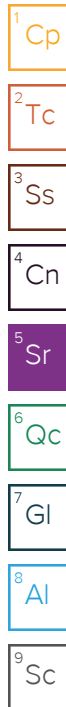
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Magnesium	49.3		0.0111	1.00	1	10/25/2016 01:19	<a href="#">WG920181</a>
Potassium	52.8		0.102	1.00	1	10/25/2016 01:19	<a href="#">WG920181</a>

## Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/24/2016 22:35	<a href="#">WG919913</a>
(S) a, a, a-Trifluorotoluene(FID) 106				62.0-128		10/24/2016 22:35	<a href="#">WG919913</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Acetone	U		0.0100	0.0500	1	10/27/2016 03:36	<a href="#">WG920020</a>
Acrolein	U		0.00887	0.0500	1	10/27/2016 03:36	<a href="#">WG920020</a>
Acrylonitrile	U		0.00187	0.0100	1	10/27/2016 03:36	<a href="#">WG920020</a>
Benzene	U		0.000331	0.00100	1	10/27/2016 03:36	<a href="#">WG920020</a>
Bromobenzene	U		0.000352	0.00100	1	10/27/2016 03:36	<a href="#">WG920020</a>
Bromodichloromethane	U		0.000380	0.00100	1	10/27/2016 03:36	<a href="#">WG920020</a>
Bromoform	U		0.000469	0.00100	1	10/27/2016 03:36	<a href="#">WG920020</a>
Bromomethane	U		0.000866	0.00500	1	10/27/2016 03:36	<a href="#">WG920020</a>
n-Butylbenzene	U		0.000361	0.00100	1	10/27/2016 03:36	<a href="#">WG920020</a>
sec-Butylbenzene	U		0.000365	0.00100	1	10/27/2016 03:36	<a href="#">WG920020</a>
tert-Butylbenzene	U		0.000399	0.00100	1	10/27/2016 03:36	<a href="#">WG920020</a>
Carbon tetrachloride	U		0.000379	0.00100	1	10/27/2016 03:36	<a href="#">WG920020</a>
Chlorobenzene	U		0.000348	0.00100	1	10/27/2016 03:36	<a href="#">WG920020</a>
Chlorodibromomethane	U		0.000327	0.00100	1	10/27/2016 03:36	<a href="#">WG920020</a>
Chloroethane	U		0.000453	0.00500	1	10/27/2016 03:36	<a href="#">WG920020</a>





Collected date/time: 10/19/16 16:00

L867699

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	10/27/2016 03:36	WG920020
Chloroform	U		0.000324	0.00500	1	10/27/2016 03:36	WG920020
Chloromethane	U		0.000276	0.00250	1	10/27/2016 03:36	WG920020
2-Chlorotoluene	U		0.000375	0.00100	1	10/27/2016 03:36	WG920020
4-Chlorotoluene	U		0.000351	0.00100	1	10/27/2016 03:36	WG920020
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/27/2016 03:36	WG920020
1,2-Dibromoethane	U		0.000381	0.00100	1	10/27/2016 03:36	WG920020
Dibromomethane	U		0.000346	0.00100	1	10/27/2016 03:36	WG920020
1,2-Dichlorobenzene	U	J4	0.000349	0.00100	1	10/27/2016 03:36	WG920020
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/27/2016 03:36	WG920020
1,4-Dichlorobenzene	U	J4	0.000274	0.00100	1	10/27/2016 03:36	WG920020
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/27/2016 03:36	WG920020
1,1-Dichloroethane	U		0.000259	0.00100	1	10/27/2016 03:36	WG920020
1,2-Dichloroethane	U		0.000361	0.00100	1	10/27/2016 03:36	WG920020
1,1-Dichloroethene	U		0.000398	0.00100	1	10/27/2016 03:36	WG920020
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/27/2016 03:36	WG920020
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/27/2016 03:36	WG920020
1,2-Dichloropropane	U		0.000306	0.00100	1	10/27/2016 03:36	WG920020
1,1-Dichloropropene	U		0.000352	0.00100	1	10/27/2016 03:36	WG920020
1,3-Dichloropropane	U		0.000366	0.00100	1	10/27/2016 03:36	WG920020
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/27/2016 03:36	WG920020
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/27/2016 03:36	WG920020
2,2-Dichloropropane	U		0.000321	0.00100	1	10/27/2016 03:36	WG920020
Di-isopropyl ether	U		0.000320	0.00100	1	10/27/2016 03:36	WG920020
Ethylbenzene	U		0.000384	0.00100	1	10/27/2016 03:36	WG920020
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/27/2016 03:36	WG920020
Isopropylbenzene	U		0.000326	0.00100	1	10/27/2016 03:36	WG920020
p-Isopropyltoluene	U		0.000350	0.00100	1	10/27/2016 03:36	WG920020
2-Butanone (MEK)	U		0.00393	0.0100	1	10/27/2016 03:36	WG920020
Methylene Chloride	U		0.00100	0.00500	1	10/27/2016 03:36	WG920020
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/27/2016 03:36	WG920020
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/27/2016 03:36	WG920020
Naphthalene	U		0.00100	0.00500	1	10/27/2016 03:36	WG920020
n-Propylbenzene	U		0.000349	0.00100	1	10/27/2016 03:36	WG920020
Styrene	U		0.000307	0.00100	1	10/27/2016 03:36	WG920020
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/27/2016 03:36	WG920020
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/27/2016 03:36	WG920020
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/27/2016 03:36	WG920020
Tetrachloroethene	U		0.000372	0.00100	1	10/27/2016 03:36	WG920020
Toluene	U		0.000780	0.00500	1	10/27/2016 03:36	WG920020
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/27/2016 03:36	WG920020
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/27/2016 03:36	WG920020
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/27/2016 03:36	WG920020
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/27/2016 03:36	WG920020
Trichloroethene	U		0.000398	0.00100	1	10/27/2016 03:36	WG920020
Trichlorofluoromethane	U		0.00120	0.00500	1	10/27/2016 03:36	WG920020
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/27/2016 03:36	WG920020
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/27/2016 03:36	WG920020
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/27/2016 03:36	WG920020
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/27/2016 03:36	WG920020
Vinyl chloride	U		0.000259	0.00100	1	10/27/2016 03:36	WG920020
Xylenes, Total	U		0.00106	0.00300	1	10/27/2016 03:36	WG920020
(S) Toluene-d8	99.1			90.0-115		10/27/2016 03:36	WG920020
(S) Dibromofluoromethane	99.2			79.0-121		10/27/2016 03:36	WG920020
(S) 4-Bromofluorobenzene	92.1			80.1-120		10/27/2016 03:36	WG920020

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 10/19/16 16:00

L867699

## Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.24		0.0247	0.100	1	10/26/2016 23:19	<a href="#">WG919944</a>
(S) o-Terphenyl	125			50.0-150		10/26/2016 23:19	<a href="#">WG919944</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Chlorinated Acid Herbicides (GC) by Method 8151

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2,4-D	0.00117	J	0.000400	0.00200	1	10/27/2016 04:14	<a href="#">WG920539</a>
Dalapon	U		0.000300	0.00200	1	10/27/2016 04:14	<a href="#">WG920539</a>
2,4-DB	U		0.000700	0.00400	1	10/27/2016 04:14	<a href="#">WG920539</a>
Dicamba	U		0.000300	0.00200	1	10/27/2016 04:14	<a href="#">WG920539</a>
Dichloroprop	U		0.000400	0.00200	1	10/27/2016 04:14	<a href="#">WG920539</a>
Dinoseb	U		0.000500	0.00200	1	10/27/2016 04:14	<a href="#">WG920539</a>
MCPA	U		0.0500	0.200	1	10/27/2016 04:14	<a href="#">WG920539</a>
MCPP	U		0.0500	0.200	1	10/27/2016 04:14	<a href="#">WG920539</a>
2,4,5-T	U		0.000300	0.00200	1	10/27/2016 04:14	<a href="#">WG920539</a>
2,4,5-TP (Silvex)	U		0.000300	0.00200	1	10/27/2016 04:14	<a href="#">WG920539</a>
(S) 2,4-Dichlorophenyl Acetic Acid	86.0			20.0-138		10/27/2016 04:14	<a href="#">WG920539</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2016 07:17	<a href="#">WG920693</a>
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2016 07:17	<a href="#">WG920693</a>
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2016 07:17	<a href="#">WG920693</a>
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2016 07:17	<a href="#">WG920693</a>
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2016 07:17	<a href="#">WG920693</a>
Benzo(b)fluoranthene	0.00000336	B J	0.00000212	0.0000500	1	10/27/2016 07:17	<a href="#">WG920693</a>
Benzo(g,h,i)perylene	0.00000258	B J	0.00000227	0.0000500	1	10/27/2016 07:17	<a href="#">WG920693</a>
Benzo(k)fluoranthene	0.0000156	J	0.0000136	0.0000500	1	10/27/2016 07:17	<a href="#">WG920693</a>
Chrysene	U		0.0000108	0.0000500	1	10/27/2016 07:17	<a href="#">WG920693</a>
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2016 07:17	<a href="#">WG920693</a>
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2016 07:17	<a href="#">WG920693</a>
Fluorene	U		0.00000850	0.0000500	1	10/27/2016 07:17	<a href="#">WG920693</a>
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2016 07:17	<a href="#">WG920693</a>
Naphthalene	0.0000644	B J	0.0000198	0.000250	1	10/27/2016 07:17	<a href="#">WG920693</a>
Phenanthrene	0.0000223	J	0.00000820	0.0000500	1	10/27/2016 07:17	<a href="#">WG920693</a>
Pyrene	U		0.0000117	0.0000500	1	10/27/2016 07:17	<a href="#">WG920693</a>
1-Methylnaphthalene	0.0000118	J	0.00000821	0.000250	1	10/27/2016 07:17	<a href="#">WG920693</a>
2-Methylnaphthalene	0.0000105	J	0.00000902	0.000250	1	10/27/2016 07:17	<a href="#">WG920693</a>
2-Chloronaphthalene	U		0.00000647	0.000250	1	10/27/2016 07:17	<a href="#">WG920693</a>
(S) Nitrobenzene-d5	111			33.8-179		10/27/2016 07:17	<a href="#">WG920693</a>
(S) 2-Fluorobiphenyl	106			55.5-150		10/27/2016 07:17	<a href="#">WG920693</a>
(S) p-Terphenyl-d14	106			46.2-163		10/27/2016 07:17	<a href="#">WG920693</a>



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	10/27/2016 01:22	WG920020
Acrolein	U		0.00887	0.0500	1	10/27/2016 01:22	WG920020
Acrylonitrile	U		0.00187	0.0100	1	10/27/2016 01:22	WG920020
Benzene	U		0.000331	0.00100	1	10/27/2016 01:22	WG920020
Bromobenzene	U		0.000352	0.00100	1	10/27/2016 01:22	WG920020
Bromodichloromethane	U		0.000380	0.00100	1	10/27/2016 01:22	WG920020
Bromoform	U		0.000469	0.00100	1	10/27/2016 01:22	WG920020
Bromomethane	U		0.000866	0.00500	1	10/27/2016 01:22	WG920020
n-Butylbenzene	U		0.000361	0.00100	1	10/27/2016 01:22	WG920020
sec-Butylbenzene	U		0.000365	0.00100	1	10/27/2016 01:22	WG920020
tert-Butylbenzene	U		0.000399	0.00100	1	10/27/2016 01:22	WG920020
Carbon tetrachloride	U		0.000379	0.00100	1	10/27/2016 01:22	WG920020
Chlorobenzene	U		0.000348	0.00100	1	10/27/2016 01:22	WG920020
Chlorodibromomethane	U		0.000327	0.00100	1	10/27/2016 01:22	WG920020
Chloroethane	U		0.000453	0.00500	1	10/27/2016 01:22	WG920020
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	10/27/2016 01:22	WG920020
Chloroform	U		0.000324	0.00500	1	10/27/2016 01:22	WG920020
Chloromethane	U		0.000276	0.00250	1	10/27/2016 01:22	WG920020
2-Chlorotoluene	U		0.000375	0.00100	1	10/27/2016 01:22	WG920020
4-Chlorotoluene	U		0.000351	0.00100	1	10/27/2016 01:22	WG920020
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/27/2016 01:22	WG920020
1,2-Dibromoethane	U		0.000381	0.00100	1	10/27/2016 01:22	WG920020
Dibromomethane	U		0.000346	0.00100	1	10/27/2016 01:22	WG920020
1,2-Dichlorobenzene	U	J4	0.000349	0.00100	1	10/27/2016 01:22	WG920020
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/27/2016 01:22	WG920020
1,4-Dichlorobenzene	U	J4	0.000274	0.00100	1	10/27/2016 01:22	WG920020
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/27/2016 01:22	WG920020
1,1-Dichloroethane	U		0.000259	0.00100	1	10/27/2016 01:22	WG920020
1,2-Dichloroethane	U		0.000361	0.00100	1	10/27/2016 01:22	WG920020
1,1-Dichloroethene	U		0.000398	0.00100	1	10/27/2016 01:22	WG920020
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/27/2016 01:22	WG920020
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/27/2016 01:22	WG920020
1,2-Dichloropropane	U		0.000306	0.00100	1	10/27/2016 01:22	WG920020
1,1-Dichloropropene	U		0.000352	0.00100	1	10/27/2016 01:22	WG920020
1,3-Dichloropropane	U		0.000366	0.00100	1	10/27/2016 01:22	WG920020
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/27/2016 01:22	WG920020
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/27/2016 01:22	WG920020
2,2-Dichloropropane	U		0.000321	0.00100	1	10/27/2016 01:22	WG920020
Di-isopropyl ether	U		0.000320	0.00100	1	10/27/2016 01:22	WG920020
Ethylbenzene	U		0.000384	0.00100	1	10/27/2016 01:22	WG920020
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/27/2016 01:22	WG920020
Isopropylbenzene	U		0.000326	0.00100	1	10/27/2016 01:22	WG920020
p-Isopropyltoluene	U		0.000350	0.00100	1	10/27/2016 01:22	WG920020
2-Butanone (MEK)	U		0.00393	0.0100	1	10/27/2016 01:22	WG920020
Methylene Chloride	U		0.00100	0.00500	1	10/27/2016 01:22	WG920020
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/27/2016 01:22	WG920020
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/27/2016 01:22	WG920020
Naphthalene	U		0.00100	0.00500	1	10/27/2016 01:22	WG920020
n-Propylbenzene	U		0.000349	0.00100	1	10/27/2016 01:22	WG920020
Styrene	U		0.000307	0.00100	1	10/27/2016 01:22	WG920020
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/27/2016 01:22	WG920020
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/27/2016 01:22	WG920020
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/27/2016 01:22	WG920020
Tetrachloroethene	U		0.000372	0.00100	1	10/27/2016 01:22	WG920020
Toluene	U		0.000780	0.00500	1	10/27/2016 01:22	WG920020
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/27/2016 01:22	WG920020

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 10/19/16 00:00

L867699

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/27/2016 01:22	<a href="#">WG920020</a>
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/27/2016 01:22	<a href="#">WG920020</a>
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/27/2016 01:22	<a href="#">WG920020</a>
Trichloroethene	U		0.000398	0.00100	1	10/27/2016 01:22	<a href="#">WG920020</a>
Trichlorofluoromethane	U		0.00120	0.00500	1	10/27/2016 01:22	<a href="#">WG920020</a>
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/27/2016 01:22	<a href="#">WG920020</a>
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/27/2016 01:22	<a href="#">WG920020</a>
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/27/2016 01:22	<a href="#">WG920020</a>
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/27/2016 01:22	<a href="#">WG920020</a>
Vinyl chloride	U		0.000259	0.00100	1	10/27/2016 01:22	<a href="#">WG920020</a>
Xylenes, Total	U		0.00106	0.00300	1	10/27/2016 01:22	<a href="#">WG920020</a>
(S) Toluene-d8	98.7			90.0-115		10/27/2016 01:22	<a href="#">WG920020</a>
(S) Dibromofluoromethane	99.5			79.0-121		10/27/2016 01:22	<a href="#">WG920020</a>
(S) 4-Bromofluorobenzene	91.7			80.1-120		10/27/2016 01:22	<a href="#">WG920020</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



## Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Dissolved Solids	3160		2.82	10.0	1	10/26/2016 04:07	<a href="#">WG919763</a>

## Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Ammonia Nitrogen	0.212	J	0.0380	0.250	1	10/28/2016 00:41	<a href="#">WG920846</a>

## Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Nitrate-Nitrite	95.0		0.394	2.00	20	10/25/2016 15:08	<a href="#">WG920364</a>

## Wet Chemistry by Method 365.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Phosphorus,Dissolved	0.456		0.0333	0.100	1	10/27/2016 20:56	<a href="#">WG921183</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Sulfate	977		1.55	100	20	10/25/2016 13:52	<a href="#">WG920261</a>

## Metals (ICP) by Method 6010B

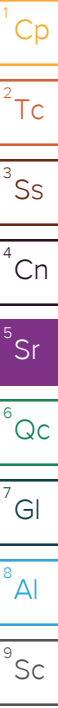
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Magnesium	64.3		0.0111	1.00	1	10/25/2016 01:22	<a href="#">WG920181</a>
Potassium	10.1		0.102	1.00	1	10/25/2016 01:22	<a href="#">WG920181</a>

## Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/24/2016 22:59	<a href="#">WG919913</a>
(S) a, a, a-Trifluorotoluene(FID) 106				62.0-128		10/24/2016 22:59	<a href="#">WG919913</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Acetone	U		0.0100	0.0500	1	10/27/2016 03:55	<a href="#">WG920020</a>
Acrolein	U		0.00887	0.0500	1	10/27/2016 03:55	<a href="#">WG920020</a>
Acrylonitrile	U		0.00187	0.0100	1	10/27/2016 03:55	<a href="#">WG920020</a>
Benzene	U		0.000331	0.00100	1	10/27/2016 03:55	<a href="#">WG920020</a>
Bromobenzene	U		0.000352	0.00100	1	10/27/2016 03:55	<a href="#">WG920020</a>
Bromodichloromethane	U		0.000380	0.00100	1	10/27/2016 03:55	<a href="#">WG920020</a>
Bromoform	U		0.000469	0.00100	1	10/27/2016 03:55	<a href="#">WG920020</a>
Bromomethane	U		0.000866	0.00500	1	10/27/2016 03:55	<a href="#">WG920020</a>
n-Butylbenzene	U		0.000361	0.00100	1	10/27/2016 03:55	<a href="#">WG920020</a>
sec-Butylbenzene	U		0.000365	0.00100	1	10/27/2016 03:55	<a href="#">WG920020</a>
tert-Butylbenzene	U		0.000399	0.00100	1	10/27/2016 03:55	<a href="#">WG920020</a>
Carbon tetrachloride	U		0.000379	0.00100	1	10/27/2016 03:55	<a href="#">WG920020</a>
Chlorobenzene	U		0.000348	0.00100	1	10/27/2016 03:55	<a href="#">WG920020</a>
Chlorodibromomethane	U		0.000327	0.00100	1	10/27/2016 03:55	<a href="#">WG920020</a>
Chloroethane	U		0.000453	0.00500	1	10/27/2016 03:55	<a href="#">WG920020</a>







Collected date/time: 10/19/16 17:30

L867699

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	10/27/2016 03:55	WG920020
Chloroform	U		0.000324	0.00500	1	10/27/2016 03:55	WG920020
Chloromethane	U		0.000276	0.00250	1	10/27/2016 03:55	WG920020
2-Chlorotoluene	U		0.000375	0.00100	1	10/27/2016 03:55	WG920020
4-Chlorotoluene	U		0.000351	0.00100	1	10/27/2016 03:55	WG920020
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/27/2016 03:55	WG920020
1,2-Dibromoethane	U		0.000381	0.00100	1	10/27/2016 03:55	WG920020
Dibromomethane	U		0.000346	0.00100	1	10/27/2016 03:55	WG920020
1,2-Dichlorobenzene	U	J4	0.000349	0.00100	1	10/27/2016 03:55	WG920020
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/27/2016 03:55	WG920020
1,4-Dichlorobenzene	U	J4	0.000274	0.00100	1	10/27/2016 03:55	WG920020
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/27/2016 03:55	WG920020
1,1-Dichloroethane	U		0.000259	0.00100	1	10/27/2016 03:55	WG920020
1,2-Dichloroethane	U		0.000361	0.00100	1	10/27/2016 03:55	WG920020
1,1-Dichloroethene	U		0.000398	0.00100	1	10/27/2016 03:55	WG920020
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/27/2016 03:55	WG920020
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/27/2016 03:55	WG920020
1,2-Dichloropropane	U		0.000306	0.00100	1	10/27/2016 03:55	WG920020
1,1-Dichloropropene	U		0.000352	0.00100	1	10/27/2016 03:55	WG920020
1,3-Dichloropropane	U		0.000366	0.00100	1	10/27/2016 03:55	WG920020
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/27/2016 03:55	WG920020
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/27/2016 03:55	WG920020
2,2-Dichloropropane	U		0.000321	0.00100	1	10/27/2016 03:55	WG920020
Di-isopropyl ether	U		0.000320	0.00100	1	10/27/2016 03:55	WG920020
Ethylbenzene	U		0.000384	0.00100	1	10/27/2016 03:55	WG920020
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/27/2016 03:55	WG920020
Isopropylbenzene	U		0.000326	0.00100	1	10/27/2016 03:55	WG920020
p-Isopropyltoluene	U		0.000350	0.00100	1	10/27/2016 03:55	WG920020
2-Butanone (MEK)	U		0.00393	0.0100	1	10/27/2016 03:55	WG920020
Methylene Chloride	U		0.00100	0.00500	1	10/27/2016 03:55	WG920020
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/27/2016 03:55	WG920020
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/27/2016 03:55	WG920020
Naphthalene	U		0.00100	0.00500	1	10/27/2016 03:55	WG920020
n-Propylbenzene	U		0.000349	0.00100	1	10/27/2016 03:55	WG920020
Styrene	U		0.000307	0.00100	1	10/27/2016 03:55	WG920020
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/27/2016 03:55	WG920020
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/27/2016 03:55	WG920020
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/27/2016 03:55	WG920020
Tetrachloroethene	U		0.000372	0.00100	1	10/27/2016 03:55	WG920020
Toluene	U		0.000780	0.00500	1	10/27/2016 03:55	WG920020
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/27/2016 03:55	WG920020
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/27/2016 03:55	WG920020
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/27/2016 03:55	WG920020
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/27/2016 03:55	WG920020
Trichloroethene	U		0.000398	0.00100	1	10/27/2016 03:55	WG920020
Trichlorofluoromethane	U		0.00120	0.00500	1	10/27/2016 03:55	WG920020
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/27/2016 03:55	WG920020
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/27/2016 03:55	WG920020
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/27/2016 03:55	WG920020
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/27/2016 03:55	WG920020
Vinyl chloride	U		0.000259	0.00100	1	10/27/2016 03:55	WG920020
Xylenes, Total	U		0.00106	0.00300	1	10/27/2016 03:55	WG920020
(S) Toluene-d8	98.7			90.0-115		10/27/2016 03:55	WG920020
(S) Dibromofluoromethane	98.4			79.0-121		10/27/2016 03:55	WG920020
(S) 4-Bromofluorobenzene	94.1			80.1-120		10/27/2016 03:55	WG920020

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 10/19/16 17:30

L867699

## Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0659	J	0.0247	0.100	1	10/26/2016 23:39	WG919944
(S) o-Terphenyl	111			50.0-150		10/26/2016 23:39	WG919944

## Chlorinated Acid Herbicides (GC) by Method 8151

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
2,4-D	U		0.000400	0.00200	1	10/27/2016 04:28	WG920539
Dalapon	U		0.000300	0.00200	1	10/27/2016 04:28	WG920539
2,4-DB	U		0.000700	0.00400	1	10/27/2016 04:28	WG920539
Dicamba	U		0.000300	0.00200	1	10/27/2016 04:28	WG920539
Dichloroprop	U		0.000400	0.00200	1	10/27/2016 04:28	WG920539
Dinoseb	U		0.000500	0.00200	1	10/27/2016 04:28	WG920539
MCPA	U		0.0500	0.200	1	10/27/2016 04:28	WG920539
MCPP	U		0.0500	0.200	1	10/27/2016 04:28	WG920539
2,4,5-T	U		0.000300	0.00200	1	10/27/2016 04:28	WG920539
2,4,5-TP (Silvex)	U		0.000300	0.00200	1	10/27/2016 04:28	WG920539
(S) 2,4-Dichlorophenyl Acetic Acid	82.8			20.0-138		10/27/2016 04:28	WG920539

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2016 07:37	WG920693
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2016 07:37	WG920693
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2016 07:37	WG920693
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2016 07:37	WG920693
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2016 07:37	WG920693
Benzo(b)fluoranthene	0.00000449	B J	0.00000212	0.0000500	1	10/27/2016 07:37	WG920693
Benzo(g,h,i)perylene	0.00000258	B J	0.00000227	0.0000500	1	10/27/2016 07:37	WG920693
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2016 07:37	WG920693
Chrysene	U		0.0000108	0.0000500	1	10/27/2016 07:37	WG920693
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2016 07:37	WG920693
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2016 07:37	WG920693
Fluorene	U		0.00000850	0.0000500	1	10/27/2016 07:37	WG920693
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2016 07:37	WG920693
Naphthalene	0.0000290	B J	0.0000198	0.000250	1	10/27/2016 07:37	WG920693
Phenanthrene	0.00000862	J	0.00000820	0.0000500	1	10/27/2016 07:37	WG920693
Pyrene	U		0.0000117	0.0000500	1	10/27/2016 07:37	WG920693
1-Methylnaphthalene	U		0.00000821	0.000250	1	10/27/2016 07:37	WG920693
2-Methylnaphthalene	U		0.00000902	0.000250	1	10/27/2016 07:37	WG920693
2-Chloronaphthalene	U		0.00000647	0.000250	1	10/27/2016 07:37	WG920693
(S) Nitrobenzene-d5	115			33.8-179		10/27/2016 07:37	WG920693
(S) 2-Fluorobiphenyl	111			55.5-150		10/27/2016 07:37	WG920693
(S) p-Terphenyl-d14	111			46.2-163		10/27/2016 07:37	WG920693

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3173634-1 10/26/16 04:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L867699-01 Original Sample (OS) • Duplicate (DUP)

(OS) L867699-01 10/26/16 04:07 • (DUP) R3173634-4 10/26/16 04:07

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	16.0	16.0	1	0.000		5

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173634-2 10/26/16 04:07 • (LCSD) R3173634-3 10/26/16 04:07

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dissolved Solids	8800	8320	8500	94.5	96.6	85.0-115			2.14	5



Method Blank (MB)

(MB) R3174045-1 10/27/16 23:55

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Ammonia Nitrogen	U		0.038	0.250

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L867566-05 Original Sample (OS) • Duplicate (DUP)

(OS) L867566-05 10/28/16 00:04 • (DUP) R3174045-4 10/28/16 00:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ammonia Nitrogen	ND	0.0390	1	0		20

L867699-05 Original Sample (OS) • Duplicate (DUP)

(OS) L867699-05 10/28/16 00:25 • (DUP) R3174045-6 10/28/16 00:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ammonia Nitrogen	U	0.000	1	0		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3174045-2 10/27/16 23:56 • (LCSD) R3174045-3 10/27/16 23:58

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Ammonia Nitrogen	7.50	7.31	7.30	97	97	90-110			0	20

L867566-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L867566-06 10/28/16 00:07 • (MS) R3174045-5 10/28/16 00:14

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Ammonia Nitrogen	10.0	ND	9.98	100	1	90-110	

L867699-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L867699-06 10/28/16 00:33 • (MS) R3174045-7 10/28/16 00:34 • (MSD) R3174045-8 10/28/16 00:36

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Ammonia Nitrogen	10.0	U	10.3	10.1	103	101	1	90-110			2	20



Method Blank (MB)

(MB) R3173192-6 10/25/16 13:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	0.0320	J	0.0197	0.100

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L867699-01 Original Sample (OS) • Duplicate (DUP)

(OS) L867699-01 10/25/16 13:54 • (DUP) R3173192-9 10/25/16 13:55

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.0370	ND	1	24.0	J P1	20

L867786-01 Original Sample (OS) • Duplicate (DUP)

(OS) L867786-01 10/25/16 15:09 • (DUP) R3173192-11 10/25/16 15:10

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.283	ND	1	134	P1	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173192-7 10/25/16 13:39 • (LCSD) R3173192-8 10/25/16 13:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	5.00	4.89	5.12	98.0	102	90.0-110			5.00	20

L867699-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L867699-01 10/25/16 13:54 • (MS) R3173192-10 10/25/16 13:56

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	5.00	0.0370	4.50	89.0	1	90.0-110	J6

L867786-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L867786-01 10/25/16 15:09 • (MS) R3173192-12 10/25/16 15:11 • (MSD) R3173192-13 10/25/16 15:25

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	5.00	0.283	3.92	3.77	73.0	70.0	1	90.0-110	J6	J6	4.00	20



Method Blank (MB)

(MB) R3173958-1 10/27/16 20:37

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Phosphorus,Dissolved	U		0.0333	0.100

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

L867699-01 Original Sample (OS) • Duplicate (DUP)

(OS) L867699-01 10/27/16 20:42 • (DUP) R3173958-4 10/27/16 20:43

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Phosphorus,Dissolved	0.0556	ND	1	6.00	J	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173958-2 10/27/16 20:38 • (LCSD) R3173958-3 10/27/16 20:39

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Phosphorus,Dissolved	1.00	1.01	0.992	101	99.0	90.0-110			2.00	20

<sup>7</sup> Gl

<sup>8</sup> Al

L868208-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L868208-01 10/27/16 20:57 • (MS) R3173958-5 10/27/16 20:58 • (MSD) R3173958-6 10/27/16 21:00

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Phosphorus,Dissolved	2.50	1.10	3.33	3.32	89.0	89.0	1	90.0-110	J6	J6	0.000	20

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3173276-2 10/25/16 06:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Sulfate	U		0.0774	5.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L867652-14 Original Sample (OS) • Duplicate (DUP)

(OS) L867652-14 10/25/16 08:24 • (DUP) R3173276-5 10/25/16 08:38

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	93.0	92.7	1	0		15

L867699-04 Original Sample (OS) • Duplicate (DUP)

(OS) L867699-04 10/25/16 16:21 • (DUP) R3173276-9 10/25/16 16:36

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	105	105	5	0		15

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173276-3 10/25/16 07:14 • (LCSD) R3173276-4 10/25/16 07:29

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Sulfate	40.0	39.0	39.0	97	97	80-120			0	15

L867652-15 Original Sample (OS) • Matrix Spike (MS)

(OS) L867652-15 10/25/16 08:53 • (MS) R3173276-6 10/25/16 09:08

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Sulfate	50.0	98.4	143	90	1	80-120	E

L867754-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L867754-01 10/25/16 14:21 • (MS) R3173276-7 10/25/16 14:36 • (MSD) R3173276-8 10/25/16 14:51

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Sulfate	50.0	9.50	59.8	60.4	101	102	1	80-120			1	15



Method Blank (MB)

(MB) R3172958-1 10/25/16 00:33

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Magnesium	U		0.0111	1.00
Potassium	U		0.102	1.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172958-2 10/25/16 00:35 • (LCSD) R3172958-3 10/25/16 00:38

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Magnesium	10.0	10.3	10.2	103	102	80-120			1	20
Potassium	10.0	9.71	9.60	97	96	80-120			1	20

<sup>5</sup> Sr

<sup>6</sup> Qc

L867699-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L867699-03 10/25/16 00:41 • (MS) R3172958-5 10/25/16 00:46 • (MSD) R3172958-6 10/25/16 00:49

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Magnesium	10.0	14.5	24.2	24.4	97	99	1	75-125			1	20
Potassium	10.0	5.96	15.9	16.0	99	100	1	75-125			1	20

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc





Method Blank (MB)

(MB) R3174220-3 10/24/16 15:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	106			62.0-128

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3174220-1 10/24/16 14:41 • (LCSD) R3174220-2 10/24/16 15:05

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TPH (GC/FID) Low Fraction	5.50	5.59	5.35	102	97.3	67.0-132			4.31	20
(S) a,a,a-Trifluorotoluene(FID)				108	108	62.0-128				

L867699-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L867699-02 10/24/16 20:09 • (MS) R3174220-4 10/24/16 18:56 • (MSD) R3174220-5 10/24/16 19:21

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TPH (GC/FID) Low Fraction	5.50	U	4.34	4.38	78.9	79.7	1	50.0-143			0.950	20
(S) a,a,a-Trifluorotoluene(FID)					106	106		62.0-128				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3174299-1 10/26/16 22:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0100	0.0500
Acrolein	U		0.00887	0.0500
Acrylonitrile	U		0.00187	0.0100
Benzene	U		0.000331	0.00100
Bromobenzene	U		0.000352	0.00100
Bromodichloromethane	U		0.000380	0.00100
Bromoform	U		0.000469	0.00100
Bromomethane	U		0.000866	0.00500
n-Butylbenzene	U		0.000361	0.00100
sec-Butylbenzene	U		0.000365	0.00100
tert-Butylbenzene	U		0.000399	0.00100
Carbon tetrachloride	U		0.000379	0.00100
Chlorobenzene	U		0.000348	0.00100
Chlorodibromomethane	U		0.000327	0.00100
Chloroethane	U		0.000453	0.00500
2-Chloroethyl vinyl ether	U		0.00301	0.0500
Chloroform	U		0.000324	0.00500
Chloromethane	U		0.000276	0.00250
2-Chlorotoluene	U		0.000375	0.00100
4-Chlorotoluene	U		0.000351	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500
1,2-Dibromoethane	U		0.000381	0.00100
Dibromomethane	U		0.000346	0.00100
1,2-Dichlorobenzene	U		0.000349	0.00100
1,3-Dichlorobenzene	U		0.000220	0.00100
1,4-Dichlorobenzene	U		0.000274	0.00100
Dichlorodifluoromethane	U		0.000551	0.00500
1,1-Dichloroethane	U		0.000259	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
1,1-Dichloroethene	U		0.000398	0.00100
cis-1,2-Dichloroethene	U		0.000260	0.00100
trans-1,2-Dichloroethene	U		0.000396	0.00100
1,2-Dichloropropane	U		0.000306	0.00100
1,1-Dichloropropene	U		0.000352	0.00100
1,3-Dichloropropane	U		0.000366	0.00100
cis-1,3-Dichloropropene	U		0.000418	0.00100
trans-1,3-Dichloropropene	U		0.000419	0.00100
2,2-Dichloropropane	U		0.000321	0.00100
Di-isopropyl ether	U		0.000320	0.00100
Ethylbenzene	U		0.000384	0.00100

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3174299-1 10/26/16 22:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Hexachloro-1,3-butadiene	U		0.000256	0.00100
Isopropylbenzene	U		0.000326	0.00100
p-Isopropyltoluene	U		0.000350	0.00100
2-Butanone (MEK)	U		0.00393	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100
Methyl tert-butyl ether	U		0.000367	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000349	0.00100
Styrene	U		0.000307	0.00100
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100
Tetrachloroethene	U		0.000372	0.00100
Toluene	U		0.000780	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100
1,2,3-Trichlorobenzene	U		0.000230	0.00100
1,2,4-Trichlorobenzene	U		0.000355	0.00100
1,1,1-Trichloroethane	U		0.000319	0.00100
1,1,2-Trichloroethane	U		0.000383	0.00100
Trichloroethene	U		0.000398	0.00100
Trichlorofluoromethane	U		0.00120	0.00500
1,2,3-Trichloropropane	U		0.000807	0.00250
1,2,3-Trimethylbenzene	U		0.000321	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Vinyl chloride	U		0.000259	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	98.8			90.0-115
(S) Dibromofluoromethane	98.8			79.0-121
(S) 4-Bromofluorobenzene	93.5			80.1-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3174299-2 10/26/16 23:01 • (LCSD) R3174299-3 10/26/16 23:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.128	0.126	102	101	28.7-175			1.58	20.9
Acrolein	0.125	0.140	0.139	112	111	40.4-172			0.230	20
Acrylonitrile	0.125	0.121	0.121	96.9	96.6	58.2-145			0.240	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3174299-2 10/26/16 23:01 • (LCSD) R3174299-3 10/26/16 23:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0236	0.0240	94.3	96.2	73.0-122			1.92	20
Bromobenzene	0.0250	0.0252	0.0263	101	105	81.5-115			4.33	20
Bromodichloromethane	0.0250	0.0204	0.0209	81.8	83.5	75.5-121			2.13	20
Bromoform	0.0250	0.0247	0.0244	98.9	97.8	71.5-131			1.13	20
Bromomethane	0.0250	0.0164	0.0158	65.5	63.1	22.4-187			3.77	20
n-Butylbenzene	0.0250	0.0297	0.0313	119	125	75.9-134			5.47	20
sec-Butylbenzene	0.0250	0.0254	0.0268	102	107	80.6-126			5.08	20
tert-Butylbenzene	0.0250	0.0271	0.0278	109	111	79.3-127			2.30	20
Carbon tetrachloride	0.0250	0.0225	0.0212	90.0	85.0	70.9-129			5.69	20
Chlorobenzene	0.0250	0.0262	0.0278	105	111	79.7-122			5.72	20
Chlorodibromomethane	0.0250	0.0237	0.0241	95.0	96.4	78.2-124			1.44	20
Chloroethane	0.0250	0.0212	0.0211	84.6	84.4	41.2-153			0.300	20
2-Chloroethyl vinyl ether	0.125	0.137	0.137	110	110	23.4-162			0.160	23.5
Chloroform	0.0250	0.0233	0.0230	93.3	92.0	73.2-125			1.46	20
Chloromethane	0.0250	0.0197	0.0201	78.9	80.3	55.8-134			1.76	20
2-Chlorotoluene	0.0250	0.0254	0.0263	102	105	76.4-125			3.34	20
4-Chlorotoluene	0.0250	0.0261	0.0268	104	107	81.5-121			2.77	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0269	0.0271	108	109	64.8-131			0.920	20
1,2-Dibromoethane	0.0250	0.0253	0.0261	101	105	79.8-122			3.09	20
Dibromomethane	0.0250	0.0215	0.0212	86.2	84.8	79.5-118			1.55	20
1,2-Dichlorobenzene	0.0250	0.0287	0.0297	115	119	84.7-118		J4	3.40	20
1,3-Dichlorobenzene	0.0250	0.0260	0.0275	104	110	77.6-127			5.58	20
1,4-Dichlorobenzene	0.0250	0.0298	0.0305	119	122	82.2-114	J4	J4	2.19	20
Dichlorodifluoromethane	0.0250	0.0236	0.0238	94.4	95.1	56.0-134			0.720	20
1,1-Dichloroethane	0.0250	0.0244	0.0245	97.7	98.1	71.7-127			0.420	20
1,2-Dichloroethane	0.0250	0.0224	0.0223	89.7	89.2	65.3-126			0.610	20
1,1-Dichloroethene	0.0250	0.0244	0.0243	97.4	97.3	59.9-137			0.100	20
cis-1,2-Dichloroethene	0.0250	0.0230	0.0228	92.1	91.4	77.3-122			0.740	20
trans-1,2-Dichloroethene	0.0250	0.0233	0.0232	93.4	92.8	72.6-125			0.650	20
1,2-Dichloropropane	0.0250	0.0233	0.0237	93.2	95.0	77.4-125			1.90	20
1,1-Dichloropropene	0.0250	0.0250	0.0253	100	101	72.5-127			1.02	20
1,3-Dichloropropane	0.0250	0.0254	0.0257	102	103	80.6-115			1.18	20
cis-1,3-Dichloropropene	0.0250	0.0211	0.0211	84.5	84.6	77.7-124			0.0400	20
trans-1,3-Dichloropropene	0.0250	0.0212	0.0216	84.8	86.2	73.5-127			1.65	20
2,2-Dichloropropane	0.0250	0.0234	0.0237	93.6	94.9	61.3-134			1.40	20
Di-isopropyl ether	0.0250	0.0232	0.0231	92.9	92.2	65.1-135			0.740	20
Ethylbenzene	0.0250	0.0259	0.0271	104	108	80.9-121			4.30	20
Hexachloro-1,3-butadiene	0.0250	0.0251	0.0272	100	109	73.7-133			8.26	20
Isopropylbenzene	0.0250	0.0269	0.0277	108	111	81.6-124			2.97	20
p-Isopropyltoluene	0.0250	0.0256	0.0269	102	108	77.6-129			4.86	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3174299-2 10/26/16 23:01 • (LCSD) R3174299-3 10/26/16 23:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
2-Butanone (MEK)	0.125	0.129	0.129	104	103	46.4-155			0.380	20
Methylene Chloride	0.0250	0.0222	0.0224	88.8	89.7	69.5-120			0.990	20
4-Methyl-2-pentanone (MIBK)	0.125	0.111	0.112	88.7	89.8	63.3-138			1.27	20
Methyl tert-butyl ether	0.0250	0.0229	0.0228	91.6	91.0	70.1-125			0.680	20
Naphthalene	0.0250	0.0266	0.0280	106	112	69.7-134			5.13	20
n-Propylbenzene	0.0250	0.0269	0.0278	108	111	81.9-122			3.29	20
Styrene	0.0250	0.0268	0.0277	107	111	79.9-124			3.13	20
1,1,1,2-Tetrachloroethane	0.0250	0.0248	0.0254	99.1	102	78.5-125			2.52	20
1,1,2,2-Tetrachloroethane	0.0250	0.0248	0.0250	99.3	99.9	79.3-123			0.560	20
Tetrachloroethene	0.0250	0.0247	0.0256	98.9	102	73.5-130			3.41	20
Toluene	0.0250	0.0237	0.0238	94.7	95.3	77.9-116			0.660	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0264	0.0267	106	107	62.0-141			1.09	20
1,2,3-Trichlorobenzene	0.0250	0.0252	0.0260	101	104	75.7-134			3.33	20
1,2,4-Trichlorobenzene	0.0250	0.0271	0.0280	108	112	76.1-136			3.54	20
1,1,1-Trichloroethane	0.0250	0.0238	0.0242	95.3	96.8	71.1-129			1.56	20
1,1,2-Trichloroethane	0.0250	0.0241	0.0254	96.5	102	81.6-120			5.29	20
Trichloroethene	0.0250	0.0242	0.0250	96.8	100	79.5-121			3.38	20
Trichlorofluoromethane	0.0250	0.0241	0.0241	96.5	96.6	49.1-157			0.110	20
1,2,3-Trichloropropane	0.0250	0.0244	0.0254	97.6	102	74.9-124			3.99	20
1,2,3-Trimethylbenzene	0.0250	0.0278	0.0287	111	115	79.9-118			3.17	20
1,2,4-Trimethylbenzene	0.0250	0.0262	0.0269	105	108	79.0-122			2.46	20
1,3,5-Trimethylbenzene	0.0250	0.0254	0.0262	101	105	81.0-123			3.11	20
Vinyl chloride	0.0250	0.0247	0.0252	98.7	101	61.5-134			2.06	20
Xylenes, Total	0.0750	0.0783	0.0804	104	107	79.2-122			2.67	20
(S) Toluene-d8				98.9	97.5	90.0-115				
(S) Dibromofluoromethane				99.0	97.6	79.0-121				
(S) 4-Bromofluorobenzene				95.0	95.4	80.1-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L867766-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L867766-01 10/27/16 05:11 • (MS) R3174299-4 10/27/16 00:06 • (MSD) R3174299-5 10/27/16 00:25

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	ND	8.12	10.3	65.0	82.6	100	25.0-156		J3	23.8	21.5
Acrolein	0.125	ND	9.32	12.1	74.6	96.7	100	34.0-194		J3	25.8	21.5
Acrylonitrile	0.125	ND	9.34	12.0	74.7	96.1	100	55.9-161		J3	25.0	20
Benzene	0.0250	ND	1.93	2.36	77.1	94.2	100	58.6-133			20.0	20
Bromobenzene	0.0250	ND	2.18	2.71	87.1	108	100	70.6-125		J3	21.6	20
Bromodichloromethane	0.0250	ND	1.77	2.13	70.9	85.2	100	69.2-127			18.3	20



L867766-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L867766-01 10/27/16 05:11 • (MS) R3174299-4 10/27/16 00:06 • (MSD) R3174299-5 10/27/16 00:25

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromoform	0.0250	ND	2.04	2.60	81.6	104	100	66.3-140		J3	24.2	20
Bromomethane	0.0250	ND	1.29	1.47	51.7	58.8	100	16.6-183			12.9	20.5
n-Butylbenzene	0.0250	ND	2.68	3.18	107	127	100	64.8-145			17.2	20
sec-Butylbenzene	0.0250	ND	2.29	2.84	91.6	114	100	66.8-139		J3	21.5	20
tert-Butylbenzene	0.0250	ND	2.41	2.98	96.4	119	100	67.1-138		J3	21.2	20
Carbon tetrachloride	0.0250	ND	1.94	2.29	77.5	91.7	100	60.6-139			16.8	20
Chlorobenzene	0.0250	ND	2.31	2.83	92.3	113	100	70.1-130		J3	20.3	20
Chlorodibromomethane	0.0250	ND	2.02	2.51	80.9	100	100	71.6-132		J3	21.5	20
Chloroethane	0.0250	ND	1.72	2.04	68.6	81.7	100	33.3-155			17.4	20
2-Chloroethyl vinyl ether	0.125	ND	10.8	13.5	86.4	108	100	5.00-149			22.3	40
Chloroform	0.0250	ND	2.00	2.43	80.2	97.1	100	66.1-133			19.1	20
Chloromethane	0.0250	ND	1.37	1.69	54.9	67.6	100	40.7-139		J3	20.8	20
2-Chlorotoluene	0.0250	ND	2.20	2.74	88.0	110	100	66.9-134		J3	21.9	20
4-Chlorotoluene	0.0250	ND	2.30	2.83	92.0	113	100	66.8-134		J3	20.8	20
1,2-Dibromo-3-Chloropropane	0.0250	ND	2.04	2.83	81.5	113	100	63.9-142		J3	32.6	20.2
1,2-Dibromoethane	0.0250	ND	2.05	2.56	82.0	102	100	73.8-131		J3	22.1	20
Dibromomethane	0.0250	ND	1.76	2.13	70.5	85.2	100	72.8-127	J6		18.9	20
1,2-Dichlorobenzene	0.0250	ND	2.57	3.06	103	122	100	77.4-127			17.1	20
1,3-Dichlorobenzene	0.0250	ND	2.25	2.77	90.1	111	100	67.9-136		J3	20.6	20
1,4-Dichlorobenzene	0.0250	ND	2.59	3.10	104	124	100	74.4-123		J5	17.9	20
Dichlorodifluoromethane	0.0250	ND	1.47	1.80	58.9	71.9	100	42.2-146			19.8	20
1,1-Dichloroethane	0.0250	ND	2.05	2.48	81.9	99.3	100	64.0-134			19.2	20
1,2-Dichloroethane	0.0250	ND	1.83	2.20	73.0	88.2	100	60.7-132			18.8	20
1,1-Dichloroethene	0.0250	ND	1.84	2.19	73.5	87.6	100	48.8-144			17.6	20
cis-1,2-Dichloroethene	0.0250	0.723	2.47	2.94	69.9	88.8	100	60.6-136			17.5	20
trans-1,2-Dichloroethene	0.0250	ND	1.80	2.16	71.8	86.6	100	61.0-132			18.6	20
1,2-Dichloropropane	0.0250	ND	1.98	2.39	79.2	95.5	100	69.7-130			18.6	20
1,1-Dichloropropene	0.0250	ND	2.06	2.49	82.4	99.7	100	61.5-136			18.9	20
1,3-Dichloropropane	0.0250	ND	2.09	2.60	83.7	104	100	74.3-123		J3	21.5	20
cis-1,3-Dichloropropene	0.0250	ND	1.81	2.18	72.5	87.4	100	71.1-129			18.6	20
trans-1,3-Dichloropropene	0.0250	ND	1.83	2.18	73.1	87.3	100	66.3-136			17.8	20
2,2-Dichloropropane	0.0250	ND	1.99	2.37	79.7	94.8	100	54.9-142			17.3	20
Di-isopropyl ether	0.0250	ND	1.81	2.21	72.3	88.4	100	59.9-140		J3	20.1	20
Ethylbenzene	0.0250	ND	2.30	2.78	92.0	111	100	62.7-136			19.1	20
Hexachloro-1,3-butadiene	0.0250	ND	2.33	2.80	93.3	112	100	61.1-144			18.2	20.1
Isopropylbenzene	0.0250	ND	2.37	2.88	94.9	115	100	67.4-136			19.5	20
p-Isopropyltoluene	0.0250	ND	2.32	2.89	93.0	116	100	62.8-143		J3	21.8	20
2-Butanone (MEK)	0.125	ND	8.29	10.8	66.3	86.0	100	45.0-156		J3	25.9	20.8
Methylene Chloride	0.0250	ND	1.79	2.19	71.6	87.5	100	61.5-125			20.0	20
4-Methyl-2-pentanone (MIBK)	0.125	ND	8.32	10.7	66.5	85.8	100	60.7-150		J3	25.3	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L867766-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L867766-01 10/27/16 05:11 • (MS) R3174299-4 10/27/16 00:06 • (MSD) R3174299-5 10/27/16 00:25

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Methyl tert-butyl ether	0.0250	ND	1.72	2.16	69.0	86.6	100	61.4-136		J3	22.6	20
Naphthalene	0.0250	ND	2.20	2.76	88.1	110	100	61.8-143		J3	22.5	20
n-Propylbenzene	0.0250	ND	2.38	2.96	95.0	118	100	63.2-139		J3	21.8	20
Styrene	0.0250	ND	2.37	2.92	94.8	117	100	68.2-133		J3	20.8	20
1,1,1,2-Tetrachloroethane	0.0250	ND	2.14	2.67	85.4	107	100	70.5-132		J3	22.2	20
1,1,2,2-Tetrachloroethane	0.0250	ND	1.92	2.53	76.7	101	100	64.9-145		J3	27.4	20
Tetrachloroethene	0.0250	ND	2.09	2.56	83.6	102	100	57.4-141		J3	20.3	20
Toluene	0.0250	ND	2.00	2.38	79.8	95.4	100	67.8-124			17.7	20
1,1,2-Trichlorotrifluoroethane	0.0250	ND	2.11	2.50	84.4	100	100	53.7-150			17.1	20
1,2,3-Trichlorobenzene	0.0250	ND	2.16	2.66	86.3	106	100	65.7-143		J3	20.8	20
1,2,4-Trichlorobenzene	0.0250	ND	2.46	2.95	98.6	118	100	67.0-146			18.1	20
1,1,1-Trichloroethane	0.0250	ND	2.00	2.45	80.2	97.8	100	58.7-134			19.8	20
1,1,2-Trichloroethane	0.0250	ND	2.00	2.47	80.1	98.9	100	74.1-130		J3	21.0	20
Trichloroethene	0.0250	1.12	2.86	3.39	69.8	91.1	100	48.9-148			17.1	20
Trichlorofluoromethane	0.0250	ND	2.00	2.44	80.1	97.5	100	39.9-165			19.6	20
1,2,3-Trichloropropane	0.0250	ND	1.98	2.50	79.1	100	100	71.5-134		J3	23.4	20
1,2,3-Trimethylbenzene	0.0250	ND	2.43	2.94	97.2	118	100	62.7-133			19.0	20
1,2,4-Trimethylbenzene	0.0250	ND	2.28	2.80	91.0	112	100	60.5-137		J3	20.7	20
1,3,5-Trimethylbenzene	0.0250	ND	2.21	2.71	88.4	108	100	67.9-134		J3	20.3	20
Vinyl chloride	0.0250	ND	1.85	2.27	74.0	90.9	100	44.3-143		J3	20.5	20
Xylenes, Total	0.0750	ND	6.75	8.36	90.0	111	100	65.6-133		J3	21.2	20
(S) Toluene-d8					98.3	97.6		90.0-115				
(S) Dibromofluoromethane					98.1	97.9		79.0-121				
(S) 4-Bromofluorobenzene					93.7	94.9		80.1-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3173743-1 10/26/16 15:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	127			50.0-150

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173743-2 10/26/16 15:34 • (LCSD) R3173743-3 10/26/16 15:54

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TPH (GC/FID) High Fraction	1.50	1.62	1.60	108	106	50.0-150			1.32	20
(S) o-Terphenyl				117	115	50.0-150				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Method Blank (MB)

(MB) R3173897-1 10/26/16 23:20

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
2,4-D	U		0.000400	0.00200
Dalapon	U		0.000300	0.00200
2,4-DB	U		0.000700	0.00400
Dicamba	U		0.000300	0.00200
Dichloroprop	U		0.000400	0.00200
Dinoseb	U		0.000500	0.00200
MCPA	U		0.0500	0.200
MCPP	U		0.0500	0.200
2,4,5-T	U		0.000300	0.00200
2,4,5-TP (Silvex)	U		0.000300	0.00200
(S) 2,4-Dichlorophenyl Acetic Acid	81.3			20.0-138

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173897-2 10/26/16 23:48 • (LCSD) R3173897-3 10/27/16 00:02

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
2,4-D	0.00500	0.00426	0.00429	85.2	85.8	37.0-126			0.760	31
Dalapon	0.00500	0.00284	0.00285	56.7	57.0	31.0-120			0.540	32
2,4-DB	0.00500	0.00566	0.00590	113	118	33.0-128			4.26	31
Dicamba	0.00500	0.00441	0.00442	88.3	88.4	44.0-133			0.0700	27
Dichloroprop	0.00500	0.00440	0.00446	88.0	89.2	36.0-120			1.31	28
Dinoseb	0.00500	0.00388	0.00397	77.7	79.4	31.0-120			2.20	30
MCPA	0.500	0.529	0.522	106	104	19.0-149			1.30	35
MCPP	0.500	0.467	0.431	93.5	86.1	27.0-137			8.16	30
2,4,5-T	0.00500	0.00470	0.00470	94.0	93.9	45.0-124			0.0100	31
2,4,5-TP (Silvex)	0.00500	0.00465	0.00466	92.9	93.2	43.0-129			0.250	29
(S) 2,4-Dichlorophenyl Acetic Acid				92.7	100	20.0-138				



Method Blank (MB)

(MB) R3173645-3 10/26/16 21:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Acenaphthene	U		0.0000100	0.0000500
Acenaphthylene	U		0.0000120	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	0.0000501	U	0.00000212	0.0000500
Benzo(g,h,i)perylene	0.0000240	U	0.00000227	0.0000500
Benzo(k)fluoranthene	U		0.0000136	0.0000500
Chrysene	U		0.0000108	0.0000500
Dibenz(a,h)anthracene	U		0.00000396	0.0000500
Fluoranthene	U		0.0000157	0.0000500
Fluorene	U		0.00000850	0.0000500
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500
Naphthalene	0.0000339	U	0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
1-Methylnaphthalene	U		0.00000821	0.000250
2-Methylnaphthalene	U		0.00000902	0.000250
2-Chloronaphthalene	U		0.00000647	0.000250
(S) Nitrobenzene-d5	112			33.8-179
(S) 2-Fluorobiphenyl	109			55.5-150
(S) p-Terphenyl-d14	109			46.2-163

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173645-1 10/26/16 20:23 • (LCSD) R3173645-2 10/26/16 20:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00218	0.00221	109	111	68.9-153			1.38	20
Acenaphthene	0.00200	0.00215	0.00220	108	110	67.7-153			1.85	20
Acenaphthylene	0.00200	0.00211	0.00214	105	107	66.9-141			1.76	20
Benzo(a)anthracene	0.00200	0.00215	0.00220	107	110	63.1-147			2.36	20
Benzo(a)pyrene	0.00200	0.00240	0.00244	120	122	62.2-150			1.65	20
Benzo(b)fluoranthene	0.00200	0.00219	0.00223	109	112	58.4-148			2.06	20
Benzo(g,h,i)perylene	0.00200	0.00235	0.00239	118	119	57.4-152			1.55	20
Benzo(k)fluoranthene	0.00200	0.00231	0.00231	115	116	60.5-154			0.140	20
Chrysene	0.00200	0.00223	0.00226	111	113	64.8-155			1.41	20
Dibenz(a,h)anthracene	0.00200	0.00225	0.00229	113	115	53.5-153			1.55	20
Fluoranthene	0.00200	0.00213	0.00218	106	109	68.6-153			2.64	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173645-1 10/26/16 20:23 • (LCSD) R3173645-2 10/26/16 20:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Fluorene	0.00200	0.00208	0.00213	104	106	67.3-141			2.16	20
Indeno(1,2,3-cd)pyrene	0.00200	0.00232	0.00237	116	118	57.0-155			1.90	20
Naphthalene	0.00200	0.00209	0.00213	105	107	66.7-135			1.79	20
Phenanthrene	0.00200	0.00213	0.00214	107	107	64.3-143			0.500	20
Pyrene	0.00200	0.00251	0.00255	125	128	60.2-154			1.62	20
1-Methylnaphthalene	0.00200	0.00216	0.00221	108	111	68.3-144			2.25	20
2-Methylnaphthalene	0.00200	0.00215	0.00220	107	110	67.6-143			2.33	20
2-Chloronaphthalene	0.00200	0.00205	0.00210	102	105	69.7-140			2.31	20
<i>(S)</i> Nitrobenzene-d5				112	112	33.8-179				
<i>(S)</i> 2-Fluorobiphenyl				107	110	55.5-150				
<i>(S)</i> p-Terphenyl-d14				101	104	46.2-163				

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.  
 \* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

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Gl

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Al

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Sc

## State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky <sup>1</sup>	90010	South Dakota	n/a
Kentucky <sup>2</sup>	16	Tennessee <sup>14</sup>	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

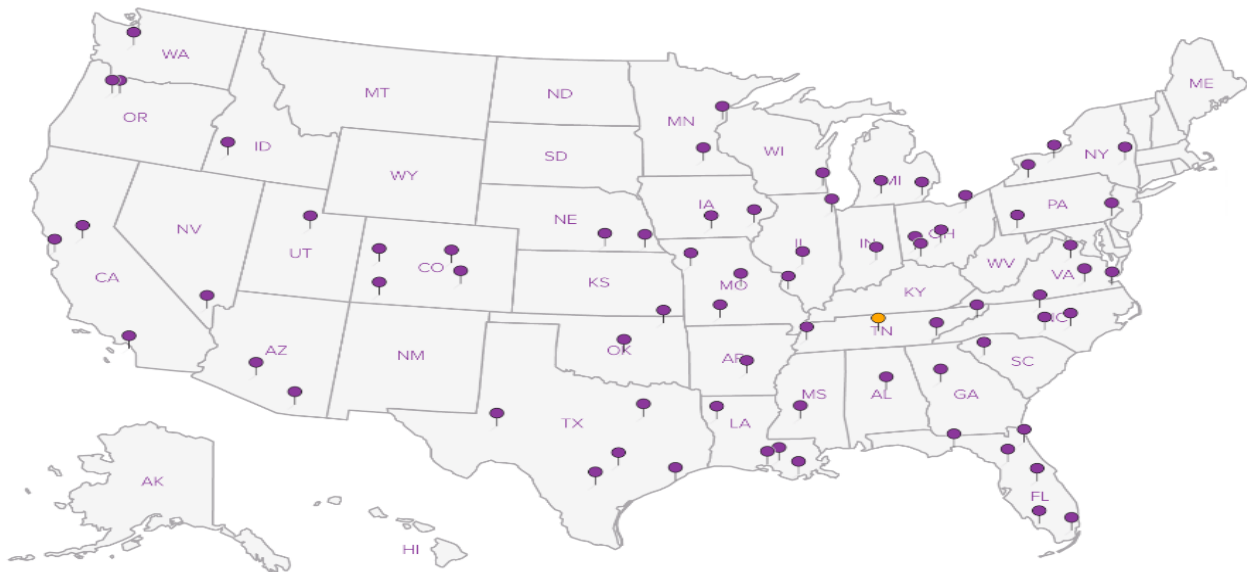
## Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>n/a</sup> Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



**HDR - Boise, ID**

412 E. Parkcenter Blvd., Suite 100  
Boise, ID 83706

Billing Information:  
Accounts Payable- Zelma Miller  
412 E. Park Center Blvd, Ste 100  
Boise, ID 83706

Email To: @hdrinc.com

Report to:  
**Manuel Rauhut**

Project  
Description: **Moxee**

City/State  
Collected:

Phone: **208-850-4668**  
Fax:

Client Project #  
**Simplot Moxee**

Lab Project #  
**HDRBID-MOXEE**

Collected by (print):  
**Manuel Rauhut**

Site/Facility ID #  
**Moxee**

P.O. #

Collected by (signature):  
*[Signature]*  
Immediately  
Packed on Ice N    Y X

**Rush?** (Lab MUST Be Notified)  
 \_\_\_ Same Day .....200%  
 \_\_\_ Next Day .....100%  
 \_\_\_ Two Day .....50%  
 \_\_\_ Three Day .....25%

Date Results Needed

Email? \_\_\_ No X Yes

FAX? \_\_\_ No \_\_\_ Yes

No. of  
Cntrs

Analysis / Container / Preservative

DROLVI 40mlAmb-HCl-BT

KICP, MGICP 250mlHDPE-HNO3 <2

NH3 125mlHDPE-H2SO4 <2

NOZNO3,PT 250mlHDPE-H2SO4 <2

PAHSIMLVI 40mlAmb-NoPres-WT

SULFATE 125mlHDPE-NoPres *Filt/Red*

SV8151 1L-Amb-No Pres

TDS 250mlHDPE-NoPres

V8260 - TB 40mlAmb-HCl

V8260, GRO 40mlAmb HCl

Chain of Custody Page \_\_\_ of \_\_\_



LAB S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



L# **L867699**  
**C235**

Acctnum: **HDRBID**  
Template: **T115829**  
Prelogin: **P568884**  
TSR: **728 - Shane Gambill**  
PB:

Shipped Via: **FedEX Ground**

Rem./Contaminant: Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time														
<b>BLANK</b>		<b>GW</b>		<b>10/19/16</b>	<b>0700</b>	<b>15</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>-01</b>	
<b>MW-1</b>		<b>GW</b>		}	<b>0900</b>	<b>15</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>02</b>	
<b>MW-2</b>		<b>GW</b>			<b>1015</b>	<b>15</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>03</b>	
<b>MW-3</b>		<b>GW</b>			<b>1130</b>	<b>15</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>04</b>	
<b>CS-4</b>		<b>GW</b>			<b>1245</b>	<b>15</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>05</b>	
<b>CS-6</b>		<b>GW</b>			<b>1400</b>	<b>15</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>06</b>	
<b>MW-4</b>		<b>GW</b>			<b>1530</b>	<b>15</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>07</b>	
<b>DUPLICATE MW-6</b>		<b>GW</b>			<b>1600</b>	<b>15</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>08</b>	
<b>TRIP BLANK</b>		<b>GW</b>			<b>NA</b>	<b>1200</b>											<b>X</b>		<b>09</b>
<b>MW-5</b>		<b>GW</b>			<b>1730</b>	<b>15</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>10</b>

\* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other

**Remarks:**

**BLANK = DI filled on site**

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Hold #

Relinquished by: (Signature) <i>[Signature]</i>	Date: <b>10/20/16</b>	Time: <b>1400</b>	Received by: (Signature) <i>Jennifer Belmaric</i>	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____	Condition: (lab use only) <b>TOI</b>
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received by: (Signature) <i>[Signature]</i>	Temp: _____ °C Bottles Received: <b>137</b>	COC Seal Intact: ___ Y ___ N <u>✓</u> NA
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: <b>10-21-16</b> Time: <b>0900</b>	pH Checked: <b>&lt;2</b> NCF:



### Cooler Receipt Form

Client: **HORBIID** SDG# **L867699**  
 Cooler Received/Opened On: **10/21/16** Temperature Upon Receipt: **2.1 °C**

Received By: **Dakota Busby**

Signature: 

Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were custody papers properly filled out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did all bottles arrive in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were correct bottles used for the analyses requested?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was sufficient amount of sample sent in each bottle?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If applicable, was an observable VOA headspace present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Non Conformance Generated. (If yes see attached NCF)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Kuo Testing Labs, Inc.**

337 South 1st  
 Othello, Washington 99344  
 (509) 488-0112; Fax (509) 488-0111  
 Email: info@kuotestinglabs.com

Web: [www.kuotestinglabs.com](http://www.kuotestinglabs.com)



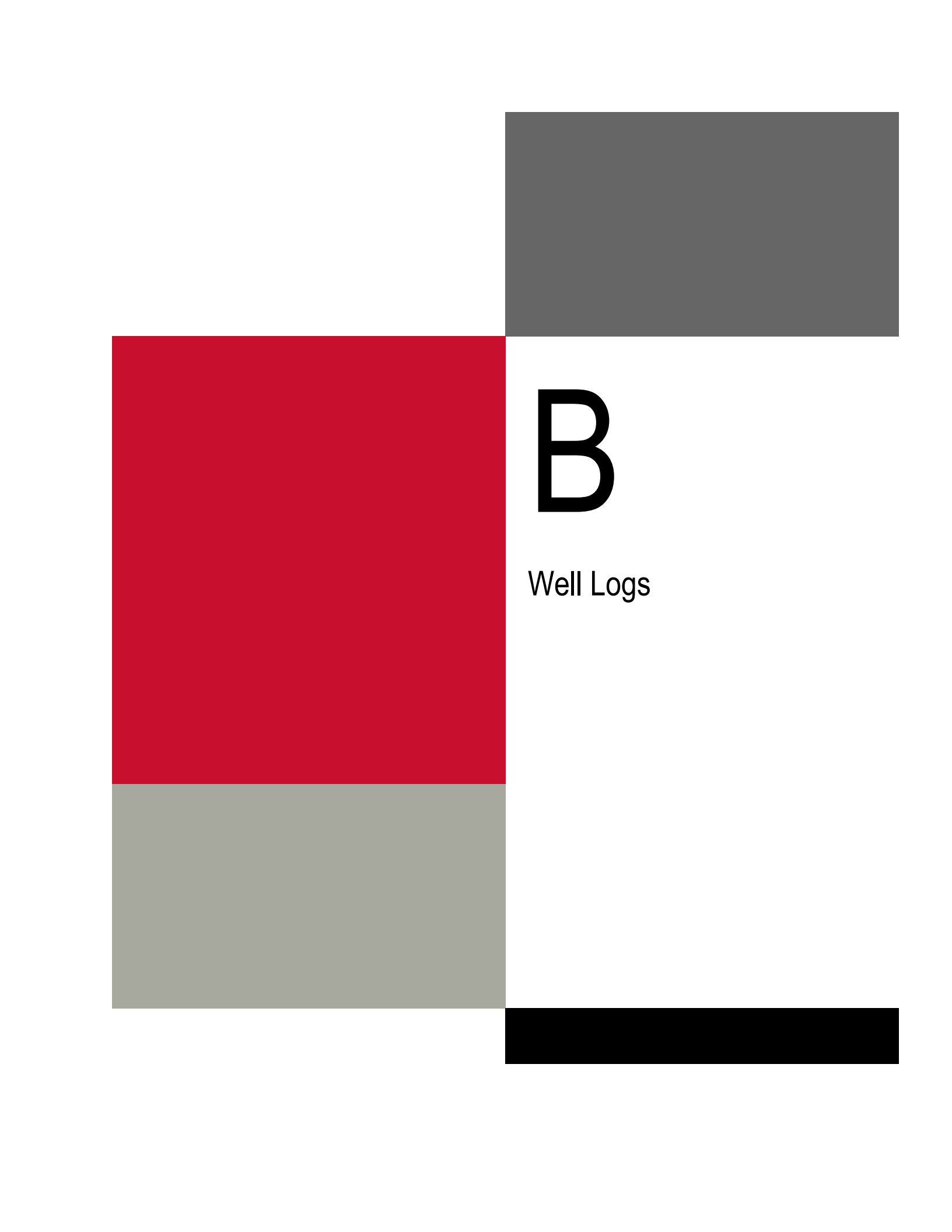
Date: 10/25/2016  
 Report No: S49085  
 Project: Simplot, Moxee  
 Client: HDR, Inc  
 Sampler: Manuel Rauhut  
 Field ID: **MW1, 2, 3, 4, 5**  
 Consultant: Mike Murray (mike.murray@hdrinc.com)  
 Crop:

**SOIL ANALYSIS REPORT**

Lab #	Depth	Crop Sample ID	NO3-N #/AC	NO3-N ppm	NH4-N #/Ac	NH4-N ppm	SO4 -S ppm	SS mmho/ cm
1279	1.5 - 3	<b>MW -1</b>	827	137.9	26	4.3	226	3.24
1280	5 - 6.5	<b>MW -1</b>	926	154.3	21	3.5	173	2.29
1281	1.5 - 3	<b>MW -2</b>	768	127.9	23	3.8	94	2.22
1282	5 - 6.5	<b>MW -2</b>	446	74.4	17	2.8	46	1.47
1283	1.5 - 3	<b>MW -3</b>	89	14.8	24	4.0	27	0.42
1284	5 - 6.5	<b>MW -3</b>	24	3.9	510	84.9	11	0.48
1285	1.5 - 3	<b>MW -4</b>	365	60.8	950	158.3	43	1.11
1286	5 - 6.5	<b>MW -4</b>	245	40.9	975	162.6	37	0.94
1287	1.5 - 3	<b>MW -5</b>	461	76.9	38	6.3	67	1.40
1288	5 - 6.5	<b>MW -5</b>	180	30.1	33	5.6	99	1.46

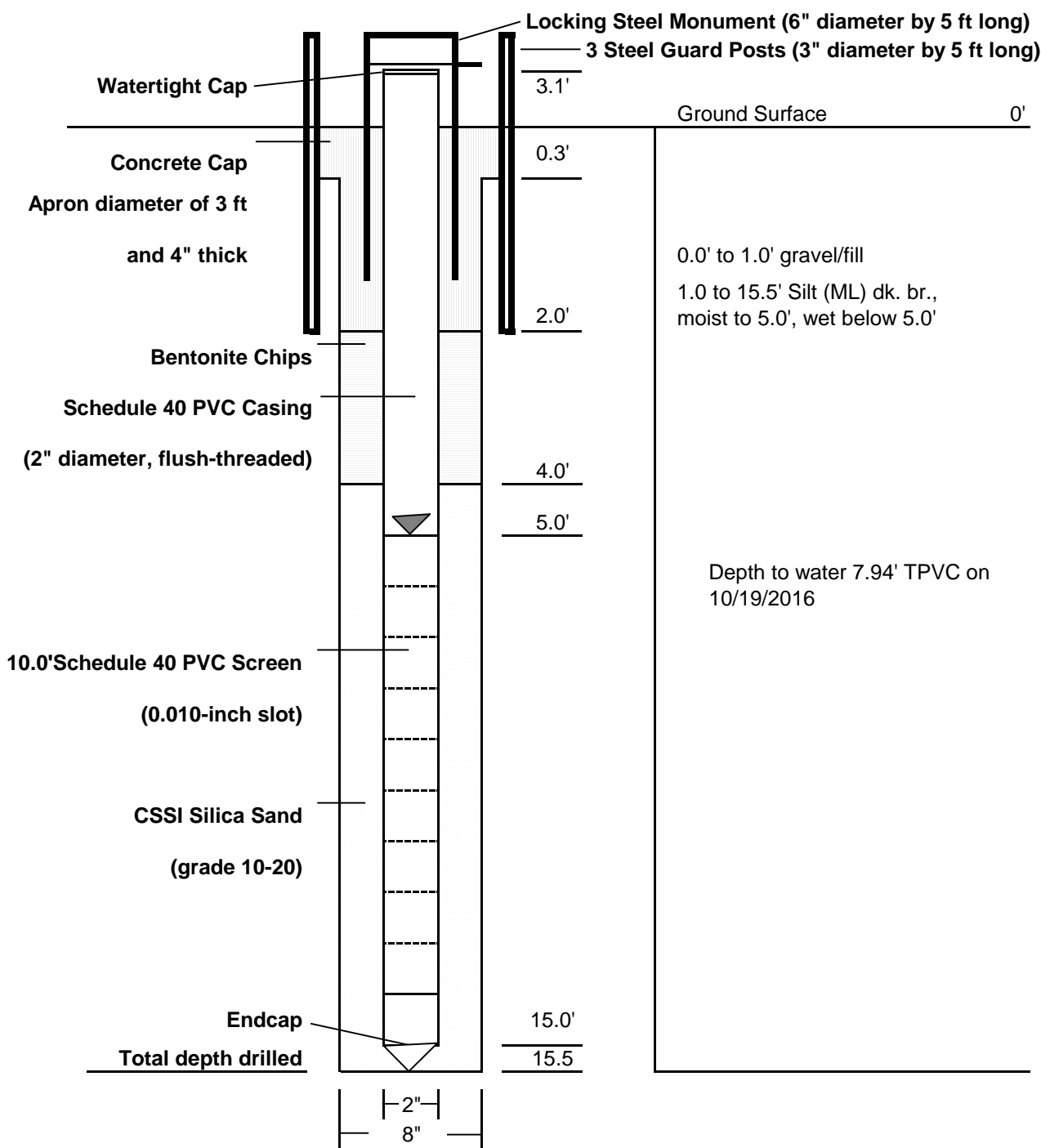






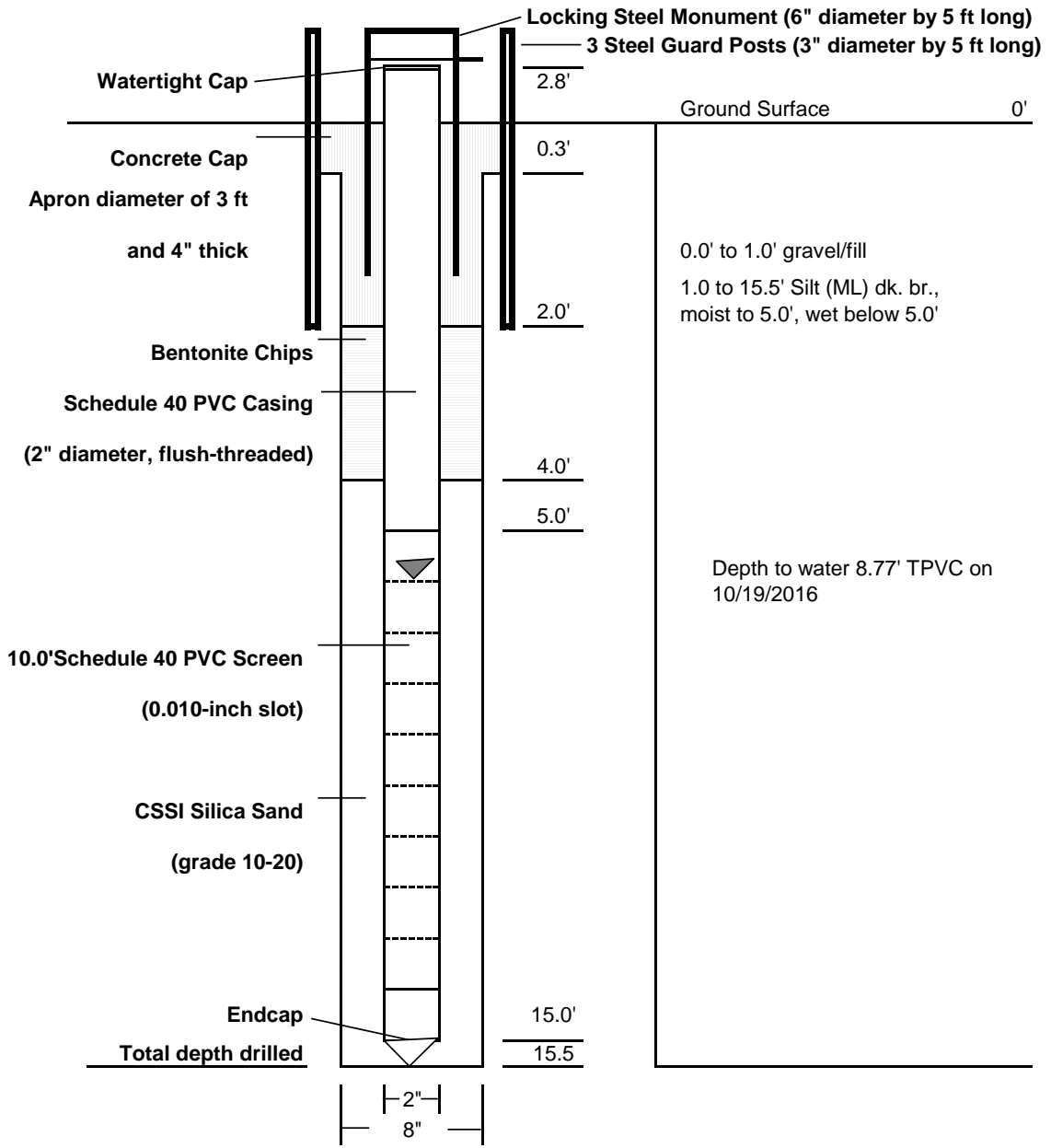
**B**

Well Logs



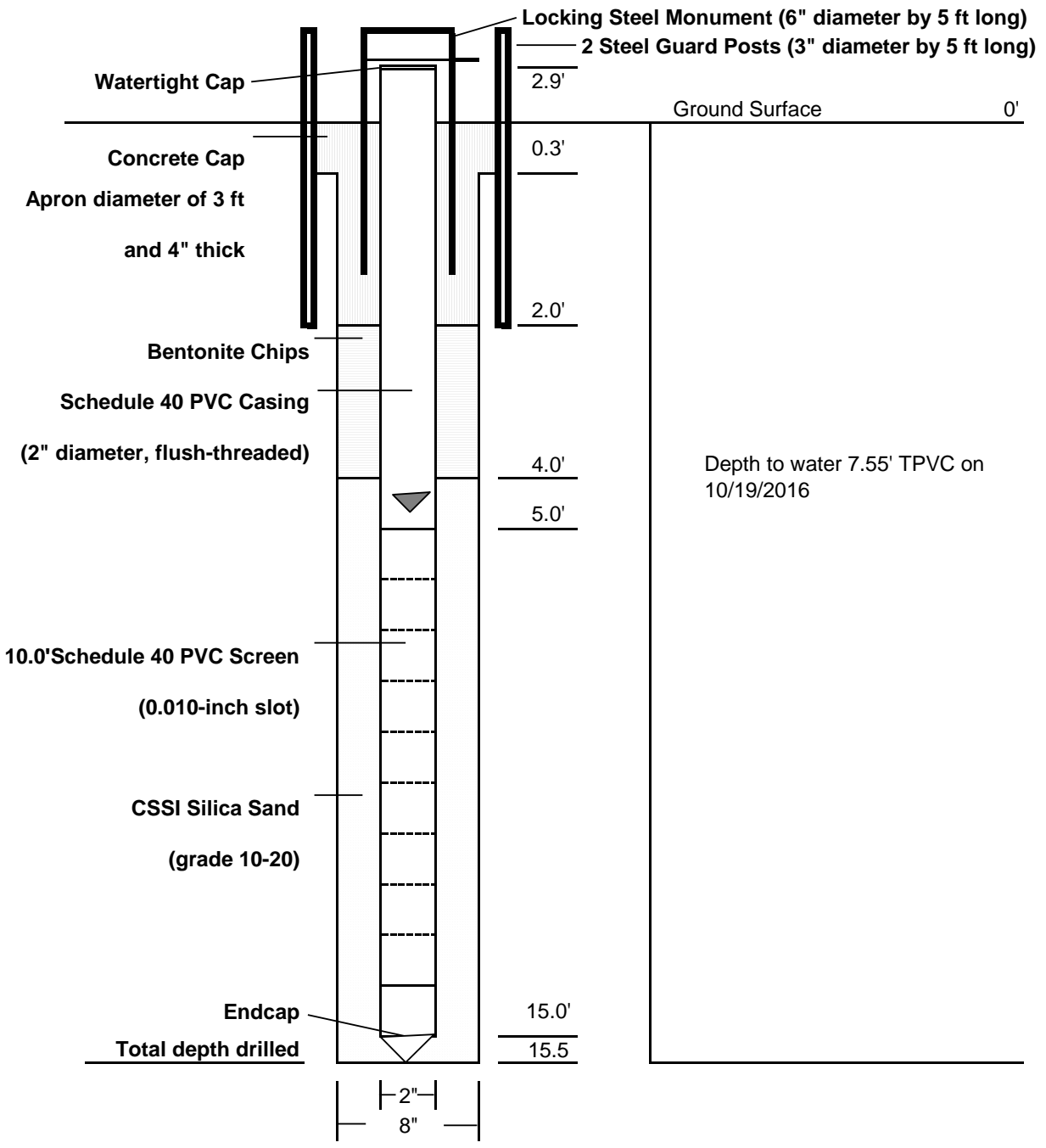
**DRAWING NOT TO SCALE**  
**Well Tag BKT 097**  
**Installed October 18, 2016**

**Figure 1**  
**Monitoring Well Construction Diagram**  
**For Monitoring Well MW-1**  
**Simplot Grower Solutions**  
**Moxee, Washington**



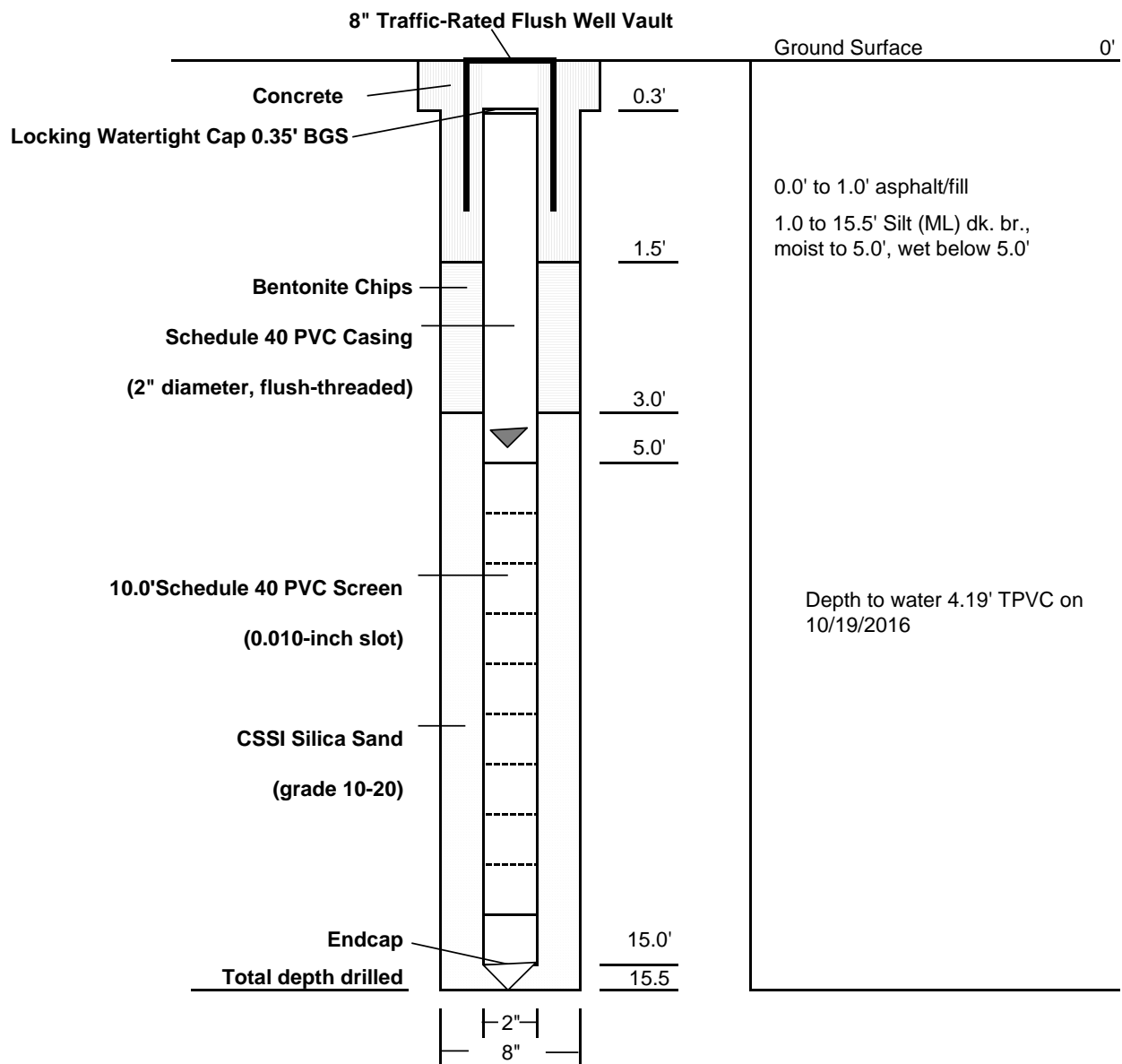
**DRAWING NOT TO SCALE**  
**Well Tag BKT 095**  
**Installed October 17, 2016**

**Figure 1**  
**Monitoring Well Construction Diagram**  
**For Monitoring Well MW-2**  
**Simplot Grower Solutions**  
**Moxee, Washington**



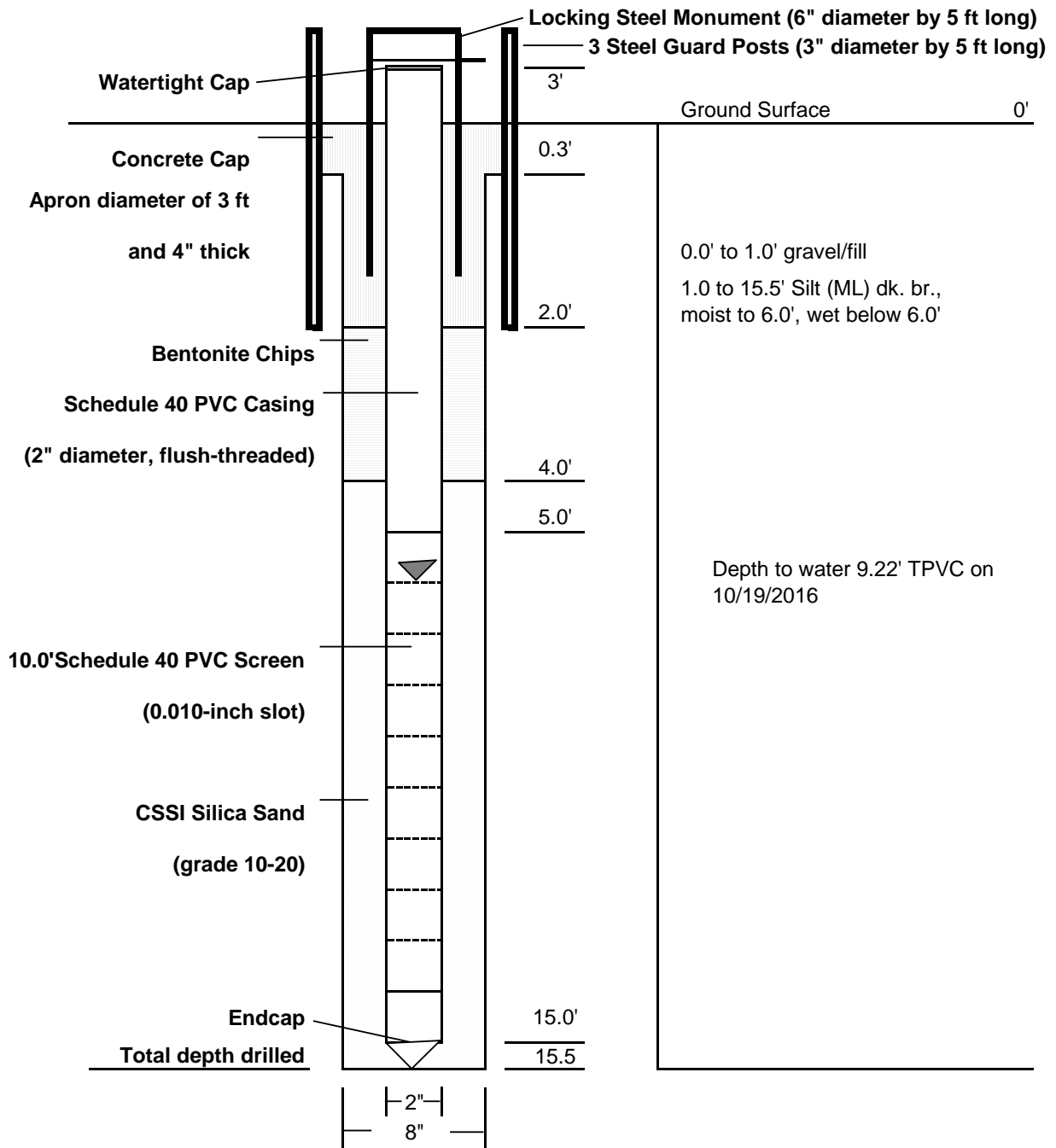
**DRAWING NOT TO SCALE**  
 Well Tag BKT 098  
 Installed October 18, 2016

**Figure 1**  
**Monitoring Well Construction Diagram**  
**For Monitoring Well MW-3**  
**Simplot Grower Solutions**  
**Moxee, Washington**



DRAWING NOT TO SCALE  
Well Tag BKT 099  
Installed October 18, 2016

**Figure 1**  
**Monitoring Well Construction Diagram**  
**For Monitoring Well MW-4**  
**Simplot Grower Solutions**  
**Moxee, Washington**

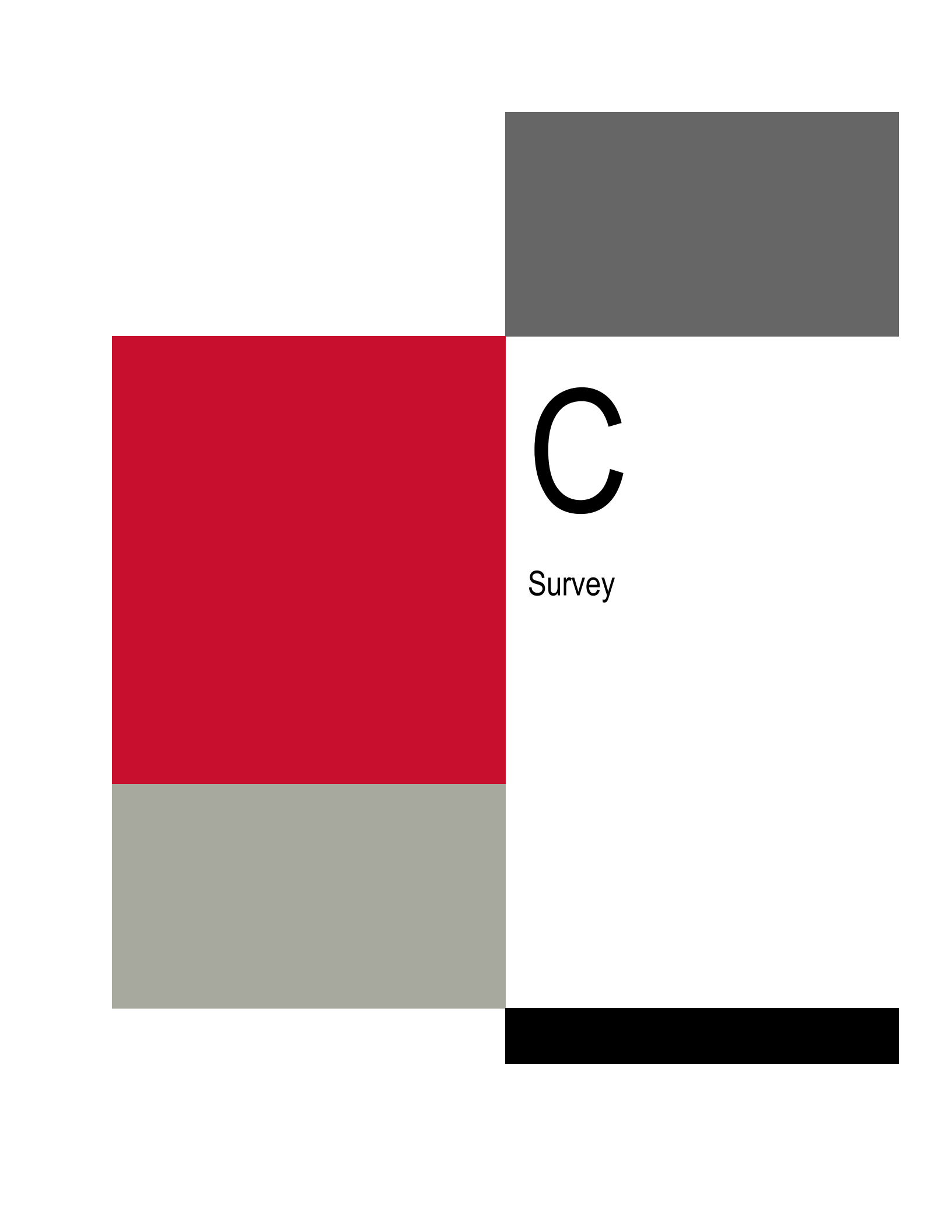


**DRAWING NOT TO SCALE**  
**Well Tag BKT 096**  
**Installed October 17, 2016**

**Figure 1**  
**Monitoring Well Construction Diagram**  
**For Monitoring Well MW-5**  
**Simplot Grower Solutions**  
**Moxee, Washington**







C

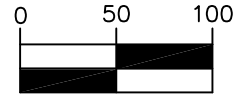
Survey

**SURVEYOR'S NOTES**

1. DATE OF SURVEY: NOVEMBER 3, 2016.
2. BASIS OF BEARING: NAD83(91) WASHINGTON STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, US SURVEY FEET GRID DISTANCES.
3. VERTICAL DATUM: NGVD29.
4. EQUIPMENT/PROCEDURES: TOPCON GR3 GNSS, RTK METHOD.
5. PRIMARY CONTROL POINTS: WSDOT MONUMENTS GP39024-5 & GP39024-6.


**EXHIBIT**


**GRAPHIC SCALE**





1 INCH = 100 FT.





MW-3   
 N 448198.22  
 E 1665422.99  
 TOP STEEL CASING 1028.96  
 TOP PVC 1028.97  
 CONCRETE COLLAR 1026.06

MW-1   
 N 448209.23  
 E 1665719.20  
 TOP STEEL CASING 1031.24  
 TOP PVC 1031.15  
 CONCRETE COLLAR 1028.08

CS-6   
 N 447990.07  
 E 1665393.02  
 RIM AT CONCRETE 1026.04  
 TOP PVC 1025.50

MW-4   
 N 447983.20  
 E 1665554.18  
 RIM AT CONCRETE/GROUND 1026.55  
 TOP PVC 1026.20


CS-4   
 N 447898.20  
 E 1665354.62  
 RIM AT CONCRETE 1026.01  
 TOP PVC 1025.67

MW-5   
 N 447846.71  
 E 1665469.32  
 TOP STEEL CASING 1030.50  
 TOP PVC 1030.48  
 CONCRETE COLLAR 1027.42

**SURVEYOR'S CERTIFICATE**

I, CHRISTOPHER C. AMMANN, A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF WASHINGTON, HEREBY CERTIFY THAT THIS MAP REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION AND THAT THE COORDINATES AND ELEVATIONS ARE CORRECT AS SHOWN.



MW-2   
 N 447713.74  
 E 1665729.45  
 TOP STEEL CASING 1030.93  
 TOP PVC 1030.86  
 CONCRETE COLLAR 1028.05



2245 Robertson Drive  
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**HDR ENGINEERING, INC.**

SIMPLOT - MONITORING WELLS SURVEY

MOXEE

WASHINGTON