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APR 29 2021

**WA State Department  
of Ecology (SWRO)**

Subject: **Semi-Annual Monitoring Report – January through June 2020  
Hidden Valley Landfill, Pierce County, Washington**

Dear Mohsen:

The following report provides a summary of monitoring activities performed at the closed Hidden Valley Landfill (HVL) during the semi-annual monitoring period of January through June of 2020. Site activities conducted during this period included groundwater monitoring, landfill gas monitoring, site inspections and maintenance, and recording of leachate volumes.

### **Groundwater Monitoring**

Semi-Annual Groundwater Monitoring Event No. 1 was conducted on January 21, 22, 23, and 31, 2020. Field activities performed for the monitoring event were consistent with the procedures described in the Groundwater Monitoring Plan (GWMP) dated October 18, 2018.

A round of groundwater elevation measurements was collected on January 22, 2020. Groundwater potentiometric surface maps for the shallow perched aquifer, upper regional aquifer, and the lower regional aquifer are shown on Figure 1 through Figure 3, respectively.

Low-flow sampling techniques using dedicated pumps were employed to purge and collect samples from each monitoring well, except MW-12S, which was sampled with a disposable bailer. Field quality control samples consisted of one duplicate sample, one field blank, and seven trip blanks. Water supply well samples were collected at Corliss Resources, Inc. (WS-Corliss) and the Paul Bunyan Rifle & Sportsman Club (WS-Paul Bunyan). Annual samples were collected from the east liner area leachate sump (Leachate-East Area), side-slope leachate sump (Leachate-Side Slope), side-slope leak detection system (Leak Detection-Side Slope), and the Hydraulic Gradient Control System. Samples were shipped to TestAmerica Laboratories, Inc. in Denver, Colorado via FedEx at the end of each field day.

Groundwater results were reviewed and validated (see enclosed Data Validation Report). Field measurements and analytical data were uploaded into the Washington State Department of Ecology (Ecology) Environmental Information Management (EIM) System. Laboratory reports were provided to Ecology and the Tacoma-Pierce County Health Department (TPCHD) under separate cover.

Field measurements and laboratory analytical results for this semi-annual monitoring event are summarized on the following tables: Table 1 – Main Sump and Side Slope Liner Area Performance Data, Table 2 – Water Level Elevations, Table 3 – Field Parameters, Table 4 – Inorganic Parameters, Table 5 – Dissolved Metals, Table 6 – Volatile Organic Compounds (VOC's), Table 7 – Duplicate

Sample Evaluation, Table 8 – Water Supply Wells, Table 9 – Cation-Anion Balance, and Table 10 – Leachate.

The majority of the monitoring well samples displayed pH values less than the WAC 173-200 lower-level criteria of 6.5 pH units. Since the pH values at both background wells (MW-10S and MW-10D) were also less than 6.5, these values are interpreted to be the result of natural background water quality.

Nitrate concentrations were below the site cleanup level of 10 mg/L, except at wells MW-12S (22 mg/L) and FMMW-2 (13 mg/L). The original nitrate results for the samples from MW-12S and FMMW-2 were over the calibration range; therefore, the samples were reanalyzed one hour outside the recommended holding time. These results are denoted with an "H" on the summary data table. The reported concentrations of nitrate at MW-12S and FMMW-2 are typical of previous results during the wet season.

Dissolved manganese concentrations exceeded the site cleanup level of 0.05 mg/L at several wells. The reported concentrations of dissolved manganese are typical of previous water quality results. There were no dissolved iron detections greater than site cleanup levels during this event.

Low-level detections of tetrachloroethene (PCE) were reported in samples from monitoring wells MW-11D(2) (1.1 µg/L) and MW-15D (0.64 µg/L). MW-11D(2) results slightly exceeded the WAC 173-200 criteria. However, low-level detections of PCE are typically reported in samples from this well. Sporadic low-level detections of PCE at MW-15D have also been documented in the past.

Carbon disulfide was reported in samples collected from MW-11D(2) and MW-14D at a concentration of 0.57 µg/L. Carbon disulfide was also reported in the Corliss water supply well at a concentration of 0.57 µg/L. However, carbon disulfide was detected in the associated trip blank at a concentration of 0.57 µg/L and in one of the laboratory method blanks at 0.60 µg/L. Therefore, the reported detections of carbon disulfide appear to be the result of a laboratory artifact, and not representative of groundwater quality.

A cation-anion balance was prepared based in milliequivalents per liter (meq/L) for each water sample to determine if it was electro-neutral (balanced cation and anion charges). A threshold of ten percent difference was used if the total sum of cations and anions were less than or equal to 5.0 meq/L, and a threshold of five percent difference was used if the total cation-anion sums was greater than 5.0 meq/L. The cation-anion balance was greater than the associated threshold at monitoring wells MW-12S, MW-15S, and FMMW-2 (see Table 9).

Trilinear (or Piper) diagrams were prepared for groundwater sample results from each of the three water-bearing zones at the landfill (Shallow Perched Aquifer, Upper Regional Aquifer, and Lower Regional Aquifer). As shown on the enclosed Trilinear Diagrams, the groundwater sample results from all three aquifers plot within a consistent area of the graph, while the leachate results plot in a second area. These plots demonstrate the inherent water quality differences between leachate and groundwater collected from the monitoring wells.

## **Landfill Gas Monitoring**

Monthly landfill gas monitoring was performed on January 20, February 25, March 20, April 20, May 20, and June 18, 2020. All gas probe measurements were observed to be less than 5 percent methane by volume.

On-site buildings were monitored for the presence of landfill gas on February 25 and June 18, 2020 using a flame ionization detector (FID). On February 25, 2020, low-level combustible gas readings (up to 8.8 parts per million) were recorded within the main office, scale house, recycling building, and the leachate treatment building. On June 18, 2020, low-level combustible gas readings (up to 16.3 parts per million) were recorded within the main office, scale house, leachate treatment building, gas to energy building, and the transfer station. The highest reading, 16.3 parts per million, was recorded in the bathroom at the scale house. While monitoring this location, SCS noted the scent of air fresheners, which likely contributed to the elevated FID reading. No landfill gas odors were noted within the buildings during either day of on-site building inspections. Therefore, these detections are interpreted to be a result of chemicals and/or activity occurring inside the buildings and not a result of landfill gas migration. A summary of monitoring data for the landfill gas probes, barometric pressure trends, and on-site buildings is enclosed with the report under Landfill Gas Monitoring Results.

## **Site Inspections and Maintenance**

The landfill cover system and the condensate recirculation system were inspected on February 25 and May 20, 2020. Conditions observed during the inspections were typical for the site. The condensate sumps were working as designed. Sumps 5 and 10 do not collect significant volumes of condensate, and therefore, the pumps have been removed.

The gas collection and control system (GCCS) was inspected and maintenance was performed on a monthly basis during the first six months of 2020. Additional documentation can be found in the enclosed GCCS Maintenance Reports.

## **Leachate Collection System**

Leachate volumes pumped from the East Liner Area main sump (Cell 1) and Side-Slope Liner sump (Cell 2), as well as rainfall totals from an on-site rain gauge, are recorded on a daily basis by on-site personnel. Volumes pumped from the side-slope liner leak detection system and the East Liner Area hydraulic gradient control system are recorded by site personnel when pumping occurs. A summary of the monthly volume data is provided in Table 1, and copies of the monthly reports are enclosed under Leachate Treatment System Data.

A leachate sample was collected from the East Liner Area on January 23, 2020, and a leachate sample and a leak-detection sample were collected from the Side Slope Liner System on January 31, 2020. In addition, a sample was collected from the hydraulic gradient control system beneath the East Liner Area on January 23, 2020. However, the hydraulic gradient control system did not accumulate enough fluid to require pumping during this monitoring period.

Due to an instrument error at the laboratory, the samples from the Leachate-Side Slope and Leak Detection-Side Slope were analyzed for Nitrate method 300.0 approximately 27 hours past the 48-. The analytical results for leachate, leak-detection, and the hydraulic gradient control system are shown on Table 10. No significant changes in leachate quality were noted during this event.

Mr. Mohsen Kourehdar  
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If you have any questions regarding the monitoring results, please call at (425) 681-2189.

Sincerely,



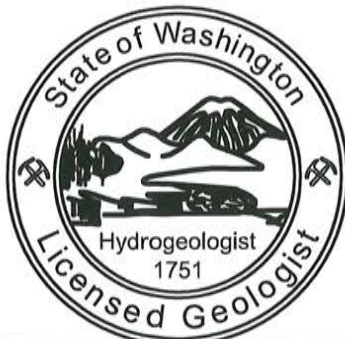
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Enclosure: Summary Data Tables (Tables 1 through 10)  
Groundwater Potentiometric Surface Maps (Figures 1 through 3)  
Trilinear Diagrams (Figures 4 through 7)  
Field Sampling Data Sheets  
Data Validation Report  
Landfill Gas Monitoring Results  
Site Inspection Reports  
GCCS Maintenance Reports  
Leachate Treatment System Data



Kevin G. Lakey



# Summary Data Tables



**Table 1. 2020 Main Sump and Side-Slope Liner Area Performance Data  
Semi - Annual Monitoring Event No. 1 - January 2020  
Hidden Valley Landfill, Pierce County, Washington**

<b>Month</b>	<b>Main Sump Monthly Leachate Volume - Cell 1 (gallons)</b>	<b>Side-Slope Sump Monthly Leachate Volume - Cell 2 (gallons)</b>	<b>Side-Slope Sump Monthly Leakage Flow<sup>a</sup> - Cell 2 (gallons/month)</b>	<b>Monthly Rainfall (inches)</b>
January	1,331	0	1,052	12.60
February	12,710	0	0	4.17
March	8,293	0	0	5.35
April	13,979	0	0	3.78
May	20,500	0	0	3.25
June	10,260	0	0	3.16
Year to date:	67,073	0	1,052	32.31

Notes:

a = Leakage is fluid pumped from the leak detection sump as recorded by LRI staff.

**Table 2. Water Level Elevations - January 22, 2020  
Semi - Annual Monitoring Event No. 1 - January 2020  
Hidden Valley Landfill, Pierce County, Washington**

Location	Well Casing Elevation	Depth to Water (FT)	Water Level Elevation
<b>Shallow Perched Aquifer</b>			
MW-10S	463.65	*	--
MW-11S	520.03	94.20	425.83
MW-12S	493.41	66.25	427.16
MW-13S	452.26	26.45	425.81
MW-14S	481.30	54.67	426.63
MW-15S	506.78	77.24	429.54
MW-17S	555.97	130.71	425.26
MW-18S	541.43	131.80	409.63
MW-19S	489.23	55.45	433.78
MW-29S	450.65	18.67	431.98
FMMW-1	546.03	146.57	399.46
FMMW-2	539.96	138.46	401.50
BC-4S	530.25	126.52	403.73
<b>Upper Regional Aquifer</b>			
MW-10D	464.09	32.55	431.54
MW-11D	520.10	94.38	425.72
MW-11D(2)	519.53	94.85	424.68
MW-12D	493.49	69.22	424.27
MW-13D	450.19	26.92	423.27
MW-14D	481.39	53.72	427.67
MW-15D	509.09	82.65	426.44
MW-18D	541.79	132.69	409.10
MW-19D	489.35	66.66	422.69
MW-22U	549.17	137.34	411.83
<b>Lower Regional Aquifer</b>			
MW-14R	480.26	122.02	358.24
MW-20R	472.90	110.74	362.16
MW-22L	548.95	143.34	405.61
MW-26R	485.40	70.65	414.75
BC-4R	530.31	161.87	368.44

Updated well casing elevation with survey data from 5/23/2018

\* = Depth to water unavailable at this time due to blockage in well

-- = No data available



**Table 3. Field Parameters**  
**Semi - Annual Monitoring Event No. 1 - January 2020**  
**Hidden Valley Landfill, Pierce County, Washington**

Location	Sample Number	Date	Method	pH	Specific Conductivity	Temperature
Units				(SU)	( $\mu$ S/cm)	(°C)
HVL Cleanup Level				—	700	—
WAC 173-200				6.5-8.5	700 <sup>b</sup>	—
<b>Shallow Perched Aquifer</b>						
(BG) MW-10S	HVL-012120-12	1/21/20	DP	<b>6.38</b>	269	13.2
MW-11S	HVL-012220-18	1/22/20	DP	<b>5.94</b>	244	13.5
MW-12S	HVL-012120-02	1/21/20	DB	<b>5.59</b>	296	15.2
MW-13S	HVL-012120-10	1/21/20	DP	<b>6.12</b>	210	12.2
MW-14S	HVL-012220-19	1/22/20	DP	<b>5.90</b>	113	11.3
MW-15S	HVL-012120-09	1/21/20	DP	<b>5.73</b>	362	13.6
MW-17S	HVL-012120-05	1/21/20	DP	<b>5.89</b>	478	17.3
MW-18S	HVL-012220-16	1/22/20	DP	<b>6.28</b>	383	14.0
MW-29S	HVL-012120-06	1/21/20	DP	<b>6.41</b>	283	13.5
FMMW-1	HVL-012120-01	1/21/20	DP	<b>6.15</b>	285	13.7
FMMW-2	HVL-012120-03	1/21/20	DP	<b>5.99</b>	438	14.7
<b>Upper Regional Aquifer</b>						
(BG) MW-10D	HVL-012220-15	1/22/20	DP	<b>6.25</b>	265	12.2
MW-11D(2)	HVL-012220-22	1/22/20	DP	6.86	210	13.2
MW-12D	HVL-012120-04	1/21/20	DP	6.79	330	15.8
MW-13D	HVL-012120-08	1/21/20	DP	<b>6.49</b>	280	13.2
MW-14D	HVL-012220-21	1/22/20	DP	<b>6.24</b>	219	11.6
MW-15D	HVL-012120-07	1/21/20	DP	<b>6.47</b>	309	12.7
MW-18D	HVL-012220-14	1/22/20	DP	6.85	250	14.6
<b>Lower Regional Aquifer</b>						
MW-14R	HVL-012120-11	1/21/20	DP	6.86	104	10.5
MW-20R	HVL-012220-17	1/22/20	DP	6.70	102	9.7
MW-26R	HVL-012320-27	1/23/20	DP	6.77	211	10.6

**Notes:**

- b = Secondary Drinking Water Standard
- BG = Background
- °C = degrees Celsius
- DP = dedicated bladder-pump
- DB = disposable bailer
- $\mu$ S/cm = microsiemens per centimeter
- = not analyzed or not applicable

**Table 4. Inorganic Parameters**  
**Semi - Annual Monitoring Event No. 1 - January 2020**  
**Hidden Valley Landfill, Pierce County, Washington**

Location	Alkalinity, Total	Ammonia	Chloride	Nitrate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Total Suspended Solids
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Units	5.0	0.1	0.2-0.6	0.2-0.45	0.2-0.5	10	1.0	4.0
HVL Cleanup Level	—	—	250	10	250	500	—	—
WAC 173-200 Criteria	—	—	250 <sup>b</sup>	10 <sup>a</sup>	250 <sup>b</sup>	500 <sup>b</sup>	—	—
<b>Shallow Perched Aquifer</b>								
(BG) MW-10S	100	*	11	1.3	11	160	1.1	*
MW-11S	62	*	19	3.8	9.1	170	*	*
MW-12S	22	*	6.5	<b>22 H</b>	5.9	240	1.2	*
MW-13S	64	*	15	1.3	9.5	150	*	*
MW-14S	41	*	2.7	1.6	5.1	86	1.8	*
MW-15S	110	3.7	12	9.1	5.6	200	1.4	*
MW-17S	170	6.0	11	10	5.4	270	1.7	*
MW-18S	140	*	18	4.9	9.7	230	1.2	*
MW-29S	110	*	10	0.33	15	180	1.2	*
FMMW-1	110	*	13	0.90	13	170	*	*
FMMW-2	120	*	20	<b>13 H</b>	8.7	270	1.2	*
<b>Upper Regional Aquifer</b>								
(BG) MW-10D	110	*	8.9	1.3	11	160	1.0	*
MW-11D(2)	83	*	5.8	1.8	9.0	140	*	6.4
MW-12D	160	*	9.4	0.93	6.8	200	*	*
MW-13D	100	*	13	1.0	12	170	*	*
MW-14D	89	3.1	6.2	*	7.9	130	2.0	*
MW-15D	130	*	9.4	0.66	11	180	*	*
MW-18D	100	*	6.7	1.6	7.8	160	*	*
<b>Lower Regional Aquifer</b>								
MW-14R	48	*	1.6	*	3.6	100	*	*
MW-20R	47	*	1.6	*	3.1	93	*	*
MW-26R	94	0.14	4.6	*	10	130	*	*

**Notes:**

Parameter concentrations that are greater than cleanup levels are shown in **bold**

Analyses performed by TestAmerica in Denver, Colorado

H = Parameter analyzed outside specified holding time

mg/L = milligrams per liter

\* = not reported at or above the MRL (Method Reporting Limit)

— = not analyzed or not applicable

**Table 5. Dissolved Metals  
Semi - Annual Monitoring Event No. 1 - January 2020  
Hidden Valley Landfill, Pierce County, Washington**

<b>Location</b>	<b>Iron</b>	<b>Manganese</b>	<b>Calcium</b>	<b>Magnesium</b>	<b>Potassium</b>	<b>Sodium</b>
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MRL	0.036-0.18	0.001	0.2	0.1	2.0	1.0
HVL Cleanup Level	0.30	0.05	—	—	—	—
WAC 173-200 Criteria	0.30 <sup>b</sup>	0.05 <sup>b</sup>	—	—	—	—
<b>Shallow Perched Aquifer</b>						
(BG) MW-10S	*	*	31	10	2.3	7.6
MW-11S	*	*	20	6.1	5.2	14
MW-12S	*	0.0089	21	6.2	9.9	16
MW-13S	*	*	19	5.7	3.5	13
MW-14S	*	0.017	9.9	3.2	2.3	5.7
MW-15S	*	<b>1.2</b>	27	8.8	11	18
MW-17S	*	<b>1.2</b>	33	11	17	26
MW-18S	*	*	32	10	9.9	25
MW-29S	*	<b>0.61</b>	24	7.3	3.7	23
FMMW-1	*	*	24	7.1	4.0	23
FMMW-2	*	*	34	11	12	25
<b>Upper Regional Aquifer</b>						
(BG) MW-10D	*	*	30	10	2.1	7.7
MW-11D(2)	*	*	20	9.0	2.4	7.7
MW-12D	*	*	30	12	3.7	19
MW-13D	*	*	27	10	3.5	13
MW-14D	0.24	<b>1.1</b>	16	5.1	6.5	10
MW-15D	*	0.028	27	12	3.4	20
MW-18D	*	*	23	9.6	3.1	11
<b>Lower Regional Aquifer</b>						
MW-14R	*	<b>0.18</b>	8.3	5.0	2.4	5.1
MW-20R	*	*	7.8	4.2	2.2	5.4
MW-26R	0.14	<b>0.42</b>	20	9.1	2.3	6.3

**Notes:**

Parameter concentrations that are greater than site cleanup levels or WAC 173-200 criteria are shown in **bold**

Analyses performed by TestAmerica in Denver, Colorado

b = Secondary Drinking Water Standard (concentrations measured as total metals)

BG = Background

mg/L = milligrams per liter

\* = not reported at or above the MRL (Method Reporting Limit)

— = not analyzed or not applicable

**Table 6. Volatile Organic Compounds  
Semi - Annual Monitoring Event No. 1 - January 2020  
Hidden Valley Landfill, Pierce County, Washington**

<b>Location</b>	<b>Carbon Disulfide</b>	<b>Tetrachloroethene</b>
Units	µg/L	µg/L
MRL	0.5	0.5
HVL Cleanup Level	—	—
WAC 173-200 Criteria	—	0.80
<b>Shallow Perched Aquifer</b>		
(BG) MW-10S	*	*
MW-11S	*	*
MW-12S	*	*
MW-13S	*	*
MW-14S	*	*
MW-15S	*	*
MW-17S	*	*
MW-18S	*	*
MW-29S	*	*
FMMW-1	*	*
FMMW-2	*	*
<b>Upper Regional Aquifer</b>		
(BG) MW-10D	*	*
MW-11D(2)	0.57 B	<b>1.1</b>
MW-12D	*	*
MW-13D	*	*
MW-14D	0.57 B	*
MW-15D	*	0.64
MW-18D	*	*
<b>Lower Regional Aquifer</b>		
MW-14R	*	*
MW-20R	*	*
MW-26R	*	*
<b>Quality Control Samples</b>		
Field Blank	*	*
Trip Blank	0.57	*

**Notes:**

Parameter concentrations that are greater than cleanup levels are shown in **bold**

Analyses performed by TestAmerica in Denver, Colorado

Volatile organic compounds not listed were not present at concentrations exceeding the MRL

B = compound was found in the trip blank and the sample

BG = Background

µg/L = micrograms per liter

\* = not reported at or above the MRL (Method Reporting Limit)

— = not analyzed or not applicable

**Table 7. Duplicate Sample Evaluation  
Semi - Annual Monitoring Event No. 1 - January 2020  
Hidden Valley Landfill, Pierce County, Washington**

<b>Parameter</b>	<b>MRL</b>	<b>MW-11S</b>	<b>MW-11S (Duplicate)</b>	<b>RPD (%)</b>
<b>Dissolved Metals (mg/L)</b>				
Calcium	0.2	20	19	5.1
Magnesium	0.1	6.1	6.1	0.0
Potassium	2.0	5.2	5.2	0.0
Sodium	1.0	14	14	0.0
<b>Inorganic Parameters (mg/L)</b>				
Alkalinity	10.0	62	62	0.0
Chloride	0.6	19	20	5.1
Nitrate	0.2	3.8	3.8	0.0
Sulfate	0.5	9.1	9.1	0.0
Total Dissolved Solids	10	170	160	6.1

**Notes:**

Analysis performed by TestAmerica, Arvada, Colorado

Analytes not listed were not present at concentrations exceeding the MRL

RPD = relative percent difference

mg/L = milligrams per liter

\*= RPD based on result as compared to the Reporting Limit (RL) for a non-detection in the compared sample

**Table 8. Water Supply Wells  
Semi - Annual Monitoring Event No. 1 - January 2020  
Hidden Valley Landfill, Pierce County, Washington**

Parameter	Units	MRL	Corliss	Paul Bunyan
<b>Field Parameters</b>				
pH	SU	—	6.53	6.38
Specific Conductivity	µS/cm	—	243	285
Temperature	°C	—	8.6	11.0
<b>Volatile Organic Compounds</b>				
Carbon Disulfide	µg/L	0.5	0.57 B	*
<b>Metals (total)</b>				
Arsenic	mg/L	0.005	*	*
Iron	mg/L	0.18	*	*
Manganese	mg/L	0.001	0.0020	0.0011
Zinc	mg/L	0.01	*	0.020
<b>Inorganic Parameters</b>				
Chemical Oxygen Demand	mg/L	8.7	27	*
Chloride	mg/L	0.6	5.7	7.0
Nitrate	mg/L	0.2	1.3	2.3
Sulfate	mg/L	0.5	13	11
<b>Other</b>				
Color	PCU	5.0	5.0	5.0

**Notes:**

- Analyses performed by TestAmerica in Denver, Colorado.
- Analytes not listed were not present at concentrations exceeding the MRL.
- Color reported in color units
- °C = degrees Celsius
- B = compound was found in the trip blank and the sample
- mg/L = milligrams per liter
- PCU = platinum-cobalt units
- SU = Standard Units
- µS/cm = microsiemens per centimeter
- µg/L = micrograms per liter
- \* = not reported at or above the MRL (Method Reporting Limit)
- = Not Applicable

**Table 9. Cation-Anion Balance**  
**Semi - Annual Monitoring Event No. 1 - January 2020**  
**Hidden Valley Landfill, Pierce County, Washington**

Cations	mg/L				mg/L				mg/L				% of Total						
	Ca	Mg	K	Na	Total	Ca	Mg	K	Na	Total	Ca	Mg	K	Na	Total	Ca	Na+K	Ca	Mg
MW-10S	31	10	2.3	7.6	50.90	1.55	0.82	0.06	0.33	2.76	1.4	56			30				
MW-11S	20	6.1	5.2	14	45.30	1.00	0.50	0.13	0.61	2.24	33	45			22				
MW-12S	21	6.2	9.9	16	53.10	1.05	0.51	0.25	0.70	2.51	38	42			20				
MW-13S	19	5.7	3.5	13	41.20	0.95	0.47	0.09	0.57	2.07	32	46			23				
MW-14S	9.9	3.2	2.3	5.7	21.10	0.49	0.26	0.06	0.25	1.06	29	46			25				
MW-15S	27	8.8	11	18	64.80	1.35	0.72	0.28	0.78	3.14	34	43			23				
MW-17S	33	11	17	26	87.00	1.65	0.91	0.44	1.13	4.12	38	40			22				
MW-18S	32	10	9.9	25	76.90	1.60	0.82	0.25	1.09	3.76	36	42			22				
MW-29S	24	7.3	3.7	23	58.00	1.20	0.60	0.09	1.00	2.89	38	41			21				
FMW-1	24	7.1	4.0	23	58.10	1.20	0.58	0.10	1.00	2.88	38	42			20				
FMW-2	34	11	12	25	82.00	1.70	0.91	0.31	1.09	4.00	35	42			23				
MW-10D	30	10	2.1	7.7	49.80	1.50	0.82	0.05	0.33	2.71	14	55			30				
MW-11D(2)	20	9.0	2.4	7.7	39.10	1.00	0.74	0.06	0.33	2.14	19	47			35				
MW-12D	30	12	3.7	19	64.70	1.50	0.99	0.09	0.83	3.41	27	44			29				
MW-13D	27	10	3.5	13	53.50	1.35	0.82	0.09	0.57	2.83	23	48			29				
MW-14D	16	5.1	6.5	10	37.60	0.80	0.42	0.17	0.44	1.82	33	44			23				
MW-15D	27	12	3.4	20	62.40	1.35	0.99	0.09	0.87	3.29	39	41			30				
MW-18D	23	9.6	3.1	11	46.70	1.15	0.79	0.08	0.48	2.50	22	46			32				
MW-14R	8.3	5.0	2.4	5.1	20.80	0.41	0.41	0.06	0.22	1.11	26	37			37				
MW-20R	7.8	4.2	2.2	5.4	19.60	0.39	0.35	0.06	0.22	1.03	28	38			34				
MW-26R	20	9.1	2.3	6.3	37.70	1.00	0.75	0.06	0.27	2.08	16	48			36				

Anions	mg/L				mg/L				% of Total				Total Ions (meq/L)	Cation - Anion Balance	Applicable Ratio (%)	Ratio Exceedance
	Alk	Cl	NO <sub>3</sub>	SO <sub>4</sub>	Total	Alk	Cl	NO <sub>3</sub>	SO <sub>4</sub>	Total	Alk	Cl				
MW-10S	120	11	1.3	11	143.30	1.97	0.31	0.02	0.23	2.53	12	78	9	4.38	5	-
MW-11S	74.4	19	3.8	9.1	106.30	1.22	0.54	0.06	0.19	2.01	27	61	9	5.55	10	-
MW-12S	26.4	6.5	2.2	5.9	60.80	0.43	0.18	0.35	0.12	1.09	17	40	11	36.0	10	Exceeds
MW-13S	76.8	15	1.3	9.5	102.60	1.26	0.42	0.02	0.20	1.90	22	66	10	4.31	10	-
MW-14S	49.2	2.7	1.6	5.1	58.60	0.81	0.08	0.03	0.11	1.01	8	80	10	2.37	10	-
MW-15S	132	12	9.1	5.6	158.70	2.16	0.34	0.15	0.12	2.77	12	78	4	5.90	5	Exceeds
MW-17S	204	11	10	5.4	230.40	3.35	0.31	0.16	0.11	3.93	8	85	3	8.05	5	-
MW-18S	168	18	4.9	9.7	200.60	2.76	0.51	0.08	0.20	3.54	14	78	6	7.30	5	-
MW-29S	132	10	0.33	15	157.33	2.16	0.28	0.01	0.31	2.76	10	78	11	5.66	5	-
FMW-1	132	13	0.9	13	158.90	2.16	0.37	0.01	0.27	2.82	13	77	10	1.20	5	-
FMW-2	144	20	1.3	8.7	185.70	2.36	0.56	0.21	0.18	3.32	17	71	5	9.31	5	Exceeds
MW-10D	99.6	8.9	1.3	11	153.20	2.16	0.25	0.02	0.23	2.67	9	81	9	0.80	5	-
MW-11D(2)	99.6	5.8	1.8	9.0	116.20	1.63	0.16	0.03	0.19	2.01	8	81	9	2.94	10	-
MW-12D	192	9.4	0.93	6.8	209.13	3.15	0.27	0.01	0.14	3.57	7	88	4	2.36	5	-
MW-13D	120	13	1.0	12	146.00	1.97	0.37	0.02	0.25	2.60	14	76	10	4.15	5	-
MW-14D	106.8	6.2	0.2	7.9	121.10	1.75	0.17	0.00	0.16	2.09	8	84	8	7.01	10	-
MW-15D	156	9.4	0.66	11	177.06	2.56	0.27	0.01	0.23	3.06	9	84	7	3.60	5	-
MW-18D	120	6.7	1.6	7.8	136.10	1.97	0.19	0.03	0.16	2.34	8	84	7	3.11	10	-
MW-14R	57.6	1.6	0.2	3.6	63.00	0.94	0.05	0.00	0.07	1.07	4	88	7	1.89	10	-
MW-20R	56.4	1.6	0.2	3.1	61.30	0.92	0.05	0.00	0.06	1.04	4	89	6	2.06	10	-
MW-26R	112.8	4.6	0.2	10	127.60	1.85	0.13	0.00	0.21	2.19	6	84	9	2.60	10	-

Notes:  
mg/L = milligrams per liter  
meq/L = milliequivalents per liter  
Total alkalinity concentration, reported as calcium carbonate (CaCO<sub>3</sub>), is converted to the bicarbonate (HCO<sub>3</sub><sup>-</sup>) ion by multiplying by a factor of 1.2.  
Cation / anion balance equation is the equivalent percent difference in cations minus anions divided by the sum of cations and anions [(cations-anions)/(anions+cations)\*100].  
The MLR was used for analytes that were non-detect  
A 10% difference threshold is used if the total cation-anion sums are < 5.0 meq/liter.  
A 5% difference threshold is used if the total cation-anion sums are > or = to 5.0 meq/liter.

**Table 10. Leachate Monitoring Results  
Semi - Annual Monitoring Event No. 1 - January 2020  
Hidden Valley Landfill, Pierce County, Washington**

Parameters	MRL	Leachate-East Area	Leachate-Side Slope	Leak Detection-Side Slope	Hydraulic Gradient Control System
<b>Volatile Organics (µg/L)</b>					
1,4-Dichlorobenzene	0.5-0.8	1.4	*	*	*
Acetone	10.0	28	17	*	*
Benzene	0.5-0.8	1.1	2.8	*	*
Carbon disulfide	0.5-0.84	3.0	6.4	*	*
cis-1,2-Dichloroethene	0.5-0.75	*	*	1.7	*
Ethylbenzene	1.00	1.9	1.8	*	*
m-Xylene & p-Xylene	0.5-0.77	4.9	1.0	*	*
o-Xylene	0.5-0.95	2.4	*	*	*
Toluene	0.5-0.85	5.4	3.2	0.93	*
<b>Total Metals (mg/L)</b>					
Calcium	0.2-0.78	99	17	40	100
Iron	0.18	2.2	1.0	0.9	1.9
Magnesium	0.1-0.26	52	28	25	26
Manganese	0.0	1.6	0.10	0.23	4.3
Potassium	2-2.4	270	500	300	3.7
Sodium	1-3.7	2,600	6,100	4,200	19
<b>Inorganic Parameters (mg/L)</b>					
Alkalinity	10	4,700	7,800	5,500	410
Ammonia	0.1-2.2	360	460	230	*
Chloride	0.2-300	2,500	7,600	5,500	3.7
Nitrate as N	0.5-0.9	1.8	* H	55 H	*
Sulfate	0.2-5.0	89	590	610	13
Total Dissolved Solids	10-470	9,600	24,000	17,000	450
Total Organic Carbon - Quad	1-69	500	730	360	2.1
Total Suspended Solids	4.0	19	7.6	7.2	4.4
<b>Field Parameters</b>					
Dissolved Oxygen (mg/L)	—	1.45	2.14	2.00	5.92
Oxidation Reduction Potential (mV)	—	-149.0	-273.5	-86.7	173.4
pH (SU)	—	7.42	8.37	8.15	6.74
Specific Conductivity (µS/cm)	—	15,608	32,722	25,629	763
Temperature (°C)	—	12.2	20.9	22.8	12.8
Turbidity (NTU)	—	24.6	9.4	12.9	25.7

**Notes:**

Analyses performed by TestAmerica, Arvada, Colorado

Volatile organic compounds not listed were not present at concentrations exceeding the MRL

°C = degrees celcius

H = Sample was prepped or analyzed beyond specified holding time

mg/L = milligrams per liter

mV = millivolts

NTU = Nephelometric Turbidity Units

SU = standard units


µg/L = micrograms per liter

µS/cm = microsiemens per centimeter

— = not applicable or not analyzed

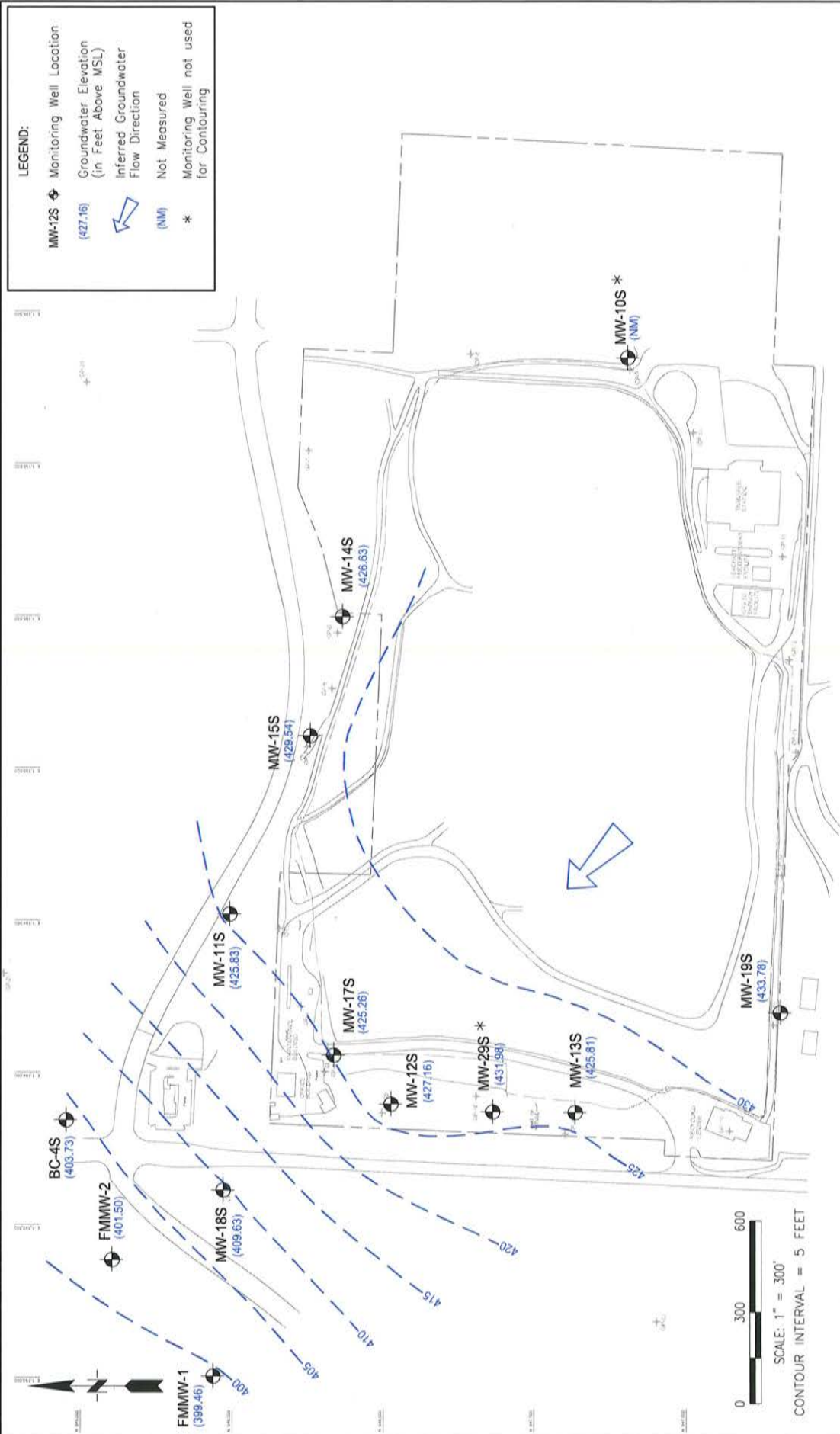
\* = not reported at or above the MRL (Method Reporting Limit)





## Groundwater Potentiometric Surface Maps





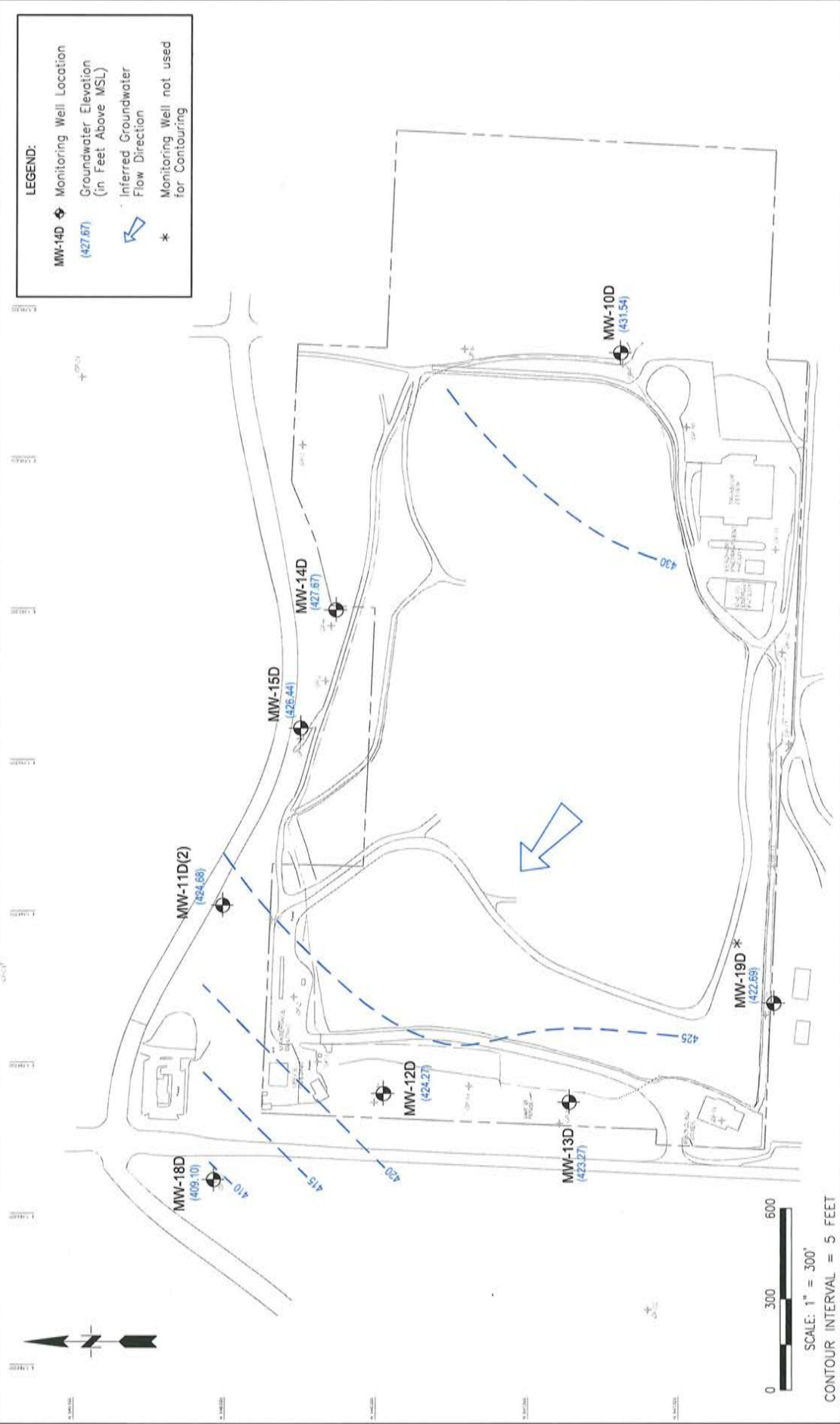
**LEGEND:**

	Monitoring Well Location
	Groundwater Elevation (in Feet Above MSL)
	Inferred Groundwater Flow Direction
	Not Measured
	Monitoring Well not used for Contouring

0 300 600  
 SCALE: 1" = 300'  
 CONTOUR INTERVAL = 5 FEET

**SCS ENGINEERS**  
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 2445 40th Avenue NE, Suite 107  
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 (425) 746-4600 FAX: (425) 746-6747

PROJECT NO. 04220002.03		ISSUE	SG
SCALE AS SHOWN	DATE	APRIL 2020	
FIGURE 1	FIGURE	1	
SHALLOW PERCHED AQUIFER WATER LEVEL MAP JANUARY 22, 2020 HIDDEN VALLEY LANDFILL PIERCE COUNTY, WASHINGTON			



**LEGEND:**

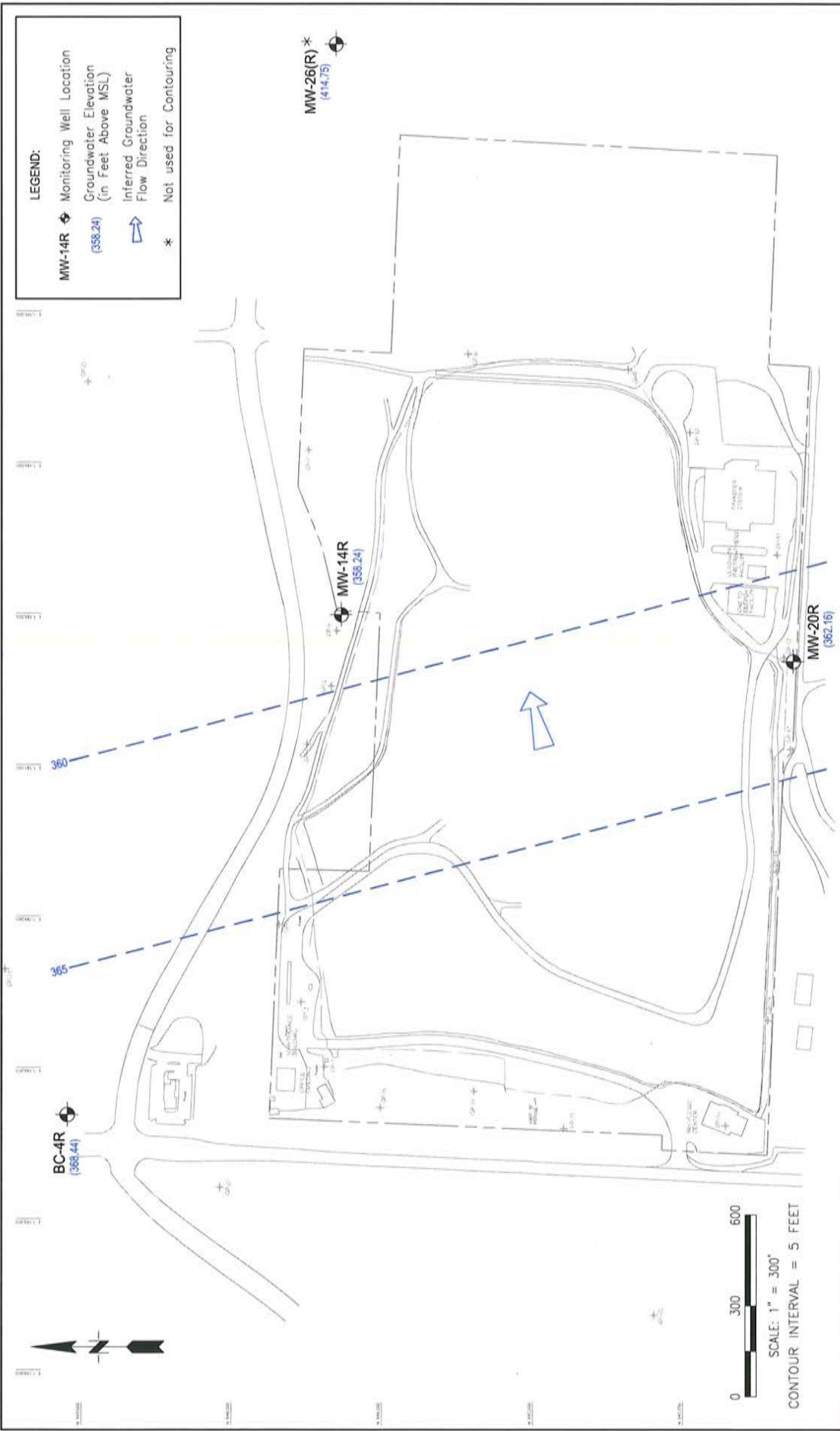
- MW-14D Monitoring Well Location
- (427.67) Groundwater Elevation (in Feet Above MSL)
- Inferred Groundwater Flow Direction
- \* Monitoring Well not used for Contouring



SCALE: 1" = 300'  
 CONTOUR INTERVAL = 5 FEET

**SCS ENGINEERS**  
 Environmental Consultants and Contractors  
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 Bellevue, Washington 98005  
 (425) 746-4600 FAX: (425) 746-6747

PROJECT NO. 04220002.03		DATE APRIL 2020
SCALE AS SHOWN	SG	FIGURE 2
DRAWN BY KGL	CHECKED BY KGL	FIGURE 2
DATE FILED	APPROVED BY KGL	FIGURE 2
UPPER REGIONAL AQUIFER WATER LEVEL MAP JANUARY 22, 2020 HIDDEN VALLEY LANDFILL PIERCE COUNTY, WASHINGTON		



**LEGEND:**

MW-14R	Monitoring Well Location
(358.24)	Groundwater Elevation (in Feet Above MSL)
↑	Inferred Groundwater Flow Direction
*	Not used for Contouring

MW-26(R)\*  
(414.75)

<b>SCS ENGINEERS</b> Environmental Consultants and Contractors 1405 146th Avenue NE, Suite 107 Bellevue, WA 98005 (425) 746-4600 FAX: (425) 746-6747		PROJECT NO: 04220002.03 SCALE: AS SHOWN DATE: FIGURE 3		DATE: APRIL 2020 FIGURE: 3	
LOWER REGIONAL AQUIFER WATER LEVEL MAP JANUARY 22, 2020 HIDDEN VALLEY LANDFILL PIERCE COUNTY, WASHINGTON		DESIGNED BY: SG DRAWN BY: KGL CHECKED BY: KGL			



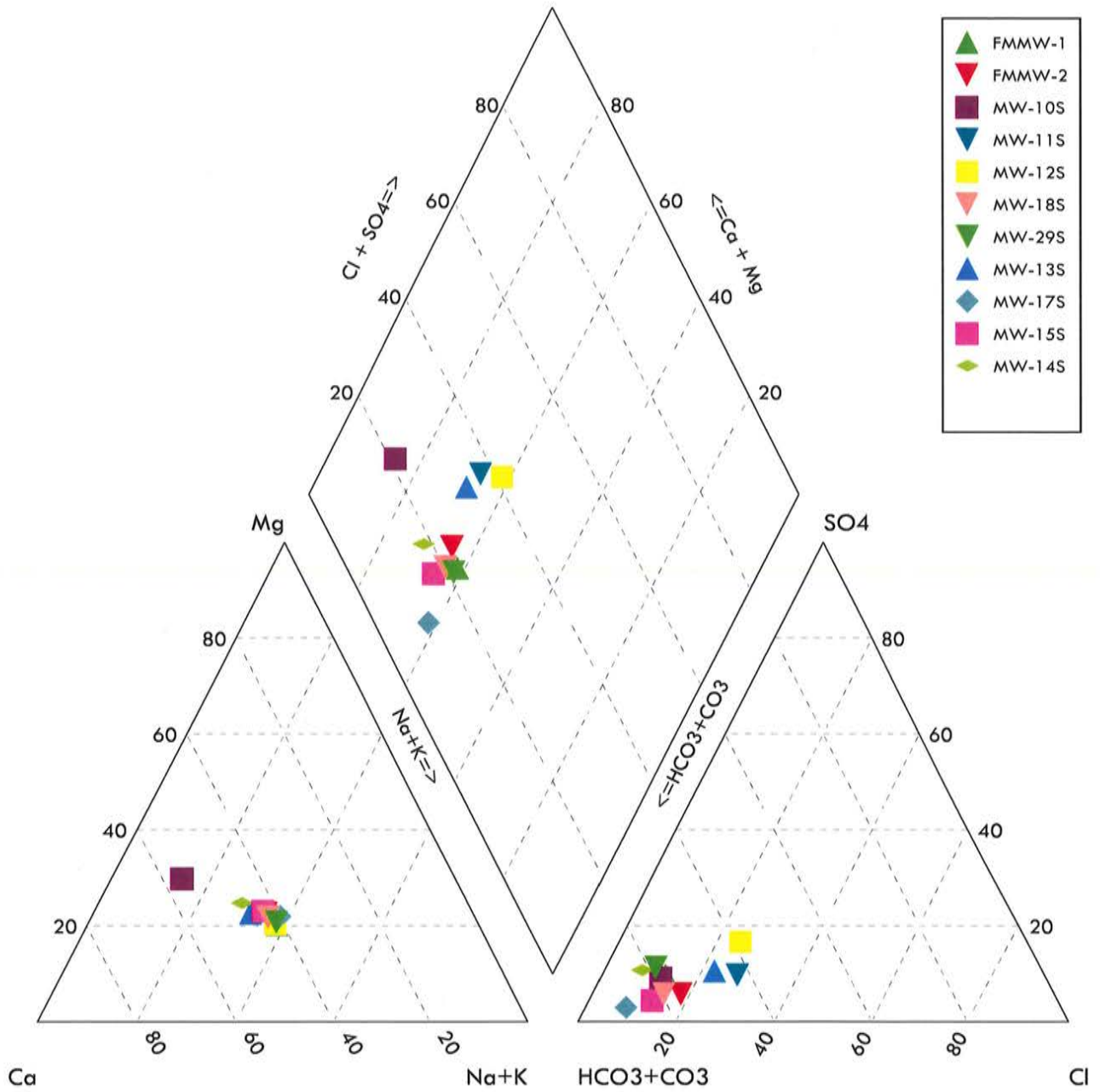


# Trilinear Diagrams





### Shallow Aquifer - Semi-annual Event No. 1, 2020



DESCRIPTION: Trilinear Diagram: Shallow Aquifer - Semi-annual Event No. 1, 2020

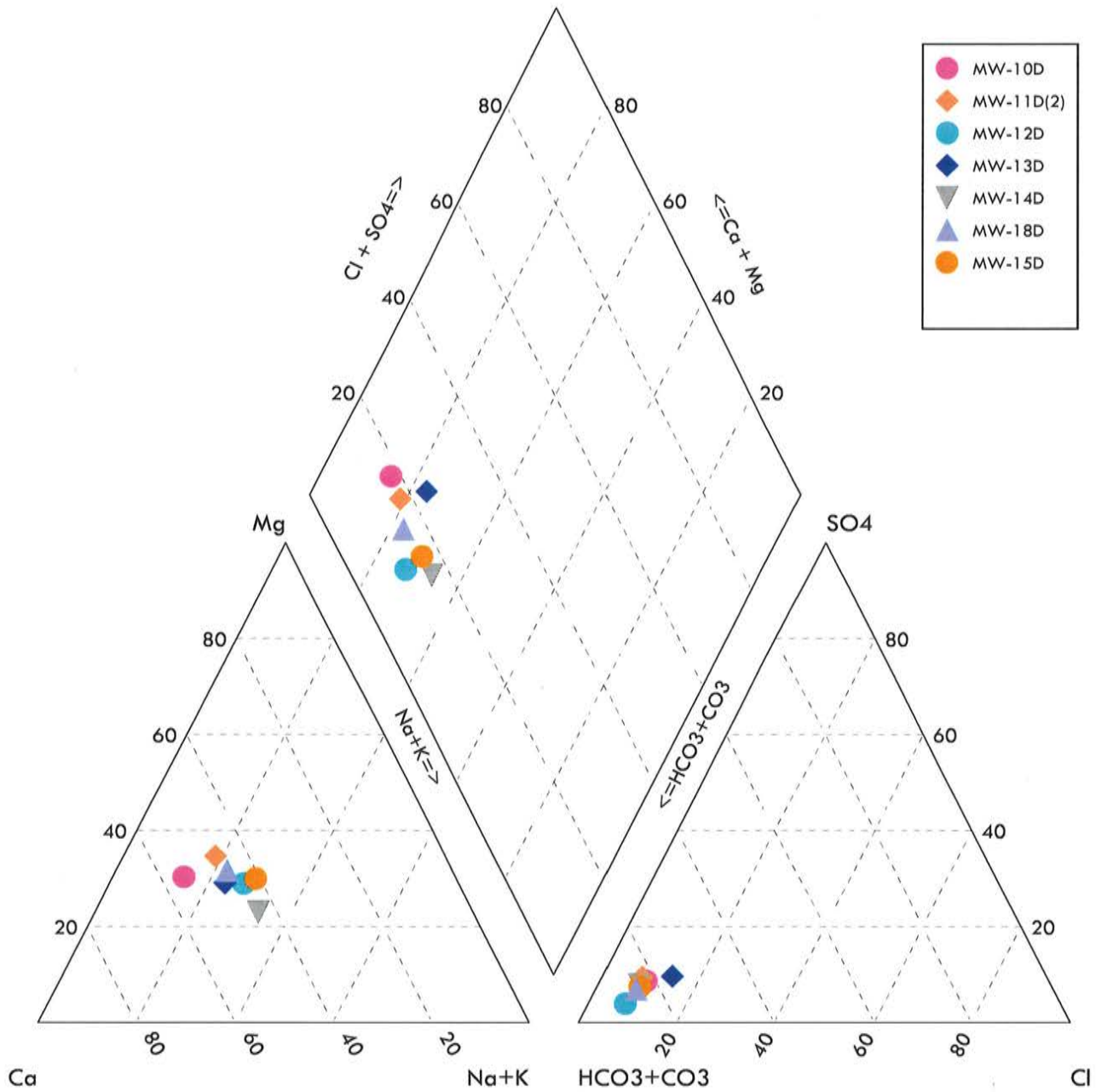
PROJECT: Hidden Valley Landfill

PROJECT NO: 04220002.03

CLIENT: LRI Hidden Valley

DATE: April 2020

Upper Regional Aquifer - Semi-annual No. 1, 2020



DESCRIPTION: Trilinear Diagram: Upper Regional Aquifer - Semi-annual Event No. 1, 2020

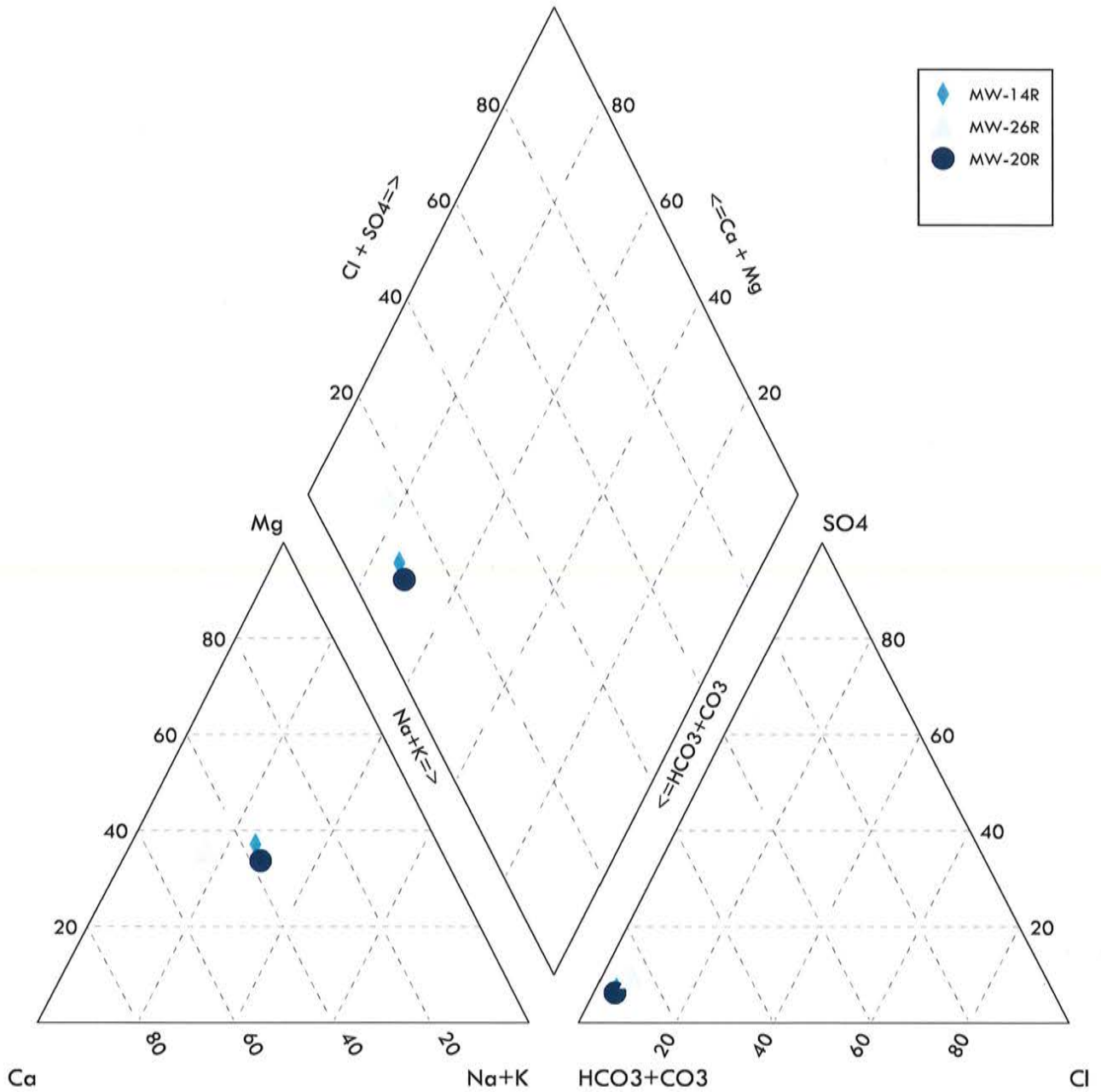
PROJECT: Hidden Valley Landfill

PROJECT NO: 04220002.03

CLIENT: LRI Hidden Valley

DATE: April 2020

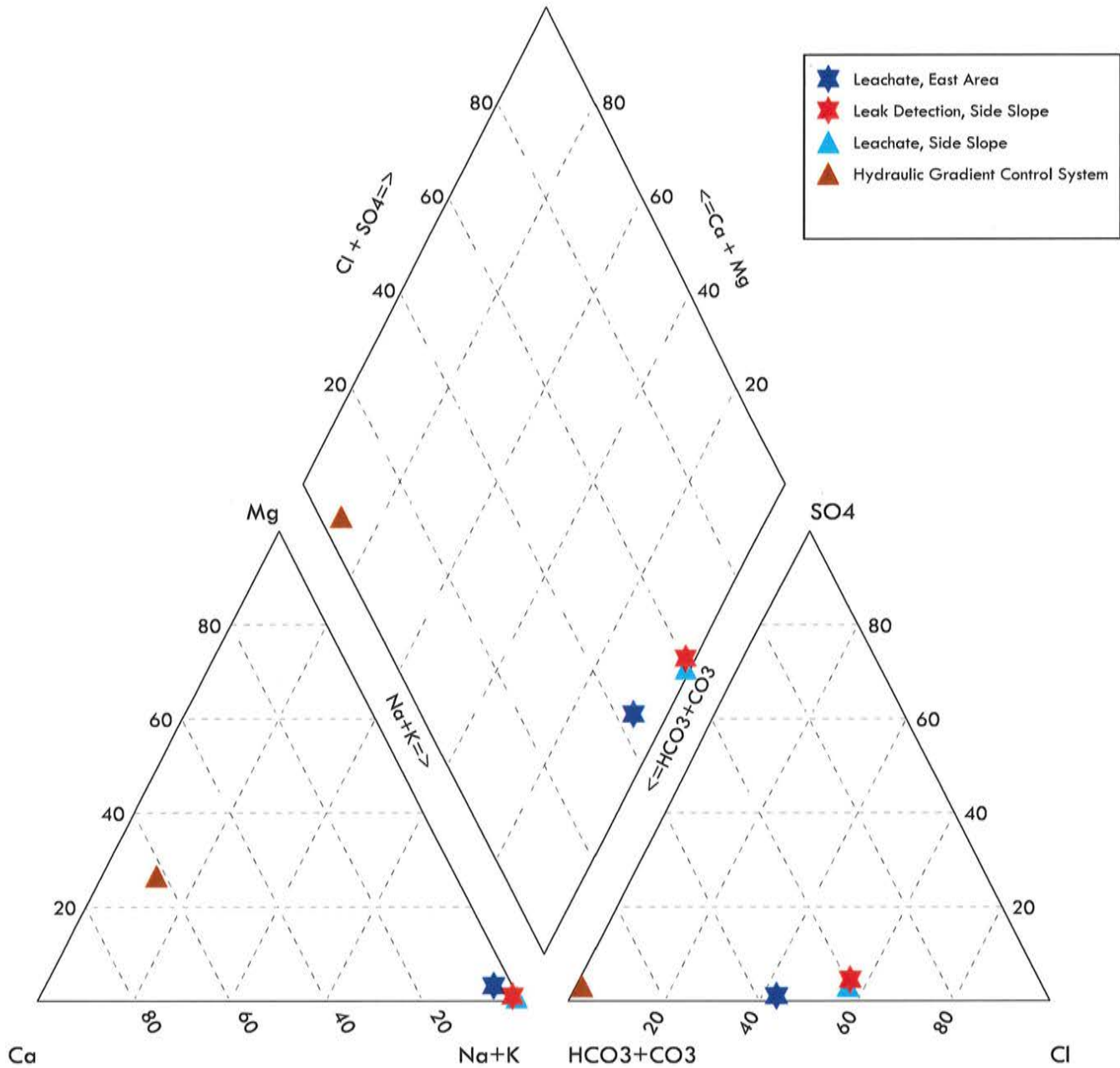
Lower Regional Aquifer - Semi-annual Event No. 1, 2020



DESCRIPTION: Trilinear Diagram: Lower Regional Aquifer - Semi-annual Event No. 1, 2020

	PROJECT: Hidden Valley Landfill	PROJECT NO: 04220002.03
	CLIENT: LRI Hidden Valley	DATE: April 2020

### Leachate and Leak Detection Locations - Semi-annual Event No. 1, 2020




DESCRIPTION: Trilinear Diagram: Leachate and Leak Detection Locations - Semi-annual Event No. 1, 2020

PROJECT: Hidden Valley Landfill

PROJECT NO: 04220002.03

CLIENT: LRI Hidden Valley

DATE: April 2020



## Field Sampling Data Sheets



January 24, 2020  
File No. 04220002.02

Subject: **Semi – Annual Groundwater Monitoring Event No. 1 – January 2020**  
**Hidden Valley Landfill, Pierce County, Washington**

**NOTES/SAMPLE DECODING:**

Event Dates: January 21-23 & 31, 2020

Field Staff: Sam Graber and Travis Berndahl

- This event served as the annual sampling event.
- Dedicated pumps were used for purging and sampling wells MW-10S, MW-10D, MW-11S, MW-11D(2), MW 12D, MW-13S, MW-13D, MW-14S, MW-14D, MW-14R, MW-15S, MW-15D, MW-17S, MW-18S, MW-18D, MW-20R, MW-26R, MW-29S, FMMW-1, and FMMW-2.
- A disposable bailer was used to sample monitoring well MW-12S.
- Water supply wells Corliss and Paul Bunyan were collected as grab samples.
- A field duplicate sample was collected at well MW-11S.
- A complete round of waters levels was completed on January 22, 2020.
- The quick connect and associated coupling was replaced at wells MW-11S, MW-11D(2), and MW-26R during this monitoring event.
- Field water quality meters were calibrated daily prior to sampling.
- A field blank sample was collected using deionized water provided by TestAmerica Laboratories in Tacoma, Washington.

Sample Date	Sample Number	Well ID
1/21/20	HVL-012120-01	FMMW-1
1/21/20	HVL-012120-02	MW-12S
1/21/20	HVL-012120-03	FMMW-2
1/21/20	HVL-012120-04	MW-12D
1/21/20	HVL-012120-05	MW-17S
1/21/20	HVL-012120-06	MW-29S
1/21/20	HVL-012120-07	MW-15D
1/21/20	HVL-012120-08	MW-13D
1/21/20	HVL-012120-09	MW-15S
1/21/20	HVL-012120-10	MW-13S
1/21/20	HVL-012120-11	MW-14R
1/21/20	HVL-012120-12	MW-10S
1/22/20	HVL-012220-13	Water Supply Well, Corliss

1/22/20	HVL-012220-14	MW-18D
1/22/20	HVL-012220-15	MW-10D
1/22/20	HVL-012220-16	MW-18S
1/22/20	HVL-012220-17	MW-20R
1/22/20	HVL-012220-18	MW-11S
1/22/20	HVL-012220-19	MW-14S
1/22/20	HVL-012220-20	MW-11S (DUP)
1/22/20	HVL-012220-21	MW-14D
1/22/20	HVL-012220-22	MW-11D(2)
1/23/20	HVL-012320-23	Leachate – East Area (Cell 1 Leachate)
1/23/20	HVL-012320-24*	Side Slope Leak Detection (Cell 2 Leak Detection)
1/23/20	HVL-012320-25*	Leachate – Side Slope (Cell 2 Leachate)
1/23/20	HVL-012320-26	Hydraulic Gradient Control System (Cell 1 Leak Detection)
1/23/20	HVL-012320-27	MW-26R
1/23/20	HVL-012320-28	QC, F-Blank
1/23/20	HVL-012320-29	Water Supply Well, P. Bunyan
1/31/20	HVL-013120-01	Leachate – Side Slope (Cell 2 Leachate) RESAMPLE
1/31/20	HVL-013120-02	Side Slope Leak Detection (Cell 2 Leak Detection) RESAMPLE

\* = Samples “-24” and “-25” were not analyzed at the lab due to incorrect sample location



**SCS ENGINEERS**  
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**Groundwater Sampling Data Sheet**

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: FMWJ-1  
 Sample ID: HVL-01 21 20-01  
 Date: 1/21/2020  
 Weather: Sunny

Sampling Method: Dedicated  
 Meter: MP-20 (YSI)  
 DTW: 146.61  
 TOS: /  
 Intake: /  
 BOS: /  
 Total Depth: /

CONTROL SETTINGS:  
 1.75" QED SamplePro  
 Bail: 1 ft water = 0.62L  
 One Well Volume (liters): 9  
 Discharge: 6  
 Pressure: 80  
 Flow: 100 ml/min

Peristaltic: /  
 Grab: /  
 Other: /  
 Flow Setting: /

Filtered?  N  
 Locked?  Y  
 Water in Protector?  Y  
 Damage?  Y

Sample Containers:  
 1000 ml Poly  
 500 ml HNO3 x2  
 500 ml H2SO4 x2  
 125 ml NaOH

250 ml Poly  
 40 ml VOA x3  
 1000 ml Amber

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
926		13.36	274	8.63	5.65	315.7		
931		13.58	283	7.07	6.00	310.3		
939		13.56	285	7.01	6.07	311.5		
937		13.59	283	6.99	6.10	312.8		
990		13.64	283	6.98	6.13	314.4		
943		13.66	285	7.00	6.14	315.3		
946		13.68	285	6.96	6.15	316.7		

Notes / Observations (color, odor, anomalies, etc):

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Travis Bemdahl  
 Printed Name: \_\_\_\_\_  
 Signature: 



# Groundwater Sampling Data Sheet

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: MW-125  
 Sample ID: HVL-01 2 | 20-07  
 Date: 1/21/2020  
 Weather: cloudy

Sampling Method: DTW  
 Meter: MP-20 (YSI)  
 Refill: /  
 Discharge: /  
 Pressure: /  
 Flow: /

1.75" QED SamplerPro (Ball)  
 1 ft water = 0.62L  
 Ore Well Volume (liters): 6L  
 Total Volume Bailed (liters): 18L  
 Peristaltic: /  
 Grab: /  
 Other: /

Filtered?  N  
 Locked?  N  
 Water in Protector?  N  
 Damage?  N


Sample Containers:  
 1000 ml Poly  
 500 ml HNO3 x2  
 500 ml H2SO4 x2  
 125 ml NaOH

250 ml Poly  
 40 ml VOA x3 x6  
 1000 ml Amber

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
9:45		15.2	292	3.02	5.45	236.6	16.1	
9:55		16.0	292	2.99	5.60	229.3	8.3	
10:05		15.2	296	3.14	5.59	230.9	4.6	

Notes / Observations (color, odor, anomalies, etc):  
 9.75 x 202 = 6L

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Sam Baber  
 Printed Name: \_\_\_\_\_  
 Signature: 

# Groundwater Sampling Data Sheet

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: FMVW-2  
 Sample ID: HVL-01 21 20-03  
 Date: 1/21/2020  
 Weather: Cloudy

Sampling Method: Dedicated  
 Meter: MP-20 (YSI)  
 1.75" QED SamplePro Bail  
 1 ft water = 0.62L  
 One Well Volume (liters): 10  
 Total Volume Bailed (liters): 80  
 Refill: 5  
 Discharge: 5  
 Pressure: 80  
 Flow: 100 ml/min

Peristaltic Grab  
 Other: Flow  
 Setting: \_\_\_\_\_

CONTROL SETTINGS:  
 DTW: 138.51  
 TOS: /  
 Intake: /  
 BOS: /  
 Total Depth: /

Water in Protector? Y (N)  
 500 ml Poly: 250 ml Poly  
 500 ml H2SO4: 40 ml VOA  
 125 ml NaOH: 1000 ml Amber

Filtered? (Y) N  
 Locked? Y (N)  
 1000 ml Poly: 125 ml Poly  
 500 ml HNO3: x2  
 125 ml NaOH: x6

Notes / Observations (color, odor, anomalies, etc):

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1020		14.22	327	2.94	6.43	330.3		
1025		14.07	388	5.43	6.36	330.3		
1028		14.48	420	2.98	6.14	332.9		
1031		14.70	436	1.85	6.04	331.4		
1034		14.63	437	1.69	6.02	330.5		
1037		14.60	438	1.69	6.00	329.4		
1040		14.74	458	1.84	5.99	327.7		2.04

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Travis Bendah  
 Printed Name: \_\_\_\_\_  
 Signature: 

**SCS ENGINEERS**  
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**Groundwater Sampling Data Sheet**

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: MW-12D  
 Sample ID: HVL-01 21 20- 01  
 Date: 11/21/2020  
 Weather: Cloudy

Sampling Method: Dedicated  
 Meter: MP-20  
 DTW: 69.22  
 TOS: \_\_\_\_\_  
 Intake: \_\_\_\_\_  
 BOS: \_\_\_\_\_  
 Total Depth: \_\_\_\_\_

CONTROL SETTINGS:  
 Refill: 10  
 Discharge: 5  
 Pressure: 60  
 Flow: 300 ml/min

1.75' QED SamplePro  
 Bail: 1 ft water = 0.62L  
 One Well Volume (liters): \_\_\_\_\_  
 Total Volume Bailed (liters): \_\_\_\_\_

Peristaltic  
 Grab  
 Other

Filtered?  Y  N  
 Locked?  Y  N  
 Water in Protector?  Y  N  
 Damage?  Y  N

Sample Containers:  
 1000 ml Poly  
 500 ml HNO3 x2  
 500 ml H2SO4 x2  
 125 ml NaOH

250 ml Poly  
 40 ml VOA x3  
 1000 ml Amber

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1035		12.8	316	8.41	6.71	236.2	3.3	
1040		15.8	329	2.53	6.43	224.2	3.4	
1043		15.8	330	2.31	6.60	220.8	3.4	
1046		15.8	331	2.19	6.73	216.2	3.2	
1049		15.8	330	2.13	6.77	213.6	3.3	
1052		15.8	330	2.10	6.78	212.2	3.2	
1055		15.8	330	2.08	6.79	211.8	3.1	

Notes / Observations (color, odor, anomalies, etc):

Stabilization Parameters: pH/DO ± 0.2, Sp.C ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Sam Graber  
 Printed Name: \_\_\_\_\_  
 Signature: \_\_\_\_\_

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 Bellevue, WA 98005

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**Groundwater Sampling Data Sheet**

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: MW-175  
 Sample ID: HVL-012.i 20.05  
 Date: 1/21/2020  
 Weather: Cloudy

Sampling Method:  Dedicated  
 Meter: MP-20 (YSI)  
 CONTROL SETTINGS:  
 Refill: 8  
 Discharge: 7  
 Pressure: 50  
 Flow: 250 ml / min

1.75" QED SamplePro Bail  
 1 ft. water = 0.62L  
 One Well Volume (liters):  
 Total Volume Bailed (liters):

Peristaltic Grab  
 1L = 0.26 gallons  
 Other:  
 Flow Setting:

DTW: 130.63  
 TOS: /  
 Intake: /  
 BOS: /  
 Total Depth: /

Water in Protector?  Y  N  
 500 ml Poly  
 500 ml H2SO4 x2  
 125 ml NaOH

Damage?  N  
 125 ml Poly  
 1000 ml Amber

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1119		14.52	385	7.01	6.41	324.3		
1124		16.69	459	1.38	6.09	327.6		
1127		17.03	475	0.78	6.05	323.7		
1130		17.19	479	0.63	5.96	320.6		
1133		17.24	479	0.54	5.93	318.0		
1136		17.23	479	0.50	5.91	315.1		
1139		17.32	478	0.46	5.89	312.2		

Notes / Observations (color, odor, anomalies, etc):

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Travis Berndahl  
 Printed Name: \_\_\_\_\_  
 Signature: 

**Groundwater Sampling Data Sheet**

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: MW-295  
 Sample ID: HVL-01 21 20-06  
 Date: 1/21/2020  
 Weather: cloudy

Sampling Method: Dedicated  
 Meter: MP-20  
 DTW: 18.86  
 TOS: /  
 Intake: /  
 BOS: /  
 Total Depth: /

CONTROL SETTINGS:  
 Refill: 8  
 Discharge: 7  
 Pressure: 20  
 Flow: 350 ml/min

1.75" QED SamplePro | Bail | Penstaltic | Grab | Other  
 1 ft water = 0.62L | One Well Volume (liters) | Other: | Flow Setting: |  
 Total Volume Bailed (liters)

Filtered?  Y  N  
 Locked?  Y  N  
 Water in Protector?  Y  N  
 Damage?  Y  N

Sample Containers:  
 1000 ml Poly: 500 ml HNO3 x2 | 500 ml H2SO4 x2 | 40 ml VOA x3 | 1000 ml Amber  
 125 ml NaOH

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1130		13.9	282	2.78	6.46	210.4	800	
1145		13.5	281	1.28	6.40	116.8		
1150		13.5	281	1.19	6.41	114.3		
1153		13.5	282	1.17	6.41	113.8		
1156		13.5	283	1.15	6.41	112.2	8.8	
1159		13.5	283	1.15	6.41	111.8	8.5	

Notes / Observations (color, odor, anomalies, etc):

brown spange like material in water  
 Cleared up prior to sampling

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Sam Grab  
 Printed Name: \_\_\_\_\_  
 Signature: *[Signature]*

# Groundwater Sampling Data Sheet

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: MW-15D  
 Sample ID: HVL-01 21 20-07  
 Date: 1/21/2020  
 Weather: Rainy

DTW: 82.62  
 TOS: /  
 Intake: /  
 BOS: /  
 Total Depth: /

Sampling Method: Dedicated  
 Meter: MP-20  
 YSI

CONTROL SETTINGS:  
 Refill: /  
 Discharge: /  
 Pressure: /  
 Flow: /

1.75" QED SamplePro Ball  
 1 ft. water = 0.62L  
 One Well Volume (liters): 8  
 Total Volume Bailed (liters): 60  
 300 ml/min

Peristaltic Grab Other  
 1L = 0.26 gallons

Notes / Observations (color, odor, anomalies, etc):

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1222		12.95	268	7.70	6.74	278.2		
1227		12.76	306	1.15	6.54	284.9		
1230		12.76	308	0.72	6.50	286.8		
1233		12.74	309	0.63	6.48	287.1		
1236		12.71	309	0.57	6.48	286.6		
1239		12.72	309	0.54	6.47	286.3		
1242		12.72	309	0.52	6.47	286.0		

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Travis Bendahl  
 Printed Name: \_\_\_\_\_  
 Signature: \_\_\_\_\_



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**Groundwater Sampling Data Sheet**

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: MW-13D  
 Sample ID: HVL-01 21 20-08  
 Date: 1/21/2020  
 Weather: Rainy

Sampling Method:  Dedicated  Peristaltic  Grab  Other  
 Meter: MP-20 (YSI)  
 DTW: 26.97  
 TOS: \_\_\_\_\_  
 Intake: \_\_\_\_\_  
 BOS: \_\_\_\_\_  
 Total Depth: \_\_\_\_\_

CONTROL SETTINGS:  
 Refill: 8.5  
 Discharge: 6.5  
 Pressure: 50  
 Flow: 300 mL/min

1.75" QED SamplePro Bail  
 1 ft. water = 0.62L  
 One Well Volume (liters): \_\_\_\_\_  
 Total Volume Bailed (liters): \_\_\_\_\_

Filtered?  N  
 Locked?  N  
 Water in Protector?  N  
 Damage?  N

Sample Containers:  
 1000 ml Poly  
 500 ml HNO3 x2  
 500 ml H2SO4 x2  
 40 ml VOA x3  
 125 ml Poly  
 1000 ml Amber

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1232		12.6	300	5.08	6.72	166.0	5.8	
1237		13.5	281	3.90	6.45	167.2	3.8	
1240		13.4	280	3.83	6.47	169.0	3.6	
1243		13.4	280	3.74	6.49	171.6	3.5	
1246		13.5	280	3.72	6.49	172.8	3.4	
1249		13.5	280	3.72	6.49	174.1	3.4	
1252		13.2	280	3.73	6.49	174.8	3.3	

Notes / Observations (color, odor, anomalies, etc):  
 XE

Stabilization Parameters pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Sam Fisher Printed Name  
 Signature: [Signature]

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**Groundwater Sampling Data Sheet**

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: MW-15S  
 Sample ID: HVL-01 21 20-09  
 Date: 1/21/2020  
 Weather: Partly Cloudy

Filtered?  N  
 Locked?  N  
 Sample Containers: 1000 ml Poly  
 500 ml HNO3 x2  
 125 ml NaOH

Water in Protector?  N  
 500 ml Poly  
 500 ml H2SO4 x2  
 125 ml NaOH

Sampling Method: DTW  
 Meter: MP-20  
 YSI

77.22  
 TOS  
 Intake  
 BOS  
 Total Depth

Dedicated  
 CONTROL SETTINGS:  
 Refill 8  
 Discharge 7  
 Pressure 60  
 Flow 300  
 1.75" QED SamplePro  
 Bail  
 1 ft water = 0.62L  
 One Well Volume (liters)  
 Total Volume Bailed (liters)

Peristaltic  
 Grab  
 Other

1L = 0.26 gallons  
 Other:  
 Flow  
 Setting:

Notes / Observations (color, odor, anomalies, etc):

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1302		12.48	338	6.12	6.35	304.1		
1307		13.60	365	0.42	5.78	316.5		
1310		13.63	363	0.37	5.75	315.7		
1313		13.55	363	0.34	5.74	314.5		
1316		13.51	363	0.32	5.73	313.6		
1319		13.51	363	0.36	5.73	312.1		
1322		13.52	362	0.34	5.73	310.8		

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Travis Bernatchi  
 Printed Name  
 Signature

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**Groundwater Sampling Data Sheet**

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: MW-135  
 Sample ID: HVL-0121-20-10  
 Date: 1/21/2020  
 Weather: Fair

Sampling Method: Dedicated  
 Meter: MP-20 (YSI)  
 DTW: 26.53  
 TOS: /  
 Intake: /  
 BOS: /  
 Total Depth: /

CONTROL SETTINGS:  
 Refill: 8  
 Discharge: 7  
 Pressure: 40  
 Flow: 300 mL/min

1.75" QED SamplePro  
 Bail: 1 ft water = 0.62L  
 One Well Volume (liters):  
 Total Volume Bailed (liters):

Peristaltic  
 Grab  
 Other:

Other: Flow Setting:

Filtered?  N  
 Locked?  N  
 Water in Protector?  N  
 Damage?  N

Sample Containers:  
 500 ml HNO3 x2  
 500 ml H2SO4 x2  
 40 ml VOA x3  
 125 ml Poly  
 1000 ml Poly  
 500 ml Poly  
 1000 ml Amber

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1310		11.7	237	7.57	6.43	172.2		
1315		12.2	210	6.52	6.11	189.3		
1318		12.2	210	6.51	6.11	191.2		
1321		12.2	210	6.50	6.12	192.9		
1324		12.2	210	6.49	6.12	194.9		
1327		12.1	210	6.49	6.12	196.3		
1330		12.2	210	6.49	6.12	197.4		

Notes / Observations (color, odor, anomalies, etc):

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Sam Grab  
 Printed Name: \_\_\_\_\_  
 Signature: \_\_\_\_\_

# Groundwater Sampling Data Sheet

Project #: 04220002.02      Site: Hidden Valley LF      Dedicated?       1.75" QED SamplePro      Bail      Peristaltic      Grab      Other

Well ID: MW-14R      Meter: MP-20      1 ft water = 0.62L      One Well Volume (liters)      Other:      Flow

Sample ID: HVL-01 21 20-11       YSI      Refill      Discharge      Pressure      Total Volume Bailed (liters)      Setting:

Date: 1/21/2020      Total Depth      Damage?      Y       N

Weather: Cloudy      Water in Protector?      Y       N

Sample Containers:      1000 ml Poly      500 ml Poly      500 ml HNO3      x2      500 ml H2SO4      x2      125 ml Poly      125 ml Amber

125 ml NaOH

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1355		11.15	104	8.25	6.36	291.3		
1900		10.58	110	5.01	6.58	152.8		
1903		10.49	110	0.41	6.69	149.5		
1906		10.47	106	0.35	6.73	145.5		
1909		10.46	103	0.34	6.76	139.1		
1912		10.58	103	0.31	6.84	112.3		
1915		10.50	104	0.33	6.86	99.0	1.24	

Notes / Observations (color, odor, anomalies, etc):

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Travis Berndahl      Signature: [Signature]

# Groundwater Sampling Data Sheet

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: MW-105  
 Sample ID: HVL-0121 20-12  
 Date: 11/21/2020  
 Weather: Cloudy / Windy

Sampling Method: Dedicated  
 Meter: MP-20  
 DTW: NA  
 TOS: /  
 Intake: /  
 BOS: /  
 Total Depth: /

CONTROL SETTINGS:  
 Refill: 9  
 Discharge: 6  
 Pressure: 30  
 Flow: 380 ml/min

1.75" QED SamplePro Bail  
 1 ft water = 0.62L  
 One Well Volume (liters):  
 Total Volume Bailed (liters):

Peristaltic Grab Other

1L = 0.26 gallons

Other: Flow Setting:

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1415		13.1	269	6.96	6.27	194.2	3.9	
1420		13.2	269	6.35	6.32	192.8	3.6	
1423		13.2	269	6.25	6.37	190.2	3.4	
1426		13.2	269	6.24	6.37	191.0	3.3	
1429		13.2	269	6.24	6.38	191.8	3.3	
1432		13.2	269	6.24	6.38	192.1	3.4	
1435		13.2	269	6.24	6.38	192.5	3.3	

Notes / Observations (color, odor, anomalies, etc):  
 \* obstructed.

Filtered?  N  
 Locked?  N  
 Sample Containers: 1000 ml Poly, 500 ml HNO3 x2, 500 ml H2SO4 x2, 500 ml VOA x3, 1000 ml Amber, 125 ml NaOH

Water in Protector?  N  
 500 ml Poly, 40 ml VOA, 1000 ml Amber

Damage?  N  
 125 ml Poly, 1000 ml Amber

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Sam Graber  
 Printed Name: \_\_\_\_\_  
 Signature: \_\_\_\_\_

# Groundwater Sampling Data Sheet

Project #: 04220002.02	Dedicated	1.75" QED SamplePro	Bail	Peristaltic	Grab	Other
Site: Hidden Valley LF	Sampling Method:		CONTROL SETTINGS:			
Well ID: <u>W5-Cortis</u>	Meter:	MP-20	1 ft water = 0.62L	Cne Well Volume (liters)	Other:	Flow
Sample ID: <u>HVL-01 22-20-13</u>	DTW	<input checked="" type="checkbox"/>	1L = 0.26 gallons	Total Volume Bailed (liters)	Setting:	
Date: <u>1/22/2020</u>	TOS	<input checked="" type="checkbox"/>				
Weather: <u>Cloudy</u>	Intake	<input checked="" type="checkbox"/>				
Filtered? <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	BOS	<input checked="" type="checkbox"/>				
Locked? <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	Total Depth					
Sample Containers:	Water in Protector? <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	Damage? <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N				
1000 ml Poly	500 ml Poly	125 ml Poly				
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6				
125 ml NaOH		1000 ml Amber				

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
920		8.59	243	6.19	6.53	299.3	1.66	

Notes / Observations (color, odor, anomalies, etc):

Purged for 10 min.

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Travis Bemdahl  
 Printed Name

[Signature]  
 Signature

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**Groundwater Sampling Data Sheet**

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: MW-185 18D  
 Sample ID: HVL-01 22-20-14  
 Date: 11/22/2020  
 Weather: cloudy

Filtered?  Y  N  
 Locked?  Y  N  
 1000 ml Poly  
 500 ml HNO3 x2  
 125 ml NaOH

Water in Protector?  Y  N  
 500 ml Poly  
 500 ml H2SO4 x2  
 125 ml NaOH

Sampling Method: DTW  
 Meter: MP-20  
 YSI

CONTROL SETTINGS:  
 Refill: 8  
 Discharge: 7  
 Pressure: 35  
 Flow: 120

1.75" QED SamplePro  
 Bail: 1 ft water = 0.62L  
 One Well Volume (liters):  
 Total Volume Bailed (liters):

Peristaltic  
 Grab  
 Other

1L = 0.26 gallons  
 Other:  
 Flow  
 Setting:

Notes / Observations (color, odor, anomalies, etc):

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
945		11.4	247	8.5	6.66	233.3	6.4	
950		12.8	249	6.81	6.71	220.8	5.0	
955		13.5	249	5.11	6.79	215.7	3.8	
956		14.5	250	4.09	6.84	204.9	2.9	
958		14.6	251	4.05	6.95	200.3	2.9	
1002		14.5	251	4.04	6.55	199.0	2.8	
1005		14.6	250	4.03	6.85	197.5	2.8	

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Sam Greber

Printed Name

Signature

*Sam Greber*

# Groundwater Sampling Data Sheet

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: MW-10D  
 Sample ID: HVL-01 22-20-1S  
 Date: 1/22/2020  
 Weather: Rainy

Filtered?  N  
 Locked?  N  
 Sample Containers: 1000 ml Poly  
 500 ml HNO3 x2  
 125 ml NaOH

Water in Protector?  Y  N  
 500 ml Poly  
 500 ml H2SO4 x2  
 125 ml Poly

Sampling Method: DTW  
 Meter: MP-20  
 YSI

Dedicated  
 1.75" QED SamplePro  
 Bail  
 1 ft. water = 0.62L  
 One Well Volume (liters)  
 Total Volume Bailed (liters)

CONTROL SETTINGS:  
 Refill  
 Discharge  
 Pressure  
 Flow

9  
 6  
 40  
 250 ml/min

Peristaltic  
 Grab  
 Other

1L = 0.26 gallons  
 Other:  
 Flow  
 Setting:

Notes / Observations (color, odor, anomalies, etc):

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1003		12.26	191	6.10	6.49	306.1		
1008		12.51	181	5.52	6.38	309.7		
1011		12.39	202	5.43	6.31	312.3		
1014		12.36	236	5.24	6.26	314.6		
1017		12.32	259	5.10	6.25	314.6		
1020		12.25	264	5.17	6.25	315.4		
1023		12.22	265	4.98	6.25	315.4		

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Travis Bendahl

Signature: [Signature]



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**Groundwater Sampling Data Sheet**

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: MW-185  
 Sample ID: HVL-01 22-20-16  
 Date: 1/12/2020  
 Weather: Rainy

Sampling Method: Dedicated  
 Meter: MP-20  
 DTW: 131.00  
 TOS: \_\_\_\_\_  
 Intake: \_\_\_\_\_  
 BOS: \_\_\_\_\_  
 Total Depth: \_\_\_\_\_

CONTROL SETTINGS:  
 Refill: 14  
 Discharge: 6  
 Pressure: 90  
 Flow: 800 ml/min

1.75" QED SamplerPro  
 Bail  
 Peristaltic  
 Grab  
 Other

1 ft water = 0.62L  
 One Well Volume (liters)  
 Total Volume Bailed (liters)

Filtered?  N  
 Locked?  N  A  
 Water in Protector?  N  
 Damage?  Y  N

Sample Containers:  
 1000 ml Poly  
 500 ml HNO3 x2  
 500 ml H2SO4 x2  
 40 ml VOA x3  
 125 ml Poly  
 1000 ml Amber

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1035		11.4	322	6.82	6.78	129.3	3.6	
1040		12.9	355	5.41	6.31	193.5	3.5	
1043		13.5	382	5.05	6.26	196.0	3.5	
1046		13.7	382	4.95	6.27	196.8	3.4	
1049		13.9	383	4.86	6.27	197.5	3.3	
1052		14.0	383	4.86	6.27	197.8	3.3	
1055		14.0	383	4.86	6.28	198.4	3.2	

Notes / Observations (color, odor, anomalies, etc):

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Sam Graber  
 Printed Name

Signature: [Signature]

# Groundwater Sampling Data Sheet

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: MW-208  
 Sample ID: HVL-01 22 20-17  
 Date: 1/22/2020  
 Weather: Rainy

Sampling Method:  Dedicated  
 Meter: MP-20  
 DTW: 110.74  
 TOS: /  
 Intake: /  
 BOS: /  
 Total Depth: /

CONTROL SETTINGS:  
 1.75" QED SamplePro Bail  
 1 ft water = 0.62L  
 One Well Volume (liters): 8  
 Discharge Pressure: 70  
 Refill Flow: 300 gpm  
 Total Volume Bailed (liters): 70  
 Other: Flow Setting: /

Water in Protector? Y  N  
 1000 ml Poly  
 500 ml HNO3 x2  
 125 ml NaOH

Water in Poly  
 250 ml Poly  
 40 ml VOA x3 x6  
 125 ml Poly  
 1000 ml Amber

Filtered?  N  
 Locked? Y  N

Damage? Y  N

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1103		10.92	96	3.90	6.56	312.4		
1108		10.10	107	2.93	6.62	370.5		
1111		9.91	95	2.32	6.65	309.5		
1114		9.87	102	2.16	6.66	309.0		
1117		9.83	101	1.96	6.67	302.1		
1120		9.81	97	1.84	6.69	307.5		
1123		9.74	102	1.75	6.70	306.4		

Notes / Observations (color, odor, anomalies, etc):  
 water level  
 MW-195 = 55.45  
 MW-19D = 66.66  
 MW-175 = 130.7  
 MW-155 = 77.24  
 MW-15D = 82.65

Stabilization Parameters: pH/DO ± 0.2, Sp.C. ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Travis Berndahl  
 Printed Name: \_\_\_\_\_  
 Signature: \_\_\_\_\_

**SCS ENGINEERS**  
 2405 140th ave NE #107  
 Bellevue, WA 98005

(425) 746-4600

**Groundwater Sampling Data Sheet**

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: MW-115  
 Sample ID: HVL-01 22-20-18  
 Date: 11/26/2020  
 Weather: Rainy  
 Filtered?  Y  N Locked?  Y  N  
 Sample Containers: 1000 ml Poly 500 ml HNO3 x2 500 ml H2SO4 x2 500 ml Poly 500 ml VOA x3 x6 125 ml Poly 1000 ml Amber 125 ml NaOH

Sampling Method: Dedicated  
 Meter: MP-20  
 DTW: 91.20  
 TOS: /  
 Intake: /  
 BOS: /  
 Total Depth: /  
 Water in Protector?  Y  N  
 Damage?  Y  N

CONTROL SETTINGS:  
 1.75" QED SamplePro Bail 1 ft water = 0.62L  
 One Well Volume (liters) 8  
 Refill 7  
 Discharge 60  
 Total Volume Bailed (liters) 300 ml/min  
 Pressure  
 Flow

Peristaltic Grab Other  
 1L = 0.26 gallons  
 Other:  
 Flow  
 Setting:

Notes / Observations (color, odor, anomalies, etc):  
 Repaired switch correct.  
 + Fluorescence.  
 Dup Collected as HVL-012220-20 @ 1315

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1240		13.3	244	4.59	5.72	193.6	8.2	
1245		13.4	244	4.73	5.94	191.8		
1248		13.4	244	4.68	5.99	193.0	3.3	
1251		13.4	244	4.65	5.94	193.6		
1254		13.4	244	4.61	5.94	192.8	3.1	
1257		13.5	244	4.60	5.94	199.7		
1300		13.5	244	4.53	5.94	200.3	3.0	

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Sam Graber

Signature: [Handwritten Signature]

Printed Name

**SCS ENGINEERS**

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**Groundwater Sampling Data Sheet**

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: MW-145  
 Sample ID: HVL-01 22-20-19  
 Date: 1/22/2020  
 Weather: Partly  
 Filtered?  N  
 Locked?  N  
 1000 ml Poly  
 500 ml HNO3 x2  
 125 ml NaOH

Sampling Method: DTW  
 Meter: MP-20  
 (YS)  
 54.67  
 TOS  
 Intake  
 BOS  
 Total Depth

Water in Protector?  N  
 500 ml Poly  
 500 ml H2SO4 x2  
 125 ml NaOH

Dedicated  1.75" QED SamplePro Bail  
 Peristaltic Grab Other  
 1L = 0.26 gallons  
 One Well Volume (liters) 10.5  
 Discharge 4.5  
 Pressure 45  
 Flow 3.50 ml/min  
 Total Volume Bailed (liters)

Notes / Observations (color, odor, anomalies, etc):

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1223		11.25	140	5.42	6.30	326.4		
1228		11.30	110	1.25	6.08	328.7		
1231		11.30	108	0.96	5.99	327.1		
1234		11.31	112	0.91	5.96	326.5		
1237		11.31	115	0.89	5.92	325.9		
1240		11.31	109	0.84	5.91	324.9		
1243		11.28	113	0.87	5.90	324.0		

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Travis Bemdahl  
 Printed Name

Signature

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(425) 746-4600

## Groundwater Sampling Data Sheet

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: MW-14D  
 Sample ID: HVL-01 22-20-21  
 Date: 1/22/2020  
 Weather: Rainy  
 Filtered?  N  
 Locked?  Y  
 Water in Protector?  Y  
 Sample Containers: 1000 ml Poly, 500 ml HNO3 x2, 125 ml NaOH, 500 ml H2SO4 x2, 40 ml VOA x3, 125 ml Poly, 1000 ml Amber

Sampling Method:  Dedicated  
 Meter: MP-20  
 DTW: 53.72  
 TOS: /  
 Intake: /  
 BOS: /  
 Total Depth: /  
 Damage?  Y  N

CONTROL SETTINGS:  
 1.75" QED SamplePro Bail  
 1 ft water = 0.62L  
 One Well Volume (liters): 9  
 Discharge: 6  
 Pressure: 50  
 Flow: 3000/Min  
 Other: /  
 Flow Setting: /

Peristaltic Grab  
 1L = 0.26 gallons

Notes/Observations (color, odor, anomalies, etc):

water level  
 MW-14R = 122.02  
 MW-13S = 26.45  
 MW-130 = 26.92  
 MW-29S = 18.67  
 BC45 = 126.52  
 BC4R = 161.87

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1307		11.47	244	0.79	6.01	377.8		
1312		11.61	222	0.57	6.16	279.8		
1315		11.60	210	0.48	6.18	245.7		
1318		11.61	211	0.39	6.20	200.8		
1321		11.62	220	0.36	6.22	160.1		
1324		11.62	208	0.35	6.22	135.8		
1325		11.63	219	0.34	6.24	107.1		1.34

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Travis Berndahl

Printed Name

[Signature]  
 Signature

# SCS ENGINEERS

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## Groundwater Sampling Data Sheet

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: MW-11D(2)  
 Sample ID: HVL-01 22-22  
 Date: 1/22/2020  
 Weather: Sunny  
 Filtered?  Y  N  
 Locked?  Y  N  
 Sample Containers: 1000 ml Poly, 500 ml HNO3 x2, 125 ml NaOH  
 500 ml H2SO4 x2, 40 ml VOA, x3, x6, 125 ml Poly, 1000 ml Amber  
 Sampling Method: Dedicated  
 Meter: MP-20  
 1.75" QED SamplePro  
 1 ft water = 0.62L  
 One Well Volume (liters): 0  
 Peristaltic  
 Grab  
 Other  
 CONTROL SETTINGS:  
 Refill: 0  
 Discharge: 7  
 Pressure: 25  
 Flow: 250 ml/min  
 Total Volume Bailed (liters): 250 ml/min  
 Other: Flow Setting: \_\_\_\_\_

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1418		12.0	207	8.5	6.83	172.7	3.1	
1423		12.5	203	7.21	6.34	174.0	10.0	
1426		13.1	210	6.47	6.35	170.5	22.2	
1429		13.1	210	6.44	6.86	169.8	11.2	
1432		13.2	210	6.41	6.87	168.3	9.2	
1435		13.2	210	6.34	6.37	165.6	7.6	
1438		13.2	210	6.38	6.36	168.9	6.6	

Notes / Observations (color, odor, anomalies, etc):

\* flushed -  
 - repaired good contact.

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Sam Graber

Printed Name

Signature



**SCS ENGINEERS**

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**Groundwater Sampling Data Sheet**

Project #: 04220002.02      Site: Hidden Valley LF      Sampling Method: Dedicated      1.75" QED SamplePro      Bail      Peristaltic      Grab      Other

Well ID: Cell 1 Leachate      Meter: MP-20      CONTROL SETTINGS:      1 ft water = 0.62L      1L = 0.26 gallons

Sample ID: HVL-0123 20-23      YSI      Refill      One Well Volume (liters)      Other:      Flow      Setting:

Date: 1/23 / 2020      Discharge      Total Volume Bailed (liters)

Weather:      Pressure      Flow

Filtered?  Y  N      Locked?  Y  N      Water in Protector?  Y  N      Damage?  Y  N

Sample Containers:      1000 ml Poly      500 ml Poly      250 ml Poly      125 ml Poly

500 ml HNO3      x2      500 ml H2SO4      x2      40 ml VOA      x3      x6      1000 ml Amber

125 ml NaOH

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
900		12.29	15608	1.45	7.42	-149.0	24.6	

Notes / Observations (color, odor, anomalies, etc):

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Sam Gaber      Signature: [Signature]

Printed Name

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**Groundwater Sampling Data Sheet**

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: Cell 1 (cell detectors)  
 Sample ID: HVL-01 23 20-26  
 Date: 11/23/2020  
 Weather: Sunny

Sampling Method: Dedicated  
 Meter: MP-20 (YSI)  
 DTW:  TOS:  Intake:  BOS:   
 Total Depth: \_\_\_\_\_

CONTROL SETTINGS:  
 Refill: \_\_\_\_\_ Discharge: \_\_\_\_\_ Pressure: \_\_\_\_\_ Flow: \_\_\_\_\_  
 One Well Volume (liters): \_\_\_\_\_ Total Volume Bailed (liters): \_\_\_\_\_  
 1 ft water = 0.62L  
 1L = 0.26 gallons

Peristaltic ( ) Grab ( ) Other ( )

Filtered?  Y  N  
 Locked?  Y  N  
 Water in Protector?  Y  N  
 Damage?  Y  N

Sample Containers:  
 1000 ml Poly 500 ml Poly 250 ml Poly 125 ml Poly  
 500 ml HNO3 x2 500 ml H2SO4 x2 40 ml VOA x3 x6 1000 ml Amber  
 125 ml NaOH

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1115		12.80	763	5.92	6.74	173.4	25.7	

Notes / Observations (color, odor, anomalies, etc):

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp. ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Sam Ooster  
 Signature: *[Signature]*  
 Printed Name: \_\_\_\_\_



**Groundwater Sampling Data Sheet**

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: VW-26R  
 Sample ID: HVL-0123 20-27  
 Date: 1/23/2020  
 Weather: fair

Sampling Method:  Dedicated  
 Meter: YSI  
 DTW: 70.65  
 TOS: /  
 Intake: /  
 BOS: /  
 Total Depth: /

CONTROL SETTINGS:  
 Refill: 2  
 Discharge: 7  
 Pressure: 70  
 Flow: 300 p.u./min

1.75" QED SamplerPro  
 Bail: 1 ft water = 0.62L  
 Peristaltic  
 Grab  
 Other: \_\_\_\_\_  
 Flow Setting: \_\_\_\_\_

Filtered?  N  
 Locked?  N  
 Water in Protector?  N  
 Damage?  N

Sample Containers:  
 1000 ml Poly  
 500 ml HNO3 x2  
 125 ml NaOH  
 500 ml H2SO4 x2  
 40 ml VOA x3  
 1000 ml Amber  
 250 ml Poly  
 125 ml Poly

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1255		10.58	205	1.44	7.36	216.6		
1300		10.64	212	0.32	6.74	-5.1		
1303		10.64	211	0.29	6.75	-21.0		
1306		10.64	211	0.26	6.75	-42.0		
1309		10.63	215	0.25	6.76	-53.7		
1312		10.63	212	0.20	6.77	-58.5		
1315		10.63	211	0.24	6.77	-63.2		

Notes / Observations (color, odor, anomalies, etc):

\* replaced quick connect.  
 Needs sample tubing

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Sam Baker  
 Signature: [Signature]  
 Printed Name: \_\_\_\_\_

**Groundwater Sampling Data Sheet**

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: Field blank  
 Sample ID: HVL-01 23 20-23  
 Date: 11/23/2020  
 Weather: Sunny  
 Filtered?  Y  N  NA  
 Locked?  Y  N  NA  
 Sample Containers:  
 1000 ml Poly  
 500 ml HNO3 x2  
 125 ml NaOH  
 500 ml H2SO4 x2  
 40 ml VOA x3 x6  
 125 ml Amber  
 Water in Protector?  Y  N  NA  
 250 ml Poly  
 500 ml Poly  
 1000 ml Amber  
 Sampling Method: Dedicated  
 Meter: MP-20  
 YSI  
 DTW  
 TOS  
 Intake  
 BOS  
 Total Depth  
 Water in Protector?  Y  N  NA  
 250 ml Poly  
 40 ml VOA x3 x6  
 1000 ml Amber  
 Damage?  Y  N  NA  
 125 ml Poly  
 1000 ml Amber  
 CONTROL SETTINGS:  
 1.75" QED SamplePro  
 1 ft. water = 0.62L  
 Peristaltic  
 Grab  
 Other  
 1L = 0.26 gallons  
 One Well Volume (liters)  
 Total Volume Bailed (liters)  
 Refill  
 Discharge  
 Pressure  
 Flow  
 Setting :  
 Flow  
 Setting :

TIME	DTW	Temp	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1345		13.78	4	5.77	7.09	-14.2	1.65	

Notes / Observations (color, odor, anomalies, etc):

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Sam Baker  
 Printed Name  
 Signature

**SCS ENGINEERS**  
 2405 140th ave NE #107  
 Bellevue, WA 98005

(425) 746-4600

**Groundwater Sampling Data Sheet**

Project #: 04220002.02      Sampling Method: Dedicated      1.75" QED SamplePro      Bail      Peristaltic      Grab      Other

Site: Hidden Valley LF      Meter: MP-20      1L = 0.26 gallons

Well ID: W5 - Paul Bungen      YSI      One Well Volume (liters)      Other:      Flow

Sample ID: HVL-01 23 20-29      Discharge      Pressure      Setting:

Date: 1/23 / 2020      Total Volume Bailed (liters)

Weather: Very      Total Depth      Flow

Filtered? Y      Locked? Y      Water in Protector? Y N      Damage? Y N      125 ml Poly      1000 ml Amber

Sample Containers:      500 ml HNO3      x2      500 ml H2SO4      x2      40 ml VOA      x3      x6      1000 ml Amber

125 ml NaOH

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1445		10.95	285	5.10	6.38	188.8	1.57	

Notes / Observations (color, odor, anomalies, etc):

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Sam Baker      Printed Name \_\_\_\_\_      Signature [Signature]

# Groundwater Sampling Data Sheet

Project #: 04220002.02  
 Site: Hidden Valley LF  
 Well ID: Side Slope Leachate (Cell 2)  
 Sample ID: HVL-013 (20-01)  
 Date: 1/3/2020  
 Weather: Cloudy  
 Filtered?  Y  N  
 Locked?  Y  N  
 Sample Containers:  
 1000 ml Poly  
 500 ml HNO3 x2  
 125 ml NaOH

Sampling Method: Meter: MP-20  
 DTW  
 TOS  
 Intake  
 BOS  
 Total Depth  
 Water in Protector? Y N  
 500 ml Poly  
 500 ml H2SO4 x2  
 125 ml NaOH

CONTROL SETTINGS:  
 Refill  
 Discharge  
 Pressure  
 Flow

Dedicated 1.75" QED SamplePro Bail  
 1 ft. water = 0.62L  
 One Well Volume (liters)  
 Total Volume Bailed (liters)

Peristaltic  Grab  
 Other  
 1L = 0.26 gallons  
 Other:  
 Flow  
 Setting:

Notes / Observations (color, odor, anomalies, etc):

Switch "Cell", East pipe.  
 Leachate Tank is ~~leak~~ detect.  
 Cell 2 main, East pipe  
 Leachate  
 loosened coupling for sample.

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1030		20.86	52722	2.14	8.37	-273.5	0.17	

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Sam Grabe  
 Printed Name

Signature

**Groundwater Sampling Data Sheet**

Project #: 04220002.02

Site: Hobbs Valley LF

Well ID: Cell 2 leak detect. on

Sample ID: HW-03120-02

Date: 1/31/20

Weather: cloudy

Filtered?  Y  N

Locked?  Y  N

Sample Containers: 1000 ml Poly

500 ml HNO3 x2

500 ml H2SO4 x2

125 ml NaOH

Water in Protector?  Y  N

250 ml Poly

40 ml VOA x3

1000 ml Amber

Sampling Method: DTW  TOS  Intake  BOS  Total Depth

Meter: MP-20  YSI

Damage?  Y  N

125 ml Poly

1000 ml Amber

Dedicated  1.75" QED SamplePro  Bail  Peristaltic  Grab  Other

CONTROL SETTINGS: Refill  Discharge  Pressure  Flow

1 ft water = 0.62L

One Well Volume (liters) \_\_\_\_\_

Total Volume Bailed (liters) \_\_\_\_\_

Other: \_\_\_\_\_

Flow Setting: \_\_\_\_\_

Notes / Observations (color, odor, anomalies, etc):

*Panel says leaks + logone thinks its main leak. (West Pipe)*

Cell 2 leak detect.

Panel = Leak. West Pipe

leak detect. depressurized while running: - logone

\* West Pipe is leak detection.

TIME	DTW	Temp.	Sp. Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1100		22.32	25629	2.00	3.15	-06.7	12.9	

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Sam Greber

Signature: 

Printed Name

GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM

	Conductivity	pH4	pH7	DO	Turbidity	Comments/Exceptions
Date	1/21/20					
Time	830					
Weather (sky or precip, temp)	cloudy					
Type of Calibration	Standard	Standard	Standard	Standard	Standard	
Standard Value	1413	4.01	7.00	100% or ~8.5	1000, 10, 0.2 800, 100, 20, <0.1	turb. meter in YSI
Pre-Cal Reading	1373	4.07	7.07	96.7		
Post Cal Reading	1413	4.01	7.00	95.10%		
Discrepancy	0					
Calib. Successful?	Yes					
Calibration by	SEG					
Instrument Type, ID	MP20	/	YSI 556	(10451)	MicoTPW / HACH2000	
Calibration Location	HVL					

\* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)

**GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM**

Conductivity	pH4	pH7	DO	Turbidity	Comments/Exceptions
Date	1/21/20				
Time	830				
Weather (sky or precip, temp)	cloudy				
Type of Calibration	Standard	Standard	Standard	Standard	
Standard Value	1413	4.01	7.00	100% or ~8.5 1000, 10, 0.2 800, 100, 20, <0.1	
Pre-Cal Reading	1434	4.17	6.84	8.21	
Post Cal Reading	1413	4.01	7.00	3.5	
Discrepancy	N				
Calib. Successful?	YES				
Calibration by	SEB				
Instrument Type, ID	MP20	/	YSI 556	MicoTPW / HACH2000	
Calibration Location	HVL				

\* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)

## GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM

	Conductivity	pH4	pH7	DO	Turbidity	Comments/Exceptions
Date	1/22/20					
Time	9:00					
Weather (sky or precip, temp)	Partly					
Type of Calibration	Standard	Standard	Standard	Standard	Standard	
Standard Value	1413	4.01	7.00	100% or ~8.5	1000, 10, 0.2 800, 100, 20, <0.1	
Pre-Cal Reading	1431	4.20	6.85			
Post Cal Reading	1413	4.01	7.00	8.5		
Discrepancy	No					
Calib. Successful?	Yes					
Calibration by	SEL					
Instrument Type, ID	MP20 / YSI 556			MicoTPW / HACH2000		
Calibration Location	HUL					

\* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)



GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM

Date	Conductivity	pH4	pH7	DO	Turbidity	Comments/Exceptions
1/22/20						
Time	800					
Weather (sky or precip, temp)	rain					
Type of Calibration	Standard	Standard	Standard	Standard	Standard	
Standard Value	1413	4.01	7.00	100% or ~8.5	1000, 10, 0.2 800, 100, 20, <0.1	availability on rental meter
Pre-Cal Reading	1431	4.05	7.03			
Post Cal Reading	1413	4.01	7.00	8.5		
Discrepancy		No				
Calib. Successful?		Yes				
Calibration by		SEB				
Instrument Type, ID	MP20 / YSI 556				MicoTPW / HACH2000	
Calibration Location		HM				

\* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)

GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM

	Conductivity	pH4	pH7	DO	Turbidity	Comments/Exceptions
Date	1/23/20					
Time	800					
Weather (sky or precip, temp)	rainy					
Type of Calibration	Standard	Standard	Standard	Standard	Standard	
Standard Value	1413	4.01	7.00	100% or ~8.5	1000, 10, 0.2 800, 100, 20, <0.1	
Pre-Cal Reading	1431	4.12	6.80			
Post Cal Reading	1413	4.01	7.00	8.5		
Discrepancy	No					
Calib. Successful?	yes					
Calibration by	SEB					
Instrument Type, ID	MP20 / YSI 556			MicoTPW / HACH2000		
Calibration Location	HUL					

\* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)

**GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM**

Conductivity	pH4	pH 7	DO	Turbidity	Comments/Exceptions
Date	1/31/20				
Time	945				
Weather (sky or precip, temp)	cloudy				
Type of Calibration	Standard	Standard	Standard	Standard	
Standard Value	1413	4.01	7.00	100% or ~8.5 1000, 10, 0.2 800, 100, 20, <0.1	
Pre-Cal Reading	1393	4.61	6.35	5.2	
Post Cal Reading	1413	4.01	7.00	8.5	
Discrepancy	No				
Calib. Successful?	yes				
Calibration by	SEB				
Instrument Type, ID	MP20	/	YSI 556	MicoTPW / HACH2000	
Calibration Location	HVL				

\* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)





# Data Validation Report



**SEMI-ANNUAL EVENT NO. 1 - 2020 DATA VALIDATION REPORT  
HIDDEN VALLEY LANDFILL**

**Project Details**

<b>Project No.</b>	04220002.03	<b>Site Name</b>	Hidden Valley Landfill
<b>Data Validator</b>	Sam Graber	<b>Data Level</b>	Level 2
<b>Date</b>	4/2/2020	<b>DV Tier</b>	Tier 1
<b>QA Document</b>	Hidden Valley Landfill Groundwater Monitoring Plan, October 18, 2018.		

**Sample Login Summary**

Sample Group	Sample Login Comments	Analytical Lab (Primary)
280-133052-1	One of the three voa vials in sample "-02" was broken. However sufficient volume remained for analysis. Original nitrate analysis performed within 48-hour holding time exhibited results for samples "-02" and "-03" over the calibration range; therefore the samples were reanalyzed outside of the 48-hour holding time.	TestAmerica, Denver CO
280-133115-1	Carbon disulfide was detected in the trip blank and the method blank at a level above the requested reporting limit. However, the requested reporting limit for carbon disulfide is below TestAmerica's standard reporting limit and, therefore, no corrective action has been taken for this anomaly. It must be noted that results reported below TestAmerica's standard reporting limit may result in false positive/negative results, less accurate quantitation and potential misidentification at the lower concentrations.	TestAmerica, Denver CO
280-133116-1	No comments.	TestAmerica, Denver CO
280-133151-1	No comments.	TestAmerica, Denver CO
280-133152-1	No comments.	TestAmerica, Denver CO
280-133158-1	No comments.	TestAmerica, Denver CO
280-133382-1	Due to an instrument error, the samples "-01" and "-02" were analyzed for Nitrate method 300.0 approximately 27 hours past the 48-hour holding time.	TestAmerica, Denver CO

**Analytical Summary**

Sample Group	Analyses						
	TDS/Alk/ NO <sub>3</sub>	Metals	NH <sub>3</sub> /TOC	VOCs	Anions	TSS	COD and Color
280-133052-1	X	X <sup>(1)</sup>	X	X	X	X	--
280-133115-1	X	X <sup>(1)</sup>	X	X	X	X	--
280-133116-1	X <sup>(4)</sup>	X <sup>(2)</sup>	X	X	X	--	X
280-133151-1	X	X <sup>(3)</sup>	X	X	X	X	--
280-133152-1	X	X <sup>(1)</sup>	X	X	X	X	--
280-133158-1	X <sup>(4)</sup>	X <sup>(2)</sup>	X	X	X	--	X
280-133382-1	X	X <sup>(3)</sup>	X	X	X	X	--

Notes:

1. Dissolved metals only (Ca, Mg, Na, K, Fe, Mn).
2. Total metals only (As, Fe, Mn, Zn).
3. Total metals only (Ca, Mg, Na, K, Fe, Mn).
4. NO<sub>3</sub> only.

**Laboratory Quality Assurance Samples**

Lab QA Samples	Results	Comments
Method Blank	See case narratives.	All Data acceptable for use.
LCS/LCSD	See case narratives.	All Data acceptable for use.
Duplicates	See case narratives.	All Data acceptable for use.
MS/MSD	See case narratives.	All Data acceptable for use.
Metals	See case narratives.	All Data acceptable for use.
Organics	See case narratives.	280-133151-1: Sample "-23" was analyzed at a dilution for Method 8260B due to foaming at the time of purging. Elevated reporting limits are provided. 280-133382-1: The samples "-01" and "-02" were analyzed at a dilution for Method 8260B due to foamy matrix. As a result, the reporting limits were elevated.

**Detailed Field Replicate Evaluation**

Analyte	Units	HVL-012220-18 MW-11S	HVL-012220-20 MW-11S Duplicate	RPD%
Alkalinity	mg/L	62	62	0.0
Calcium, Dissolved	mg/L	20	19	5.1
Chloride	mg/L	19	20	5.1
Magnesium, Dissolved	mg/L	6.1	6.1	0.0
Nitrate as N	mg/L	3.8	3.8	0.0
Potassium, Dissolved	mg/L	5.2	5.2	0.0
Sodium, Dissolved	mg/L	14	14	0.0
Sulfate	mg/L	9.1	9.1	0.0
Total Dissolved Solids	mg/L	170	160	6.1

**Field Quality Assurance Samples**

Field QA Samples	Sample Group	Analytes	Notes
QC-FB	280-133152-1	No Detections.	
QC-TB	280-133052-1	No Detections.	
QC-TB	280-133115-1	Carbon Disulfide (0.57 ug/L)	
QC-TB	280-133116-1	No Detections.	
QC-TB	280-133151-1	No Detections.	
QC-TB	280-133152-1	No Detections.	
QC-TB	280-133158-1	No Detections.	
QC-TB	280-133382-1	No Detections.	

**Lab Qualifier Definitions**

Lab Qualifiers	Description	Lab Group
E	Result exceeded calibration range.	
B	Compound was found in the blank and sample.	280-133115-1, 280-133116-1




F1	MS and/or MSD Recovery exceeds the control limits.	280-133052-1, 280-133115-1, 280-133116-1, 280-133151-1, 280-133152-1, 280-133158-1
F2	MS/MSD RPD exceeds control limits.	280-133151-1, 280-133152-1, 280-133158-1
F5	Duplicate RPD exceeds the control limit.	280-133052-1
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.	280-133116-1, 280-133382-1
H	Sample was prepped or analyzed beyond specified holding time.	280-133052-1, 280-133382-1
^	ICV, CCV, ICB, CCB, ISA, ISB, CRI, CRA, DLCK, or MRL standard: Instrument related QC is outside acceptance limits.	
*	LCS or LCSD is outside acceptance limits.	280-133382-1

### Qualified Data and Usability

Lab qualifiers are as specified. All data, as qualified, are acceptable for use.





## Landfill Gas Monitoring Results



**Landfill Gas Probe Monitoring**

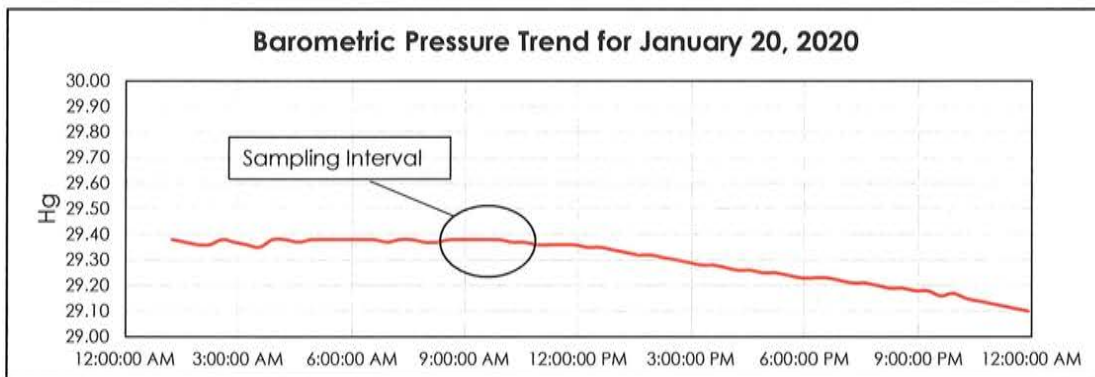
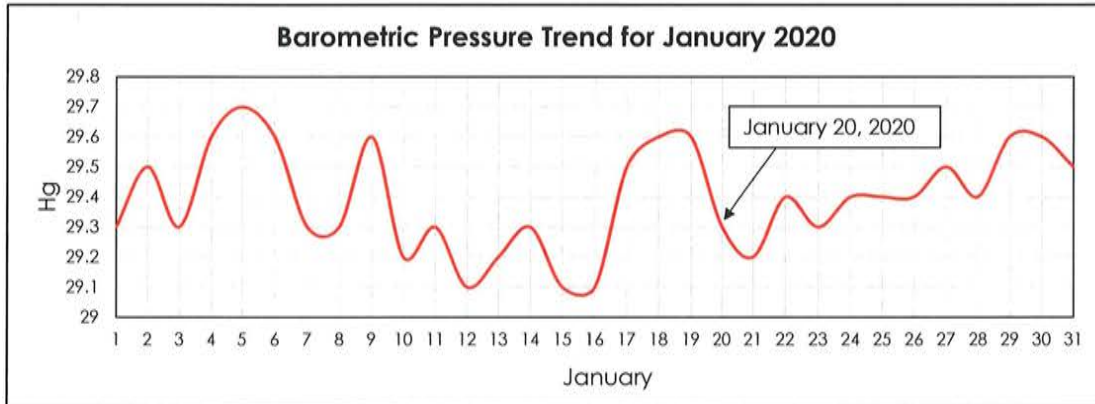
SCS Engineers

Hidden Valley Landfill  
PCRCO dba LRI

04220002.02  
January 20, 2020

Location Reference Designation	Date	Time	Pressure (in. H <sub>2</sub> O)	CH <sub>4</sub> (% vol.)	CO <sub>2</sub> (% vol.)	O <sub>2</sub> (% vol.)	Comments		
							Spike CH <sub>4</sub> Note 1 (% vol.)	Spike CO <sub>2</sub> Note 1 (% vol.)	Other
<b>Gas Probes</b>									
GP-1A	20-Jan-20	9:35	0.21	0.0	4.3	12.3	-	-	
GP-1B	20-Jan-20	9:38	0.19	0.0	6.9	13.7	-	-	
GP-1C	20-Jan-20	9:40	0.18	0.0	4.8	15.6	-	-	
GP-2A	20-Jan-20	9:43	0.18	0.1	1.3	19.5	-	-	
GP-2B	20-Jan-20	9:45	0.16	0.0	0.2	21.1	-	-	
GP-3S	20-Jan-20	9:49	0.19	0.0	4.0	11.4	-	-	
GP-3M	20-Jan-20	9:51	0.19	0.0	2.9	11.9	-	-	
GP-3D	20-Jan-20	9:53	0.16	0.0	1.3	17.9	-	-	
GP-4A	20-Jan-20	9:59	0.17	0.0	0.2	21.1	-	-	
GP-4B	20-Jan-20	10:01	0.18	0.0	0.1	21.2	-	-	
GP-5A	20-Jan-20	10:04	0.16	0.0	0.2	21.2	-	-	
GP-5B	20-Jan-20	10:06	0.16	0.0	0.1	21.3	-	-	
GP-6	20-Jan-20	10:11	0.16	0.0	0.1	21.1	-	-	
GP-7S	20-Jan-20	10:18	0.16	0.0	0.2	21.1	-	-	
GP-7D	20-Jan-20	10:16	0.16	0.0	0.2	21.0	-	-	
GP-8A	20-Jan-20	10:25	0.16	0.0	0.7	20.9	-	-	
GP-8B	20-Jan-20	10:27	0.16	0.0	0.3	21.0	-	-	
GP-9	20-Jan-20	10:31	0.16	0.0	2.9	18.8	-	-	
GP-10	20-Jan-20	10:39	0.16	0.0	0.1	21.2	-	-	
GP-11	20-Jan-20	10:43	0.16	0.0	1.6	20.0	-	-	
GP-12	20-Jan-20	10:48	0.15	0.0	1.5	18.1	-	-	
GP-13A	20-Jan-20	10:52	0.26	0.0	2.4	19.1	-	-	
GP-13B	20-Jan-20	10:55	0.25	0.0	0.2	21.2	-	-	
GP-14S	20-Jan-20	10:59	0.15	0.0	3.6	18.5	-	-	
GP-14D	20-Jan-20	11:01	0.15	0.0	2.7	16.2	-	-	
GP-15A	20-Jan-20	11:05	0.15	0.0	1.0	19.5	-	-	
GP-15B	20-Jan-20	11:07	0.15	0.0	2.6	17.3	-	-	
GP-16A	20-Jan-20	11:11	0.14	0.0	2.4	18.0	-	-	
GP-16B	20-Jan-20	11:13	0.19	0.0	2.8	17.6	-	-	
GP-17	20-Jan-20	11:20	0.20	0.0	1.4	20.2	-	-	
GP-18	20-Jan-20	11:25	0.14	0.0	0.9	20.0	-	-	
GP-19	20-Jan-20	11:29	0.17	0.0	3.1	18.7	-	-	
LFG-1							-	-	Note 2
LFG-2							-	-	Note 2
LFG-3							-	-	Note 2
<b>General Data</b>									
Monitored by: T. Berndahl				Weather Conditions			Sky Cover: Overcast		
Instruments: GEM 2000				Wind / Rain / Snow: -			Temperature (°F): 50		
Calibration Date: 20-Jan-20									
<b>Notes</b>									
1. Measurement for spike concentrations of CH <sub>4</sub> and CO <sub>2</sub> are recorded if observed during sampling									
2. Not monitored. Probe casing rusted shut.									
GP = Gas Probe      CH <sub>4</sub> = Methane      S = shallow      A = shallow NM = Not measured      CO <sub>2</sub> = Carbon Dioxide      M = medium      B = medium equipment malfunction      O <sub>2</sub> = Oxygen      D = deep      C = deep									

## Barometric Pressure Trend - January 2020 Hidden Valley Landfill, Pierce County, Washington



Monthly Data Source: Wunderground.com (Puyallup)

Lat: 47.12 Long: 122.26 Elev: 591 ft-AMSL

Data Source: <https://www.wunderground.com/history/monthly/us/wa/puyallup/KPLU/date/2020-1>

Daily Data Source: Wunderground.com (Puyallup)

Lat: 47.12 Long: 122.26 Elev: 591 ft-AMSL

Data Source: <https://www.wunderground.com/history/daily/us/wa/puyallup/KPLU/date/2020-1-20>

**Landfill Gas Probe Monitoring**

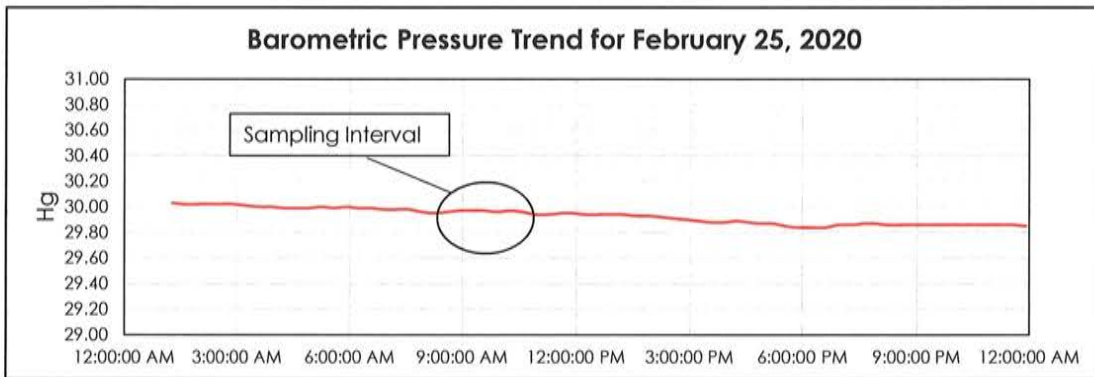
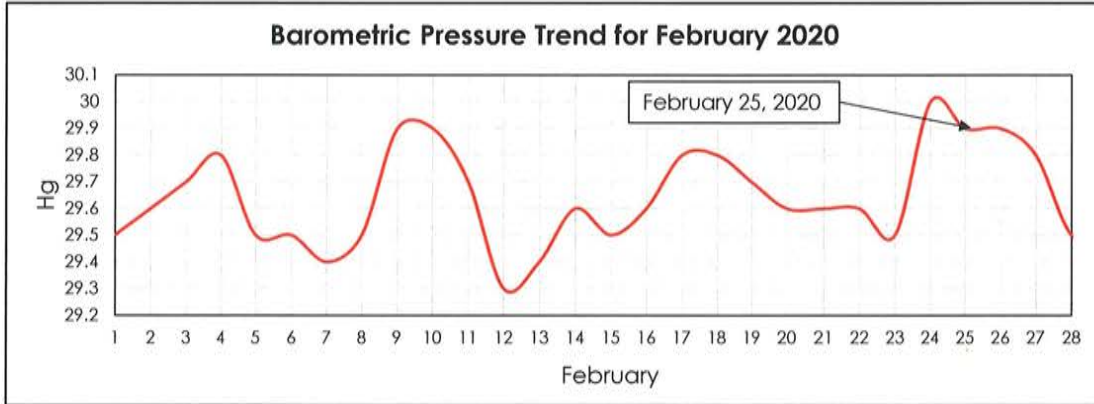
SCS Engineers

Hidden Valley Landfill  
PCRCO dba LRI

04220002.02  
February 25, 2020

Location Reference Designation	Date	Time	Pressure (in. H <sub>2</sub> O)	CH <sub>4</sub> (% vol.)	CO <sub>2</sub> (% vol.)	O <sub>2</sub> (% vol.)	Comments		
							Spike CH <sub>4</sub> Note 1 (% vol.)	Spike CO <sub>2</sub> Note 1 (% vol.)	Other
<b>Gas Probes</b>									
GP-1A	25-Feb-20	8:10	0.17	0.0	3.5	14.3	-	-	
GP-1B	25-Feb-20	8:12	0.17	0.0	7.8	13.1	-	-	
GP-1C	25-Feb-20	8:15	0.18	0.0	4.3	16.8	-	-	
GP-2A	25-Feb-20	8:18	0.17	0.0	0.3	21.1	-	-	
GP-2B	25-Feb-20	8:20	0.16	0.0	0.1	21.1	-	-	
GP-3S	25-Feb-20	8:24	0.18	0.0	4.0	10.4	-	-	
GP-3M	25-Feb-20	8:27	0.18	0.0	2.9	10.9	-	-	
GP-3D	25-Feb-20	8:29	0.17	0.0	1.0	20.1	-	-	
GP-4A	25-Feb-20	8:34	0.18	0.0	0.1	21.3	-	-	
GP-4B	25-Feb-20	8:36	0.20	0.0	0.1	21.3	-	-	
GP-5A	25-Feb-20	8:40	0.17	0.0	0.1	21.4	-	-	
GP-5B	25-Feb-20	8:42	0.17	0.0	0.1	21.5	-	-	
GP-6	25-Feb-20	8:47	0.17	0.0	0.1	21.4	-	-	
GP-7S	25-Feb-20	8:55	0.18	0.0	0.4	21.3	-	-	
GP-7D	25-Feb-20	8:52	0.18	0.0	0.2	21.1	-	-	
GP-8A	25-Feb-20	9:02	0.19	0.0	0.5	21.2	-	-	
GP-8B	25-Feb-20	9:04	0.18	0.0	0.2	21.4	-	-	
GP-9	25-Feb-20	9:09	0.18	0.0	3.1	18.6	-	-	
GP-10	25-Feb-20	9:16	0.18	0.0	0.1	21.3	-	-	
GP-11	25-Feb-20	9:21	0.18	0.0	1.2	20.3	-	-	
GP-12	25-Feb-20	9:27	0.18	0.0	2.0	17.7	-	-	
GP-13A	25-Feb-20	9:32	0.26	0.0	2.2	19.5	-	-	
GP-13B	25-Feb-20	9:34	0.30	0.0	0.1	21.1	-	-	
GP-14S	25-Feb-20	9:40	0.15	0.0	3.4	18.0	-	-	
GP-14D	25-Feb-20	9:42	0.16	0.0	2.4	16.3	-	-	
GP-15A	25-Feb-20	9:47	0.16	0.0	1.3	18.1	-	-	
GP-15B	25-Feb-20	9:49	0.20	0.0	2.6	17.0	-	-	
GP-16A	25-Feb-20	9:53	0.14	0.0	2.3	18.1	-	-	
GP-16B	25-Feb-20	9:56	0.15	0.0	2.8	17.5	-	-	
GP-17	25-Feb-20	10:07	0.14	0.0	1.5	19.9	-	-	
GP-18	25-Feb-20	10:13	0.14	0.0	1.2	20.1	-	-	
GP-19	25-Feb-20	10:17	0.16	0.0	2.7	18.9	-	-	
LFG-1							-	-	Note 2
LFG-2							-	-	Note 2
LFG-3							-	-	Note 2
<b>General Data</b>									
Monitored by: T. Berndahl				Weather Conditions			Sky Cover: Overcast		
Instruments: GEM 2000				Wind / Rain / Snow: -			Temperature (°F): 44		
Calibration Date: 25-Feb-20									
<b>Notes</b>									
1. Measurement for spike concentrations of CH <sub>4</sub> and CO <sub>2</sub> are recorded if observed during sampling									
2. Not monitored. Probe casing rusted shut.									
GP = Gas Probe      CH <sub>4</sub> = Methane      S = shallow      A = shallow NM = Not measured      CO <sub>2</sub> = Carbon Dioxide      M = medium      B = medium equipment malfunction      O <sub>2</sub> = Oxygen      D = deep      C = deep									

**Barometric Pressure Trend - February 2020**  
**Hidden Valley Landfill, Pierce County, Washington**



Monthly Data Source: Wunderground.com (Puyallup)  
 Lat: 47.12 Long: 122.26 Elev: 591 ft-AMSL

Data Source: <https://www.wunderground.com/history/monthly/us/wa/puyallup/KPLU/date/2020-2>

Daily Data Source: Wunderground.com (Puyallup)  
 Lat: 47.12 Long: 122.26 Elev: 591 ft-AMSL

Data Source: <https://www.wunderground.com/history/daily/us/wa/puyallup/KPLU/date/2020-2-25>



# Landfill Gas Probe Monitoring

SCS Engineers

Hidden Valley Landfill

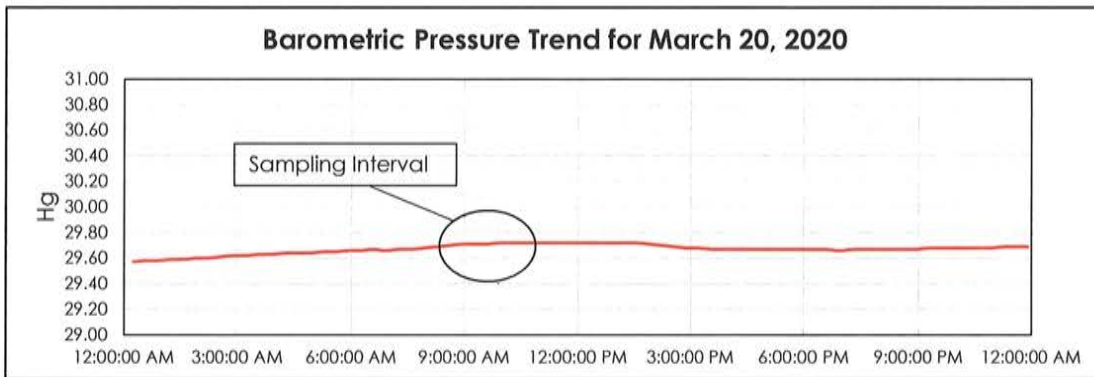
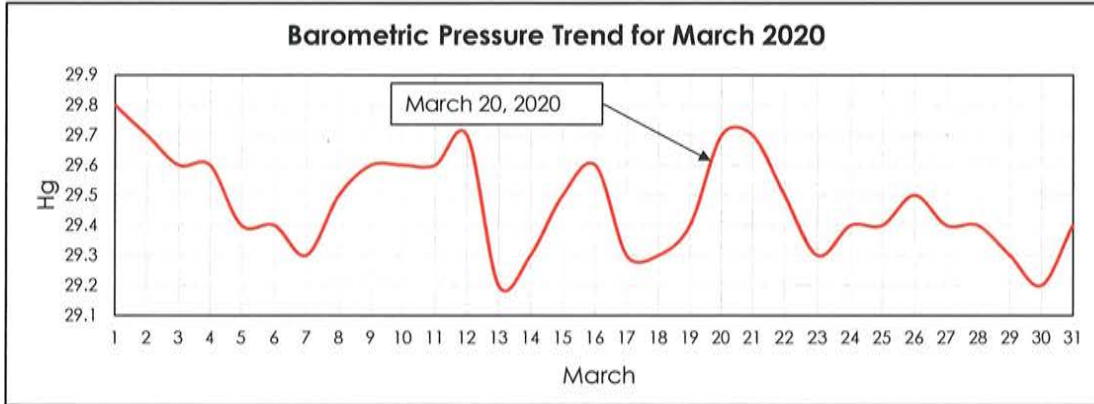
04220002.02

PCRCD dba LRI

March 20, 2020

Location Reference Designation	Date	Time	Pressure (in. H <sub>2</sub> O)	CH <sub>4</sub> (% vol.)	CO <sub>2</sub> (% vol.)	O <sub>2</sub> (% vol.)	Comments		
							Spike CH <sub>4</sub> Note 1 (% vol.)	Spike CO <sub>2</sub> Note 1 (% vol.)	Other
<b>Gas Probes</b>									
GP-1A	20-Mar-20	7:20	0.12	0.0	4.7	11.3	-	-	
GP-1B	20-Mar-20	7:22	0.10	0.0	8.1	12.4	-	-	
GP-1C	20-Mar-20	7:25	0.10	0.0	2.4	18.3	-	-	
GP-2A	20-Mar-20	7:29	0.08	0.0	0.5	20.4	-	-	
GP-2B	20-Mar-20	7:31	0.20	0.0	0.2	20.9	-	-	
GP-3S	20-Mar-20	7:35	0.11	0.0	3.6	11.2	-	-	
GP-3M	20-Mar-20	7:37	0.12	0.0	2.2	12.9	-	-	
GP-3D	20-Mar-20	7:39	0.13	0.0	4.0	16.6	-	-	
GP-4A	20-Mar-20	7:45	0.14	0.1	0.3	20.9	-	-	
GP-4B	20-Mar-20	7:47	0.23	0.1	0.2	21.1	-	-	
GP-5A	20-Mar-20	7:52	0.15	0.0	0.1	21.2	-	-	
GP-5B	20-Mar-20	7:54	0.14	0.0	0.1	21.2	-	-	
GP-6	20-Mar-20	7:59	0.16	0.0	0.1	21.1	-	-	
GP-7S	20-Mar-20	8:06	0.16	0.0	0.5	20.7	-	-	
GP-7D	20-Mar-20	8:04	0.15	0.0	0.1	20.9	-	-	
GP-8A	20-Mar-20	8:14	0.17	0.0	0.6	20.3	-	-	
GP-8B	20-Mar-20	8:16	0.17	0.0	0.2	21.0	-	-	
GP-9	20-Mar-20	8:20	0.16	0.0	0.3	20.8	-	-	
GP-10	20-Mar-20	8:27	0.16	0.0	0.1	20.9	-	-	
GP-11	20-Mar-20	8:31	0.15	0.0	0.9	19.9	-	-	
GP-12	20-Mar-20	8:36	0.15	0.0	1.3	18.5	-	-	
GP-13A	20-Mar-20	8:46	0.16	0.0	0.1	20.7	-	-	
GP-13B	20-Mar-20	8:48	0.14	0.0	0.1	20.7	-	-	
GP-14S	20-Mar-20	8:52	0.14	0.0	5.7	16.2	-	-	
GP-14D	20-Mar-20	8:55	0.22	0.0	8.0	4.6	-	-	
GP-15A	20-Mar-20	8:59	0.13	0.0	2.0	17.2	-	-	
GP-15B	20-Mar-20	9:03	0.13	0.0	10.6	4.3	-	-	
GP-16A	20-Mar-20	9:07	0.12	0.0	0.8	19.8	-	-	
GP-16B	20-Mar-20	9:08	0.17	0.0	0.2	20.5	-	-	
GP-17	20-Mar-20	9:13	0.31	0.0	0.4	20.3	-	-	
GP-18	20-Mar-20	9:17	0.12	0.0	0.7	20.1	-	-	
GP-19	20-Mar-20	9:21	0.11	0.0	0.1	20.8	-	-	
LFG-1							-	-	Note 2
LFG-2							-	-	Note 2
LFG-3							-	-	Note 2
<b>General Data</b>									
Monitored by: T. Berndahl				Weather Conditions					
Instruments: GEM 2000				Sky Cover: Clear			-		
Calibration Date: 20-Mar-20				Wind / Rain / Snow: -			41		
				Temperature (°F):					
<b>Notes</b>									
1. Measurement for spike concentrations of CH <sub>4</sub> and CO <sub>2</sub> are recorded if observed during sampling									
2. Not monitored. Probe casing rusted shut.									
GP = Gas Probe      CH <sub>4</sub> = Methane      S = shallow      A = shallow NM = Not measured      CO <sub>2</sub> = Carbon Dioxide      M = medium      B = medium equipment malfunction      O <sub>2</sub> = Oxygen      D = deep      C = deep									

**Barometric Pressure Trend - March 2020**  
**Hidden Valley Landfill, Pierce County, Washington**



Monthly Data Source: Wunderground.com (Puyallup)  
Lat: 47.12 Long: 122.26 Elev: 591 ft-AMSL

Data Source: <https://www.wunderground.com/history/monthly/us/wa/puyallup/KPLU/date/2020-3>

Daily Data Source: Wunderground.com (Puyallup)  
Lat: 47.12 Long: 122.26 Elev: 591 ft-AMSL

Data Source: <https://www.wunderground.com/history/daily/us/wa/puyallup/KPLU/date/2020-3-20>

**Landfill Gas Probe Monitoring**

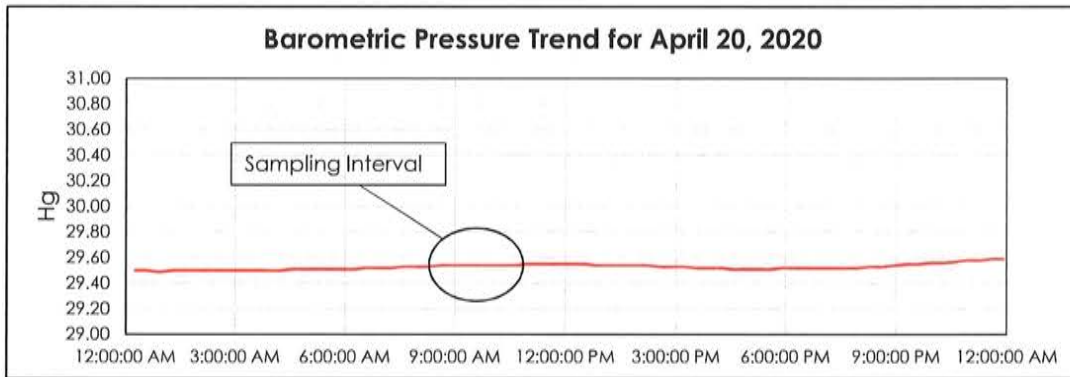
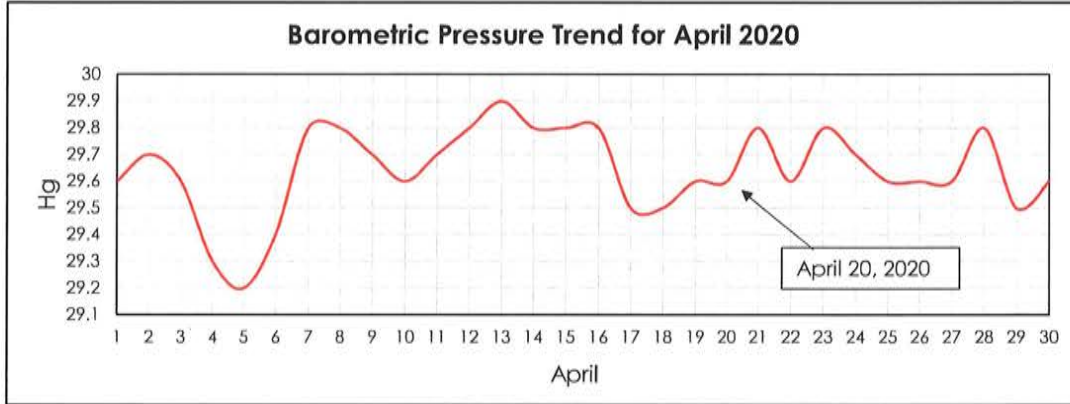
SCS Engineers

Hidden Valley Landfill  
PCRCO dba LRI

04220002.02  
April 20, 2020

Location Reference Designation	Date	Time	Pressure (in. H <sub>2</sub> O)	CH <sub>4</sub> (% vol.)	CO <sub>2</sub> (% vol.)	O <sub>2</sub> (% vol.)	Comments		
							Spike CH <sub>4</sub> Note 1 (% vol.)	Spike CO <sub>2</sub> Note 1 (% vol.)	Other
<b>Gas Probes</b>									
GP-1A	20-Apr-20	8:43	0.14	0.0	3.0	13.7	-	-	
GP-1B	20-Apr-20	8:44	0.11	0.0	7.3	13.3	-	-	
GP-1C	20-Apr-20	8:46	0.12	0.0	1.0	19.7	-	-	
GP-2A	20-Apr-20	8:49	0.13	0.0	0.6	20.0	-	-	
GP-2B	20-Apr-20	8:51	0.15	0.0	0.1	20.8	-	-	
GP-3S	20-Apr-20	8:56	0.11	0.0	2.3	14.0	-	-	
GP-3M	20-Apr-20	8:58	0.11	0.0	2.1	11.9	-	-	
GP-3D	20-Apr-20	8:59	0.11	0.0	3.9	17.3	-	-	
GP-4A	20-Apr-20	9:06	0.11	0.0	0.2	20.7	-	-	
GP-4B	20-Apr-20	9:08	0.17	0.0	0.1	20.8	-	-	
GP-5A	20-Apr-20	9:11	0.11	0.0	0.0	20.8	-	-	
GP-5B	20-Apr-20	9:13	0.11	0.0	0.0	20.8	-	-	
GP-6	20-Apr-20	9:17	0.11	0.0	0.2	20.6	-	-	
GP-7S	20-Apr-20	9:22	0.10	0.0	0.5	20.1	-	-	
GP-7D	20-Apr-20	9:24	0.10	0.0	0.1	20.7	-	-	
GP-8A	20-Apr-20	9:33	0.11	0.0	0.7	19.0	-	-	
GP-8B	20-Apr-20	9:36	0.10	0.0	0.4	20.2	-	-	
GP-9	20-Apr-20	9:40	0.23	0.0	1.8	19.3	-	-	
GP-10	20-Apr-20	9:46	0.09	0.0	0.1	20.4	-	-	
GP-11	20-Apr-20	9:50	0.22	0.0	1.2	19.4	-	-	
GP-12	20-Apr-20	9:55	0.07	0.0	0.7	18.2	-	-	
GP-13A	20-Apr-20	9:59	0.31	0.0	2.1	17.4	-	-	
GP-13B	20-Apr-20	10:00	0.10	0.0	0.2	20.5	-	-	
GP-14S	20-Apr-20	10:04	0.06	0.0	5.2	16.0	-	-	
GP-14D	20-Apr-20	10:06	0.06	0.0	7.4	4.9	-	-	
GP-15A	20-Apr-20	10:09	0.06	0.0	1.8	17.7	-	-	
GP-15B	20-Apr-20	10:11	0.06	0.0	7.3	9.9	-	-	
GP-16A	20-Apr-20	10:15	0.05	0.0	0.3	20.4	-	-	
GP-16B	20-Apr-20	10:17	0.05	0.0	0.1	20.6	-	-	
GP-17	20-Apr-20	10:23	0.02	0.0	0.6	20.0	-	-	
GP-18	20-Apr-20	10:28	0.06	0.0	1.7	19.1	-	-	
GP-19	20-Apr-20	10:32	0.05	0.0	0.1	20.8	-	-	
LFG-1							-	-	Note 2
LFG-2							-	-	Note 2
LFG-3							-	-	Note 2
<b>General Data</b>									
Monitored by: T. Berndahl				Weather Conditions					
Instruments: GEM 2000				Sky Cover: Sunny			-		
Calibration Date: 20-Apr-20				Wind / Rain / Snow: -			Temperature (°F): 45		
<b>Notes</b>									
1. Measurement for spike concentrations of CH <sub>4</sub> and CO <sub>2</sub> are recorded if observed during sampling									
2. Not monitored. Probe casing rusted shut.									
GP = Gas Probe      CH <sub>4</sub> = Methane      S = shallow      A= shallow									
NM = Not measured      CO <sub>2</sub> = Carbon Dioxide      M = medium      B = medium									
equipment malfunction      O <sub>2</sub> = Oxygen      D = deep      C = deep									

**Barometric Pressure Trend - April 2020**  
**Hidden Valley Landfill, Pierce County, Washington**



Monthly Data Source: Wunderground.com (Puyallup)  
Lat: 47.12 Long: 122.26 Elev: 591 ft-AMSL

Data Source: <https://www.wunderground.com/history/monthly/us/wa/puyallup/KPLU/date/2020-4>

Daily Data Source: Wunderground.com (Puyallup)  
Lat: 47.12 Long: 122.26 Elev: 591 ft-AMSL

Data Source: <https://www.wunderground.com/history/daily/us/wa/puyallup/KPLU/date/2020-4-20>

**Landfill Gas Probe Monitoring**

SCS Engineers

Hidden Valley Landfill

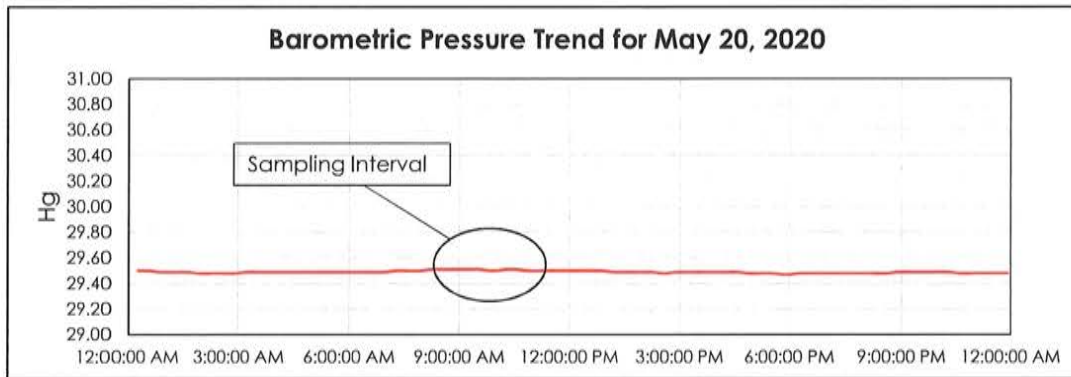
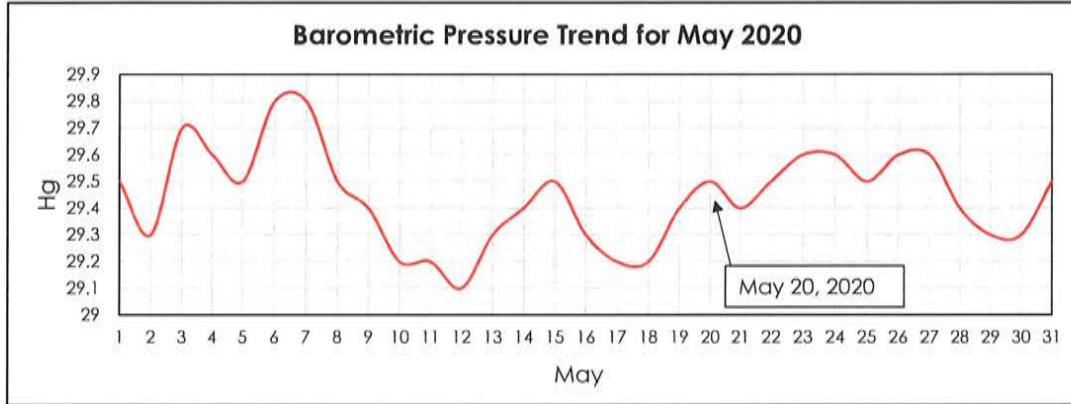
04220002.02

PCRCD dba LRI

May 20, 2020

Location Reference Designation	Date	Time	Pressure (in. H <sub>2</sub> O)	CH <sub>4</sub> (% vol.)	CO <sub>2</sub> (% vol.)	O <sub>2</sub> (% vol.)	Comments		
							Spike CH <sub>4</sub> Note 1 (% vol.)	Spike CO <sub>2</sub> Note 1 (% vol.)	Other
<b>Gas Probes</b>									
GP-1A	20-May-20	8:43	0.11	0.0	2.8	13.2	-	-	
GP-1B	20-May-20	8:46	0.08	0.0	7.9	13.0	-	-	
GP-1C	20-May-20	8:48	0.11	0.0	0.9	20.0	-	-	
GP-2A	20-May-20	8:51	0.11	0.0	0.2	20.8	-	-	
GP-2B	20-May-20	8:53	0.13	0.0	0.1	21.0	-	-	
GP-3S	20-May-20	8:57	0.11	0.0	1.2	17.2	-	-	
GP-3M	20-May-20	8:59	0.11	0.0	1.9	11.7	-	-	
GP-3D	20-May-20	9:01	0.11	0.0	2.9	16.3	-	-	
GP-4A	20-May-20	9:06	0.11	0.0	0.4	20.7	-	-	
GP-4B	20-May-20	9:07	0.28	0.0	0.2	20.8	-	-	
GP-5A	20-May-20	9:11	0.09	0.0	0.0	21.1	-	-	
GP-5B	20-May-20	9:13	0.11	0.0	0.0	21.1	-	-	
GP-6	20-May-20	9:17	0.11	0.0	0.1	21.0	-	-	
GP-7S	20-May-20	9:22	0.12	0.0	0.6	20.1	-	-	
GP-7D	20-May-20	9:24	0.12	0.0	0.4	20.5	-	-	
GP-8A	20-May-20	9:32	0.12	0.0	0.8	19.2	-	-	
GP-8B	20-May-20	9:35	0.12	0.0	0.8	20.2	-	-	
GP-9	20-May-20	9:39	0.13	0.0	2.7	18.8	-	-	
GP-10	20-May-20	9:48	0.12	0.0	0.2	20.9	-	-	
GP-11	20-May-20	9:52	0.12	0.0	1.4	19.6	-	-	
GP-12	20-May-20	9:56	0.12	0.0	1.3	18.4	-	-	
GP-13A	20-May-20	10:07	0.31	0.0	2.6	17.9	-	-	
GP-13B	20-May-20	10:09	0.16	0.0	0.2	20.8	-	-	
GP-14S	20-May-20	10:13	0.12	0.0	4.2	16.5	-	-	
GP-14D	20-May-20	10:15	0.19	0.0	7.1	6.2	-	-	
GP-15A	20-May-20	10:19	0.12	0.0	2.2	17.3	-	-	
GP-15B	20-May-20	10:21	0.11	0.0	7.6	10.1	-	-	
GP-16A	20-May-20	10:32	0.12	0.0	0.3	20.7	-	-	
GP-16B	20-May-20	10:35	0.12	0.0	0.1	20.9	-	-	
GP-17	20-May-20	11:09	0.14	0.0	1.7	19.0	-	-	
GP-18	20-May-20	11:13	0.13	0.0	3.2	17.4	-	-	
GP-19	20-May-20	11:18	0.12	0.0	0.2	20.8	-	-	
LFG-1							-	-	Note 2
LFG-2							-	-	Note 2
LFG-3							-	-	Note 2
<b>General Data</b>									
Monitored by: T. Berndahl			Weather Conditions			Sky Cover: Cloudy			
Instruments: GEM 2000			Wind / Rain / Snow:			Light Rain			
Calibration Date: 20-May-20			Temperature (°F):			53			
<b>Notes</b>									
1. Measurement for spike concentrations of CH <sub>4</sub> and CO <sub>2</sub> are recorded if observed during sampling									
2. Not monitored. Probe casing rusted shut.									
GP = Gas Probe      CH <sub>4</sub> = Methane      S = shallow      A= shallow NM = Not measured      CO <sub>2</sub> = Carbon Dioxide      M = medium      B = medium equipment malfunction      O <sub>2</sub> = Oxygen      D = deep      C = deep									

**Barometric Pressure Trend - May 2020**  
**Hidden Valley Landfill, Pierce County, Washington**



Monthly Data Source: Wunderground.com (Puyallup)  
Lat: 47.12 Long: 122.26 Elev: 591 ft-AMSL

Data Source: <https://www.wunderground.com/history/daily/us/wa/puyallup/KPLU/date/2020-5>

Daily Data Source: Wunderground.com (Puyallup)  
Lat: 47.12 Long: 122.26 Elev: 591 ft-AMSL

Data Source: <https://www.wunderground.com/history/daily/us/wa/puyallup/KPLU/date/2020-5-20>

**Landfill Gas Probe Monitoring**

SCS Engineers

Hidden Valley Landfill  
PCRCO dba LRI

04220002.02  
June 18, 2020

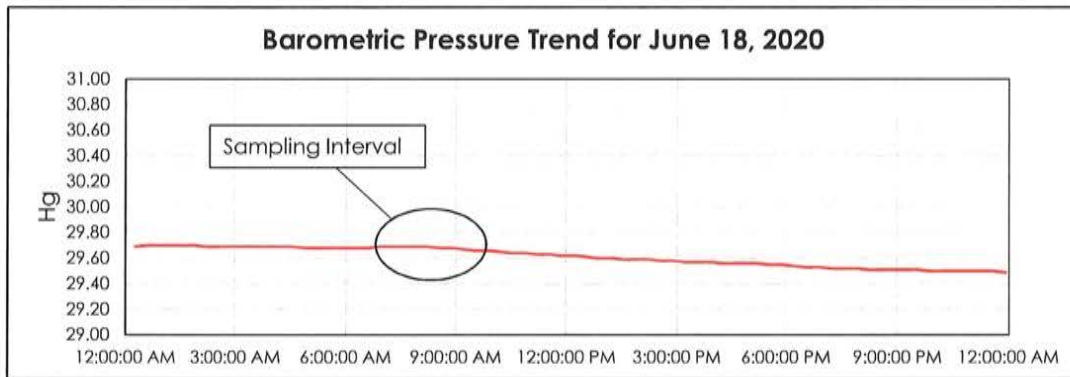
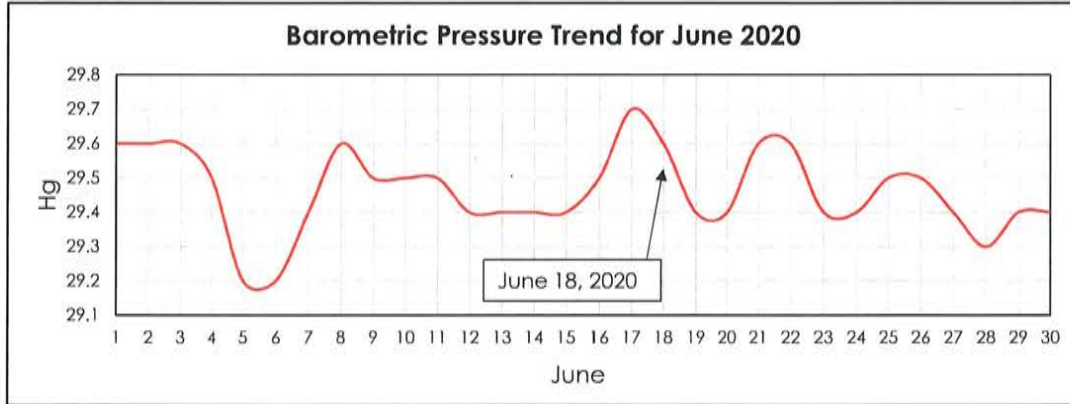
Location Reference Designation	Date	Time	Pressure (in. H <sub>2</sub> O)	CH <sub>4</sub> (% vol.)	CO <sub>2</sub> (% vol.)	O <sub>2</sub> (% vol.)	Comments		
							Spike CH <sub>4</sub> Note 1 (% vol.)	Spike CO <sub>2</sub> Note 1 (% vol.)	Other
<b>Gas Probes</b>									
GP-1A	18-Jun-20	7:20	0.11	0.0	3.4	11.4	-	-	
GP-1B	18-Jun-20	7:22	0.25	0.0	7.7	13.0	-	-	
GP-1C	18-Jun-20	7:24	0.09	0.0	0.8	20.1	-	-	
GP-2A	18-Jun-20	7:28	0.09	0.0	0.3	20.5	-	-	
GP-2B	18-Jun-20	7:30	0.10	0.0	0.1	20.9	-	-	
GP-3S	18-Jun-20	7:34	0.07	0.0	1.3	17.5	-	-	
GP-3M	18-Jun-20	7:37	0.08	0.0	3.1	8.8	-	-	
GP-3D	18-Jun-20	7:39	0.09	0.0	3.7	15.5	-	-	
GP-4A	18-Jun-20	7:44	0.09	0.0	0.3	20.6	-	-	
GP-4B	18-Jun-20	7:46	0.16	0.0	0.1	20.9	-	-	
GP-5A	18-Jun-20	7:50	0.09	0.0	0.3	20.6	-	-	
GP-5B	18-Jun-20	7:52	0.09	0.0	0.3	20.3	-	-	
GP-6	18-Jun-20	7:57	0.08	0.0	0.5	20.4	-	-	
GP-7S	18-Jun-20	8:03	0.08	0.0	1.0	20.0	-	-	
GP-7D	18-Jun-20	8:05	0.07	0.0	0.4	20.4	-	-	
GP-8A	18-Jun-20	8:13	0.09	0.0	1.5	19.0	-	-	
GP-8B	18-Jun-20	8:15	0.08	0.0	1.3	19.7	-	-	
GP-9	18-Jun-20	8:20	0.09	0.0	2.7	17.8	-	-	
GP-10	18-Jun-20	8:27	0.09	0.0	0.3	20.4	-	-	
GP-11	18-Jun-20	8:31	0.09	0.0	1.8	18.9	-	-	
GP-12	18-Jun-20	8:47	0.08	0.0	0.1	20.7	-	-	
GP-13A	18-Jun-20	8:52	0.08	0.0	3.1	15.9	-	-	
GP-13B	18-Jun-20	8:54	0.15	0.0	0.3	20.4	-	-	
GP-14S	18-Jun-20	8:58	0.07	0.0	3.8	16.2	-	-	
GP-14D	18-Jun-20	9:01	0.07	0.0	7.3	5.5	-	-	
GP-15A	18-Jun-20	9:04	0.06	0.0	2.6	17.4	-	-	
GP-15B	18-Jun-20	9:06	0.05	0.0	6.2	13.1	-	-	
GP-16A	18-Jun-20	9:12	0.05	0.0	1.3	18.3	-	-	
GP-16B	18-Jun-20	9:14	0.47	0.0	1.7	17.9	-	-	
GP-17	18-Jun-20	9:21	0.02	0.0	2.5	17.7	-	-	
GP-18	18-Jun-20	9:26	0.05	0.0	6.2	13.5	-	-	
GP-19	18-Jun-20	9:30	0.04	0.0	0.9	20.3	-	-	
LFG-1							-	-	Note 2
LFG-2							-	-	Note 2
LFG-3							-	-	Note 2

<b>General Data</b>			
Monitored by:	T. Berndahl	Weather Conditions	Clear
Instruments:	GEM 2000	Sky Cover:	-
Calibration Date:	18-Jun-20	Wind / Rain / Snow:	-
		Temperature (°F):	57

Notes  
 1. Measurement for spike concentrations of CH<sub>4</sub> and CO<sub>2</sub> are recorded if observed during sampling  
 2. Not monitored. Probe casing rusted shut.

GP = Gas Probe      CH<sub>4</sub> = Methane      S = shallow      A= shallow  
 NM = Not measured      CO<sub>2</sub> = Carbon Dioxide      M = medium      B = medium  
 equipment malfunction      O<sub>2</sub> = Oxygen      D = deep      C = deep

**Barometric Pressure Trend - June 2020**  
**Hidden Valley Landfill, Pierce County, Washington**



Monthly Data Source: Wunderground.com (Puyallup)  
Lat: 47.12 Long: 122.26 Elev: 591 ft-AMSL

Data Source: <https://www.wunderground.com/history/monthly/us/wa/puyallup/KPLU/date/2020-6>

Daily Data Source: Wunderground.com (Puyallup)  
Lat: 47.12 Long: 122.26 Elev: 591 ft-AMSL

Data Source: <https://www.wunderground.com/history/daily/us/wa/puyallup/KPLU/date/2020-6-18>



# Hidden Valley Landfill Landfill Gas Monitoring of On-site Buildings

04220002.03  
Project Number: 04249002:02

Date: 2/25/20  
Weather Conditions: Sunny  
Instrument: MicroFLD  
Measured By: Travis Berndahl

The atmosphere inside buildings at the landfill were monitored for possible intrusion of methane gas. Per WAC 173-351, concentrations of methane in on-site structures must not exceed 25% of the lower explosive limit (LEL). If off-site gas migration is suspected, concentrations of methane in off-site structures must not exceed 100 ppm methane.

The areas monitored included:

- The general overall work area
- Floor drains
- Underground conduit protrusions
- Closed areas where landfill gas could collect, such as under cupboards and inside closets

The gas detection instrument must be calibrated using calibration gas containing methane equal to 50 % LEL. Calibration must be performed before and after the survey is completed.

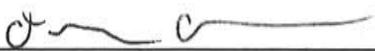
Checked boxes indicate that the survey revealed **no detectable methane**.

- Main Office - individual office spaces, storage areas and within open crawl-space area. 1.2 ppm
- Repair Shop - survey atmosphere conditions throughout (lower height levels).
- Pay/Scale Booth - interior of building. 3.2 ppm
- Recycle Building - throughout facility and water drainage areas. 3.6 ppm
- Leachate Treatment Building - all lower level office spaces, restrooms, water drainage system and storage/equipment areas. 8.8 ppm
- Gas to Energy Building - central monitoring/control room, engine room and storage cabinets.
- Transfer Station Building - throughout entire building and lower levels.

Background

Upwind → 2.1

Downwind → 2.4

  
Signature

# Hidden Valley Landfill Landfill Gas Monitoring of On-site Buildings

Project Number: ~~04219002.02~~  
~~04220002~~  
04220002.02

Date: 6-18-20  
Weather Conditions: Sunny  
Instrument: MicroFDU  
Measured By: Travis B.

The atmosphere inside buildings at the landfill were monitored for possible intrusion of methane gas. Per WAC 173-351, concentrations of methane in on-site structures must not exceed 25% of the lower explosive limit (LEL). If off-site gas migration is suspected, concentrations of methane in off-site structures must not exceed 100 ppm methane.

The areas monitored included:

- The general overall work area
- Floor drains
- Underground conduit protrusions
- Closed areas where landfill gas could collect, such as under cupboards and inside closets


The gas detection instrument must be calibrated using calibration gas containing methane equal to 50 % LEL. Calibration must be performed before and after the survey is completed.

Checked boxes indicate that the survey revealed **no detectable methane**.

- Main Office - individual office spaces, storage areas and within open crawl-space area. 1.2 ppm Cleaning Closets
- Repair Shop - survey atmosphere conditions throughout (lower height levels). 0.0 ppm
- Pay/Scale Booth - interior of building. 16.3 ppm South side house bathroom
- Recycle Building - throughout facility and water drainage areas. 0.0 ppm
- Leachate Treatment Building - all lower level office spaces, restrooms, water drainage system and storage/equipment areas. 10.2 ppm E954 side
- Gas to Energy Building - central monitoring/control room, engine room and storage cabinets. 0.7 ppm
- Transfer Station Building - throughout entire building and lower levels. 10.1 ppm exposed junction box near refrigerator

## Background

Upwind → 3.1 ppm  
Downwind → 3.9 ppm

  
Signature



## Site Inspection Reports



**Condensate Recirculation Inspection Checklist**  
**Hidden Valley Landfill, Pierce County, Washington**

Name: Travis Berndahl

Date: 2/25/2020

Signature: 

Weather: Sunny

**Instructions:** Inspect each sump for pump operation and measure condensate fluid level, which should be below the overflow drainage pipe. Note any unusual observations such as soil staining or air leaks in the comments section.

Sump	Operation per Design (Y or N)	(1) Depth to Condensate (ft)	(2) Depth to Bottom (ft)	Height of Condensate (ft) = (2) - (1)	Comments
Sump No. 1	Y	—	9.25	—	Dry
Sump No. 2	Y	—	8.26	—	Dry
Sump No. 3	Y	—	8.68	—	Dry
Sump No. 4	Y	—	8.31	—	Dry
Sump No. 5	Y	—	9.48	—	Dry
Sump No. 6	N	6.19	9.21	3.02	
Sump No. 7	Y	—	7.95	—	Dry
Sump No. 8	Y	8.52	8.93	0.41	
Sump No. 9	Y	—	9.22	—	Dry
Sump No. 10	N	—	9.30	—	Dry
Sump No. 11	Y	7.28	9.34	2.06	

**Other Remarks:**

**Facility Inspection Checklist**  
**Hidden Valley Landfill, Pierce County, Washington**

Name: Travis Berndahl

Date: 2/25/20

Signature: 

Weather: Sunny

Items	Yes	No	Comments
<b>Cover System</b>			
Settlement Depressions (sinkholes)		X	
Cracking of Cover Soils		X	
Inadequate Cover Soil or Rock		X	
Standing Water		X	
<b>Vegetation</b>			
Bare or Sparsely Vegetated Areas		X	
Areas of Dying Vegetation		X	
Large Root Vegetation (ex. Bushes)	X		East side of landfill, large roots forming/west side
<b>Stormwater Conveyance System</b>			
Ditch Obstructions or Flat Areas		X	
Culvert Obstructions		X	
Catch Basin Debris or Silt Accumulation		X	
Stormwater Basin Debris or Silt		X	
<b>Cover Erosion</b>			
Gullies and/or Erosion Scars		X	
Presence of Seeps		X	
<b>Vector Control</b>			
Evidence of Ground Burrows		X	
<b>Leachate Collection &amp; Leak Detection Systems</b>			
Piping or Valve Issues	X		See Condensate Measurement Form
Pump or Meter Issues		X	
Foaming at Pump		X	

**Other Remarks:**

**Condensate Recirculation Inspection Checklist**  
**Hidden Valley Landfill, Pierce County, Washington**

Name: Travis Berndah

Date: 5-20-20

Signature: 

Weather: Cloudy

**Instructions:** Inspect each sump for pump operation and measure condensate fluid level, which should be below the overflow drainage pipe. Note any unusual observations such as soil staining or air leaks in the comments section.

Sump	Operation per Design (Y or N)	(1) Depth to Condensate (ft)	(2) Depth to Bottom (ft)	Height of Condensate (ft) = (2) - (1)	Comments
Sump No. 1	Y	—	9.23	0	Dry
Sump No. 2	Y	6.38	8.21	1.83	
Sump No. 3	Y	—	8.61	—	Dry
Sump No. 4	Y	6.30	8.26	1.88	
Sump No. 5	Y	6.60	9.76	3.16	
Sump No. 6	N	6.65	9.20	2.55	
Sump No. 7	Y	—	8.94	—	
Sump No. 8	Y	7.31	8.91	1.60	
Sump No. 9	Y	8.20	9.21	1.01	
Sump No. 10	N	—	9.29	—	Dry
Sump No. 11	Y	7.21	9.28	2.07	

**Other Remarks:**

**Facility Inspection Checklist**  
**Hidden Valley Landfill, Pierce County, Washington**

Name: Travis Bergdahl

Date: 5-20-20

Signature: 

Weather: cloudy

Items	Yes	No	Comments
<b>Cover System</b>			
Settlement Depressions (sinkholes)		X	
Cracking of Cover Soils		X	
Inadequate Cover Soil or Rock		X	
Standing Water		X	
<b>Vegetation</b>			
Bare or Sparsely Vegetated Areas		X	
Areas of Dying Vegetation		X	
Large Root Vegetation (ex. Bushes)	X		North side of landfill, large roots growing
<b>Stormwater Conveyance System</b>			
Ditch Obstructions or Flat Areas		X	
Culvert Obstructions		X	
Catch Basin Debris or Silt Accumulation		X	
Stormwater Basin Debris or Silt		X	
<b>Cover Erosion</b>			
Gullies and/or Erosion Scars		X	
Presence of Seeps		X	
<b>Vector Control</b>			
Evidence of Ground Burrows		X	
<b>Leachate Collection &amp; Leak Detection Systems</b>			
Piping or Valve Issues		X	
Pump or Meter Issues		X	
Foaming at Pump		X	

**Other Remarks:**



**Facility Inspection Checklist**

**Hidden Valley Landfill, Pierce County, Washington**

Name: Travis Berndahl

Date: 2/25/20

Signature: 

Weather: Sunny

Items	Yes	No	Comments
<b>Cover System</b>			
Settlement Depressions (sinkholes)		X	
Cracking of Cover Soils		X	
Inadequate Cover Soil or Rock		X	
Standing Water		X	
<b>Vegetation</b>			
Bare or Sparsely Vegetated Areas		X	
Areas of Dying Vegetation		X	
Large Root Vegetation (ex. Bushes)	X		East side of landfill, large roots forming west side
<b>Stormwater Conveyance System</b>			
Ditch Obstructions or Flat Areas		X	
Culvert Obstructions		X	
Catch Basin Debris or Silt Accumulation		X	
Stormwater Basin Debris or Silt		X	
<b>Cover Erosion</b>			
Gullies and/or Erosion Scars		X	
Presence of Seeps		X	
<b>Vector Control</b>			
Evidence of Ground Burrows		X	
<b>Leachate Collection &amp; Leak Detection Systems</b>			
Piping or Valve Issues	X		See Condensate Measurement Form
Pump or Meter Issues		X	
Foaming at Pump		X	

**Other Remarks:**

# Facility Inspection Checklist

## Hidden Valley Landfill, Pierce County, Washington

Name: Travis Berndahl

Date: 5-20-23

Signature: 

Weather: cloudy

Items	Yes	No	Comments
<b>Cover System</b>			
Settlement Depressions (sinkholes)		X	
Cracking of Cover Soils		X	
Inadequate Cover Soil or Rock		X	
Standing Water		X	
<b>Vegetation</b>			
Bare or Sparsely Vegetated Areas		X	
Areas of Dying Vegetation		X	
Large Root Vegetation (ex. Bushes)	X		North side of land cell, large roots growing
<b>Stormwater Conveyance System</b>			
Ditch Obstructions or Flat Areas		X	
Culvert Obstructions		X	
Catch Basin Debris or Silt Accumulation		X	
Stormwater Basin Debris or Silt		X	
<b>Cover Erosion</b>			
Gullies and/or Erosion Scars		X	
Presence of Seeps		X	
<b>Vector Control</b>			
Evidence of Ground Burrows		X	
<b>Leachate Collection &amp; Leak Detection Systems</b>			
Piping or Valve Issues		X	
Pump or Meter Issues		X	
Foaming at Pump		X	

Other Remarks:



# GCCS Maintenance Reports



# Hidden Valley Landfill LFG System Monitoring & Maintenance

January 15<sup>th</sup> and 31<sup>st</sup>, 2020

## MAINTENANCE ITEMS COMPLETED THIS MONTH:

- Performed monthly extraction well monitoring on January 15<sup>th</sup> and 31<sup>st</sup>, 2020

## LANDFILL FLARE STATION

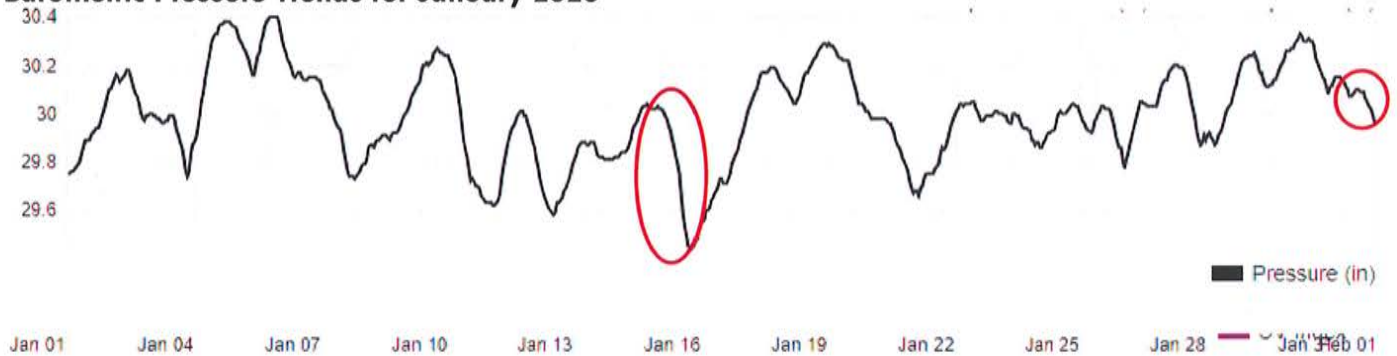
### Before system maintenance

Date & Time	CH <sub>4</sub> %	CO <sub>2</sub> %	O <sub>2</sub> %	Balance %	Init. Flow SCFM	Adj. Flow SCFM	Baro. Press. inches Hg
1/15/2020 7:33	33.5	22.3	3.1	41.1	164	164	29.25
1/31/2020 9:54	29.9	21.3	1.3	47.5	244	244	29.49

### After system maintenance

Date & Time	CH <sub>4</sub> %	CO <sub>2</sub> %	O <sub>2</sub> %	Balance %	Init. Flow SCFM	Adj. Flow SCFM	Baro. Press. inches Hg
1/15/2020 12:39	37.1	23.7	1.1	38.1	276	276	29.00
1/31/2020 12:00	29.8	21.6	1.1	47.5	244	244	29.48

## Barometric Pressure Trends for January 2020



Data Source: <https://www.wunderground.com/dashboard/pws/KWAPUYAL102/graph/2020-01-22/2020-01-22/monthly>

**Hidden Valley Landfill**  
**LFG System Monitoring & Maintenance**  
 February 5<sup>th</sup> and 6<sup>th</sup>, 2020

**MAINTENANCE ITEMS COMPLETED THIS MONTH:**

- Performed monthly extraction well monitoring on February 5<sup>th</sup> and 6<sup>th</sup>, 2020

**LANDFILL FLARE STATION**

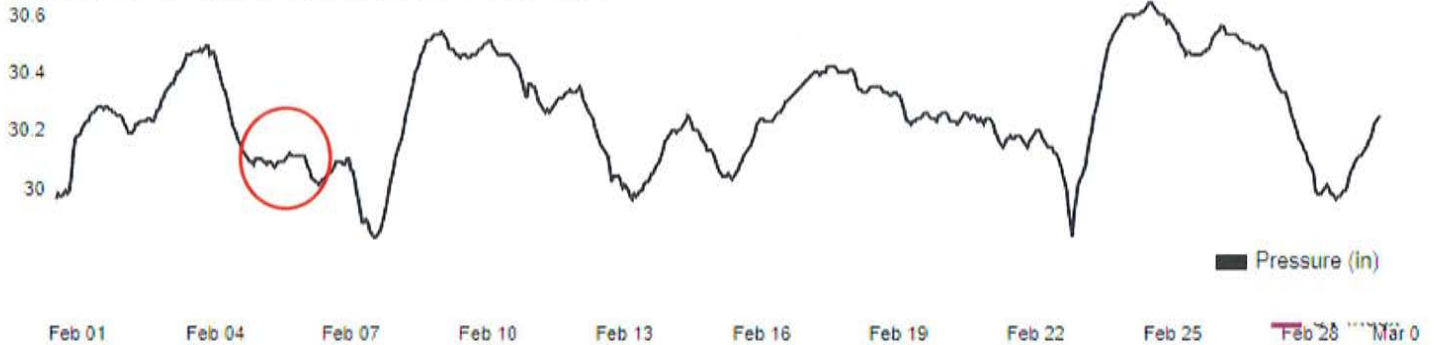
**Before system maintenance**

Date & Time	CH <sub>4</sub> %	CO <sub>2</sub> %	O <sub>2</sub> %	Balance %	Init. Flow SCFM	Adj. Flow SCFM	Baro. Press. inches Hg
2/5/2020 9:35	29.5	21.6	1.5	47.4	237	237	29.45
2/6/2020 7:40	30.5	21.1	1.4	47.0	223	223	29.53

**After system maintenance**

Date & Time	CH <sub>4</sub> %	CO <sub>2</sub> %	O <sub>2</sub> %	Balance %	Init. Flow SCFM	Adj. Flow SCFM	Baro. Press. inches Hg
2/5/2020 15:30	30.5	21.9	1.6	46.0	230	230	29.53
2/6/2020 10:21	31.8	21.5	1.1	45.6	207	207	29.52

**Barometric Pressure Trends for February 2020**



Data Source: <https://www.wunderground.com/dashboard/pws/KWAPUYAL102/graph/2020-02-22/2020-02-22/monthly>

# Hidden Valley Landfill LFG System Monitoring & Maintenance

March 19<sup>th</sup>, 2020

## MAINTENANCE ITEMS COMPLETED THIS MONTH:

- Performed monthly extraction well monitoring on March 19<sup>th</sup>

## LANDFILL FLARE STATION

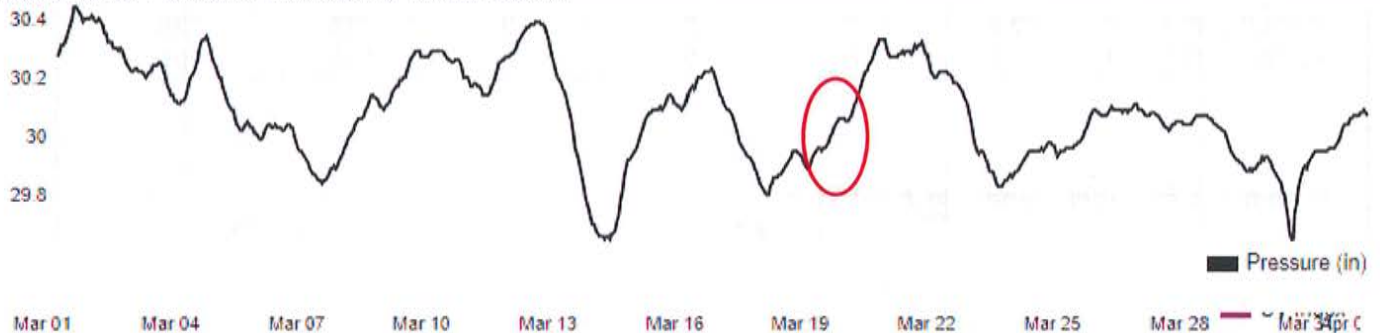
### Before system maintenance

Date & Time	CH <sub>4</sub> %	CO <sub>2</sub> %	O <sub>2</sub> %	Balance %	Init. Flow SCFM	Adj. Flow SCFM	Baro. Press. inches Hg
3/19/2020 9:17	33.3	24	5.2	37.5	368	368	29.48
3/19/2020 10:05	27	20.8	3.2	49	350	350	29.52

### After system maintenance

Date & Time	CH <sub>4</sub> %	CO <sub>2</sub> %	O <sub>2</sub> %	Balance %	Init. Flow SCFM	Adj. Flow SCFM	Baro. Press. inches Hg
3/19/2020 13:46	31.8	21	2.3	44.9	186	186	29.41

### Barometric Pressure Trends for March 2020



Data Source: <https://www.wunderground.com/dashboard/pws/KWAPUYAL102/graph/2020-03-22/2020-03-22/monthly>

**Hidden Valley Landfill**  
**LFG System Monitoring & Maintenance**  
 April 8<sup>th</sup>, 9<sup>th</sup>, 24<sup>th</sup>, and 29<sup>th</sup> 2020

**MAINTENANCE ITEMS COMPLETED THIS MONTH:**

- Completed routine LFG collection system inspection on April 8<sup>th</sup>.
- Repaired a 12"x3" Tee at N-12 on April 8<sup>th</sup>.
- Performed monthly extraction well monitoring on April 9<sup>th</sup>, 24<sup>th</sup>, and 29<sup>th</sup>.

**LANDFILL FLARE STATION**

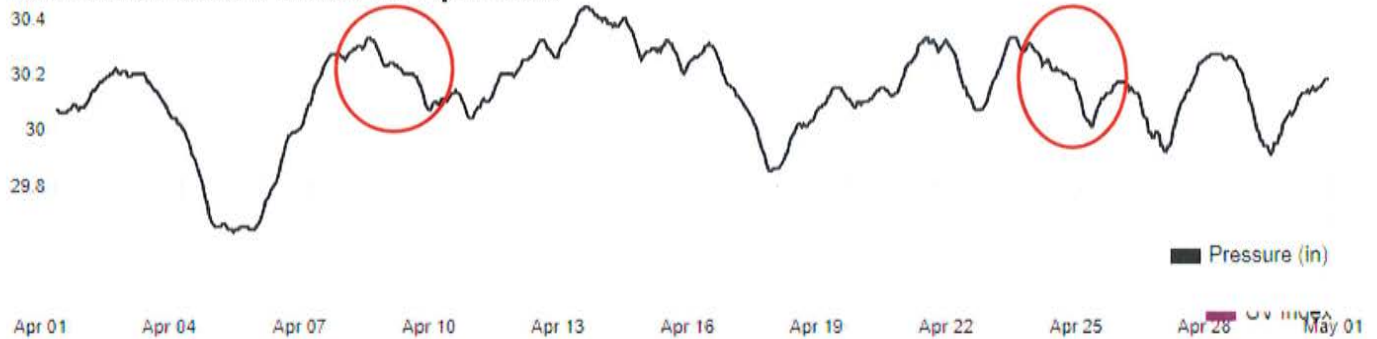
**Before system maintenance**

Date & Time	CH <sub>4</sub> %	CO <sub>2</sub> %	O <sub>2</sub> %	Balance %	Init. Flow SCFM	Adj. Flow SCFM	Baro. Press. inches Hg
4/9/2020 8:38	29.9	21	2.9	46.2	246	246	29.61
4/24/2020 8:17	28	20.7	2.9	48.4	230	230	29.64
4/29/2020 8:05	35.6	22.6	1.5	40.3	211	211	29.37

**After system maintenance**

Date & Time	CH <sub>4</sub> %	CO <sub>2</sub> %	O <sub>2</sub> %	Balance %	Init. Flow SCFM	Adj. Flow SCFM	Baro. Press. inches Hg
4/9/2020 11:12	30.8	21.4	2	45.8	234	234	29.52
4/24/2020 10:47	32.8	21.7	2.2	43.3	228	228	29.55
4/29/2020 12:21	37.1	25.7	1.5	35.7	156	156	29.27

**Barometric Pressure Trends for April 2020**



Data Source: <https://www.wunderground.com/dashboard/pws/KWAPUYAL102/graph/2020-04-22/2020-04-22/monthly>



Photo Log



N-12 prior to 12"x3" Tee Replacement



N-12 after 12"x3" Tee Replacement



N-12 after 12"x3" Tee Replacement

**Hidden Valley Landfill**  
**LFG System Monitoring & Maintenance**  
 May 20<sup>th</sup>, 21<sup>st</sup>, and 22<sup>nd</sup>, 2020

**MAINTENANCE ITEMS COMPLETED THIS MONTH:**

- Performed monthly extraction well monitoring on May 20<sup>th</sup>, 21<sup>st</sup>, and 22<sup>nd</sup>.

**LANDFILL FLARE STATION**

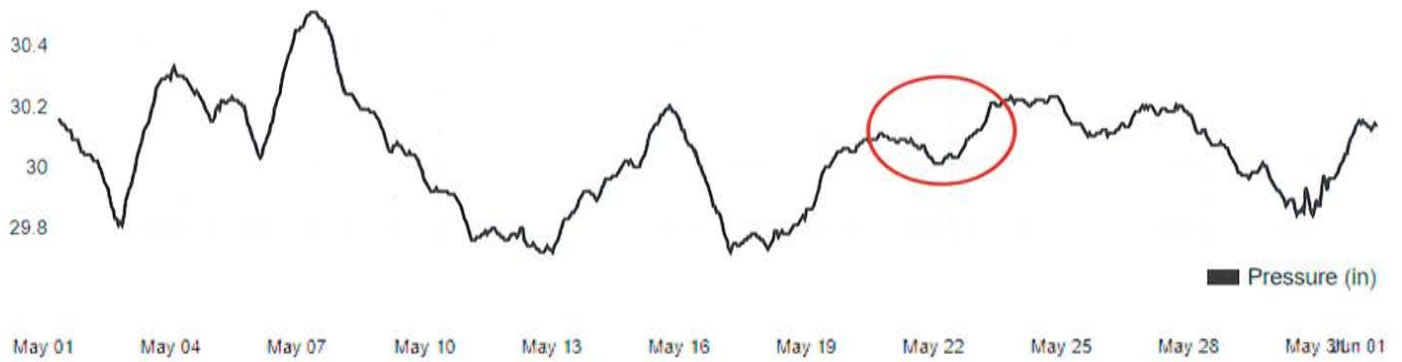
**Before system maintenance**

Date & Time	CH <sub>4</sub> %	CO <sub>2</sub> %	O <sub>2</sub> %	Balance %	Init. Flow SCFM	Adj. Flow SCFM	Baro. Press. inches Hg
5/20/2020 14:49	34.8	24.6	1.8	38.8	156	156	29.49
5/21/2020 7:13	33.2	22.9	2.4	41.5	157	157	29.44
5/22/2020 6:23	34.4	21.3	2.6	41.7	145	145	29.47

**After system maintenance**

Date & Time	CH <sub>4</sub> %	CO <sub>2</sub> %	O <sub>2</sub> %	Balance %	Init. Flow SCFM	Adj. Flow SCFM	Baro. Press. inches Hg
5/20/2020 16:23	34.5	24.5	1.8	39.2	156	156	29.48
5/21/2020 14:46	36.1	22.6	1.7	39.6	142	142	29.38
5/22/2020 8:17	34.1	22.3	2.1	41.5	144	144	29.49

**Barometric Pressure Trends for May 2020**



Data Source: <https://www.wunderground.com/dashboard/pws/KWAPUYAL102/graph/2020-05-22/2020-05-22/monthly>

# Hidden Valley Landfill LFG System Monitoring & Maintenance

June 10<sup>th</sup> and 11<sup>th</sup>, 2020

## MAINTENANCE ITEMS COMPLETED THIS MONTH:

- Performed monthly extraction well monitoring on June 10<sup>th</sup> and 11<sup>th</sup>.

## LANDFILL FLARE STATION

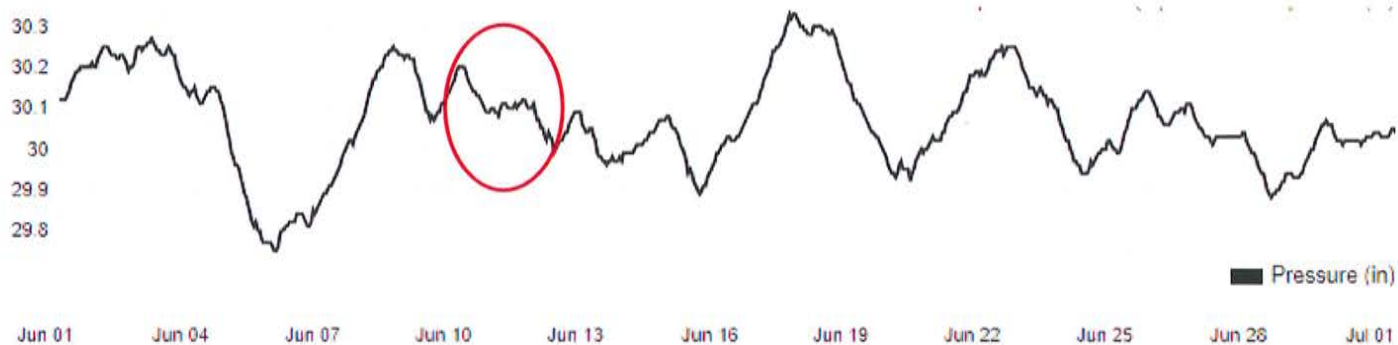
### Before system maintenance

Date & Time	CH <sub>4</sub> %	CO <sub>2</sub> %	O <sub>2</sub> %	Balance %	Init. Flow SCFM	Adj. Flow SCFM	Baro. Press. inches Hg
6/10/2020 10:33	34.4	20.8	3.6	41.2	135	135	29.51
6/11/2020 8:11	31.5	20.2	3.1	45.2	159	159	29.49

### After system maintenance

Date & Time	CH <sub>4</sub> %	CO <sub>2</sub> %	O <sub>2</sub> %	Balance %	Init. Flow SCFM	Adj. Flow SCFM	Baro. Press. inches Hg
6/10/2020 15:33	32.5	20.8	2.4	44.3	158	158	29.39
6/11/2020 10:07	36.1	24.1	1.8	38	159	159	29.46

## Barometric Pressure Trends for June 2020



Data Source: <https://www.wunderground.com/dashboard/pws/KWAPUYAL102/graph/2020-06-22/2020-06-22/monthly>



## Leachate Treatment System Data

CELL 2  
LEAK DET - 1,052 GAL 1/23/20

LEACHATE DAILY LOG #2

Month: January  
Year: 2020



Date	Time	INFLUENT FM 212	EFFLUENT FM 511	ACH HRS	D-AP	RAIN	LR LVL	GP HRS	S-SL	CELL	TS (G)	TRAN P2	BLW A/B	E-PPH	DAILY EFFLUENT
1	12	9928896	146511	62516	64.4	.5		3729	131339	790245	16785		3493	7.20	32584
2	12	9962020	179095	62576	65	.2	2103	3730	"	"	"	1541	32622	710	32584
3	12	9994478	211681	62594	65	.45	2124	3732	"	"	"	1592	32047	718	32584
4	12	26809	244264	62618	64	.5	2175	3738	"	"	"	1534	32072	712	32584
5	12	58168	276849	62612	64	.35	2376	3743	"	"	"	1619	32098	724	32584
6	12	92585	309432	62666	65	.45	2287	3757	"	"	"	1629	32123	723	32584
7	12	125814	342016	62690	64.1	.4	2325	3764	131339	790245	20706	1617	32148	739	32584
8	12	160113	374549	62714	64.5	.2	2504	3765	131339	790245	20706	1571	32155	737	32584
9		194513	6107185	62746	63.9	.25	2277	3777	131339	790245	20706	1561	32174	743	32584
10	12	227294	439767	62765	64	.5	2208	3779	"	"	26842	1602	32225	749	32584
11	12	262279	472351	62786	64	.35	2303	3781	"	"	"	1503	32250	851	32584
12	12	296490	504937	62810	64	.4	2183	3783	"	"	"	1628	32275	838	30716
13	12	327091	535655	62834	off	.5	2135	3793	"	"	"	1541	32300	821	32584
14	12	342486	568233	62860	63.9	.0	2135	3793	131339	790245	20706	1575	32305	805	32584
15	12	395178	600220	62888	64.1	.2	2125	3795	131339	790245	20706	1622	32357	805	32584
16	12	424435	633403	62912	64.2	.8	2154	3800	131339	790245	20706	1547	32385	871	32584
17	12	462999	665982	62929	65	0	2126	3807	"	"	"	1542	32401	847	32584
18	12	496346	698566	62953	64	.1	2202	3808	"	"	"	1605	32426	843	32584
19	12	530853	731152	62977	64	0	2201	3809	"	"	"	1578	32452	836	32584
20	12	564906	763735	63001	off	.2	2198	3815	"	"	"	1602	32477	826	32584
21	12	598124	796319	63025	64.3	.8	2223	3816	131339	790245	20706	1563	32501	841	32584
22		633257	828905	63049	64.4	.75		32508	131339	790495	20706		32528	831	32584
23	12	667552	861488	63073	64	.75	2233	3825	"	"	"	1589	32553	815	32584
24	12	700271	894071	63097	64	.25	2228	3832	132391	790650	209607	1596	32578	802	32584
25	12	734210	926655	63121	64	.35	2197	3833	"	"	"	1610	32584	803	32584
26	12	769635	959240	63145	64	.45	2205	3834	"	"	"	1620	32629	812	32584
27	12	802501	991824	63169	off	.80	2210	3836	"	"	"	1553	32654	802	32584
28	12	836291	1024408	63193	64.7	.40	2208	3842	132391	790650	209607	1558	32680	802	32584
29	12	871512	1057446	63217	65.1	.35		3843	132391	791574	209607		32705	835	32584
30	12	905777	1089576	63241	65.7	.45	2226	3849	"	"	26965	1566	32730	817	32584
31	12	939707	112261	63265	65	0.5	2235	3864	132391	791574	209607	1548	32755	821	32584

Monthly Totals 12.6 3883 1,052 1,331

S/S LEAK DETECT - 1,052

0



# LEACHATE DAILY LOG #2

Month: FEB. 2020

Year: \_\_\_\_\_

Date	Time	INFLUENT FM 212	EFFLUENT FM 511	AC-HRS	D-AP	RAIN	LB LVL	GP-HRS	S-SI	CELLS	TS/GL	TRAN P	BLW/A/B	E-PH	DAILY EFFLUENT
1	12	972719	1154745	63289	65	.82	2249	3883	132391	791574	269665	1602	32779	798	32584
2	12	1008285	1187328	63313	65	0	2267	3885	"	"	"	1582	32802	814	32584
3	12	1041348	1219913	63337	off	.4	2272	3887	"	"	"	1570	32824	803	32584
4	12	1075905	1752496	63341	64.4	.4	2286	3892	132391	791574	269665	1575	32830	816	32584
5	12	1109985	1285083	63391	64.3	.8	2298	3905	132391	791574	269665	1578	32865	832	32584
6	12	1144895	1317662	63415	off	.6.5	2215	3905	132391	791574	269665	1574	32875	851	32584
7	12	1180190	1350249	63439	65	.375	2327	3905	"	"	273606	1571	32914	814	32584
8	12	1216372	1382833	63463	65	.2	2336	3906	"	"	"	1597	32937	826	32584
9	12	1281042	1415417	63481	65	0	2347	3907	"	"	"	1547	32959	818	32584
10	12	1286997	1448001	63505	65	.4	2354	3918	"	"	"	1589	32982	834	32584
11	12	1320666	1486584	63535	64.4	.0	2363	3923	152391	791574	269665	1619	33000	855	32584
12	12	1357670	1515170	63558	64.9	.0	2360	3924	132391	791574	269665	1520	33027	815	32584
13	12	1391432	1545755	63591	65.0	.0	2386	3931	132391	791574	269665	1534	33032	821	32584
14	12	1424993	1578338	63601	65	.2	2395	3932	"	"	"	1570	33072	803	32584
15	12	1460341	1610922	63625	65	.1	2400	3939	"	"	"	1595	33094	813	32584
16	12	1494076	1643505	63649	67	0	2408	3940	"	"	"	1586	33117	799	32584
17	12	1530175	1676090	63673	67	.0	2426	3941	"	"	"	1565	33139	821	32584
18	12	1562895	1708673	63703	64.9	.2	2427	3947	132391	791574	269665	1570	33162	800	32584
19	12	1598446	1741257	63726	65.6	0	2428	3948	132391	791574	269665	1575	33181	847	32584
20	12	1634277	1773843	63745	67	0	2432	3954	"	"	"	1574	33207	820	32584
21	12	1667816	1806426	63769	67	0	2457	3960	"	"	"	1594	33229	795	32584
22	12	1702695	1839010	63793	67	0	2365	3961	"	"	"	1582	33252	799	32584
23	12	1738011	1871593	63817	67	.5	2380	3963	"	"	"	1626	33274	813	32584
24	12	1773151	1904178	63841	67	.0	2274	3969	"	"	"	1521	33297	803	32584
25	12	1808299	1936762	63871	64.3	.0	2300	3970	132391	791574	269665	1535	33322	819	32584
26	12	1843443	1969346	63894	64.1	.0	2304	3976	132391	791574	269665	1573	33342	807	32584
27	12	1876508	2001930	63913	67	0	2314	3984	"	"	"	1590	33364	791	32584
28	12	1912855	2034514	63937	67	.1	2313	3985	"	"	"	1621	33387	8	32584
29	12	1946173	2067098	63961	67	.05	2306	3991	132391	804281	274575	1596	33409	793	32584
30															
31								3992							

0 12,710

4.17

Monthly Totals

# LEACHATE DAILY LOG #2

Month: March 2020  
 Year: \_\_\_\_\_

Date	Time	INFLUENT FM 212	EFFLUENT FM 311	AC-HRS	D-AP	RAIN	LB LVL	GP HRS	S-SI	CELL	TS/GC	TRAN P	BLW-A/B	E-PH	DAIRY EFFLUENT
1	12	1981680	2099682	63985	67	0	2304	3992	132391	804284	274575	1562	32437	821	32584
2	12	2016709	2132266	64009	67	0	2311	3993	11	"	"	1587	33454	796	32584
3	12	2052062	2144051	64039	65A	0	2316	4001	132391	804284	274575	1517	33477	811	32584
4	12	2065202	2197433	64063	OFF	0	2322	4003	132391	804284	274575	1555	33499	805	32584
5	12	2121425	2230422	64086	65.7	0.375	2332	4010	132391	804284	274575	1582	33524	803	32584
6	12	2154704	2262600	64105	66	0.675	2330	4016	11	"	"	1587	33544	795	32588
7	12	2190411	2295201	64129	66	0.1	2349	4017	11	"	"	1597	33567	8	32588
8	12	2223967	2327776	64153	66	0	2344	4019	11	"	"	1561	33589	795	32588
9	12	2259866	2360358	64177	66	0	2283	4020	11	808233	"	1565	33611	793	32584
10	12	2295457	2392943	64206	66.3	0	2219	4021	132391	812577	274575	1594	33611	0.66	32584
11	12	2329297	2425525	64230	66.1	0	2231	4023	132391	812577	274575	1580	33655	7.89	32584
12	12	2458111	2363668	64248	66.3	0	2235	4024	132391	812577	274575	1571	33678	7.91	32584
13	12	2398820	2490695	64272	66	0.7	2251	4026	11	"	"	1618	33700	7.96	32584
14	12	2433479	2523277	64296	66	0	2250	4027	11	"	"	1584	33723	809	32584
15	12	2469284	2555863	64320	66	0	2264	4029	11	"	"	1570	33745	823	32584
16	12	2503477	2588446	64344	66	0	2264	4030	11	"	"	1574	33768	813	32584
17	12	2538496	2621032	64374	65.80	0	2275	4031	132391	812577	274575	1520	33784	8.19	32584
18	12	2572977	2653615	64398	65.5	0	2283	4031	132391	812577	274575	1528	33813	8.12	32584
19	12	2607726	2686199	64416	66	0	2288	4034	11	"	"	1568	33835	809	32584
20	12	2643449	2718783	64446	66	0	2292	4035	11	"	"	1547	33858	801	32584
21	12	2678407	2751368	64464	66	0	2298	4036	11	"	"	1561	33880	788	32584
22	12	2713385	2783950	64488	66	0	2301	4037	11	"	"	1588	33903	783	32584
23	12	2747276	2816534	64512	66	0.4	2315	4038	11	"	"	1616	33925	784	32584
24	12	2782591	2849118	64542	65.2	0.6	2310	4039	132391	812577	274575	1570	33948	8.01	32584
25	12	2818925	2881703	64566	65.1	0.375	2321	4040	132391	812577	274575	1573	33970	8.01	32584
26	12	2853660	2914287	64584	66	0.1	2323	4042	11	"	"	1581	33993	8.03	32584
27	12	2886568	2946872	64608	66	0.1	2328	4043	11	"	"	1593	34015	785	32584
28	12	2922328	2979455	64632	66	0.1	2335	4045	11	"	"	1588	34038	793	32584
29	12	2956920	3012039	64656	66	0.625	2342	4046	11	"	"	1596	34060	789	32584
30	12	2990902	3044623	64680	66	0.8	2357	4047	11	"	"	1585	34083	786	32584
31	12	3027411	3077170	64710	64.9	0.4	2351	4048	132391	812577	274575	1576	34091	7.48	32584

Monthly Totals  
 535      4049      8,293



# LEACHATE DAILY LOG #2

Month: April Apr  
 Year: 2020

Date	Time	Influent FM 212	Effluent FM 511	AC-HRS	D-AP	RAIN	LB Wt	GP HRS	S-SI	CELLS	TS/GI	TRAMP	BLW A/B	E-PH	DAILY EFFLUENT
1	12	3061616	3109790	64734	646	.4	2358	4049	132391	812577	27575	1575	34128	8.01	32584
2	12	3094585	3142375	64758	645	1.0	2360	4049	132391	812577	27555	1580	34157	8.16	32584
3	12	3130121	3174960	64776	65	0	2375	4051	"	"	"	1584	34173	790	32584
4	12	3164848	3207543	64800	65	0	2378	4052	"	"	"	1590	34195	799	32584
5	12	3199806	3240128	64824	65	0	2391	4053	"	"	"	1591	34218	792	32584
6	12	3233201	3272711	64848	65	1.2	2391	4054	"	"	"	1550	34240	789	32584
7	12	3268307	3305295	64878	644	1.0	2407	4056	132391	812577	27555	1563	34282	798	32584
8	12	3303586	3337879	64902	644	1.0	2435	4056	132391	812577	27555	1585	34285	792	32584
9	12	3337264	3370478	64926	646	0	2480	4058	132391	812577	27555	1588	34308	781	32584
10	12	3372893	3403049	64944	65	0	2430	4059	"	"	27536	1584	34340	770	32584
11	12	3406683	3435632	64968	65	0	2435	4068	"	"	"	1572	34353	767	32584
12	12	3441347	3468216	64992	65	0	2443	4061	"	"	"	1569	34375	769	32584
13	12	3476972	3500801	65016	65	1.0	2451	4063	"	"	"	1575	34398	781	32584
14	12	3510259	3533383	65046	671	1.0	2340	4064	132391	812577	27536	1578	34420	8.11	32584
15	12	3546800	3565968	65070	653	0	2242	4065	132391	812577	27536	1570	34448	7.73	32584
16	12	3580488	3598551	65088	65	0	2248	4066	"	"	"	1577	34465	765	32584
17	12	3615633	3631137	65112	65	0	2256	4068	"	"	275878	1608	34488	774	32584
18	12	3649305	3663720	65136	65	1.2	2262	4069	"	"	"	1590	34510	754	32584
19	12	3683608	3696304	65160	65	0	2271	4070	"	"	"	1570	34532	776	32584
20	12	3719019	3728888	65184	65	1.0	2279	4072	"	"	"	1583	34555	776	32584
21	12	3754574	3761472	65213	641	1.0		4073	132391	812577	27534		35407	7.85	32584
22	12	3789120	3794054	65237	641	1.45	2296	4076	132391	812577	27534	1630	35415	7.60	32584
23	12	3822430	3826639	65255	67	0	2297	4077	"	"	275878	1546	34567	755	32584
24	12	3858137	3859224	65279	65	0	2307	4078	"	"	"	1560	34183	754	32584
25	12	3890916	3891809	65303	66	.5	2311	4079	"	"	"	1615	34206	756	32584
26	12	3926555	3924393	65327	66	.35	2317	4081	"	"	"	1570	34228	768	32584
27	12	3960672	3956977	65351	66	1.0	2320	4083	"	"	"	1670	34251	768	32584
28	12	3996521	3999561	65381	646	1.0	2329	4084	132391	812577	275878	1581	34567	7.68	32584
29	12	4030907	4022146	65403	644	1.1	2330	4085	132391	812577	27536	1587	34273	7.51	32584
30	12	4066564	4054730	65428	646	1.375	2355	4086	132391	812577	27536	1590	34323	7.55	32584
31				65				4087							

Monthly Totals  
 3.775  
 13,979



55  
21

# LEACHATE DAILY LOG #2

Month: June  
Year: 2026

Date	Time	Influent (M <sup>3</sup> )	Effluent (M <sup>3</sup> )	AC-HRS	D-AP	RAIN	LS-IV	GP-HRS	S-SI	CELLG	TS/G	TRAMP	BLW A/B	E-PH	DAILY EFFLUENT
1	0	5188460	5099187		639	0	22.05	4131	132391	941705	275878	1573	35037	7.174	27192
2	12	5216107	5125370	6621	635	0	22.10	4132	152391	941705	275878	1579	35052	7.56	32584
3	11	5252901	5157691	6245	747	0	2150	4133	132391	850645	275878	1584	35061	7.39	32584
4	12	5286377	5196273	6268	744	0		4134	132391	850645	275878		25102	7.34	32584
5	10	5327316	5222860	6287	75.4	0	2033	4135	"	857316	"	1612	35119	7.33	32584
6	12	5357711	5255444	6311	75	0	2036	4137	"	"	"	1579	35142	7.29	32584
7	12	5392788	5288028	6335	75	0	2063	4138	"	"	"	1573	35164	7.37	32584
8	12	5426468	5320611	6358	75	0	2069	4139	"	"	"	1584	35187	7.56	32584
9	12	5462831	5353154	6391	74.1	0	2075	4140	132391	957316	275878	1565	35207	7.43	32584
10	12	5498951	5385792	6415	74.5	0	2077	4141	132391	957316	275878	1567	35227	7.29	32584
11	12	5533619	5418363	6431	68	0	2075	4143	"	"	"	1580	35284	7.06	32584
12	12	5567494	5450948	6455	69	0	2087	4144	"	"	"	1592	35277	7.02	32584
13	12	5603597	5483532	6479	69	0	2092	4145	"	"	"	1610	35299	7.16	32584
14	12	5639172	5516114	6503	71	0	2096	4146	"	"	"	1584	35322	7.32	32584
15	12	5674104	5548699	6527	71	0	2103	4151	"	"	"	1620	35344	7.15	32584
16	12	5709586	5581283	6551	71	0	2107	4152	"	"	"	1580	35367	7.26	32584
17	12	5745205	5613868	6574	off	0	2093	4152	"	"	27663	1569	35389	7.24	32584
18	12	5780913	5646451	6598	71	0	2100	4153	"	"	"	1585	35411	7.14	32584
19	12	5816495	5679030	6622	71	0	2102	4154	"	"	"	1572	35433	7.20	32584
20	12	5851180	5711620	6646	71	0	2124	4155	"	"	"	1567	35456	6.95	32584
21	12	5887743	5744205	6670	70	0	2129	4156	"	"	"	1580	35478	6.85	32584
22	12	5921434	5776787	6694	70	0	2124	4158	"	"	"	1586	35501	6.95	32584
23	12	5956848	5809372	6724	70.9	0	2127	4159	132391	957316	27670	1587	35527	6.89	32584
24	12	5994143	5842332	6748	70.4	0	2135	4160	132391	957316	27670	1588	35551	6.59	32584
25	12	6028477	5874542	6772	70.4	0	2147	4161	132391	85316	27670	1585	35575	6.62	32584
26	12	6063427	5907124	6790	70	0	2151	4162	"	"	"	1574	35591	6.33	32584
27	12	6098925	5939708	6814	71	0	2158	4164	"	"	"	1581	35613	7.85	32584
28	12	6134878	5972291	6838	72	0	2167	4165	"	"	"	1614	35636	7.93	32584
29	12	6169119	6004875	6862	72	0	2160	4168	"	"	"	1569	35658	7.89	32584
30	12	6204177	6037485	6892	72.5	0	2165	4169	"	"	"	1578	35684	7.86	32584
31							4170								

Monthly Totals

3.16

10,260





Environment Testing  
TestAmerica

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## ANALYTICAL REPORT

Eurofins TestAmerica, Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Tel: (303)736-0100

Laboratory Job ID: 280-133052-1  
Client Project/Site: Hidden Valley LF

For:  
SCS Engineers  
2405 140th Avenue NE  
Suite 107  
Bellevue, Washington 98005-1877

MW-10S  
MW-12S  
MW-12D  
MW-13S  
MW-13D  
MW-14R  
MW-15S  
MW-15D  
MW-17S  
MW-29S  
FM-1  
FM-2  
Trip Blank

Attn: Mr. Kevin Lakey

*Betsy Sara*

Authorized for release by:  
2/13/2020 2:03:51 PM

Betsy Sara, Project Manager II  
(303)736-0189  
betsy.sara@testamericainc.com

### LINKS

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Qualifiers

### HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

### General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
H	Sample was prepped or analyzed beyond the specified holding time

## Glossary

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

# Case Narrative

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

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**Job ID: 280-133052-1**

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**Laboratory: Eurofins TestAmerica, Denver**

## Narrative

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### CASE NARRATIVE

**Client: SCS Engineers**

**Project: Hidden Valley LF**

**Report Number: 280-133052-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### Sample Receiving

The samples were received on 01/22/2020; the samples arrived properly preserved and on ice. The temperatures of the coolers at receipt were 1.2° C, 1.8° C and 1.8° C.

One each of the three VOA vials was received broken for samples HVL-012120-02 and HVL-012120-21; however sufficient volume remained for analysis. The client was notified.

### Holding Times

The original Nitrate analysis performed within the 48-hour holding time exhibited results for the samples HVL-012120-02 and HVL-012120-03 over the calibration range; therefore the samples were reanalyzed outside of the 48-hour holding time. Only the reanalysis results that were within calibration range were reported in this submission.

All other holding times were within established control limits.

### Method Blanks

All Method Blanks were within established control limits.

### Laboratory Control Samples (LCS)

All Laboratory Control Samples were within established control limits.

### Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) for Method 8260B, however, an LCS/LCSD pair was analyzed to demonstrate method precision and accuracy.

Sample HVL-012120-01 was selected to fulfill the laboratory batch quality control requirements for Method 300.0. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Chloride and Sulfate above the upper control limits. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

Sample HVL-012120-04 was selected to fulfill the laboratory batch quality control requirements for Method 350.1. Analysis of the laboratory



# Case Narrative

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

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## Job ID: 280-133052-1 (Continued)

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### Laboratory: Eurofins TestAmerica, Denver (Continued)

generated MS/MSD for this sample exhibited recoveries of Ammonia below the lower control limit. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

All other MS and MSD samples were within established control limits.

### Sample Duplicate

The Method 2540D Sample Duplicate performed on a sample from another client exhibited an RPD that exceeded the limit for Total Suspended Solids (TSS), and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.

### General Comments

The analysis for Chloride and Sulfate Method 300.0 was performed at the TestAmerica's St. Louis Laboratory.  
13715 Rider Trail North  
Earth City, MO 63045  
Phone: 314-298-8566

The analysis for Iron Method 6020 was performed at the TestAmerica's Seattle Laboratory.  
5755 8th Street East  
Tacoma, WA 98424  
Phone: 253-922-2310



## Detection Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

**Client Sample ID: HVL-012120-01**      FM-1

**Lab Sample ID: 280-133052-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	13	F1	0.60		mg/L	10		300.0	Total/NA
Sulfate - DL	13	F1	0.50		mg/L	10		300.0	Total/NA
Calcium, Dissolved	24		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	7.1		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	4.0		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	23		1.0		mg/L	1		6010B	Dissolved
Nitrate as N	0.90		0.20		mg/L	1		300.0	Total/NA
Alkalinity	110		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	170		10		mg/L	1		SM 2540C	Total/NA

**Client Sample ID: HVL-012120-02**      MW-12S

**Lab Sample ID: 280-133052-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	6.5		0.30		mg/L	5		300.0	Total/NA
Sulfate - DL	5.9		0.25		mg/L	5		300.0	Total/NA
Calcium, Dissolved	21		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	6.2		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	9.9		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	16		1.0		mg/L	1		6010B	Dissolved
Manganese, Dissolved	0.0089		0.0010		mg/L	1		6020	Dissolved
Nitrate as N	22	H	0.45		mg/L	5		300.0	Total/NA
Alkalinity	22		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	240		10		mg/L	1		SM 2540C	Total/NA
Total Organic Carbon - Quad	1.2		1.0		mg/L	1		SM 5310B	Total/NA

**Client Sample ID: HVL-012120-03**      FM-2

**Lab Sample ID: 280-133052-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	20		0.60		mg/L	10		300.0	Total/NA
Sulfate - DL	8.7		0.50		mg/L	10		300.0	Total/NA
Calcium, Dissolved	34		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	11		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	12		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	25		1.0		mg/L	1		6010B	Dissolved
Nitrate as N	13	H	0.45		mg/L	5		300.0	Total/NA
Alkalinity	120		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	270		10		mg/L	1		SM 2540C	Total/NA
Total Organic Carbon - Quad	1.2		1.0		mg/L	1		SM 5310B	Total/NA

**Client Sample ID: HVL-012120-04**      MW-12D

**Lab Sample ID: 280-133052-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	9.4		0.30		mg/L	5		300.0	Total/NA
Sulfate - DL	6.8		0.25		mg/L	5		300.0	Total/NA
Calcium, Dissolved	30		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	12		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	3.7		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	19		1.0		mg/L	1		6010B	Dissolved
Nitrate as N	0.93		0.20		mg/L	1		300.0	Total/NA
Alkalinity	160		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	200		10		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

# Detection Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

**Client Sample ID: HVL-012120-05**      MW-17S

**Lab Sample ID: 280-133052-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	11		0.30		mg/L	5		300.0	Total/NA
Sulfate - DL	5.4		0.25		mg/L	5		300.0	Total/NA
Calcium, Dissolved	33		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	11		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	17		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	26		1.0		mg/L	1		6010B	Dissolved
Manganese, Dissolved	1.2		0.0010		mg/L	1		6020	Dissolved
Nitrate as N	10		0.20		mg/L	1		300.0	Total/NA
Ammonia	6.0		0.10		mg/L	2		350.1	Total/NA
Alkalinity	170		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	270		10		mg/L	1		SM 2540C	Total/NA
Total Organic Carbon - Quad	1.7		1.0		mg/L	1		SM 5310B	Total/NA

**Client Sample ID: HVL-012120-06**      MW-29S

**Lab Sample ID: 280-133052-6**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	10		0.60		mg/L	10		300.0	Total/NA
Sulfate - DL	15		0.50		mg/L	10		300.0	Total/NA
Calcium, Dissolved	24		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	7.3		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	3.7		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	23		1.0		mg/L	1		6010B	Dissolved
Manganese, Dissolved	0.61		0.0010		mg/L	1		6020	Dissolved
Nitrate as N	0.33		0.20		mg/L	1		300.0	Total/NA
Alkalinity	110		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	180		10		mg/L	1		SM 2540C	Total/NA
Total Organic Carbon - Quad	1.2		1.0		mg/L	1		SM 5310B	Total/NA

**Client Sample ID: HVL-012120-07**      MW-15D

**Lab Sample ID: 280-133052-7**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.64		0.50		ug/L	1		8260B	Total/NA
Chloride - DL	9.4		0.60		mg/L	10		300.0	Total/NA
Sulfate - DL	11		0.50		mg/L	10		300.0	Total/NA
Calcium, Dissolved	27		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	12		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	3.4		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	20		1.0		mg/L	1		6010B	Dissolved
Manganese, Dissolved	0.028		0.0010		mg/L	1		6020	Dissolved
Nitrate as N	0.66		0.20		mg/L	1		300.0	Total/NA
Alkalinity	130		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	180		10		mg/L	1		SM 2540C	Total/NA

**Client Sample ID: HVL-012120-08**      MW-13D

**Lab Sample ID: 280-133052-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	13		0.60		mg/L	10		300.0	Total/NA
Sulfate - DL	12		0.50		mg/L	10		300.0	Total/NA
Calcium, Dissolved	27		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	10		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	3.5		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	13		1.0		mg/L	1		6010B	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver



## Detection Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

### Client Sample ID: HVL-012120-08 (Continued)

### Lab Sample ID: 280-133052-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	1.0		0.20		mg/L	1		300.0	Total/NA
Alkalinity	100		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	170		10		mg/L	1		SM 2540C	Total/NA

### Client Sample ID: HVL-012120-09

MW-15S

### Lab Sample ID: 280-133052-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	12		0.30		mg/L	5		300.0	Total/NA
Sulfate - DL	5.6		0.25		mg/L	5		300.0	Total/NA
Calcium, Dissolved	27		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	8.8		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	11		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	18		1.0		mg/L	1		6010B	Dissolved
Manganese, Dissolved	1.2		0.0010		mg/L	1		6020	Dissolved
Nitrate as N	9.1		0.20		mg/L	1		300.0	Total/NA
Ammonia	3.7		0.10		mg/L	1		350.1	Total/NA
Alkalinity	110		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	200		10		mg/L	1		SM 2540C	Total/NA
Total Organic Carbon - Quad	1.4		1.0		mg/L	1		SM 5310B	Total/NA

### Client Sample ID: HVL-012120-10

MW-13S

### Lab Sample ID: 280-133052-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	15		0.60		mg/L	10		300.0	Total/NA
Sulfate - DL	9.5		0.50		mg/L	10		300.0	Total/NA
Calcium, Dissolved	19		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	5.7		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	3.5		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	13		1.0		mg/L	1		6010B	Dissolved
Nitrate as N	1.3		0.20		mg/L	1		300.0	Total/NA
Alkalinity	64		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	150		10		mg/L	1		SM 2540C	Total/NA

### Client Sample ID: HVL-012120-11

MW-14R

### Lab Sample ID: 280-133052-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	1.6		0.20		mg/L	2		300.0	Total/NA
Sulfate - DL	3.6		0.20		mg/L	2		300.0	Total/NA
Calcium, Dissolved	8.3		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	5.0		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	2.4		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	5.1		1.0		mg/L	1		6010B	Dissolved
Manganese, Dissolved	0.18		0.0010		mg/L	1		6020	Dissolved
Alkalinity	48		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	100		10		mg/L	1		SM 2540C	Total/NA

### Client Sample ID: HVL-012120-12

MW-10S

### Lab Sample ID: 280-133052-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	11		0.60		mg/L	10		300.0	Total/NA
Sulfate - DL	11		0.50		mg/L	10		300.0	Total/NA
Calcium, Dissolved	31		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	10		0.10		mg/L	1		6010B	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

# Detection Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

**Client Sample ID: HVL-012120-12 (Continued)**

**Lab Sample ID: 280-133052-12**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Potassium, Dissolved	2.3		2.0		mg/L	1			6010B	Dissolved
Sodium, Dissolved	7.6		1.0		mg/L	1			6010B	Dissolved
Nitrate as N	1.3		0.20		mg/L	1			300.0	Total/NA
Alkalinity	100		10		mg/L	1			SM 2320B	Total/NA
Total Dissolved Solids	160		10		mg/L	1			SM 2540C	Total/NA
Total Organic Carbon - Quad	1.1		1.0		mg/L	1			SM 5310B	Total/NA

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 280-133052-13**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

# Method Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN
300.0	Anions, Ion Chromatography	MCAWW	TAL SL
6010B	Metals (ICP)	SW846	TAL DEN
6020	Metals (ICP/MS)	SW846	TAL DEN
6020	Metals (ICP/MS)	SW846	TAL SEA
300.0	Anions, Ion Chromatography	MCAWW	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN
SM 5310B	Organic Carbon, Total (TOC)	SM	TAL DEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL DEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL SEA
5030B	Purge and Trap	SW846	TAL DEN

#### Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.  
SM = "Standard Methods For The Examination Of Water And Wastewater"  
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

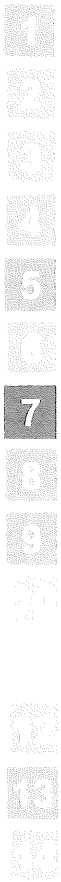
TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100  
TAL SEA = Eurofins TestAmerica, Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310  
TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# Sample Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-133052-1	HVL-012120-01	Water	01/21/20 09:46	01/22/20 09:15	
280-133052-2	HVL-012120-02	Water	01/21/20 10:05	01/22/20 09:15	
280-133052-3	HVL-012120-03	Water	01/21/20 10:40	01/22/20 09:15	
280-133052-4	HVL-012120-04	Water	01/21/20 10:55	01/22/20 09:15	
280-133052-5	HVL-012120-05	Water	01/21/20 11:39	01/22/20 09:15	
280-133052-6	HVL-012120-06	Water	01/21/20 11:59	01/22/20 09:15	
280-133052-7	HVL-012120-07	Water	01/21/20 12:42	01/22/20 09:15	
280-133052-8	HVL-012120-08	Water	01/21/20 12:52	01/22/20 09:15	
280-133052-9	HVL-012120-09	Water	01/21/20 13:22	01/22/20 09:15	
280-133052-10	HVL-012120-10	Water	01/21/20 13:30	01/22/20 09:15	
280-133052-11	HVL-012120-11	Water	01/21/20 14:15	01/22/20 09:15	
280-133052-12	HVL-012120-12	Water	01/21/20 14:35	01/22/20 09:15	
280-133052-13	TRIP BLANK	Water	01/21/20 14:35	01/22/20 09:15	



# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

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

Client Sample ID: HVL-012120-01

Date Collected: 01/21/20 09:46

Date Received: 01/22/20 09:15

Lab Sample ID: 280-133052-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 10:51	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 10:51	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 10:51	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 10:51	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 10:51	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 10:51	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 10:51	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 10:51	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 10:51	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 10:51	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 10:51	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 10:51	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 10:51	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 10:51	1
2-Hexanone	ND		5.0		ug/L			01/30/20 10:51	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 10:51	1
Acetone	ND		10		ug/L			01/30/20 10:51	1
Acrylonitrile	ND		20		ug/L			01/30/20 10:51	1
Benzene	ND		0.50		ug/L			01/30/20 10:51	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 10:51	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 10:51	1
Bromoform	ND		0.50		ug/L			01/30/20 10:51	1
Bromomethane	ND		0.50		ug/L			01/30/20 10:51	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 10:51	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 10:51	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 10:51	1
Chloroethane	ND		0.50		ug/L			01/30/20 10:51	1
Chloroform	ND		0.50		ug/L			01/30/20 10:51	1
Chloromethane	ND		0.50		ug/L			01/30/20 10:51	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 10:51	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 10:51	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 10:51	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 10:51	1
Dibromomethane	ND		0.50		ug/L			01/30/20 10:51	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 10:51	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 10:51	1
Iodomethane	ND		1.0		ug/L			01/30/20 10:51	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 10:51	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 10:51	1
o-Xylene	ND		0.50		ug/L			01/30/20 10:51	1
Styrene	ND		0.50		ug/L			01/30/20 10:51	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 10:51	1
Toluene	ND		0.50		ug/L			01/30/20 10:51	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 10:51	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 10:51	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 10:51	1
Trichloroethene	ND		0.50		ug/L			01/30/20 10:51	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 10:51	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 10:51	1

Euofins TestAmerica, Denver



# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012120-01							Lab Sample ID: 280-133052-1			
Date Collected: 01/21/20 09:46							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Vinyl chloride	ND		0.50		ug/L			01/30/20 10:51	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	99		70 - 127					01/30/20 10:51	1	
4-Bromofluorobenzene (Surr)	96		78 - 120					01/30/20 10:51	1	
Dibromofluoromethane (Surr)	94		77 - 120					01/30/20 10:51	1	
Toluene-d8 (Surr)	102		80 - 125					01/30/20 10:51	1	

Client Sample ID: HVL-012120-02							Lab Sample ID: 280-133052-2			
Date Collected: 01/21/20 10:05							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 11:13	1	
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 11:13	1	
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 11:13	1	
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 11:13	1	
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 11:13	1	
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 11:13	1	
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 11:13	1	
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 11:13	1	
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 11:13	1	
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 11:13	1	
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 11:13	1	
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 11:13	1	
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 11:13	1	
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 11:13	1	
2-Hexanone	ND		5.0		ug/L			01/30/20 11:13	1	
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 11:13	1	
Acetone	ND		10		ug/L			01/30/20 11:13	1	
Acrylonitrile	ND		20		ug/L			01/30/20 11:13	1	
Benzene	ND		0.50		ug/L			01/30/20 11:13	1	
Bromochloromethane	ND		0.50		ug/L			01/30/20 11:13	1	
Bromodichloromethane	ND		0.50		ug/L			01/30/20 11:13	1	
Bromoform	ND		0.50		ug/L			01/30/20 11:13	1	
Bromomethane	ND		0.50		ug/L			01/30/20 11:13	1	
Carbon disulfide	ND		0.50		ug/L			01/30/20 11:13	1	
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 11:13	1	
Chlorobenzene	ND		0.50		ug/L			01/30/20 11:13	1	
Chloroethane	ND		0.50		ug/L			01/30/20 11:13	1	
Chloroform	ND		0.50		ug/L			01/30/20 11:13	1	
Chloromethane	ND		0.50		ug/L			01/30/20 11:13	1	
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 11:13	1	
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 11:13	1	
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 11:13	1	
Dibromochloromethane	ND		0.50		ug/L			01/30/20 11:13	1	
Dibromomethane	ND		0.50		ug/L			01/30/20 11:13	1	
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 11:13	1	
Ethylbenzene	ND		1.0		ug/L			01/30/20 11:13	1	
Iodomethane	ND		1.0		ug/L			01/30/20 11:13	1	
Methylene Chloride	ND		2.0		ug/L			01/30/20 11:13	1	

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012120-02

Date Collected: 01/21/20 10:05

Date Received: 01/22/20 09:15

Lab Sample ID: 280-133052-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 11:13	1
o-Xylene	ND		0.50		ug/L			01/30/20 11:13	1
Styrene	ND		0.50		ug/L			01/30/20 11:13	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 11:13	1
Toluene	ND		0.50		ug/L			01/30/20 11:13	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 11:13	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 11:13	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 11:13	1
Trichloroethene	ND		0.50		ug/L			01/30/20 11:13	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 11:13	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 11:13	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 11:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 127		01/30/20 11:13	1
4-Bromofluorobenzene (Surr)	96		78 - 120		01/30/20 11:13	1
Dibromofluoromethane (Surr)	94		77 - 120		01/30/20 11:13	1
Toluene-d8 (Surr)	103		80 - 125		01/30/20 11:13	1

Client Sample ID: HVL-012120-03

Date Collected: 01/21/20 10:40

Date Received: 01/22/20 09:15

Lab Sample ID: 280-133052-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 11:36	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 11:36	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 11:36	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 11:36	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 11:36	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 11:36	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 11:36	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 11:36	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 11:36	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 11:36	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 11:36	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 11:36	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 11:36	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 11:36	1
2-Hexanone	ND		5.0		ug/L			01/30/20 11:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 11:36	1
Acetone	ND		10		ug/L			01/30/20 11:36	1
Acrylonitrile	ND		20		ug/L			01/30/20 11:36	1
Benzene	ND		0.50		ug/L			01/30/20 11:36	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 11:36	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 11:36	1
Bromoform	ND		0.50		ug/L			01/30/20 11:36	1
Bromomethane	ND		0.50		ug/L			01/30/20 11:36	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 11:36	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 11:36	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 11:36	1
Chloroethane	ND		0.50		ug/L			01/30/20 11:36	1

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012120-03							Lab Sample ID: 280-133052-3			
Date Collected: 01/21/20 10:40							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloroform	ND		0.50		ug/L			01/30/20 11:36	1	
Chloromethane	ND		0.50		ug/L			01/30/20 11:36	1	
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 11:36	1	
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 11:36	1	
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 11:36	1	
Dibromochloromethane	ND		0.50		ug/L			01/30/20 11:36	1	
Dibromomethane	ND		0.50		ug/L			01/30/20 11:36	1	
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 11:36	1	
Ethylbenzene	ND		1.0		ug/L			01/30/20 11:36	1	
Iodomethane	ND		1.0		ug/L			01/30/20 11:36	1	
Methylene Chloride	ND		2.0		ug/L			01/30/20 11:36	1	
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 11:36	1	
o-Xylene	ND		0.50		ug/L			01/30/20 11:36	1	
Styrene	ND		0.50		ug/L			01/30/20 11:36	1	
Tetrachloroethene	ND		0.50		ug/L			01/30/20 11:36	1	
Toluene	ND		0.50		ug/L			01/30/20 11:36	1	
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 11:36	1	
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 11:36	1	
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 11:36	1	
Trichloroethene	ND		0.50		ug/L			01/30/20 11:36	1	
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 11:36	1	
Vinyl acetate	ND		3.0		ug/L			01/30/20 11:36	1	
Vinyl chloride	ND		0.50		ug/L			01/30/20 11:36	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	99		70 - 127					01/30/20 11:36	1	
4-Bromofluorobenzene (Surr)	96		78 - 120					01/30/20 11:36	1	
Dibromofluoromethane (Surr)	94		77 - 120					01/30/20 11:36	1	
Toluene-d8 (Surr)	102		80 - 125					01/30/20 11:36	1	

Client Sample ID: HVL-012120-04							Lab Sample ID: 280-133052-4			
Date Collected: 01/21/20 10:55							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 11:59	1	
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 11:59	1	
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 11:59	1	
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 11:59	1	
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 11:59	1	
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 11:59	1	
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 11:59	1	
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 11:59	1	
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 11:59	1	
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 11:59	1	
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 11:59	1	
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 11:59	1	
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 11:59	1	
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 11:59	1	
2-Hexanone	ND		5.0		ug/L			01/30/20 11:59	1	
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 11:59	1	

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012120-04  
Date Collected: 01/21/20 10:55  
Date Received: 01/22/20 09:15

Lab Sample ID: 280-133052-4  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10		ug/L			01/30/20 11:59	1
Acrylonitrile	ND		20		ug/L			01/30/20 11:59	1
Benzene	ND		0.50		ug/L			01/30/20 11:59	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 11:59	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 11:59	1
Bromoform	ND		0.50		ug/L			01/30/20 11:59	1
Bromomethane	ND		0.50		ug/L			01/30/20 11:59	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 11:59	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 11:59	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 11:59	1
Chloroethane	ND		0.50		ug/L			01/30/20 11:59	1
Chloroform	ND		0.50		ug/L			01/30/20 11:59	1
Chloromethane	ND		0.50		ug/L			01/30/20 11:59	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 11:59	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 11:59	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 11:59	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 11:59	1
Dibromomethane	ND		0.50		ug/L			01/30/20 11:59	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 11:59	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 11:59	1
Iodomethane	ND		1.0		ug/L			01/30/20 11:59	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 11:59	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 11:59	1
o-Xylene	ND		0.50		ug/L			01/30/20 11:59	1
Styrene	ND		0.50		ug/L			01/30/20 11:59	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 11:59	1
Toluene	ND		0.50		ug/L			01/30/20 11:59	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 11:59	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 11:59	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 11:59	1
Trichloroethene	ND		0.50		ug/L			01/30/20 11:59	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 11:59	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 11:59	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 11:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 127		01/30/20 11:59	1
4-Bromofluorobenzene (Surr)	95		78 - 120		01/30/20 11:59	1
Dibromofluoromethane (Surr)	94		77 - 120		01/30/20 11:59	1
Toluene-d8 (Surr)	103		80 - 125		01/30/20 11:59	1

Client Sample ID: HVL-012120-05  
Date Collected: 01/21/20 11:39  
Date Received: 01/22/20 09:15

Lab Sample ID: 280-133052-5  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 12:21	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 12:21	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 12:21	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 12:21	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 12:21	1

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012120-05

Date Collected: 01/21/20 11:39

Date Received: 01/22/20 09:15

Lab Sample ID: 280-133052-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 12:21	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 12:21	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 12:21	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 12:21	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 12:21	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 12:21	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 12:21	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 12:21	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 12:21	1
2-Hexanone	ND		5.0		ug/L			01/30/20 12:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 12:21	1
Acetone	ND		10		ug/L			01/30/20 12:21	1
Acrylonitrile	ND		20		ug/L			01/30/20 12:21	1
Benzene	ND		0.50		ug/L			01/30/20 12:21	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 12:21	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 12:21	1
Bromoform	ND		0.50		ug/L			01/30/20 12:21	1
Bromomethane	ND		0.50		ug/L			01/30/20 12:21	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 12:21	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 12:21	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 12:21	1
Chloroethane	ND		0.50		ug/L			01/30/20 12:21	1
Chloroform	ND		0.50		ug/L			01/30/20 12:21	1
Chloromethane	ND		0.50		ug/L			01/30/20 12:21	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 12:21	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 12:21	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 12:21	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 12:21	1
Dibromomethane	ND		0.50		ug/L			01/30/20 12:21	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 12:21	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 12:21	1
Iodomethane	ND		1.0		ug/L			01/30/20 12:21	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 12:21	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 12:21	1
o-Xylene	ND		0.50		ug/L			01/30/20 12:21	1
Styrene	ND		0.50		ug/L			01/30/20 12:21	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 12:21	1
Toluene	ND		0.50		ug/L			01/30/20 12:21	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 12:21	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 12:21	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 12:21	1
Trichloroethene	ND		0.50		ug/L			01/30/20 12:21	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 12:21	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 12:21	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 12:21	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	100		70 - 127					01/30/20 12:21	1
4-Bromofluorobenzene (Surr)	96		78 - 120					01/30/20 12:21	1
Dibromofluoromethane (Surr)	94		77 - 120					01/30/20 12:21	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<b>Client Sample ID: HVL-012120-05</b>				<b>Lab Sample ID: 280-133052-5</b>		
<b>Date Collected: 01/21/20 11:39</b>				<b>Matrix: Water</b>		
<b>Date Received: 01/22/20 09:15</b>						
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 125		01/30/20 12:21	1

<b>Client Sample ID: HVL-012120-06</b>							<b>Lab Sample ID: 280-133052-6</b>		
<b>Date Collected: 01/21/20 11:59</b>							<b>Matrix: Water</b>		
<b>Date Received: 01/22/20 09:15</b>									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 12:44	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 12:44	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 12:44	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 12:44	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 12:44	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 12:44	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 12:44	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 12:44	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 12:44	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 12:44	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 12:44	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 12:44	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 12:44	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 12:44	1
2-Hexanone	ND		5.0		ug/L			01/30/20 12:44	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 12:44	1
Acetone	ND		10		ug/L			01/30/20 12:44	1
Acrylonitrile	ND		20		ug/L			01/30/20 12:44	1
Benzene	ND		0.50		ug/L			01/30/20 12:44	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 12:44	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 12:44	1
Bromoform	ND		0.50		ug/L			01/30/20 12:44	1
Bromomethane	ND		0.50		ug/L			01/30/20 12:44	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 12:44	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 12:44	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 12:44	1
Chloroethane	ND		0.50		ug/L			01/30/20 12:44	1
Chloroform	ND		0.50		ug/L			01/30/20 12:44	1
Chloromethane	ND		0.50		ug/L			01/30/20 12:44	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 12:44	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 12:44	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 12:44	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 12:44	1
Dibromomethane	ND		0.50		ug/L			01/30/20 12:44	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 12:44	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 12:44	1
Iodomethane	ND		1.0		ug/L			01/30/20 12:44	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 12:44	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 12:44	1
o-Xylene	ND		0.50		ug/L			01/30/20 12:44	1
Styrene	ND		0.50		ug/L			01/30/20 12:44	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 12:44	1
Toluene	ND		0.50		ug/L			01/30/20 12:44	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012120-06							Lab Sample ID: 280-133052-6			
Date Collected: 01/21/20 11:59							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 12:44	1	
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 12:44	1	
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 12:44	1	
Trichloroethene	ND		0.50		ug/L			01/30/20 12:44	1	
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 12:44	1	
Vinyl acetate	ND		3.0		ug/L			01/30/20 12:44	1	
Vinyl chloride	ND		0.50		ug/L			01/30/20 12:44	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	100		70 - 127					01/30/20 12:44	1	
4-Bromofluorobenzene (Surr)	95		78 - 120					01/30/20 12:44	1	
Dibromofluoromethane (Surr)	94		77 - 120					01/30/20 12:44	1	
Toluene-d8 (Surr)	103		80 - 125					01/30/20 12:44	1	

Client Sample ID: HVL-012120-07							Lab Sample ID: 280-133052-7			
Date Collected: 01/21/20 12:42							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 13:07	1	
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 13:07	1	
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 13:07	1	
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 13:07	1	
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 13:07	1	
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 13:07	1	
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 13:07	1	
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 13:07	1	
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 13:07	1	
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 13:07	1	
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 13:07	1	
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 13:07	1	
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 13:07	1	
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 13:07	1	
2-Hexanone	ND		5.0		ug/L			01/30/20 13:07	1	
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 13:07	1	
Acetone	ND		10		ug/L			01/30/20 13:07	1	
Acrylonitrile	ND		20		ug/L			01/30/20 13:07	1	
Benzene	ND		0.50		ug/L			01/30/20 13:07	1	
Bromochloromethane	ND		0.50		ug/L			01/30/20 13:07	1	
Bromodichloromethane	ND		0.50		ug/L			01/30/20 13:07	1	
Bromoform	ND		0.50		ug/L			01/30/20 13:07	1	
Bromomethane	ND		0.50		ug/L			01/30/20 13:07	1	
Carbon disulfide	ND		0.50		ug/L			01/30/20 13:07	1	
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 13:07	1	
Chlorobenzene	ND		0.50		ug/L			01/30/20 13:07	1	
Chloroethane	ND		0.50		ug/L			01/30/20 13:07	1	
Chloroform	ND		0.50		ug/L			01/30/20 13:07	1	
Chloromethane	ND		0.50		ug/L			01/30/20 13:07	1	
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 13:07	1	
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 13:07	1	
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 13:07	1	

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012120-07						Lab Sample ID: 280-133052-7			
Date Collected: 01/21/20 12:42						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		0.50		ug/L			01/30/20 13:07	1
Dibromomethane	ND		0.50		ug/L			01/30/20 13:07	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 13:07	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 13:07	1
Iodomethane	ND		1.0		ug/L			01/30/20 13:07	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 13:07	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 13:07	1
o-Xylene	ND		0.50		ug/L			01/30/20 13:07	1
Styrene	ND		0.50		ug/L			01/30/20 13:07	1
<b>Tetrachloroethene</b>	<b>0.64</b>		0.50		ug/L			01/30/20 13:07	1
Toluene	ND		0.50		ug/L			01/30/20 13:07	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 13:07	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 13:07	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 13:07	1
Trichloroethene	ND		0.50		ug/L			01/30/20 13:07	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 13:07	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 13:07	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 13:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 127					01/30/20 13:07	1
4-Bromofluorobenzene (Surr)	95		78 - 120					01/30/20 13:07	1
Dibromofluoromethane (Surr)	94		77 - 120					01/30/20 13:07	1
Toluene-d8 (Surr)	104		80 - 125					01/30/20 13:07	1

Client Sample ID: HVL-012120-08						Lab Sample ID: 280-133052-8			
Date Collected: 01/21/20 12:52						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 13:29	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 13:29	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 13:29	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 13:29	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 13:29	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 13:29	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 13:29	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 13:29	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 13:29	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 13:29	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 13:29	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 13:29	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 13:29	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 13:29	1
2-Hexanone	ND		5.0		ug/L			01/30/20 13:29	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 13:29	1
Acetone	ND		10		ug/L			01/30/20 13:29	1
Acrylonitrile	ND		20		ug/L			01/30/20 13:29	1
Benzene	ND		0.50		ug/L			01/30/20 13:29	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 13:29	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 13:29	1

Eurofins TestAmerica, Denver



# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012120-08

Date Collected: 01/21/20 12:52

Date Received: 01/22/20 09:15

Lab Sample ID: 280-133052-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		0.50		ug/L			01/30/20 13:29	1
Bromomethane	ND		0.50		ug/L			01/30/20 13:29	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 13:29	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 13:29	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 13:29	1
Chloroethane	ND		0.50		ug/L			01/30/20 13:29	1
Chloroform	ND		0.50		ug/L			01/30/20 13:29	1
Chloromethane	ND		0.50		ug/L			01/30/20 13:29	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 13:29	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 13:29	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 13:29	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 13:29	1
Dibromomethane	ND		0.50		ug/L			01/30/20 13:29	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 13:29	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 13:29	1
Iodomethane	ND		1.0		ug/L			01/30/20 13:29	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 13:29	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 13:29	1
o-Xylene	ND		0.50		ug/L			01/30/20 13:29	1
Styrene	ND		0.50		ug/L			01/30/20 13:29	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 13:29	1
Toluene	ND		0.50		ug/L			01/30/20 13:29	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 13:29	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 13:29	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 13:29	1
Trichloroethene	ND		0.50		ug/L			01/30/20 13:29	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 13:29	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 13:29	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 13:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 127		01/30/20 13:29	1
4-Bromofluorobenzene (Surr)	95		78 - 120		01/30/20 13:29	1
Dibromofluoromethane (Surr)	94		77 - 120		01/30/20 13:29	1
Toluene-d8 (Surr)	103		80 - 125		01/30/20 13:29	1

Client Sample ID: HVL-012120-09

Date Collected: 01/21/20 13:22

Date Received: 01/22/20 09:15

Lab Sample ID: 280-133052-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 13:52	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 13:52	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 13:52	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 13:52	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 13:52	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 13:52	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 13:52	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 13:52	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 13:52	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 13:52	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012120-09						Lab Sample ID: 280-133052-9			
Date Collected: 01/21/20 13:22						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 13:52	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 13:52	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 13:52	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 13:52	1
2-Hexanone	ND		5.0		ug/L			01/30/20 13:52	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 13:52	1
Acetone	ND		10		ug/L			01/30/20 13:52	1
Acrylonitrile	ND		20		ug/L			01/30/20 13:52	1
Benzene	ND		0.50		ug/L			01/30/20 13:52	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 13:52	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 13:52	1
Bromoform	ND		0.50		ug/L			01/30/20 13:52	1
Bromomethane	ND		0.50		ug/L			01/30/20 13:52	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 13:52	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 13:52	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 13:52	1
Chloroethane	ND		0.50		ug/L			01/30/20 13:52	1
Chloroform	ND		0.50		ug/L			01/30/20 13:52	1
Chloromethane	ND		0.50		ug/L			01/30/20 13:52	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 13:52	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 13:52	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 13:52	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 13:52	1
Dibromomethane	ND		0.50		ug/L			01/30/20 13:52	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 13:52	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 13:52	1
Iodomethane	ND		1.0		ug/L			01/30/20 13:52	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 13:52	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 13:52	1
o-Xylene	ND		0.50		ug/L			01/30/20 13:52	1
Styrene	ND		0.50		ug/L			01/30/20 13:52	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 13:52	1
Toluene	ND		0.50		ug/L			01/30/20 13:52	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 13:52	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 13:52	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 13:52	1
Trichloroethene	ND		0.50		ug/L			01/30/20 13:52	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 13:52	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 13:52	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 13:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 127					01/30/20 13:52	1
4-Bromofluorobenzene (Surr)	95		78 - 120					01/30/20 13:52	1
Dibromofluoromethane (Surr)	94		77 - 120					01/30/20 13:52	1
Toluene-d8 (Surr)	103		80 - 125					01/30/20 13:52	1

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

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

Client Sample ID: HVL-012120-10

Lab Sample ID: 280-133052-10

Date Collected: 01/21/20 13:30

Matrix: Water

Date Received: 01/22/20 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 14:15	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 14:15	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 14:15	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 14:15	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 14:15	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 14:15	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 14:15	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 14:15	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 14:15	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 14:15	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 14:15	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 14:15	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 14:15	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 14:15	1
2-Hexanone	ND		5.0		ug/L			01/30/20 14:15	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 14:15	1
Acetone	ND		10		ug/L			01/30/20 14:15	1
Acrylonitrile	ND		20		ug/L			01/30/20 14:15	1
Benzene	ND		0.50		ug/L			01/30/20 14:15	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 14:15	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 14:15	1
Bromoform	ND		0.50		ug/L			01/30/20 14:15	1
Bromomethane	ND		0.50		ug/L			01/30/20 14:15	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 14:15	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 14:15	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 14:15	1
Chloroethane	ND		0.50		ug/L			01/30/20 14:15	1
Chloroform	ND		0.50		ug/L			01/30/20 14:15	1
Chloromethane	ND		0.50		ug/L			01/30/20 14:15	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 14:15	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 14:15	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 14:15	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 14:15	1
Dibromomethane	ND		0.50		ug/L			01/30/20 14:15	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 14:15	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 14:15	1
Iodomethane	ND		1.0		ug/L			01/30/20 14:15	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 14:15	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 14:15	1
o-Xylene	ND		0.50		ug/L			01/30/20 14:15	1
Styrene	ND		0.50		ug/L			01/30/20 14:15	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 14:15	1
Toluene	ND		0.50		ug/L			01/30/20 14:15	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 14:15	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 14:15	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 14:15	1
Trichloroethene	ND		0.50		ug/L			01/30/20 14:15	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 14:15	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 14:15	1

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012120-10							Lab Sample ID: 280-133052-10			
Date Collected: 01/21/20 13:30							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Vinyl chloride	ND		0.50		ug/L			01/30/20 14:15	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	100		70 - 127					01/30/20 14:15	1	
4-Bromofluorobenzene (Surr)	96		78 - 120					01/30/20 14:15	1	
Dibromofluoromethane (Surr)	93		77 - 120					01/30/20 14:15	1	
Toluene-d8 (Surr)	103		80 - 125					01/30/20 14:15	1	

Client Sample ID: HVL-012120-11							Lab Sample ID: 280-133052-11			
Date Collected: 01/21/20 14:15							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 14:37	1	
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 14:37	1	
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 14:37	1	
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 14:37	1	
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 14:37	1	
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 14:37	1	
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 14:37	1	
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 14:37	1	
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 14:37	1	
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 14:37	1	
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 14:37	1	
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 14:37	1	
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 14:37	1	
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 14:37	1	
2-Hexanone	ND		5.0		ug/L			01/30/20 14:37	1	
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 14:37	1	
Acetone	ND		10		ug/L			01/30/20 14:37	1	
Acrylonitrile	ND		20		ug/L			01/30/20 14:37	1	
Benzene	ND		0.50		ug/L			01/30/20 14:37	1	
Bromochloromethane	ND		0.50		ug/L			01/30/20 14:37	1	
Bromodichloromethane	ND		0.50		ug/L			01/30/20 14:37	1	
Bromoform	ND		0.50		ug/L			01/30/20 14:37	1	
Bromomethane	ND		0.50		ug/L			01/30/20 14:37	1	
Carbon disulfide	ND		0.50		ug/L			01/30/20 14:37	1	
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 14:37	1	
Chlorobenzene	ND		0.50		ug/L			01/30/20 14:37	1	
Chloroethane	ND		0.50		ug/L			01/30/20 14:37	1	
Chloroform	ND		0.50		ug/L			01/30/20 14:37	1	
Chloromethane	ND		0.50		ug/L			01/30/20 14:37	1	
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 14:37	1	
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 14:37	1	
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 14:37	1	
Dibromochloromethane	ND		0.50		ug/L			01/30/20 14:37	1	
Dibromomethane	ND		0.50		ug/L			01/30/20 14:37	1	
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 14:37	1	
Ethylbenzene	ND		1.0		ug/L			01/30/20 14:37	1	
Iodomethane	ND		1.0		ug/L			01/30/20 14:37	1	
Methylene Chloride	ND		2.0		ug/L			01/30/20 14:37	1	

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: HVL-012120-11**

**Date Collected: 01/21/20 14:15**

**Date Received: 01/22/20 09:15**

**Lab Sample ID: 280-133052-11**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 14:37	1
o-Xylene	ND		0.50		ug/L			01/30/20 14:37	1
Styrene	ND		0.50		ug/L			01/30/20 14:37	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 14:37	1
Toluene	ND		0.50		ug/L			01/30/20 14:37	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 14:37	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 14:37	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 14:37	1
Trichloroethene	ND		0.50		ug/L			01/30/20 14:37	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 14:37	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 14:37	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 14:37	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	101		70 - 127					01/30/20 14:37	1
4-Bromofluorobenzene (Surr)	96		78 - 120					01/30/20 14:37	1
Dibromofluoromethane (Surr)	94		77 - 120					01/30/20 14:37	1
Toluene-d8 (Surr)	103		80 - 125					01/30/20 14:37	1

**Client Sample ID: HVL-012120-12**

**Date Collected: 01/21/20 14:35**

**Date Received: 01/22/20 09:15**

**Lab Sample ID: 280-133052-12**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 15:00	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 15:00	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 15:00	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 15:00	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 15:00	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 15:00	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 15:00	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 15:00	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 15:00	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 15:00	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 15:00	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 15:00	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 15:00	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 15:00	1
2-Hexanone	ND		5.0		ug/L			01/30/20 15:00	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 15:00	1
Acetone	ND		10		ug/L			01/30/20 15:00	1
Acrylonitrile	ND		20		ug/L			01/30/20 15:00	1
Benzene	ND		0.50		ug/L			01/30/20 15:00	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 15:00	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 15:00	1
Bromoform	ND		0.50		ug/L			01/30/20 15:00	1
Bromomethane	ND		0.50		ug/L			01/30/20 15:00	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 15:00	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 15:00	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 15:00	1
Chloroethane	ND		0.50		ug/L			01/30/20 15:00	1

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012120-12						Lab Sample ID: 280-133052-12			
Date Collected: 01/21/20 14:35						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		0.50		ug/L			01/30/20 15:00	1
Chloromethane	ND		0.50		ug/L			01/30/20 15:00	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 15:00	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 15:00	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 15:00	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 15:00	1
Dibromomethane	ND		0.50		ug/L			01/30/20 15:00	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 15:00	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 15:00	1
Iodomethane	ND		1.0		ug/L			01/30/20 15:00	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 15:00	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 15:00	1
o-Xylene	ND		0.50		ug/L			01/30/20 15:00	1
Styrene	ND		0.50		ug/L			01/30/20 15:00	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 15:00	1
Toluene	ND		0.50		ug/L			01/30/20 15:00	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 15:00	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 15:00	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 15:00	1
Trichloroethene	ND		0.50		ug/L			01/30/20 15:00	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 15:00	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 15:00	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 15:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 127					01/30/20 15:00	1
4-Bromofluorobenzene (Surr)	97		78 - 120					01/30/20 15:00	1
Dibromofluoromethane (Surr)	94		77 - 120					01/30/20 15:00	1
Toluene-d8 (Surr)	103		80 - 125					01/30/20 15:00	1

Client Sample ID: TRIP BLANK						Lab Sample ID: 280-133052-13			
Date Collected: 01/21/20 14:35						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 10:28	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 10:28	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 10:28	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 10:28	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 10:28	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 10:28	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 10:28	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 10:28	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 10:28	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 10:28	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 10:28	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 10:28	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 10:28	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 10:28	1
2-Hexanone	ND		5.0		ug/L			01/30/20 10:28	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 10:28	1

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: TRIP BLANK						Lab Sample ID: 280-133052-13			
Date Collected: 01/21/20 14:35						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10		ug/L			01/30/20 10:28	1
Acrylonitrile	ND		20		ug/L			01/30/20 10:28	1
Benzene	ND		0.50		ug/L			01/30/20 10:28	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 10:28	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 10:28	1
Bromoform	ND		0.50		ug/L			01/30/20 10:28	1
Bromomethane	ND		0.50		ug/L			01/30/20 10:28	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 10:28	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 10:28	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 10:28	1
Chloroethane	ND		0.50		ug/L			01/30/20 10:28	1
Chloroform	ND		0.50		ug/L			01/30/20 10:28	1
Chloromethane	ND		0.50		ug/L			01/30/20 10:28	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 10:28	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 10:28	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 10:28	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 10:28	1
Dibromomethane	ND		0.50		ug/L			01/30/20 10:28	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 10:28	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 10:28	1
Iodomethane	ND		1.0		ug/L			01/30/20 10:28	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 10:28	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 10:28	1
o-Xylene	ND		0.50		ug/L			01/30/20 10:28	1
Styrene	ND		0.50		ug/L			01/30/20 10:28	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 10:28	1
Toluene	ND		0.50		ug/L			01/30/20 10:28	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 10:28	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 10:28	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 10:28	1
Trichloroethene	ND		0.50		ug/L			01/30/20 10:28	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 10:28	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 10:28	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 10:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 127					01/30/20 10:28	1
4-Bromofluorobenzene (Surr)	98		78 - 120					01/30/20 10:28	1
Dibromofluoromethane (Surr)	94		77 - 120					01/30/20 10:28	1
Toluene-d8 (Surr)	104		80 - 125					01/30/20 10:28	1

## Method: 300.0 - Anions, Ion Chromatography - DL

Client Sample ID: HVL-012120-01						Lab Sample ID: 280-133052-1			
Date Collected: 01/21/20 09:46						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13	F1	0.60		mg/L			02/12/20 10:45	10
Sulfate	13	F1	0.50		mg/L			02/12/20 10:45	10

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 300.0 - Anions, Ion Chromatography - DL

<b>Client Sample ID: HVL-012120-02</b>							<b>Lab Sample ID: 280-133052-2</b>			
Date Collected: 01/21/20 10:05							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	6.5		0.30		mg/L			02/12/20 12:25	5	
Sulfate	5.9		0.25		mg/L			02/12/20 12:25	5	
<b>Client Sample ID: HVL-012120-03</b>							<b>Lab Sample ID: 280-133052-3</b>			
Date Collected: 01/21/20 10:40							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	20		0.60		mg/L			02/12/20 12:44	10	
Sulfate	8.7		0.50		mg/L			02/12/20 12:44	10	
<b>Client Sample ID: HVL-012120-04</b>							<b>Lab Sample ID: 280-133052-4</b>			
Date Collected: 01/21/20 10:55							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	9.4		0.30		mg/L			02/12/20 13:04	5	
Sulfate	6.8		0.25		mg/L			02/12/20 13:04	5	
<b>Client Sample ID: HVL-012120-05</b>							<b>Lab Sample ID: 280-133052-5</b>			
Date Collected: 01/21/20 11:39							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	11		0.30		mg/L			02/12/20 13:24	5	
Sulfate	5.4		0.25		mg/L			02/12/20 13:24	5	
<b>Client Sample ID: HVL-012120-06</b>							<b>Lab Sample ID: 280-133052-6</b>			
Date Collected: 01/21/20 11:59							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	10		0.60		mg/L			02/11/20 13:18	10	
Sulfate	15		0.50		mg/L			02/11/20 13:18	10	
<b>Client Sample ID: HVL-012120-07</b>							<b>Lab Sample ID: 280-133052-7</b>			
Date Collected: 01/21/20 12:42							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	9.4		0.60		mg/L			02/11/20 13:38	10	
Sulfate	11		0.50		mg/L			02/11/20 13:38	10	
<b>Client Sample ID: HVL-012120-08</b>							<b>Lab Sample ID: 280-133052-8</b>			
Date Collected: 01/21/20 12:52							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	13		0.60		mg/L			02/11/20 13:59	10	
Sulfate	12		0.50		mg/L			02/11/20 13:59	10	
<b>Client Sample ID: HVL-012120-09</b>							<b>Lab Sample ID: 280-133052-9</b>			
Date Collected: 01/21/20 13:22							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	12		0.30		mg/L			02/12/20 13:44	5	
Sulfate	5.6		0.25		mg/L			02/12/20 13:44	5	

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 300.0 - Anions, Ion Chromatography - DL

Client Sample ID: HVL-012120-10							Lab Sample ID: 280-133052-10			
Date Collected: 01/21/20 13:30							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	15		0.60		mg/L			02/11/20 14:39	10	
Sulfate	9.5		0.50		mg/L			02/11/20 14:39	10	

Client Sample ID: HVL-012120-11							Lab Sample ID: 280-133052-11			
Date Collected: 01/21/20 14:15							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	1.6		0.20		mg/L			02/11/20 15:00	2	
Sulfate	3.6		0.20		mg/L			02/11/20 15:00	2	

Client Sample ID: HVL-012120-12							Lab Sample ID: 280-133052-12			
Date Collected: 01/21/20 14:35							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	11		0.60		mg/L			02/11/20 15:20	10	
Sulfate	11		0.50		mg/L			02/11/20 15:20	10	

## Method: 6010B - Metals (ICP) - Dissolved

Client Sample ID: HVL-012120-01							Lab Sample ID: 280-133052-1			
Date Collected: 01/21/20 09:46							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Calcium, Dissolved	24		0.20		mg/L		01/24/20 09:35	01/27/20 18:23	1	
Magnesium, Dissolved	7.1		0.10		mg/L		01/24/20 09:35	01/27/20 18:23	1	
Potassium, Dissolved	4.0		2.0		mg/L		01/24/20 09:35	01/27/20 18:23	1	
Sodium, Dissolved	23		1.0		mg/L		01/24/20 09:35	01/29/20 13:26	1	

Client Sample ID: HVL-012120-02							Lab Sample ID: 280-133052-2			
Date Collected: 01/21/20 10:05							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Calcium, Dissolved	21		0.20		mg/L		01/24/20 09:35	01/27/20 18:25	1	
Magnesium, Dissolved	6.2		0.10		mg/L		01/24/20 09:35	01/27/20 18:25	1	
Potassium, Dissolved	9.9		2.0		mg/L		01/24/20 09:35	01/27/20 18:25	1	
Sodium, Dissolved	16		1.0		mg/L		01/24/20 09:35	01/29/20 13:29	1	

Client Sample ID: HVL-012120-03							Lab Sample ID: 280-133052-3			
Date Collected: 01/21/20 10:40							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Calcium, Dissolved	34		0.20		mg/L		01/24/20 09:35	01/27/20 18:28	1	
Magnesium, Dissolved	11		0.10		mg/L		01/24/20 09:35	01/27/20 18:28	1	
Potassium, Dissolved	12		2.0		mg/L		01/24/20 09:35	01/27/20 18:28	1	
Sodium, Dissolved	25		1.0		mg/L		01/24/20 09:35	01/29/20 13:31	1	

Client Sample ID: HVL-012120-04							Lab Sample ID: 280-133052-4			
Date Collected: 01/21/20 10:55							Matrix: Water			
Date Received: 01/22/20 09:15										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Calcium, Dissolved	30		0.20		mg/L		01/24/20 09:35	01/27/20 18:30	1	

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 6010B - Metals (ICP) - Dissolved (Continued)

Client Sample ID: HVL-012120-04

Date Collected: 01/21/20 10:55

Date Received: 01/22/20 09:15

Lab Sample ID: 280-133052-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium, Dissolved	12		0.10		mg/L		01/24/20 09:35	01/27/20 18:30	1
Potassium, Dissolved	3.7		2.0		mg/L		01/24/20 09:35	01/27/20 18:30	1
Sodium, Dissolved	19		1.0		mg/L		01/24/20 09:35	01/29/20 13:34	1

Client Sample ID: HVL-012120-05

Date Collected: 01/21/20 11:39

Date Received: 01/22/20 09:15

Lab Sample ID: 280-133052-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	33		0.20		mg/L		01/24/20 09:35	01/27/20 18:33	1
Magnesium, Dissolved	11		0.10		mg/L		01/24/20 09:35	01/27/20 18:33	1
Potassium, Dissolved	17		2.0		mg/L		01/24/20 09:35	01/27/20 18:33	1
Sodium, Dissolved	26		1.0		mg/L		01/24/20 09:35	01/29/20 13:36	1

Client Sample ID: HVL-012120-06

Date Collected: 01/21/20 11:59

Date Received: 01/22/20 09:15

Lab Sample ID: 280-133052-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	24		0.20		mg/L		01/24/20 09:35	01/27/20 18:36	1
Magnesium, Dissolved	7.3		0.10		mg/L		01/24/20 09:35	01/27/20 18:36	1
Potassium, Dissolved	3.7		2.0		mg/L		01/24/20 09:35	01/27/20 18:36	1
Sodium, Dissolved	23		1.0		mg/L		01/24/20 09:35	01/29/20 13:49	1

Client Sample ID: HVL-012120-07

Date Collected: 01/21/20 12:42

Date Received: 01/22/20 09:15

Lab Sample ID: 280-133052-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	27		0.20		mg/L		01/24/20 09:35	01/27/20 18:38	1
Magnesium, Dissolved	12		0.10		mg/L		01/24/20 09:35	01/27/20 18:38	1
Potassium, Dissolved	3.4		2.0		mg/L		01/24/20 09:35	01/27/20 18:38	1
Sodium, Dissolved	20		1.0		mg/L		01/24/20 09:35	01/29/20 13:51	1

Client Sample ID: HVL-012120-08

Date Collected: 01/21/20 12:52

Date Received: 01/22/20 09:15

Lab Sample ID: 280-133052-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	27		0.20		mg/L		01/24/20 09:35	01/27/20 18:51	1
Magnesium, Dissolved	10		0.10		mg/L		01/24/20 09:35	01/27/20 18:51	1
Potassium, Dissolved	3.5		2.0		mg/L		01/24/20 09:35	01/27/20 18:51	1
Sodium, Dissolved	13		1.0		mg/L		01/24/20 09:35	01/29/20 13:54	1

Client Sample ID: HVL-012120-09

Date Collected: 01/21/20 13:22

Date Received: 01/22/20 09:15

Lab Sample ID: 280-133052-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	27		0.20		mg/L		01/24/20 09:35	01/27/20 18:53	1
Magnesium, Dissolved	8.8		0.10		mg/L		01/24/20 09:35	01/27/20 18:53	1
Potassium, Dissolved	11		2.0		mg/L		01/24/20 09:35	01/27/20 18:53	1
Sodium, Dissolved	18		1.0		mg/L		01/24/20 09:35	01/29/20 13:57	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 6010B - Metals (ICP) - Dissolved

Client Sample ID: HVL-012120-10						Lab Sample ID: 280-133052-10			
Date Collected: 01/21/20 13:30						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	19		0.20		mg/L		01/24/20 09:35	01/27/20 18:56	1
Magnesium, Dissolved	5.7		0.10		mg/L		01/24/20 09:35	01/27/20 18:56	1
Potassium, Dissolved	3.5		2.0		mg/L		01/24/20 09:35	01/27/20 18:56	1
Sodium, Dissolved	13		1.0		mg/L		01/24/20 09:35	01/29/20 13:59	1

Client Sample ID: HVL-012120-11						Lab Sample ID: 280-133052-11			
Date Collected: 01/21/20 14:15						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	8.3		0.20		mg/L		01/24/20 09:35	01/27/20 18:58	1
Magnesium, Dissolved	5.0		0.10		mg/L		01/24/20 09:35	01/27/20 18:58	1
Potassium, Dissolved	2.4		2.0		mg/L		01/24/20 09:35	01/27/20 18:58	1
Sodium, Dissolved	5.1		1.0		mg/L		01/24/20 09:35	01/29/20 14:02	1

Client Sample ID: HVL-012120-12						Lab Sample ID: 280-133052-12			
Date Collected: 01/21/20 14:35						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	31		0.20		mg/L		01/24/20 09:35	01/27/20 19:01	1
Magnesium, Dissolved	10		0.10		mg/L		01/24/20 09:35	01/27/20 19:01	1
Potassium, Dissolved	2.3		2.0		mg/L		01/24/20 09:35	01/27/20 19:01	1
Sodium, Dissolved	7.6		1.0		mg/L		01/24/20 09:35	01/29/20 14:04	1

## Method: 6020 - Metals (ICP/MS) - Dissolved

Client Sample ID: HVL-012120-01						Lab Sample ID: 280-133052-1			
Date Collected: 01/21/20 09:46						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.18		mg/L		01/24/20 13:58	01/27/20 10:37	5
Manganese, Dissolved	ND		0.0010		mg/L		01/23/20 16:10	01/29/20 17:13	1

Client Sample ID: HVL-012120-02						Lab Sample ID: 280-133052-2			
Date Collected: 01/21/20 10:05						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.18		mg/L		01/24/20 13:58	01/27/20 11:06	5
Manganese, Dissolved	0.0089		0.0010		mg/L		01/23/20 16:10	01/29/20 17:31	1

Client Sample ID: HVL-012120-03						Lab Sample ID: 280-133052-3			
Date Collected: 01/21/20 10:40						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.18		mg/L		01/24/20 13:58	01/27/20 11:09	5
Manganese, Dissolved	ND		0.0010		mg/L		01/23/20 16:10	01/29/20 17:42	1

Client Sample ID: HVL-012120-04						Lab Sample ID: 280-133052-4			
Date Collected: 01/21/20 10:55						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.18		mg/L		01/24/20 13:58	01/27/20 11:12	5

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 6020 - Metals (ICP/MS) - Dissolved (Continued)

<b>Client Sample ID: HVL-012120-04</b>						<b>Lab Sample ID: 280-133052-4</b>			
Date Collected: 01/21/20 10:55						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	ND		0.0010		mg/L		01/23/20 16:10	01/29/20 17:45	1
<b>Client Sample ID: HVL-012120-05</b>						<b>Lab Sample ID: 280-133052-5</b>			
Date Collected: 01/21/20 11:39						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.18		mg/L		01/24/20 13:58	01/27/20 11:14	5
Manganese, Dissolved	1.2		0.0010		mg/L		01/23/20 16:10	01/29/20 17:49	1
<b>Client Sample ID: HVL-012120-06</b>						<b>Lab Sample ID: 280-133052-6</b>			
Date Collected: 01/21/20 11:59						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.18		mg/L		01/24/20 13:58	01/27/20 11:17	5
Manganese, Dissolved	0.61		0.0010		mg/L		01/23/20 16:10	01/29/20 17:52	1
<b>Client Sample ID: HVL-012120-07</b>						<b>Lab Sample ID: 280-133052-7</b>			
Date Collected: 01/21/20 12:42						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.18		mg/L		01/24/20 13:58	01/27/20 11:20	5
Manganese, Dissolved	0.028		0.0010		mg/L		01/23/20 16:10	01/29/20 17:56	1
<b>Client Sample ID: HVL-012120-08</b>						<b>Lab Sample ID: 280-133052-8</b>			
Date Collected: 01/21/20 12:52						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.18		mg/L		01/24/20 13:58	01/27/20 11:22	5
Manganese, Dissolved	ND		0.0010		mg/L		01/23/20 16:10	01/29/20 17:59	1
<b>Client Sample ID: HVL-012120-09</b>						<b>Lab Sample ID: 280-133052-9</b>			
Date Collected: 01/21/20 13:22						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.18		mg/L		01/24/20 13:58	01/27/20 11:25	5
Manganese, Dissolved	1.2		0.0010		mg/L		01/23/20 16:10	01/29/20 18:03	1
<b>Client Sample ID: HVL-012120-10</b>						<b>Lab Sample ID: 280-133052-10</b>			
Date Collected: 01/21/20 13:30						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.18		mg/L		01/24/20 13:58	01/27/20 11:28	5
Manganese, Dissolved	ND		0.0010		mg/L		01/23/20 16:10	01/29/20 18:07	1
<b>Client Sample ID: HVL-012120-11</b>						<b>Lab Sample ID: 280-133052-11</b>			
Date Collected: 01/21/20 14:15						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.18		mg/L		01/24/20 13:58	01/27/20 11:30	5
Manganese, Dissolved	0.18		0.0010		mg/L		01/23/20 16:10	01/29/20 18:10	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 6020 - Metals (ICP/MS) - Dissolved

<b>Client Sample ID: HVL-012120-12</b>						<b>Lab Sample ID: 280-133052-12</b>			
<b>Date Collected: 01/21/20 14:35</b>						<b>Matrix: Water</b>			
<b>Date Received: 01/22/20 09:15</b>									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.18		mg/L		01/24/20 13:58	01/27/20 10:35	5
Manganese, Dissolved	ND		0.0010		mg/L		01/23/20 16:10	01/29/20 18:14	1

## General Chemistry

<b>Client Sample ID: HVL-012120-01</b>						<b>Lab Sample ID: 280-133052-1</b>			
<b>Date Collected: 01/21/20 09:46</b>						<b>Matrix: Water</b>			
<b>Date Received: 01/22/20 09:15</b>									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.90		0.20		mg/L			01/22/20 19:17	1
Ammonia	ND		0.10		mg/L			01/30/20 12:31	1
Alkalinity	110		10		mg/L			01/28/20 20:27	1
Total Dissolved Solids	170		10		mg/L			01/24/20 08:51	1
Total Suspended Solids	ND		4.0		mg/L			01/23/20 09:08	1
Total Organic Carbon - Quad	ND		1.0		mg/L			01/24/20 20:29	1

<b>Client Sample ID: HVL-012120-02</b>						<b>Lab Sample ID: 280-133052-2</b>			
<b>Date Collected: 01/21/20 10:05</b>						<b>Matrix: Water</b>			
<b>Date Received: 01/22/20 09:15</b>									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	22	H	0.45		mg/L			01/23/20 11:53	5
Ammonia	ND		0.10		mg/L			01/30/20 12:57	1
Alkalinity	22		10		mg/L			01/28/20 20:42	1
Total Dissolved Solids	240		10		mg/L			01/24/20 08:51	1
Total Suspended Solids	ND		4.0		mg/L			01/23/20 09:08	1
Total Organic Carbon - Quad	1.2		1.0		mg/L			01/24/20 20:44	1

<b>Client Sample ID: HVL-012120-03</b>						<b>Lab Sample ID: 280-133052-3</b>			
<b>Date Collected: 01/21/20 10:40</b>						<b>Matrix: Water</b>			
<b>Date Received: 01/22/20 09:15</b>									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	13	H	0.45		mg/L			01/23/20 12:58	5
Ammonia	ND		0.10		mg/L			01/30/20 12:59	1
Alkalinity	120		10		mg/L			01/28/20 20:47	1
Total Dissolved Solids	270		10		mg/L			01/24/20 08:51	1
Total Suspended Solids	ND		4.0		mg/L			01/23/20 09:08	1
Total Organic Carbon - Quad	1.2		1.0		mg/L			01/24/20 20:58	1

<b>Client Sample ID: HVL-012120-04</b>						<b>Lab Sample ID: 280-133052-4</b>			
<b>Date Collected: 01/21/20 10:55</b>						<b>Matrix: Water</b>			
<b>Date Received: 01/22/20 09:15</b>									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.93		0.20		mg/L			01/22/20 20:05	1
Ammonia	ND	F1	0.10		mg/L			01/30/20 13:01	1
Alkalinity	160		10		mg/L			01/28/20 20:52	1
Total Dissolved Solids	200		10		mg/L			01/24/20 08:51	1
Total Suspended Solids	ND		4.0		mg/L			01/23/20 09:08	1
Total Organic Carbon - Quad	ND		1.0		mg/L			01/24/20 21:43	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## General Chemistry

Client Sample ID: HVL-012120-05						Lab Sample ID: 280-133052-5			
Date Collected: 01/21/20 11:39						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	10		0.20		mg/L			01/22/20 20:22	1
Ammonia	6.0		0.10		mg/L			01/30/20 14:55	2
Alkalinity	170		10		mg/L			01/28/20 20:57	1
Total Dissolved Solids	270		10		mg/L			01/24/20 08:51	1
Total Suspended Solids	ND		4.0		mg/L			01/23/20 09:08	1
Total Organic Carbon - Quad	1.7		1.0		mg/L			01/24/20 21:59	1

Client Sample ID: HVL-012120-06						Lab Sample ID: 280-133052-6			
Date Collected: 01/21/20 11:59						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.33		0.20		mg/L			01/22/20 20:38	1
Ammonia	ND		0.10		mg/L			01/30/20 13:09	1
Alkalinity	110		10		mg/L			01/28/20 21:02	1
Total Dissolved Solids	180		10		mg/L			01/24/20 08:51	1
Total Suspended Solids	ND		4.0		mg/L			01/23/20 09:08	1
Total Organic Carbon - Quad	1.2		1.0		mg/L			01/24/20 22:14	1

Client Sample ID: HVL-012120-07						Lab Sample ID: 280-133052-7			
Date Collected: 01/21/20 12:42						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.66		0.20		mg/L			01/22/20 20:55	1
Ammonia	ND		0.10		mg/L			01/30/20 13:11	1
Alkalinity	130		10		mg/L			01/28/20 21:07	1
Total Dissolved Solids	180		10		mg/L			01/24/20 08:51	1
Total Suspended Solids	ND		4.0		mg/L			01/23/20 09:08	1
Total Organic Carbon - Quad	ND		1.0		mg/L			01/24/20 22:29	1

Client Sample ID: HVL-012120-08						Lab Sample ID: 280-133052-8			
Date Collected: 01/21/20 12:52						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.0		0.20		mg/L			01/22/20 22:33	1
Ammonia	ND		0.10		mg/L			01/30/20 13:13	1
Alkalinity	100		10		mg/L			01/28/20 21:12	1
Total Dissolved Solids	170		10		mg/L			01/24/20 08:51	1
Total Suspended Solids	ND		4.0		mg/L			01/23/20 09:08	1
Total Organic Carbon - Quad	ND		1.0		mg/L			01/24/20 23:15	1

Client Sample ID: HVL-012120-09						Lab Sample ID: 280-133052-9			
Date Collected: 01/21/20 13:22						Matrix: Water			
Date Received: 01/22/20 09:15									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	9.1		0.20		mg/L			01/22/20 22:50	1
Ammonia	3.7		0.10		mg/L			01/30/20 13:15	1
Alkalinity	110		10		mg/L			01/28/20 21:16	1
Total Dissolved Solids	200		10		mg/L			01/24/20 08:51	1
Total Suspended Solids	ND		4.0		mg/L			01/23/20 09:08	1
Total Organic Carbon - Quad	1.4		1.0		mg/L			01/24/20 23:32	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## General Chemistry

**Client Sample ID: HVL-012120-10**

**Lab Sample ID: 280-133052-10**

**Date Collected: 01/21/20 13:30**

**Matrix: Water**

**Date Received: 01/22/20 09:15**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.3		0.20		mg/L			01/22/20 23:06	1
Ammonia	ND		0.10		mg/L			01/30/20 13:29	1
Alkalinity	64		10		mg/L			01/28/20 21:21	1
<b>Total Dissolved Solids</b>	<b>150</b>		10		mg/L			01/24/20 08:51	1
Total Suspended Solids	ND		4.0		mg/L			01/23/20 09:08	1
Total Organic Carbon - Quad	ND		1.0		mg/L			01/24/20 23:46	1

**Client Sample ID: HVL-012120-11**

**Lab Sample ID: 280-133052-11**

**Date Collected: 01/21/20 14:15**

**Matrix: Water**

**Date Received: 01/22/20 09:15**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20		mg/L			01/22/20 23:23	1
Ammonia	ND		0.10		mg/L			01/30/20 13:31	1
Alkalinity	48		10		mg/L			01/28/20 21:26	1
<b>Total Dissolved Solids</b>	<b>100</b>		10		mg/L			01/24/20 08:51	1
Total Suspended Solids	ND		4.0		mg/L			01/23/20 09:08	1
Total Organic Carbon - Quad	ND		1.0		mg/L			01/25/20 00:01	1

**Client Sample ID: HVL-012120-12**

**Lab Sample ID: 280-133052-12**

**Date Collected: 01/21/20 14:35**

**Matrix: Water**

**Date Received: 01/22/20 09:15**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.3		0.20		mg/L			01/22/20 23:39	1
Ammonia	ND		0.10		mg/L			01/30/20 13:33	1
Alkalinity	100		10		mg/L			01/28/20 21:52	1
<b>Total Dissolved Solids</b>	<b>160</b>		10		mg/L			01/24/20 08:51	1
Total Suspended Solids	ND		4.0		mg/L			01/23/20 09:08	1
Total Organic Carbon - Quad	1.1		1.0		mg/L			01/25/20 00:47	1

# Surrogate Summary

Client: SCS Engineers  
 Project/Site: Hidden Valley LF

Job ID: 280-133052-1

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

**Matrix: Water**

**Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (70-127)	BFB (78-120)	DBFM (77-120)	TOL (80-125)
280-133052-1	HVL-012120-01	99	96	94	102
280-133052-2	HVL-012120-02	100	96	94	103
280-133052-3	HVL-012120-03	99	96	94	102
280-133052-4	HVL-012120-04	100	95	94	103
280-133052-5	HVL-012120-05	100	96	94	102
280-133052-6	HVL-012120-06	100	95	94	103
280-133052-7	HVL-012120-07	100	95	94	104
280-133052-8	HVL-012120-08	102	95	94	103
280-133052-9	HVL-012120-09	100	95	94	103
280-133052-10	HVL-012120-10	100	96	93	103
280-133052-11	HVL-012120-11	101	96	94	103
280-133052-12	HVL-012120-12	102	97	94	103
280-133052-13	TRIP BLANK	99	98	94	104
LCS 280-484415/4	Lab Control Sample	101	97	97	102
LCSD 280-484415/5	Lab Control Sample Dup	102	98	97	101
MB 280-484415/8	Method Blank	101	98	94	103

**Surrogate Legend**

- DCA = 1,2-Dichloroethane-d4 (Surr)
- BFB = 4-Bromofluorobenzene (Surr)
- DBFM = Dibromofluoromethane (Surr)
- TOL = Toluene-d8 (Surr)



# QC Sample Results

Client: SCS Engineers  
 Project/Site: Hidden Valley LF

Job ID: 280-133052-1

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

Lab Sample ID: MB 280-484415/8  
 Matrix: Water  
 Analysis Batch: 484415

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 09:53	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 09:53	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 09:53	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 09:53	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 09:53	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 09:53	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 09:53	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 09:53	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 09:53	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 09:53	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 09:53	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 09:53	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 09:53	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 09:53	1
2-Hexanone	ND		5.0		ug/L			01/30/20 09:53	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 09:53	1
Acetone	ND		10		ug/L			01/30/20 09:53	1
Acrylonitrile	ND		20		ug/L			01/30/20 09:53	1
Benzene	ND		0.50		ug/L			01/30/20 09:53	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 09:53	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 09:53	1
Bromoform	ND		0.50		ug/L			01/30/20 09:53	1
Bromomethane	ND		0.50		ug/L			01/30/20 09:53	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 09:53	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 09:53	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 09:53	1
Chloroethane	ND		0.50		ug/L			01/30/20 09:53	1
Chloroform	ND		0.50		ug/L			01/30/20 09:53	1
Chloromethane	ND		0.50		ug/L			01/30/20 09:53	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 09:53	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 09:53	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 09:53	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 09:53	1
Dibromomethane	ND		0.50		ug/L			01/30/20 09:53	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 09:53	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 09:53	1
Iodomethane	ND		1.0		ug/L			01/30/20 09:53	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 09:53	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 09:53	1
o-Xylene	ND		0.50		ug/L			01/30/20 09:53	1
Styrene	ND		0.50		ug/L			01/30/20 09:53	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 09:53	1
Toluene	ND		0.50		ug/L			01/30/20 09:53	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 09:53	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 09:53	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 09:53	1
Trichloroethene	ND		0.50		ug/L			01/30/20 09:53	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 09:53	1

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-484415/8						Client Sample ID: Method Blank			
Matrix: Water						Prep Type: Total/NA			
Analysis Batch: 484415									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl acetate	ND		3.0		ug/L			01/30/20 09:53	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 09:53	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 127					01/30/20 09:53	1
4-Bromofluorobenzene (Surr)	98		78 - 120					01/30/20 09:53	1
Dibromofluoromethane (Surr)	94		77 - 120					01/30/20 09:53	1
Toluene-d8 (Surr)	103		80 - 125					01/30/20 09:53	1

Lab Sample ID: LCS 280-484415/4						Client Sample ID: Lab Control Sample			
Matrix: Water						Prep Type: Total/NA			
Analysis Batch: 484415									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1,1,2-Tetrachloroethane	25.0	23.3		ug/L		93	65 - 135		
1,1,1-Trichloroethane	25.0	25.9		ug/L		104	65 - 135		
1,1,2,2-Tetrachloroethane	25.0	19.9		ug/L		79	58 - 135		
1,1,2-Trichloroethane	25.0	24.2		ug/L		97	64 - 135		
1,1-Dichloroethane	25.0	25.6		ug/L		103	65 - 135		
1,1-Dichloroethene	25.0	27.2		ug/L		109	65 - 136		
1,2,3-Trichloropropane	25.0	23.5		ug/L		94	65 - 135		
1,2-Dibromo-3-Chloropropane	25.0	18.2		ug/L		73	57 - 135		
1,2-Dibromoethane	25.0	25.0		ug/L		100	65 - 135		
1,2-Dichlorobenzene	25.0	22.5		ug/L		90	65 - 135		
1,2-Dichloroethane	25.0	23.7		ug/L		95	65 - 135		
1,2-Dichloropropane	25.0	22.5		ug/L		90	64 - 135		
1,4-Dichlorobenzene	25.0	24.0		ug/L		96	65 - 135		
2-Butanone (MEK)	100	91.4		ug/L		91	44 - 177		
2-Hexanone	100	103		ug/L		103	57 - 139		
4-Methyl-2-pentanone (MIBK)	100	87.3		ug/L		87	60 - 150		
Acetone	100	90.8		ug/L		91	39 - 156		
Acrylonitrile	250	236		ug/L		94	56 - 135		
Benzene	25.0	25.1		ug/L		101	65 - 135		
Bromochloromethane	25.0	24.0		ug/L		96	65 - 135		
Bromodichloromethane	25.0	22.9		ug/L		91	65 - 135		
Bromoform	25.0	18.5		ug/L		74	62 - 135		
Bromomethane	25.0	18.9		ug/L		76	45 - 135		
Carbon disulfide	25.0	23.0		ug/L		92	55 - 143		
Carbon tetrachloride	25.0	22.7		ug/L		91	65 - 135		
Chlorobenzene	25.0	25.1		ug/L		100	65 - 135		
Chloroethane	25.0	21.3		ug/L		85	46 - 136		
Chloroform	25.0	25.4		ug/L		101	65 - 135		
Chloromethane	25.0	19.3		ug/L		77	34 - 145		
cis-1,2-Dichloroethene	25.0	25.4		ug/L		102	65 - 135		
cis-1,3-Dichloropropene	25.0	25.8		ug/L		103	65 - 135		
Dibromochloromethane	25.0	21.4		ug/L		86	65 - 135		
Dibromomethane	25.0	24.4		ug/L		98	65 - 135		
Dichlorodifluoromethane	25.0	19.4		ug/L		78	43 - 142		

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-484415/4			Client Sample ID: Lab Control Sample					
Matrix: Water			Prep Type: Total/NA					
Analysis Batch: 484415								
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Ethylbenzene	25.0	25.6		ug/L		102	65 - 135	
Iodomethane	25.0	16.7		ug/L		67	65 - 142	
Methylene Chloride	25.0	23.7		ug/L		95	54 - 141	
m-Xylene & p-Xylene	25.0	25.4		ug/L		102	65 - 135	
o-Xylene	25.0	25.2		ug/L		101	65 - 135	
Styrene	25.0	26.6		ug/L		106	65 - 135	
Tetrachloroethene	25.0	25.8		ug/L		103	65 - 135	
Toluene	25.0	24.5		ug/L		98	65 - 135	
trans-1,2-Dichloroethene	25.0	26.3		ug/L		105	65 - 135	
trans-1,3-Dichloropropene	25.0	18.8		ug/L		75	65 - 135	
trans-1,4-Dichloro-2-butene	25.0	16.3		ug/L		65	53 - 135	
Trichloroethene	25.0	24.7		ug/L		99	65 - 135	
Trichlorofluoromethane	25.0	21.0		ug/L		84	53 - 137	
Vinyl acetate	50.0	54.4		ug/L		109	11 - 187	
Vinyl chloride	25.0	19.6		ug/L		78	40 - 137	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 127
4-Bromofluorobenzene (Surr)	97		78 - 120
Dibromofluoromethane (Surr)	97		77 - 120
Toluene-d8 (Surr)	102		80 - 125

Lab Sample ID: LCSD 280-484415/5			Client Sample ID: Lab Control Sample Dup						
Matrix: Water			Prep Type: Total/NA						
Analysis Batch: 484415									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	25.0		ug/L		100	65 - 135	7	20
1,1,1-Trichloroethane	25.0	27.9		ug/L		111	65 - 135	7	20
1,1,2,2-Tetrachloroethane	25.0	21.6		ug/L		86	58 - 135	8	20
1,1,2-Trichloroethane	25.0	25.9		ug/L		104	64 - 135	7	27
1,1-Dichloroethane	25.0	27.5		ug/L		110	65 - 135	7	21
1,1-Dichloroethene	25.0	29.3		ug/L		117	65 - 136	7	20
1,2,3-Trichloropropane	25.0	25.3		ug/L		101	65 - 135	7	23
1,2-Dibromo-3-Chloropropane	25.0	19.9		ug/L		79	57 - 135	9	22
1,2-Dibromoethane	25.0	27.0		ug/L		108	65 - 135	8	27
1,2-Dichlorobenzene	25.0	24.4		ug/L		97	65 - 135	8	20
1,2-Dichloroethane	25.0	25.8		ug/L		103	65 - 135	8	20
1,2-Dichloropropane	25.0	24.2		ug/L		97	64 - 135	7	20
1,4-Dichlorobenzene	25.0	25.8		ug/L		103	65 - 135	7	23
2-Butanone (MEK)	100	98.7		ug/L		99	44 - 177	8	32
2-Hexanone	100	111		ug/L		111	57 - 139	8	25
4-Methyl-2-pentanone (MIBK)	100	94.6		ug/L		95	60 - 150	8	22
Acetone	100	94.2		ug/L		94	39 - 156	4	23
Acrylonitrile	250	257		ug/L		103	56 - 135	8	30
Benzene	25.0	26.9		ug/L		108	65 - 135	7	20
Bromochloromethane	25.0	25.7		ug/L		103	65 - 135	7	29
Bromodichloromethane	25.0	24.9		ug/L		100	65 - 135	8	20

Eurofins TestAmerica, Denver

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-484415/5		Client Sample ID: Lab Control Sample Dup								
Matrix: Water		Prep Type: Total/NA								
Analysis Batch: 484415										
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	RPD Limit
Bromoform	25.0	20.1		ug/L		80	62 - 135	8	27	
Bromomethane	25.0	20.2		ug/L		81	45 - 135	7	33	
Carbon disulfide	25.0	25.2		ug/L		101	55 - 143	9	20	
Carbon tetrachloride	25.0	24.7		ug/L		99	65 - 135	8	21	
Chlorobenzene	25.0	26.8		ug/L		107	65 - 135	6	20	
Chloroethane	25.0	23.5		ug/L		94	46 - 136	10	25	
Chloroform	25.0	27.2		ug/L		109	65 - 135	7	20	
Chloromethane	25.0	21.3		ug/L		85	34 - 145	10	24	
cis-1,2-Dichloroethene	25.0	27.3		ug/L		109	65 - 135	7	20	
cis-1,3-Dichloropropene	25.0	27.7		ug/L		111	65 - 135	7	26	
Dibromochloromethane	25.0	23.3		ug/L		93	65 - 135	8	20	
Dibromomethane	25.0	26.3		ug/L		105	65 - 135	7	26	
Dichlorodifluoromethane	25.0	21.0		ug/L		84	43 - 142	8	30	
Ethylbenzene	25.0	27.3		ug/L		109	65 - 135	7	20	
Iodomethane	25.0	19.2		ug/L		77	65 - 142	14	25	
Methylene Chloride	25.0	25.3		ug/L		101	54 - 141	6	26	
m-Xylene & p-Xylene	25.0	27.3		ug/L		109	65 - 135	7	20	
o-Xylene	25.0	27.0		ug/L		108	65 - 135	7	20	
Styrene	25.0	28.6		ug/L		115	65 - 135	8	26	
Tetrachloroethene	25.0	27.2		ug/L		109	65 - 135	5	20	
Toluene	25.0	26.2		ug/L		105	65 - 135	7	20	
trans-1,2-Dichloroethene	25.0	28.3		ug/L		113	65 - 135	7	24	
trans-1,3-Dichloropropene	25.0	20.2		ug/L		81	65 - 135	7	26	
trans-1,4-Dichloro-2-butene	25.0	17.8		ug/L		71	53 - 135	8	25	
Trichloroethene	25.0	26.3		ug/L		105	65 - 135	6	20	
Trichlorofluoromethane	25.0	21.7		ug/L		87	53 - 137	3	27	
Vinyl acetate	50.0	59.3		ug/L		119	11 - 187	9	24	
Vinyl chloride	25.0	21.2		ug/L		85	40 - 137	8	24	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	102		70 - 127
4-Bromofluorobenzene (Surr)	98		78 - 120
Dibromofluoromethane (Surr)	97		77 - 120
Toluene-d8 (Surr)	101		80 - 125

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 160-459836/99		Client Sample ID: Method Blank							
Matrix: Water		Prep Type: Total/NA							
Analysis Batch: 459836									
Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	ND		0.20		mg/L			02/12/20 10:06	1
Sulfate	ND		0.20		mg/L			02/12/20 10:06	1

Eurofins TestAmerica, Denver

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 160-459836/100  
Matrix: Water  
Analysis Batch: 459836

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.95		mg/L		97	90 - 110
Sulfate	8.00	7.70		mg/L		96	90 - 110

## Method: 300.0 - Anions, Ion Chromatography - DL

Lab Sample ID: 280-133052-1 MS  
Matrix: Water  
Analysis Batch: 459836

Client Sample ID: HVL-012120-01  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride - DL	13	F1	20.0	38.7	F1	mg/L		130	90 - 110
Sulfate - DL	13	F1	40.0	62.0	F1	mg/L		121	90 - 110

Lab Sample ID: 280-133052-1 DU  
Matrix: Water  
Analysis Batch: 459836

Client Sample ID: HVL-012120-01  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride - DL	13	F1	12.8		mg/L		0	20
Sulfate - DL	13	F1	13.5		mg/L		0.2	20

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 280-483845/1-A  
Matrix: Water  
Analysis Batch: 484283

Client Sample ID: Method Blank  
Prep Type: Total Recoverable  
Prep Batch: 483845

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	ND		0.20		mg/L		01/24/20 09:35	01/27/20 17:45	1
Magnesium, Dissolved	ND		0.10		mg/L		01/24/20 09:35	01/27/20 17:45	1
Potassium, Dissolved	ND		2.0		mg/L		01/24/20 09:35	01/27/20 17:45	1

Lab Sample ID: MB 280-483845/1-A  
Matrix: Water  
Analysis Batch: 484395

Client Sample ID: Method Blank  
Prep Type: Total Recoverable  
Prep Batch: 483845

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium, Dissolved	ND		1.0		mg/L		01/24/20 09:35	01/29/20 12:49	1

Lab Sample ID: LCS 280-483845/2-A  
Matrix: Water  
Analysis Batch: 484283

Client Sample ID: Lab Control Sample  
Prep Type: Total Recoverable  
Prep Batch: 483845

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium, Dissolved	50.0	50.7		mg/L		101	90 - 111
Magnesium, Dissolved	50.0	52.9		mg/L		106	90 - 113
Potassium, Dissolved	50.0	51.6		mg/L		103	89 - 114

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 6010B - Metals (ICP) (Continued)

<b>Lab Sample ID: LCS 280-483845/2-A</b>				<b>Client Sample ID: Lab Control Sample</b>				
<b>Matrix: Water</b>				<b>Prep Type: Total Recoverable</b>				
<b>Analysis Batch: 484395</b>				<b>Prep Batch: 483845</b>				
<b>Analyte</b>	<b>Spike Added</b>	<b>LCS Result</b>	<b>LCS Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>%Rec</b>	<b>Limits</b>	
Sodium, Dissolved	50.0	50.4		mg/L		101	90 - 115	

<b>Lab Sample ID: 280-133076-A-15-B MS</b>				<b>Client Sample ID: Matrix Spike</b>					
<b>Matrix: Water</b>				<b>Prep Type: Dissolved</b>					
<b>Analysis Batch: 484283</b>				<b>Prep Batch: 483845</b>					
<b>Analyte</b>	<b>Sample Result</b>	<b>Sample Qualifier</b>	<b>Spike Added</b>	<b>MS Result</b>	<b>MS Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>%Rec</b>	<b>Limits</b>
Calcium, Dissolved	46		50.0	94.7		mg/L		97	48 - 153
Magnesium, Dissolved	4.6		50.0	56.5		mg/L		104	62 - 146
Potassium, Dissolved	ND		50.0	52.2		mg/L		101	76 - 132

<b>Lab Sample ID: 280-133076-A-15-B MS</b>				<b>Client Sample ID: Matrix Spike</b>					
<b>Matrix: Water</b>				<b>Prep Type: Dissolved</b>					
<b>Analysis Batch: 484395</b>				<b>Prep Batch: 483845</b>					
<b>Analyte</b>	<b>Sample Result</b>	<b>Sample Qualifier</b>	<b>Spike Added</b>	<b>MS Result</b>	<b>MS Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>%Rec</b>	<b>Limits</b>
Sodium, Dissolved	29		50.0	76.7		mg/L		95	70 - 203

<b>Lab Sample ID: 280-133076-A-15-C MSD</b>				<b>Client Sample ID: Matrix Spike Duplicate</b>							
<b>Matrix: Water</b>				<b>Prep Type: Dissolved</b>							
<b>Analysis Batch: 484283</b>				<b>Prep Batch: 483845</b>							
<b>Analyte</b>	<b>Sample Result</b>	<b>Sample Qualifier</b>	<b>Spike Added</b>	<b>MSD Result</b>	<b>MSD Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>%Rec</b>	<b>Limits</b>	<b>RPD</b>	<b>Limit</b>
Calcium, Dissolved	46		50.0	100		mg/L		109	48 - 153	6	20
Magnesium, Dissolved	4.6		50.0	60.8		mg/L		112	62 - 146	7	20
Potassium, Dissolved	ND		50.0	56.4		mg/L		109	76 - 132	8	20

<b>Lab Sample ID: 280-133076-A-15-C MSD</b>				<b>Client Sample ID: Matrix Spike Duplicate</b>							
<b>Matrix: Water</b>				<b>Prep Type: Dissolved</b>							
<b>Analysis Batch: 484395</b>				<b>Prep Batch: 483845</b>							
<b>Analyte</b>	<b>Sample Result</b>	<b>Sample Qualifier</b>	<b>Spike Added</b>	<b>MSD Result</b>	<b>MSD Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>%Rec</b>	<b>Limits</b>	<b>RPD</b>	<b>Limit</b>
Sodium, Dissolved	29		50.0	82.1		mg/L		106	70 - 203	7	20

## Method: 6020 - Metals (ICP/MS)

<b>Lab Sample ID: MB 580-321343/16-A</b>				<b>Client Sample ID: Method Blank</b>					
<b>Matrix: Water</b>				<b>Prep Type: Total Recoverable</b>					
<b>Analysis Batch: 321475</b>				<b>Prep Batch: 321343</b>					
<b>Analyte</b>	<b>MB Result</b>	<b>MB Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Unit</b>	<b>D</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Iron, Dissolved	ND		0.18		mg/L		01/24/20 13:58	01/27/20 10:32	5

<b>Lab Sample ID: LCS 580-321343/17-A</b>				<b>Client Sample ID: Lab Control Sample</b>				
<b>Matrix: Water</b>				<b>Prep Type: Total Recoverable</b>				
<b>Analysis Batch: 321475</b>				<b>Prep Batch: 321343</b>				
<b>Analyte</b>	<b>Spike Added</b>	<b>LCS Result</b>	<b>LCS Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>%Rec</b>	<b>Limits</b>	
Iron, Dissolved	20.0	18.9		mg/L		95	80 - 120	

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCSD 580-321343/18-A**  
**Matrix: Water**  
**Analysis Batch: 321475**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total Recoverable**  
**Prep Batch: 321343**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Iron, Dissolved	20.0	18.9		mg/L		95	80 - 120	0	20

**Lab Sample ID: MB 280-483794/1-A**  
**Matrix: Water**  
**Analysis Batch: 484419**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 483794**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	ND		0.0010		mg/L		01/23/20 16:10	01/29/20 17:06	1

**Lab Sample ID: LCS 280-483794/2-A**  
**Matrix: Water**  
**Analysis Batch: 484419**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 483794**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Manganese, Dissolved	0.0400	0.0402		mg/L		101	85 - 117

**Lab Sample ID: 280-133052-1 MS**  
**Matrix: Water**  
**Analysis Batch: 321475**

**Client Sample ID: HVL-012120-01**  
**Prep Type: Dissolved**  
**Prep Batch: 321343**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Iron, Dissolved	ND		20.0	18.4		mg/L		92	80 - 120

**Lab Sample ID: 280-133052-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 321475**

**Client Sample ID: HVL-012120-01**  
**Prep Type: Dissolved**  
**Prep Batch: 321343**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Iron, Dissolved	ND		20.0	19.0		mg/L		95	80 - 120	3	20

**Lab Sample ID: 280-133052-1 DU**  
**Matrix: Water**  
**Analysis Batch: 321475**

**Client Sample ID: HVL-012120-01**  
**Prep Type: Dissolved**  
**Prep Batch: 321343**

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	RPD	Limit
Iron, Dissolved	ND			ND		mg/L		NC	20

**Lab Sample ID: 280-133052-1 MS**  
**Matrix: Water**  
**Analysis Batch: 484419**

**Client Sample ID: HVL-012120-01**  
**Prep Type: Dissolved**  
**Prep Batch: 483794**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Manganese, Dissolved	ND		0.0400	0.0385		mg/L		96	85 - 117

**Lab Sample ID: 280-133052-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 484419**

**Client Sample ID: HVL-012120-01**  
**Prep Type: Dissolved**  
**Prep Batch: 483794**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Manganese, Dissolved	ND		0.0400	0.0384		mg/L		96	85 - 117	0	20

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 300.0 - Anions, Ion Chromatography

<b>Lab Sample ID: MB 280-483687/6</b>			<b>Client Sample ID: Method Blank</b>								
<b>Matrix: Water</b>			<b>Prep Type: Total/NA</b>								
<b>Analysis Batch: 483687</b>											
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Nitrate as N	ND		0.20		mg/L			01/22/20 14:30	1		
<b>Lab Sample ID: LCS 280-483687/4</b>			<b>Client Sample ID: Lab Control Sample</b>								
<b>Matrix: Water</b>			<b>Prep Type: Total/NA</b>								
<b>Analysis Batch: 483687</b>											
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits				
Nitrate as N	5.00	4.82		mg/L		96	90 - 110				
<b>Lab Sample ID: LCSD 280-483687/5</b>			<b>Client Sample ID: Lab Control Sample Dup</b>								
<b>Matrix: Water</b>			<b>Prep Type: Total/NA</b>								
<b>Analysis Batch: 483687</b>											
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit		
Nitrate as N	5.00	4.91		mg/L		98	90 - 110	2	10		
<b>Lab Sample ID: MRL 280-483687/3</b>			<b>Client Sample ID: Lab Control Sample</b>								
<b>Matrix: Water</b>			<b>Prep Type: Total/NA</b>								
<b>Analysis Batch: 483687</b>											
Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits				
Nitrate as N	0.500	ND		mg/L		99	50 - 150				
<b>Lab Sample ID: 280-133052-7 MS</b>			<b>Client Sample ID: HVL-012120-07</b>								
<b>Matrix: Water</b>			<b>Prep Type: Total/NA</b>								
<b>Analysis Batch: 483687</b>											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N	0.66		5.00	5.86		mg/L		104	80 - 120		
<b>Lab Sample ID: 280-133052-7 MSD</b>			<b>Client Sample ID: HVL-012120-07</b>								
<b>Matrix: Water</b>			<b>Prep Type: Total/NA</b>								
<b>Analysis Batch: 483687</b>											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	0.66		5.00	5.91		mg/L		105	80 - 120	1	20
<b>Lab Sample ID: 280-133052-7 DU</b>			<b>Client Sample ID: HVL-012120-07</b>								
<b>Matrix: Water</b>			<b>Prep Type: Total/NA</b>								
<b>Analysis Batch: 483687</b>											
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit			
Nitrate as N	0.66		0.584		mg/L		12	15			
<b>Lab Sample ID: MB 280-483691/13</b>			<b>Client Sample ID: Method Blank</b>								
<b>Matrix: Water</b>			<b>Prep Type: Total/NA</b>								
<b>Analysis Batch: 483691</b>											
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Nitrate as N	ND		0.20		mg/L			01/22/20 16:31	1		

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCS 280-483691/11  
Matrix: Water  
Analysis Batch: 483691

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	5.00	4.69		mg/L		94	90 - 110

Lab Sample ID: LCSD 280-483691/12  
Matrix: Water  
Analysis Batch: 483691

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	5.00	4.67		mg/L		93	90 - 110	1	10

Lab Sample ID: MRL 280-483691/10  
Matrix: Water  
Analysis Batch: 483691

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.500	ND		mg/L		95	50 - 150

Lab Sample ID: 280-133052-2 MS  
Matrix: Water  
Analysis Batch: 483691

Client Sample ID: HVL-012120-02  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	22	H	25.0	49.8		mg/L		111	80 - 120

Lab Sample ID: 280-133052-2 MSD  
Matrix: Water  
Analysis Batch: 483691

Client Sample ID: HVL-012120-02  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	22	H	25.0	49.9		mg/L		111	80 - 120	0	20

Lab Sample ID: 280-133052-2 DU  
Matrix: Water  
Analysis Batch: 483691

Client Sample ID: HVL-012120-02  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	22	H	25.0	21.9		mg/L				0.7	15

## Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-484557/19  
Matrix: Water  
Analysis Batch: 484557

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.10		mg/L			01/30/20 12:11	1

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: 350.1 - Nitrogen, Ammonia (Continued)

<b>Lab Sample ID: MB 280-484557/57</b>						<b>Client Sample ID: Method Blank</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 484557</b>										
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Ammonia	ND		0.10		mg/L			01/30/20 13:39	1	

<b>Lab Sample ID: LCS 280-484557/18</b>						<b>Client Sample ID: Lab Control Sample</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 484557</b>										
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits			
Ammonia	2.50	2.50		mg/L		100	90 - 110			

<b>Lab Sample ID: LCS 280-484557/56</b>						<b>Client Sample ID: Lab Control Sample</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 484557</b>										
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits			
Ammonia	2.50	2.50		mg/L		100	90 - 110			

<b>Lab Sample ID: 280-133052-4 MS</b>						<b>Client Sample ID: HVL-012120-04</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 484557</b>										
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Ammonia	ND	F1	1.00	0.905	F1	mg/L		87	90 - 110	

<b>Lab Sample ID: 280-133052-4 MSD</b>						<b>Client Sample ID: HVL-012120-04</b>					
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>					
<b>Analysis Batch: 484557</b>											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	ND	F1	1.00	0.942		mg/L		91	90 - 110	4	10

## Method: SM 2320B - Alkalinity

<b>Lab Sample ID: MB 280-484292/31</b>						<b>Client Sample ID: Method Blank</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 484292</b>										
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Alkalinity	ND		10		mg/L			01/28/20 19:35	1	

<b>Lab Sample ID: MB 280-484292/57</b>						<b>Client Sample ID: Method Blank</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 484292</b>										
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Alkalinity	ND		10		mg/L			01/28/20 21:47	1	

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 280-484292/30 Matrix: Water Analysis Batch: 484292			Client Sample ID: Lab Control Sample Prep Type: Total/NA					
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Alkalinity	200	215		mg/L		107	89 - 109	

Lab Sample ID: LCS 280-484292/56 Matrix: Water Analysis Batch: 484292			Client Sample ID: Lab Control Sample Prep Type: Total/NA					
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Alkalinity	200	204		mg/L		102	89 - 109	

Lab Sample ID: 280-133052-12 DU Matrix: Water Analysis Batch: 484292			Client Sample ID: HVL-012120-12 Prep Type: Total/NA					
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	100		103		mg/L		0.7	10

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

Lab Sample ID: MB 280-483892/1 Matrix: Water Analysis Batch: 483892			Client Sample ID: Method Blank Prep Type: Total/NA						
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			01/24/20 08:51	1

Lab Sample ID: LCS 280-483892/2 Matrix: Water Analysis Batch: 483892			Client Sample ID: Lab Control Sample Prep Type: Total/NA					
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Total Dissolved Solids	500	488		mg/L		98	93 - 110	

Lab Sample ID: LCSD 280-483892/3 Matrix: Water Analysis Batch: 483892			Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA						
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids	500	487		mg/L		97	93 - 110	0	20

Lab Sample ID: 280-133051-D-1 DU Matrix: Water Analysis Batch: 483892			Client Sample ID: Duplicate Prep Type: Total/NA					
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1300		1340		mg/L		1	10

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-483765/1				Client Sample ID: Method Blank						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 483765										
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total Suspended Solids	ND		4.0		mg/L			01/23/20 09:08	1	

Lab Sample ID: LCS 280-483765/2				Client Sample ID: Lab Control Sample						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 483765										
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits			
Total Suspended Solids	100	90.4		mg/L		90	79 - 114			

Lab Sample ID: LCSD 280-483765/3				Client Sample ID: Lab Control Sample Dup						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 483765										
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit	
Total Suspended Solids	100	95.2		mg/L		95	79 - 114	5	20	

Lab Sample ID: 280-133067-A-1 DU				Client Sample ID: Duplicate						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 483765										
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Suspended Solids	4.8		4.00	F5	mg/L				18	10

## Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-484053/6				Client Sample ID: Method Blank						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 484053										
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total Organic Carbon - Quad	ND		1.0		mg/L			01/24/20 18:40	1	

Lab Sample ID: LCS 280-484053/5				Client Sample ID: Lab Control Sample						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 484053										
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits			
Total Organic Carbon - Quad	25.0	24.4		mg/L		98	88 - 112			

Lab Sample ID: 280-133052-7 MS				Client Sample ID: HVL-012120-07						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 484053										
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Total Organic Carbon - Quad	ND		25.0	25.6		mg/L		99	88 - 112	

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# QC Sample Results

Client: SCS Engineers  
 Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 280-133052-7 MSD  
 Matrix: Water  
 Analysis Batch: 484053

Client Sample ID: HVL-012120-07  
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Quad	ND		25.0	25.7		mg/L		99	88 - 112	0	15



# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## GC/MS VOA

### Analysis Batch: 484415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-1	HVL-012120-01	Total/NA	Water	8260B	
280-133052-2	HVL-012120-02	Total/NA	Water	8260B	
280-133052-3	HVL-012120-03	Total/NA	Water	8260B	
280-133052-4	HVL-012120-04	Total/NA	Water	8260B	
280-133052-5	HVL-012120-05	Total/NA	Water	8260B	
280-133052-6	HVL-012120-06	Total/NA	Water	8260B	
280-133052-7	HVL-012120-07	Total/NA	Water	8260B	
280-133052-8	HVL-012120-08	Total/NA	Water	8260B	
280-133052-9	HVL-012120-09	Total/NA	Water	8260B	
280-133052-10	HVL-012120-10	Total/NA	Water	8260B	
280-133052-11	HVL-012120-11	Total/NA	Water	8260B	
280-133052-12	HVL-012120-12	Total/NA	Water	8260B	
280-133052-13	TRIP BLANK	Total/NA	Water	8260B	
MB 280-484415/8	Method Blank	Total/NA	Water	8260B	
LCS 280-484415/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 280-484415/5	Lab Control Sample Dup	Total/NA	Water	8260B	

## HPLC/IC

### Analysis Batch: 459836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-1 - DL	HVL-012120-01	Total/NA	Water	300.0	
280-133052-2 - DL	HVL-012120-02	Total/NA	Water	300.0	
280-133052-3 - DL	HVL-012120-03	Total/NA	Water	300.0	
280-133052-4 - DL	HVL-012120-04	Total/NA	Water	300.0	
280-133052-5 - DL	HVL-012120-05	Total/NA	Water	300.0	
280-133052-6 - DL	HVL-012120-06	Total/NA	Water	300.0	
280-133052-7 - DL	HVL-012120-07	Total/NA	Water	300.0	
280-133052-8 - DL	HVL-012120-08	Total/NA	Water	300.0	
280-133052-9 - DL	HVL-012120-09	Total/NA	Water	300.0	
280-133052-10 - DL	HVL-012120-10	Total/NA	Water	300.0	
280-133052-11 - DL	HVL-012120-11	Total/NA	Water	300.0	
280-133052-12 - DL	HVL-012120-12	Total/NA	Water	300.0	
MB 160-459836/99	Method Blank	Total/NA	Water	300.0	
LCS 160-459836/100	Lab Control Sample	Total/NA	Water	300.0	
280-133052-1 MS - DL	HVL-012120-01	Total/NA	Water	300.0	
280-133052-1 DU - DL	HVL-012120-01	Total/NA	Water	300.0	

## Metals

### Prep Batch: 321343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-1	HVL-012120-01	Dissolved	Water	3005A	
280-133052-2	HVL-012120-02	Dissolved	Water	3005A	
280-133052-3	HVL-012120-03	Dissolved	Water	3005A	
280-133052-4	HVL-012120-04	Dissolved	Water	3005A	
280-133052-5	HVL-012120-05	Dissolved	Water	3005A	
280-133052-6	HVL-012120-06	Dissolved	Water	3005A	
280-133052-7	HVL-012120-07	Dissolved	Water	3005A	
280-133052-8	HVL-012120-08	Dissolved	Water	3005A	
280-133052-9	HVL-012120-09	Dissolved	Water	3005A	
280-133052-10	HVL-012120-10	Dissolved	Water	3005A	

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# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Metals (Continued)

### Prep Batch: 321343 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-11	HVL-012120-11	Dissolved	Water	3005A	
280-133052-12	HVL-012120-12	Dissolved	Water	3005A	
MB 580-321343/16-A	Method Blank	Total Recoverable	Water	3005A	
LCS 580-321343/17-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 580-321343/18-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
280-133052-1 MS	HVL-012120-01	Dissolved	Water	3005A	
280-133052-1 MSD	HVL-012120-01	Dissolved	Water	3005A	
280-133052-1 DU	HVL-012120-01	Dissolved	Water	3005A	

### Analysis Batch: 321475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-1	HVL-012120-01	Dissolved	Water	6020	321343
280-133052-2	HVL-012120-02	Dissolved	Water	6020	321343
280-133052-3	HVL-012120-03	Dissolved	Water	6020	321343
280-133052-4	HVL-012120-04	Dissolved	Water	6020	321343
280-133052-5	HVL-012120-05	Dissolved	Water	6020	321343
280-133052-6	HVL-012120-06	Dissolved	Water	6020	321343
280-133052-7	HVL-012120-07	Dissolved	Water	6020	321343
280-133052-8	HVL-012120-08	Dissolved	Water	6020	321343
280-133052-9	HVL-012120-09	Dissolved	Water	6020	321343
280-133052-10	HVL-012120-10	Dissolved	Water	6020	321343
280-133052-11	HVL-012120-11	Dissolved	Water	6020	321343
280-133052-12	HVL-012120-12	Dissolved	Water	6020	321343
MB 580-321343/16-A	Method Blank	Total Recoverable	Water	6020	321343
LCS 580-321343/17-A	Lab Control Sample	Total Recoverable	Water	6020	321343
LCSD 580-321343/18-A	Lab Control Sample Dup	Total Recoverable	Water	6020	321343
280-133052-1 MS	HVL-012120-01	Dissolved	Water	6020	321343
280-133052-1 MSD	HVL-012120-01	Dissolved	Water	6020	321343
280-133052-1 DU	HVL-012120-01	Dissolved	Water	6020	321343

### Prep Batch: 483794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-1	HVL-012120-01	Dissolved	Water	3005A	
280-133052-2	HVL-012120-02	Dissolved	Water	3005A	
280-133052-3	HVL-012120-03	Dissolved	Water	3005A	
280-133052-4	HVL-012120-04	Dissolved	Water	3005A	
280-133052-5	HVL-012120-05	Dissolved	Water	3005A	
280-133052-6	HVL-012120-06	Dissolved	Water	3005A	
280-133052-7	HVL-012120-07	Dissolved	Water	3005A	
280-133052-8	HVL-012120-08	Dissolved	Water	3005A	
280-133052-9	HVL-012120-09	Dissolved	Water	3005A	
280-133052-10	HVL-012120-10	Dissolved	Water	3005A	
280-133052-11	HVL-012120-11	Dissolved	Water	3005A	
280-133052-12	HVL-012120-12	Dissolved	Water	3005A	
MB 280-483794/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-483794/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-133052-1 MS	HVL-012120-01	Dissolved	Water	3005A	
280-133052-1 MSD	HVL-012120-01	Dissolved	Water	3005A	

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# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Metals

### Prep Batch: 483845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-1	HVL-012120-01	Dissolved	Water	3005A	
280-133052-2	HVL-012120-02	Dissolved	Water	3005A	
280-133052-3	HVL-012120-03	Dissolved	Water	3005A	
280-133052-4	HVL-012120-04	Dissolved	Water	3005A	
280-133052-5	HVL-012120-05	Dissolved	Water	3005A	
280-133052-6	HVL-012120-06	Dissolved	Water	3005A	
280-133052-7	HVL-012120-07	Dissolved	Water	3005A	
280-133052-8	HVL-012120-08	Dissolved	Water	3005A	
280-133052-9	HVL-012120-09	Dissolved	Water	3005A	
280-133052-10	HVL-012120-10	Dissolved	Water	3005A	
280-133052-11	HVL-012120-11	Dissolved	Water	3005A	
280-133052-12	HVL-012120-12	Dissolved	Water	3005A	
MB 280-483845/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-483845/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-133076-A-15-B MS	Matrix Spike	Dissolved	Water	3005A	
280-133076-A-15-C MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

### Analysis Batch: 484283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-1	HVL-012120-01	Dissolved	Water	6010B	483845
280-133052-2	HVL-012120-02	Dissolved	Water	6010B	483845
280-133052-3	HVL-012120-03	Dissolved	Water	6010B	483845
280-133052-4	HVL-012120-04	Dissolved	Water	6010B	483845
280-133052-5	HVL-012120-05	Dissolved	Water	6010B	483845
280-133052-6	HVL-012120-06	Dissolved	Water	6010B	483845
280-133052-7	HVL-012120-07	Dissolved	Water	6010B	483845
280-133052-8	HVL-012120-08	Dissolved	Water	6010B	483845
280-133052-9	HVL-012120-09	Dissolved	Water	6010B	483845
280-133052-10	HVL-012120-10	Dissolved	Water	6010B	483845
280-133052-11	HVL-012120-11	Dissolved	Water	6010B	483845
280-133052-12	HVL-012120-12	Dissolved	Water	6010B	483845
MB 280-483845/1-A	Method Blank	Total Recoverable	Water	6010B	483845
LCS 280-483845/2-A	Lab Control Sample	Total Recoverable	Water	6010B	483845
280-133076-A-15-B MS	Matrix Spike	Dissolved	Water	6010B	483845
280-133076-A-15-C MSD	Matrix Spike Duplicate	Dissolved	Water	6010B	483845

### Analysis Batch: 484395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-1	HVL-012120-01	Dissolved	Water	6010B	483845
280-133052-2	HVL-012120-02	Dissolved	Water	6010B	483845
280-133052-3	HVL-012120-03	Dissolved	Water	6010B	483845
280-133052-4	HVL-012120-04	Dissolved	Water	6010B	483845
280-133052-5	HVL-012120-05	Dissolved	Water	6010B	483845
280-133052-6	HVL-012120-06	Dissolved	Water	6010B	483845
280-133052-7	HVL-012120-07	Dissolved	Water	6010B	483845
280-133052-8	HVL-012120-08	Dissolved	Water	6010B	483845
280-133052-9	HVL-012120-09	Dissolved	Water	6010B	483845
280-133052-10	HVL-012120-10	Dissolved	Water	6010B	483845
280-133052-11	HVL-012120-11	Dissolved	Water	6010B	483845
280-133052-12	HVL-012120-12	Dissolved	Water	6010B	483845
MB 280-483845/1-A	Method Blank	Total Recoverable	Water	6010B	483845

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# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## Metals (Continued)

### Analysis Batch: 484395 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-483845/2-A	Lab Control Sample	Total Recoverable	Water	6010B	483845
280-133076-A-15-B MS	Matrix Spike	Dissolved	Water	6010B	483845
280-133076-A-15-C MSD	Matrix Spike Duplicate	Dissolved	Water	6010B	483845

### Analysis Batch: 484419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-1	HVL-012120-01	Dissolved	Water	6020	483794
280-133052-2	HVL-012120-02	Dissolved	Water	6020	483794
280-133052-3	HVL-012120-03	Dissolved	Water	6020	483794
280-133052-4	HVL-012120-04	Dissolved	Water	6020	483794
280-133052-5	HVL-012120-05	Dissolved	Water	6020	483794
280-133052-6	HVL-012120-06	Dissolved	Water	6020	483794
280-133052-7	HVL-012120-07	Dissolved	Water	6020	483794
280-133052-8	HVL-012120-08	Dissolved	Water	6020	483794
280-133052-9	HVL-012120-09	Dissolved	Water	6020	483794
280-133052-10	HVL-012120-10	Dissolved	Water	6020	483794
280-133052-11	HVL-012120-11	Dissolved	Water	6020	483794
280-133052-12	HVL-012120-12	Dissolved	Water	6020	483794
MB 280-483794/1-A	Method Blank	Total Recoverable	Water	6020	483794
LCS 280-483794/2-A	Lab Control Sample	Total Recoverable	Water	6020	483794
280-133052-1 MS	HVL-012120-01	Dissolved	Water	6020	483794
280-133052-1 MSD	HVL-012120-01	Dissolved	Water	6020	483794

## General Chemistry

### Analysis Batch: 483687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-1	HVL-012120-01	Total/NA	Water	300.0	
280-133052-4	HVL-012120-04	Total/NA	Water	300.0	
280-133052-5	HVL-012120-05	Total/NA	Water	300.0	
280-133052-6	HVL-012120-06	Total/NA	Water	300.0	
280-133052-7	HVL-012120-07	Total/NA	Water	300.0	
280-133052-8	HVL-012120-08	Total/NA	Water	300.0	
280-133052-9	HVL-012120-09	Total/NA	Water	300.0	
280-133052-10	HVL-012120-10	Total/NA	Water	300.0	
280-133052-11	HVL-012120-11	Total/NA	Water	300.0	
280-133052-12	HVL-012120-12	Total/NA	Water	300.0	
MB 280-483687/6	Method Blank	Total/NA	Water	300.0	
LCS 280-483687/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-483687/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-483687/3	Lab Control Sample	Total/NA	Water	300.0	
280-133052-7 MS	HVL-012120-07	Total/NA	Water	300.0	
280-133052-7 MSD	HVL-012120-07	Total/NA	Water	300.0	
280-133052-7 DU	HVL-012120-07	Total/NA	Water	300.0	

### Analysis Batch: 483691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-2	HVL-012120-02	Total/NA	Water	300.0	
280-133052-3	HVL-012120-03	Total/NA	Water	300.0	
MB 280-483691/13	Method Blank	Total/NA	Water	300.0	
LCS 280-483691/11	Lab Control Sample	Total/NA	Water	300.0	

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## QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

### General Chemistry (Continued)

#### Analysis Batch: 483691 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 280-483691/12	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-483691/10	Lab Control Sample	Total/NA	Water	300.0	
280-133052-2 MS	HVL-012120-02	Total/NA	Water	300.0	
280-133052-2 MSD	HVL-012120-02	Total/NA	Water	300.0	
280-133052-2 DU	HVL-012120-02	Total/NA	Water	300.0	

#### Analysis Batch: 483765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-1	HVL-012120-01	Total/NA	Water	SM 2540D	
280-133052-2	HVL-012120-02	Total/NA	Water	SM 2540D	
280-133052-3	HVL-012120-03	Total/NA	Water	SM 2540D	
280-133052-4	HVL-012120-04	Total/NA	Water	SM 2540D	
280-133052-5	HVL-012120-05	Total/NA	Water	SM 2540D	
280-133052-6	HVL-012120-06	Total/NA	Water	SM 2540D	
280-133052-7	HVL-012120-07	Total/NA	Water	SM 2540D	
280-133052-8	HVL-012120-08	Total/NA	Water	SM 2540D	
280-133052-9	HVL-012120-09	Total/NA	Water	SM 2540D	
280-133052-10	HVL-012120-10	Total/NA	Water	SM 2540D	
280-133052-11	HVL-012120-11	Total/NA	Water	SM 2540D	
280-133052-12	HVL-012120-12	Total/NA	Water	SM 2540D	
MB 280-483765/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-483765/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-483765/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
280-133067-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	

#### Analysis Batch: 483892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-1	HVL-012120-01	Total/NA	Water	SM 2540C	
280-133052-2	HVL-012120-02	Total/NA	Water	SM 2540C	
280-133052-3	HVL-012120-03	Total/NA	Water	SM 2540C	
280-133052-4	HVL-012120-04	Total/NA	Water	SM 2540C	
280-133052-5	HVL-012120-05	Total/NA	Water	SM 2540C	
280-133052-6	HVL-012120-06	Total/NA	Water	SM 2540C	
280-133052-7	HVL-012120-07	Total/NA	Water	SM 2540C	
280-133052-8	HVL-012120-08	Total/NA	Water	SM 2540C	
280-133052-9	HVL-012120-09	Total/NA	Water	SM 2540C	
280-133052-10	HVL-012120-10	Total/NA	Water	SM 2540C	
280-133052-11	HVL-012120-11	Total/NA	Water	SM 2540C	
280-133052-12	HVL-012120-12	Total/NA	Water	SM 2540C	
MB 280-483892/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-483892/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 280-483892/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
280-133051-D-1 DU	Duplicate	Total/NA	Water	SM 2540C	

#### Analysis Batch: 484053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-1	HVL-012120-01	Total/NA	Water	SM 5310B	
280-133052-2	HVL-012120-02	Total/NA	Water	SM 5310B	
280-133052-3	HVL-012120-03	Total/NA	Water	SM 5310B	
280-133052-4	HVL-012120-04	Total/NA	Water	SM 5310B	
280-133052-5	HVL-012120-05	Total/NA	Water	SM 5310B	

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# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## General Chemistry (Continued)

### Analysis Batch: 484053 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-6	HVL-012120-06	Total/NA	Water	SM 5310B	
280-133052-7	HVL-012120-07	Total/NA	Water	SM 5310B	
280-133052-8	HVL-012120-08	Total/NA	Water	SM 5310B	
280-133052-9	HVL-012120-09	Total/NA	Water	SM 5310B	
280-133052-10	HVL-012120-10	Total/NA	Water	SM 5310B	
280-133052-11	HVL-012120-11	Total/NA	Water	SM 5310B	
280-133052-12	HVL-012120-12	Total/NA	Water	SM 5310B	
MB 280-484053/6	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-484053/5	Lab Control Sample	Total/NA	Water	SM 5310B	
280-133052-7 MS	HVL-012120-07	Total/NA	Water	SM 5310B	
280-133052-7 MSD	HVL-012120-07	Total/NA	Water	SM 5310B	

### Analysis Batch: 484292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-1	HVL-012120-01	Total/NA	Water	SM 2320B	
280-133052-2	HVL-012120-02	Total/NA	Water	SM 2320B	
280-133052-3	HVL-012120-03	Total/NA	Water	SM 2320B	
280-133052-4	HVL-012120-04	Total/NA	Water	SM 2320B	
280-133052-5	HVL-012120-05	Total/NA	Water	SM 2320B	
280-133052-6	HVL-012120-06	Total/NA	Water	SM 2320B	
280-133052-7	HVL-012120-07	Total/NA	Water	SM 2320B	
280-133052-8	HVL-012120-08	Total/NA	Water	SM 2320B	
280-133052-9	HVL-012120-09	Total/NA	Water	SM 2320B	
280-133052-10	HVL-012120-10	Total/NA	Water	SM 2320B	
280-133052-11	HVL-012120-11	Total/NA	Water	SM 2320B	
280-133052-12	HVL-012120-12	Total/NA	Water	SM 2320B	
MB 280-484292/31	Method Blank	Total/NA	Water	SM 2320B	
MB 280-484292/57	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-484292/30	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 280-484292/56	Lab Control Sample	Total/NA	Water	SM 2320B	
280-133052-12 DU	HVL-012120-12	Total/NA	Water	SM 2320B	

### Analysis Batch: 484557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-1	HVL-012120-01	Total/NA	Water	350.1	
280-133052-2	HVL-012120-02	Total/NA	Water	350.1	
280-133052-3	HVL-012120-03	Total/NA	Water	350.1	
280-133052-4	HVL-012120-04	Total/NA	Water	350.1	
280-133052-5	HVL-012120-05	Total/NA	Water	350.1	
280-133052-6	HVL-012120-06	Total/NA	Water	350.1	
280-133052-7	HVL-012120-07	Total/NA	Water	350.1	
280-133052-8	HVL-012120-08	Total/NA	Water	350.1	
280-133052-9	HVL-012120-09	Total/NA	Water	350.1	
280-133052-10	HVL-012120-10	Total/NA	Water	350.1	
280-133052-11	HVL-012120-11	Total/NA	Water	350.1	
280-133052-12	HVL-012120-12	Total/NA	Water	350.1	
MB 280-484557/19	Method Blank	Total/NA	Water	350.1	
MB 280-484557/57	Method Blank	Total/NA	Water	350.1	
LCS 280-484557/18	Lab Control Sample	Total/NA	Water	350.1	
LCS 280-484557/56	Lab Control Sample	Total/NA	Water	350.1	
280-133052-4 MS	HVL-012120-04	Total/NA	Water	350.1	

Eurofins TestAmerica, Denver



# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

## General Chemistry (Continued)

### Analysis Batch: 484557 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133052-4 MSD	HVL-012120-04	Total/NA	Water	350.1	



# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

**Client Sample ID: HVL-012120-01**

**Lab Sample ID: 280-133052-1**

Date Collected: 01/21/20 09:46

Matrix: Water

Date Received: 01/22/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 10:51	TAW	TAL DEN
Total/NA	Analysis	300.0	DL	10			459836	02/12/20 10:45	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484283	01/27/20 18:23	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484395	01/29/20 13:26	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483794	01/23/20 16:10	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 17:13	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321343	01/24/20 13:58	ART	TAL SEA
Dissolved	Analysis	6020		5	50 mL	50 mL	321475	01/27/20 10:37	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483687	01/22/20 19:17	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484557	01/30/20 12:31	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 20:27	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483892	01/24/20 08:51	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483765	01/23/20 09:08	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/24/20 20:29	SGB	TAL DEN

**Client Sample ID: HVL-012120-02**

**Lab Sample ID: 280-133052-2**

Date Collected: 01/21/20 10:05

Matrix: Water

Date Received: 01/22/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 11:13	TAW	TAL DEN
Total/NA	Analysis	300.0	DL	5			459836	02/12/20 12:25	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484283	01/27/20 18:25	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484395	01/29/20 13:29	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483794	01/23/20 16:10	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 17:31	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321343	01/24/20 13:58	ART	TAL SEA
Dissolved	Analysis	6020		5	50 mL	50 mL	321475	01/27/20 11:06	FCW	TAL SEA
Total/NA	Analysis	300.0		5	5 mL	5 mL	483691	01/23/20 11:53	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484557	01/30/20 12:57	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 20:42	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483892	01/24/20 08:51	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483765	01/23/20 09:08	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/24/20 20:44	SGB	TAL DEN

# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

**Client Sample ID: HVL-012120-03**

**Lab Sample ID: 280-133052-3**

**Date Collected: 01/21/20 10:40**

**Matrix: Water**

**Date Received: 01/22/20 09:15**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 11:36	TAW	TAL DEN
Total/NA	Analysis	300.0	DL	10			459836	02/12/20 12:44	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484283	01/27/20 18:28	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484395	01/29/20 13:31	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483794	01/23/20 16:10	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 17:42	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321343	01/24/20 13:58	ART	TAL SEA
Dissolved	Analysis	6020		5	50 mL	50 mL	321475	01/27/20 11:09	FCW	TAL SEA
Total/NA	Analysis	300.0		5	5 mL	5 mL	483691	01/23/20 12:58	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484557	01/30/20 12:59	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 20:47	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483892	01/24/20 08:51	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483765	01/23/20 09:08	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/24/20 20:58	SGB	TAL DEN

**Client Sample ID: HVL-012120-04**

**Lab Sample ID: 280-133052-4**

**Date Collected: 01/21/20 10:55**

**Matrix: Water**

**Date Received: 01/22/20 09:15**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 11:59	TAW	TAL DEN
Total/NA	Analysis	300.0	DL	5			459836	02/12/20 13:04	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484283	01/27/20 18:30	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484395	01/29/20 13:34	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483794	01/23/20 16:10	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 17:45	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321343	01/24/20 13:58	ART	TAL SEA
Dissolved	Analysis	6020		5	50 mL	50 mL	321475	01/27/20 11:12	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483687	01/22/20 20:05	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484557	01/30/20 13:01	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 20:52	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483892	01/24/20 08:51	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483765	01/23/20 09:08	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/24/20 21:43	SGB	TAL DEN

Eurofins TestAmerica, Denver

# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

**Client Sample ID: HVL-012120-05**

**Lab Sample ID: 280-133052-5**

Date Collected: 01/21/20 11:39

Matrix: Water

Date Received: 01/22/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 12:21	TAW	TAL DEN
Total/NA	Analysis	300.0	DL	5			459836	02/12/20 13:24	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484283	01/27/20 18:33	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484395	01/29/20 13:36	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483794	01/23/20 16:10	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 17:49	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321343	01/24/20 13:58	ART	TAL SEA
Dissolved	Analysis	6020		5	50 mL	50 mL	321475	01/27/20 11:14	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483687	01/22/20 20:22	JAP	TAL DEN
Total/NA	Analysis	350.1		2	10 mL	10 mL	484557	01/30/20 14:55	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 20:57	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483892	01/24/20 08:51	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483765	01/23/20 09:08	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/24/20 21:59	SGB	TAL DEN

**Client Sample ID: HVL-012120-06**

**Lab Sample ID: 280-133052-6**

Date Collected: 01/21/20 11:59

Matrix: Water

Date Received: 01/22/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 12:44	TAW	TAL DEN
Total/NA	Analysis	300.0	DL	10			459836	02/11/20 13:18	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484283	01/27/20 18:36	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484395	01/29/20 13:49	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483794	01/23/20 16:10	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 17:52	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321343	01/24/20 13:58	ART	TAL SEA
Dissolved	Analysis	6020		5	50 mL	50 mL	321475	01/27/20 11:17	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483687	01/22/20 20:38	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484557	01/30/20 13:09	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 21:02	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483892	01/24/20 08:51	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483765	01/23/20 09:08	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/24/20 22:14	SGB	TAL DEN

Eurofins TestAmerica, Denver

# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

**Client Sample ID: HVL-012120-07**

**Lab Sample ID: 280-133052-7**

**Date Collected: 01/21/20 12:42**

**Matrix: Water**

**Date Received: 01/22/20 09:15**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 13:07	TAW	TAL DEN
Total/NA	Analysis	300.0	DL	10			459836	02/11/20 13:38	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484283	01/27/20 18:38	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484395	01/29/20 13:51	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483794	01/23/20 16:10	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 17:56	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321343	01/24/20 13:58	ART	TAL SEA
Dissolved	Analysis	6020		5	50 mL	50 mL	321475	01/27/20 11:20	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483687	01/22/20 20:55	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484557	01/30/20 13:11	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 21:07	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483892	01/24/20 08:51	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483765	01/23/20 09:08	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/24/20 22:29	SGB	TAL DEN

**Client Sample ID: HVL-012120-08**

**Lab Sample ID: 280-133052-8**

**Date Collected: 01/21/20 12:52**

**Matrix: Water**

**Date Received: 01/22/20 09:15**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 13:29	TAW	TAL DEN
Total/NA	Analysis	300.0	DL	10			459836	02/11/20 13:59	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484283	01/27/20 18:51	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484395	01/29/20 13:54	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483794	01/23/20 16:10	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 17:59	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321343	01/24/20 13:58	ART	TAL SEA
Dissolved	Analysis	6020		5	50 mL	50 mL	321475	01/27/20 11:22	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483687	01/22/20 22:33	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484557	01/30/20 13:13	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 21:12	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483892	01/24/20 08:51	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483765	01/23/20 09:08	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/24/20 23:15	SGB	TAL DEN



# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

**Client Sample ID: HVL-012120-09**

**Lab Sample ID: 280-133052-9**

Date Collected: 01/21/20 13:22

Matrix: Water

Date Received: 01/22/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 13:52	TAW	TAL DEN
Total/NA	Analysis	300.0	DL	5			459836	02/12/20 13:44	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484283	01/27/20 18:53	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484395	01/29/20 13:57	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483794	01/23/20 16:10	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 18:03	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321343	01/24/20 13:58	ART	TAL SEA
Dissolved	Analysis	6020		5	50 mL	50 mL	321475	01/27/20 11:25	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483687	01/22/20 22:50	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484557	01/30/20 13:15	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 21:16	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483892	01/24/20 08:51	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483765	01/23/20 09:08	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/24/20 23:32	SGB	TAL DEN

**Client Sample ID: HVL-012120-10**

**Lab Sample ID: 280-133052-10**

Date Collected: 01/21/20 13:30

Matrix: Water

Date Received: 01/22/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 14:15	TAW	TAL DEN
Total/NA	Analysis	300.0	DL	10			459836	02/11/20 14:39	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484283	01/27/20 18:56	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484395	01/29/20 13:59	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483794	01/23/20 16:10	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 18:07	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321343	01/24/20 13:58	ART	TAL SEA
Dissolved	Analysis	6020		5	50 mL	50 mL	321475	01/27/20 11:28	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483687	01/22/20 23:06	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484557	01/30/20 13:29	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 21:21	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483892	01/24/20 08:51	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483765	01/23/20 09:08	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/24/20 23:46	SGB	TAL DEN

# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

**Client Sample ID: HVL-012120-11**

**Lab Sample ID: 280-133052-11**

**Date Collected: 01/21/20 14:15**

**Matrix: Water**

**Date Received: 01/22/20 09:15**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 14:37	TAW	TAL DEN
Total/NA	Analysis	300.0	DL	2			459836	02/11/20 15:00	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484283	01/27/20 18:58	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484395	01/29/20 14:02	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483794	01/23/20 16:10	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 18:10	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321343	01/24/20 13:58	ART	TAL SEA
Dissolved	Analysis	6020		5	50 mL	50 mL	321475	01/27/20 11:30	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483687	01/22/20 23:23	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484557	01/30/20 13:31	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 21:26	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483892	01/24/20 08:51	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483765	01/23/20 09:08	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/25/20 00:01	SGB	TAL DEN

**Client Sample ID: HVL-012120-12**

**Lab Sample ID: 280-133052-12**

**Date Collected: 01/21/20 14:35**

**Matrix: Water**

**Date Received: 01/22/20 09:15**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 15:00	TAW	TAL DEN
Total/NA	Analysis	300.0	DL	10			459836	02/11/20 15:20	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484283	01/27/20 19:01	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483845	01/24/20 09:35	AL	TAL DEN
Dissolved	Analysis	6010B		1			484395	01/29/20 14:04	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483794	01/23/20 16:10	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 18:14	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321343	01/24/20 13:58	ART	TAL SEA
Dissolved	Analysis	6020		5	50 mL	50 mL	321475	01/27/20 10:35	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483687	01/22/20 23:39	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484557	01/30/20 13:33	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 21:52	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483892	01/24/20 08:51	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483765	01/23/20 09:08	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/25/20 00:47	SGB	TAL DEN

# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133052-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 280-133052-13**

Date Collected: 01/21/20 14:35

Matrix: Water

Date Received: 01/22/20 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 10:28	TAW	TAL DEN

**Laboratory References:**

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

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

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



**TestAmerica Denver**  
 4955 Yarrow Street  
 Arvada, CO 80002  
 Phone (303) 736-0100 Fax (303) 431-7171

**Chain of Custody Record**

**DenverTestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

8156 5923010 #280  
 8156 5923010  
 8156 59230192

Carrier Tracking No(s):  
 8156 59230191  
 8156 59230192

Lab PM: Sara, Betsy A  
 E-Mail: betsy.sara@testamericamc.com

Sampler: S.G. + TB  
 Phone: [blank]

Client Information  
 Client Contact: Sam Graber  
 Company: SCS Engineers  
 Address: 2405 140th Avenue NE Suite 107  
 City: Bellevue  
 State, Zip: WA, 98005-1877  
 Phone: 425-766-3362  
 Email: SGrab@scsengineers.com  
 Project Name: Hidden Valley Landfill  
 Site: [blank]

Due Date Requested: Standard  
 TAT Requested (days): [blank]  
 PO #: [blank]  
 Purchase Order not required  
 WO #: [blank]  
 Project #: 28003580-Quarterly Groundwater Wells  
 SSOW#: [blank]

Sample Identification	Sample Date	Sample Time	Sample Type (G=grab)	Matrix (Water, Sludge, Other)	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Dissolved Metals (6010B/6020)		Dissolved Iron (TA Seattle)		TDS/Alk/NO3(C)		Cr/SO4 (TA St. Louis)		Ammonia/TOC		TSS
					A	D	A	D	A	D	A	D	A	D	A	D	A	D	
HVL-012120-01	1-21-20	946	G	W	X	Y	N	X	X	X	X	X	X	X	X	X	X	X	X
HVL-012120-02		1005																	
HVL-012120-03		1040																	
HVL-012120-04		1055																	
HVL-012120-05		1139																	
HVL-012120-06		1154																	
HVL-012120-07		1242																	
HVL-012120-08		1252																	
HVL-012120-09		1322																	
HVL-012120-10		1330																	
HVL-012120-11		1415																	

Special Instructions/Note:  
 Short Hold: NO3(IC)

Preservation Codes:  
 A - HCL  
 B - NaOH  
 C - Zn Acetate  
 D - Nitric Acid  
 E - H2SO4  
 F - MeOH  
 G - Amchlor  
 H - Ascorbic Acid  
 I - Ice  
 J - DI Water  
 K - EDTA  
 L - EDA  
 Other: [blank]

Analysis Requested  
 Dissolved Metals (6010B/6020)  
 Dissolved Iron (TA Seattle)  
 TDS/Alk/NO3(C)  
 Cr/SO4 (TA St. Louis)  
 Ammonia/TOC  
 TSS

280-133052 Chain of Custody

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  
 Disposal By Lab  
 Archive For [blank] Months

Possible Hazard Identification  
 Non-Hazard  
 Flammable  
 Skin Irritant  
 Poison B  
 Unknown  
 Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: [blank]  
 Relinquished by: [Signature]  
 Relinquished by: [Signature]  
 Relinquished by: [Signature]

Date: 1/21/20 1700  
 Date/Time: 1/21/20 0905  
 Date/Time: [blank]  
 Date/Time: [blank]

Custody Seal No.: 1251256 1251258, 1251259  
 Custody Seals Intact: Yes  No

TestAmerica Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Phone (303) 736-0100 Fax (303) 431-7171

# Chain of Custody Record

# Denver Test America

## #280

THE LEADER IN ENVIRONMENTAL TESTING

<b>Client Information</b> Client Contact: Sam Graber Phone: 561-78		Lab Pkt: Sara, Betsy A E-Mail: betsy.sara@testamericainc.com		Carrier Tracking No(s): COC No: 280-21691-6019.1 Page: 2 of 2 Job #: 0422000202	
<b>Company:</b> SCS Engineers Address: 2405 140th Avenue NE, Suite 107 Bellevue, WA, 98005-1877 Phone: 425-766-5962 Email: SGrabr@scsengineers.com		<b>Due Date Requested:</b> Standard <b>TKT Requested (days):</b> <b>PO #:</b> Purchase Order not required <b>WC #:</b> <b>Project #:</b> 28003580-Quarterly Groundwater Wells <b>SSOW#:</b>		<b>Analysis Requested</b> Dissolved Metals (6010B/6020) A D X X X X X X Dissolved Iron (TA Seattle) A D X X X X X X TDS/Alk/NO3(C) A D N I N S N ClSO4 (TA St. Louis) A D N I N S N Ammonia/TOC A D N I N S N TSS A D N I N S N	
<b>Sample Identification</b> HVL-012120-12 Trip blank		<b>Field Filtered Sample (Yes or No)</b> Y N X X X X X X N U X		<b>Special Instructions/Note:</b> Short Hold: NO3(C)	
<b>Possible Hazard Identification</b> <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<b>Sample Date:</b> 1/21/20 <b>Sample Time:</b> 1435 <b>Sample Type (C=Comp, G=grab):</b> G <b>Matrix (Water, Blood, Urine, etc.):</b> W <b>Preservation Code:</b> W ↓		<b>Special Instructions/Note:</b> Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
<b>Deliverable Requested:</b> I, II, III, IV, Other (specify)		<b>Empty Kit Relinquished by:</b> Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by: [Signature]		<b>Special Instructions/OC Requirements:</b> Method of Shipment: _____ Date/Time: 1/21/20 1720 Date/Time: 1/22/20 0915 Date/Time: _____ Company: SCS Company: IAHEN Company: _____	
<b>Custody Seal Intact:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>Custody Seal No.:</b>		<b>Cooler Temperature(s) °C and Other Remarks:</b>	

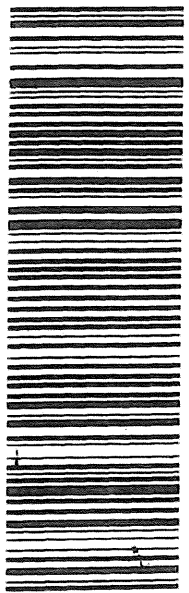


WED - 22 JAN 10:30A  
PRIORITY OVERNIGHT

TRK# 8156 5923 0192  
0667

XH WHHA

80002  
CO-US DEN



80

XH WHHA

WED - 22 JAN 1  
PRIORITY OVERN

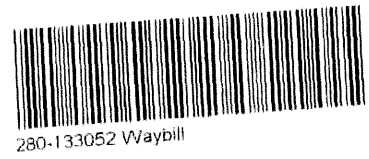
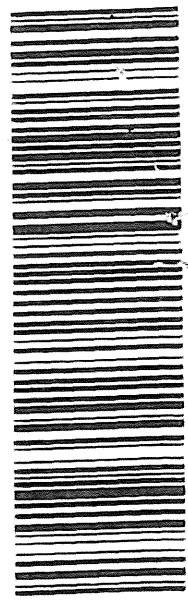
TRK# 8156 5923 0181  
0667

WED - 22 JAN 10:30A  
PRIORITY OVERNIGHT

TRK# 8156 5923 0170  
0667

XH WHHA

80002  
CO-US DEN



280-133052 Waybill

319 1 A  
10:30 01/22

# Chain of Custody Record



<b>Client Information (Sub Contract Lab)</b>		Lab P/N: Sara, Betsy A	Carrier Tracking No(s):	CCC No: 280-513440.1
Shipping/Receiving		E-Mail: betsy.sara@testamerica.com	State of Origin: Washington	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Washington	Job #: 280-133052-1	Job #: 280-133052-1
Address: 13715 Rider Trail North.		Due Date Requested: 2/10/2020	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO <sub>4</sub> F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
City: Earth City	State: MO, 63045	Phone: 314-298-8566(Tel) 314-298-8757(Fax)	M - Hexane N - None O - AshNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - other (specify)	
Project Name: Hidden Valley LF	SSOW#: 28003580	WO #: 28003580	Total Number of Containers	
Sample Identification - Client ID (Lab ID)		Field Filtered Sample (Yes or No)	Perform MS/MSD (MOD) Sulfate/Chloride (Tra St Louis)	Special Instructions/Note:
HVL-012120-01 (280-133052-1)	Sample Date: 1/21/20	Sample Time: 09:46 Pacific	Sample Type (C=Comp, G=Grab)	Matrix (W=Water, S=Solid, O=Other, BT=Issue, AA=V)
HVL-012120-02 (280-133052-2)	Sample Date: 1/21/20	Sample Time: 10:05 Pacific	Preservation Code	Water
HVL-012120-03 (280-133052-3)	Sample Date: 1/21/20	Sample Time: 10:40 Pacific	Field Filtered Sample (Yes or No)	Water
HVL-012120-04 (280-133052-4)	Sample Date: 1/21/20	Sample Time: 10:55 Pacific	Perform MS/MSD (MOD) Sulfate/Chloride (Tra St Louis)	Water
HVL-012120-05 (280-133052-5)	Sample Date: 1/21/20	Sample Time: 11:39 Pacific	Field Filtered Sample (Yes or No)	Water
HVL-012120-06 (280-133052-6)	Sample Date: 1/21/20	Sample Time: 11:59 Pacific	Perform MS/MSD (MOD) Sulfate/Chloride (Tra St Louis)	Water
HVL-012120-07 (280-133052-7)	Sample Date: 1/21/20	Sample Time: 12:42 Pacific	Field Filtered Sample (Yes or No)	Water
HVL-012120-08 (280-133052-8)	Sample Date: 1/21/20	Sample Time: 12:52 Pacific	Perform MS/MSD (MOD) Sulfate/Chloride (Tra St Louis)	Water
HVL-012120-09 (280-133052-9)	Sample Date: 1/21/20	Sample Time: 13:22 Pacific	Field Filtered Sample (Yes or No)	Water

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

**Possible Hazard Identification**  
 Unconfirmed  
 Deliverable Requested: I, II, III, IV, Other (specify) \_\_\_\_\_ Primary Deliverable Rank: 2  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Method of Shipment: \_\_\_\_\_  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months  
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Relinquished by: <i>[Signature]</i>	Date/Time: 1/21/20 14:15	Company: [Blank]
Relinquished by: <i>[Signature]</i>	Date/Time: 1/24/20 9:05	Company: ETASYS
Relinquished by: [Blank]	Date/Time: [Blank]	Company: [Blank]

Custody Seal No.: \_\_\_\_\_  
 Custody Seals Intact:  Yes  No  
 Cooler Temperature(s) °C and Other Remarks: [Blank]



**Chain of Custody Record**

**Client Information (Sub Contract Lab)**

Client Contact: Sara Betsy A  
 Shipping/Receiving: betsy.sara@testamericainc.com  
 Company: TestAmerica Laboratories, Inc.  
 Address: 13715 Rider Trail North, Earth City, MO, 63045  
 Phone: 314-298-8566(Tel) 314-298-8757(Fax)  
 Email: Project #: 28003580  
 Site: Hidden Valley LF

Lab P/N: Sara Betsy A  
 E-Mail: betsy.sara@testamericainc.com  
 State of Origin: Washington  
 Carrier Tracking Ref: 280-513440.2  
 Page: Page 2 of 2  
 Job #: 280-133052-1

**Analysis Requested**

Due Date Requested: 2/10/2020  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #: 28003580  
 SSOV#:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waterfall, BT=tissue, AA=)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300 ORGM 28D (MOD) Sulfate/Chloride (TA SI)	Total Number of Containers	Special Instructions/Note:
HVL-012120-10 (280-133052-10)	1/21/20	13:30 Pacific		Water	X	X		1	
HVL-012120-11 (280-133052-11)	1/21/20	14:15 Pacific		Water	X	X		1	
HVL-012120-12 (280-133052-12)	1/21/20	14:35 Pacific		Water	X	X		1	

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

**Possible Hazard Identification**

Unconfirmed  
 Deliverable Requested: I, II, III, IV, Other (specify) \_\_\_\_\_  
 Primary Deliverable Rank: 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:			
Relinquished by:			
Relinquished by:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:		

Received by:   
 Date/Time: 1/24/20 9:05  
 Company: STASZ  
 Received by:  
 Date/Time:  
 Company:  
 Received by:  
 Date/Time:  
 Company:  
 Cooler Temperature(s) °C and Other Remarks:



**Eurofins TestAmerica, Denver**  
 4955 Yarrow Street  
 Arvada, CO 80002  
 Phone: 303-736-0100 Fax: 303-431-7171



**eurofins**  
 Environment Testing  
 TestAmerica

# Chain of Custody Record

**Client Information (Sub Contract Lab)**

Company: TestAmerica Laboratories, Inc.  
 Address: 5755 8th Street East, Tacoma, WA 98424  
 Phone: 253-922-2310(Tel) 253-922-5047(Fax)  
 Email: [Redacted]

Project Name: Hidden Valley LF  
 Site: [Redacted]

Lab Pkt: Sara, Betsy A  
 E-Mail: betsy.sara@lestamericainc.com  
 State of Origin: Washington

Carrier Tracking No(s): 280-513439.1  
 Page: Page 1 of 2  
 Job #: 280-133052-1  
 Preservation Codes: A - HCL, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - NiH2SO4, R - Na2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, X - EDTA, Y - EDA, Z - other (Specify)

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Onwaste/oli)	Field Filled Sample (Yes or No)	Perform MS/MS (Yes or No)	6020 FIELD FLTRD (MOD) Iron	Total Number of Containers	Special Instructions/Note:
HVL-012120-01 (280-133052-1)	1/21/20	09:46 Pacific	Water	Water	X	X	X	1	
HVL-012120-02 (280-133052-2)	1/21/20	10:05 Pacific	Water	Water	X	X	X	1	
HVL-012120-03 (280-133052-3)	1/21/20	10:40 Pacific	Water	Water	X	X	X	1	
HVL-012120-04 (280-133052-4)	1/21/20	10:55 Pacific	Water	Water	X	X	X	1	
HVL-012120-05 (280-133052-5)	1/21/20	11:39 Pacific	Water	Water	X	X	X	1	
HVL-012120-06 (280-133052-6)	1/21/20	11:59 Pacific	Water	Water	X	X	X	1	
HVL-012120-07 (280-133052-7)	1/21/20	12:42 Pacific	Water	Water	X	X	X	1	
HVL-012120-08 (280-133052-8)	1/21/20	12:52 Pacific	Water	Water	X	X	X	1	
HVL-012120-09 (280-133052-9)	1/21/20	13:22 Pacific	Water	Water	X	X	X	1	

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

**Possible Hazard Identification**

Unconfirmed  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Deliverable Requested: I, II, III, IV, Other (specify) \_\_\_\_\_

Primary Deliverable Rank: 2

**Empty Kit Relinquished by:** \_\_\_\_\_ Date: \_\_\_\_\_

Relinquished by: *A. K. [Signature]* Date/Time: 1/23-2020 1410 Company: [Redacted]

Relinquished by: *[Signature]* Date/Time: 1/24/20 0940 Company: TA-Sea

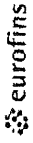
Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seals Intact:  Yes  No  Δ

Custody Seal No.: R7 1.3/16

**Eurofins TestAmerica, Denver**  
 4955 Yarrow Street  
 Avada, CO 80002  
 Phone: 303-736-0100 Fax: 303-431-7171

# Chain of Custody Record



Environment Testing  
 TestAmerica

<b>Client Information (Sub Contract Lab)</b>		Lab P/N:	Sara, Betsy A				
Company: TestAmerica Laboratories, Inc.		Carrier Tracking No(s):	280-513439.2				
Address: 5755 8th Street East, Tacoma WA, 98424		State of Origin:	Washington				
Phone: 253-922-2310(Tel) 253-922-5047(Fax)		Accreditations Required (See note):	State Program - Washington				
E-mail: Hidden Valley LF		Analysis Requested					
Project Name: Hidden Valley LF		Due Date Requested: 2/17/2020					
Site: SSOW#:		TAT Requested (days):					
Project #: 28003580		Preservation Codes:					
SSOW#:		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - Nitric Acid F - MeOH G - Ascorbic Acid H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - H2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)					
Other:		Other:					
<b>Sample Identification - Client ID (Lab ID)</b>		Special Instructions/Note:					
Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Overstabil, BT-TENSIL, AAAT)	6020 FIELD PLTRD (MOD) Iron	Total Number of Containers	Special Instructions/Note:
HVL-012120-10 (280-133052-10)	1/21/20	13:30 Pacific	Water	Water	X		
HVL-012120-11 (280-133052-11)	1/21/20	14:15 Pacific	Water	Water	X		
HVL-012120-12 (280-133052-12)	1/21/20	14:35 Pacific	Water	Water	X		
<p>Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte &amp; accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.</p>							
<b>Possible Hazard Identification</b>							
Unconfirmed							
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2							
Empty Kit Relinquished by:							
Relinquished by: <i>[Signature]</i> Date: 1-23-2020 14:10 Company							
Relinquished by: <i>[Signature]</i> Date: 1/24/20 0940 Company							
Relinquished by: Date: Company							
Custody Seats Intact: Custody Seal No.: Cooler Temperature(s) °C and Other Remarks: Page 70 of 73							

# Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133052-1

Login Number: 133052

List Source: Eurofins TestAmerica, Denver

List Number: 1

Creator: Zimmerman, Steven M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	



## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133052-1

**Login Number: 133052**

**List Source: Eurofins TestAmerica, Seattle**

**List Number: 3**

**List Creation: 01/24/20 10:18 AM**

**Creator: Blankinship, Tom X**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	Thermal preservation not required!
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	False	V'd @ TA-Den
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133052-1

**Login Number: 133052**

**List Number: 2**

**Creator: Harris, Lorin C**

**List Source: Eurofins TestAmerica, St. Louis**

**List Creation: 01/24/20 11:32 AM**

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







**Renter Information**

**Renter Name**

TED MASSART

**Renter Address**

DES MOINES, WA 98198  
USA

**Vehicle Information**

**EQUI**

License #: BXE1393

State/Province: WA

Unit #: 7V47CM

Vehicle #: M6135605

**Vehicle Class Driven**

Standard SUV 5-Door/Automatic/Air

**Vehicle Class Charged**

Standard SUV 5-Door/Automatic/Air

**Odometer Mileage/Kilometers**

Starting: 4064    Ending: 4386

Total: 322

**Thank you for renting  
with Enterprise Rent-A-  
Car**

**We appreciate your business!**

This email was automatically generated from an unattended mailbox, so please do not reply to this e-mail.

If you have any questions about your rental, please view our Frequently Asked Questions or send us a secured message by visiting our [Support Center](#)

**Trip Information**

**Pickup**

Tuesday, April 20, 2021     4:39 PM

**DES MOINES**

23219 PACIFIC HIGHWAY SOUTH  
SUITE 219-A  
KENT, WA 98032-2721  
USA

**Return**

Thursday, April 22, 2021     11:10 AM

**DES MOINES**

23219 PACIFIC HIGHWAY SOUTH  
SUITE 219-A  
KENT, WA 98032-2721  
USA

**Bill-To: SCS ENGINEERS**

**Rental Rate**    Time & Distance 2 Day at \$75.00 / Day    \$150.00

**Add-Ons**    Discount (5.00%)    (\$7.50)

**Taxes and Fees**    Rta Tax (0.80%)    \$1.15

Sports Facility Tax (1.00%)    \$1.43

Wa State Rental Tax (5.90%)    \$8.47

Sales Tax (10.10%)    \$14.49

Vehicle License Fee Recovery (\$0.49 / Day)    \$0.98

**Subtotal**    (\$169.02)

**Renter Charges**

**Total**    \$169.02

(Subject to audit)

Amount charged to SCS ENGINEERS    (\$169.02)

**Amount Due**    \$0.00





## ANALYTICAL REPORT

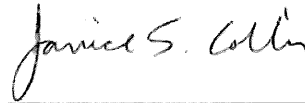
Eurofins TestAmerica, Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Tel: (303)736-0100

Laboratory Job ID: 280-133115-1  
Client Project/Site: Hidden Valley LF

For:  
SCS Engineers  
2405 140th Avenue NE  
Suite 107  
Bellevue, Washington 98005-1877

MW-10D  
MW-11S  
MW-11S dupl  
MW-11D(2)  
MW-14S  
MW-14D  
MW-18S  
MW-18D  
MW-20R  
Trip Blank

Attn: Mr. Kevin Lakey



*Authorized for release by:  
2/18/2020 11:24:33 AM*

Janice Collins, Project Management Assistant I  
(303)736-0100  
janice.collins@testamericainc.com

Designee for

Betsy Sara, Project Manager II  
(303)736-0189  
betsy.sara@testamericainc.com

### LINKS

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Have a Question?



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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



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# Definitions/Glossary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.

### HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

## Glossary

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



# Case Narrative

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

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**Job ID: 280-133115-1**

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**Laboratory: Eurofins TestAmerica, Denver**

## Narrative

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### CASE NARRATIVE

**Client: SCS Engineers**

**Project: Hidden Valley LF**

**Report Number: 280-133115-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### Sample Receiving

The samples were received on 01/23/2020; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 0.8° C, 1.2° C and 2.7° C.

### Holding Times

All holding times were within established control limits.

### Trip Blanks

Carbon disulfide was detected in the trip blank sample at a level above the requested reporting limit. However, the requested reporting limit for Carbon disulfide is below TestAmerica's standard reporting limit and, therefore, no corrective action has been taken for this anomaly. It must be noted that results reported below TestAmerica's standard reporting limit may result in false positive/false negative results, less accurate quantitation and potential misidentification at the lower concentrations.

### Method Blanks

Carbon disulfide Method 8260B was detected in the Method Blank above the project established reporting limit, however, the requested reporting limit for Carbon disulfide is below TestAmerica Denver's standard reporting limit and, therefore, no corrective action has been taken for this anomaly. It must be noted that results reported below TestAmerica Denver's standard reporting limits may result in false positive/false negative results, less accurate quantitation and potential misidentification at the lower concentrations.

All other Method Blanks were within established control limits.

### Laboratory Control Samples (LCS)

All Laboratory Control Samples were within established control limits.

### Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) for Method 8260B (Batch 484415), however, an LCS/LCSD pair was analyzed to demonstrate method precision and accuracy.

# Case Narrative

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

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## Job ID: 280-133115-1 (Continued)

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### Laboratory: Eurofins TestAmerica, Denver (Continued)

The Matrix Spike and Matrix Spike Duplicate performed on a sample from another client exhibited recoveries outside control limits for 2-Butanone (MEK), Bromomethane and Iodomethane Method 8260B. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

Sample HVL-012120-01 (280-133052-1) was selected to fulfill the laboratory batch quality control requirements for Method 300.0. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Chloride and Sulfate above the upper control limits. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

All other MS and MSD samples were within established control limits.

### General Comments

The analysis for Chloride and Sulfate Method 300.0 was performed at the TestAmerica's St. Louis Laboratory.  
13715 Rider Trail North  
Earth City, MO 63045  
Phone: 314-298-8566

The analysis for Iron Method 6020 was performed at the TestAmerica's Seattle Laboratory.  
5755 8th Street East  
Tacoma, WA 98424  
Phone: 253-922-2310



## Detection Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

**Client Sample ID: HVL-012220-14      MW-18D      Lab Sample ID: 280-133115-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	6.7		0.30		mg/L	5		300.0	Total/NA
Sulfate - DL	7.8		0.25		mg/L	5		300.0	Total/NA
Calcium, Dissolved	23		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	9.6		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	3.1		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	11		1.0		mg/L	1		6010B	Dissolved
Nitrate as N	1.6		0.20		mg/L	1		300.0	Total/NA
Alkalinity	100		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	160		10		mg/L	1		SM 2540C	Total/NA

**Client Sample ID: HVL-012220-15      MW-10D      Lab Sample ID: 280-133115-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	8.9		0.30		mg/L	5		300.0	Total/NA
Sulfate - DL	11		0.25		mg/L	5		300.0	Total/NA
Calcium, Dissolved	30		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	10		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	2.1		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	7.7		1.0		mg/L	1		6010B	Dissolved
Nitrate as N	1.3		0.20		mg/L	1		300.0	Total/NA
Alkalinity	110		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	160		10		mg/L	1		SM 2540C	Total/NA
Total Organic Carbon - Quad	1.0		1.0		mg/L	1		SM 5310B	Total/NA

**Client Sample ID: HVL-012220-16      MW-18S      Lab Sample ID: 280-133115-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	18		0.60		mg/L	10		300.0	Total/NA
Sulfate - DL	9.7		0.50		mg/L	10		300.0	Total/NA
Calcium, Dissolved	32		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	10		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	9.9		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	25		1.0		mg/L	1		6010B	Dissolved
Nitrate as N	4.9		0.20		mg/L	1		300.0	Total/NA
Alkalinity	140		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	230		10		mg/L	1		SM 2540C	Total/NA
Total Organic Carbon - Quad	1.2		1.0		mg/L	1		SM 5310B	Total/NA

**Client Sample ID: HVL-012220-17      MW-20R      Lab Sample ID: 280-133115-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6		0.20		mg/L	1		300.0	Total/NA
Sulfate	3.1		0.20		mg/L	1		300.0	Total/NA
Calcium, Dissolved	7.8		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	4.2		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	2.2		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	5.4		1.0		mg/L	1		6010B	Dissolved
Alkalinity	47		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	93		10		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

## Detection Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

**Client Sample ID: HVL-012220-18      MW-11S      Lab Sample ID: 280-133115-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	19		0.60		mg/L	10		300.0	Total/NA
Sulfate - DL	9.1		0.50		mg/L	10		300.0	Total/NA
Calcium, Dissolved	20		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	6.1		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	5.2		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	14		1.0		mg/L	1		6010B	Dissolved
Nitrate as N	3.8		0.20		mg/L	1		300.0	Total/NA
Alkalinity	62		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	170		10		mg/L	1		SM 2540C	Total/NA

**Client Sample ID: HVL-012220-19      MW-14S      Lab Sample ID: 280-133115-6**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.7		0.20		mg/L	1		300.0	Total/NA
Sulfate	5.1		0.20		mg/L	1		300.0	Total/NA
Calcium, Dissolved	9.9		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	3.2		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	2.3		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	5.7		1.0		mg/L	1		6010B	Dissolved
Manganese, Dissolved	0.017		0.0010		mg/L	1		6020	Dissolved
Nitrate as N	1.6		0.20		mg/L	1		300.0	Total/NA
Alkalinity	41		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	86		10		mg/L	1		SM 2540C	Total/NA
Total Organic Carbon - Quad	1.8		1.0		mg/L	1		SM 5310B	Total/NA

**Client Sample ID: HVL-012220-20      MW-11S dupl      Lab Sample ID: 280-133115-7**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	20		0.30		mg/L	5		300.0	Total/NA
Sulfate - DL	9.1		0.25		mg/L	5		300.0	Total/NA
Calcium, Dissolved	19		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	6.1		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	5.2		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	14		1.0		mg/L	1		6010B	Dissolved
Nitrate as N	3.8		0.20		mg/L	1		300.0	Total/NA
Alkalinity	62		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	160		10		mg/L	1		SM 2540C	Total/NA

**Client Sample ID: HVL-012220-21      MW-14D      Lab Sample ID: 280-133115-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	0.57	B	0.50		ug/L	1		8260B	Total/NA
Chloride - DL	6.2		0.30		mg/L	5		300.0	Total/NA
Sulfate - DL	7.9		0.25		mg/L	5		300.0	Total/NA
Calcium, Dissolved	16		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	5.1		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	6.5		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	10		1.0		mg/L	1		6010B	Dissolved
Iron, Dissolved	0.24		0.036		mg/L	1		6020	Dissolved
Manganese, Dissolved	1.1		0.0010		mg/L	1		6020	Dissolved
Ammonia	3.1		0.10		mg/L	1		350.1	Total/NA
Alkalinity	89		10		mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

## Detection Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

### Client Sample ID: HVL-012220-21 (Continued)

Lab Sample ID: 280-133115-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	130		10		mg/L	1		SM 2540C	Total/NA
Total Organic Carbon - Quad	2.0		1.0		mg/L	1		SM 5310B	Total/NA

### Client Sample ID: HVL-012220-22 MW-11D(2)

Lab Sample ID: 280-133115-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	0.57	B	0.50		ug/L	1		8260B	Total/NA
Tetrachloroethene	1.1		0.50		ug/L	1		8260B	Total/NA
Chloride - DL	5.8		0.60		mg/L	10		300.0	Total/NA
Sulfate - DL	9.0		0.50		mg/L	10		300.0	Total/NA
Calcium, Dissolved	20		0.20		mg/L	1		6010B	Dissolved
Magnesium, Dissolved	9.0		0.10		mg/L	1		6010B	Dissolved
Potassium, Dissolved	2.4		2.0		mg/L	1		6010B	Dissolved
Sodium, Dissolved	7.7		1.0		mg/L	1		6010B	Dissolved
Nitrate as N	1.8		0.20		mg/L	1		300.0	Total/NA
Alkalinity	83		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	140		10		mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	6.4		4.0		mg/L	1		SM 2540D	Total/NA

### Client Sample ID: TRIP BLANK

Lab Sample ID: 280-133115-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	0.57	B	0.50		ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver



# Method Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN
300.0	Anions, Ion Chromatography	MCAWW	TAL SL
6010B	Metals (ICP)	SW846	TAL DEN
6020	Metals (ICP/MS)	SW846	TAL DEN
6020	Metals (ICP/MS)	SW846	TAL SEA
300.0	Anions, Ion Chromatography	MCAWW	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN
SM 5310B	Organic Carbon, Total (TOC)	SM	TAL DEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL DEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL SEA
5030B	Purge and Trap	SW846	TAL DEN

#### Protocol References:

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

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

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

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

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# Sample Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-133115-1	HVL-012220-14	Water	01/22/20 10:05	01/23/20 09:05	
280-133115-2	HVL-012220-15	Water	01/22/20 10:23	01/23/20 09:05	
280-133115-3	HVL-012220-16	Water	01/22/20 10:55	01/23/20 09:05	
280-133115-4	HVL-012220-17	Water	01/22/20 11:23	01/23/20 09:05	
280-133115-5	HVL-012220-18	Water	01/22/20 13:00	01/23/20 09:05	
280-133115-6	HVL-012220-19	Water	01/22/20 12:43	01/23/20 09:05	
280-133115-7	HVL-012220-20	Water	01/22/20 13:15	01/23/20 09:05	
280-133115-8	HVL-012220-21	Water	01/22/20 13:27	01/23/20 09:05	
280-133115-9	HVL-012220-22	Water	01/22/20 14:38	01/23/20 09:05	
280-133115-10	TRIP BLANK	Water	01/22/20 14:38	01/23/20 09:05	

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

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

Client Sample ID: HVL-012220-14

Date Collected: 01/22/20 10:05

Date Received: 01/23/20 09:05

Lab Sample ID: 280-133115-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 15:23	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 15:23	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 15:23	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 15:23	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 15:23	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 15:23	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 15:23	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 15:23	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 15:23	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 15:23	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 15:23	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 15:23	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 15:23	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 15:23	1
2-Hexanone	ND		5.0		ug/L			01/30/20 15:23	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 15:23	1
Acetone	ND		10		ug/L			01/30/20 15:23	1
Acrylonitrile	ND		20		ug/L			01/30/20 15:23	1
Benzene	ND		0.50		ug/L			01/30/20 15:23	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 15:23	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 15:23	1
Bromoform	ND		0.50		ug/L			01/30/20 15:23	1
Bromomethane	ND		0.50		ug/L			01/30/20 15:23	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 15:23	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 15:23	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 15:23	1
Chloroethane	ND		0.50		ug/L			01/30/20 15:23	1
Chloroform	ND		0.50		ug/L			01/30/20 15:23	1
Chloromethane	ND		0.50		ug/L			01/30/20 15:23	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 15:23	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 15:23	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 15:23	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 15:23	1
Dibromomethane	ND		0.50		ug/L			01/30/20 15:23	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 15:23	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 15:23	1
Iodomethane	ND		1.0		ug/L			01/30/20 15:23	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 15:23	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 15:23	1
o-Xylene	ND		0.50		ug/L			01/30/20 15:23	1
Styrene	ND		0.50		ug/L			01/30/20 15:23	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 15:23	1
Toluene	ND		0.50		ug/L			01/30/20 15:23	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 15:23	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 15:23	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 15:23	1
Trichloroethene	ND		0.50		ug/L			01/30/20 15:23	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 15:23	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 15:23	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: HVL-012220-14**

**Date Collected: 01/22/20 10:05**

**Date Received: 01/23/20 09:05**

**Lab Sample ID: 280-133115-1**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.50		ug/L			01/30/20 15:23	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	102		70 - 127					01/30/20 15:23	1
4-Bromofluorobenzene (Surr)	97		78 - 120					01/30/20 15:23	1
Dibromofluoromethane (Surr)	94		77 - 120					01/30/20 15:23	1
Toluene-d8 (Surr)	103		80 - 125					01/30/20 15:23	1

**Client Sample ID: HVL-012220-15**

**Date Collected: 01/22/20 10:23**

**Date Received: 01/23/20 09:05**

**Lab Sample ID: 280-133115-2**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 15:45	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 15:45	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 15:45	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 15:45	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 15:45	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 15:45	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 15:45	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 15:45	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 15:45	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 15:45	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 15:45	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 15:45	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 15:45	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 15:45	1
2-Hexanone	ND		5.0		ug/L			01/30/20 15:45	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 15:45	1
Acetone	ND		10		ug/L			01/30/20 15:45	1
Acrylonitrile	ND		20		ug/L			01/30/20 15:45	1
Benzene	ND		0.50		ug/L			01/30/20 15:45	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 15:45	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 15:45	1
Bromoform	ND		0.50		ug/L			01/30/20 15:45	1
Bromomethane	ND		0.50		ug/L			01/30/20 15:45	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 15:45	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 15:45	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 15:45	1
Chloroethane	ND		0.50		ug/L			01/30/20 15:45	1
Chloroform	ND		0.50		ug/L			01/30/20 15:45	1
Chloromethane	ND		0.50		ug/L			01/30/20 15:45	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 15:45	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 15:45	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 15:45	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 15:45	1
Dibromomethane	ND		0.50		ug/L			01/30/20 15:45	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 15:45	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 15:45	1
Iodomethane	ND		1.0		ug/L			01/30/20 15:45	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 15:45	1

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: HVL-012220-15**

**Date Collected: 01/22/20 10:23**

**Date Received: 01/23/20 09:05**

**Lab Sample ID: 280-133115-2**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 15:45	1
o-Xylene	ND		0.50		ug/L			01/30/20 15:45	1
Styrene	ND		0.50		ug/L			01/30/20 15:45	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 15:45	1
Toluene	ND		0.50		ug/L			01/30/20 15:45	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 15:45	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 15:45	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 15:45	1
Trichloroethene	ND		0.50		ug/L			01/30/20 15:45	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 15:45	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 15:45	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 15:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 127		01/30/20 15:45	1
4-Bromofluorobenzene (Surr)	97		78 - 120		01/30/20 15:45	1
Dibromofluoromethane (Surr)	94		77 - 120		01/30/20 15:45	1
Toluene-d8 (Surr)	103		80 - 125		01/30/20 15:45	1

**Client Sample ID: HVL-012220-16**

**Date Collected: 01/22/20 10:55**

**Date Received: 01/23/20 09:05**

**Lab Sample ID: 280-133115-3**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 16:08	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 16:08	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 16:08	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 16:08	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 16:08	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 16:08	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 16:08	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 16:08	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 16:08	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 16:08	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 16:08	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 16:08	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 16:08	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 16:08	1
2-Hexanone	ND		5.0		ug/L			01/30/20 16:08	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 16:08	1
Acetone	ND		10		ug/L			01/30/20 16:08	1
Acrylonitrile	ND		20		ug/L			01/30/20 16:08	1
Benzene	ND		0.50		ug/L			01/30/20 16:08	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 16:08	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 16:08	1
Bromoform	ND		0.50		ug/L			01/30/20 16:08	1
Bromomethane	ND		0.50		ug/L			01/30/20 16:08	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 16:08	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 16:08	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 16:08	1
Chloroethane	ND		0.50		ug/L			01/30/20 16:08	1

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012220-16						Lab Sample ID: 280-133115-3			
Date Collected: 01/22/20 10:55						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		0.50		ug/L			01/30/20 16:08	1
Chloromethane	ND		0.50		ug/L			01/30/20 16:08	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 16:08	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 16:08	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 16:08	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 16:08	1
Dibromomethane	ND		0.50		ug/L			01/30/20 16:08	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 16:08	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 16:08	1
Iodomethane	ND		1.0		ug/L			01/30/20 16:08	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 16:08	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 16:08	1
o-Xylene	ND		0.50		ug/L			01/30/20 16:08	1
Styrene	ND		0.50		ug/L			01/30/20 16:08	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 16:08	1
Toluene	ND		0.50		ug/L			01/30/20 16:08	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 16:08	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 16:08	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 16:08	1
Trichloroethene	ND		0.50		ug/L			01/30/20 16:08	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 16:08	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 16:08	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 16:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 127					01/30/20 16:08	1
4-Bromofluorobenzene (Surr)	96		78 - 120					01/30/20 16:08	1
Dibromofluoromethane (Surr)	94		77 - 120					01/30/20 16:08	1
Toluene-d8 (Surr)	104		80 - 125					01/30/20 16:08	1

Client Sample ID: HVL-012220-17						Lab Sample ID: 280-133115-4			
Date Collected: 01/22/20 11:23						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 16:31	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 16:31	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 16:31	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 16:31	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 16:31	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 16:31	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 16:31	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 16:31	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 16:31	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 16:31	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 16:31	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 16:31	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 16:31	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 16:31	1
2-Hexanone	ND		5.0		ug/L			01/30/20 16:31	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 16:31	1

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012220-17

Date Collected: 01/22/20 11:23

Date Received: 01/23/20 09:05

Lab Sample ID: 280-133115-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10		ug/L			01/30/20 16:31	1
Acrylonitrile	ND		20		ug/L			01/30/20 16:31	1
Benzene	ND		0.50		ug/L			01/30/20 16:31	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 16:31	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 16:31	1
Bromoform	ND		0.50		ug/L			01/30/20 16:31	1
Bromomethane	ND		0.50		ug/L			01/30/20 16:31	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 16:31	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 16:31	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 16:31	1
Chloroethane	ND		0.50		ug/L			01/30/20 16:31	1
Chloroform	ND		0.50		ug/L			01/30/20 16:31	1
Chloromethane	ND		0.50		ug/L			01/30/20 16:31	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 16:31	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 16:31	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 16:31	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 16:31	1
Dibromomethane	ND		0.50		ug/L			01/30/20 16:31	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 16:31	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 16:31	1
Iodomethane	ND		1.0		ug/L			01/30/20 16:31	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 16:31	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 16:31	1
o-Xylene	ND		0.50		ug/L			01/30/20 16:31	1
Styrene	ND		0.50		ug/L			01/30/20 16:31	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 16:31	1
Toluene	ND		0.50		ug/L			01/30/20 16:31	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 16:31	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 16:31	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 16:31	1
Trichloroethene	ND		0.50		ug/L			01/30/20 16:31	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 16:31	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 16:31	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 16:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 127		01/30/20 16:31	1
4-Bromofluorobenzene (Surr)	97		78 - 120		01/30/20 16:31	1
Dibromofluoromethane (Surr)	94		77 - 120		01/30/20 16:31	1
Toluene-d8 (Surr)	103		80 - 125		01/30/20 16:31	1

Client Sample ID: HVL-012220-18

Date Collected: 01/22/20 13:00

Date Received: 01/23/20 09:05

Lab Sample ID: 280-133115-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 16:53	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 16:53	1
1,1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 16:53	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 16:53	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 16:53	1

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012220-18						Lab Sample ID: 280-133115-5			
Date Collected: 01/22/20 13:00						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 16:53	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 16:53	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 16:53	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 16:53	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 16:53	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 16:53	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 16:53	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 16:53	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 16:53	1
2-Hexanone	ND		5.0		ug/L			01/30/20 16:53	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 16:53	1
Acetone	ND		10		ug/L			01/30/20 16:53	1
Acrylonitrile	ND		20		ug/L			01/30/20 16:53	1
Benzene	ND		0.50		ug/L			01/30/20 16:53	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 16:53	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 16:53	1
Bromoform	ND		0.50		ug/L			01/30/20 16:53	1
Bromomethane	ND		0.50		ug/L			01/30/20 16:53	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 16:53	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 16:53	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 16:53	1
Chloroethane	ND		0.50		ug/L			01/30/20 16:53	1
Chloroform	ND		0.50		ug/L			01/30/20 16:53	1
Chloromethane	ND		0.50		ug/L			01/30/20 16:53	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 16:53	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 16:53	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 16:53	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 16:53	1
Dibromomethane	ND		0.50		ug/L			01/30/20 16:53	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 16:53	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 16:53	1
Iodomethane	ND		1.0		ug/L			01/30/20 16:53	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 16:53	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 16:53	1
o-Xylene	ND		0.50		ug/L			01/30/20 16:53	1
Styrene	ND		0.50		ug/L			01/30/20 16:53	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 16:53	1
Toluene	ND		0.50		ug/L			01/30/20 16:53	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 16:53	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 16:53	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 16:53	1
Trichloroethene	ND		0.50		ug/L			01/30/20 16:53	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 16:53	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 16:53	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 16:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 127					01/30/20 16:53	1
4-Bromofluorobenzene (Surr)	98		78 - 120					01/30/20 16:53	1
Dibromofluoromethane (Surr)	94		77 - 120					01/30/20 16:53	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: HVL-012220-18**  
**Date Collected: 01/22/20 13:00**  
**Date Received: 01/23/20 09:05**

**Lab Sample ID: 280-133115-5**  
**Matrix: Water**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 125		01/30/20 16:53	1

**Client Sample ID: HVL-012220-19**  
**Date Collected: 01/22/20 12:43**  
**Date Received: 01/23/20 09:05**

**Lab Sample ID: 280-133115-6**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 17:16	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 17:16	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 17:16	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 17:16	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 17:16	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 17:16	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 17:16	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 17:16	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 17:16	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 17:16	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 17:16	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 17:16	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 17:16	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 17:16	1
2-Hexanone	ND		5.0		ug/L			01/30/20 17:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 17:16	1
Acetone	ND		10		ug/L			01/30/20 17:16	1
Acrylonitrile	ND		20		ug/L			01/30/20 17:16	1
Benzene	ND		0.50		ug/L			01/30/20 17:16	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 17:16	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 17:16	1
Bromoform	ND		0.50		ug/L			01/30/20 17:16	1
Bromomethane	ND		0.50		ug/L			01/30/20 17:16	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 17:16	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 17:16	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 17:16	1
Chloroethane	ND		0.50		ug/L			01/30/20 17:16	1
Chloroform	ND		0.50		ug/L			01/30/20 17:16	1
Chloromethane	ND		0.50		ug/L			01/30/20 17:16	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 17:16	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 17:16	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 17:16	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 17:16	1
Dibromomethane	ND		0.50		ug/L			01/30/20 17:16	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 17:16	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 17:16	1
Iodomethane	ND		1.0		ug/L			01/30/20 17:16	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 17:16	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 17:16	1
o-Xylene	ND		0.50		ug/L			01/30/20 17:16	1
Styrene	ND		0.50		ug/L			01/30/20 17:16	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 17:16	1
Toluene	ND		0.50		ug/L			01/30/20 17:16	1

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: HVL-012220-19**

**Date Collected: 01/22/20 12:43**

**Date Received: 01/23/20 09:05**

**Lab Sample ID: 280-133115-6**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 17:16	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 17:16	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 17:16	1
Trichloroethene	ND		0.50		ug/L			01/30/20 17:16	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 17:16	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 17:16	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 17:16	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	103		70 - 127					01/30/20 17:16	1
4-Bromofluorobenzene (Surr)	97		78 - 120					01/30/20 17:16	1
Dibromofluoromethane (Surr)	94		77 - 120					01/30/20 17:16	1
Toluene-d8 (Surr)	103		80 - 125					01/30/20 17:16	1

**Client Sample ID: HVL-012220-20**

**Date Collected: 01/22/20 13:15**

**Date Received: 01/23/20 09:05**

**Lab Sample ID: 280-133115-7**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 17:38	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 17:38	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 17:38	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 17:38	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 17:38	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 17:38	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 17:38	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 17:38	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 17:38	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 17:38	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 17:38	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 17:38	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 17:38	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 17:38	1
2-Hexanone	ND		5.0		ug/L			01/30/20 17:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 17:38	1
Acetone	ND		10		ug/L			01/30/20 17:38	1
Acrylonitrile	ND		20		ug/L			01/30/20 17:38	1
Benzene	ND		0.50		ug/L			01/30/20 17:38	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 17:38	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 17:38	1
Bromoform	ND		0.50		ug/L			01/30/20 17:38	1
Bromomethane	ND		0.50		ug/L			01/30/20 17:38	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 17:38	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 17:38	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 17:38	1
Chloroethane	ND		0.50		ug/L			01/30/20 17:38	1
Chloroform	ND		0.50		ug/L			01/30/20 17:38	1
Chloromethane	ND		0.50		ug/L			01/30/20 17:38	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 17:38	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 17:38	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 17:38	1

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012220-20

Date Collected: 01/22/20 13:15

Date Received: 01/23/20 09:05

Lab Sample ID: 280-133115-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		0.50		ug/L			01/30/20 17:38	1
Dibromomethane	ND		0.50		ug/L			01/30/20 17:38	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 17:38	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 17:38	1
Iodomethane	ND		1.0		ug/L			01/30/20 17:38	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 17:38	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 17:38	1
o-Xylene	ND		0.50		ug/L			01/30/20 17:38	1
Styrene	ND		0.50		ug/L			01/30/20 17:38	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 17:38	1
Toluene	ND		0.50		ug/L			01/30/20 17:38	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 17:38	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 17:38	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 17:38	1
Trichloroethene	ND		0.50		ug/L			01/30/20 17:38	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 17:38	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 17:38	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 17:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 127		01/30/20 17:38	1
4-Bromofluorobenzene (Surr)	95		78 - 120		01/30/20 17:38	1
Dibromofluoromethane (Surr)	94		77 - 120		01/30/20 17:38	1
Toluene-d8 (Surr)	102		80 - 125		01/30/20 17:38	1

Client Sample ID: HVL-012220-21

Date Collected: 01/22/20 13:27

Date Received: 01/23/20 09:05

Lab Sample ID: 280-133115-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 17:25	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 17:25	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 17:25	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 17:25	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 17:25	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 17:25	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 17:25	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 17:25	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 17:25	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 17:25	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 17:25	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 17:25	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 17:25	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 17:25	1
2-Hexanone	ND		5.0		ug/L			01/30/20 17:25	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 17:25	1
Acetone	ND		10		ug/L			01/30/20 17:25	1
Acrylonitrile	ND		20		ug/L			01/30/20 17:25	1
Benzene	ND		0.50		ug/L			01/30/20 17:25	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 17:25	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 17:25	1

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: HVL-012220-21**

**Date Collected: 01/22/20 13:27**

**Date Received: 01/23/20 09:05**

**Lab Sample ID: 280-133115-8**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		0.50		ug/L			01/30/20 17:25	1
Bromomethane	ND		0.50		ug/L			01/30/20 17:25	1
<b>Carbon disulfide</b>	<b>0.57</b>	<b>B</b>	0.50		ug/L			01/30/20 17:25	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 17:25	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 17:25	1
Chloroethane	ND		0.50		ug/L			01/30/20 17:25	1
Chloroform	ND		0.50		ug/L			01/30/20 17:25	1
Chloromethane	ND		0.50		ug/L			01/30/20 17:25	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 17:25	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 17:25	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 17:25	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 17:25	1
Dibromomethane	ND		0.50		ug/L			01/30/20 17:25	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 17:25	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 17:25	1
Iodomethane	ND		1.0		ug/L			01/30/20 17:25	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 17:25	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 17:25	1
o-Xylene	ND		0.50		ug/L			01/30/20 17:25	1
Styrene	ND		0.50		ug/L			01/30/20 17:25	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 17:25	1
Toluene	ND		0.50		ug/L			01/30/20 17:25	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 17:25	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 17:25	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 17:25	1
Trichloroethene	ND		0.50		ug/L			01/30/20 17:25	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 17:25	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 17:25	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 17:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		70 - 127					01/30/20 17:25	1
4-Bromofluorobenzene (Surr)	103		78 - 120					01/30/20 17:25	1
Dibromofluoromethane (Surr)	94		77 - 120					01/30/20 17:25	1
Toluene-d8 (Surr)	107		80 - 125					01/30/20 17:25	1

**Client Sample ID: HVL-012220-22**

**Date Collected: 01/22/20 14:38**

**Date Received: 01/23/20 09:05**

**Lab Sample ID: 280-133115-9**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 17:47	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 17:47	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 17:47	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 17:47	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 17:47	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 17:47	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 17:47	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 17:47	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 17:47	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 17:47	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012220-22

Date Collected: 01/22/20 14:38

Date Received: 01/23/20 09:05

Lab Sample ID: 280-133115-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 17:47	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 17:47	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 17:47	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 17:47	1
2-Hexanone	ND		5.0		ug/L			01/30/20 17:47	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 17:47	1
Acetone	ND		10		ug/L			01/30/20 17:47	1
Acrylonitrile	ND		20		ug/L			01/30/20 17:47	1
Benzene	ND		0.50		ug/L			01/30/20 17:47	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 17:47	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 17:47	1
Bromoform	ND		0.50		ug/L			01/30/20 17:47	1
Bromomethane	ND		0.50		ug/L			01/30/20 17:47	1
<b>Carbon disulfide</b>	<b>0.57</b>	<b>B</b>	0.50		ug/L			01/30/20 17:47	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 17:47	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 17:47	1
Chloroethane	ND		0.50		ug/L			01/30/20 17:47	1
Chloroform	ND		0.50		ug/L			01/30/20 17:47	1
Chloromethane	ND		0.50		ug/L			01/30/20 17:47	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 17:47	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 17:47	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 17:47	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 17:47	1
Dibromomethane	ND		0.50		ug/L			01/30/20 17:47	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 17:47	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 17:47	1
Iodomethane	ND		1.0		ug/L			01/30/20 17:47	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 17:47	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 17:47	1
o-Xylene	ND		0.50		ug/L			01/30/20 17:47	1
Styrene	ND		0.50		ug/L			01/30/20 17:47	1
<b>Tetrachloroethene</b>	<b>1.1</b>		0.50		ug/L			01/30/20 17:47	1
Toluene	ND		0.50		ug/L			01/30/20 17:47	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 17:47	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 17:47	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 17:47	1
Trichloroethene	ND		0.50		ug/L			01/30/20 17:47	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 17:47	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 17:47	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 17:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		70 - 127					01/30/20 17:47	1
4-Bromofluorobenzene (Surr)	103		78 - 120					01/30/20 17:47	1
Dibromofluoromethane (Surr)	94		77 - 120					01/30/20 17:47	1
Toluene-d8 (Surr)	106		80 - 125					01/30/20 17:47	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

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

Client Sample ID: TRIP BLANK		Lab Sample ID: 280-133115-10							
Date Collected: 01/22/20 14:38		Matrix: Water							
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 18:08	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 18:08	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 18:08	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 18:08	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 18:08	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 18:08	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 18:08	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 18:08	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 18:08	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 18:08	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 18:08	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 18:08	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 18:08	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 18:08	1
2-Hexanone	ND		5.0		ug/L			01/30/20 18:08	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 18:08	1
Acetone	ND		10		ug/L			01/30/20 18:08	1
Acrylonitrile	ND		20		ug/L			01/30/20 18:08	1
Benzene	ND		0.50		ug/L			01/30/20 18:08	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 18:08	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 18:08	1
Bromoform	ND		0.50		ug/L			01/30/20 18:08	1
Bromomethane	ND		0.50		ug/L			01/30/20 18:08	1
<b>Carbon disulfide</b>	<b>0.57</b>	<b>B</b>	0.50		ug/L			01/30/20 18:08	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 18:08	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 18:08	1
Chloroethane	ND		0.50		ug/L			01/30/20 18:08	1
Chloroform	ND		0.50		ug/L			01/30/20 18:08	1
Chloromethane	ND		0.50		ug/L			01/30/20 18:08	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 18:08	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 18:08	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 18:08	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 18:08	1
Dibromomethane	ND		0.50		ug/L			01/30/20 18:08	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 18:08	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 18:08	1
Iodomethane	ND		1.0		ug/L			01/30/20 18:08	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 18:08	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 18:08	1
o-Xylene	ND		0.50		ug/L			01/30/20 18:08	1
Styrene	ND		0.50		ug/L			01/30/20 18:08	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 18:08	1
Toluene	ND		0.50		ug/L			01/30/20 18:08	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 18:08	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 18:08	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 18:08	1
Trichloroethene	ND		0.50		ug/L			01/30/20 18:08	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 18:08	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 18:08	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: TRIP BLANK**

**Date Collected: 01/22/20 14:38**

**Date Received: 01/23/20 09:05**

**Lab Sample ID: 280-133115-10**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.50		ug/L			01/30/20 18:08	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	89		70 - 127					01/30/20 18:08	1
4-Bromofluorobenzene (Surr)	103		78 - 120					01/30/20 18:08	1
Dibromofluoromethane (Surr)	94		77 - 120					01/30/20 18:08	1
Toluene-d8 (Surr)	107		80 - 125					01/30/20 18:08	1

## Method: 300.0 - Anions, Ion Chromatography

**Client Sample ID: HVL-012220-17**

**Date Collected: 01/22/20 11:23**

**Date Received: 01/23/20 09:05**

**Lab Sample ID: 280-133115-4**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6		0.20		mg/L			02/11/20 21:22	1
Sulfate	3.1		0.20		mg/L			02/11/20 21:22	1

**Client Sample ID: HVL-012220-19**

**Date Collected: 01/22/20 12:43**

**Date Received: 01/23/20 09:05**

**Lab Sample ID: 280-133115-6**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.7		0.20		mg/L			02/11/20 22:02	1
Sulfate	5.1		0.20		mg/L			02/11/20 22:02	1

## Method: 300.0 - Anions, Ion Chromatography - DL

**Client Sample ID: HVL-012220-14**

**Date Collected: 01/22/20 10:05**

**Date Received: 01/23/20 09:05**

**Lab Sample ID: 280-133115-1**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.7		0.30		mg/L			02/11/20 20:01	5
Sulfate	7.8		0.25		mg/L			02/11/20 20:01	5

**Client Sample ID: HVL-012220-15**

**Date Collected: 01/22/20 10:23**

**Date Received: 01/23/20 09:05**

**Lab Sample ID: 280-133115-2**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.9		0.30		mg/L			02/11/20 20:42	5
Sulfate	11		0.25		mg/L			02/11/20 20:42	5

**Client Sample ID: HVL-012220-16**

**Date Collected: 01/22/20 10:55**

**Date Received: 01/23/20 09:05**

**Lab Sample ID: 280-133115-3**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18		0.60		mg/L			02/11/20 21:02	10
Sulfate	9.7		0.50		mg/L			02/11/20 21:02	10

**Client Sample ID: HVL-012220-18**

**Date Collected: 01/22/20 13:00**

**Date Received: 01/23/20 09:05**

**Lab Sample ID: 280-133115-5**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19		0.60		mg/L			02/12/20 14:04	10

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 300.0 - Anions, Ion Chromatography - DL (Continued)

Client Sample ID: HVL-012220-18							Lab Sample ID: 280-133115-5			
Date Collected: 01/22/20 13:00							Matrix: Water			
Date Received: 01/23/20 09:05										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Sulfate	9.1		0.50		mg/L			02/12/20 14:04	10	

Client Sample ID: HVL-012220-20							Lab Sample ID: 280-133115-7			
Date Collected: 01/22/20 13:15							Matrix: Water			
Date Received: 01/23/20 09:05										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	20		0.30		mg/L			02/11/20 22:22	5	
Sulfate	9.1		0.25		mg/L			02/11/20 22:22	5	

Client Sample ID: HVL-012220-21							Lab Sample ID: 280-133115-8			
Date Collected: 01/22/20 13:27							Matrix: Water			
Date Received: 01/23/20 09:05										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	6.2		0.30		mg/L			02/11/20 22:42	5	
Sulfate	7.9		0.25		mg/L			02/11/20 22:42	5	

Client Sample ID: HVL-012220-22							Lab Sample ID: 280-133115-9			
Date Collected: 01/22/20 14:38							Matrix: Water			
Date Received: 01/23/20 09:05										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	5.8		0.60		mg/L			02/14/20 07:12	10	
Sulfate	9.0		0.50		mg/L			02/14/20 07:12	10	

## Method: 6010B - Metals (ICP) - Dissolved

Client Sample ID: HVL-012220-14							Lab Sample ID: 280-133115-1			
Date Collected: 01/22/20 10:05							Matrix: Water			
Date Received: 01/23/20 09:05										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Calcium, Dissolved	23		0.20		mg/L		01/24/20 16:45	01/27/20 14:17	1	
Magnesium, Dissolved	9.6		0.10		mg/L		01/24/20 16:45	01/27/20 14:17	1	
Potassium, Dissolved	3.1		2.0		mg/L		01/24/20 16:45	01/27/20 14:17	1	
Sodium, Dissolved	11		1.0		mg/L		01/24/20 16:45	01/27/20 14:17	1	

Client Sample ID: HVL-012220-15							Lab Sample ID: 280-133115-2			
Date Collected: 01/22/20 10:23							Matrix: Water			
Date Received: 01/23/20 09:05										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Calcium, Dissolved	30		0.20		mg/L		01/24/20 16:45	01/27/20 14:19	1	
Magnesium, Dissolved	10		0.10		mg/L		01/24/20 16:45	01/27/20 14:19	1	
Potassium, Dissolved	2.1		2.0		mg/L		01/24/20 16:45	01/27/20 14:19	1	
Sodium, Dissolved	7.7		1.0		mg/L		01/24/20 16:45	01/27/20 14:19	1	

Client Sample ID: HVL-012220-16							Lab Sample ID: 280-133115-3			
Date Collected: 01/22/20 10:55							Matrix: Water			
Date Received: 01/23/20 09:05										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Calcium, Dissolved	32		0.20		mg/L		01/24/20 16:45	01/27/20 14:39	1	
Magnesium, Dissolved	10		0.10		mg/L		01/24/20 16:45	01/27/20 14:39	1	
Potassium, Dissolved	9.9		2.0		mg/L		01/24/20 16:45	01/27/20 14:39	1	
Sodium, Dissolved	25		1.0		mg/L		01/24/20 16:45	01/27/20 14:39	1	

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 6010B - Metals (ICP) - Dissolved

Client Sample ID: HVL-012220-17						Lab Sample ID: 280-133115-4			
Date Collected: 01/22/20 11:23						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	7.8		0.20		mg/L		01/24/20 16:45	01/27/20 14:42	1
Magnesium, Dissolved	4.2		0.10		mg/L		01/24/20 16:45	01/27/20 14:42	1
Potassium, Dissolved	2.2		2.0		mg/L		01/24/20 16:45	01/27/20 14:42	1
Sodium, Dissolved	5.4		1.0		mg/L		01/24/20 16:45	01/27/20 14:42	1

Client Sample ID: HVL-012220-18						Lab Sample ID: 280-133115-5			
Date Collected: 01/22/20 13:00						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	20		0.20		mg/L		01/24/20 16:45	01/27/20 14:44	1
Magnesium, Dissolved	6.1		0.10		mg/L		01/24/20 16:45	01/27/20 14:44	1
Potassium, Dissolved	5.2		2.0		mg/L		01/24/20 16:45	01/27/20 14:44	1
Sodium, Dissolved	14		1.0		mg/L		01/24/20 16:45	01/27/20 14:44	1

Client Sample ID: HVL-012220-19						Lab Sample ID: 280-133115-6			
Date Collected: 01/22/20 12:43						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	9.9		0.20		mg/L		01/24/20 16:45	01/27/20 14:47	1
Magnesium, Dissolved	3.2		0.10		mg/L		01/24/20 16:45	01/27/20 14:47	1
Potassium, Dissolved	2.3		2.0		mg/L		01/24/20 16:45	01/27/20 14:47	1
Sodium, Dissolved	5.7		1.0		mg/L		01/24/20 16:45	01/27/20 14:47	1

Client Sample ID: HVL-012220-20						Lab Sample ID: 280-133115-7			
Date Collected: 01/22/20 13:15						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	19		0.20		mg/L		01/24/20 16:45	01/27/20 14:49	1
Magnesium, Dissolved	6.1		0.10		mg/L		01/24/20 16:45	01/27/20 14:49	1
Potassium, Dissolved	5.2		2.0		mg/L		01/24/20 16:45	01/27/20 14:49	1
Sodium, Dissolved	14		1.0		mg/L		01/24/20 16:45	01/27/20 14:49	1

Client Sample ID: HVL-012220-21						Lab Sample ID: 280-133115-8			
Date Collected: 01/22/20 13:27						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	16		0.20		mg/L		01/24/20 16:45	01/27/20 14:52	1
Magnesium, Dissolved	5.1		0.10		mg/L		01/24/20 16:45	01/27/20 14:52	1
Potassium, Dissolved	6.5		2.0		mg/L		01/24/20 16:45	01/27/20 14:52	1
Sodium, Dissolved	10		1.0		mg/L		01/24/20 16:45	01/27/20 14:52	1

Client Sample ID: HVL-012220-22						Lab Sample ID: 280-133115-9			
Date Collected: 01/22/20 14:38						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	20		0.20		mg/L		01/24/20 16:45	01/27/20 14:55	1
Magnesium, Dissolved	9.0		0.10		mg/L		01/24/20 16:45	01/27/20 14:55	1
Potassium, Dissolved	2.4		2.0		mg/L		01/24/20 16:45	01/27/20 14:55	1
Sodium, Dissolved	7.7		1.0		mg/L		01/24/20 16:45	01/27/20 14:55	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 6020 - Metals (ICP/MS) - Dissolved

<b>Client Sample ID: HVL-012220-14</b>						<b>Lab Sample ID: 280-133115-1</b>			
<b>Date Collected: 01/22/20 10:05</b>						<b>Matrix: Water</b>			
<b>Date Received: 01/23/20 09:05</b>									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.18		mg/L		01/29/20 12:56	01/30/20 12:38	5
Manganese, Dissolved	ND		0.0010		mg/L		01/24/20 16:45	01/29/20 16:06	1

<b>Client Sample ID: HVL-012220-15</b>						<b>Lab Sample ID: 280-133115-2</b>			
<b>Date Collected: 01/22/20 10:23</b>						<b>Matrix: Water</b>			
<b>Date Received: 01/23/20 09:05</b>									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.036		mg/L		01/29/20 12:56	01/30/20 14:16	1
Manganese, Dissolved	ND		0.0010		mg/L		01/24/20 16:45	01/29/20 16:31	1

<b>Client Sample ID: HVL-012220-16</b>						<b>Lab Sample ID: 280-133115-3</b>			
<b>Date Collected: 01/22/20 10:55</b>						<b>Matrix: Water</b>			
<b>Date Received: 01/23/20 09:05</b>									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.036		mg/L		01/29/20 12:56	01/30/20 14:19	1
Manganese, Dissolved	ND		0.0010		mg/L		01/24/20 16:45	01/29/20 16:34	1

<b>Client Sample ID: HVL-012220-17</b>						<b>Lab Sample ID: 280-133115-4</b>			
<b>Date Collected: 01/22/20 11:23</b>						<b>Matrix: Water</b>			
<b>Date Received: 01/23/20 09:05</b>									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.036		mg/L		01/29/20 12:56	01/30/20 14:21	1
Manganese, Dissolved	ND		0.0010		mg/L		01/24/20 16:45	01/29/20 16:38	1

<b>Client Sample ID: HVL-012220-18</b>						<b>Lab Sample ID: 280-133115-5</b>			
<b>Date Collected: 01/22/20 13:00</b>						<b>Matrix: Water</b>			
<b>Date Received: 01/23/20 09:05</b>									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.036		mg/L		01/29/20 12:56	01/30/20 14:24	1
Manganese, Dissolved	ND		0.0010		mg/L		01/24/20 16:45	01/29/20 16:41	1

<b>Client Sample ID: HVL-012220-19</b>						<b>Lab Sample ID: 280-133115-6</b>			
<b>Date Collected: 01/22/20 12:43</b>						<b>Matrix: Water</b>			
<b>Date Received: 01/23/20 09:05</b>									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.036		mg/L		01/29/20 12:56	01/30/20 14:27	1
Manganese, Dissolved	0.017		0.0010		mg/L		01/24/20 16:45	01/29/20 16:45	1

<b>Client Sample ID: HVL-012220-20</b>						<b>Lab Sample ID: 280-133115-7</b>			
<b>Date Collected: 01/22/20 13:15</b>						<b>Matrix: Water</b>			
<b>Date Received: 01/23/20 09:05</b>									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.036		mg/L		01/29/20 12:56	01/30/20 14:29	1
Manganese, Dissolved	ND		0.0010		mg/L		01/24/20 16:45	01/29/20 16:49	1

<b>Client Sample ID: HVL-012220-21</b>						<b>Lab Sample ID: 280-133115-8</b>			
<b>Date Collected: 01/22/20 13:27</b>						<b>Matrix: Water</b>			
<b>Date Received: 01/23/20 09:05</b>									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	0.24		0.036		mg/L		01/29/20 12:56	01/30/20 14:32	1
Manganese, Dissolved	1.1		0.0010		mg/L		01/24/20 16:45	01/29/20 16:52	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 6020 - Metals (ICP/MS) - Dissolved

Client Sample ID: HVL-012220-22						Lab Sample ID: 280-133115-9			
Date Collected: 01/22/20 14:38						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.036		mg/L		01/29/20 12:56	01/30/20 14:34	1
Manganese, Dissolved	ND		0.0010		mg/L		01/24/20 16:45	01/29/20 16:56	1

## General Chemistry

Client Sample ID: HVL-012220-14						Lab Sample ID: 280-133115-1			
Date Collected: 01/22/20 10:05						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.6		0.20		mg/L			01/23/20 17:47	1
Ammonia	ND		0.10		mg/L			01/31/20 14:06	1
Alkalinity	100		10		mg/L			01/28/20 22:02	1
Total Dissolved Solids	160		10		mg/L			01/24/20 08:54	1
Total Suspended Solids	ND		4.0		mg/L			01/24/20 12:06	1
Total Organic Carbon - Quad	ND		1.0		mg/L			01/25/20 08:42	1

Client Sample ID: HVL-012220-15						Lab Sample ID: 280-133115-2			
Date Collected: 01/22/20 10:23						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.3		0.20		mg/L			01/23/20 18:06	1
Ammonia	ND		0.10		mg/L			01/31/20 14:08	1
Alkalinity	110		10		mg/L			01/28/20 22:06	1
Total Dissolved Solids	160		10		mg/L			01/24/20 08:54	1
Total Suspended Solids	ND		4.0		mg/L			01/24/20 12:06	1
Total Organic Carbon - Quad	1.0		1.0		mg/L			01/25/20 08:59	1

Client Sample ID: HVL-012220-16						Lab Sample ID: 280-133115-3			
Date Collected: 01/22/20 10:55						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	4.9		0.20		mg/L			01/23/20 18:25	1
Ammonia	ND		0.10		mg/L			01/31/20 14:10	1
Alkalinity	140		10		mg/L			01/28/20 22:11	1
Total Dissolved Solids	230		10		mg/L			01/24/20 08:54	1
Total Suspended Solids	ND		4.0		mg/L			01/24/20 12:06	1
Total Organic Carbon - Quad	1.2		1.0		mg/L			01/25/20 09:18	1

Client Sample ID: HVL-012220-17						Lab Sample ID: 280-133115-4			
Date Collected: 01/22/20 11:23						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20		mg/L			01/23/20 18:44	1
Ammonia	ND		0.10		mg/L			01/31/20 14:12	1
Alkalinity	47		10		mg/L			01/28/20 22:16	1
Total Dissolved Solids	93		10		mg/L			01/24/20 08:54	1
Total Suspended Solids	ND		4.0		mg/L			01/24/20 12:06	1
Total Organic Carbon - Quad	ND		1.0		mg/L			01/25/20 09:35	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## General Chemistry

Client Sample ID: HVL-012220-18						Lab Sample ID: 280-133115-5			
Date Collected: 01/22/20 13:00						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.8		0.20		mg/L			01/23/20 19:21	1
Ammonia	ND		0.10		mg/L			01/31/20 14:14	1
Alkalinity	62		10		mg/L			01/28/20 22:21	1
Total Dissolved Solids	170		10		mg/L			01/24/20 08:54	1
Total Suspended Solids	ND		4.0		mg/L			01/24/20 12:06	1
Total Organic Carbon - Quad	ND		1.0		mg/L			01/25/20 10:20	1

Client Sample ID: HVL-012220-19						Lab Sample ID: 280-133115-6			
Date Collected: 01/22/20 12:43						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.6		0.20		mg/L			01/23/20 19:02	1
Ammonia	ND		0.10		mg/L			01/31/20 13:52	1
Alkalinity	41		10		mg/L			01/28/20 22:25	1
Total Dissolved Solids	86		10		mg/L			01/24/20 08:54	1
Total Suspended Solids	ND		4.0		mg/L			01/24/20 12:06	1
Total Organic Carbon - Quad	1.8		1.0		mg/L			01/25/20 10:35	1

Client Sample ID: HVL-012220-20						Lab Sample ID: 280-133115-7			
Date Collected: 01/22/20 13:15						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.8		0.20		mg/L			01/23/20 21:13	1
Ammonia	ND		0.10		mg/L			01/31/20 14:20	1
Alkalinity	62		10		mg/L			01/28/20 22:50	1
Total Dissolved Solids	160		10		mg/L			01/24/20 08:54	1
Total Suspended Solids	ND		4.0		mg/L			01/24/20 12:06	1
Total Organic Carbon - Quad	ND		1.0		mg/L			01/25/20 11:40	1

Client Sample ID: HVL-012220-21						Lab Sample ID: 280-133115-8			
Date Collected: 01/22/20 13:27						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20		mg/L			01/23/20 21:32	1
Ammonia	3.1		0.10		mg/L			01/31/20 14:22	1
Alkalinity	89		10		mg/L			01/28/20 22:35	1
Total Dissolved Solids	130		10		mg/L			01/24/20 08:54	1
Total Suspended Solids	ND		4.0		mg/L			01/24/20 12:06	1
Total Organic Carbon - Quad	2.0		1.0		mg/L			01/25/20 12:26	1

Client Sample ID: HVL-012220-22						Lab Sample ID: 280-133115-9			
Date Collected: 01/22/20 14:38						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.8		0.20		mg/L			01/23/20 21:51	1
Ammonia	ND		0.10		mg/L			01/31/20 14:24	1
Alkalinity	83		10		mg/L			01/28/20 22:30	1
Total Dissolved Solids	140		10		mg/L			01/24/20 08:54	1
Total Suspended Solids	6.4		4.0		mg/L			01/24/20 12:06	1
Total Organic Carbon - Quad	ND		1.0		mg/L			01/25/20 12:41	1

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# Surrogate Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

**Matrix: Water**

**Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (70-127)	BFB (78-120)	DBFM (77-120)	TOL (80-125)
280-133115-1	HVL-012220-14	102	97	94	103
280-133115-2	HVL-012220-15	103	97	94	103
280-133115-3	HVL-012220-16	102	96	94	104
280-133115-4	HVL-012220-17	105	97	94	103
280-133115-5	HVL-012220-18	103	98	94	104
280-133115-6	HVL-012220-19	103	97	94	103
280-133115-7	HVL-012220-20	102	95	94	102
280-133115-8	HVL-012220-21	90	103	94	107
280-133115-9	HVL-012220-22	89	103	94	106
280-133115-10	TRIP BLANK	89	103	94	107
280-133267-B-1 MS	Matrix Spike	89	107	98	106
280-133267-C-1 MSD	Matrix Spike Duplicate	89	107	99	105
LCS 280-484415/4	Lab Control Sample	101	97	97	102
LCS 280-484448/4	Lab Control Sample	89	106	98	106
LCSD 280-484415/5	Lab Control Sample Dup	102	98	97	101
MB 280-484415/8	Method Blank	101	98	94	103
MB 280-484448/8	Method Blank	88	102	94	109

**Surrogate Legend**

- DCA = 1,2-Dichloroethane-d4 (Surr)
- BFB = 4-Bromofluorobenzene (Surr)
- DBFM = Dibromofluoromethane (Surr)
- TOL = Toluene-d8 (Surr)



# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

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

Lab Sample ID: MB 280-484415/8		Client Sample ID: Method Blank							
Matrix: Water		Prep Type: Total/NA							
Analysis Batch: 484415									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 09:53	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 09:53	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 09:53	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 09:53	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 09:53	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 09:53	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 09:53	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 09:53	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 09:53	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 09:53	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 09:53	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 09:53	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 09:53	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 09:53	1
2-Hexanone	ND		5.0		ug/L			01/30/20 09:53	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 09:53	1
Acetone	ND		10		ug/L			01/30/20 09:53	1
Acrylonitrile	ND		20		ug/L			01/30/20 09:53	1
Benzene	ND		0.50		ug/L			01/30/20 09:53	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 09:53	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 09:53	1
Bromoform	ND		0.50		ug/L			01/30/20 09:53	1
Bromomethane	ND		0.50		ug/L			01/30/20 09:53	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 09:53	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 09:53	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 09:53	1
Chloroethane	ND		0.50		ug/L			01/30/20 09:53	1
Chloroform	ND		0.50		ug/L			01/30/20 09:53	1
Chloromethane	ND		0.50		ug/L			01/30/20 09:53	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 09:53	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 09:53	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 09:53	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 09:53	1
Dibromomethane	ND		0.50		ug/L			01/30/20 09:53	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 09:53	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 09:53	1
Iodomethane	ND		1.0		ug/L			01/30/20 09:53	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 09:53	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 09:53	1
o-Xylene	ND		0.50		ug/L			01/30/20 09:53	1
Styrene	ND		0.50		ug/L			01/30/20 09:53	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 09:53	1
Toluene	ND		0.50		ug/L			01/30/20 09:53	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 09:53	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 09:53	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 09:53	1
Trichloroethene	ND		0.50		ug/L			01/30/20 09:53	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 09:53	1

Eurofins TestAmerica, Denver

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 280-484415/8**  
**Matrix: Water**  
**Analysis Batch: 484415**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl acetate	ND		3.0		ug/L			01/30/20 09:53	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 09:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 127		01/30/20 09:53	1
4-Bromofluorobenzene (Surr)	98		78 - 120		01/30/20 09:53	1
Dibromofluoromethane (Surr)	94		77 - 120		01/30/20 09:53	1
Toluene-d8 (Surr)	103		80 - 125		01/30/20 09:53	1

**Lab Sample ID: LCS 280-484415/4**  
**Matrix: Water**  
**Analysis Batch: 484415**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	23.3		ug/L		93	65 - 135
1,1,1-Trichloroethane	25.0	25.9		ug/L		104	65 - 135
1,1,2,2-Tetrachloroethane	25.0	19.9		ug/L		79	58 - 135
1,1,2-Trichloroethane	25.0	24.2		ug/L		97	64 - 135
1,1-Dichloroethane	25.0	25.6		ug/L		103	65 - 135
1,1-Dichloroethene	25.0	27.2		ug/L		109	65 - 136
1,2,3-Trichloropropane	25.0	23.5		ug/L		94	65 - 135
1,2-Dibromo-3-Chloropropane	25.0	18.2		ug/L		73	57 - 135
1,2-Dibromoethane	25.0	25.0		ug/L		100	65 - 135
1,2-Dichlorobenzene	25.0	22.5		ug/L		90	65 - 135
1,2-Dichloroethane	25.0	23.7		ug/L		95	65 - 135
1,2-Dichloropropane	25.0	22.5		ug/L		90	64 - 135
1,4-Dichlorobenzene	25.0	24.0		ug/L		96	65 - 135
2-Butanone (MEK)	100	91.4		ug/L		91	44 - 177
2-Hexanone	100	103		ug/L		103	57 - 139
4-Methyl-2-pentanone (MIBK)	100	87.3		ug/L		87	60 - 150
Acetone	100	90.8		ug/L		91	39 - 156
Acrylonitrile	250	236		ug/L		94	56 - 135
Benzene	25.0	25.1		ug/L		101	65 - 135
Bromochloromethane	25.0	24.0		ug/L		96	65 - 135
Bromodichloromethane	25.0	22.9		ug/L		91	65 - 135
Bromoform	25.0	18.5		ug/L		74	62 - 135
Bromomethane	25.0	18.9		ug/L		76	45 - 135
Carbon disulfide	25.0	23.0		ug/L		92	55 - 143
Carbon tetrachloride	25.0	22.7		ug/L		91	65 - 135
Chlorobenzene	25.0	25.1		ug/L		100	65 - 135
Chloroethane	25.0	21.3		ug/L		85	46 - 136
Chloroform	25.0	25.4		ug/L		101	65 - 135
Chloromethane	25.0	19.3		ug/L		77	34 - 145
cis-1,2-Dichloroethene	25.0	25.4		ug/L		102	65 - 135
cis-1,3-Dichloropropene	25.0	25.8		ug/L		103	65 - 135
Dibromochloromethane	25.0	21.4		ug/L		86	65 - 135
Dibromomethane	25.0	24.4		ug/L		98	65 - 135
Dichlorodifluoromethane	25.0	19.4		ug/L		78	43 - 142

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-484415/4				Client Sample ID: Lab Control Sample			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 484415							
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	25.0	25.6		ug/L		102	65 - 135
Iodomethane	25.0	16.7		ug/L		67	65 - 142
Methylene Chloride	25.0	23.7		ug/L		95	54 - 141
m-Xylene & p-Xylene	25.0	25.4		ug/L		102	65 - 135
o-Xylene	25.0	25.2		ug/L		101	65 - 135
Styrene	25.0	26.6		ug/L		106	65 - 135
Tetrachloroethene	25.0	25.8		ug/L		103	65 - 135
Toluene	25.0	24.5		ug/L		98	65 - 135
trans-1,2-Dichloroethene	25.0	26.3		ug/L		105	65 - 135
trans-1,3-Dichloropropene	25.0	18.8		ug/L		75	65 - 135
trans-1,4-Dichloro-2-butene	25.0	16.3		ug/L		65	53 - 135
Trichloroethene	25.0	24.7		ug/L		99	65 - 135
Trichlorofluoromethane	25.0	21.0		ug/L		84	53 - 137
Vinyl acetate	50.0	54.4		ug/L		109	11 - 187
Vinyl chloride	25.0	19.6		ug/L		78	40 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 127
4-Bromofluorobenzene (Surr)	97		78 - 120
Dibromofluoromethane (Surr)	97		77 - 120
Toluene-d8 (Surr)	102		80 - 125

Lab Sample ID: LCSD 280-484415/5				Client Sample ID: Lab Control Sample Dup					
Matrix: Water				Prep Type: Total/NA					
Analysis Batch: 484415									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	25.0		ug/L		100	65 - 135	7	20
1,1,1-Trichloroethane	25.0	27.9		ug/L		111	65 - 135	7	20
1,1,2,2-Tetrachloroethane	25.0	21.6		ug/L		86	58 - 135	8	20
1,1,2-Trichloroethane	25.0	25.9		ug/L		104	64 - 135	7	27
1,1-Dichloroethane	25.0	27.5		ug/L		110	65 - 135	7	21
1,1-Dichloroethene	25.0	29.3		ug/L		117	65 - 136	7	20
1,2,3-Trichloropropane	25.0	25.3		ug/L		101	65 - 135	7	23
1,2-Dibromo-3-Chloropropane	25.0	19.9		ug/L		79	57 - 135	9	22
1,2-Dibromoethane	25.0	27.0		ug/L		108	65 - 135	8	27
1,2-Dichlorobenzene	25.0	24.4		ug/L		97	65 - 135	8	20
1,2-Dichloroethane	25.0	25.8		ug/L		103	65 - 135	8	20
1,2-Dichloropropane	25.0	24.2		ug/L		97	64 - 135	7	20
1,4-Dichlorobenzene	25.0	25.8		ug/L		103	65 - 135	7	23
2-Butanone (MEK)	100	98.7		ug/L		99	44 - 177	8	32
2-Hexanone	100	111		ug/L		111	57 - 139	8	25
4-Methyl-2-pentanone (MIBK)	100	94.6		ug/L		95	60 - 150	8	22
Acetone	100	94.2		ug/L		94	39 - 156	4	23
Acrylonitrile	250	257		ug/L		103	56 - 135	8	30
Benzene	25.0	26.9		ug/L		108	65 - 135	7	20
Bromochloromethane	25.0	25.7		ug/L		103	65 - 135	7	29
Bromodichloromethane	25.0	24.9		ug/L		100	65 - 135	8	20

Eurofins TestAmerica, Denver



# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-484415/5  
Matrix: Water  
Analysis Batch: 484415

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromoform	25.0	20.1		ug/L		80	62 - 135	8	27
Bromomethane	25.0	20.2		ug/L		81	45 - 135	7	33
Carbon disulfide	25.0	25.2		ug/L		101	55 - 143	9	20
Carbon tetrachloride	25.0	24.7		ug/L		99	65 - 135	8	21
Chlorobenzene	25.0	26.8		ug/L		107	65 - 135	6	20
Chloroethane	25.0	23.5		ug/L		94	46 - 136	10	25
Chloroform	25.0	27.2		ug/L		109	65 - 135	7	20
Chloromethane	25.0	21.3		ug/L		85	34 - 145	10	24
cis-1,2-Dichloroethene	25.0	27.3		ug/L		109	65 - 135	7	20
cis-1,3-Dichloropropene	25.0	27.7		ug/L		111	65 - 135	7	26
Dibromochloromethane	25.0	23.3		ug/L		93	65 - 135	8	20
Dibromomethane	25.0	26.3		ug/L		105	65 - 135	7	26
Dichlorodifluoromethane	25.0	21.0		ug/L		84	43 - 142	8	30
Ethylbenzene	25.0	27.3		ug/L		109	65 - 135	7	20
Iodomethane	25.0	19.2		ug/L		77	65 - 142	14	25
Methylene Chloride	25.0	25.3		ug/L		101	54 - 141	6	26
m-Xylene & p-Xylene	25.0	27.3		ug/L		109	65 - 135	7	20
o-Xylene	25.0	27.0		ug/L		108	65 - 135	7	20
Styrene	25.0	28.6		ug/L		115	65 - 135	8	26
Tetrachloroethene	25.0	27.2		ug/L		109	65 - 135	5	20
Toluene	25.0	26.2		ug/L		105	65 - 135	7	20
trans-1,2-Dichloroethene	25.0	28.3		ug/L		113	65 - 135	7	24
trans-1,3-Dichloropropene	25.0	20.2		ug/L		81	65 - 135	7	26
trans-1,4-Dichloro-2-butene	25.0	17.8		ug/L		71	53 - 135	8	25
Trichloroethene	25.0	26.3		ug/L		105	65 - 135	6	20
Trichlorofluoromethane	25.0	21.7		ug/L		87	53 - 137	3	27
Vinyl acetate	50.0	59.3		ug/L		119	11 - 187	9	24
Vinyl chloride	25.0	21.2		ug/L		85	40 - 137	8	24

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 127
4-Bromofluorobenzene (Surr)	98		78 - 120
Dibromofluoromethane (Surr)	97		77 - 120
Toluene-d8 (Surr)	101		80 - 125

Lab Sample ID: MB 280-484448/8  
Matrix: Water  
Analysis Batch: 484448

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 12:07	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 12:07	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 12:07	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 12:07	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 12:07	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 12:07	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 12:07	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 12:07	1

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 280-484448/8**  
**Matrix: Water**  
**Analysis Batch: 484448**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 12:07	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 12:07	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 12:07	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 12:07	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 12:07	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 12:07	1
2-Hexanone	ND		5.0		ug/L			01/30/20 12:07	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 12:07	1
Acetone	ND		10		ug/L			01/30/20 12:07	1
Acrylonitrile	ND		20		ug/L			01/30/20 12:07	1
Benzene	ND		0.50		ug/L			01/30/20 12:07	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 12:07	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 12:07	1
Bromoform	ND		0.50		ug/L			01/30/20 12:07	1
Bromomethane	ND		0.50		ug/L			01/30/20 12:07	1
Carbon disulfide	0.599		0.50		ug/L			01/30/20 12:07	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 12:07	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 12:07	1
Chloroethane	ND		0.50		ug/L			01/30/20 12:07	1
Chloroform	ND		0.50		ug/L			01/30/20 12:07	1
Chloromethane	ND		0.50		ug/L			01/30/20 12:07	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 12:07	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 12:07	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 12:07	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 12:07	1
Dibromomethane	ND		0.50		ug/L			01/30/20 12:07	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 12:07	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 12:07	1
Iodomethane	ND		1.0		ug/L			01/30/20 12:07	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 12:07	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 12:07	1
o-Xylene	ND		0.50		ug/L			01/30/20 12:07	1
Styrene	ND		0.50		ug/L			01/30/20 12:07	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 12:07	1
Toluene	ND		0.50		ug/L			01/30/20 12:07	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 12:07	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 12:07	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 12:07	1
Trichloroethene	ND		0.50		ug/L			01/30/20 12:07	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 12:07	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 12:07	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 12:07	1
Surrogate	MB	MB	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		70 - 127					01/30/20 12:07	1
4-Bromofluorobenzene (Surr)	102		78 - 120					01/30/20 12:07	1
Dibromofluoromethane (Surr)	94		77 - 120					01/30/20 12:07	1
Toluene-d8 (Surr)	109		80 - 125					01/30/20 12:07	1

Eurofins TestAmerica, Denver

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-484448/4  
Matrix: Water  
Analysis Batch: 484448

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	21.9		ug/L		88	65 - 135
1,1,1-Trichloroethane	25.0	21.8		ug/L		87	65 - 135
1,1,2,2-Tetrachloroethane	25.0	25.8		ug/L		103	58 - 135
1,1,2-Trichloroethane	25.0	22.5		ug/L		90	64 - 135
1,1-Dichloroethane	25.0	23.7		ug/L		95	65 - 135
1,1-Dichloroethene	25.0	25.2		ug/L		101	65 - 136
1,2,3-Trichloropropane	25.0	22.8		ug/L		91	65 - 135
1,2-Dibromo-3-Chloropropane	25.0	19.9		ug/L		80	57 - 135
1,2-Dibromoethane	25.0	23.6		ug/L		95	65 - 135
1,2-Dichlorobenzene	25.0	20.8		ug/L		83	65 - 135
1,2-Dichloroethane	25.0	18.7		ug/L		75	65 - 135
1,2-Dichloropropane	25.0	23.5		ug/L		94	64 - 135
1,4-Dichlorobenzene	25.0	23.0		ug/L		92	65 - 135
2-Butanone (MEK)	100	87.9		ug/L		88	44 - 177
2-Hexanone	100	88.9		ug/L		89	57 - 139
4-Methyl-2-pentanone (MIBK)	100	95.3		ug/L		95	60 - 150
Acetone	100	77.3		ug/L		77	39 - 156
Acrylonitrile	250	238		ug/L		95	56 - 135
Benzene	25.0	22.6		ug/L		90	65 - 135
Bromochloromethane	25.0	21.2		ug/L		85	65 - 135
Bromodichloromethane	25.0	21.2		ug/L		85	65 - 135
Bromoform	25.0	20.2		ug/L		81	62 - 135
Bromomethane	25.0	30.3		ug/L		121	45 - 135
Carbon disulfide	25.0	26.0		ug/L		104	55 - 143
Carbon tetrachloride	25.0	21.2		ug/L		85	65 - 135
Chlorobenzene	25.0	21.3		ug/L		85	65 - 135
Chloroethane	25.0	24.9		ug/L		100	46 - 136
Chloroform	25.0	21.7		ug/L		87	65 - 135
Chloromethane	25.0	19.7		ug/L		79	34 - 145
cis-1,2-Dichloroethene	25.0	22.5		ug/L		90	65 - 135
cis-1,3-Dichloropropene	25.0	23.6		ug/L		94	65 - 135
Dibromochloromethane	25.0	22.0		ug/L		88	65 - 135
Dibromomethane	25.0	21.0		ug/L		84	65 - 135
Dichlorodifluoromethane	25.0	15.9		ug/L		64	43 - 142
Ethylbenzene	25.0	22.2		ug/L		89	65 - 135
Iodomethane	25.0	30.1		ug/L		120	65 - 142
Methylene Chloride	25.0	22.1		ug/L		88	54 - 141
m-Xylene & p-Xylene	25.0	22.2		ug/L		89	65 - 135
o-Xylene	25.0	21.7		ug/L		87	65 - 135
Styrene	25.0	23.0		ug/L		92	65 - 135
Tetrachloroethene	25.0	23.0		ug/L		92	65 - 135
Toluene	25.0	22.1		ug/L		89	65 - 135
trans-1,2-Dichloroethene	25.0	22.1		ug/L		88	65 - 135
trans-1,3-Dichloropropene	25.0	21.5		ug/L		86	65 - 135
trans-1,4-Dichloro-2-butene	25.0	22.6		ug/L		91	53 - 135
Trichloroethene	25.0	21.6		ug/L		86	65 - 135
Trichlorofluoromethane	25.0	20.6		ug/L		82	53 - 137
Vinyl acetate	50.0	43.5		ug/L		87	11 - 187

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-484448/4			Client Sample ID: Lab Control Sample					
Matrix: Water			Prep Type: Total/NA					
Analysis Batch: 484448								
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Vinyl chloride	25.0	21.7		ug/L		87	40 - 137	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
1,2-Dichloroethane-d4 (Surr)	89		70 - 127					
4-Bromofluorobenzene (Surr)	106		78 - 120					
Dibromofluoromethane (Surr)	98		77 - 120					
Toluene-d8 (Surr)	106		80 - 125					

Lab Sample ID: 280-133267-B-1 MS			Client Sample ID: Matrix Spike						
Matrix: Water			Prep Type: Total/NA						
Analysis Batch: 484448									
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		25.0	27.8		ug/L		111	65 - 135
1,1,1-Trichloroethane	ND		25.0	28.6		ug/L		114	65 - 135
1,1,2,2-Tetrachloroethane	ND		25.0	31.3		ug/L		125	58 - 135
1,1,2-Trichloroethane	ND		25.0	27.5		ug/L		110	64 - 135
1,1-Dichloroethane	ND		25.0	30.6		ug/L		122	65 - 135
1,1-Dichloroethene	ND		25.0	32.9		ug/L		132	65 - 136
1,2,3-Trichloropropane	ND		25.0	27.7		ug/L		111	65 - 135
1,2-Dibromo-3-Chloropropane	ND		25.0	25.5		ug/L		102	57 - 135
1,2-Dibromoethane	ND		25.0	29.1		ug/L		116	65 - 135
1,2-Dichlorobenzene	ND		25.0	25.0		ug/L		100	65 - 135
1,2-Dichloroethane	ND		25.0	23.1		ug/L		92	65 - 135
1,2-Dichloropropane	ND		25.0	29.7		ug/L		119	64 - 135
1,4-Dichlorobenzene	ND		25.0	28.1		ug/L		112	65 - 135
2-Butanone (MEK)	ND	F1	100	ND	F1	ug/L		0	44 - 177
2-Hexanone	ND		100	109		ug/L		109	57 - 139
4-Methyl-2-pentanone (MIBK)	ND		100	117		ug/L		117	60 - 150
Acetone	ND		100	91.7		ug/L		92	39 - 156
Acrylonitrile	ND		250	286		ug/L		115	56 - 135
Benzene	ND		25.0	28.2		ug/L		113	65 - 135
Bromochloromethane	ND		25.0	26.0		ug/L		104	65 - 135
Bromodichloromethane	ND		25.0	26.8		ug/L		107	65 - 135
Bromoform	ND		25.0	25.6		ug/L		102	62 - 135
Bromomethane	ND	F1	25.0	35.4	F1	ug/L		141	45 - 135
Carbon disulfide	0.57	B	25.0	35.7		ug/L		141	55 - 143
Carbon tetrachloride	ND		25.0	27.3		ug/L		109	65 - 135
Chlorobenzene	ND		25.0	26.7		ug/L		107	65 - 135
Chloroethane	ND		25.0	28.6		ug/L		114	46 - 136
Chloroform	ND		25.0	27.3		ug/L		109	65 - 135
Chloromethane	ND		25.0	23.6		ug/L		94	34 - 145
cis-1,2-Dichloroethene	23		25.0	52.0		ug/L		118	65 - 135
cis-1,3-Dichloropropene	ND		25.0	30.4		ug/L		122	65 - 135
Dibromochloromethane	ND		25.0	27.2		ug/L		109	65 - 135
Dibromomethane	ND		25.0	25.4		ug/L		101	65 - 135
Dichlorodifluoromethane	ND		25.0	18.9		ug/L		76	43 - 142
Ethylbenzene	ND		25.0	27.7		ug/L		111	65 - 135

Eurofins TestAmerica, Denver

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-133267-B-1 MS				Client Sample ID: Matrix Spike						
Matrix: Water				Prep Type: Total/NA						
Analysis Batch: 484448										
Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Iodomethane	ND	F1	25.0	35.7	F1	ug/L		143	65 - 142	
Methylene Chloride	ND		25.0	27.2		ug/L		109	54 - 141	
m-Xylene & p-Xylene	ND		25.0	27.7		ug/L		111	65 - 135	
o-Xylene	ND		25.0	27.2		ug/L		109	65 - 135	
Styrene	ND		25.0	29.0		ug/L		116	65 - 135	
Tetrachloroethene	ND		25.0	29.0		ug/L		116	65 - 135	
Toluene	ND		25.0	27.4		ug/L		110	65 - 135	
trans-1,2-Dichloroethene	ND		25.0	28.3		ug/L		113	65 - 135	
trans-1,3-Dichloropropene	ND		25.0	29.0		ug/L		116	65 - 135	
trans-1,4-Dichloro-2-butene	ND		25.0	25.9		ug/L		104	53 - 135	
Trichloroethene	5.5		25.0	32.9		ug/L		109	65 - 135	
Trichlorofluoromethane	ND		25.0	24.0		ug/L		96	53 - 137	
Vinyl acetate	ND		50.0	55.0		ug/L		110	11 - 187	
Vinyl chloride	ND		25.0	25.8		ug/L		103	40 - 137	
MS MS										
Surrogate	%Recovery	Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)	89		70 - 127							
4-Bromofluorobenzene (Surr)	107		78 - 120							
Dibromofluoromethane (Surr)	98		77 - 120							
Toluene-d8 (Surr)	106		80 - 125							

Lab Sample ID: 280-133267-C-1 MSD				Client Sample ID: Matrix Spike Duplicate								
Matrix: Water				Prep Type: Total/NA								
Analysis Batch: 484448												
Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		25.0	26.3		ug/L		105	65 - 135	5	20	
1,1,1-Trichloroethane	ND		25.0	27.6		ug/L		111	65 - 135	3	20	
1,1,2,2-Tetrachloroethane	ND		25.0	30.3		ug/L		121	58 - 135	3	20	
1,1,2-Trichloroethane	ND		25.0	26.3		ug/L		105	64 - 135	4	27	
1,1-Dichloroethane	ND		25.0	29.5		ug/L		118	65 - 135	4	21	
1,1-Dichloroethene	ND		25.0	31.3		ug/L		125	65 - 136	5	20	
1,2,3-Trichloropropane	ND		25.0	26.3		ug/L		105	65 - 135	5	23	
1,2-Dibromo-3-Chloropropane	ND		25.0	24.5		ug/L		98	57 - 135	4	22	
1,2-Dibromoethane	ND		25.0	28.0		ug/L		112	65 - 135	4	27	
1,2-Dichlorobenzene	ND		25.0	24.1		ug/L		97	65 - 135	4	20	
1,2-Dichloroethane	ND		25.0	22.3		ug/L		89	65 - 135	3	20	
1,2-Dichloropropane	ND		25.0	28.7		ug/L		115	64 - 135	4	20	
1,4-Dichlorobenzene	ND		25.0	26.8		ug/L		107	65 - 135	5	23	
2-Butanone (MEK)	ND	F1	100	102		ug/L		102	44 - 177	NC	32	
2-Hexanone	ND		100	103		ug/L		103	57 - 139	6	25	
4-Methyl-2-pentanone (MIBK)	ND		100	112		ug/L		112	60 - 150	5	22	
Acetone	ND		100	86.3		ug/L		86	39 - 156	6	23	
Acrylonitrile	ND		250	274		ug/L		110	56 - 135	4	30	
Benzene	ND		25.0	27.4		ug/L		110	65 - 135	3	20	
Bromochloromethane	ND		25.0	25.1		ug/L		100	65 - 135	3	29	
Bromodichloromethane	ND		25.0	26.0		ug/L		104	65 - 135	3	20	
Bromoform	ND		25.0	23.8		ug/L		95	62 - 135	7	27	

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-133267-C-1 MSD				Client Sample ID: Matrix Spike Duplicate							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 484448											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromomethane	ND	F1	25.0	34.7	F1	ug/L		139	45 - 135	2	33
Carbon disulfide	0.57	B	25.0	33.5		ug/L		132	55 - 143	6	20
Carbon tetrachloride	ND		25.0	26.2		ug/L		105	65 - 135	4	21
Chlorobenzene	ND		25.0	25.6		ug/L		103	65 - 135	4	20
Chloroethane	ND		25.0	28.1		ug/L		112	46 - 136	2	25
Chloroform	ND		25.0	26.5		ug/L		106	65 - 135	3	20
Chloromethane	ND		25.0	23.0		ug/L		92	34 - 145	3	24
cis-1,2-Dichloroethene	23		25.0	51.5		ug/L		115	65 - 135	1	20
cis-1,3-Dichloropropene	ND		25.0	29.5		ug/L		118	65 - 135	3	26
Dibromochloromethane	ND		25.0	25.8		ug/L		103	65 - 135	5	20
Dibromomethane	ND		25.0	25.0		ug/L		100	65 - 135	2	26
Dichlorodifluoromethane	ND		25.0	18.2		ug/L		73	43 - 142	4	30
Ethylbenzene	ND		25.0	26.7		ug/L		107	65 - 135	4	20
Iodomethane	ND	F1	25.0	39.6	F1	ug/L		158	65 - 142	10	25
Methylene Chloride	ND		25.0	26.3		ug/L		105	54 - 141	3	26
m-Xylene & p-Xylene	ND		25.0	26.3		ug/L		105	65 - 135	5	20
o-Xylene	ND		25.0	26.1		ug/L		104	65 - 135	4	20
Styrene	ND		25.0	27.5		ug/L		110	65 - 135	5	26
Tetrachloroethene	ND		25.0	27.6		ug/L		111	65 - 135	5	20
Toluene	ND		25.0	26.5		ug/L		106	65 - 135	3	20
trans-1,2-Dichloroethene	ND		25.0	27.4		ug/L		110	65 - 135	3	24
trans-1,3-Dichloropropene	ND		25.0	28.0		ug/L		112	65 - 135	3	26
trans-1,4-Dichloro-2-butene	ND		25.0	24.5		ug/L		98	53 - 135	5	25
Trichloroethene	5.5		25.0	32.0		ug/L		106	65 - 135	3	20
Trichlorofluoromethane	ND		25.0	23.2		ug/L		93	53 - 137	4	27
Vinyl acetate	ND		50.0	53.0		ug/L		106	11 - 187	4	24
Vinyl chloride	ND		25.0	25.1		ug/L		100	40 - 137	3	24

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
1,2-Dichloroethane-d4 (Surr)	89		70 - 127
4-Bromofluorobenzene (Surr)	107		78 - 120
Dibromofluoromethane (Surr)	99		77 - 120
Toluene-d8 (Surr)	105		80 - 125

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 160-459836/99				Client Sample ID: Method Blank							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 459836											
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Chloride	ND		0.20		mg/L			02/12/20 10:06	1		
Sulfate	ND		0.20		mg/L			02/12/20 10:06	1		

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 160-459836/100  
Matrix: Water  
Analysis Batch: 459836

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.95		mg/L		97	90 - 110
Sulfate	8.00	7.70		mg/L		96	90 - 110

Lab Sample ID: MB 160-460294/46  
Matrix: Water  
Analysis Batch: 460294

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.20		mg/L			02/14/20 06:16	1
Sulfate	ND		0.20		mg/L			02/14/20 06:16	1

Lab Sample ID: LCS 160-460294/47  
Matrix: Water  
Analysis Batch: 460294

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.92		mg/L		96	90 - 110
Sulfate	8.00	7.49		mg/L		94	90 - 110

## Method: 300.0 - Anions, Ion Chromatography - DL

Lab Sample ID: 280-133052-F-1 MS  
Matrix: Water  
Analysis Batch: 459836

Client Sample ID: Matrix Spike  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride - DL	13	F1	20.0	38.7	F1	mg/L		130	90 - 110
Sulfate - DL	13	F1	40.0	62.0	F1	mg/L		121	90 - 110

Lab Sample ID: 280-133115-1 MS  
Matrix: Water  
Analysis Batch: 459836

Client Sample ID: HVL-012220-14  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride - DL	6.7		10.0	16.1		mg/L		94	90 - 110
Sulfate - DL	7.8		20.0	26.0		mg/L		91	90 - 110

Lab Sample ID: 280-133052-F-1 DU  
Matrix: Water  
Analysis Batch: 459836

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride - DL	13	F1	12.8		mg/L		0	20
Sulfate - DL	13	F1	13.5		mg/L		0.2	20

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 300.0 - Anions, Ion Chromatography - DL (Continued)

Lab Sample ID: 280-133115-9 MS Matrix: Water Analysis Batch: 460294			Client Sample ID: HVL-012220-22 Prep Type: Total/NA						
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride - DL	5.8		20.0	24.6		mg/L		94	90 - 110
Sulfate - DL	9.0		40.0	46.3		mg/L		93	90 - 110

Lab Sample ID: 280-133115-9 DU Matrix: Water Analysis Batch: 460294			Client Sample ID: HVL-012220-22 Prep Type: Total/NA						
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit	
Chloride - DL	5.8		5.60		mg/L		3	20	
Sulfate - DL	9.0		8.77		mg/L		3	20	

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 280-483884/1-A Matrix: Water Analysis Batch: 484145			Client Sample ID: Method Blank Prep Type: Total Recoverable Prep Batch: 483884						
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	ND		0.20		mg/L		01/24/20 16:45	01/27/20 14:12	1
Magnesium, Dissolved	ND		0.10		mg/L		01/24/20 16:45	01/27/20 14:12	1
Potassium, Dissolved	ND		2.0		mg/L		01/24/20 16:45	01/27/20 14:12	1
Sodium, Dissolved	ND		1.0		mg/L		01/24/20 16:45	01/27/20 14:12	1

Lab Sample ID: LCS 280-483884/2-A Matrix: Water Analysis Batch: 484145			Client Sample ID: Lab Control Sample Prep Type: Total Recoverable Prep Batch: 483884						
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Calcium, Dissolved	50.0	49.9		mg/L		100	90 - 111		
Magnesium, Dissolved	50.0	51.0		mg/L		102	90 - 113		
Potassium, Dissolved	50.0	50.0		mg/L		100	89 - 114		
Sodium, Dissolved	50.0	48.8		mg/L		98	90 - 115		

Lab Sample ID: 280-133115-2 MS Matrix: Water Analysis Batch: 484145			Client Sample ID: HVL-012220-15 Prep Type: Dissolved Prep Batch: 483884						
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium, Dissolved	30		50.0	78.9		mg/L		99	48 - 153
Magnesium, Dissolved	10		50.0	61.4		mg/L		102	62 - 146
Potassium, Dissolved	2.1		50.0	52.0		mg/L		100	76 - 132
Sodium, Dissolved	7.7		50.0	56.2		mg/L		97	70 - 203

Lab Sample ID: 280-133115-2 MSD Matrix: Water Analysis Batch: 484145			Client Sample ID: HVL-012220-15 Prep Type: Dissolved Prep Batch: 483884								
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium, Dissolved	30		50.0	80.0		mg/L		101	48 - 153	1	20
Magnesium, Dissolved	10		50.0	62.6		mg/L		104	62 - 146	2	20

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 280-133115-2 MSD						Client Sample ID: HVL-012220-15					
Matrix: Water						Prep Type: Dissolved					
Analysis Batch: 484145						Prep Batch: 483884					
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Potassium, Dissolved	2.1		50.0	53.1		mg/L		102	76 - 132	2	20
Sodium, Dissolved	7.7		50.0	57.4		mg/L		99	70 - 203	2	20

## Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 580-321630/17-A						Client Sample ID: Method Blank					
Matrix: Water						Prep Type: Total Recoverable					
Analysis Batch: 321698						Prep Batch: 321630					
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Iron, Dissolved	ND		0.18		mg/L		01/29/20 12:56	01/30/20 12:30	5		

Lab Sample ID: LCS 580-321630/18-A						Client Sample ID: Lab Control Sample					
Matrix: Water						Prep Type: Total Recoverable					
Analysis Batch: 321698						Prep Batch: 321630					
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits				
Iron, Dissolved	20.0	20.2		mg/L		101	80 - 120				

Lab Sample ID: LCSD 580-321630/19-A						Client Sample ID: Lab Control Sample Dup					
Matrix: Water						Prep Type: Total Recoverable					
Analysis Batch: 321698						Prep Batch: 321630					
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit		
Iron, Dissolved	20.0	20.1		mg/L		100	80 - 120	0	20		

Lab Sample ID: MB 280-483883/1-A						Client Sample ID: Method Blank					
Matrix: Water						Prep Type: Total Recoverable					
Analysis Batch: 484419						Prep Batch: 483883					
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Manganese, Dissolved	ND		0.0010		mg/L		01/24/20 16:45	01/29/20 15:59	1		

Lab Sample ID: LCS 280-483883/2-A						Client Sample ID: Lab Control Sample					
Matrix: Water						Prep Type: Total Recoverable					
Analysis Batch: 484419						Prep Batch: 483883					
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits				
Manganese, Dissolved	0.0400	0.0406		mg/L		102	85 - 117				

Lab Sample ID: 280-133115-1 MS						Client Sample ID: HVL-012220-14					
Matrix: Water						Prep Type: Dissolved					
Analysis Batch: 321698						Prep Batch: 321630					
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits		
Iron, Dissolved	ND		20.0	19.1		mg/L		95	80 - 120		

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-133115-1 MSD Matrix: Water Analysis Batch: 321698				Client Sample ID: HVL-012220-14 Prep Type: Dissolved Prep Batch: 321630							
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Iron, Dissolved	ND		20.0	19.1		mg/L		95	80 - 120	0	20

Lab Sample ID: 280-133115-1 DU Matrix: Water Analysis Batch: 321698				Client Sample ID: HVL-012220-14 Prep Type: Dissolved Prep Batch: 321630							
Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	Limit
Iron, Dissolved	ND			ND		mg/L				NC	20

Lab Sample ID: 280-133115-1 MS Matrix: Water Analysis Batch: 484419				Client Sample ID: HVL-012220-14 Prep Type: Dissolved Prep Batch: 483883							
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits		
Manganese, Dissolved	ND		0.0400	0.0398		mg/L		100	85 - 117		

Lab Sample ID: 280-133115-1 MSD Matrix: Water Analysis Batch: 484419				Client Sample ID: HVL-012220-14 Prep Type: Dissolved Prep Batch: 483883							
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Manganese, Dissolved	ND		0.0400	0.0394		mg/L		99	85 - 117	1	20

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-483773/6 Matrix: Water Analysis Batch: 483773				Client Sample ID: Method Blank Prep Type: Total/NA							
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Nitrate as N	ND		0.20		mg/L			01/23/20 11:22	1		

Lab Sample ID: LCS 280-483773/4 Matrix: Water Analysis Batch: 483773				Client Sample ID: Lab Control Sample Prep Type: Total/NA							
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
Nitrate as N			5.00	5.00		mg/L		100	90 - 110		

Lab Sample ID: LCSD 280-483773/5 Matrix: Water Analysis Batch: 483773				Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA							
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Nitrate as N			5.00	5.02		mg/L		100	90 - 110	0	10

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MRL 280-483773/3  
Matrix: Water  
Analysis Batch: 483773

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.500	ND		mg/L		99	50 - 150

Lab Sample ID: 280-133115-5 MS  
Matrix: Water  
Analysis Batch: 483773

Client Sample ID: HVL-012220-18  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	3.8		5.00	9.11		mg/L		106	80 - 120

Lab Sample ID: 280-133115-5 MSD  
Matrix: Water  
Analysis Batch: 483773

Client Sample ID: HVL-012220-18  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	3.8		5.00	9.02		mg/L		104	80 - 120	1	20

Lab Sample ID: 280-133115-5 DU  
Matrix: Water  
Analysis Batch: 483773

Client Sample ID: HVL-012220-18  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	3.8		3.87		mg/L		1	15

## Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-484652/19  
Matrix: Water  
Analysis Batch: 484652

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.10		mg/L			01/31/20 13:32	1

Lab Sample ID: LCS 280-484652/18  
Matrix: Water  
Analysis Batch: 484652

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.55		mg/L		102	90 - 110

Lab Sample ID: LCSD 280-484652/72  
Matrix: Water  
Analysis Batch: 484652

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	2.50	2.56		mg/L		102	90 - 110	5	10

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: 350.1 - Nitrogen, Ammonia (Continued)

<b>Lab Sample ID: 280-133115-5 MS</b>						<b>Client Sample ID: HVL-012220-18</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 484652</b>										
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Ammonia	ND		1.00	0.974		mg/L		97	90 - 110	

<b>Lab Sample ID: 280-133115-5 MSD</b>						<b>Client Sample ID: HVL-012220-18</b>						
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>						
<b>Analysis Batch: 484652</b>												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	RPD Limit
Ammonia	ND		1.00	0.998		mg/L		100	90 - 110		2	10

## Method: SM 2320B - Alkalinity

<b>Lab Sample ID: MB 280-484292/57</b>						<b>Client Sample ID: Method Blank</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 484292</b>										
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Alkalinity	ND		10		mg/L			01/28/20 21:47	1	

<b>Lab Sample ID: LCS 280-484292/56</b>						<b>Client Sample ID: Lab Control Sample</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 484292</b>										
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits			
Alkalinity	200	204		mg/L		102	89 - 109			

<b>Lab Sample ID: 280-133052-B-12 DU</b>						<b>Client Sample ID: Duplicate</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 484292</b>										
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit		
Alkalinity	100		103		mg/L		0.7	10		

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

<b>Lab Sample ID: MB 280-483895/1</b>						<b>Client Sample ID: Method Blank</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 483895</b>										
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total Dissolved Solids	ND		10		mg/L			01/24/20 08:54	1	

<b>Lab Sample ID: LCS 280-483895/2</b>						<b>Client Sample ID: Lab Control Sample</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 483895</b>										
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits			
Total Dissolved Solids	500	496		mg/L		99	93 - 110			

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

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

Lab Sample ID: LCSD 280-483895/3  
Matrix: Water  
Analysis Batch: 483895

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids	500	492		mg/L		98	93 - 110	1	20

Lab Sample ID: 280-133095-E-1 DU  
Matrix: Water  
Analysis Batch: 483895

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1800		1810		mg/L		2	10

## Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-483936/1  
Matrix: Water  
Analysis Batch: 483936

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0		mg/L			01/24/20 12:06	1

Lab Sample ID: LCS 280-483936/2  
Matrix: Water  
Analysis Batch: 483936

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	88.4		mg/L		88	79 - 114

Lab Sample ID: LCSD 280-483936/3  
Matrix: Water  
Analysis Batch: 483936

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Suspended Solids	100	92.4		mg/L		92	79 - 114	4	20

Lab Sample ID: 280-133115-9 DU  
Matrix: Water  
Analysis Batch: 483936

Client Sample ID: HVL-012220-22  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	6.4		6.40		mg/L		0	10

## Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-484053/36  
Matrix: Water  
Analysis Batch: 484053

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	ND		1.0		mg/L			01/25/20 02:16	1

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

<b>Lab Sample ID: MB 280-484053/69</b>						<b>Client Sample ID: Method Blank</b>					
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>					
<b>Analysis Batch: 484053</b>											
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Total Organic Carbon - Quad	ND		1.0		mg/L			01/25/20 11:04	1		
<b>Lab Sample ID: LCS 280-484053/35</b>						<b>Client Sample ID: Lab Control Sample</b>					
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>					
<b>Analysis Batch: 484053</b>											
Analyte	Spike Added		LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits			
Total Organic Carbon - Quad	25.0		25.7		mg/L		103	88 - 112			
<b>Lab Sample ID: LCS 280-484053/68</b>						<b>Client Sample ID: Lab Control Sample</b>					
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>					
<b>Analysis Batch: 484053</b>											
Analyte	Spike Added		LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits			
Total Organic Carbon - Quad	25.0		25.9		mg/L		104	88 - 112			
<b>Lab Sample ID: 280-133115-7 MS</b>						<b>Client Sample ID: HVL-012220-20</b>					
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>					
<b>Analysis Batch: 484053</b>											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon - Quad	ND		25.0	26.3		mg/L		103	88 - 112		
<b>Lab Sample ID: 280-133115-7 MSD</b>						<b>Client Sample ID: HVL-012220-20</b>					
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>					
<b>Analysis Batch: 484053</b>											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Quad	ND		25.0	26.4		mg/L		103	88 - 112	0	15

# QC Association Summary

Client: SCS Engineers  
 Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## GC/MS VOA

### Analysis Batch: 484415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-1	HVL-012220-14	Total/NA	Water	8260B	
280-133115-2	HVL-012220-15	Total/NA	Water	8260B	
280-133115-3	HVL-012220-16	Total/NA	Water	8260B	
280-133115-4	HVL-012220-17	Total/NA	Water	8260B	
280-133115-5	HVL-012220-18	Total/NA	Water	8260B	
280-133115-6	HVL-012220-19	Total/NA	Water	8260B	
280-133115-7	HVL-012220-20	Total/NA	Water	8260B	
MB 280-484415/8	Method Blank	Total/NA	Water	8260B	
LCS 280-484415/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 280-484415/5	Lab Control Sample Dup	Total/NA	Water	8260B	

### Analysis Batch: 484448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-8	HVL-012220-21	Total/NA	Water	8260B	
280-133115-9	HVL-012220-22	Total/NA	Water	8260B	
280-133115-10	TRIP BLANK	Total/NA	Water	8260B	
MB 280-484448/8	Method Blank	Total/NA	Water	8260B	
LCS 280-484448/4	Lab Control Sample	Total/NA	Water	8260B	
280-133267-B-1 MS	Matrix Spike	Total/NA	Water	8260B	
280-133267-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

## HPLC/IC

### Analysis Batch: 459836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-1 - DL	HVL-012220-14	Total/NA	Water	300.0	
280-133115-2 - DL	HVL-012220-15	Total/NA	Water	300.0	
280-133115-3 - DL	HVL-012220-16	Total/NA	Water	300.0	
280-133115-4	HVL-012220-17	Total/NA	Water	300.0	
280-133115-5 - DL	HVL-012220-18	Total/NA	Water	300.0	
280-133115-6	HVL-012220-19	Total/NA	Water	300.0	
280-133115-7 - DL	HVL-012220-20	Total/NA	Water	300.0	
280-133115-8 - DL	HVL-012220-21	Total/NA	Water	300.0	
MB 160-459836/99	Method Blank	Total/NA	Water	300.0	
LCS 160-459836/100	Lab Control Sample	Total/NA	Water	300.0	
280-133052-F-1 MS - DL	Matrix Spike	Total/NA	Water	300.0	
280-133115-1 MS - DL	HVL-012220-14	Total/NA	Water	300.0	
280-133052-F-1 DU - DL	Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 460294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-9 - DL	HVL-012220-22	Total/NA	Water	300.0	
MB 160-460294/46	Method Blank	Total/NA	Water	300.0	
LCS 160-460294/47	Lab Control Sample	Total/NA	Water	300.0	
280-133115-9 MS - DL	HVL-012220-22	Total/NA	Water	300.0	
280-133115-9 DU - DL	HVL-012220-22	Total/NA	Water	300.0	

## Metals

### Prep Batch: 321630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-1	HVL-012220-14	Dissolved	Water	3005A	

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# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Metals (Continued)

### Prep Batch: 321630 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-2	HVL-012220-15	Dissolved	Water	3005A	
280-133115-3	HVL-012220-16	Dissolved	Water	3005A	
280-133115-4	HVL-012220-17	Dissolved	Water	3005A	
280-133115-5	HVL-012220-18	Dissolved	Water	3005A	
280-133115-6	HVL-012220-19	Dissolved	Water	3005A	
280-133115-7	HVL-012220-20	Dissolved	Water	3005A	
280-133115-8	HVL-012220-21	Dissolved	Water	3005A	
280-133115-9	HVL-012220-22	Dissolved	Water	3005A	
MB 580-321630/17-A	Method Blank	Total Recoverable	Water	3005A	
LCS 580-321630/18-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 580-321630/19-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
280-133115-1 MS	HVL-012220-14	Dissolved	Water	3005A	
280-133115-1 MSD	HVL-012220-14	Dissolved	Water	3005A	
280-133115-1 DU	HVL-012220-14	Dissolved	Water	3005A	

### Analysis Batch: 321698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-1	HVL-012220-14	Dissolved	Water	6020	321630
MB 580-321630/17-A	Method Blank	Total Recoverable	Water	6020	321630
LCS 580-321630/18-A	Lab Control Sample	Total Recoverable	Water	6020	321630
LCSD 580-321630/19-A	Lab Control Sample Dup	Total Recoverable	Water	6020	321630
280-133115-1 MS	HVL-012220-14	Dissolved	Water	6020	321630
280-133115-1 MSD	HVL-012220-14	Dissolved	Water	6020	321630
280-133115-1 DU	HVL-012220-14	Dissolved	Water	6020	321630

### Analysis Batch: 321835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-2	HVL-012220-15	Dissolved	Water	6020	321630
280-133115-3	HVL-012220-16	Dissolved	Water	6020	321630
280-133115-4	HVL-012220-17	Dissolved	Water	6020	321630
280-133115-5	HVL-012220-18	Dissolved	Water	6020	321630
280-133115-6	HVL-012220-19	Dissolved	Water	6020	321630
280-133115-7	HVL-012220-20	Dissolved	Water	6020	321630
280-133115-8	HVL-012220-21	Dissolved	Water	6020	321630
280-133115-9	HVL-012220-22	Dissolved	Water	6020	321630

### Prep Batch: 483883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-1	HVL-012220-14	Dissolved	Water	3005A	
280-133115-2	HVL-012220-15	Dissolved	Water	3005A	
280-133115-3	HVL-012220-16	Dissolved	Water	3005A	
280-133115-4	HVL-012220-17	Dissolved	Water	3005A	
280-133115-5	HVL-012220-18	Dissolved	Water	3005A	
280-133115-6	HVL-012220-19	Dissolved	Water	3005A	
280-133115-7	HVL-012220-20	Dissolved	Water	3005A	
280-133115-8	HVL-012220-21	Dissolved	Water	3005A	
280-133115-9	HVL-012220-22	Dissolved	Water	3005A	
MB 280-483883/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-483883/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-133115-1 MS	HVL-012220-14	Dissolved	Water	3005A	
280-133115-1 MSD	HVL-012220-14	Dissolved	Water	3005A	

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# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## Metals

### Prep Batch: 483884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-1	HVL-012220-14	Dissolved	Water	3005A	
280-133115-2	HVL-012220-15	Dissolved	Water	3005A	
280-133115-3	HVL-012220-16	Dissolved	Water	3005A	
280-133115-4	HVL-012220-17	Dissolved	Water	3005A	
280-133115-5	HVL-012220-18	Dissolved	Water	3005A	
280-133115-6	HVL-012220-19	Dissolved	Water	3005A	
280-133115-7	HVL-012220-20	Dissolved	Water	3005A	
280-133115-8	HVL-012220-21	Dissolved	Water	3005A	
280-133115-9	HVL-012220-22	Dissolved	Water	3005A	
MB 280-483884/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-483884/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-133115-2 MS	HVL-012220-15	Dissolved	Water	3005A	
280-133115-2 MSD	HVL-012220-15	Dissolved	Water	3005A	

### Analysis Batch: 484145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-1	HVL-012220-14	Dissolved	Water	6010B	483884
280-133115-2	HVL-012220-15	Dissolved	Water	6010B	483884
280-133115-3	HVL-012220-16	Dissolved	Water	6010B	483884
280-133115-4	HVL-012220-17	Dissolved	Water	6010B	483884
280-133115-5	HVL-012220-18	Dissolved	Water	6010B	483884
280-133115-6	HVL-012220-19	Dissolved	Water	6010B	483884
280-133115-7	HVL-012220-20	Dissolved	Water	6010B	483884
280-133115-8	HVL-012220-21	Dissolved	Water	6010B	483884
280-133115-9	HVL-012220-22	Dissolved	Water	6010B	483884
MB 280-483884/1-A	Method Blank	Total Recoverable	Water	6010B	483884
LCS 280-483884/2-A	Lab Control Sample	Total Recoverable	Water	6010B	483884
280-133115-2 MS	HVL-012220-15	Dissolved	Water	6010B	483884
280-133115-2 MSD	HVL-012220-15	Dissolved	Water	6010B	483884

### Analysis Batch: 484419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-1	HVL-012220-14	Dissolved	Water	6020	483883
280-133115-2	HVL-012220-15	Dissolved	Water	6020	483883
280-133115-3	HVL-012220-16	Dissolved	Water	6020	483883
280-133115-4	HVL-012220-17	Dissolved	Water	6020	483883
280-133115-5	HVL-012220-18	Dissolved	Water	6020	483883
280-133115-6	HVL-012220-19	Dissolved	Water	6020	483883
280-133115-7	HVL-012220-20	Dissolved	Water	6020	483883
280-133115-8	HVL-012220-21	Dissolved	Water	6020	483883
280-133115-9	HVL-012220-22	Dissolved	Water	6020	483883
MB 280-483883/1-A	Method Blank	Total Recoverable	Water	6020	483883
LCS 280-483883/2-A	Lab Control Sample	Total Recoverable	Water	6020	483883
280-133115-1 MS	HVL-012220-14	Dissolved	Water	6020	483883
280-133115-1 MSD	HVL-012220-14	Dissolved	Water	6020	483883

## General Chemistry

### Analysis Batch: 483773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-1	HVL-012220-14	Total/NA	Water	300.0	

Eurofins TestAmerica, Denver



# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## General Chemistry (Continued)

### Analysis Batch: 483773 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-2	HVL-012220-15	Total/NA	Water	300.0	
280-133115-3	HVL-012220-16	Total/NA	Water	300.0	
280-133115-4	HVL-012220-17	Total/NA	Water	300.0	
280-133115-5	HVL-012220-18	Total/NA	Water	300.0	
280-133115-6	HVL-012220-19	Total/NA	Water	300.0	
280-133115-7	HVL-012220-20	Total/NA	Water	300.0	
280-133115-8	HVL-012220-21	Total/NA	Water	300.0	
280-133115-9	HVL-012220-22	Total/NA	Water	300.0	
MB 280-483773/6	Method Blank	Total/NA	Water	300.0	
LCS 280-483773/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-483773/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-483773/3	Lab Control Sample	Total/NA	Water	300.0	
280-133115-5 MS	HVL-012220-18	Total/NA	Water	300.0	
280-133115-5 MSD	HVL-012220-18	Total/NA	Water	300.0	
280-133115-5 DU	HVL-012220-18	Total/NA	Water	300.0	

### Analysis Batch: 483895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-1	HVL-012220-14	Total/NA	Water	SM 2540C	
280-133115-2	HVL-012220-15	Total/NA	Water	SM 2540C	
280-133115-3	HVL-012220-16	Total/NA	Water	SM 2540C	
280-133115-4	HVL-012220-17	Total/NA	Water	SM 2540C	
280-133115-5	HVL-012220-18	Total/NA	Water	SM 2540C	
280-133115-6	HVL-012220-19	Total/NA	Water	SM 2540C	
280-133115-7	HVL-012220-20	Total/NA	Water	SM 2540C	
280-133115-8	HVL-012220-21	Total/NA	Water	SM 2540C	
280-133115-9	HVL-012220-22	Total/NA	Water	SM 2540C	
MB 280-483895/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-483895/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 280-483895/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
280-133095-E-1 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 483936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-1	HVL-012220-14	Total/NA	Water	SM 2540D	
280-133115-2	HVL-012220-15	Total/NA	Water	SM 2540D	
280-133115-3	HVL-012220-16	Total/NA	Water	SM 2540D	
280-133115-4	HVL-012220-17	Total/NA	Water	SM 2540D	
280-133115-5	HVL-012220-18	Total/NA	Water	SM 2540D	
280-133115-6	HVL-012220-19	Total/NA	Water	SM 2540D	
280-133115-7	HVL-012220-20	Total/NA	Water	SM 2540D	
280-133115-8	HVL-012220-21	Total/NA	Water	SM 2540D	
280-133115-9	HVL-012220-22	Total/NA	Water	SM 2540D	
MB 280-483936/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-483936/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-483936/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
280-133115-9 DU	HVL-012220-22	Total/NA	Water	SM 2540D	

### Analysis Batch: 484053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-1	HVL-012220-14	Total/NA	Water	SM 5310B	

Eurofins TestAmerica, Denver

# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

## General Chemistry (Continued)

### Analysis Batch: 484053 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-2	HVL-012220-15	Total/NA	Water	SM 5310B	
280-133115-3	HVL-012220-16	Total/NA	Water	SM 5310B	
280-133115-4	HVL-012220-17	Total/NA	Water	SM 5310B	
280-133115-5	HVL-012220-18	Total/NA	Water	SM 5310B	
280-133115-6	HVL-012220-19	Total/NA	Water	SM 5310B	
280-133115-7	HVL-012220-20	Total/NA	Water	SM 5310B	
280-133115-8	HVL-012220-21	Total/NA	Water	SM 5310B	
280-133115-9	HVL-012220-22	Total/NA	Water	SM 5310B	
MB 280-484053/36	Method Blank	Total/NA	Water	SM 5310B	
MB 280-484053/69	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-484053/35	Lab Control Sample	Total/NA	Water	SM 5310B	
LCS 280-484053/68	Lab Control Sample	Total/NA	Water	SM 5310B	
280-133115-7 MS	HVL-012220-20	Total/NA	Water	SM 5310B	
280-133115-7 MSD	HVL-012220-20	Total/NA	Water	SM 5310B	

### Analysis Batch: 484292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-1	HVL-012220-14	Total/NA	Water	SM 2320B	
280-133115-2	HVL-012220-15	Total/NA	Water	SM 2320B	
280-133115-3	HVL-012220-16	Total/NA	Water	SM 2320B	
280-133115-4	HVL-012220-17	Total/NA	Water	SM 2320B	
280-133115-5	HVL-012220-18	Total/NA	Water	SM 2320B	
280-133115-6	HVL-012220-19	Total/NA	Water	SM 2320B	
280-133115-7	HVL-012220-20	Total/NA	Water	SM 2320B	
280-133115-8	HVL-012220-21	Total/NA	Water	SM 2320B	
280-133115-9	HVL-012220-22	Total/NA	Water	SM 2320B	
MB 280-484292/57	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-484292/56	Lab Control Sample	Total/NA	Water	SM 2320B	
280-133052-B-12 DU	Duplicate	Total/NA	Water	SM 2320B	

### Analysis Batch: 484652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133115-1	HVL-012220-14	Total/NA	Water	350.1	
280-133115-2	HVL-012220-15	Total/NA	Water	350.1	
280-133115-3	HVL-012220-16	Total/NA	Water	350.1	
280-133115-4	HVL-012220-17	Total/NA	Water	350.1	
280-133115-5	HVL-012220-18	Total/NA	Water	350.1	
280-133115-6	HVL-012220-19	Total/NA	Water	350.1	
280-133115-7	HVL-012220-20	Total/NA	Water	350.1	
280-133115-8	HVL-012220-21	Total/NA	Water	350.1	
280-133115-9	HVL-012220-22	Total/NA	Water	350.1	
MB 280-484652/19	Method Blank	Total/NA	Water	350.1	
LCS 280-484652/18	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-484652/72	Lab Control Sample Dup	Total/NA	Water	350.1	
280-133115-5 MS	HVL-012220-18	Total/NA	Water	350.1	
280-133115-5 MSD	HVL-012220-18	Total/NA	Water	350.1	

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# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

**Client Sample ID: HVL-012220-14**

**Lab Sample ID: 280-133115-1**

Date Collected: 01/22/20 10:05

Matrix: Water

Date Received: 01/23/20 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 15:23	TAW	TAL DEN
Total/NA	Analysis	300.0	DL	5			459836	02/11/20 20:01	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483884	01/24/20 16:45	EC	TAL DEN
Dissolved	Analysis	6010B		1			484145	01/27/20 14:17	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483883	01/24/20 16:45	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 16:06	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321630	01/29/20 12:56	A1B	TAL SEA
Dissolved	Analysis	6020		5	50 mL	50 mL	321698	01/30/20 12:38	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483773	01/23/20 17:47	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484652	01/31/20 14:06	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 22:02	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483895	01/24/20 08:54	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483936	01/24/20 12:06	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/25/20 08:42	SGB	TAL DEN

**Client Sample ID: HVL-012220-15**

**Lab Sample ID: 280-133115-2**

Date Collected: 01/22/20 10:23

Matrix: Water

Date Received: 01/23/20 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 15:45	TAW	TAL DEN
Total/NA	Analysis	300.0	DL	5			459836	02/11/20 20:42	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483884	01/24/20 16:45	EC	TAL DEN
Dissolved	Analysis	6010B		1			484145	01/27/20 14:19	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483883	01/24/20 16:45	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 16:31	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321630	01/29/20 12:56	A1B	TAL SEA
Dissolved	Analysis	6020		1	50 mL	50 mL	321835	01/30/20 14:16	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483773	01/23/20 18:06	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484652	01/31/20 14:08	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 22:06	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483895	01/24/20 08:54	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483936	01/24/20 12:06	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/25/20 08:59	SGB	TAL DEN

**Client Sample ID: HVL-012220-16**

**Lab Sample ID: 280-133115-3**

Date Collected: 01/22/20 10:55

Matrix: Water

Date Received: 01/23/20 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 16:08	TAW	TAL DEN
Total/NA	Analysis	300.0	DL	10			459836	02/11/20 21:02	BLH	TAL SL

Eurofins TestAmerica, Denver

# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

**Client Sample ID: HVL-012220-16**

**Lab Sample ID: 280-133115-3**

Date Collected: 01/22/20 10:55

Matrix: Water

Date Received: 01/23/20 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	483884	01/24/20 16:45	EC	TAL DEN
Dissolved	Analysis	6010B		1			484145	01/27/20 14:39	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483883	01/24/20 16:45	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 16:34	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321630	01/29/20 12:56	A1B	TAL SEA
Dissolved	Analysis	6020		1	50 mL	50 mL	321835	01/30/20 14:19	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483773	01/23/20 18:25	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484652	01/31/20 14:10	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 22:11	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483895	01/24/20 08:54	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483936	01/24/20 12:06	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/25/20 09:18	SGB	TAL DEN

**Client Sample ID: HVL-012220-17**

**Lab Sample ID: 280-133115-4**

Date Collected: 01/22/20 11:23

Matrix: Water

Date Received: 01/23/20 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 16:31	TAW	TAL DEN
Total/NA	Analysis	300.0		1			459836	02/11/20 21:22	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483884	01/24/20 16:45	EC	TAL DEN
Dissolved	Analysis	6010B		1			484145	01/27/20 14:42	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483883	01/24/20 16:45	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 16:38	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321630	01/29/20 12:56	A1B	TAL SEA
Dissolved	Analysis	6020		1	50 mL	50 mL	321835	01/30/20 14:21	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483773	01/23/20 18:44	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484652	01/31/20 14:12	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 22:16	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483895	01/24/20 08:54	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483936	01/24/20 12:06	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/25/20 09:35	SGB	TAL DEN

**Client Sample ID: HVL-012220-18**

**Lab Sample ID: 280-133115-5**

Date Collected: 01/22/20 13:00

Matrix: Water

Date Received: 01/23/20 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 16:53	TAW	TAL DEN
Total/NA	Analysis	300.0	DL	10			459836	02/12/20 14:04	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483884	01/24/20 16:45	EC	TAL DEN
Dissolved	Analysis	6010B		1			484145	01/27/20 14:44	LMT	TAL DEN

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# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

**Client Sample ID: HVL-012220-18**

**Lab Sample ID: 280-133115-5**

Date Collected: 01/22/20 13:00

Matrix: Water

Date Received: 01/23/20 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	483883	01/24/20 16:45	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 16:41	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321630	01/29/20 12:56	A1B	TAL SEA
Dissolved	Analysis	6020		1	50 mL	50 mL	321835	01/30/20 14:24	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483773	01/23/20 19:21	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484652	01/31/20 14:14	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 22:21	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483895	01/24/20 08:54	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483936	01/24/20 12:06	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/25/20 10:20	SGB	TAL DEN

**Client Sample ID: HVL-012220-19**

**Lab Sample ID: 280-133115-6**

Date Collected: 01/22/20 12:43

Matrix: Water

Date Received: 01/23/20 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 17:16	TAW	TAL DEN
Total/NA	Analysis	300.0		1			459836	02/11/20 22:02	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483884	01/24/20 16:45	EC	TAL DEN
Dissolved	Analysis	6010B		1			484145	01/27/20 14:47	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483883	01/24/20 16:45	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 16:45	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321630	01/29/20 12:56	A1B	TAL SEA
Dissolved	Analysis	6020		1	50 mL	50 mL	321835	01/30/20 14:27	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483773	01/23/20 19:02	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484652	01/31/20 13:52	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 22:25	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483895	01/24/20 08:54	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483936	01/24/20 12:06	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/25/20 10:35	SGB	TAL DEN

**Client Sample ID: HVL-012220-20**

**Lab Sample ID: 280-133115-7**

Date Collected: 01/22/20 13:15

Matrix: Water

Date Received: 01/23/20 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484415	01/30/20 17:38	TAW	TAL DEN
Total/NA	Analysis	300.0	DL	5			459836	02/11/20 22:22	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483884	01/24/20 16:45	EC	TAL DEN
Dissolved	Analysis	6010B		1			484145	01/27/20 14:49	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483883	01/24/20 16:45	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 16:49	LMT	TAL DEN

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# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133115-1

**Client Sample ID: HVL-012220-20**

**Lab Sample ID: 280-133115-7**

Date Collected: 01/22/20 13:15

Matrix: Water

Date Received: 01/23/20 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	321630	01/29/20 12:56	A1B	TAL SEA
Dissolved	Analysis	6020		1	50 mL	50 mL	321835	01/30/20 14:29	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483773	01/23/20 21:13	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484652	01/31/20 14:20	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 22:50	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483895	01/24/20 08:54	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483936	01/24/20 12:06	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/25/20 11:40	SGB	TAL DEN

**Client Sample ID: HVL-012220-21**

**Lab Sample ID: 280-133115-8**

Date Collected: 01/22/20 13:27

Matrix: Water

Date Received: 01/23/20 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484448	01/30/20 17:25	GPM	TAL DEN
Total/NA	Analysis	300.0	DL	5			459836	02/11/20 22:42	BLH	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483884	01/24/20 16:45	EC	TAL DEN
Dissolved	Analysis	6010B		1			484145	01/27/20 14:52	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483883	01/24/20 16:45	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 16:52	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321630	01/29/20 12:56	A1B	TAL SEA
Dissolved	Analysis	6020		1	50 mL	50 mL	321835	01/30/20 14:32	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483773	01/23/20 21:32	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484652	01/31/20 14:22	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 22:35	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483895	01/24/20 08:54	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483936	01/24/20 12:06	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/25/20 12:26	SGB	TAL DEN

**Client Sample ID: HVL-012220-22**

**Lab Sample ID: 280-133115-9**

Date Collected: 01/22/20 14:38

Matrix: Water

Date Received: 01/23/20 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484448	01/30/20 17:47	GPM	TAL DEN
Total/NA	Analysis	300.0	DL	10			460294	02/14/20 07:12	JCB	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	483884	01/24/20 16:45	EC	TAL DEN
Dissolved	Analysis	6010B		1			484145	01/27/20 14:55	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	483883	01/24/20 16:45	EC	TAL DEN
Dissolved	Analysis	6020		1			484419	01/29/20 16:56	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321630	01/29/20 12:56	A1B	TAL SEA
Dissolved	Analysis	6020		1	50 mL	50 mL	321835	01/30/20 14:34	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483773	01/23/20 21:51	JAP	TAL DEN

Eurofins TestAmerica, Denver

# Lab Chronicle

Client: SCS Engineers  
 Project/Site: Hidden Valley LF

Job ID: 280-133115-1

**Client Sample ID: HVL-012220-22**

**Lab Sample ID: 280-133115-9**

Date Collected: 01/22/20 14:38

Matrix: Water

Date Received: 01/23/20 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	484652	01/31/20 14:24	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484292	01/28/20 22:30	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	483895	01/24/20 08:54	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	483936	01/24/20 12:06	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484053	01/25/20 12:41	SGB	TAL DEN

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 280-133115-10**

Date Collected: 01/22/20 14:38

Matrix: Water

Date Received: 01/23/20 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484448	01/30/20 18:08	GPM	TAL DEN

**Laboratory References:**

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

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

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566





**TestAmerica Denver**  
 4955 Yarrow Street  
 Arvada, CO 80002  
 Phone (303) 736-0100 Fax (303) 431-7171

**Chain of Custody Record**

**Denver Test America**  
 THE LEADER IN ENVIRONMENTAL TESTING

**Client Information**  
 Client Contact: Sam Graber  
 Company: SCS Engineers  
 Address: 2405 140th Avenue NE, Suite 107  
 City: Bellevue  
 State/Zip: WA, 98005-1877  
 Phone: 425-766-3362  
 Email: SGrabr@scsengineers.com  
 Project Name: Hidden Valley Landfill  
 Site:   
 PO #:   
 Purchase Order not required  
 WO #:   
 Project #: 28003580-Quarterly Groundwater Wells  
 SSO#:   
 Sampler: Travis Bernard / Sam Graber  
 Phone: (425) 971-9182  
 Lab P/V: Sara, Betsy A  
 E-Mail: betsy.sara@lestamainc.com  
 Carrier Tracking No(s): 8156 5423 0137  
 8156 5423 0126  
 Page: 1 of 1  
 Job #: 0422002101  
 COC No: 280-21691-6019.1

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Weather, Transfer, Containment)	Rapid Filtered Sample (Yes or No)		8260B		Dissolved Metals (60108/6020)		Dissolved Iron (TA Seattle)		TDS/Alkal/NO3(C)		Cl/SO4 (TA St Louis)		Ammonia/TOC		TSS		Special Instructions/Note:
					A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D	
HVL-012220-13	1-22-20	840	G	AA																	Short Hold: NO3(1C)
HVL-012220-14	1/22/20	1005	G	W																	
HVL-012220-15		1023																			
HVL-012220-16		1055																			
HVL-012220-17		1123																			
HVL-012220-18		1300																			
HVL-012220-19		1243																			
HVL-012220-20		1315																			
HVL-012220-21		1327																			
HVL-012220-22		1438																			
TRIP Blank																					

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

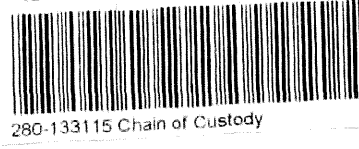
**Deliverable Requested:** I, II, III, IV, Other (specify)

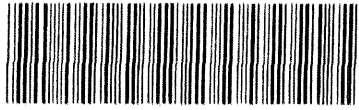
**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

**Special Instructions/QC Requirements:**

**Empty Kit Relinquished by:** \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: 1/22/20 1730 Company: SCS  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

**Custody Seal No.:** 1251257, 1251261, 1251260  
 Custody Seal Intact:  Yes  No  
 Cooler Temperature(s) °C and Other Remarks: 0.5, 1.8, -0.1, CF+0.9, 1R9 1/23/2020  
 Received by: \_\_\_\_\_ Date/Time: 1/23/2020 0905 Company: ETA-DEM  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_





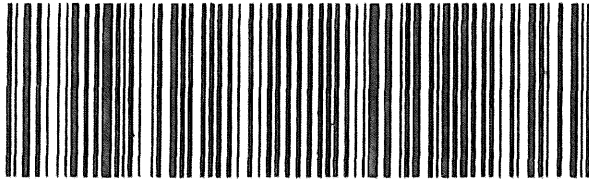
280-133115 Waybill

TRK# 8156 5923 0137  
0667

THU - 23 JAN 10:30A  
PRIORITY OVERNIGHT

**XH WHHA**

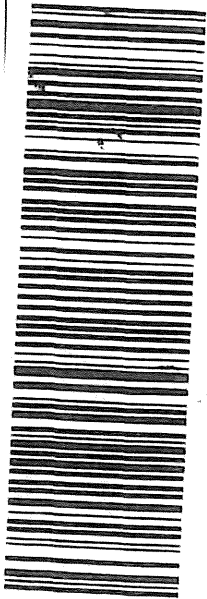
AHS  
80002  
CO-US DEN



Recipient's Name Please print.  
Phone Number

Do Not Lift Using This Tag

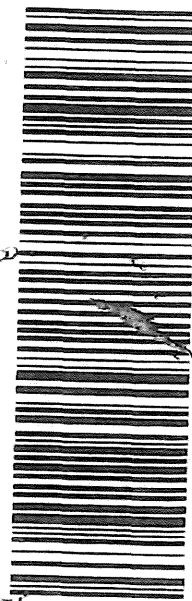
Do Not Lift Using This Tag



TRK# 8156 5923 0126  
0667  
**XH WHHA**  
THU - 23 JAN 10:30A  
PRIORITY OVERNIGHT  
AHS  
80002  
CO-US DEN

Do Not Lift Using This Tag

Phone Number  
Recipient's Name Please print.



TRK# 8156 5923 0160  
0667  
**XH WHHA**  
THU - 23 JAN 10:30A  
PRIORITY OVERNIGHT  
AHS  
80002  
CO-US DEN

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- 11
- 12
- 13

**Chain of Custody Record**



Client Contact: **Client Information (Sub Contract Lab)**  
 Shipping/Receiving  
 Company: TestAmerica Laboratories, Inc.  
 Address: 13715 Rider Trail North, Earth City, MO, 63045  
 Phone: 314-298-8566(Tel) 314-298-8757(Fax)  
 Email: betsy.sara@lestamericainc.com  
 Lab PIV: Sara, Betsy A  
 E-Mail: betsy.sara@lestamericainc.com  
 State of Origin: Washington  
 Carrier Tracking No(S): 280-513568.1  
 Page: Page 1 of 1  
 Job #: 280-133115-1

Accreditations Required (See note): State Program - Washington  
 Due Date Requested: 2/11/2020  
 TAT Requested (days):  
 Project #: 28003580  
 SSO#W#

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, On-site/Oil, etc.)	Field Filtered Sample (Yes or No)	Perform M/MSD (Yes or No)	300 ORGM, 28D/ (MOD) Sulfate/Chloride (TA SI)	Preservation Code:	Special Instructions/Note:
HVL-012220-14 (280-133115-1)	1/22/20	10:05 Pacific	Water	Water	X	X			
HVL-012220-15 (280-133115-2)	1/22/20	10:23 Pacific	Water	Water	X	X			
HVL-012220-16 (280-133115-3)	1/22/20	10:55 Pacific	Water	Water	X	X			
HVL-012220-17 (280-133115-4)	1/22/20	11:23 Pacific	Water	Water	X	X			
HVL-012220-18 (280-133115-5)	1/22/20	13:00 Pacific	Water	Water	X	X			
HVL-012220-19 (280-133115-6)	1/22/20	12:43 Pacific	Water	Water	X	X			
HVL-012220-20 (280-133115-7)	1/22/20	13:15 Pacific	Water	Water	X	X			
HVL-012220-21 (280-133115-8)	1/22/20	13:27 Pacific	Water	Water	X	X			
HVL-012220-22 (280-133115-9)	1/22/20	14:38 Pacific	Water	Water	X	X			

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

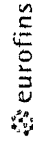
**Possible Hazard Identification**  
 Unconfirmed  
 Deliverable Requested: I, II, III, IV, Other (specify) \_\_\_\_\_  
 Primary Deliverable Rank: 2  
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months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

Emply Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: 1/24/2020 14:25  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Custody Seals Intact: \_\_\_\_\_ (Custody Seal No.: \_\_\_\_\_)  
 Δ Yes Δ No  
 Cooler Temperature(s) °C and Other Remarks:

Received by:	Date/Time:	Company:
<i>[Signature]</i>	1-25-20 11:10	ETA/STC
_____	_____	_____
_____	_____	_____

**Eurofins TestAmerica, Denver**  
 4955 Yarrow Street  
 Arvada, CO 80002  
 Phone: 303-736-0100 Fax: 303-431-7171

**Chain of Custody Record**



Environment Testing  
 TestAmerica



**Client Information (Sub Contract Lab)**

Company: TestAmerica Laboratories, Inc.  
 Address: 5755 8th Street East, Tacoma, WA, 98424  
 Phone: 253-922-2310(Tel) 253-922-5047(Fax)  
 Email: betsy.sara@testamericainc.com

Lab Pk: Sara, Betsy A  
 E-Mail: betsy.sara@testamericainc.com  
 State of Origin: Washington

Carrier Tracking No(s): 280-513567.1  
 Page: Page 1 of 1  
 Job #: 280-133115-1

**Analysis Requested**

Accreditations Required (See note): State Program - Washington

Due Date Requested: 2/10/2020  
 TAT Requested (days):

PO #: 280035680  
 WO #:  
 Project #: 280035680  
 SSOW#:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Overstabil, etc.)	6020/FIELD_FLTRD (MOD) Iron	Frigid Filtered Sample (Yes or No)	Perform MSMSD (Yes or No)	Total Number of Containers	Special Instructions/Note:
HVL-012220-14 (280-133115-1)	1/22/20	10:05 Pacific	Water	Water	X	X	X	1	
HVL-012220-15 (280-133115-2)	1/22/20	10:23 Pacific	Water	Water	X	X	X	1	
HVL-012220-16 (280-133115-3)	1/22/20	10:55 Pacific	Water	Water	X	X	X	1	
HVL-012220-17 (280-133115-4)	1/22/20	11:23 Pacific	Water	Water	X	X	X	1	
HVL-012220-18 (280-133115-5)	1/22/20	13:00 Pacific	Water	Water	X	X	X	1	
HVL-012220-19 (280-133115-6)	1/22/20	12:43 Pacific	Water	Water	X	X	X	1	
HVL-012220-20 (280-133115-7)	1/22/20	13:15 Pacific	Water	Water	X	X	X	1	
HVL-012220-21 (280-133115-8)	1/22/20	13:27 Pacific	Water	Water	X	X	X	1	
HVL-012220-22 (280-133115-9)	1/22/20	14:38 Pacific	Water	Water	X	X	X	1	

**Possible Hazard Identification**

Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by: *Dul* Date: 1/24/2020 Time: 14:00 Company: \_\_\_\_\_

Relinquished by: *Keythala* Date: 1-15-20 Time: 0930 Company: *Thaco*

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seals Intact:  Yes  No  No  
 Custody Seal No.: \_\_\_\_\_ Cooler Temperature(s) °C and Other Remarks: 7:16.3/11.6

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

## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133115-1

**Login Number: 133115**

**List Source: Eurofins TestAmerica, Denver**

**List Number: 1**

**Creator: Awolaja, Oluwademilade A**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	



## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133115-1

**Login Number: 133115**  
**List Number: 3**  
**Creator: Blankinship, Tom X**

**List Source: Eurofins TestAmerica, Seattle**  
**List Creation: 01/27/20 10:07 AM**

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



## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133115-1

**Login Number: 133115**  
**List Number: 4**  
**Creator: Blankinship, Tom X**

**List Source: Eurofins TestAmerica, Seattle**  
**List Creation: 01/27/20 10:10 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	11.3°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	False	V'd @ TA-Den
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133115-1

**Login Number: 133115**

**List Number: 2**

**Creator: Harris, Lorin C**

**List Source: Eurofins TestAmerica, St. Louis**

**List Creation: 01/25/20 02:14 PM**

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







Environment Testing  
TestAmerica



## ANALYTICAL REPORT

Eurofins TestAmerica, Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Tel: (303)736-0100

Corliss  
Trip Blank

Laboratory Job ID: 280-133116-1  
Client Project/Site: Hidden Valley LF

For:  
SCS Engineers  
2405 140th Avenue NE  
Suite 107  
Bellevue, Washington 98005-1877

Attn: Mr. Kevin Lakey

Authorized for release by:  
2/18/2020 11:27:40 AM  
Janice Collins, Project Management Assistant I  
(303)736-0100  
janice.collins@testamericainc.com

Designee for  
Betsy Sara, Project Manager II  
(303)736-0189  
betsy.sara@testamericainc.com

### LINKS

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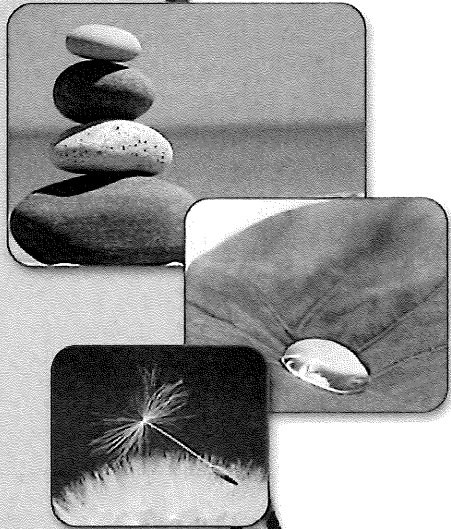
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*Results relate only to the items tested and the sample(s) as received by the laboratory.*



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# Definitions/Glossary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.

### Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

### General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

## Glossary

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

# Case Narrative

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

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**Job ID: 280-133116-1**

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**Laboratory: Eurofins TestAmerica, Denver**

## Narrative

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### CASE NARRATIVE

**Client: SCS Engineers**

**Project: Hidden Valley LF**

**Report Number: 280-133116-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

#### Sample Receiving

The samples were received on 01/23/2020; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 2.7 C.

#### Holding Times

All holding times were within established control limits.

#### Method Blanks

Carbon disulfide Method 8260B was detected in the Method Blank above the project established reporting limit, however, the requested reporting limit for Carbon disulfide is below TestAmerica Denver's standard reporting limit and, therefore, no corrective action has been taken for this anomaly. It must be noted that results reported below TestAmerica Denver's standard reporting limits may result in false positive/false negative results, less accurate quantitation and potential misidentification at the lower concentrations.

All other Method Blanks were within established control limits.

#### Laboratory Control Samples (LCS)

All Laboratory Control Samples were within established control limits.

#### Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

The Matrix Spike and Matrix Spike Duplicate performed on a sample from another client exhibited recoveries outside control limits for 2-Butanone (MEK), Bromomethane and Iodomethane Method 8260B. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

The percent recoveries and/or relative percent difference of the MS/MSD performed on a sample from another client were outside control limits for Total Manganese Method 6020 because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

The Matrix Spike and Matrix Spike Duplicate performed on a sample from another client exhibited recoveries outside control limits for COD Method 410.4. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this

# Case Narrative

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

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## Job ID: 280-133116-1 (Continued)

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### Laboratory: Eurofins TestAmerica, Denver (Continued)

anomaly may be due to matrix interference and no corrective action was taken.

### General Comments

The analysis for Chloride and Sulfate Method 300.0 was performed at the TestAmerica's St. Louis Laboratory.  
13715 Rider Trail North  
Earth City, MO 63045  
Phone: 314-298-8566

The analysis for Iron Method 6020 was performed at the TestAmerica's Seattle Laboratory.  
5755 8th Street East  
Tacoma, WA 98424  
Phone: 253-922-2310



# Detection Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

**Client Sample ID: HVL-012220-13**

**Corliss**

**Lab Sample ID: 280-133116-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	0.57	B	0.50		ug/L	1		8260B	Total/NA
Chloride - DL	5.7		0.60		mg/L	10		300.0	Total/NA
Sulfate - DL	13		0.50		mg/L	10		300.0	Total/NA
Manganese, Total	0.0020		0.0010		mg/L	1		6020	Total/NA
Nitrate as N	1.3		0.20		mg/L	1		300.0	Total/NA
Chemical Oxygen Demand	27		8.7		mg/L	1		410.4	Total/NA
Color	5.0		5.0		PCU	1		SM 2120B	Total/NA

**Client Sample ID: Trip Blank**

**Lab Sample ID: 280-133116-2**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

## Method Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN
300.0	Anions, Ion Chromatography	MCAWW	TAL SL
6020	Metals (ICP/MS)	SW846	TAL DEN
6020	Metals (ICP/MS)	SW846	TAL SEA
300.0	Anions, Ion Chromatography	MCAWW	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
410.4	COD	MCAWW	TAL DEN
SM 2120B	Color, Colorimetric	SM	TAL DEN
SM 5310B	Organic Carbon, Total (TOC)	SM	TAL DEN
3010A	Preparation, Total Metals	SW846	TAL SEA
3020A	Preparation, Total Metals	SW846	TAL DEN
5030B	Purge and Trap	SW846	TAL DEN

### Protocol References:

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

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

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

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

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# Sample Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-133116-1	HVL-012220-13	Water	01/22/20 09:20	01/23/20 09:05	
280-133116-2	Trip Blank	Water	01/22/20 09:20	01/23/20 09:05	





# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

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

Client Sample ID: HVL-012220-13

Date Collected: 01/22/20 09:20

Date Received: 01/23/20 09:05

Lab Sample ID: 280-133116-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 18:29	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 18:29	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 18:29	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 18:29	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 18:29	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 18:29	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 18:29	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 18:29	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 18:29	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 18:29	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 18:29	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 18:29	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 18:29	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 18:29	1
2-Hexanone	ND		5.0		ug/L			01/30/20 18:29	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 18:29	1
Acetone	ND		10		ug/L			01/30/20 18:29	1
Acrylonitrile	ND		20		ug/L			01/30/20 18:29	1
Benzene	ND		0.50		ug/L			01/30/20 18:29	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 18:29	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 18:29	1
Bromoform	ND		0.50		ug/L			01/30/20 18:29	1
Bromomethane	ND		0.50		ug/L			01/30/20 18:29	1
<b>Carbon disulfide</b>	<b>0.57</b>	<b>B</b>	0.50		ug/L			01/30/20 18:29	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 18:29	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 18:29	1
Chloroethane	ND		0.50		ug/L			01/30/20 18:29	1
Chloroform	ND		0.50		ug/L			01/30/20 18:29	1
Chloromethane	ND		0.50		ug/L			01/30/20 18:29	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 18:29	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 18:29	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 18:29	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 18:29	1
Dibromomethane	ND		0.50		ug/L			01/30/20 18:29	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 18:29	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 18:29	1
Iodomethane	ND		1.0		ug/L			01/30/20 18:29	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 18:29	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 18:29	1
o-Xylene	ND		0.50		ug/L			01/30/20 18:29	1
Styrene	ND		0.50		ug/L			01/30/20 18:29	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 18:29	1
Toluene	ND		0.50		ug/L			01/30/20 18:29	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 18:29	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 18:29	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 18:29	1
Trichloroethene	ND		0.50		ug/L			01/30/20 18:29	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 18:29	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 18:29	1

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012220-13						Lab Sample ID: 280-133116-1			
Date Collected: 01/22/20 09:20						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.50		ug/L			01/30/20 18:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		70 - 127					01/30/20 18:29	1
4-Bromofluorobenzene (Surr)	102		78 - 120					01/30/20 18:29	1
Dibromofluoromethane (Surr)	95		77 - 120					01/30/20 18:29	1
Toluene-d8 (Surr)	107		80 - 125					01/30/20 18:29	1

Client Sample ID: Trip Blank						Lab Sample ID: 280-133116-2			
Date Collected: 01/22/20 09:20						Matrix: Water			
Date Received: 01/23/20 09:05									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 18:50	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 18:50	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 18:50	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 18:50	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 18:50	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 18:50	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 18:50	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 18:50	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 18:50	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 18:50	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 18:50	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 18:50	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 18:50	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 18:50	1
2-Hexanone	ND		5.0		ug/L			01/30/20 18:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 18:50	1
Acetone	ND		10		ug/L			01/30/20 18:50	1
Acrylonitrile	ND		20		ug/L			01/30/20 18:50	1
Benzene	ND		0.50		ug/L			01/30/20 18:50	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 18:50	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 18:50	1
Bromoform	ND		0.50		ug/L			01/30/20 18:50	1
Bromomethane	ND		0.50		ug/L			01/30/20 18:50	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 18:50	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 18:50	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 18:50	1
Chloroethane	ND		0.50		ug/L			01/30/20 18:50	1
Chloroform	ND		0.50		ug/L			01/30/20 18:50	1
Chloromethane	ND		0.50		ug/L			01/30/20 18:50	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 18:50	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 18:50	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 18:50	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 18:50	1
Dibromomethane	ND		0.50		ug/L			01/30/20 18:50	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 18:50	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 18:50	1
Iodomethane	ND		1.0		ug/L			01/30/20 18:50	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 18:50	1

Eurofins TestAmerica, Denver

## Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: Trip Blank							Lab Sample ID: 280-133116-2			
Date Collected: 01/22/20 09:20							Matrix: Water			
Date Received: 01/23/20 09:05										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 18:50	1	
o-Xylene	ND		0.50		ug/L			01/30/20 18:50	1	
Styrene	ND		0.50		ug/L			01/30/20 18:50	1	
Tetrachloroethene	ND		0.50		ug/L			01/30/20 18:50	1	
Toluene	ND		0.50		ug/L			01/30/20 18:50	1	
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 18:50	1	
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 18:50	1	
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 18:50	1	
Trichloroethene	ND		0.50		ug/L			01/30/20 18:50	1	
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 18:50	1	
Vinyl acetate	ND		3.0		ug/L			01/30/20 18:50	1	
Vinyl chloride	ND		0.50		ug/L			01/30/20 18:50	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	89		70 - 127					01/30/20 18:50	1	
4-Bromofluorobenzene (Surr)	99		78 - 120					01/30/20 18:50	1	
Dibromofluoromethane (Surr)	95		77 - 120					01/30/20 18:50	1	
Toluene-d8 (Surr)	107		80 - 125					01/30/20 18:50	1	

### Method: 300.0 - Anions, Ion Chromatography - DL

Client Sample ID: HVL-012220-13							Lab Sample ID: 280-133116-1			
Date Collected: 01/22/20 09:20							Matrix: Water			
Date Received: 01/23/20 09:05										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	5.7		0.60		mg/L			02/14/20 09:05	10	
Sulfate	13		0.50		mg/L			02/14/20 09:05	10	

### Method: 6020 - Metals (ICP/MS)

Client Sample ID: HVL-012220-13							Lab Sample ID: 280-133116-1			
Date Collected: 01/22/20 09:20							Matrix: Water			
Date Received: 01/23/20 09:05										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic, Total	ND		0.0050		mg/L		01/27/20 08:40	01/27/20 17:27	1	
Iron, Total	ND		0.18		mg/L		01/29/20 15:23	01/30/20 18:54	5	
Manganese, Total	0.0020		0.0010		mg/L		01/27/20 08:40	01/27/20 17:27	1	
Zinc, Total	ND		0.010		mg/L		01/27/20 08:40	01/27/20 17:27	1	

### General Chemistry

Client Sample ID: HVL-012220-13							Lab Sample ID: 280-133116-1			
Date Collected: 01/22/20 09:20							Matrix: Water			
Date Received: 01/23/20 09:05										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Nitrate as N	1.3		0.20		mg/L			01/23/20 17:29	1	
Nitrite as N	ND		0.50		mg/L			01/23/20 17:29	1	
Ammonia	ND		0.10		mg/L			01/31/20 14:38	1	
Chemical Oxygen Demand	27		8.7		mg/L			01/29/20 12:54	1	
Total Organic Carbon - Quad	ND		1.0		mg/L			01/27/20 21:52	1	

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

## General Chemistry (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color	5.0		5.0		PCU			01/23/20 22:33	1



# Surrogate Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

**Matrix: Water**

**Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (70-127)	BFB (78-120)	DBFM (77-120)	TOL (80-125)
280-133116-1	HVL-012220-13	89	102	95	107
280-133116-2	Trip Blank	89	99	95	107
280-133267-B-1 MS	Matrix Spike	89	107	98	106
280-133267-C-1 MSD	Matrix Spike Duplicate	89	107	99	105
LCS 280-484448/4	Lab Control Sample	89	106	98	106
MB 280-484448/8	Method Blank	88	102	94	109

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 12:07	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 12:07	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 12:07	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 12:07	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 12:07	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 12:07	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 12:07	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 12:07	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 12:07	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 12:07	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 12:07	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 12:07	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 12:07	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 12:07	1
2-Hexanone	ND		5.0		ug/L			01/30/20 12:07	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 12:07	1
Acetone	ND		10		ug/L			01/30/20 12:07	1
Acrylonitrile	ND		20		ug/L			01/30/20 12:07	1
Benzene	ND		0.50		ug/L			01/30/20 12:07	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 12:07	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 12:07	1
Bromoform	ND		0.50		ug/L			01/30/20 12:07	1
Bromomethane	ND		0.50		ug/L			01/30/20 12:07	1
Carbon disulfide	0.599		0.50		ug/L			01/30/20 12:07	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 12:07	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 12:07	1
Chloroethane	ND		0.50		ug/L			01/30/20 12:07	1
Chloroform	ND		0.50		ug/L			01/30/20 12:07	1
Chloromethane	ND		0.50		ug/L			01/30/20 12:07	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 12:07	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 12:07	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 12:07	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 12:07	1
Dibromomethane	ND		0.50		ug/L			01/30/20 12:07	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 12:07	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 12:07	1
Iodomethane	ND		1.0		ug/L			01/30/20 12:07	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 12:07	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 12:07	1
o-Xylene	ND		0.50		ug/L			01/30/20 12:07	1
Styrene	ND		0.50		ug/L			01/30/20 12:07	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 12:07	1
Toluene	ND		0.50		ug/L			01/30/20 12:07	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 12:07	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 12:07	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 12:07	1
Trichloroethene	ND		0.50		ug/L			01/30/20 12:07	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 12:07	1

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

Eurofins TestAmerica, Denver

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-484448/8				Client Sample ID: Method Blank					
Matrix: Water				Prep Type: Total/NA					
Analysis Batch: 484448									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl acetate	ND		3.0		ug/L			01/30/20 12:07	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 12:07	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	88		70 - 127				01/30/20 12:07	1	
4-Bromofluorobenzene (Surr)	102		78 - 120				01/30/20 12:07	1	
Dibromofluoromethane (Surr)	94		77 - 120				01/30/20 12:07	1	
Toluene-d8 (Surr)	109		80 - 125				01/30/20 12:07	1	

Lab Sample ID: LCS 280-484448/4				Client Sample ID: Lab Control Sample					
Matrix: Water				Prep Type: Total/NA					
Analysis Batch: 484448									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1,1,2-Tetrachloroethane	25.0	21.9		ug/L		88	65 - 135		
1,1,1-Trichloroethane	25.0	21.8		ug/L		87	65 - 135		
1,1,2,2-Tetrachloroethane	25.0	25.8		ug/L		103	58 - 135		
1,1,2-Trichloroethane	25.0	22.5		ug/L		90	64 - 135		
1,1-Dichloroethane	25.0	23.7		ug/L		95	65 - 135		
1,1-Dichloroethene	25.0	25.2		ug/L		101	65 - 136		
1,2,3-Trichloropropane	25.0	22.8		ug/L		91	65 - 135		
1,2-Dibromo-3-Chloropropane	25.0	19.9		ug/L		80	57 - 135		
1,2-Dibromoethane	25.0	23.6		ug/L		95	65 - 135		
1,2-Dichlorobenzene	25.0	20.8		ug/L		83	65 - 135		
1,2-Dichloroethane	25.0	18.7		ug/L		75	65 - 135		
1,2-Dichloropropane	25.0	23.5		ug/L		94	64 - 135		
1,4-Dichlorobenzene	25.0	23.0		ug/L		92	65 - 135		
2-Butanone (MEK)	100	87.9		ug/L		88	44 - 177		
2-Hexanone	100	88.9		ug/L		89	57 - 139		
4-Methyl-2-pentanone (MIBK)	100	95.3		ug/L		95	60 - 150		
Acetone	100	77.3		ug/L		77	39 - 156		
Acrylonitrile	250	238		ug/L		95	56 - 135		
Benzene	25.0	22.6		ug/L		90	65 - 135		
Bromochloromethane	25.0	21.2		ug/L		85	65 - 135		
Bromodichloromethane	25.0	21.2		ug/L		85	65 - 135		
Bromoform	25.0	20.2		ug/L		81	62 - 135		
Bromomethane	25.0	30.3		ug/L		121	45 - 135		
Carbon disulfide	25.0	26.0		ug/L		104	55 - 143		
Carbon tetrachloride	25.0	21.2		ug/L		85	65 - 135		
Chlorobenzene	25.0	21.3		ug/L		85	65 - 135		
Chloroethane	25.0	24.9		ug/L		100	46 - 136		
Chloroform	25.0	21.7		ug/L		87	65 - 135		
Chloromethane	25.0	19.7		ug/L		79	34 - 145		
cis-1,2-Dichloroethene	25.0	22.5		ug/L		90	65 - 135		
cis-1,3-Dichloropropene	25.0	23.6		ug/L		94	65 - 135		
Dibromochloromethane	25.0	22.0		ug/L		88	65 - 135		
Dibromomethane	25.0	21.0		ug/L		84	65 - 135		
Dichlorodifluoromethane	25.0	15.9		ug/L		64	43 - 142		

Eurofins TestAmerica, Denver

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 280-484448/4**  
**Matrix: Water**  
**Analysis Batch: 484448**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	25.0	22.2		ug/L		89	65 - 135
Iodomethane	25.0	30.1		ug/L		120	65 - 142
Methylene Chloride	25.0	22.1		ug/L		88	54 - 141
m-Xylene & p-Xylene	25.0	22.2		ug/L		89	65 - 135
o-Xylene	25.0	21.7		ug/L		87	65 - 135
Styrene	25.0	23.0		ug/L		92	65 - 135
Tetrachloroethene	25.0	23.0		ug/L		92	65 - 135
Toluene	25.0	22.1		ug/L		89	65 - 135
trans-1,2-Dichloroethene	25.0	22.1		ug/L		88	65 - 135
trans-1,3-Dichloropropene	25.0	21.5		ug/L		86	65 - 135
trans-1,4-Dichloro-2-butene	25.0	22.6		ug/L		91	53 - 135
Trichloroethene	25.0	21.6		ug/L		86	65 - 135
Trichlorofluoromethane	25.0	20.6		ug/L		82	53 - 137
Vinyl acetate	50.0	43.5		ug/L		87	11 - 187
Vinyl chloride	25.0	21.7		ug/L		87	40 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		70 - 127
4-Bromofluorobenzene (Surr)	106		78 - 120
Dibromofluoromethane (Surr)	98		77 - 120
Toluene-d8 (Surr)	106		80 - 125

**Lab Sample ID: 280-133267-B-1 MS**  
**Matrix: Water**  
**Analysis Batch: 484448**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		25.0	27.8		ug/L		111	65 - 135
1,1,1-Trichloroethane	ND		25.0	28.6		ug/L		114	65 - 135
1,1,2,2-Tetrachloroethane	ND		25.0	31.3		ug/L		125	58 - 135
1,1,2-Trichloroethane	ND		25.0	27.5		ug/L		110	64 - 135
1,1-Dichloroethane	ND		25.0	30.6		ug/L		122	65 - 135
1,1-Dichloroethene	ND		25.0	32.9		ug/L		132	65 - 136
1,2,3-Trichloropropane	ND		25.0	27.7		ug/L		111	65 - 135
1,2-Dibromo-3-Chloropropane	ND		25.0	25.5		ug/L		102	57 - 135
1,2-Dibromoethane	ND		25.0	29.1		ug/L		116	65 - 135
1,2-Dichlorobenzene	ND		25.0	25.0		ug/L		100	65 - 135
1,2-Dichloroethane	ND		25.0	23.1		ug/L		92	65 - 135
1,2-Dichloropropane	ND		25.0	29.7		ug/L		119	64 - 135
1,4-Dichlorobenzene	ND		25.0	28.1		ug/L		112	65 - 135
2-Butanone (MEK)	ND	F1	100	ND	F1	ug/L		0	44 - 177
2-Hexanone	ND		100	109		ug/L		109	57 - 139
4-Methyl-2-pentanone (MIBK)	ND		100	117		ug/L		117	60 - 150
Acetone	ND		100	91.7		ug/L		92	39 - 156
Acrylonitrile	ND		250	286		ug/L		115	56 - 135
Benzene	ND		25.0	28.2		ug/L		113	65 - 135
Bromochloromethane	ND		25.0	26.0		ug/L		104	65 - 135
Bromodichloromethane	ND		25.0	26.8		ug/L		107	65 - 135

Eurofins TestAmerica, Denver



# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-133267-B-1 MS

Matrix: Water

Analysis Batch: 484448

Client Sample ID: Matrix Spike  
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Bromoform	ND		25.0	25.6		ug/L		102	62 - 135	
Bromomethane	ND	F1	25.0	35.4	F1	ug/L		141	45 - 135	
Carbon disulfide	0.57	B	25.0	35.7		ug/L		141	55 - 143	
Carbon tetrachloride	ND		25.0	27.3		ug/L		109	65 - 135	
Chlorobenzene	ND		25.0	26.7		ug/L		107	65 - 135	
Chloroethane	ND		25.0	28.6		ug/L		114	46 - 136	
Chloroform	ND		25.0	27.3		ug/L		109	65 - 135	
Chloromethane	ND		25.0	23.6		ug/L		94	34 - 145	
cis-1,2-Dichloroethene	23		25.0	52.0		ug/L		118	65 - 135	
cis-1,3-Dichloropropene	ND		25.0	30.4		ug/L		122	65 - 135	
Dibromochloromethane	ND		25.0	27.2		ug/L		109	65 - 135	
Dibromomethane	ND		25.0	25.4		ug/L		101	65 - 135	
Dichlorodifluoromethane	ND		25.0	18.9		ug/L		76	43 - 142	
Ethylbenzene	ND		25.0	27.7		ug/L		111	65 - 135	
Iodomethane	ND	F1	25.0	35.7	F1	ug/L		143	65 - 142	
Methylene Chloride	ND		25.0	27.2		ug/L		109	54 - 141	
m-Xylene & p-Xylene	ND		25.0	27.7		ug/L		111	65 - 135	
o-Xylene	ND		25.0	27.2		ug/L		109	65 - 135	
Styrene	ND		25.0	29.0		ug/L		116	65 - 135	
Tetrachloroethene	ND		25.0	29.0		ug/L		116	65 - 135	
Toluene	ND		25.0	27.4		ug/L		110	65 - 135	
trans-1,2-Dichloroethene	ND		25.0	28.3		ug/L		113	65 - 135	
trans-1,3-Dichloropropene	ND		25.0	29.0		ug/L		116	65 - 135	
trans-1,4-Dichloro-2-butene	ND		25.0	25.9		ug/L		104	53 - 135	
Trichloroethene	5.5		25.0	32.9		ug/L		109	65 - 135	
Trichlorofluoromethane	ND		25.0	24.0		ug/L		96	53 - 137	
Vinyl acetate	ND		50.0	55.0		ug/L		110	11 - 187	
Vinyl chloride	ND		25.0	25.8		ug/L		103	40 - 137	
<b>MS MS</b>										
Surrogate	%Recovery	Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)	89		70 - 127							
4-Bromofluorobenzene (Surr)	107		78 - 120							
Dibromofluoromethane (Surr)	98		77 - 120							
Toluene-d8 (Surr)	106		80 - 125							

Lab Sample ID: 280-133267-C-1 MSD

Matrix: Water

Analysis Batch: 484448

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		25.0	26.3		ug/L		105	65 - 135	5	20	
1,1,1-Trichloroethane	ND		25.0	27.6		ug/L		111	65 - 135	3	20	
1,1,2,2-Tetrachloroethane	ND		25.0	30.3		ug/L		121	58 - 135	3	20	
1,1,2-Trichloroethane	ND		25.0	26.3		ug/L		105	64 - 135	4	27	
1,1-Dichloroethane	ND		25.0	29.5		ug/L		118	65 - 135	4	21	
1,1-Dichloroethene	ND		25.0	31.3		ug/L		125	65 - 136	5	20	
1,2,3-Trichloropropane	ND		25.0	26.3		ug/L		105	65 - 135	5	23	
1,2-Dibromo-3-Chloropropane	ND		25.0	24.5		ug/L		98	57 - 135	4	22	

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-133267-C-1 MSD

Matrix: Water

Analysis Batch: 484448

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
1,2-Dibromoethane	ND		25.0	28.0		ug/L		112	65 - 135	4	27
1,2-Dichlorobenzene	ND		25.0	24.1		ug/L		97	65 - 135	4	20
1,2-Dichloroethane	ND		25.0	22.3		ug/L		89	65 - 135	3	20
1,2-Dichloropropane	ND		25.0	28.7		ug/L		115	64 - 135	4	20
1,4-Dichlorobenzene	ND		25.0	26.8		ug/L		107	65 - 135	5	23
2-Butanone (MEK)	ND	F1	100	102		ug/L		102	44 - 177	NC	32
2-Hexanone	ND		100	103		ug/L		103	57 - 139	6	25
4-Methyl-2-pentanone (MIBK)	ND		100	112		ug/L		112	60 - 150	5	22
Acetone	ND		100	86.3		ug/L		86	39 - 156	6	23
Acrylonitrile	ND		250	274		ug/L		110	56 - 135	4	30
Benzene	ND		25.0	27.4		ug/L		110	65 - 135	3	20
Bromochloromethane	ND		25.0	25.1		ug/L		100	65 - 135	3	29
Bromodichloromethane	ND		25.0	26.0		ug/L		104	65 - 135	3	20
Bromoform	ND		25.0	23.8		ug/L		95	62 - 135	7	27
Bromomethane	ND	F1	25.0	34.7	F1	ug/L		139	45 - 135	2	33
Carbon disulfide	0.57	B	25.0	33.5		ug/L		132	55 - 143	6	20
Carbon tetrachloride	ND		25.0	26.2		ug/L		105	65 - 135	4	21
Chlorobenzene	ND		25.0	25.6		ug/L		103	65 - 135	4	20
Chloroethane	ND		25.0	28.1		ug/L		112	46 - 136	2	25
Chloroform	ND		25.0	26.5		ug/L		106	65 - 135	3	20
Chloromethane	ND		25.0	23.0		ug/L		92	34 - 145	3	24
cis-1,2-Dichloroethene	23		25.0	51.5		ug/L		115	65 - 135	1	20
cis-1,3-Dichloropropene	ND		25.0	29.5		ug/L		118	65 - 135	3	26
Dibromochloromethane	ND		25.0	25.8		ug/L		103	65 - 135	5	20
Dibromomethane	ND		25.0	25.0		ug/L		100	65 - 135	2	26
Dichlorodifluoromethane	ND		25.0	18.2		ug/L		73	43 - 142	4	30
Ethylbenzene	ND		25.0	26.7		ug/L		107	65 - 135	4	20
Iodomethane	ND	F1	25.0	39.6	F1	ug/L		158	65 - 142	10	25
Methylene Chloride	ND		25.0	26.3		ug/L		105	54 - 141	3	26
m-Xylene & p-Xylene	ND		25.0	26.3		ug/L		105	65 - 135	5	20
o-Xylene	ND		25.0	26.1		ug/L		104	65 - 135	4	20
Styrene	ND		25.0	27.5		ug/L		110	65 - 135	5	26
Tetrachloroethene	ND		25.0	27.6		ug/L		111	65 - 135	5	20
Toluene	ND		25.0	26.5		ug/L		106	65 - 135	3	20
trans-1,2-Dichloroethene	ND		25.0	27.4		ug/L		110	65 - 135	3	24
trans-1,3-Dichloropropene	ND		25.0	28.0		ug/L		112	65 - 135	3	26
trans-1,4-Dichloro-2-butene	ND		25.0	24.5		ug/L		98	53 - 135	5	25
Trichloroethene	5.5		25.0	32.0		ug/L		106	65 - 135	3	20
Trichlorofluoromethane	ND		25.0	23.2		ug/L		93	53 - 137	4	27
Vinyl acetate	ND		50.0	53.0		ug/L		106	11 - 187	4	24
Vinyl chloride	ND		25.0	25.1		ug/L		100	40 - 137	3	24
<b>Surrogate</b>		<b>MSD</b>	<b>MSD</b>								
		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>							
1,2-Dichloroethane-d4 (Surr)		89		70 - 127							
4-Bromofluorobenzene (Surr)		107		78 - 120							
Dibromofluoromethane (Surr)		99		77 - 120							
Toluene-d8 (Surr)		105		80 - 125							

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

## Method: 300.0 - Anions, Ion Chromatography

<b>Lab Sample ID: MB 160-460294/46</b>						<b>Client Sample ID: Method Blank</b>			
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>			
<b>Analysis Batch: 460294</b>									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.20		mg/L			02/14/20 06:16	1
Sulfate	ND		0.20		mg/L			02/14/20 06:16	1

<b>Lab Sample ID: LCS 160-460294/47</b>						<b>Client Sample ID: Lab Control Sample</b>			
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>			
<b>Analysis Batch: 460294</b>									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	2.00	1.92		mg/L		96	90 - 110		
Sulfate	8.00	7.49		mg/L		94	90 - 110		

## Method: 300.0 - Anions, Ion Chromatography - DL

<b>Lab Sample ID: 280-133115-F-9 MS</b>						<b>Client Sample ID: Matrix Spike</b>			
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>			
<b>Analysis Batch: 460294</b>									
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride - DL	5.8		20.0	24.6		mg/L		94	90 - 110
Sulfate - DL	9.0		40.0	46.3		mg/L		93	90 - 110

<b>Lab Sample ID: 280-133115-F-9 DU</b>						<b>Client Sample ID: Duplicate</b>			
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>			
<b>Analysis Batch: 460294</b>									
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit	
Chloride - DL	5.8		5.60		mg/L		3	20	
Sulfate - DL	9.0		8.77		mg/L		3	20	

## Method: 6020 - Metals (ICP/MS)

<b>Lab Sample ID: MB 580-321644/9-A</b>						<b>Client Sample ID: Method Blank</b>			
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>			
<b>Analysis Batch: 321837</b>						<b>Prep Batch: 321644</b>			
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Total	ND		0.18		mg/L		01/29/20 15:23	01/30/20 18:49	5

<b>Lab Sample ID: LCS 580-321644/10-A</b>						<b>Client Sample ID: Lab Control Sample</b>			
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>			
<b>Analysis Batch: 321837</b>						<b>Prep Batch: 321644</b>			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Iron, Total	20.0	20.5		mg/L		102	80 - 120		

Eurofins TestAmerica, Denver

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

## Method: 6020 - Metals (ICP/MS) (Continued)

<b>Lab Sample ID: LCSD 580-321644/11-A</b>			<b>Client Sample ID: Lab Control Sample Dup</b>							
<b>Matrix: Water</b>			<b>Prep Type: Total/NA</b>							
<b>Analysis Batch: 321837</b>			<b>Prep Batch: 321644</b>							
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Iron, Total	20.0	20.5		mg/L		103	80 - 120	0	20	

<b>Lab Sample ID: 280-133116-1 MS</b>			<b>Client Sample ID: HVL-012220-13</b>							
<b>Matrix: Water</b>			<b>Prep Type: Total/NA</b>							
<b>Analysis Batch: 321837</b>			<b>Prep Batch: 321644</b>							
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits	
Iron, Total	ND		20.0	19.2		mg/L		96	80 - 120	

<b>Lab Sample ID: 280-133116-1 MSD</b>			<b>Client Sample ID: HVL-012220-13</b>								
<b>Matrix: Water</b>			<b>Prep Type: Total/NA</b>								
<b>Analysis Batch: 321837</b>			<b>Prep Batch: 321644</b>								
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Iron, Total	ND		20.0	19.8		mg/L		99	80 - 120	3	20

<b>Lab Sample ID: 280-133116-1 DU</b>			<b>Client Sample ID: HVL-012220-13</b>							
<b>Matrix: Water</b>			<b>Prep Type: Total/NA</b>							
<b>Analysis Batch: 321837</b>			<b>Prep Batch: 321644</b>							
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit		
Iron, Total	ND		ND		mg/L		NC	20		

<b>Lab Sample ID: MB 280-483945/1-A</b>			<b>Client Sample ID: Method Blank</b>							
<b>Matrix: Water</b>			<b>Prep Type: Total/NA</b>							
<b>Analysis Batch: 484311</b>			<b>Prep Batch: 483945</b>							
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic, Total	ND		0.0050		mg/L		01/27/20 08:40	01/27/20 16:58	1	
Manganese, Total	ND		0.0010		mg/L		01/27/20 08:40	01/27/20 16:58	1	
Zinc, Total	ND		0.010		mg/L		01/27/20 08:40	01/27/20 16:58	1	

<b>Lab Sample ID: LCS 280-483945/2-A</b>			<b>Client Sample ID: Lab Control Sample</b>							
<b>Matrix: Water</b>			<b>Prep Type: Total/NA</b>							
<b>Analysis Batch: 484311</b>			<b>Prep Batch: 483945</b>							
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits			
Arsenic, Total	0.0400	0.0382		mg/L		96	85 - 117			
Manganese, Total	0.0400	0.0383		mg/L		96	85 - 117			
Zinc, Total	0.0400	0.0399		mg/L		100	83 - 122			

<b>Lab Sample ID: 280-133129-A-1-B MS</b>			<b>Client Sample ID: Matrix Spike</b>							
<b>Matrix: Water</b>			<b>Prep Type: Total/NA</b>							
<b>Analysis Batch: 484311</b>			<b>Prep Batch: 483945</b>							
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits	
Arsenic, Total	0.046		0.0400	0.0844		mg/L		97	85 - 117	
Manganese, Total	3.2		0.0400	3.23	4	mg/L		19	85 - 117	
Zinc, Total	ND		0.0400	0.0385		mg/L		85	83 - 122	

Eurofins TestAmerica, Denver

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

## Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-133129-A-1-C MSD Matrix: Water Analysis Batch: 484311				Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA Prep Batch: 483945 %Rec. RPD							
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic, Total	0.046		0.0400	0.0858		mg/L		101	85 - 117	2	20
Manganese, Total	3.2		0.0400	3.33	4	mg/L		263	85 - 117	3	20
Zinc, Total	ND		0.0400	0.0402		mg/L		90	83 - 122	4	20

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-483773/6 Matrix: Water Analysis Batch: 483773				Client Sample ID: Method Blank Prep Type: Total/NA						
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Nitrate as N	ND		0.20		mg/L			01/23/20 11:22	1	
Nitrite as N	ND		0.50		mg/L			01/23/20 11:22	1	

Lab Sample ID: LCS 280-483773/4 Matrix: Water Analysis Batch: 483773				Client Sample ID: Lab Control Sample Prep Type: Total/NA						
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits			
Nitrate as N	5.00	5.00		mg/L		100	90 - 110			
Nitrite as N	5.00	4.55		mg/L		91	90 - 110			

Lab Sample ID: LCSD 280-483773/5 Matrix: Water Analysis Batch: 483773				Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA						
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit	
Nitrate as N	5.00	5.02		mg/L		100	90 - 110	0	10	
Nitrite as N	5.00	4.64		mg/L		93	90 - 110	2	10	

Lab Sample ID: MRL 280-483773/3 Matrix: Water Analysis Batch: 483773				Client Sample ID: Lab Control Sample Prep Type: Total/NA						
Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits			
Nitrate as N	0.500	ND		mg/L		99	50 - 150			
Nitrite as N	0.500	ND		mg/L		93	50 - 150			

Lab Sample ID: 280-133115-A-5 MS Matrix: Water Analysis Batch: 483773				Client Sample ID: Matrix Spike Prep Type: Total/NA						
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Nitrate as N	3.8		5.00	9.11		mg/L		106	80 - 120	
Nitrite as N	ND		5.00	5.50		mg/L		110	80 - 120	

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-133115-A-5 MSD Matrix: Water Analysis Batch: 483773				Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA							
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	3.8		5.00	9.02		mg/L		104	80 - 120	1	20
Nitrite as N	ND		5.00	5.61		mg/L		112	80 - 120	2	20

Lab Sample ID: 280-133115-A-5 DU Matrix: Water Analysis Batch: 483773				Client Sample ID: Duplicate Prep Type: Total/NA							
Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Nitrate as N	3.8			3.87		mg/L				1	15
Nitrite as N	ND			ND		mg/L				NC	15

## Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-484652/19 Matrix: Water Analysis Batch: 484652				Client Sample ID: Method Blank Prep Type: Total/NA							
Analyte	MB Result	MB Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Ammonia	ND			0.10		mg/L			01/31/20 13:32	1	

Lab Sample ID: LCS 280-484652/18 Matrix: Water Analysis Batch: 484652				Client Sample ID: Lab Control Sample Prep Type: Total/NA							
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia			2.50	2.55		mg/L		102	90 - 110		

Lab Sample ID: LCSD 280-484652/72 Matrix: Water Analysis Batch: 484652				Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA							
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia			2.50	2.56		mg/L		102	90 - 110	5	10

Lab Sample ID: 280-133115-C-5 MS Matrix: Water Analysis Batch: 484652				Client Sample ID: Matrix Spike Prep Type: Total/NA							
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia	ND		1.00	0.974		mg/L		97	90 - 110		

Lab Sample ID: 280-133115-C-5 MSD Matrix: Water Analysis Batch: 484652				Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA							
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	ND		1.00	0.998		mg/L		100	90 - 110	2	10

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

## Method: 410.4 - COD

Lab Sample ID: MB 280-484363/5  
Matrix: Water  
Analysis Batch: 484363

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chemical Oxygen Demand	ND		8.7		mg/L			01/29/20 12:54	1

Lab Sample ID: LCS 280-484363/3  
Matrix: Water  
Analysis Batch: 484363

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

Lab Sample ID: LCSD 280-484363/4  
Matrix: Water  
Analysis Batch: 484363

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
								RPD	Limit
Chemical Oxygen Demand	100	102		mg/L		102	90 - 110	2	11

Lab Sample ID: 580-92298-F-1 MS  
Matrix: Water  
Analysis Batch: 484363

Client Sample ID: Matrix Spike  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits

Lab Sample ID: 580-92298-F-1 MSD  
Matrix: Water  
Analysis Batch: 484363

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
										RPD	Limit
Chemical Oxygen Demand	ND	F1	50.0	70.3	F1	mg/L		141	90 - 110	7	11

## Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 280-483864/1  
Matrix: Water  
Analysis Batch: 483864

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

Analyte	MB MB		RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Color	ND		5.0		PCU			01/23/20 22:33	1

Lab Sample ID: 280-133116-1 DU  
Matrix: Water  
Analysis Batch: 483864

Client Sample ID: HVL-012220-13  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD	
								RPD	Limit
Color	5.0		5.00		PCU			0	20

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## QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

### Method: SM 5310B - Organic Carbon, Total (TOC)

<b>Lab Sample ID: MB 280-484196/5</b>						<b>Client Sample ID: Method Blank</b>					
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>					
<b>Analysis Batch: 484196</b>											
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Total Organic Carbon - Quad	ND		1.0		mg/L			01/27/20 18:55	1		
<b>Lab Sample ID: LCS 280-484196/4</b>						<b>Client Sample ID: Lab Control Sample</b>					
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>					
<b>Analysis Batch: 484196</b>											
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits				
Total Organic Carbon - Quad	25.0	24.9		mg/L		100	88 - 112				
<b>Lab Sample ID: 280-133076-A-14 MS</b>						<b>Client Sample ID: Matrix Spike</b>					
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>					
<b>Analysis Batch: 484196</b>											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon - Quad	1.5		25.0	25.5		mg/L		96	88 - 112		
<b>Lab Sample ID: 280-133076-A-14 MSD</b>						<b>Client Sample ID: Matrix Spike Duplicate</b>					
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>					
<b>Analysis Batch: 484196</b>											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Quad	1.5		25.0	25.1		mg/L		94	88 - 112	1	15



# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

## GC/MS VOA

### Analysis Batch: 484448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133116-1	HVL-012220-13	Total/NA	Water	8260B	
280-133116-2	Trip Blank	Total/NA	Water	8260B	
MB 280-484448/8	Method Blank	Total/NA	Water	8260B	
LCS 280-484448/4	Lab Control Sample	Total/NA	Water	8260B	
280-133267-B-1 MS	Matrix Spike	Total/NA	Water	8260B	
280-133267-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

## HPLC/IC

### Analysis Batch: 460294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133116-1 - DL	HVL-012220-13	Total/NA	Water	300.0	
MB 160-460294/46	Method Blank	Total/NA	Water	300.0	
LCS 160-460294/47	Lab Control Sample	Total/NA	Water	300.0	
280-133115-F-9 MS - DL	Matrix Spike	Total/NA	Water	300.0	
280-133115-F-9 DU - DL	Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 321644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133116-1	HVL-012220-13	Total/NA	Water	3010A	
MB 580-321644/9-A	Method Blank	Total/NA	Water	3010A	
LCS 580-321644/10-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 580-321644/11-A	Lab Control Sample Dup	Total/NA	Water	3010A	
280-133116-1 MS	HVL-012220-13	Total/NA	Water	3010A	
280-133116-1 MSD	HVL-012220-13	Total/NA	Water	3010A	
280-133116-1 DU	HVL-012220-13	Total/NA	Water	3010A	

### Analysis Batch: 321837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133116-1	HVL-012220-13	Total/NA	Water	6020	321644
MB 580-321644/9-A	Method Blank	Total/NA	Water	6020	321644
LCS 580-321644/10-A	Lab Control Sample	Total/NA	Water	6020	321644
LCSD 580-321644/11-A	Lab Control Sample Dup	Total/NA	Water	6020	321644
280-133116-1 MS	HVL-012220-13	Total/NA	Water	6020	321644
280-133116-1 MSD	HVL-012220-13	Total/NA	Water	6020	321644
280-133116-1 DU	HVL-012220-13	Total/NA	Water	6020	321644

### Prep Batch: 483945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133116-1	HVL-012220-13	Total/NA	Water	3020A	
MB 280-483945/1-A	Method Blank	Total/NA	Water	3020A	
LCS 280-483945/2-A	Lab Control Sample	Total/NA	Water	3020A	
280-133129-A-1-B MS	Matrix Spike	Total/NA	Water	3020A	
280-133129-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	3020A	

### Analysis Batch: 484311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133116-1	HVL-012220-13	Total/NA	Water	6020	483945
MB 280-483945/1-A	Method Blank	Total/NA	Water	6020	483945
LCS 280-483945/2-A	Lab Control Sample	Total/NA	Water	6020	483945

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# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

## Metals (Continued)

### Analysis Batch: 484311 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133129-A-1-B MS	Matrix Spike	Total/NA	Water	6020	483945
280-133129-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	6020	483945

## General Chemistry

### Analysis Batch: 483773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133116-1	HVL-012220-13	Total/NA	Water	300.0	
MB 280-483773/6	Method Blank	Total/NA	Water	300.0	
LCS 280-483773/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-483773/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-483773/3	Lab Control Sample	Total/NA	Water	300.0	
280-133115-A-5 MS	Matrix Spike	Total/NA	Water	300.0	
280-133115-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
280-133115-A-5 DU	Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 483864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133116-1	HVL-012220-13	Total/NA	Water	SM 2120B	
MB 280-483864/1	Method Blank	Total/NA	Water	SM 2120B	
280-133116-1 DU	HVL-012220-13	Total/NA	Water	SM 2120B	

### Analysis Batch: 484196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133116-1	HVL-012220-13	Total/NA	Water	SM 5310B	
MB 280-484196/5	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-484196/4	Lab Control Sample	Total/NA	Water	SM 5310B	
280-133076-A-14 MS	Matrix Spike	Total/NA	Water	SM 5310B	
280-133076-A-14 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

### Analysis Batch: 484363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133116-1	HVL-012220-13	Total/NA	Water	410.4	
MB 280-484363/5	Method Blank	Total/NA	Water	410.4	
LCS 280-484363/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-484363/4	Lab Control Sample Dup	Total/NA	Water	410.4	
580-92298-F-1 MS	Matrix Spike	Total/NA	Water	410.4	
580-92298-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	

### Analysis Batch: 484652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133116-1	HVL-012220-13	Total/NA	Water	350.1	
MB 280-484652/19	Method Blank	Total/NA	Water	350.1	
LCS 280-484652/18	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-484652/72	Lab Control Sample Dup	Total/NA	Water	350.1	
280-133115-C-5 MS	Matrix Spike	Total/NA	Water	350.1	
280-133115-C-5 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133116-1

**Client Sample ID: HVL-012220-13**

**Lab Sample ID: 280-133116-1**

Date Collected: 01/22/20 09:20

Matrix: Water

Date Received: 01/23/20 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484448	01/30/20 18:29	GPM	TAL DEN
Total/NA	Analysis	300.0	DL	10			460294	02/14/20 09:05	JCB	TAL SL
Total/NA	Prep	3020A			50 mL	50 mL	483945	01/27/20 08:40	AL	TAL DEN
Total/NA	Analysis	6020		1			484311	01/27/20 17:27	LMT	TAL DEN
Total/NA	Prep	3010A			50 mL	50 mL	321644	01/29/20 15:23	ART	TAL SEA
Total/NA	Analysis	6020		5	50 mL	50 mL	321837	01/30/20 18:54	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483773	01/23/20 17:29	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484652	01/31/20 14:38	BWH	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	484363	01/29/20 12:54	SGB	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	483864	01/23/20 22:33	CKB	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484196	01/27/20 21:52	SGB	TAL DEN

**Client Sample ID: Trip Blank**

**Lab Sample ID: 280-133116-2**

Date Collected: 01/22/20 09:20

Matrix: Water

Date Received: 01/23/20 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484448	01/30/20 18:50	GPM	TAL DEN

**Laboratory References:**

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100  
 TAL SEA = Eurofins TestAmerica, Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310  
 TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Chain of Custody Record

<b>Client Information</b> Client Contact: Sam Graber Phone: 425-766-3362 Company: SCS Engineers Address: 2405 140th Avenue NE, Suite 107 City: Bellevue State, Zip: WA, 98005-1877 Email: S.Graber@scsengineers.com Project Name: Hidden Valley Landfill Site:		Lab P#: Sara, Betsy A E-Mail: betsy.sara@testamericainc.com Carrier Tracking No(s):		COC No: 280-21682-4512.1 Page: Page 1 of 1 Job #: 04220002-02	
Due Date Requested: Standard TAT Requested (days): PO #: Purchase Order not requir WO #: Project #: 28003580-Water Supply Wells SSOW#:		<b>Analysis Requested</b> Total Metals: A D N S Total Iron (T.A Seattle): D N N S NO3/NO2(N/C) Color: D N N S C/504 (T.A St. Louis): C/504 D/A/Ammonia TOC/COD/Ammonia:			
Sample Identification WVL-012220-13 Trip blank		Field Filtered Sample (Yes or No): Perform MS/MSD (Yes or No): 8260B: A D N S Matrix (Water, Sludge, Oil, Other): W		Total Number of Containers: 8 Special Instructions/Note: Short Holds: NO3/NO2(IC), Color	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months			
Deliverable Requested: I, II, III, IV, Other (Specify)		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Method of Shipment:			
Relinquished by:		Date: 1/22/20 1730		Date/Time: 1-23-20 0905	
Relinquished by:		Date/Time:		Date/Time:	
Relinquished by:		Date/Time:		Date/Time:	
Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:			

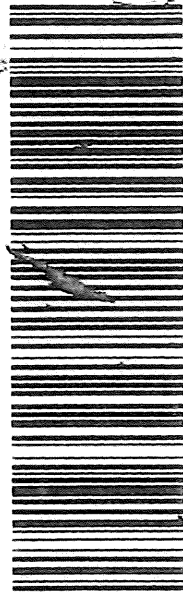


THU - 23 JAN 10:30A  
PRIORITY OVERNIGHT

TRK# 8156 5923 0160  
0667

AHS 80002  
CO - US DEN

**XH WHHA**



Recipient's Name <i>Please print.</i>	Phone Number
	( )

**Do Not Lift Using This Tag**

- 1
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- 13**
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# Chain of Custody Record



Environmental Testing  
 TestAmerica



<b>Client Information (Sub Contract Lab)</b>		Lab PIN: Sara, Betsy A		COC No: 280-513570-1	
Client Contact: Shipping/Receiving		Phone: betsy.sara@testamericainc.com		Page: Page 1 of 1	
Company: TestAmerica Laboratories, Inc.		State of Origin: Washington		Job #: 280-133116-1	
Address: 13715 Rider Trail North, Earth City, MO 63045		Due Date Requested: 2/11/2020		Preservation Codes:	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		TAT Requested (days):		A - HCL B - NaOH C - Zr Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsH2O2 P - Na2CO3 Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Email: Hidden Valley LF		Project #: 28003580		Other:	
Site: SSOW#:		Field Filtered Sample (Yes or No)		Total Number of Containers	
Sample Identification - Client ID (Lab ID)		Perform MSM/SD (Yes or No)		Special Instructions/Note:	
HVL-012220-13 (280-133116-1)		300 ORCFM_280/ (MOD) Sulfate/Chloride (TA St Louis)		1	
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, D=dewable, BT=Trace, A=Air)		
1/22/20	09:20 Pacific		Water		
<p>Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte &amp; accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.</p>					
<p><b>Possible Hazard Identification</b>          Unconfirmed          Deliverable Requested: I, II, III, IV, Other (specify) _____          Primary Deliverable Rank: 2          Date: _____</p>					
<p>Empty Kit Reinquished by: _____          Reinquished by: <i>J. Danner</i>          Reinquished by: _____          Reinquished by: _____</p>					
<p>Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No          Cooler Temperature(s) °C and Other Remarks: _____</p>					

**Eurofins TestAmerica, Denver**  
 4955 Yarrow Street  
 Avada, CO 80002  
 Phone: 303-736-0100 Fax: 303-431-7171

# Chain of Custody Record

**eurofins** Environment Testing  
 TestAmerica



<b>Client Information (Sub Contract Lab)</b>		Sampler: Sara, Betsy A	Lab P.M.	Lab P.M.:	Lab P.M.:
Client Contact: Shipping/Receiving		Phone: betsy.sara@testamericainc.com	E-Mail: betsy.sara@testamericainc.com	E-Mail: betsy.sara@testamericainc.com	E-Mail: betsy.sara@testamericainc.com
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Washington			
Address: 5755 8th Street East, Tacoma WA, 98424		Due Date Requested: 2/10/2020			
Phone: 253-922-2310(Tel) 253-922-5047(Fax)		TAT Requested (days):			
Email: Hidden Valley LF		PO #: 28003580			
Project Name: Hidden Valley LF		WO #: 28003580			
Site: 280-133116-1		SOW#: 28003580			
<b>Sample Identification - Client ID (Lab ID)</b>		<b>Sample Date</b>			
HVL-012220-13 (280-133116-1)		1/22/20			
<b>Sample Type (C=Comp, G=grab)</b>		<b>Sample Time</b>			
Water		09:20 Pacific			
<b>Matrix (Numerical, Organic, Inorganic, Other)</b>		<b>Preservation Code:</b>			
Water		Water			
<b>Field Filtered Sample (Yes or No)</b>		<b>Field Filtered Sample (Yes or No)</b>			
X		X			
<b>Perform MS/MSD (Yes or No)</b>		<b>Perform MS/MSD (Yes or No)</b>			
X		X			
<b>6020/3010A Total Iron (TA Seattle)</b>		<b>6020/3010A Total Iron (TA Seattle)</b>			
X		X			
<b>Total Number of Containers</b>		<b>Total Number of Containers</b>			
1		1			
<b>Special Instructions/Note:</b>		<b>Special Instructions/Note:</b>			

**Analysis Requested**

M - Hexane	A - HCL
N - None	B - NaOH
O - AsNaO2	C - Zn Acetate
P - Na2OAS	D - Nitric Acid
Q - Na2SO3	E - NaHSO4
R - Na2SO3	F - MeOH
S - H2SO4	G - Amchlor
T - TSP Dodecahydrate	H - Ascorbic Acid
U - Acetone	I - Ice
V - MCAA	J - DI Water
W - pH 4-5	K - EDTA
Z - other (specify)	L - EDA
	Other:

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

Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Special Instructions/QC Requirements:

Primary Deliverable Rank: 2

Empty Kit Relinquished by:

Relinquished by: *[Signature]* Date: 1/22/20 14:40

Relinquished by: *[Signature]* Date: 1/25/20 09:30

Relinquished by: *[Signature]* Date: 7-11.3/11.6

Custody Seals Intact:  A Yes  No

Custody Seal No.:

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Ver: 01/16/2019 2/48/2020

## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133116-1

**Login Number: 133116**

**List Source: Eurofins TestAmerica, Denver**

**List Number: 1**

**Creator: Lubin, Julius C**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	



## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133116-1

**Login Number: 133116**  
**List Number: 3**  
**Creator: Blankinship, Tom X**

**List Source: Eurofins TestAmerica, Seattle**  
**List Creation: 01/27/20 10:07 AM**

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



## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133116-1

**Login Number: 133116**

**List Number: 2**

**Creator: Harris, Lorin C**

**List Source: Eurofins TestAmerica, St. Louis**

**List Creation: 01/25/20 02:14 PM**

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



## ANALYTICAL REPORT

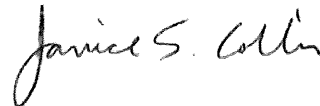
Eurofins TestAmerica, Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Tel: (303)736-0100

East Area Leachate  
Hydraulic Gradient Control  
Trip Blank

Laboratory Job ID: 280-133151-1  
Client Project/Site: Hidden Valley LF

For:  
SCS Engineers  
2405 140th Avenue NE  
Suite 107  
Bellevue, Washington 98005-1877

Attn: Mr. Kevin Lakey



*Authorized for release by:  
2/18/2020 12:06:46 PM*

Janice Collins, Project Management Assistant I  
(303)736-0100

[janice.collins@testamericainc.com](mailto:janice.collins@testamericainc.com)

Designee for

Betsy Sara, Project Manager II  
(303)736-0189

[betsy.sara@testamericainc.com](mailto:betsy.sara@testamericainc.com)

### LINKS

Review your project  
results through

**Total Access**

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

## Glossary

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

# Case Narrative

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

---

**Job ID: 280-133151-1**

---

Laboratory: Eurofins TestAmerica, Denver

## Narrative

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### CASE NARRATIVE

Client: SCS Engineers

Project: Hidden Valley LF

Report Number: 280-133151-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

#### Sample Receiving

The samples were received on 01/24/2020; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 2.8° C and 4.0° C.

#### Holding Times

All holding times were within established control limits.

#### Method Blanks

All Method Blanks were within established control limits.

#### Laboratory Control Samples (LCS)

All Laboratory Control Samples were within established control limits.

#### Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

The Matrix Spike and Matrix Spike Duplicate performed on a sample from another client exhibited recoveries outside control limits for several analytes Method 8260B. In addition, several analytes exceeded the RPD limit. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

All other MS and MSD samples were within established control limits.

#### Organics

The sample HVL-012320-23 was analyzed at a dilution for Method 8260B due to foaming at the time of purging. Elevated reporting limits (RL) are provided.

#### General Comments

The analysis for Chloride and Sulfate Method 300.0 was performed at the TestAmerica's St. Louis Laboratory.  
13715 Rider Trail North

# Case Narrative

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

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## Job ID: 280-133151-1 (Continued)

---

### Laboratory: Eurofins TestAmerica, Denver (Continued)

Earth City, MO 63045  
Phone: 314-298-8566

The analysis for Iron Method 6020 was performed at the TestAmerica's Seattle Laboratory.  
5755 8th Street East  
Tacoma, WA 98424  
Phone: 253-922-2310

## Detection Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

**Client Sample ID: HVL-012320-23**      **East Area Leachate**      **Lab Sample ID: 280-133151-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dichlorobenzene	1.4		0.80		ug/L	5		8260B	Total/NA
Acetone	28		10		ug/L	5		8260B	Total/NA
Benzene	1.1		0.80		ug/L	5		8260B	Total/NA
Carbon disulfide	3.0		0.84		ug/L	5		8260B	Total/NA
Ethylbenzene	1.9		1.0		ug/L	5		8260B	Total/NA
m-Xylene & p-Xylene	4.9		0.77		ug/L	5		8260B	Total/NA
o-Xylene	2.4		0.95		ug/L	5		8260B	Total/NA
Toluene	5.4		0.85		ug/L	5		8260B	Total/NA
Sulfate - DL	89		0.25		mg/L	5		300.0	Total/NA
Chloride - DL2	2500		300		mg/L	5000		300.0	Total/NA
Calcium, Total	99		0.20		mg/L	1		6010B	Total/NA
Magnesium, Total	52		0.10		mg/L	1		6010B	Total/NA
Potassium, Total	270		2.0		mg/L	1		6010B	Total/NA
Sodium, Total	2600		1.0		mg/L	1		6010B	Total/NA
Iron, Total	2.2		0.18		mg/L	5		6020	Total/NA
Manganese, Total	1.6		0.0050		mg/L	5		6020	Total/NA
Nitrate as N	1.8		0.50		mg/L	5		300.0	Total/NA
Ammonia	360		2.2		mg/L	100		350.1	Total/NA
Alkalinity	4700		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	9600		94		mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	19		4.0		mg/L	1		SM 2540D	Total/NA
Total Organic Carbon - Quad	500		6.9		mg/L	20		SM 5310B	Total/NA

**Client Sample ID: HVL-012320-26**      **Hydraulic Gradient Control**      **Lab Sample ID: 280-133151-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	3.7		0.20		mg/L	2		300.0	Total/NA
Sulfate - DL	13		0.20		mg/L	2		300.0	Total/NA
Calcium, Total	100		0.20		mg/L	1		6010B	Total/NA
Magnesium, Total	26		0.10		mg/L	1		6010B	Total/NA
Potassium, Total	3.7		2.0		mg/L	1		6010B	Total/NA
Sodium, Total	19		1.0		mg/L	1		6010B	Total/NA
Iron, Total	1.9		0.18		mg/L	5		6020	Total/NA
Manganese, Total	4.3		0.0050		mg/L	1		6020	Total/NA
Alkalinity	410		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	450		10		mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	4.4		4.0		mg/L	1		SM 2540D	Total/NA
Total Organic Carbon - Quad	2.1		1.0		mg/L	1		SM 5310B	Total/NA

**Client Sample ID: TRIP BLANK**      **Lab Sample ID: 280-133151-5**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver



# Method Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN
300.0	Anions, Ion Chromatography	MCAWW	TAL SL
6010B	Metals (ICP)	SW846	TAL DEN
6020	Metals (ICP/MS)	SW846	TAL DEN
6020	Metals (ICP/MS)	SW846	TAL SEA
300.0	Anions, Ion Chromatography	MCAWW	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN
SM 5310B	Organic Carbon, Total (TOC)	SM	TAL DEN
3010A	Preparation, Total Metals	SW846	TAL DEN
3010A	Preparation, Total Metals	SW846	TAL SEA
3020A	Preparation, Total Metals	SW846	TAL DEN
5030B	Purge and Trap	SW846	TAL DEN

#### Protocol References:

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

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

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

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

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# Sample Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-133151-1	HVL-012320-23	Water	01/23/20 09:00	01/24/20 09:20	
280-133151-4	HVL-012320-26	Water	01/23/20 11:15	01/24/20 09:20	
280-133151-5	TRIP BLANK	Water	01/23/20 11:15	01/24/20 09:20	

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

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

Client Sample ID: HVL-012320-23		Lab Sample ID: 280-133151-1							
Date Collected: 01/23/20 09:00		Matrix: Water							
Date Received: 01/24/20 09:20									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.1		ug/L			01/30/20 19:10	5
1,1,1-Trichloroethane	ND		0.80		ug/L			01/30/20 19:10	5
1,1,2,2-Tetrachloroethane	ND		1.1		ug/L			01/30/20 19:10	5
1,1,2-Trichloroethane	ND		1.4		ug/L			01/30/20 19:10	5
1,1-Dichloroethane	ND		1.1		ug/L			01/30/20 19:10	5
1,1-Dichloroethene	ND		1.2		ug/L			01/30/20 19:10	5
1,2,3-Trichloropropane	ND		1.7		ug/L			01/30/20 19:10	5
1,2-Dibromo-3-Chloropropane	ND		2.4		ug/L			01/30/20 19:10	5
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 19:10	5
1,2-Dichlorobenzene	ND		0.75		ug/L			01/30/20 19:10	5
1,2-Dichloroethane	ND		0.65		ug/L			01/30/20 19:10	5
1,2-Dichloropropane	ND		0.90		ug/L			01/30/20 19:10	5
<b>1,4-Dichlorobenzene</b>	<b>1.4</b>		0.80		ug/L			01/30/20 19:10	5
2-Butanone (MEK)	ND		10		ug/L			01/30/20 19:10	5
2-Hexanone	ND		8.5		ug/L			01/30/20 19:10	5
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 19:10	5
<b>Acetone</b>	<b>28</b>		10		ug/L			01/30/20 19:10	5
Acrylonitrile	ND		20		ug/L			01/30/20 19:10	5
<b>Benzene</b>	<b>1.1</b>		0.80		ug/L			01/30/20 19:10	5
Bromochloromethane	ND		0.50		ug/L			01/30/20 19:10	5
Bromodichloromethane	ND		0.85		ug/L			01/30/20 19:10	5
Bromoform	ND		2.3		ug/L			01/30/20 19:10	5
Bromomethane	ND		1.1		ug/L			01/30/20 19:10	5
<b>Carbon disulfide</b>	<b>3.0</b>		0.84		ug/L			01/30/20 19:10	5
Carbon tetrachloride	ND		0.95		ug/L			01/30/20 19:10	5
Chlorobenzene	ND		0.85		ug/L			01/30/20 19:10	5
Chloroethane	ND		2.1		ug/L			01/30/20 19:10	5
Chloroform	ND		0.80		ug/L			01/30/20 19:10	5
Chloromethane	ND		1.5		ug/L			01/30/20 19:10	5
cis-1,2-Dichloroethene	ND		0.75		ug/L			01/30/20 19:10	5
cis-1,3-Dichloropropene	ND		0.80		ug/L			01/30/20 19:10	5
cis-1,4-Dichloro-2-butene	ND		4.5		ug/L			01/30/20 19:10	5
Dibromochloromethane	ND		0.85		ug/L			01/30/20 19:10	5
Dibromomethane	ND		0.85		ug/L			01/30/20 19:10	5
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 19:10	5
<b>Ethylbenzene</b>	<b>1.9</b>		1.0		ug/L			01/30/20 19:10	5
Iodomethane	ND		1.2		ug/L			01/30/20 19:10	5
Methylene Chloride	ND		4.7		ug/L			01/30/20 19:10	5
<b>m-Xylene &amp; p-Xylene</b>	<b>4.9</b>		0.77		ug/L			01/30/20 19:10	5
<b>o-Xylene</b>	<b>2.4</b>		0.95		ug/L			01/30/20 19:10	5
Styrene	ND		1.8		ug/L			01/30/20 19:10	5
Tetrachloroethene	ND		1.0		ug/L			01/30/20 19:10	5
<b>Toluene</b>	<b>5.4</b>		0.85		ug/L			01/30/20 19:10	5
trans-1,2-Dichloroethene	ND		0.75		ug/L			01/30/20 19:10	5
trans-1,3-Dichloropropene	ND		0.95		ug/L			01/30/20 19:10	5
trans-1,4-Dichloro-2-butene	ND		4.0		ug/L			01/30/20 19:10	5
Trichloroethene	ND		0.80		ug/L			01/30/20 19:10	5
Trichlorofluoromethane	ND		1.5		ug/L			01/30/20 19:10	5
Vinyl acetate	ND		4.7		ug/L			01/30/20 19:10	5

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012320-23

Date Collected: 01/23/20 09:00

Date Received: 01/24/20 09:20

Lab Sample ID: 280-133151-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.50		ug/L			01/30/20 19:10	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 127					01/30/20 19:10	5
4-Bromofluorobenzene (Surr)	101		78 - 120					01/30/20 19:10	5
Dibromofluoromethane (Surr)	101		77 - 120					01/30/20 19:10	5
Toluene-d8 (Surr)	99		80 - 125					01/30/20 19:10	5

Client Sample ID: HVL-012320-26

Date Collected: 01/23/20 11:15

Date Received: 01/24/20 09:20

Lab Sample ID: 280-133151-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 19:32	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 19:32	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 19:32	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 19:32	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 19:32	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 19:32	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 19:32	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 19:32	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 19:32	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 19:32	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 19:32	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 19:32	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 19:32	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 19:32	1
2-Hexanone	ND		5.0		ug/L			01/30/20 19:32	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 19:32	1
Acetone	ND		10		ug/L			01/30/20 19:32	1
Acrylonitrile	ND		20		ug/L			01/30/20 19:32	1
Benzene	ND		0.50		ug/L			01/30/20 19:32	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 19:32	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 19:32	1
Bromoform	ND		0.50		ug/L			01/30/20 19:32	1
Bromomethane	ND		0.50		ug/L			01/30/20 19:32	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 19:32	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 19:32	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 19:32	1
Chloroethane	ND		0.50		ug/L			01/30/20 19:32	1
Chloroform	ND		0.50		ug/L			01/30/20 19:32	1
Chloromethane	ND		0.50		ug/L			01/30/20 19:32	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 19:32	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 19:32	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 19:32	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 19:32	1
Dibromomethane	ND		0.50		ug/L			01/30/20 19:32	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 19:32	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 19:32	1
Iodomethane	ND		1.0		ug/L			01/30/20 19:32	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 19:32	1

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-012320-26

Lab Sample ID: 280-133151-4

Date Collected: 01/23/20 11:15

Matrix: Water

Date Received: 01/24/20 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 19:32	1
o-Xylene	ND		0.50		ug/L			01/30/20 19:32	1
Styrene	ND		0.50		ug/L			01/30/20 19:32	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 19:32	1
Toluene	ND		0.50		ug/L			01/30/20 19:32	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 19:32	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 19:32	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 19:32	1
Trichloroethene	ND		0.50		ug/L			01/30/20 19:32	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 19:32	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 19:32	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 19:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 127		01/30/20 19:32	1
4-Bromofluorobenzene (Surr)	101		78 - 120		01/30/20 19:32	1
Dibromofluoromethane (Surr)	100		77 - 120		01/30/20 19:32	1
Toluene-d8 (Surr)	100		80 - 125		01/30/20 19:32	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-133151-5

Date Collected: 01/23/20 11:15

Matrix: Water

Date Received: 01/24/20 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 19:53	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 19:53	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 19:53	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 19:53	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 19:53	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 19:53	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 19:53	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 19:53	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 19:53	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 19:53	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 19:53	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 19:53	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 19:53	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 19:53	1
2-Hexanone	ND		5.0		ug/L			01/30/20 19:53	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 19:53	1
Acetone	ND		10		ug/L			01/30/20 19:53	1
Acrylonitrile	ND		20		ug/L			01/30/20 19:53	1
Benzene	ND		0.50		ug/L			01/30/20 19:53	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 19:53	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 19:53	1
Bromoform	ND		0.50		ug/L			01/30/20 19:53	1
Bromomethane	ND		0.50		ug/L			01/30/20 19:53	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 19:53	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 19:53	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 19:53	1
Chloroethane	ND		0.50		ug/L			01/30/20 19:53	1

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: TRIP BLANK  
Date Collected: 01/23/20 11:15  
Date Received: 01/24/20 09:20

Lab Sample ID: 280-133151-5  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		0.50		ug/L			01/30/20 19:53	1
Chloromethane	ND		0.50		ug/L			01/30/20 19:53	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 19:53	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 19:53	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 19:53	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 19:53	1
Dibromomethane	ND		0.50		ug/L			01/30/20 19:53	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 19:53	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 19:53	1
Iodomethane	ND		1.0		ug/L			01/30/20 19:53	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 19:53	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 19:53	1
o-Xylene	ND		0.50		ug/L			01/30/20 19:53	1
Styrene	ND		0.50		ug/L			01/30/20 19:53	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 19:53	1
Toluene	ND		0.50		ug/L			01/30/20 19:53	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 19:53	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 19:53	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 19:53	1
Trichloroethene	ND		0.50		ug/L			01/30/20 19:53	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 19:53	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 19:53	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 19:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 127		01/30/20 19:53	1
4-Bromofluorobenzene (Surr)	100		78 - 120		01/30/20 19:53	1
Dibromofluoromethane (Surr)	100		77 - 120		01/30/20 19:53	1
Toluene-d8 (Surr)	100		80 - 125		01/30/20 19:53	1

## Method: 300.0 - Anions, Ion Chromatography - DL

Client Sample ID: HVL-012320-23  
Date Collected: 01/23/20 09:00  
Date Received: 01/24/20 09:20

Lab Sample ID: 280-133151-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	89		0.25		mg/L			02/14/20 10:02	5

Client Sample ID: HVL-012320-26  
Date Collected: 01/23/20 11:15  
Date Received: 01/24/20 09:20

Lab Sample ID: 280-133151-4  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7		0.20		mg/L			02/14/20 10:59	2
Sulfate	13		0.20		mg/L			02/14/20 10:59	2

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## Method: 300.0 - Anions, Ion Chromatography - DL2

Client Sample ID: HVL-012320-23						Lab Sample ID: 280-133151-1			
Date Collected: 01/23/20 09:00						Matrix: Water			
Date Received: 01/24/20 09:20									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2500		300		mg/L	-		02/14/20 10:40	5000

## Method: 6010B - Metals (ICP)

Client Sample ID: HVL-012320-23						Lab Sample ID: 280-133151-1			
Date Collected: 01/23/20 09:00						Matrix: Water			
Date Received: 01/24/20 09:20									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Total	99		0.20		mg/L	-	01/28/20 09:00	01/29/20 17:04	1
Magnesium, Total	52		0.10		mg/L	-	01/28/20 09:00	01/29/20 17:04	1
Potassium, Total	270		2.0		mg/L	-	01/28/20 09:00	01/29/20 17:04	1
Sodium, Total	2600		1.0		mg/L	-	01/28/20 09:00	01/29/20 17:04	1

Client Sample ID: HVL-012320-26						Lab Sample ID: 280-133151-4			
Date Collected: 01/23/20 11:15						Matrix: Water			
Date Received: 01/24/20 09:20									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Total	100		0.20		mg/L	-	01/28/20 09:00	01/29/20 17:07	1
Magnesium, Total	26		0.10		mg/L	-	01/28/20 09:00	01/29/20 17:07	1
Potassium, Total	3.7		2.0		mg/L	-	01/28/20 09:00	01/29/20 17:07	1
Sodium, Total	19		1.0		mg/L	-	01/28/20 09:00	01/29/20 17:07	1

## Method: 6020 - Metals (ICP/MS)

Client Sample ID: HVL-012320-23						Lab Sample ID: 280-133151-1			
Date Collected: 01/23/20 09:00						Matrix: Water			
Date Received: 01/24/20 09:20									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Total	2.2		0.18		mg/L	-	01/29/20 15:23	01/30/20 19:29	5
Manganese, Total	1.6		0.0050		mg/L	-	01/28/20 09:00	02/05/20 18:37	5

Client Sample ID: HVL-012320-26						Lab Sample ID: 280-133151-4			
Date Collected: 01/23/20 11:15						Matrix: Water			
Date Received: 01/24/20 09:20									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Total	1.9		0.18		mg/L	-	01/29/20 15:23	01/30/20 19:23	5
Manganese, Total	4.3		0.0050		mg/L	-	01/28/20 09:00	02/05/20 18:26	1

## General Chemistry

Client Sample ID: HVL-012320-23						Lab Sample ID: 280-133151-1			
Date Collected: 01/23/20 09:00						Matrix: Water			
Date Received: 01/24/20 09:20									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.8		0.50		mg/L	-		01/24/20 16:37	5
Ammonia	360		2.2		mg/L	-		02/05/20 11:58	100
Alkalinity	4700		10		mg/L	-		01/31/20 14:01	1
Total Dissolved Solids	9600		94		mg/L	-		01/28/20 09:45	1
Total Suspended Solids	19		4.0		mg/L	-		01/29/20 13:41	1
Total Organic Carbon - Quad	500		6.9		mg/L	-		01/28/20 00:59	20

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## General Chemistry

Client Sample ID: HVL-012320-26

Date Collected: 01/23/20 11:15

Date Received: 01/24/20 09:20

Lab Sample ID: 280-133151-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.50		mg/L			01/24/20 17:26	1
Ammonia	ND		0.10		mg/L			01/31/20 15:24	1
Alkalinity	410		10		mg/L			01/30/20 15:26	1
Total Dissolved Solids	450		10		mg/L			01/28/20 09:45	1
Total Suspended Solids	4.4		4.0		mg/L			01/29/20 13:41	1
Total Organic Carbon - Quad	2.1		1.0		mg/L			01/28/20 02:44	1



# Surrogate Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (70-127)	BFB (78-120)	DBFM (77-120)	TOL (80-125)
280-133151-1	HVL-012320-23	105	101	101	99
280-133151-4	HVL-012320-26	107	101	100	100
280-133151-5	TRIP BLANK	105	100	100	100
280-133195-E-3 MSD	Matrix Spike Duplicate	105	101	101	100
280-133195-F-3 MS	Matrix Spike	106	102	101	99
LCS 280-484517/4	Lab Control Sample	102	100	100	99
LCSD 280-484517/5	Lab Control Sample Dup	104	99	101	98
MB 280-484517/8	Method Blank	106	101	100	99

## Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: SCS Engineers  
 Project/Site: Hidden Valley LF

Job ID: 280-133151-1

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

Lab Sample ID: MB 280-484517/8  
 Matrix: Water  
 Analysis Batch: 484517

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 17:42	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 17:42	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 17:42	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 17:42	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 17:42	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 17:42	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 17:42	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 17:42	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 17:42	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 17:42	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 17:42	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 17:42	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 17:42	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 17:42	1
2-Hexanone	ND		5.0		ug/L			01/30/20 17:42	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 17:42	1
Acetone	ND		10		ug/L			01/30/20 17:42	1
Acrylonitrile	ND		20		ug/L			01/30/20 17:42	1
Benzene	ND		0.50		ug/L			01/30/20 17:42	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 17:42	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 17:42	1
Bromoform	ND		0.50		ug/L			01/30/20 17:42	1
Bromomethane	ND		0.50		ug/L			01/30/20 17:42	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 17:42	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 17:42	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 17:42	1
Chloroethane	ND		0.50		ug/L			01/30/20 17:42	1
Chloroform	ND		0.50		ug/L			01/30/20 17:42	1
Chloromethane	ND		0.50		ug/L			01/30/20 17:42	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 17:42	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 17:42	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 17:42	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 17:42	1
Dibromomethane	ND		0.50		ug/L			01/30/20 17:42	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 17:42	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 17:42	1
Iodomethane	ND		1.0		ug/L			01/30/20 17:42	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 17:42	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 17:42	1
o-Xylene	ND		0.50		ug/L			01/30/20 17:42	1
Styrene	ND		0.50		ug/L			01/30/20 17:42	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 17:42	1
Toluene	ND		0.50		ug/L			01/30/20 17:42	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 17:42	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 17:42	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 17:42	1
Trichloroethene	ND		0.50		ug/L			01/30/20 17:42	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 17:42	1

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-484517/8

Matrix: Water

Analysis Batch: 484517

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl acetate	ND		3.0		ug/L			01/30/20 17:42	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 17:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 127		01/30/20 17:42	1
4-Bromofluorobenzene (Surr)	101		78 - 120		01/30/20 17:42	1
Dibromofluoromethane (Surr)	100		77 - 120		01/30/20 17:42	1
Toluene-d8 (Surr)	99		80 - 125		01/30/20 17:42	1

Lab Sample ID: LCS 280-484517/4

Matrix: Water

Analysis Batch: 484517

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	22.5		ug/L		90	65 - 135
1,1,1-Trichloroethane	25.0	24.5		ug/L		98	65 - 135
1,1,2,2-Tetrachloroethane	25.0	27.3		ug/L		109	58 - 135
1,1,2-Trichloroethane	25.0	26.7		ug/L		107	64 - 135
1,1-Dichloroethane	25.0	25.9		ug/L		104	65 - 135
1,1-Dichloroethene	25.0	25.9		ug/L		104	65 - 136
1,2,3-Trichloropropane	25.0	26.9		ug/L		107	65 - 135
1,2-Dibromo-3-Chloropropane	25.0	20.0		ug/L		80	57 - 135
1,2-Dibromoethane	25.0	26.5		ug/L		106	65 - 135
1,2-Dichlorobenzene	25.0	26.7		ug/L		107	65 - 135
1,2-Dichloroethane	25.0	27.4		ug/L		109	65 - 135
1,2-Dichloropropane	25.0	26.5		ug/L		106	64 - 135
1,4-Dichlorobenzene	25.0	26.7		ug/L		107	65 - 135
2-Butanone (MEK)	100	102		ug/L		102	44 - 177
2-Hexanone	100	111		ug/L		111	57 - 139
4-Methyl-2-pentanone (MIBK)	100	109		ug/L		109	60 - 150
Acetone	100	104		ug/L		104	39 - 156
Acrylonitrile	250	276		ug/L		110	56 - 135
Benzene	25.0	25.8		ug/L		103	65 - 135
Bromochloromethane	25.0	25.8		ug/L		103	65 - 135
Bromodichloromethane	25.0	28.2		ug/L		113	65 - 135
Bromoform	25.0	26.9		ug/L		108	62 - 135
Bromomethane	25.0	32.1		ug/L		128	45 - 135
Carbon disulfide	25.0	25.3		ug/L		101	55 - 143
Carbon tetrachloride	25.0	21.6		ug/L		87	65 - 135
Chlorobenzene	25.0	25.9		ug/L		104	65 - 135
Chloroethane	25.0	28.6		ug/L		114	46 - 136
Chloroform	25.0	26.5		ug/L		106	65 - 135
Chloromethane	25.0	26.8		ug/L		107	34 - 145
cis-1,2-Dichloroethene	25.0	26.3		ug/L		105	65 - 135
cis-1,3-Dichloropropene	25.0	22.5		ug/L		90	65 - 135
Dibromochloromethane	25.0	22.6		ug/L		90	65 - 135
Dibromomethane	25.0	27.2		ug/L		109	65 - 135
Dichlorodifluoromethane	25.0	33.3		ug/L		133	43 - 142

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-484517/4				Client Sample ID: Lab Control Sample			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 484517							
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	25.0	25.8		ug/L		103	65 - 135
Iodomethane	25.0	18.7		ug/L		75	65 - 142
Methylene Chloride	25.0	26.8		ug/L		107	54 - 141
m-Xylene & p-Xylene	25.0	25.4		ug/L		102	65 - 135
o-Xylene	25.0	26.8		ug/L		107	65 - 135
Styrene	25.0	28.3		ug/L		113	65 - 135
Tetrachloroethene	25.0	24.4		ug/L		98	65 - 135
Toluene	25.0	25.4		ug/L		102	65 - 135
trans-1,2-Dichloroethene	25.0	25.9		ug/L		104	65 - 135
trans-1,3-Dichloropropene	25.0	19.0		ug/L		76	65 - 135
trans-1,4-Dichloro-2-butene	25.0	21.9		ug/L		87	53 - 135
Trichloroethene	25.0	24.7		ug/L		99	65 - 135
Trichlorofluoromethane	25.0	28.0		ug/L		112	53 - 137
Vinyl acetate	50.0	49.0		ug/L		98	11 - 187
Vinyl chloride	25.0	26.3		ug/L		105	40 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 127
4-Bromofluorobenzene (Surr)	100		78 - 120
Dibromofluoromethane (Surr)	100		77 - 120
Toluene-d8 (Surr)	99		80 - 125

Lab Sample ID: LCSD 280-484517/5				Client Sample ID: Lab Control Sample Dup					
Matrix: Water				Prep Type: Total/NA					
Analysis Batch: 484517									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	21.8		ug/L		87	65 - 135	3	20
1,1,1-Trichloroethane	25.0	23.9		ug/L		96	65 - 135	2	20
1,1,2,2-Tetrachloroethane	25.0	25.9		ug/L		104	58 - 135	5	20
1,1,2-Trichloroethane	25.0	25.9		ug/L		103	64 - 135	3	27
1,1-Dichloroethane	25.0	25.5		ug/L		102	65 - 135	2	21
1,1-Dichloroethene	25.0	25.2		ug/L		101	65 - 136	3	20
1,2,3-Trichloropropane	25.0	26.1		ug/L		104	65 - 135	3	23
1,2-Dibromo-3-Chloropropane	25.0	19.5		ug/L		78	57 - 135	3	22
1,2-Dibromoethane	25.0	26.2		ug/L		105	65 - 135	1	27
1,2-Dichlorobenzene	25.0	25.1		ug/L		100	65 - 135	6	20
1,2-Dichloroethane	25.0	26.7		ug/L		107	65 - 135	2	20
1,2-Dichloropropane	25.0	26.2		ug/L		105	64 - 135	1	20
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	65 - 135	6	23
2-Butanone (MEK)	100	100		ug/L		100	44 - 177	2	32
2-Hexanone	100	109		ug/L		109	57 - 139	2	25
4-Methyl-2-pentanone (MIBK)	100	108		ug/L		108	60 - 150	1	22
Acetone	100	101		ug/L		101	39 - 156	4	23
Acrylonitrile	250	268		ug/L		107	56 - 135	3	30
Benzene	25.0	25.1		ug/L		100	65 - 135	3	20
Bromochloromethane	25.0	25.8		ug/L		103	65 - 135	0	29
Bromodichloromethane	25.0	27.4		ug/L		110	65 - 135	3	20

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-484517/5

Matrix: Water

Analysis Batch: 484517

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromoform	25.0	26.4		ug/L		106	62 - 135	2	27
Bromomethane	25.0	30.9		ug/L		124	45 - 135	4	33
Carbon disulfide	25.0	24.8		ug/L		99	55 - 143	2	20
Carbon tetrachloride	25.0	21.4		ug/L		86	65 - 135	1	21
Chlorobenzene	25.0	25.1		ug/L		101	65 - 135	3	20
Chloroethane	25.0	28.0		ug/L		112	46 - 136	2	25
Chloroform	25.0	26.0		ug/L		104	65 - 135	2	20
Chloromethane	25.0	26.1		ug/L		104	34 - 145	3	24
cis-1,2-Dichloroethene	25.0	26.2		ug/L		105	65 - 135	0	20
cis-1,3-Dichloropropene	25.0	21.8		ug/L		87	65 - 135	3	26
Dibromochloromethane	25.0	21.9		ug/L		88	65 - 135	3	20
Dibromomethane	25.0	26.5		ug/L		106	65 - 135	3	26
Dichlorodifluoromethane	25.0	31.3		ug/L		125	43 - 142	6	30
Ethylbenzene	25.0	25.0		ug/L		100	65 - 135	3	20
Iodomethane	25.0	18.8		ug/L		75	65 - 142	0	25
Methylene Chloride	25.0	26.5		ug/L		106	54 - 141	1	26
m-Xylene & p-Xylene	25.0	25.0		ug/L		100	65 - 135	2	20
o-Xylene	25.0	26.0		ug/L		104	65 - 135	3	20
Styrene	25.0	27.5		ug/L		110	65 - 135	3	26
Tetrachloroethene	25.0	23.9		ug/L		95	65 - 135	2	20
Toluene	25.0	24.9		ug/L		100	65 - 135	2	20
trans-1,2-Dichloroethene	25.0	25.9		ug/L		104	65 - 135	0	24
trans-1,3-Dichloropropene	25.0	18.5		ug/L		74	65 - 135	3	26
trans-1,4-Dichloro-2-butene	25.0	20.7		ug/L		83	53 - 135	5	25
Trichloroethene	25.0	24.4		ug/L		98	65 - 135	1	20
Trichlorofluoromethane	25.0	27.0		ug/L		108	53 - 137	4	27
Vinyl acetate	50.0	47.8		ug/L		96	11 - 187	2	24
Vinyl chloride	25.0	26.4		ug/L		106	40 - 137	0	24

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	104		70 - 127
4-Bromofluorobenzene (Surr)	99		78 - 120
Dibromofluoromethane (Surr)	101		77 - 120
Toluene-d8 (Surr)	98		80 - 125

Lab Sample ID: 280-133195-E-3 MSD

Matrix: Water

Analysis Batch: 484517

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND	F2	25.0	16.2	F2	ug/L		65	65 - 135	26	20
1,1,1-Trichloroethane	ND	F2	25.0	20.1	F2	ug/L		80	65 - 135	25	20
1,1,2,2-Tetrachloroethane	ND	F2	25.0	19.7	F2	ug/L		79	58 - 135	28	20
1,1,2-Trichloroethane	ND	F2	25.0	19.1	F2	ug/L		76	64 - 135	29	27
1,1-Dichloroethane	ND	F2	25.0	20.5	F2	ug/L		82	65 - 135	26	21
1,1-Dichloroethene	ND	F2	25.0	22.0	F2	ug/L		88	65 - 136	29	20
1,2,3-Trichloropropane	ND	F2	25.0	19.5	F2	ug/L		78	65 - 135	29	23
1,2-Dibromo-3-Chloropropane	ND	F1 F2	25.0	13.5	F1 F2	ug/L		54	57 - 135	25	22

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-133195-E-3 MSD

Matrix: Water

Analysis Batch: 484517

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits			
1,2-Dibromoethane	ND		25.0	19.3		ug/L		77	65 - 135	27		27
1,2-Dichlorobenzene	ND	F2	25.0	19.3	F2	ug/L		77	65 - 135	27		20
1,2-Dichloroethane	ND	F2	25.0	20.4	F2	ug/L		82	65 - 135	28		20
1,2-Dichloropropane	ND	F2	25.0	19.8	F2	ug/L		79	64 - 135	27		20
1,4-Dichlorobenzene	ND	F2	25.0	19.8	F2	ug/L		79	65 - 135	25		23
2-Butanone (MEK)	ND		100	74.7		ug/L		75	44 - 177	27		32
2-Hexanone	ND	F2	100	79.7	F2	ug/L		80	57 - 139	27		25
4-Methyl-2-pentanone (MIBK)	ND	F2	100	78.5	F2	ug/L		78	60 - 150	28		22
Acetone	ND	F2	100	75.7	F2	ug/L		76	39 - 156	26		23
Acrylonitrile	ND		250	202		ug/L		81	56 - 135	26		30
Benzene	ND	F2	25.0	20.0	F2	ug/L		80	65 - 135	26		20
Bromochloromethane	ND		25.0	19.0		ug/L		76	65 - 135	25		29
Bromodichloromethane	ND	F2	25.0	20.3	F2	ug/L		81	65 - 135	28		20
Bromoform	ND		25.0	18.9		ug/L		75	62 - 135	25		27
Bromomethane	ND		25.0	22.3		ug/L		89	45 - 135	0		33
Carbon disulfide	ND	F2	25.0	21.3	F2	ug/L		85	55 - 143	26		20
Carbon tetrachloride	ND	F2	25.0	18.4	F2	ug/L		74	65 - 135	22		21
Chlorobenzene	ND	F2	25.0	19.9	F2	ug/L		80	65 - 135	25		20
Chloroethane	ND		25.0	26.5		ug/L		106	46 - 136	10		25
Chloroform	ND	F2	25.0	20.5	F2	ug/L		82	65 - 135	27		20
Chloromethane	ND		25.0	23.5		ug/L		94	34 - 145	7		24
cis-1,2-Dichloroethene	ND	F2	25.0	20.6	F2	ug/L		82	65 - 135	26		20
cis-1,3-Dichloropropene	ND	F1	25.0	14.9	F1	ug/L		59	65 - 135	26		26
Dibromochloromethane	ND	F1 F2	25.0	15.8	F1 F2	ug/L		63	65 - 135	26		20
Dibromomethane	ND	F2	25.0	20.1	F2	ug/L		80	65 - 135	27		26
Dichlorodifluoromethane	ND	F1	25.0	37.5	F1	ug/L		150	43 - 142	8		30
Ethylbenzene	ND	F2	25.0	20.2	F2	ug/L		81	65 - 135	25		20
Iodomethane	ND	F1	25.0	11.9	F1	ug/L		47	65 - 142	11		25
Methylene Chloride	ND		25.0	19.9		ug/L		79	54 - 141	26		26
m-Xylene & p-Xylene	ND	F2	25.0	20.1	F2	ug/L		81	65 - 135	25		20
o-Xylene	ND	F2	25.0	20.5	F2	ug/L		82	65 - 135	26		20
Styrene	ND		25.0	21.1		ug/L		85	65 - 135	25		26
Tetrachloroethene	ND	F2	25.0	20.3	F2	ug/L		81	65 - 135	23		20
Toluene	ND	F2	25.0	19.9	F2	ug/L		79	65 - 135	27		20
trans-1,2-Dichloroethene	ND	F2	25.0	20.9	F2	ug/L		84	65 - 135	25		24
trans-1,3-Dichloropropene	ND	F1	25.0	12.0	F1	ug/L		48	65 - 135	25		26
trans-1,4-Dichloro-2-butene	ND	F2	25.0	13.2	F2	ug/L		53	53 - 135	31		25
Trichloroethene	ND	F2	25.0	19.7	F2	ug/L		79	65 - 135	27		20
Trichlorofluoromethane	ND	F1	25.0	31.5		ug/L		126	53 - 137	9		27
Vinyl acetate	ND	F2	50.0	30.8	F2	ug/L		62	11 - 187	25		24
Vinyl chloride	ND		25.0	27.4		ug/L		110	40 - 137	7		24

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	105		70 - 127
4-Bromofluorobenzene (Surr)	101		78 - 120
Dibromofluoromethane (Surr)	101		77 - 120
Toluene-d8 (Surr)	100		80 - 125

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-133195-F-3 MS

Matrix: Water

Analysis Batch: 484517

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
1,1,1,2-Tetrachloroethane	ND	F2	25.0	21.1		ug/L		84	65 - 135
1,1,1-Trichloroethane	ND	F2	25.0	25.7		ug/L		103	65 - 135
1,1,2,2-Tetrachloroethane	ND	F2	25.0	26.1		ug/L		104	58 - 135
1,1,2-Trichloroethane	ND	F2	25.0	25.5		ug/L		102	64 - 135
1,1-Dichloroethane	ND	F2	25.0	26.5		ug/L		106	65 - 135
1,1-Dichloroethene	ND	F2	25.0	29.4		ug/L		118	65 - 136
1,2,3-Trichloropropane	ND	F2	25.0	26.0		ug/L		104	65 - 135
1,2-Dibromo-3-Chloropropane	ND	F1 F2	25.0	17.4		ug/L		70	57 - 135
1,2-Dibromoethane	ND		25.0	25.3		ug/L		101	65 - 135
1,2-Dichlorobenzene	ND	F2	25.0	25.3		ug/L		101	65 - 135
1,2-Dichloroethane	ND	F2	25.0	27.2		ug/L		109	65 - 135
1,2-Dichloropropane	ND	F2	25.0	26.1		ug/L		104	64 - 135
1,4-Dichlorobenzene	ND	F2	25.0	25.5		ug/L		102	65 - 135
2-Butanone (MEK)	ND		100	97.9		ug/L		98	44 - 177
2-Hexanone	ND	F2	100	105		ug/L		105	57 - 139
4-Methyl-2-pentanone (MIBK)	ND	F2	100	104		ug/L		104	60 - 150
Acetone	ND	F2	100	98.6		ug/L		99	39 - 156
Acrylonitrile	ND		250	263		ug/L		105	56 - 135
Benzene	ND	F2	25.0	26.0		ug/L		104	65 - 135
Bromochloromethane	ND		25.0	24.4		ug/L		98	65 - 135
Bromodichloromethane	ND	F2	25.0	27.0		ug/L		108	65 - 135
Bromoform	ND		25.0	24.2		ug/L		97	62 - 135
Bromomethane	ND		25.0	22.2		ug/L		89	45 - 135
Carbon disulfide	ND	F2	25.0	27.8		ug/L		111	55 - 143
Carbon tetrachloride	ND	F2	25.0	23.0		ug/L		92	65 - 135
Chlorobenzene	ND	F2	25.0	25.5		ug/L		102	65 - 135
Chloroethane	ND		25.0	29.1		ug/L		117	46 - 136
Chloroform	ND	F2	25.0	26.9		ug/L		107	65 - 135
Chloromethane	ND		25.0	25.3		ug/L		101	34 - 145
cis-1,2-Dichloroethene	ND	F2	25.0	26.7		ug/L		107	65 - 135
cis-1,3-Dichloropropene	ND	F1	25.0	19.2		ug/L		77	65 - 135
Dibromochloromethane	ND	F1 F2	25.0	20.6		ug/L		83	65 - 135
Dibromomethane	ND	F2	25.0	26.2		ug/L		105	65 - 135
Dichlorodifluoromethane	ND	F1	25.0	40.7	F1	ug/L		163	43 - 142
Ethylbenzene	ND	F2	25.0	26.1		ug/L		104	65 - 135
Iodomethane	ND	F1	25.0	10.7	F1	ug/L		43	65 - 142
Methylene Chloride	ND		25.0	25.8		ug/L		103	54 - 141
m-Xylene & p-Xylene	ND	F2	25.0	25.8		ug/L		103	65 - 135
o-Xylene	ND	F2	25.0	26.6		ug/L		107	65 - 135
Styrene	ND		25.0	27.3		ug/L		109	65 - 135
Tetrachloroethene	ND	F2	25.0	25.7		ug/L		103	65 - 135
Toluene	ND	F2	25.0	26.1		ug/L		104	65 - 135
trans-1,2-Dichloroethene	ND	F2	25.0	26.9		ug/L		107	65 - 135
trans-1,3-Dichloropropene	ND	F1	25.0	15.5	F1	ug/L		62	65 - 135
trans-1,4-Dichloro-2-butene	ND	F2	25.0	18.1		ug/L		72	53 - 135
Trichloroethene	ND	F2	25.0	25.9		ug/L		104	65 - 135
Trichlorofluoromethane	ND	F1	25.0	34.4	F1	ug/L		138	53 - 137
Vinyl acetate	ND	F2	50.0	39.7		ug/L		79	11 - 187

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## QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-133195-F-3 MS							Client Sample ID: Matrix Spike			
Matrix: Water							Prep Type: Total/NA			
Analysis Batch: 484517										
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Vinyl chloride	ND		25.0	29.4		ug/L		118	40 - 137	
Surrogate	MS %Recovery	MS Qualifier	MS Limits							
1,2-Dichloroethane-d4 (Surr)	106		70 - 127							
4-Bromofluorobenzene (Surr)	102		78 - 120							
Dibromofluoromethane (Surr)	101		77 - 120							
Toluene-d8 (Surr)	99		80 - 125							

### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 160-460294/46							Client Sample ID: Method Blank			
Matrix: Water							Prep Type: Total/NA			
Analysis Batch: 460294										
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		0.20		mg/L			02/14/20 06:16	1	
Sulfate	ND		0.20		mg/L			02/14/20 06:16	1	

Lab Sample ID: LCS 160-460294/47							Client Sample ID: Lab Control Sample			
Matrix: Water							Prep Type: Total/NA			
Analysis Batch: 460294										
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits			
Chloride	2.00	1.92		mg/L		96	90 - 110			
Sulfate	8.00	7.49		mg/L		94	90 - 110			

### Method: 300.0 - Anions, Ion Chromatography - DL

Lab Sample ID: 280-133115-F-9 MS							Client Sample ID: Matrix Spike			
Matrix: Water							Prep Type: Total/NA			
Analysis Batch: 460294										
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Chloride - DL	5.8		20.0	24.6		mg/L		94	90 - 110	
Sulfate - DL	9.0		40.0	46.3		mg/L		93	90 - 110	

Lab Sample ID: 280-133115-F-9 DU							Client Sample ID: Duplicate			
Matrix: Water							Prep Type: Total/NA			
Analysis Batch: 460294										
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit		
Chloride - DL	5.8		5.60		mg/L		3	20		
Sulfate - DL	9.0		8.77		mg/L		3	20		



# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 280-484044/1-A  
Matrix: Water  
Analysis Batch: 484484

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 484044

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Calcium, Total	ND		0.20		mg/L		01/28/20 09:00	01/29/20 16:59	1
Magnesium, Total	ND		0.10		mg/L		01/28/20 09:00	01/29/20 16:59	1
Potassium, Total	ND		2.0		mg/L		01/28/20 09:00	01/29/20 16:59	1
Sodium, Total	ND		1.0		mg/L		01/28/20 09:00	01/29/20 16:59	1

Lab Sample ID: LCS 280-484044/2-A  
Matrix: Water  
Analysis Batch: 484484

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 484044

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Calcium, Total	50.0	48.5		mg/L		97	90 - 111
Magnesium, Total	50.0	48.0		mg/L		96	90 - 113
Potassium, Total	50.0	49.7		mg/L		99	89 - 114
Sodium, Total	50.0	47.8		mg/L		96	90 - 115

Lab Sample ID: 280-133151-4 MS  
Matrix: Water  
Analysis Batch: 484484

Client Sample ID: HVL-012320-26  
Prep Type: Total/NA  
Prep Batch: 484044

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
Calcium, Total	100		50.0	151		mg/L		99	48 - 153
Magnesium, Total	26		50.0	75.1		mg/L		98	62 - 146
Potassium, Total	3.7		50.0	53.7		mg/L		100	76 - 132
Sodium, Total	19		50.0	65.1		mg/L		92	70 - 203

Lab Sample ID: 280-133151-4 MSD  
Matrix: Water  
Analysis Batch: 484484

Client Sample ID: HVL-012320-26  
Prep Type: Total/NA  
Prep Batch: 484044

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	Limit
				Result	Qualifier						
Calcium, Total	100		50.0	152		mg/L		101	48 - 153	1	20
Magnesium, Total	26		50.0	75.6		mg/L		99	62 - 146	1	20
Potassium, Total	3.7		50.0	53.6		mg/L		100	76 - 132	0	20
Sodium, Total	19		50.0	66.2		mg/L		94	70 - 203	2	20

## Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 580-321644/9-A  
Matrix: Water  
Analysis Batch: 321837

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 321644

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iron, Total	ND		0.18		mg/L		01/29/20 15:23	01/30/20 18:49	5

Lab Sample ID: LCS 580-321644/10-A  
Matrix: Water  
Analysis Batch: 321837

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 321644

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Iron, Total	20.0	20.5		mg/L		102	80 - 120

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## Method: 6020 - Metals (ICP/MS)

Lab Sample ID: LCSD 580-321644/11-A Matrix: Water Analysis Batch: 321837				Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA Prep Batch: 321644 %Rec. RPD							
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Iron, Total			20.0	20.5		mg/L		103	80 - 120	0	20
Lab Sample ID: 280-133116-C-1-C MS Matrix: Water Analysis Batch: 321837				Client Sample ID: Matrix Spike Prep Type: Total/NA Prep Batch: 321644 %Rec. RPD							
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits		
Iron, Total	ND		20.0	19.2		mg/L		96	80 - 120		
Lab Sample ID: 280-133116-C-1-D MSD Matrix: Water Analysis Batch: 321837				Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA Prep Batch: 321644 %Rec. RPD							
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Iron, Total	ND		20.0	19.8		mg/L		99	80 - 120	3	20
Lab Sample ID: 280-133116-C-1-B DU Matrix: Water Analysis Batch: 321837				Client Sample ID: Duplicate Prep Type: Total/NA Prep Batch: 321644 RPD							
Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	Limit
Iron, Total	ND			ND		mg/L				NC	20
Lab Sample ID: MB 280-484046/1-A Matrix: Water Analysis Batch: 485172				Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 484046							
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Manganese, Total	ND		0.0050		mg/L		01/28/20 09:00	02/05/20 18:15	1		
Lab Sample ID: LCS 280-484046/2-A Matrix: Water Analysis Batch: 485172				Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 484046 %Rec. RPD							
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
Manganese, Total			0.0400	0.0397		mg/L		99	85 - 117		
Lab Sample ID: 280-133158-C-1-B MS Matrix: Water Analysis Batch: 485172				Client Sample ID: Matrix Spike Prep Type: Total/NA Prep Batch: 484046 %Rec. RPD							
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits		
Manganese, Total	ND		0.0400	0.0424		mg/L		103	85 - 117		
Lab Sample ID: 280-133158-C-1-C MSD Matrix: Water Analysis Batch: 485172				Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA Prep Batch: 484046 %Rec. RPD							
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Manganese, Total	ND		0.0400	0.0428		mg/L		104	85 - 117	1	20

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-483916/6				Client Sample ID: Method Blank							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 483916											
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Nitrate as N	ND		0.50		mg/L			01/24/20 12:07	1		
Lab Sample ID: LCS 280-483916/4				Client Sample ID: Lab Control Sample							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 483916											
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits				
Nitrate as N	5.00	5.06		mg/L		101	90 - 110				
Lab Sample ID: LCSD 280-483916/5				Client Sample ID: Lab Control Sample Dup							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 483916											
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit		
Nitrate as N	5.00	5.06		mg/L		101	90 - 110	0	10		
Lab Sample ID: MRL 280-483916/3				Client Sample ID: Lab Control Sample							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 483916											
Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits				
Nitrate as N	0.500	0.512		mg/L		102	50 - 150				
Lab Sample ID: 280-133158-A-1 MS				Client Sample ID: Matrix Spike							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 483916											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N	2.3		5.00	7.19		mg/L		98	80 - 120		
Lab Sample ID: 280-133158-A-1 MSD				Client Sample ID: Matrix Spike Duplicate							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 483916											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	2.3		5.00	7.57		mg/L		106	80 - 120	5	20
Lab Sample ID: 280-133158-A-1 DU				Client Sample ID: Duplicate							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 483916											
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit			
Nitrate as N	2.3		2.13		mg/L		7	15			

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-484652/19 Matrix: Water Analysis Batch: 484652						Client Sample ID: Method Blank Prep Type: Total/NA						
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
Ammonia	ND		0.10		mg/L			01/31/20 13:32	1			
Lab Sample ID: MB 280-484652/73 Matrix: Water Analysis Batch: 484652						Client Sample ID: Method Blank Prep Type: Total/NA						
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
Ammonia	ND		0.10		mg/L			01/31/20 15:20	1			
Lab Sample ID: LCS 280-484652/18 Matrix: Water Analysis Batch: 484652						Client Sample ID: Lab Control Sample Prep Type: Total/NA						
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits					
Ammonia	2.50	2.55		mg/L		102	90 - 110					
Lab Sample ID: LCS 280-484652/71 Matrix: Water Analysis Batch: 484652						Client Sample ID: Lab Control Sample Prep Type: Total/NA						
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits					
Ammonia	2.50	2.43		mg/L		97	90 - 110					
Lab Sample ID: LCSD 280-484652/72 Matrix: Water Analysis Batch: 484652						Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA						
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	Limit		
Ammonia	2.50	2.56		mg/L		102	90 - 110		5	10		
Lab Sample ID: 280-133169-A-2 MS Matrix: Water Analysis Batch: 484652						Client Sample ID: Matrix Spike Prep Type: Total/NA						
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits			
Ammonia	ND		1.00	1.01		mg/L		101	90 - 110			
Lab Sample ID: 280-133169-A-2 MSD Matrix: Water Analysis Batch: 484652						Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA						
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	Limit
Ammonia	ND		1.00	1.02		mg/L		102	90 - 110		2	10
Lab Sample ID: 280-133206-J-6 MS Matrix: Water Analysis Batch: 484652						Client Sample ID: Matrix Spike Prep Type: Total/NA						
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits			
Ammonia	1.1		1.00	2.03		mg/L		94	90 - 110			

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## QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

### Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: 280-133206-J-6 MSD  
Matrix: Water  
Analysis Batch: 484652

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	1.1		1.00	2.10		mg/L		101	90 - 110	4	10

Lab Sample ID: MB 280-485032/20  
Matrix: Water  
Analysis Batch: 485032

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.10		mg/L			02/05/20 11:48	1

Lab Sample ID: LCS 280-485032/18  
Matrix: Water  
Analysis Batch: 485032

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.53		mg/L		101	90 - 110

Lab Sample ID: LCSD 280-485032/19  
Matrix: Water  
Analysis Batch: 485032

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	2.50	2.49		mg/L		100	90 - 110	1	10

Lab Sample ID: 280-133206-J-3 MS  
Matrix: Water  
Analysis Batch: 485032

Client Sample ID: Matrix Spike  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	ND		1.00	0.974		mg/L		92	90 - 110

Lab Sample ID: 280-133206-J-3 MSD  
Matrix: Water  
Analysis Batch: 485032

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	ND		1.00	0.990		mg/L		94	90 - 110	2	10

### Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-484550/6  
Matrix: Water  
Analysis Batch: 484550

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	ND		10		mg/L			01/30/20 13:06	1

Eurofins TestAmerica, Denver

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 280-484550/4 Matrix: Water Analysis Batch: 484550				Client Sample ID: Lab Control Sample Prep Type: Total/NA						
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits			
Alkalinity	200	205		mg/L		102	89 - 109			

Lab Sample ID: LCSD 280-484550/5 Matrix: Water Analysis Batch: 484550				Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA						
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit	
Alkalinity	200	202		mg/L		101	89 - 109	1	10	

Lab Sample ID: 280-133163-A-2 DU Matrix: Water Analysis Batch: 484550				Client Sample ID: Duplicate Prep Type: Total/NA						
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit		
Alkalinity	1300		1300		mg/L		1	10		

Lab Sample ID: MB 280-484628/5 Matrix: Water Analysis Batch: 484628				Client Sample ID: Method Blank Prep Type: Total/NA						
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Alkalinity	ND		10		mg/L			01/31/20 13:13	1	

Lab Sample ID: LCS 280-484628/4 Matrix: Water Analysis Batch: 484628				Client Sample ID: Lab Control Sample Prep Type: Total/NA						
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits			
Alkalinity	1000	973		mg/L		97	89 - 109			

Lab Sample ID: 280-133117-L-1 DU Matrix: Water Analysis Batch: 484628				Client Sample ID: Duplicate Prep Type: Total/NA						
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit		
Alkalinity	6400		6410		mg/L		0.5	10		

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

Lab Sample ID: MB 280-484181/1 Matrix: Water Analysis Batch: 484181				Client Sample ID: Method Blank Prep Type: Total/NA						
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total Dissolved Solids	ND		10		mg/L			01/28/20 09:45	1	

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

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

Lab Sample ID: LCS 280-484181/2  
Matrix: Water  
Analysis Batch: 484181

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	500	486		mg/L		97	93 - 110

Lab Sample ID: LCSD 280-484181/3  
Matrix: Water  
Analysis Batch: 484181

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids	500	492		mg/L		98	93 - 110	1	20

Lab Sample ID: 280-133149-A-5 DU  
Matrix: Water  
Analysis Batch: 484181

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	180		172		mg/L		3	10

## Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-484382/1  
Matrix: Water  
Analysis Batch: 484382

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0		mg/L			01/29/20 13:41	1

Lab Sample ID: LCS 280-484382/2  
Matrix: Water  
Analysis Batch: 484382

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	85.2		mg/L		85	79 - 114

Lab Sample ID: LCSD 280-484382/3  
Matrix: Water  
Analysis Batch: 484382

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Suspended Solids	100	89.6		mg/L		90	79 - 114	5	20

Lab Sample ID: 280-133208-A-1 DU  
Matrix: Water  
Analysis Batch: 484382

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	17		16.8		mg/L		2	10

Eurofins TestAmerica, Denver

# QC Sample Results

Client: SCS Engineers  
 Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-484196/5  
 Matrix: Water  
 Analysis Batch: 484196

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	ND		1.0		mg/L			01/27/20 18:55	1

Lab Sample ID: LCS 280-484196/4  
 Matrix: Water  
 Analysis Batch: 484196

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	25.0	24.9		mg/L		100	88 - 112

Lab Sample ID: 280-133125-A-1 MS  
 Matrix: Water  
 Analysis Batch: 484196

Client Sample ID: Matrix Spike  
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	ND		25.0	23.9		mg/L		96	88 - 112

Lab Sample ID: 280-133125-A-1 MSD  
 Matrix: Water  
 Analysis Batch: 484196

Client Sample ID: Matrix Spike Duplicate  
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Quad	ND		25.0	24.2		mg/L		97	88 - 112	1	15



## QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

### GC/MS VOA

#### Analysis Batch: 484517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133151-1	HVL-012320-23	Total/NA	Water	8260B	
280-133151-4	HVL-012320-26	Total/NA	Water	8260B	
280-133151-5	TRIP BLANK	Total/NA	Water	8260B	
MB 280-484517/8	Method Blank	Total/NA	Water	8260B	
LCS 280-484517/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 280-484517/5	Lab Control Sample Dup	Total/NA	Water	8260B	
280-133195-E-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
280-133195-F-3 MS	Matrix Spike	Total/NA	Water	8260B	

### HPLC/IC

#### Analysis Batch: 460294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133151-1 - DL	HVL-012320-23	Total/NA	Water	300.0	
280-133151-1 - DL2	HVL-012320-23	Total/NA	Water	300.0	
280-133151-4 - DL	HVL-012320-26	Total/NA	Water	300.0	
MB 160-460294/46	Method Blank	Total/NA	Water	300.0	
LCS 160-460294/47	Lab Control Sample	Total/NA	Water	300.0	
280-133115-F-9 MS - DL	Matrix Spike	Total/NA	Water	300.0	
280-133115-F-9 DU - DL	Duplicate	Total/NA	Water	300.0	

### Metals

#### Prep Batch: 321644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133151-1	HVL-012320-23	Total/NA	Water	3010A	
280-133151-4	HVL-012320-26	Total/NA	Water	3010A	
MB 580-321644/9-A	Method Blank	Total/NA	Water	3010A	
LCS 580-321644/10-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 580-321644/11-A	Lab Control Sample Dup	Total/NA	Water	3010A	
280-133116-C-1-C MS	Matrix Spike	Total/NA	Water	3010A	
280-133116-C-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	
280-133116-C-1-B DU	Duplicate	Total/NA	Water	3010A	

#### Analysis Batch: 321837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133151-1	HVL-012320-23	Total/NA	Water	6020	321644
280-133151-4	HVL-012320-26	Total/NA	Water	6020	321644
MB 580-321644/9-A	Method Blank	Total/NA	Water	6020	321644
LCS 580-321644/10-A	Lab Control Sample	Total/NA	Water	6020	321644
LCSD 580-321644/11-A	Lab Control Sample Dup	Total/NA	Water	6020	321644
280-133116-C-1-C MS	Matrix Spike	Total/NA	Water	6020	321644
280-133116-C-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	6020	321644
280-133116-C-1-B DU	Duplicate	Total/NA	Water	6020	321644

#### Prep Batch: 484044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133151-1	HVL-012320-23	Total/NA	Water	3010A	
280-133151-4	HVL-012320-26	Total/NA	Water	3010A	
MB 280-484044/1-A	Method Blank	Total/NA	Water	3010A	
LCS 280-484044/2-A	Lab Control Sample	Total/NA	Water	3010A	
280-133151-4 MS	HVL-012320-26	Total/NA	Water	3010A	

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# QC Association Summary

Client: SCS Engineers  
 Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## Metals (Continued)

### Prep Batch: 484044 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133151-4 MSD	HVL-012320-26	Total/NA	Water	3010A	

### Prep Batch: 484046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133151-1	HVL-012320-23	Total/NA	Water	3020A	
280-133151-4	HVL-012320-26	Total/NA	Water	3020A	
MB 280-484046/1-A	Method Blank	Total/NA	Water	3020A	
LCS 280-484046/2-A	Lab Control Sample	Total/NA	Water	3020A	
280-133158-C-1-B MS	Matrix Spike	Total/NA	Water	3020A	
280-133158-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	3020A	

### Analysis Batch: 484484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133151-1	HVL-012320-23	Total/NA	Water	6010B	484044
280-133151-4	HVL-012320-26	Total/NA	Water	6010B	484044
MB 280-484044/1-A	Method Blank	Total/NA	Water	6010B	484044
LCS 280-484044/2-A	Lab Control Sample	Total/NA	Water	6010B	484044
280-133151-4 MS	HVL-012320-26	Total/NA	Water	6010B	484044
280-133151-4 MSD	HVL-012320-26	Total/NA	Water	6010B	484044

### Analysis Batch: 485172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133151-1	HVL-012320-23	Total/NA	Water	6020	484046
280-133151-4	HVL-012320-26	Total/NA	Water	6020	484046
MB 280-484046/1-A	Method Blank	Total/NA	Water	6020	484046
LCS 280-484046/2-A	Lab Control Sample	Total/NA	Water	6020	484046
280-133158-C-1-B MS	Matrix Spike	Total/NA	Water	6020	484046
280-133158-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	6020	484046

## General Chemistry

### Analysis Batch: 483916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133151-1	HVL-012320-23	Total/NA	Water	300.0	
280-133151-4	HVL-012320-26	Total/NA	Water	300.0	
MB 280-483916/6	Method Blank	Total/NA	Water	300.0	
LCS 280-483916/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-483916/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-483916/3	Lab Control Sample	Total/NA	Water	300.0	
280-133158-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
280-133158-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
280-133158-A-1 DU	Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 484181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133151-1	HVL-012320-23	Total/NA	Water	SM 2540C	
280-133151-4	HVL-012320-26	Total/NA	Water	SM 2540C	
MB 280-484181/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-484181/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 280-484181/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
280-133149-A-5 DU	Duplicate	Total/NA	Water	SM 2540C	

# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## General Chemistry

### Analysis Batch: 484196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133151-1	HVL-012320-23	Total/NA	Water	SM 5310B	
280-133151-4	HVL-012320-26	Total/NA	Water	SM 5310B	
MB 280-484196/5	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-484196/4	Lab Control Sample	Total/NA	Water	SM 5310B	
280-133125-A-1 MS	Matrix Spike	Total/NA	Water	SM 5310B	
280-133125-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

### Analysis Batch: 484382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133151-1	HVL-012320-23	Total/NA	Water	SM 2540D	
280-133151-4	HVL-012320-26	Total/NA	Water	SM 2540D	
MB 280-484382/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-484382/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-484382/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
280-133208-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	

### Analysis Batch: 484550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133151-4	HVL-012320-26	Total/NA	Water	SM 2320B	
MB 280-484550/6	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-484550/4	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 280-484550/5	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
280-133163-A-2 DU	Duplicate	Total/NA	Water	SM 2320B	

### Analysis Batch: 484628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133151-1	HVL-012320-23	Total/NA	Water	SM 2320B	
MB 280-484628/5	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-484628/4	Lab Control Sample	Total/NA	Water	SM 2320B	
280-133117-L-1 DU	Duplicate	Total/NA	Water	SM 2320B	

### Analysis Batch: 484652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133151-4	HVL-012320-26	Total/NA	Water	350.1	
MB 280-484652/19	Method Blank	Total/NA	Water	350.1	
MB 280-484652/73	Method Blank	Total/NA	Water	350.1	
LCS 280-484652/18	Lab Control Sample	Total/NA	Water	350.1	
LCS 280-484652/71	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-484652/72	Lab Control Sample Dup	Total/NA	Water	350.1	
280-133169-A-2 MS	Matrix Spike	Total/NA	Water	350.1	
280-133169-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	
280-133206-J-6 MS	Matrix Spike	Total/NA	Water	350.1	
280-133206-J-6 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

### Analysis Batch: 485032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133151-1	HVL-012320-23	Total/NA	Water	350.1	
MB 280-485032/20	Method Blank	Total/NA	Water	350.1	
LCS 280-485032/18	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-485032/19	Lab Control Sample Dup	Total/NA	Water	350.1	
280-133206-J-3 MS	Matrix Spike	Total/NA	Water	350.1	

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# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## General Chemistry (Continued)

Analysis Batch: 485032 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133206-J-3 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

**Client Sample ID: HVL-012320-23**

**Lab Sample ID: 280-133151-1**

Date Collected: 01/23/20 09:00

Matrix: Water

Date Received: 01/24/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	5 mL	5 mL	484517	01/30/20 19:10	JZ	TAL DEN
Total/NA	Analysis	300.0	DL	5			460294	02/14/20 10:02	JCB	TAL SL
Total/NA	Analysis	300.0	DL2	5000			460294	02/14/20 10:40	JCB	TAL SL
Total/NA	Prep	3010A			50 mL	50 mL	484044	01/28/20 09:00	AL	TAL DEN
Total/NA	Analysis	6010B		1			484484	01/29/20 17:04	LMT	TAL DEN
Total/NA	Prep	3020A			50 mL	50 mL	484046	01/28/20 09:00	AL	TAL DEN
Total/NA	Analysis	6020		5			485172	02/05/20 18:37	LMT	TAL DEN
Total/NA	Prep	3010A			50 mL	50 mL	321644	01/29/20 15:23	ART	TAL SEA
Total/NA	Analysis	6020		5	50 mL	50 mL	321837	01/30/20 19:29	FCW	TAL SEA
Total/NA	Analysis	300.0		5	5 mL	5 mL	483916	01/24/20 16:37	JAP	TAL DEN
Total/NA	Analysis	350.1		100	10 mL	10 mL	485032	02/05/20 11:58	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484628	01/31/20 14:01	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	5 mL	100 mL	484181	01/28/20 09:45	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	484382	01/29/20 13:41	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		20	20 mL	20 mL	484196	01/28/20 00:59	SGB	TAL DEN

**Client Sample ID: HVL-012320-26**

**Lab Sample ID: 280-133151-4**

Date Collected: 01/23/20 11:15

Matrix: Water

Date Received: 01/24/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484517	01/30/20 19:32	JZ	TAL DEN
Total/NA	Analysis	300.0	DL	2			460294	02/14/20 10:59	JCB	TAL SL
Total/NA	Prep	3010A			50 mL	50 mL	484044	01/28/20 09:00	AL	TAL DEN
Total/NA	Analysis	6010B		1			484484	01/29/20 17:07	LMT	TAL DEN
Total/NA	Prep	3020A			50 mL	50 mL	484046	01/28/20 09:00	AL	TAL DEN
Total/NA	Analysis	6020		1			485172	02/05/20 18:26	LMT	TAL DEN
Total/NA	Prep	3010A			50 mL	50 mL	321644	01/29/20 15:23	ART	TAL SEA
Total/NA	Analysis	6020		5	50 mL	50 mL	321837	01/30/20 19:23	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483916	01/24/20 17:26	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484652	01/31/20 15:24	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484550	01/30/20 15:26	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	484181	01/28/20 09:45	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	484382	01/29/20 13:41	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484196	01/28/20 02:44	SGB	TAL DEN

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 280-133151-5**

Date Collected: 01/23/20 11:15

Matrix: Water

Date Received: 01/24/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484517	01/30/20 19:53	JZ	TAL DEN

Eurofins TestAmerica, Denver

# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133151-1

## Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

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

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

## Chain of Custody Record

4956 Yarrow Street  
 Arvada, CO 80002  
 Phone (303) 736-0100 Fax (303) 431-7171

**Client Information**  
 Client Contact: Sam Graber  
 Company: SCS Engineers  
 Address: 2405 140th Avenue NE, Suite 107, Bellevue, WA, 98005-1877  
 Phone: 425-766-3362  
 Email: standard

Project Name: Hidden Valley Landfill  
 Site: *Standard*

Lab PIV: Sara, Betsy A  
 E-Mail: betsy.sara@testamericainc.com

Sampler: *Sub b.*  
 Phone: *7*

COC No: 280-21695-6848.1  
 Page: 1 of 1  
 Job #: 04220002.02

Carmer Tracking No(s): 3156 5923 0207  
 3156 5923 0290

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=oil, C=creosote, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	826B	TOC/Ammonia	NO3(C)/TDS/Aik	Total Metals (6010B/620)	Total Iron (TA Seattle)	CI/SO4 (TA St. Louis)	TSS	Total Number of Containers	Special Instructions/Note:
<i>HVL-012320-23</i>	<i>1/23/20</i>	<i>900</i>	<i>G</i>	<i>Leachate</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>HVL-012320-24</i>	<i>↓</i>	<i>930</i>	<i>↓</i>	<i>↓</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>HVL-012320-25</i>	<i>↓</i>	<i>1030</i>	<i>↓</i>	<i>↓</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>HVL-012320-26</i>	<i>↓</i>	<i>1115</i>	<i>↓</i>	<i>↓</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>Trip Blanks</i>	<i>↓</i>	<i>-</i>	<i>-</i>	<i>water</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

**Analysis Requested**

Preservation Codes:  
 A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2CO3, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Special Instructions/Note:  
 Short Holds: NO3(C)

**Sample Disposal** (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

**Deliverable Requested:** I, II, III, IV, Other (specify)

**Empty Kit Relinquished by:** \_\_\_\_\_ Date: \_\_\_\_\_

**Relinquished by:** \_\_\_\_\_ Date/Time: *1/23/20 1700* Company: *SCS*

**Relinquished by:** \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

**Relinquished by:** \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seal No.: *1251283, 1251282*  
 Custody Seals Intact:  Yes  No

Received by: \_\_\_\_\_ Date/Time: *1/24/20 0920* Company: *YADEU*

Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Cooler Temperature(s): *19.3, 17.0, 9.1, 15.9, 20.1, 11.0, 11.7*

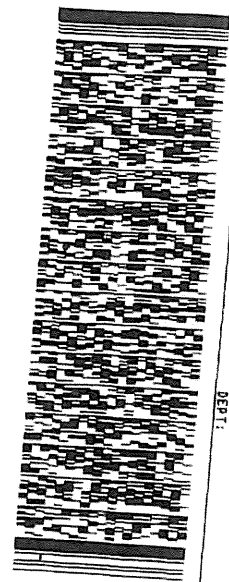
TO TEST AMERICA  
TEST AMERICA  
4955 YARROW ST

ARVADA CO 80002  
(303) 736-0100  
REF: PO1

(US)

SHIP DATE: 23JAN20  
ACT WT: 53.10 LB  
CAD: SFE2021  
DIMS: 24X13X13 IN

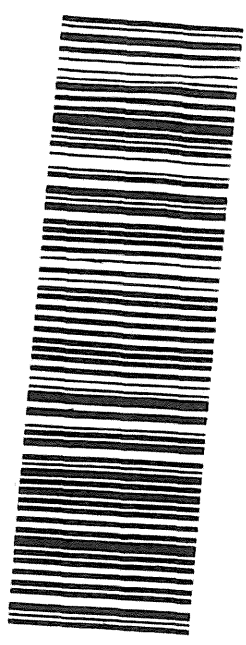
56BJ2/DF82/FE46



FRI - 24 JAN 10:30A  
PRIORITY OVERNIGHT

TRK# 8156 5923 0090  
0667  
XH WHHA

80002  
CO-US DEN



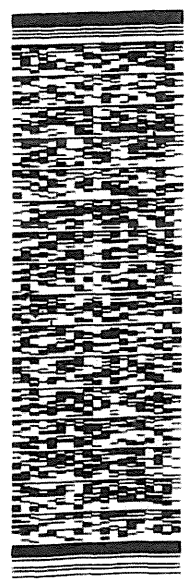
TO TEST AMERICA  
TEST AMERICA  
4955 YARROW ST

ARVADA CO 80002  
(303) 738-0100  
REF: PO1

(US)

SHIP DATE: 23JAN20  
ACT WT: 53.10 LB  
CAD: SFE2021  
DIMS: 24X13X13 IN

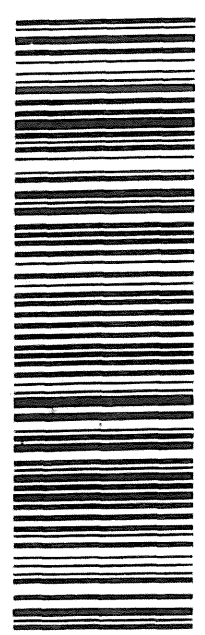
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FRI - 24 JAN 10:30A  
PRIORITY OVERNIGHT

TRK# 8156 5923 0207  
0667  
XH WHHA

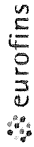
80002  
CO-US DEN



280-133151 Waybill

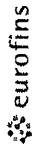


**Chain of Custody Record**



<b>Client Information (Sub Contract Lab)</b>		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact: Shipping/Receiving		Phone:	Sara, Betsy A	State of Origin: Washington	280-513679.1
Company: TestAmerica Laboratories, Inc.		E-Mail: betsy.sara@testamericainc.com		Page #: Page 1 of 1	
Address: 13715 Rider Trail North,		Accreditations Required (See note): State Program - Washington		Job #: 280-133151-1	
City: Earth City	Due Date Requested: 2/12/2020	<b>Analysis Requested</b>			
State, Zip: MO, 63045	TAT Requested (days):	Total Number of containers			
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	FO #:	Field Filtered Sample (Yes or No)			
Email:	WO #:	Perform MS/MSD (Yes or No)			
Project Name: Hidden Valley LF	Project #: 28003580	300 ORGM_280/ (MOD) Sulfate/Chloride (TA St. Louis)			
Site: Hidden Valley LF	SSOW#:	Special Instructions/Note:			
<b>Sample Identification - Client ID (Lab ID)</b>					
	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oli, BT=Boiler, A=Air)	Preservation Code:
HUL-012320-23 (280-133151-1)	1/23/20	09:00 Pacific		Water	
HUL-012320-24 (280-133151-2)	1/23/20	09:30 Pacific		Water	
HUL-012320-25 (280-133151-3)	1/23/20	10:30 Pacific		Water	
HUL-012320-26 (280-133151-4)	1/23/20	11:15 Pacific		Water	
<p>Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte &amp; accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.</p>					
<b>Possible Hazard Identification</b>					
Unconfirmed					
Deliverable Requested: I, II, III, IV, Other (specify)					
Primary Deliverable Rank: 2					
Empty Kit Relinquished by:					
Relinquished by: <i>[Signature]</i>					
Relinquished by:					
Relinquished by:					
Custody Seals Intact: Custody Seal No.:					
Δ Yes Δ No					
Special Instructions/QC Requirements:					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Method of Shipment:					
Received by: <i>[Signature]</i>					
Date/Time: 1/28/20					
Company: STASKE					
Received by:					
Date/Time:					
Company:					
Received by:					
Date/Time:					
Company:					
Cooler Temperature(s) °C and Other Remarks:					

**Chain of Custody Record**



<b>Client Information (Sub Contract Lab)</b>		Lab P#: Sara, Betsy A	Carrier Tracking No(s):	COC No: 280-513678-1				
Client Contact: TestAmerica Laboratories, Inc.		E-Mail: betsy.sara@testamericainc.com	State of Origin: Washington	Page: Page 1 of 1				
Address: 5755 8th Street East, Tacoma WA, 98424		Phone: 253-922-2310(Tel) 253-922-5047(Fax)	Job #: 280-133151-1	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:				
Due Date Requested: 2/11/2020		Analysis Requested						
TAT Requested (days):		Total Number of Containers						
PO #:		Perform MS/MSD (Yes or No)						
WO #:		6020/3010A Total Iron (TA Sealee)						
Project #: 28003580		Sample Identification - Client ID (Lab ID)						
SSOW#:		Special Instructions/Note:						
Sample ID	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, On-waste, etc)	Preservation Code	Analysis Requested	Total Number of Containers	Special Instructions/Note:
HUL-012320-23 (280-133151-1)	1/23/20	09:00 Pacific	C=comp	Water			1	
HUL-012320-24 (280-133151-2)	1/23/20	09:30 Pacific	C=comp	Water			1	
HUL-012320-25 (280-133151-3)	1/23/20	10:30 Pacific	C=comp	Water			1	
HUL-012320-26 (280-133151-4)	1/23/20	11:15 Pacific	C=comp	Water			1	

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

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

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: 1-27-2020 1410 Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Company: \_\_\_\_\_  
 Custody Seals Intact: \_\_\_\_\_ Custody Seal No.: \_\_\_\_\_  
 Yes  No

## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133151-1

**Login Number: 133151**

**List Source: Eurofins TestAmerica, Denver**

**List Number: 1**

**Creator: Zimmerman, Steven M**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	False	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133151-1

**Login Number: 133151**  
**List Number: 3**  
**Creator: Hobbs, Kenneth F**

**List Source: Eurofins TestAmerica, Seattle**  
**List Creation: 01/29/20 12:27 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	IR6=1.7/1.3
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133151-1

**Login Number: 133151**

**List Number: 4**

**Creator: Hobbs, Kenneth F**

**List Source: Eurofins TestAmerica, Seattle**

**List Creation: 01/29/20 12:30 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	IR6=1.7/1.3
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	IR6=1.7/1.3

## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133151-1

**Login Number: 133151**  
**List Number: 2**  
**Creator: Harris, Lorin C**

**List Source: Eurofins TestAmerica, St. Louis**  
**List Creation: 01/28/20 01:55 PM**

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

## ANALYTICAL REPORT

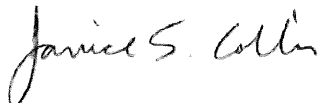
Eurofins TestAmerica, Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Tel: (303)736-0100

MW-26R  
Field Blank  
Trip Blank

Laboratory Job ID: 280-133152-1  
Client Project/Site: Hidden Valley LF

For:  
SCS Engineers  
2405 140th Avenue NE  
Suite 107  
Bellevue, Washington 98005-1877

Attn: Mr. Kevin Lakey



*Authorized for release by:  
2/18/2020 12:34:28 PM*

Janice Collins, Project Management Assistant I  
(303)736-0100  
janice.collins@testamericainc.com

Designee for

Betsy Sara, Project Manager II  
(303)736-0189  
betsy.sara@testamericainc.com

### LINKS

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*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

## Glossary

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

# Case Narrative

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

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**Job ID: 280-133152-1**

---

**Laboratory: Eurofins TestAmerica, Denver**

## Narrative

---

### CASE NARRATIVE

**Client: SCS Engineers**

**Project: Hidden Valley LF**

**Report Number: 280-133152-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

#### Sample Receiving

The samples were received on 01/24/2020; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 2.7 C.

#### Holding Times

All holding times were within established control limits.

#### Method Blanks

All Method Blanks were within established control limits.

#### Laboratory Control Samples (LCS)

All Laboratory Control Samples were within established control limits.

#### Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

The Matrix Spike and Matrix Spike Duplicate performed on a sample from another client exhibited recoveries outside control limits for several analytes Method 8260B. In addition, several analytes exceeded the RPD limit. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

All other MS and MSD samples were within established control limits.

#### General Comments

The analysis for Chloride and Sulfate Method 300.0 was performed at the TestAmerica's St. Louis Laboratory.  
13715 Rider Trail North  
Earth City, MO 63045  
Phone: 314-298-8566

The analysis for Iron Method 6020 was performed at the TestAmerica's Seattle Laboratory.  
5755 8th Street East

# Case Narrative

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

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## Job ID: 280-133152-1 (Continued)

---

Laboratory: Eurofins TestAmerica, Denver (Continued)

Tacoma, WA 98424  
Phone: 253-922-2310

# Detection Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

**Client Sample ID: HUL-012320-27 MW-26R**

**Lab Sample ID: 280-133152-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride - DL	4.6		0.60		mg/L		10		300.0	Total/NA
Sulfate - DL	10		0.50		mg/L		10		300.0	Total/NA
Calcium, Dissolved	20		0.20		mg/L		1		6010B	Dissolved
Magnesium, Dissolved	9.1		0.10		mg/L		1		6010B	Dissolved
Potassium, Dissolved	2.3		2.0		mg/L		1		6010B	Dissolved
Sodium, Dissolved	6.3		1.0		mg/L		1		6010B	Dissolved
Iron, Dissolved	0.14		0.036		mg/L		1		6020	Dissolved
Manganese, Dissolved	0.42		0.0010		mg/L		1		6020	Dissolved
Ammonia	0.14		0.10		mg/L		1		350.1	Total/NA
Alkalinity	94		10		mg/L		1		SM 2320B	Total/NA
Total Dissolved Solids	130		10		mg/L		1		SM 2540C	Total/NA

**Client Sample ID: HUL-012320-28 Field Blank**

**Lab Sample ID: 280-133152-2**

No Detections.

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 280-133152-3**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

# Method Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN
300.0	Anions, Ion Chromatography	MCAWW	TAL SL
6010B	Metals (ICP)	SW846	TAL DEN
6020	Metals (ICP/MS)	SW846	TAL DEN
6020	Metals (ICP/MS)	SW846	TAL SEA
300.0	Anions, Ion Chromatography	MCAWW	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN
SM 5310B	Organic Carbon, Total (TOC)	SM	TAL DEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL DEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL SEA
5030B	Purge and Trap	SW846	TAL DEN

#### Protocol References:

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

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

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

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

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# Sample Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-133152-1	HUL-012320-27	Water	01/23/20 13:15	01/24/20 09:20	
280-133152-2	HUL-012320-28	Water	01/23/20 13:45	01/24/20 09:20	
280-133152-3	TRIP BLANK	Water	01/23/20 13:45	01/24/20 09:20	

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

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

Client Sample ID: HUL-012320-27

Lab Sample ID: 280-133152-1

Date Collected: 01/23/20 13:15

Matrix: Water

Date Received: 01/24/20 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 20:14	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 20:14	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 20:14	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 20:14	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 20:14	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 20:14	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 20:14	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 20:14	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 20:14	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 20:14	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 20:14	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 20:14	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 20:14	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 20:14	1
2-Hexanone	ND		5.0		ug/L			01/30/20 20:14	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 20:14	1
Acetone	ND		10		ug/L			01/30/20 20:14	1
Acrylonitrile	ND		20		ug/L			01/30/20 20:14	1
Benzene	ND		0.50		ug/L			01/30/20 20:14	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 20:14	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 20:14	1
Bromoform	ND		0.50		ug/L			01/30/20 20:14	1
Bromomethane	ND		0.50		ug/L			01/30/20 20:14	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 20:14	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 20:14	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 20:14	1
Chloroethane	ND		0.50		ug/L			01/30/20 20:14	1
Chloroform	ND		0.50		ug/L			01/30/20 20:14	1
Chloromethane	ND		0.50		ug/L			01/30/20 20:14	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 20:14	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 20:14	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 20:14	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 20:14	1
Dibromomethane	ND		0.50		ug/L			01/30/20 20:14	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 20:14	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 20:14	1
Iodomethane	ND		1.0		ug/L			01/30/20 20:14	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 20:14	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 20:14	1
o-Xylene	ND		0.50		ug/L			01/30/20 20:14	1
Styrene	ND		0.50		ug/L			01/30/20 20:14	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 20:14	1
Toluene	ND		0.50		ug/L			01/30/20 20:14	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 20:14	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 20:14	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 20:14	1
Trichloroethene	ND		0.50		ug/L			01/30/20 20:14	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 20:14	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 20:14	1

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HUL-012320-27						Lab Sample ID: 280-133152-1			
Date Collected: 01/23/20 13:15						Matrix: Water			
Date Received: 01/24/20 09:20									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.50		ug/L			01/30/20 20:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		70 - 127					01/30/20 20:14	1
4-Bromofluorobenzene (Surr)	102		78 - 120					01/30/20 20:14	1
Dibromofluoromethane (Surr)	102		77 - 120					01/30/20 20:14	1
Toluene-d8 (Surr)	99		80 - 125					01/30/20 20:14	1

Client Sample ID: HUL-012320-28						Lab Sample ID: 280-133152-2			
Date Collected: 01/23/20 13:45						Matrix: Water			
Date Received: 01/24/20 09:20									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 20:36	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 20:36	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 20:36	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 20:36	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 20:36	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 20:36	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 20:36	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 20:36	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 20:36	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 20:36	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 20:36	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 20:36	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 20:36	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 20:36	1
2-Hexanone	ND		5.0		ug/L			01/30/20 20:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 20:36	1
Acetone	ND		10		ug/L			01/30/20 20:36	1
Acrylonitrile	ND		20		ug/L			01/30/20 20:36	1
Benzene	ND		0.50		ug/L			01/30/20 20:36	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 20:36	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 20:36	1
Bromoform	ND		0.50		ug/L			01/30/20 20:36	1
Bromomethane	ND		0.50		ug/L			01/30/20 20:36	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 20:36	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 20:36	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 20:36	1
Chloroethane	ND		0.50		ug/L			01/30/20 20:36	1
Chloroform	ND		0.50		ug/L			01/30/20 20:36	1
Chloromethane	ND		0.50		ug/L			01/30/20 20:36	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 20:36	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 20:36	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 20:36	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 20:36	1
Dibromomethane	ND		0.50		ug/L			01/30/20 20:36	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 20:36	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 20:36	1
Iodomethane	ND		1.0		ug/L			01/30/20 20:36	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 20:36	1



# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: HUL-012320-28**

**Date Collected: 01/23/20 13:45**

**Date Received: 01/24/20 09:20**

**Lab Sample ID: 280-133152-2**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 20:36	1
o-Xylene	ND		0.50		ug/L			01/30/20 20:36	1
Styrene	ND		0.50		ug/L			01/30/20 20:36	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 20:36	1
Toluene	ND		0.50		ug/L			01/30/20 20:36	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 20:36	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 20:36	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 20:36	1
Trichloroethene	ND		0.50		ug/L			01/30/20 20:36	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 20:36	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 20:36	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 20:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 127		01/30/20 20:36	1
4-Bromofluorobenzene (Surr)	101		78 - 120		01/30/20 20:36	1
Dibromofluoromethane (Surr)	101		77 - 120		01/30/20 20:36	1
Toluene-d8 (Surr)	99		80 - 125		01/30/20 20:36	1

**Client Sample ID: TRIP BLANK**

**Date Collected: 01/23/20 13:45**

**Date Received: 01/24/20 09:20**

**Lab Sample ID: 280-133152-3**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 20:57	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 20:57	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 20:57	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 20:57	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 20:57	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 20:57	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 20:57	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 20:57	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 20:57	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 20:57	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 20:57	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 20:57	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 20:57	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 20:57	1
2-Hexanone	ND		5.0		ug/L			01/30/20 20:57	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 20:57	1
Acetone	ND		10		ug/L			01/30/20 20:57	1
Acrylonitrile	ND		20		ug/L			01/30/20 20:57	1
Benzene	ND		0.50		ug/L			01/30/20 20:57	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 20:57	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 20:57	1
Bromoform	ND		0.50		ug/L			01/30/20 20:57	1
Bromomethane	ND		0.50		ug/L			01/30/20 20:57	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 20:57	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 20:57	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 20:57	1
Chloroethane	ND		0.50		ug/L			01/30/20 20:57	1

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: TRIP BLANK  
Date Collected: 01/23/20 13:45  
Date Received: 01/24/20 09:20

Lab Sample ID: 280-133152-3  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		0.50		ug/L			01/30/20 20:57	1
Chloromethane	ND		0.50		ug/L			01/30/20 20:57	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 20:57	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 20:57	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 20:57	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 20:57	1
Dibromomethane	ND		0.50		ug/L			01/30/20 20:57	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 20:57	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 20:57	1
Iodomethane	ND		1.0		ug/L			01/30/20 20:57	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 20:57	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 20:57	1
o-Xylene	ND		0.50		ug/L			01/30/20 20:57	1
Styrene	ND		0.50		ug/L			01/30/20 20:57	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 20:57	1
Toluene	ND		0.50		ug/L			01/30/20 20:57	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 20:57	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 20:57	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 20:57	1
Trichloroethene	ND		0.50		ug/L			01/30/20 20:57	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 20:57	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 20:57	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 20:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 127					01/30/20 20:57	1
4-Bromofluorobenzene (Surr)	102		78 - 120					01/30/20 20:57	1
Dibromofluoromethane (Surr)	101		77 - 120					01/30/20 20:57	1
Toluene-d8 (Surr)	99		80 - 125					01/30/20 20:57	1

## Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HUL-012320-28  
Date Collected: 01/23/20 13:45  
Date Received: 01/24/20 09:20

Lab Sample ID: 280-133152-2  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.20		mg/L			02/14/20 12:14	1
Sulfate	ND		0.20		mg/L			02/14/20 12:14	1

## Method: 300.0 - Anions, Ion Chromatography - DL

Client Sample ID: HUL-012320-27  
Date Collected: 01/23/20 13:15  
Date Received: 01/24/20 09:20

Lab Sample ID: 280-133152-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.6		0.60		mg/L			02/14/20 11:55	10
Sulfate	10		0.50		mg/L			02/14/20 11:55	10

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## Method: 6010B - Metals (ICP) - Dissolved

Client Sample ID: HUL-012320-27  
Date Collected: 01/23/20 13:15  
Date Received: 01/24/20 09:20

Lab Sample ID: 280-133152-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	20		0.20		mg/L		01/28/20 09:00	01/29/20 15:50	1
Magnesium, Dissolved	9.1		0.10		mg/L		01/28/20 09:00	01/29/20 15:50	1
Potassium, Dissolved	2.3		2.0		mg/L		01/28/20 09:00	01/29/20 15:50	1
Sodium, Dissolved	6.3		1.0		mg/L		01/28/20 09:00	01/29/20 15:50	1

Client Sample ID: HUL-012320-28  
Date Collected: 01/23/20 13:45  
Date Received: 01/24/20 09:20

Lab Sample ID: 280-133152-2  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	ND		0.20		mg/L		01/28/20 09:00	01/29/20 15:59	1
Magnesium, Dissolved	ND		0.10		mg/L		01/28/20 09:00	01/29/20 15:59	1
Potassium, Dissolved	ND		2.0		mg/L		01/28/20 09:00	01/29/20 15:59	1
Sodium, Dissolved	ND		1.0		mg/L		01/28/20 09:00	01/29/20 15:59	1

## Method: 6020 - Metals (ICP/MS) - Dissolved

Client Sample ID: HUL-012320-27  
Date Collected: 01/23/20 13:15  
Date Received: 01/24/20 09:20

Lab Sample ID: 280-133152-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	0.14		0.036		mg/L		01/29/20 12:56	01/30/20 14:37	1
Manganese, Dissolved	0.42		0.0010		mg/L		01/28/20 09:00	01/30/20 00:18	1

Client Sample ID: HUL-012320-28  
Date Collected: 01/23/20 13:45  
Date Received: 01/24/20 09:20

Lab Sample ID: 280-133152-2  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.036		mg/L		01/29/20 12:56	01/30/20 14:40	1
Manganese, Dissolved	ND		0.0010		mg/L		01/28/20 09:00	01/30/20 00:22	1

## General Chemistry

Client Sample ID: HUL-012320-27  
Date Collected: 01/23/20 13:15  
Date Received: 01/24/20 09:20

Lab Sample ID: 280-133152-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20		mg/L			01/24/20 17:42	1
Ammonia	0.14		0.10		mg/L			01/31/20 16:22	1
Alkalinity	94		10		mg/L			01/30/20 15:31	1
Total Dissolved Solids	130		10		mg/L			01/28/20 09:45	1
Total Suspended Solids	ND		4.0		mg/L			01/27/20 09:48	1
Total Organic Carbon - Quad	ND		1.0		mg/L			01/28/20 03:10	1

Client Sample ID: HUL-012320-28  
Date Collected: 01/23/20 13:45  
Date Received: 01/24/20 09:20

Lab Sample ID: 280-133152-2  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20		mg/L			01/24/20 17:59	1
Ammonia	ND		0.10		mg/L			01/31/20 16:24	1
Alkalinity	ND		10		mg/L			01/30/20 15:35	1
Total Dissolved Solids	ND		10		mg/L			01/28/20 09:45	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## General Chemistry (Continued)

Client Sample ID: HUL-012320-28

Date Collected: 01/23/20 13:45

Date Received: 01/24/20 09:20

Lab Sample ID: 280-133152-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0		mg/L			01/27/20 09:48	1
Total Organic Carbon - Quad	ND		1.0		mg/L			01/28/20 03:31	1

# Surrogate Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

**Matrix: Water**

**Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (70-127)	BFB (78-120)	DBFM (77-120)	TOL (80-125)
280-133152-1	HUL-012320-27	108	102	102	99
280-133152-2	HUL-012320-28	106	101	101	99
280-133152-3	TRIP BLANK	106	102	101	99
280-133195-E-3 MSD	Matrix Spike Duplicate	105	101	101	100
280-133195-F-3 MS	Matrix Spike	106	102	101	99
LCS 280-484517/4	Lab Control Sample	102	100	100	99
LCSD 280-484517/5	Lab Control Sample Dup	104	99	101	98
MB 280-484517/8	Method Blank	106	101	100	99

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

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

Lab Sample ID: MB 280-484517/8

Matrix: Water

Analysis Batch: 484517

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 17:42	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 17:42	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 17:42	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 17:42	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 17:42	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 17:42	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 17:42	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 17:42	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 17:42	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 17:42	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 17:42	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 17:42	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 17:42	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 17:42	1
2-Hexanone	ND		5.0		ug/L			01/30/20 17:42	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 17:42	1
Acetone	ND		10		ug/L			01/30/20 17:42	1
Acrylonitrile	ND		20		ug/L			01/30/20 17:42	1
Benzene	ND		0.50		ug/L			01/30/20 17:42	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 17:42	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 17:42	1
Bromoform	ND		0.50		ug/L			01/30/20 17:42	1
Bromomethane	ND		0.50		ug/L			01/30/20 17:42	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 17:42	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 17:42	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 17:42	1
Chloroethane	ND		0.50		ug/L			01/30/20 17:42	1
Chloroform	ND		0.50		ug/L			01/30/20 17:42	1
Chloromethane	ND		0.50		ug/L			01/30/20 17:42	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 17:42	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 17:42	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 17:42	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 17:42	1
Dibromomethane	ND		0.50		ug/L			01/30/20 17:42	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 17:42	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 17:42	1
Iodomethane	ND		1.0		ug/L			01/30/20 17:42	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 17:42	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 17:42	1
o-Xylene	ND		0.50		ug/L			01/30/20 17:42	1
Styrene	ND		0.50		ug/L			01/30/20 17:42	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 17:42	1
Toluene	ND		0.50		ug/L			01/30/20 17:42	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 17:42	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 17:42	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 17:42	1
Trichloroethene	ND		0.50		ug/L			01/30/20 17:42	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 17:42	1

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 280-484517/8**

**Matrix: Water**

**Analysis Batch: 484517**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Vinyl acetate	ND		3.0		ug/L			01/30/20 17:42	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 17:42	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	106		70 - 127		01/30/20 17:42	1
4-Bromofluorobenzene (Surr)	101		78 - 120		01/30/20 17:42	1
Dibromofluoromethane (Surr)	100		77 - 120		01/30/20 17:42	1
Toluene-d8 (Surr)	99		80 - 125		01/30/20 17:42	1

**Lab Sample ID: LCS 280-484517/4**

**Matrix: Water**

**Analysis Batch: 484517**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
1,1,1,2-Tetrachloroethane	25.0	22.5		ug/L		90	65 - 135
1,1,1-Trichloroethane	25.0	24.5		ug/L		98	65 - 135
1,1,2,2-Tetrachloroethane	25.0	27.3		ug/L		109	58 - 135
1,1,2-Trichloroethane	25.0	26.7		ug/L		107	64 - 135
1,1-Dichloroethane	25.0	25.9		ug/L		104	65 - 135
1,1-Dichloroethene	25.0	25.9		ug/L		104	65 - 136
1,2,3-Trichloropropane	25.0	26.9		ug/L		107	65 - 135
1,2-Dibromo-3-Chloropropane	25.0	20.0		ug/L		80	57 - 135
1,2-Dibromoethane	25.0	26.5		ug/L		106	65 - 135
1,2-Dichlorobenzene	25.0	26.7		ug/L		107	65 - 135
1,2-Dichloroethane	25.0	27.4		ug/L		109	65 - 135
1,2-Dichloropropane	25.0	26.5		ug/L		106	64 - 135
1,4-Dichlorobenzene	25.0	26.7		ug/L		107	65 - 135
2-Butanone (MEK)	100	102		ug/L		102	44 - 177
2-Hexanone	100	111		ug/L		111	57 - 139
4-Methyl-2-pentanone (MIBK)	100	109		ug/L		109	60 - 150
Acetone	100	104		ug/L		104	39 - 156
Acrylonitrile	250	276		ug/L		110	56 - 135
Benzene	25.0	25.8		ug/L		103	65 - 135
Bromochloromethane	25.0	25.8		ug/L		103	65 - 135
Bromodichloromethane	25.0	28.2		ug/L		113	65 - 135
Bromoform	25.0	26.9		ug/L		108	62 - 135
Bromomethane	25.0	32.1		ug/L		128	45 - 135
Carbon disulfide	25.0	25.3		ug/L		101	55 - 143
Carbon tetrachloride	25.0	21.6		ug/L		87	65 - 135
Chlorobenzene	25.0	25.9		ug/L		104	65 - 135
Chloroethane	25.0	28.6		ug/L		114	46 - 136
Chloroform	25.0	26.5		ug/L		106	65 - 135
Chloromethane	25.0	26.8		ug/L		107	34 - 145
cis-1,2-Dichloroethene	25.0	26.3		ug/L		105	65 - 135
cis-1,3-Dichloropropene	25.0	22.5		ug/L		90	65 - 135
Dibromochloromethane	25.0	22.6		ug/L		90	65 - 135
Dibromomethane	25.0	27.2		ug/L		109	65 - 135
Dichlorodifluoromethane	25.0	33.3		ug/L		133	43 - 142

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-484517/4

Matrix: Water

Analysis Batch: 484517

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	25.0	25.8		ug/L		103	65 - 135
Iodomethane	25.0	18.7		ug/L		75	65 - 142
Methylene Chloride	25.0	26.8		ug/L		107	54 - 141
m-Xylene & p-Xylene	25.0	25.4		ug/L		102	65 - 135
o-Xylene	25.0	26.8		ug/L		107	65 - 135
Styrene	25.0	28.3		ug/L		113	65 - 135
Tetrachloroethene	25.0	24.4		ug/L		98	65 - 135
Toluene	25.0	25.4		ug/L		102	65 - 135
trans-1,2-Dichloroethene	25.0	25.9		ug/L		104	65 - 135
trans-1,3-Dichloropropene	25.0	19.0		ug/L		76	65 - 135
trans-1,4-Dichloro-2-butene	25.0	21.9		ug/L		87	53 - 135
Trichloroethene	25.0	24.7		ug/L		99	65 - 135
Trichlorofluoromethane	25.0	28.0		ug/L		112	53 - 137
Vinyl acetate	50.0	49.0		ug/L		98	11 - 187
Vinyl chloride	25.0	26.3		ug/L		105	40 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 127
4-Bromofluorobenzene (Surr)	100		78 - 120
Dibromofluoromethane (Surr)	100		77 - 120
Toluene-d8 (Surr)	99		80 - 125

Lab Sample ID: LCSD 280-484517/5

Matrix: Water

Analysis Batch: 484517

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	21.8		ug/L		87	65 - 135	3	20
1,1,1-Trichloroethane	25.0	23.9		ug/L		96	65 - 135	2	20
1,1,2,2-Tetrachloroethane	25.0	25.9		ug/L		104	58 - 135	5	20
1,1,2-Trichloroethane	25.0	25.9		ug/L		103	64 - 135	3	27
1,1-Dichloroethane	25.0	25.5		ug/L		102	65 - 135	2	21
1,1-Dichloroethane	25.0	25.2		ug/L		101	65 - 136	3	20
1,2,3-Trichloropropane	25.0	26.1		ug/L		104	65 - 135	3	23
1,2-Dibromo-3-Chloropropane	25.0	19.5		ug/L		78	57 - 135	3	22
1,2-Dibromoethane	25.0	26.2		ug/L		105	65 - 135	1	27
1,2-Dichlorobenzene	25.0	25.1		ug/L		100	65 - 135	6	20
1,2-Dichloroethane	25.0	26.7		ug/L		107	65 - 135	2	20
1,2-Dichloropropane	25.0	26.2		ug/L		105	64 - 135	1	20
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	65 - 135	6	23
2-Butanone (MEK)	100	100		ug/L		100	44 - 177	2	32
2-Hexanone	100	109		ug/L		109	57 - 139	2	25
4-Methyl-2-pentanone (MIBK)	100	108		ug/L		108	60 - 150	1	22
Acetone	100	101		ug/L		101	39 - 156	4	23
Acrylonitrile	250	268		ug/L		107	56 - 135	3	30
Benzene	25.0	25.1		ug/L		100	65 - 135	3	20
Bromochloromethane	25.0	25.8		ug/L		103	65 - 135	0	29
Bromodichloromethane	25.0	27.4		ug/L		110	65 - 135	3	20

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-484517/5

Matrix: Water

Analysis Batch: 484517

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromoform	25.0	26.4		ug/L		106	62 - 135	2	27
Bromomethane	25.0	30.9		ug/L		124	45 - 135	4	33
Carbon disulfide	25.0	24.8		ug/L		99	55 - 143	2	20
Carbon tetrachloride	25.0	21.4		ug/L		86	65 - 135	1	21
Chlorobenzene	25.0	25.1		ug/L		101	65 - 135	3	20
Chloroethane	25.0	28.0		ug/L		112	46 - 136	2	25
Chloroform	25.0	26.0		ug/L		104	65 - 135	2	20
Chloromethane	25.0	26.1		ug/L		104	34 - 145	3	24
cis-1,2-Dichloroethene	25.0	26.2		ug/L		105	65 - 135	0	20
cis-1,3-Dichloropropene	25.0	21.8		ug/L		87	65 - 135	3	26
Dibromochloromethane	25.0	21.9		ug/L		88	65 - 135	3	20
Dibromomethane	25.0	26.5		ug/L		106	65 - 135	3	26
Dichlorodifluoromethane	25.0	31.3		ug/L		125	43 - 142	6	30
Ethylbenzene	25.0	25.0		ug/L		100	65 - 135	3	20
Iodomethane	25.0	18.8		ug/L		75	65 - 142	0	25
Methylene Chloride	25.0	26.5		ug/L		106	54 - 141	1	26
m-Xylene & p-Xylene	25.0	25.0		ug/L		100	65 - 135	2	20
o-Xylene	25.0	26.0		ug/L		104	65 - 135	3	20
Styrene	25.0	27.5		ug/L		110	65 - 135	3	26
Tetrachloroethene	25.0	23.9		ug/L		95	65 - 135	2	20
Toluene	25.0	24.9		ug/L		100	65 - 135	2	20
trans-1,2-Dichloroethene	25.0	25.9		ug/L		104	65 - 135	0	24
trans-1,3-Dichloropropene	25.0	18.5		ug/L		74	65 - 135	3	26
trans-1,4-Dichloro-2-butene	25.0	20.7		ug/L		83	53 - 135	5	25
Trichloroethene	25.0	24.4		ug/L		98	65 - 135	1	20
Trichlorofluoromethane	25.0	27.0		ug/L		108	53 - 137	4	27
Vinyl acetate	50.0	47.8		ug/L		96	11 - 187	2	24
Vinyl chloride	25.0	26.4		ug/L		106	40 - 137	0	24

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 127
4-Bromofluorobenzene (Surr)	99		78 - 120
Dibromofluoromethane (Surr)	101		77 - 120
Toluene-d8 (Surr)	98		80 - 125

Lab Sample ID: 280-133195-E-3 MSD

Matrix: Water

Analysis Batch: 484517

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND	F2	25.0	16.2	F2	ug/L		65	65 - 135	26	20
1,1,1-Trichloroethane	ND	F2	25.0	20.1	F2	ug/L		80	65 - 135	25	20
1,1,2,2-Tetrachloroethane	ND	F2	25.0	19.7	F2	ug/L		79	58 - 135	28	20
1,1,2-Trichloroethane	ND	F2	25.0	19.1	F2	ug/L		76	64 - 135	29	27
1,1-Dichloroethane	ND	F2	25.0	20.5	F2	ug/L		82	65 - 135	26	21
1,1-Dichloroethene	ND	F2	25.0	22.0	F2	ug/L		88	65 - 136	29	20
1,2,3-Trichloropropane	ND	F2	25.0	19.5	F2	ug/L		78	65 - 135	29	23
1,2-Dibromo-3-Chloropropane	ND	F1 F2	25.0	13.5	F1 F2	ug/L		54	57 - 135	25	22

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 280-133195-E-3 MSD** **Client Sample ID: Matrix Spike Duplicate**  
**Matrix: Water** **Prep Type: Total/NA**  
**Analysis Batch: 484517**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
				Result	Qualifier				Limits		Limit
1,2-Dibromoethane	ND		25.0	19.3		ug/L		77	65 - 135	27	27
1,2-Dichlorobenzene	ND	F2	25.0	19.3	F2	ug/L		77	65 - 135	27	20
1,2-Dichloroethane	ND	F2	25.0	20.4	F2	ug/L		82	65 - 135	28	20
1,2-Dichloropropane	ND	F2	25.0	19.8	F2	ug/L		79	64 - 135	27	20
1,4-Dichlorobenzene	ND	F2	25.0	19.8	F2	ug/L		79	65 - 135	25	23
2-Butanone (MEK)	ND		100	74.7		ug/L		75	44 - 177	27	32
2-Hexanone	ND	F2	100	79.7	F2	ug/L		80	57 - 139	27	25
4-Methyl-2-pentanone (MIBK)	ND	F2	100	78.5	F2	ug/L		78	60 - 150	28	22
Acetone	ND	F2	100	75.7	F2	ug/L		76	39 - 156	26	23
Acrylonitrile	ND		250	202		ug/L		81	56 - 135	26	30
Benzene	ND	F2	25.0	20.0	F2	ug/L		80	65 - 135	26	20
Bromochloromethane	ND		25.0	19.0		ug/L		76	65 - 135	25	29
Bromodichloromethane	ND	F2	25.0	20.3	F2	ug/L		81	65 - 135	28	20
Bromoform	ND		25.0	18.9		ug/L		75	62 - 135	25	27
Bromomethane	ND		25.0	22.3		ug/L		89	45 - 135	0	33
Carbon disulfide	ND	F2	25.0	21.3	F2	ug/L		85	55 - 143	26	20
Carbon tetrachloride	ND	F2	25.0	18.4	F2	ug/L		74	65 - 135	22	21
Chlorobenzene	ND	F2	25.0	19.9	F2	ug/L		80	65 - 135	25	20
Chloroethane	ND		25.0	26.5		ug/L		106	46 - 136	10	25
Chloroform	ND	F2	25.0	20.5	F2	ug/L		82	65 - 135	27	20
Chloromethane	ND		25.0	23.5		ug/L		94	34 - 145	7	24
cis-1,2-Dichloroethene	ND	F2	25.0	20.6	F2	ug/L		82	65 - 135	26	20
cis-1,3-Dichloropropene	ND	F1	25.0	14.9	F1	ug/L		59	65 - 135	26	26
Dibromochloromethane	ND	F1 F2	25.0	15.8	F1 F2	ug/L		63	65 - 135	26	20
Dibromomethane	ND	F2	25.0	20.1	F2	ug/L		80	65 - 135	27	26
Dichlorodifluoromethane	ND	F1	25.0	37.5	F1	ug/L		150	43 - 142	8	30
Ethylbenzene	ND	F2	25.0	20.2	F2	ug/L		81	65 - 135	25	20
Iodomethane	ND	F1	25.0	11.9	F1	ug/L		47	65 - 142	11	25
Methylene Chloride	ND		25.0	19.9		ug/L		79	54 - 141	26	26
m-Xylene & p-Xylene	ND	F2	25.0	20.1	F2	ug/L		81	65 - 135	25	20
o-Xylene	ND	F2	25.0	20.5	F2	ug/L		82	65 - 135	26	20
Styrene	ND		25.0	21.1		ug/L		85	65 - 135	25	26
Tetrachloroethene	ND	F2	25.0	20.3	F2	ug/L		81	65 - 135	23	20
Toluene	ND	F2	25.0	19.9	F2	ug/L		79	65 - 135	27	20
trans-1,2-Dichloroethene	ND	F2	25.0	20.9	F2	ug/L		84	65 - 135	25	24
trans-1,3-Dichloropropene	ND	F1	25.0	12.0	F1	ug/L		48	65 - 135	25	26
trans-1,4-Dichloro-2-butene	ND	F2	25.0	13.2	F2	ug/L		53	53 - 135	31	25
Trichloroethene	ND	F2	25.0	19.7	F2	ug/L		79	65 - 135	27	20
Trichlorofluoromethane	ND	F1	25.0	31.5		ug/L		126	53 - 137	9	27
Vinyl acetate	ND	F2	50.0	30.8	F2	ug/L		62	11 - 187	25	24
Vinyl chloride	ND		25.0	27.4		ug/L		110	40 - 137	7	24

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 127
4-Bromofluorobenzene (Surr)	101		78 - 120
Dibromofluoromethane (Surr)	101		77 - 120
Toluene-d8 (Surr)	100		80 - 125

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-133195-F-3 MS

Matrix: Water

Analysis Batch: 484517

Client Sample ID: Matrix Spike  
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
1,1,1,2-Tetrachloroethane	ND	F2	25.0	21.1		ug/L		84	65 - 135
1,1,1-Trichloroethane	ND	F2	25.0	25.7		ug/L		103	65 - 135
1,1,2,2-Tetrachloroethane	ND	F2	25.0	26.1		ug/L		104	58 - 135
1,1,2-Trichloroethane	ND	F2	25.0	25.5		ug/L		102	64 - 135
1,1-Dichloroethane	ND	F2	25.0	26.5		ug/L		106	65 - 135
1,1-Dichloroethene	ND	F2	25.0	29.4		ug/L		118	65 - 136
1,2,3-Trichloropropane	ND	F2	25.0	26.0		ug/L		104	65 - 135
1,2-Dibromo-3-Chloropropane	ND	F1 F2	25.0	17.4		ug/L		70	57 - 135
1,2-Dibromoethane	ND		25.0	25.3		ug/L		101	65 - 135
1,2-Dichlorobenzene	ND	F2	25.0	25.3		ug/L		101	65 - 135
1,2-Dichloroethane	ND	F2	25.0	27.2		ug/L		109	65 - 135
1,2-Dichloropropane	ND	F2	25.0	26.1		ug/L		104	64 - 135
1,4-Dichlorobenzene	ND	F2	25.0	25.5		ug/L		102	65 - 135
2-Butanone (MEK)	ND		100	97.9		ug/L		98	44 - 177
2-Hexanone	ND	F2	100	105		ug/L		105	57 - 139
4-Methyl-2-pentanone (MIBK)	ND	F2	100	104		ug/L		104	60 - 150
Acetone	ND	F2	100	98.6		ug/L		99	39 - 156
Acrylonitrile	ND		250	263		ug/L		105	56 - 135
Benzene	ND	F2	25.0	26.0		ug/L		104	65 - 135
Bromochloromethane	ND		25.0	24.4		ug/L		98	65 - 135
Bromodichloromethane	ND	F2	25.0	27.0		ug/L		108	65 - 135
Bromoform	ND		25.0	24.2		ug/L		97	62 - 135
Bromomethane	ND		25.0	22.2		ug/L		89	45 - 135
Carbon disulfide	ND	F2	25.0	27.8		ug/L		111	55 - 143
Carbon tetrachloride	ND	F2	25.0	23.0		ug/L		92	65 - 135
Chlorobenzene	ND	F2	25.0	25.5		ug/L		102	65 - 135
Chloroethane	ND		25.0	29.1		ug/L		117	46 - 136
Chloroform	ND	F2	25.0	26.9		ug/L		107	65 - 135
Chloromethane	ND		25.0	25.3		ug/L		101	34 - 145
cis-1,2-Dichloroethene	ND	F2	25.0	26.7		ug/L		107	65 - 135
cis-1,3-Dichloropropene	ND	F1	25.0	19.2		ug/L		77	65 - 135
Dibromochloromethane	ND	F1 F2	25.0	20.6		ug/L		83	65 - 135
Dibromomethane	ND	F2	25.0	26.2		ug/L		105	65 - 135
Dichlorodifluoromethane	ND	F1	25.0	40.7	F1	ug/L		163	43 - 142
Ethylbenzene	ND	F2	25.0	26.1		ug/L		104	65 - 135
Iodomethane	ND	F1	25.0	10.7	F1	ug/L		43	65 - 142
Methylene Chloride	ND		25.0	25.8		ug/L		103	54 - 141
m-Xylene & p-Xylene	ND	F2	25.0	25.8		ug/L		103	65 - 135
o-Xylene	ND	F2	25.0	26.6		ug/L		107	65 - 135
Styrene	ND		25.0	27.3		ug/L		109	65 - 135
Tetrachloroethene	ND	F2	25.0	25.7		ug/L		103	65 - 135
Toluene	ND	F2	25.0	26.1		ug/L		104	65 - 135
trans-1,2-Dichloroethene	ND	F2	25.0	26.9		ug/L		107	65 - 135
trans-1,3-Dichloropropene	ND	F1	25.0	15.5	F1	ug/L		62	65 - 135
trans-1,4-Dichloro-2-butene	ND	F2	25.0	18.1		ug/L		72	53 - 135
Trichloroethene	ND	F2	25.0	25.9		ug/L		104	65 - 135
Trichlorofluoromethane	ND	F1	25.0	34.4	F1	ug/L		138	53 - 137
Vinyl acetate	ND	F2	50.0	39.7		ug/L		79	11 - 187

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-133195-F-3 MS

Matrix: Water

Analysis Batch: 484517

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	ND		25.0	29.4		ug/L		118	40 - 137
<b>Surrogate</b>									
	<i>MS</i>	<i>MS</i>	<i>Limits</i>						
	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>						
1,2-Dichloroethane-d4 (Surr)	106		70 - 127						
4-Bromofluorobenzene (Surr)	102		78 - 120						
Dibromofluoromethane (Surr)	101		77 - 120						
Toluene-d8 (Surr)	99		80 - 125						

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 160-460294/46

Matrix: Water

Analysis Batch: 460294

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.20		mg/L			02/14/20 06:16	1
Sulfate	ND		0.20		mg/L			02/14/20 06:16	1

Lab Sample ID: LCS 160-460294/47

Matrix: Water

Analysis Batch: 460294

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.92		mg/L		96	90 - 110
Sulfate	8.00	7.49		mg/L		94	90 - 110

## Method: 300.0 - Anions, Ion Chromatography - DL

Lab Sample ID: 280-133115-F-9 MS

Matrix: Water

Analysis Batch: 460294

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride - DL	5.8		20.0	24.6		mg/L		94	90 - 110
Sulfate - DL	9.0		40.0	46.3		mg/L		93	90 - 110

Lab Sample ID: 280-133115-F-9 DU

Matrix: Water

Analysis Batch: 460294

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride - DL	5.8		5.60		mg/L		3	20
Sulfate - DL	9.0		8.77		mg/L		3	20

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## Method: 6010B - Metals (ICP)

<b>Lab Sample ID: MB 280-484073/1-A</b> <b>Matrix: Water</b> <b>Analysis Batch: 484484</b>	<b>Client Sample ID: Method Blank</b> <b>Prep Type: Total Recoverable</b> <b>Prep Batch: 484073</b>
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Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Calcium, Dissolved	ND		0.20		mg/L		01/28/20 09:00	01/29/20 15:45	1
Magnesium, Dissolved	ND		0.10		mg/L		01/28/20 09:00	01/29/20 15:45	1
Potassium, Dissolved	ND		2.0		mg/L		01/28/20 09:00	01/29/20 15:45	1
Sodium, Dissolved	ND		1.0		mg/L		01/28/20 09:00	01/29/20 15:45	1

<b>Lab Sample ID: LCS 280-484073/2-A</b> <b>Matrix: Water</b> <b>Analysis Batch: 484484</b>	<b>Client Sample ID: Lab Control Sample</b> <b>Prep Type: Total Recoverable</b> <b>Prep Batch: 484073</b>
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Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Calcium, Dissolved	50.0	48.5		mg/L		97	90 - 111
Magnesium, Dissolved	50.0	48.5		mg/L		97	90 - 113
Potassium, Dissolved	50.0	50.6		mg/L		101	89 - 114
Sodium, Dissolved	50.0	48.2		mg/L		96	90 - 115

<b>Lab Sample ID: 280-133152-1 MS</b> <b>Matrix: Water</b> <b>Analysis Batch: 484484</b>	<b>Client Sample ID: HUL-012320-27</b> <b>Prep Type: Dissolved</b> <b>Prep Batch: 484073</b>
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Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Calcium, Dissolved	20		50.0	69.6		mg/L		99	48 - 153
Magnesium, Dissolved	9.1		50.0	58.1		mg/L		98	62 - 146
Potassium, Dissolved	2.3		50.0	54.1		mg/L		103	76 - 132
Sodium, Dissolved	6.3		50.0	54.9		mg/L		97	70 - 203

<b>Lab Sample ID: 280-133152-1 MSD</b> <b>Matrix: Water</b> <b>Analysis Batch: 484484</b>	<b>Client Sample ID: HUL-012320-27</b> <b>Prep Type: Dissolved</b> <b>Prep Batch: 484073</b>
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Analyte	Sample Sample		Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Calcium, Dissolved	20		50.0	67.3		mg/L		95	48 - 153	3	20
Magnesium, Dissolved	9.1		50.0	56.3		mg/L		95	62 - 146	3	20
Potassium, Dissolved	2.3		50.0	52.1		mg/L		99	76 - 132	4	20
Sodium, Dissolved	6.3		50.0	53.1		mg/L		94	70 - 203	3	20

## Method: 6020 - Metals (ICP/MS)

<b>Lab Sample ID: MB 580-321630/17-A</b> <b>Matrix: Water</b> <b>Analysis Batch: 321698</b>	<b>Client Sample ID: Method Blank</b> <b>Prep Type: Total Recoverable</b> <b>Prep Batch: 321630</b>
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Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iron, Dissolved	ND		0.18		mg/L		01/29/20 12:56	01/30/20 12:30	5

<b>Lab Sample ID: LCS 580-321630/18-A</b> <b>Matrix: Water</b> <b>Analysis Batch: 321698</b>	<b>Client Sample ID: Lab Control Sample</b> <b>Prep Type: Total Recoverable</b> <b>Prep Batch: 321630</b>
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Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Iron, Dissolved	20.0	20.2		mg/L		101	80 - 120

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## Method: 6020 - Metals (ICP/MS)

<b>Lab Sample ID: LCSD 580-321630/19-A</b>				<b>Client Sample ID: Lab Control Sample Dup</b>						
<b>Matrix: Water</b>				<b>Prep Type: Total Recoverable</b>						
<b>Analysis Batch: 321698</b>				<b>Prep Batch: 321630</b>						
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Iron, Dissolved	20.0	20.1		mg/L		100	80 - 120	0	20	

<b>Lab Sample ID: MB 280-484088/1-A</b>				<b>Client Sample ID: Method Blank</b>						
<b>Matrix: Water</b>				<b>Prep Type: Total Recoverable</b>						
<b>Analysis Batch: 484430</b>				<b>Prep Batch: 484088</b>						
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese, Dissolved	ND		0.0010		mg/L		01/28/20 09:00	01/29/20 23:17	1	

<b>Lab Sample ID: LCS 280-484088/2-A</b>				<b>Client Sample ID: Lab Control Sample</b>						
<b>Matrix: Water</b>				<b>Prep Type: Total Recoverable</b>						
<b>Analysis Batch: 484430</b>				<b>Prep Batch: 484088</b>						
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits			
Manganese, Dissolved	0.0400	0.0379		mg/L		95	85 - 117			

<b>Lab Sample ID: 280-133115-E-1-C MS</b>				<b>Client Sample ID: Matrix Spike</b>						
<b>Matrix: Water</b>				<b>Prep Type: Dissolved</b>						
<b>Analysis Batch: 321698</b>				<b>Prep Batch: 321630</b>						
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits	
Iron, Dissolved	ND		20.0	19.1		mg/L		95	80 - 120	

<b>Lab Sample ID: 280-133115-E-1-D MSD</b>				<b>Client Sample ID: Matrix Spike Duplicate</b>							
<b>Matrix: Water</b>				<b>Prep Type: Dissolved</b>							
<b>Analysis Batch: 321698</b>				<b>Prep Batch: 321630</b>							
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Iron, Dissolved	ND		20.0	19.1		mg/L		95	80 - 120	0	20

<b>Lab Sample ID: 280-133115-E-1-B DU</b>				<b>Client Sample ID: Duplicate</b>						
<b>Matrix: Water</b>				<b>Prep Type: Dissolved</b>						
<b>Analysis Batch: 321698</b>				<b>Prep Batch: 321630</b>						
Analyte	Sample Result	Sample Qualifier			DU Result	DU Qualifier	Unit	D	RPD	Limit
Iron, Dissolved	ND				ND		mg/L		NC	20

<b>Lab Sample ID: 280-133169-B-3-B MS</b>				<b>Client Sample ID: Matrix Spike</b>							
<b>Matrix: Water</b>				<b>Prep Type: Dissolved</b>							
<b>Analysis Batch: 484430</b>				<b>Prep Batch: 484088</b>							
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits		
Manganese, Dissolved	ND		0.0400	0.0380		mg/L		94	85 - 117		

<b>Lab Sample ID: 280-133169-B-3-C MSD</b>				<b>Client Sample ID: Matrix Spike Duplicate</b>							
<b>Matrix: Water</b>				<b>Prep Type: Dissolved</b>							
<b>Analysis Batch: 484430</b>				<b>Prep Batch: 484088</b>							
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Manganese, Dissolved	ND		0.0400	0.0393		mg/L		97	85 - 117	3	20

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 280-483916/6**  
**Matrix: Water**  
**Analysis Batch: 483916**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20		mg/L			01/24/20 12:07	1

**Lab Sample ID: LCS 280-483916/4**  
**Matrix: Water**  
**Analysis Batch: 483916**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	5.00	5.06		mg/L		101	90 - 110

**Lab Sample ID: LCSD 280-483916/5**  
**Matrix: Water**  
**Analysis Batch: 483916**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	5.00	5.06		mg/L		101	90 - 110	0	10

**Lab Sample ID: MRL 280-483916/3**  
**Matrix: Water**  
**Analysis Batch: 483916**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.500	0.512		mg/L		102	50 - 150

**Lab Sample ID: 280-133158-A-1 MS**  
**Matrix: Water**  
**Analysis Batch: 483916**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.3		5.00	7.19		mg/L		98	80 - 120

**Lab Sample ID: 280-133158-A-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 483916**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	2.3		5.00	7.57		mg/L		106	80 - 120	5	20

**Lab Sample ID: 280-133158-A-1 DU**  
**Matrix: Water**  
**Analysis Batch: 483916**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	2.3		2.13		mg/L		7	15

# QC Sample Results

Client: SCS Engineers  
 Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## Method: 350.1 - Nitrogen, Ammonia

<b>Lab Sample ID: MB 280-484652/73</b>						<b>Client Sample ID: Method Blank</b>			
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>			
<b>Analysis Batch: 484652</b>									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.10		mg/L			01/31/20 15:20	1

<b>Lab Sample ID: LCS 280-484652/71</b>						<b>Client Sample ID: Lab Control Sample</b>			
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>			
<b>Analysis Batch: 484652</b>									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia	2.50	2.43		mg/L		97	90 - 110		

<b>Lab Sample ID: LCSD 280-484652/72</b>						<b>Client Sample ID: Lab Control Sample Dup</b>			
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>			
<b>Analysis Batch: 484652</b>									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	2.50	2.56		mg/L		102	90 - 110	5	10

<b>Lab Sample ID: 280-133206-J-6 MS</b>						<b>Client Sample ID: Matrix Spike</b>			
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>			
<b>Analysis Batch: 484652</b>									
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.1		1.00	2.03		mg/L		94	90 - 110

<b>Lab Sample ID: 280-133206-J-6 MSD</b>						<b>Client Sample ID: Matrix Spike Duplicate</b>					
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>					
<b>Analysis Batch: 484652</b>											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	1.1		1.00	2.10		mg/L		101	90 - 110	4	10

## Method: SM 2320B - Alkalinity

<b>Lab Sample ID: MB 280-484550/6</b>						<b>Client Sample ID: Method Blank</b>			
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>			
<b>Analysis Batch: 484550</b>									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	ND		10		mg/L			01/30/20 13:06	1

<b>Lab Sample ID: LCS 280-484550/4</b>						<b>Client Sample ID: Lab Control Sample</b>			
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>			
<b>Analysis Batch: 484550</b>									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity	200	205		mg/L		102	89 - 109		



# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCSD 280-484550/5  
Matrix: Water  
Analysis Batch: 484550

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity	200	202		mg/L		101	89 - 109	1	10

Lab Sample ID: 280-133163-A-2 DU  
Matrix: Water  
Analysis Batch: 484550

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	1300		1300		mg/L		1	10

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

Lab Sample ID: MB 280-484181/1  
Matrix: Water  
Analysis Batch: 484181

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			01/28/20 09:45	1

Lab Sample ID: LCS 280-484181/2  
Matrix: Water  
Analysis Batch: 484181

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	500	486		mg/L		97	93 - 110

Lab Sample ID: LCSD 280-484181/3  
Matrix: Water  
Analysis Batch: 484181

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids	500	492		mg/L		98	93 - 110	1	20

Lab Sample ID: 280-133149-A-5 DU  
Matrix: Water  
Analysis Batch: 484181

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	180		172		mg/L		3	10

## Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-484058/1  
Matrix: Water  
Analysis Batch: 484058

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0		mg/L			01/27/20 09:48	1

## QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

### Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 280-484058/2  
Matrix: Water  
Analysis Batch: 484058

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	92.8		mg/L		93	79 - 114

Lab Sample ID: LCSD 280-484058/3  
Matrix: Water  
Analysis Batch: 484058

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Suspended Solids	100	91.2		mg/L		91	79 - 114	2	20

Lab Sample ID: 280-133149-A-1 DU  
Matrix: Water  
Analysis Batch: 484058

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	ND		ND		mg/L		NC	10

### Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-484196/5  
Matrix: Water  
Analysis Batch: 484196

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	ND		1.0		mg/L			01/27/20 18:55	1

Lab Sample ID: LCS 280-484196/4  
Matrix: Water  
Analysis Batch: 484196

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	25.0	24.9		mg/L		100	88 - 112

Lab Sample ID: 280-133125-A-1 MS  
Matrix: Water  
Analysis Batch: 484196

Client Sample ID: Matrix Spike  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	ND		25.0	23.9		mg/L		96	88 - 112

Lab Sample ID: 280-133125-A-1 MSD  
Matrix: Water  
Analysis Batch: 484196

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Quad	ND		25.0	24.2		mg/L		97	88 - 112	1	15

# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## GC/MS VOA

### Analysis Batch: 484517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133152-1	HUL-012320-27	Total/NA	Water	8260B	
280-133152-2	HUL-012320-28	Total/NA	Water	8260B	
280-133152-3	TRIP BLANK	Total/NA	Water	8260B	
MB 280-484517/8	Method Blank	Total/NA	Water	8260B	
LCS 280-484517/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 280-484517/5	Lab Control Sample Dup	Total/NA	Water	8260B	
280-133195-E-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
280-133195-F-3 MS	Matrix Spike	Total/NA	Water	8260B	

## HPLC/IC

### Analysis Batch: 460294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133152-1 - DL	HUL-012320-27	Total/NA	Water	300.0	
280-133152-2	HUL-012320-28	Total/NA	Water	300.0	
MB 160-460294/46	Method Blank	Total/NA	Water	300.0	
LCS 160-460294/47	Lab Control Sample	Total/NA	Water	300.0	
280-133115-F-9 MS - DL	Matrix Spike	Total/NA	Water	300.0	
280-133115-F-9 DU - DL	Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 321630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133152-1	HUL-012320-27	Dissolved	Water	3005A	
280-133152-2	HUL-012320-28	Dissolved	Water	3005A	
MB 580-321630/17-A	Method Blank	Total Recoverable	Water	3005A	
LCS 580-321630/18-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 580-321630/19-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
280-133115-E-1-C MS	Matrix Spike	Dissolved	Water	3005A	
280-133115-E-1-D MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	
280-133115-E-1-B DU	Duplicate	Dissolved	Water	3005A	

### Analysis Batch: 321698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 580-321630/17-A	Method Blank	Total Recoverable	Water	6020	321630
LCS 580-321630/18-A	Lab Control Sample	Total Recoverable	Water	6020	321630
LCSD 580-321630/19-A	Lab Control Sample Dup	Total Recoverable	Water	6020	321630
280-133115-E-1-C MS	Matrix Spike	Dissolved	Water	6020	321630
280-133115-E-1-D MSD	Matrix Spike Duplicate	Dissolved	Water	6020	321630
280-133115-E-1-B DU	Duplicate	Dissolved	Water	6020	321630

### Analysis Batch: 321835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133152-1	HUL-012320-27	Dissolved	Water	6020	321630
280-133152-2	HUL-012320-28	Dissolved	Water	6020	321630

### Prep Batch: 484073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133152-1	HUL-012320-27	Dissolved	Water	3005A	
280-133152-2	HUL-012320-28	Dissolved	Water	3005A	
MB 280-484073/1-A	Method Blank	Total Recoverable	Water	3005A	

Eurofins TestAmerica, Denver

# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## Metals (Continued)

### Prep Batch: 484073 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-484073/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-133152-1 MS	HUL-012320-27	Dissolved	Water	3005A	
280-133152-1 MSD	HUL-012320-27	Dissolved	Water	3005A	

### Prep Batch: 484088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133152-1	HUL-012320-27	Dissolved	Water	3005A	
280-133152-2	HUL-012320-28	Dissolved	Water	3005A	
MB 280-484088/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-484088/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-133169-B-3-B MS	Matrix Spike	Dissolved	Water	3005A	
280-133169-B-3-C MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

### Analysis Batch: 484430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133152-1	HUL-012320-27	Dissolved	Water	6020	484088
280-133152-2	HUL-012320-28	Dissolved	Water	6020	484088
MB 280-484088/1-A	Method Blank	Total Recoverable	Water	6020	484088
LCS 280-484088/2-A	Lab Control Sample	Total Recoverable	Water	6020	484088
280-133169-B-3-B MS	Matrix Spike	Dissolved	Water	6020	484088
280-133169-B-3-C MSD	Matrix Spike Duplicate	Dissolved	Water	6020	484088

### Analysis Batch: 484484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133152-1	HUL-012320-27	Dissolved	Water	6010B	484073
280-133152-2	HUL-012320-28	Dissolved	Water	6010B	484073
MB 280-484073/1-A	Method Blank	Total Recoverable	Water	6010B	484073
LCS 280-484073/2-A	Lab Control Sample	Total Recoverable	Water	6010B	484073
280-133152-1 MS	HUL-012320-27	Dissolved	Water	6010B	484073
280-133152-1 MSD	HUL-012320-27	Dissolved	Water	6010B	484073

## General Chemistry

### Analysis Batch: 483916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133152-1	HUL-012320-27	Total/NA	Water	300.0	
280-133152-2	HUL-012320-28	Total/NA	Water	300.0	
MB 280-483916/6	Method Blank	Total/NA	Water	300.0	
LCS 280-483916/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-483916/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-483916/3	Lab Control Sample	Total/NA	Water	300.0	
280-133158-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
280-133158-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
280-133158-A-1 DU	Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 484058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133152-1	HUL-012320-27	Total/NA	Water	SM 2540D	
280-133152-2	HUL-012320-28	Total/NA	Water	SM 2540D	
MB 280-484058/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-484058/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Eurofins TestAmerica, Denver

# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

## General Chemistry (Continued)

### Analysis Batch: 484058 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 280-484058/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
280-133149-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	

### Analysis Batch: 484181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133152-1	HUL-012320-27	Total/NA	Water	SM 2540C	
280-133152-2	HUL-012320-28	Total/NA	Water	SM 2540C	
MB 280-484181/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-484181/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 280-484181/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
280-133149-A-5 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 484196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133152-1	HUL-012320-27	Total/NA	Water	SM 5310B	
280-133152-2	HUL-012320-28	Total/NA	Water	SM 5310B	
MB 280-484196/5	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-484196/4	Lab Control Sample	Total/NA	Water	SM 5310B	
280-133125-A-1 MS	Matrix Spike	Total/NA	Water	SM 5310B	
280-133125-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

### Analysis Batch: 484550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133152-1	HUL-012320-27	Total/NA	Water	SM 2320B	
280-133152-2	HUL-012320-28	Total/NA	Water	SM 2320B	
MB 280-484550/6	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-484550/4	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 280-484550/5	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
280-133163-A-2 DU	Duplicate	Total/NA	Water	SM 2320B	

### Analysis Batch: 484652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133152-1	HUL-012320-27	Total/NA	Water	350.1	
280-133152-2	HUL-012320-28	Total/NA	Water	350.1	
MB 280-484652/73	Method Blank	Total/NA	Water	350.1	
LCS 280-484652/71	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-484652/72	Lab Control Sample Dup	Total/NA	Water	350.1	
280-133206-J-6 MS	Matrix Spike	Total/NA	Water	350.1	
280-133206-J-6 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

**Client Sample ID: HUL-012320-27**

**Lab Sample ID: 280-133152-1**

Date Collected: 01/23/20 13:15

Matrix: Water

Date Received: 01/24/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484517	01/30/20 20:14	JZ	TAL DEN
Total/NA	Analysis	300.0	DL	10			460294	02/14/20 11:55	JCB	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	484073	01/28/20 09:00	AL	TAL DEN
Dissolved	Analysis	6010B		1			484484	01/29/20 15:50	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	484088	01/28/20 09:00	AL	TAL DEN
Dissolved	Analysis	6020		1			484430	01/30/20 00:18	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321630	01/29/20 12:56	A1B	TAL SEA
Dissolved	Analysis	6020		1	50 mL	50 mL	321835	01/30/20 14:37	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483916	01/24/20 17:42	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484652	01/31/20 16:22	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484550	01/30/20 15:31	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	484181	01/28/20 09:45	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	484058	01/27/20 09:48	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484196	01/28/20 03:10	SGB	TAL DEN

**Client Sample ID: HUL-012320-28**

**Lab Sample ID: 280-133152-2**

Date Collected: 01/23/20 13:45

Matrix: Water

Date Received: 01/24/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484517	01/30/20 20:36	JZ	TAL DEN
Total/NA	Analysis	300.0		1			460294	02/14/20 12:14	JCB	TAL SL
Dissolved	Prep	3005A			50 mL	50 mL	484073	01/28/20 09:00	AL	TAL DEN
Dissolved	Analysis	6010B		1			484484	01/29/20 15:59	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	484088	01/28/20 09:00	AL	TAL DEN
Dissolved	Analysis	6020		1			484430	01/30/20 00:22	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	321630	01/29/20 12:56	A1B	TAL SEA
Dissolved	Analysis	6020		1	50 mL	50 mL	321835	01/30/20 14:40	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483916	01/24/20 17:59	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484652	01/31/20 16:24	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484550	01/30/20 15:35	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	484181	01/28/20 09:45	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	484058	01/27/20 09:48	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484196	01/28/20 03:31	SGB	TAL DEN

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 280-133152-3**

Date Collected: 01/23/20 13:45

Matrix: Water

Date Received: 01/24/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484517	01/30/20 20:57	JZ	TAL DEN

# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133152-1

**Laboratory References:**

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

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

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

## Chain of Custody Record

# #280

estAmerica Denver  
 4955 Yarrow Street  
 Arvada, CO 80002  
 Phone (303) 736-0100 Fax (303) 431-7171

**Client Information**  
 Company: SCS Engineers  
 Address: 2405 140th Avenue NE Suite 107  
 City: Bellevue  
 State, Zip: WA, 98005-1877  
 Phone: 425-760-3362  
 Email: S.Grabner@scsengineers.com  
 Project Name: Hidden Valley Landfill  
 Site:

**Sampler:** Sam G.  
**Lab PM:** Sara, Betsy A  
**Carrier Tracking No(s):** 8156 5923 0230  
**E-Mail:** betsy.sara@denvertestamerica.com

**Due Date Requested:** Standard  
**TAT Requested (days):**  
**PO #:**  
**Purchase Order not required:**  
**WO #:**  
**Project #:** 28003580-Quarterly Groundwater Wells  
**SSOW#:**

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, D=dust, A=air)	Field Filtered Sample (Yes or No)	Analysis Requested												Total Number of Containers	Special Instructions/Note:
						A	D	D	I	S	D	I	S	N	S	N	TSS		
HVL-012320-27	1/23/20	1315	G	W	Y	X	X	X	X	X	X	X	X	X	X	X	9	Short Hold: NO3(C)	
HVL-012320-28	↓	1345	G	↓	Y	X	X	X	X	X	X	X	X	X	X	9			
Trip blank	↓	-	-	↓	N											1			



**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

**Deliverable Requested:** I, II, III, IV, Other (specify)

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

**Special Instructions/QC Requirements:**

**Empty Kit Relinquished by:** [Signature] **Date:** 1/23/20  
**Relinquished by:** [Signature] **Date/Time:** 1/23/20 1700  
**Relinquished by:** [Signature] **Date/Time:** 1/24/20 0920  
**Relinquished by:** [Signature] **Date/Time:**

**Custody Seal No.:** 1251276  
**Custody Seals Intact:** Δ Yes Δ No  
**Company:** SCS  
**Company:** SCS  
**Company:** SCS  
**Company:** VABEW  
**Company:** VABEW  
**Company:** VABEW

**Method of Shipment:**  
**Date/Time:** 1/24/20 0920  
**Date/Time:**  
**Date/Time:**

**Cooler Temperature(s) and Other Remarks:**  
 3.1 1.9 1.8 10.9 12.9 12.4/20



# Do Not Lift Using This Tag

ORIGIN ID:SEAA

SHIP DATE: 23JAN20  
ACTWT: 53.10 LB  
CAD: /SSFE2021  
DIMS: 24x13x13 IN

TO TEST AMERICA  
TEST AMERICA  
4955 YARROW ST

568270/02/FE44

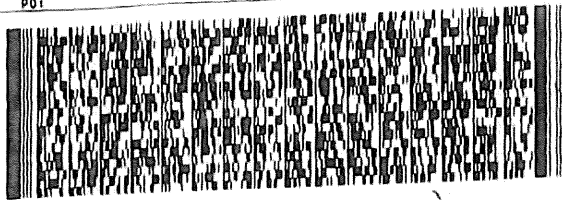
ARVADA CO 80002

(US)

(303) 738-0100  
IMU:  
PO:

REF:

DEPT:



FedEx  
Express



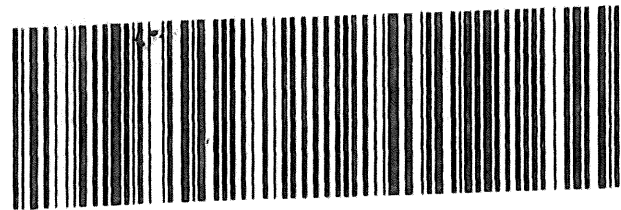
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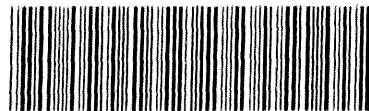
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PRIORITY OVERNIGHT

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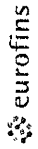


319 1 A  
10:30 02:30  
01:21



280-133152 Waybill

**Chain of Custody Record**



**Client Information (Sub Contract Lab)**  
 Sampler: Lab PM: Sara, Betsy A  
 Client Contact: Shipping/Receiving E-Mail: betsy.sara@testamericainc.com  
 Company: TestAmerica Laboratories, Inc. State of Origin: Washington  
 Address: 5755 8th Street East, State Program - Washington  
 City: Tacoma  
 State, Zip: WA, 98424  
 Phone: 253-922-2310 (Tel) 253-922-6047 (Fax)  
 Email:  
 Project #: 28003580  
 Site: Hidden Valley LF  
 SOW#:

Due Date Requested: 2/11/2020  
 MAT Requested (days):  
 PO #:  
 W/O #:  
 Project #:  
 SOW#:

Sample ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastabil, BT=Blank, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020/FIELD FLTRD (MOD) Iron	Total Number of Containers	Special Instructions/Note:
HUL-012320-27 (280-133152-1)	1/23/20	13:15 Pacific	Water	Water	X	X			
HUL-012320-28 (280-133152-2)	1/23/20	13:45 Pacific	Water	Water	X	X			

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

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

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

Special Instructions/QC Requirements:  
 Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Method of Shipment:  
 Relinquished by: \_\_\_\_\_ Date/Time: 1-27-2020 14:10 Company: TASA  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Custody Seals Intact: \_\_\_\_\_ Custody Seal No.: \_\_\_\_\_ Cooler Temperature(s) °C and Other Remarks: 1.01 - 1.17  
 A Yes A No

## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133152-1

**Login Number: 133152**

**List Source: Eurofins TestAmerica, Denver**

**List Number: 1**

**Creator: Zimmerman, Steven M**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133152-1

**Login Number: 133152**

**List Source: Eurofins TestAmerica, Seattle**

**List Number: 3**

**List Creation: 01/29/20 12:30 PM**

**Creator: Hobbs, Kenneth F**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	IR6=1.7/1.3
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133152-1

**Login Number: 133152**  
**List Number: 2**  
**Creator: Harris, Lorin C**

**List Source: Eurofins TestAmerica, St. Louis**  
**List Creation: 01/28/20 01:55 PM**

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



**ANALYTICAL REPORT**

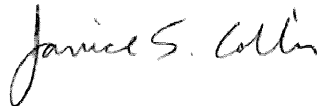
Eurofins TestAmerica, Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Tel: (303)736-0100

Paul Bunyan  
Trip Blank

Laboratory Job ID: 280-133158-1  
Client Project/Site: Hidden Valley LF

For:  
SCS Engineers  
2405 140th Avenue NE  
Suite 107  
Bellevue, Washington 98005-1877

Attn: Mr. Kevin Lakey



*Authorized for release by:*  
2/18/2020 12:53:32 PM

Janice Collins, Project Management Assistant I  
(303)736-0100  
janice.collins@testamericainc.com

Designee for

Betsy Sara, Project Manager II  
(303)736-0189  
betsy.sara@testamericainc.com

## LINKS

Review your project  
results through

**Total Access**

Have a Question?



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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

### General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

## Glossary

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

# Case Narrative

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

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**Job ID: 280-133158-1**

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**Laboratory: Eurofins TestAmerica, Denver**

## Narrative

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### CASE NARRATIVE

**Client: SCS Engineers**

**Project: Hidden Valley LF**

**Report Number: 280-133158-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### Sample Receiving

The samples were received on 01/24/2020; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 2.7 C.

### Holding Times

All holding times were within established control limits.

### Method Blanks

All Method Blanks were within established control limits.

### Laboratory Control Samples (LCS)

All Laboratory Control Samples were within established control limits.

### Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

The Matrix Spike and Matrix Spike Duplicate performed on a sample from another client exhibited recoveries outside control limits for several analytes Method 8260B. In addition, several analytes exceeded the RPD limit. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

The Matrix Spike and Matrix Spike Duplicate performed on a sample from another client exhibited recoveries outside control limits for COD Method 410.4. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

All other MS and MSD samples were within established control limits.

### General Comments

The analysis for Chloride and Sulfate Method 300.0 was performed at the TestAmerica's St. Louis Laboratory.  
13715 Rider Trail North  
Earth City, MO 63045

# Case Narrative

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

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## Job ID: 280-133158-1 (Continued)

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### Laboratory: Eurofins TestAmerica, Denver (Continued)

Phone: 314-298-8566

The analysis for Iron Method 6020 was performed at the TestAmerica's Seattle Laboratory.  
5755 8th Street East  
Tacoma, WA 98424  
Phone: 253-922-2310

# Detection Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

**Client Sample ID: HUL-012320-29**

**Paul Bunyan**

**Lab Sample ID: 280-133158-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL2	7.0		0.60		mg/L	10		300.0	Total/NA
Sulfate - DL2	11		0.50		mg/L	10		300.0	Total/NA
Manganese, Total	0.0011		0.0010		mg/L	1		6020	Total/NA
Zinc, Total	0.020		0.010		mg/L	1		6020	Total/NA
Nitrate as N	2.3		0.20		mg/L	1		300.0	Total/NA
Color	5.0		5.0		PCU	1		SM 2120B	Total/NA

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 280-133158-2**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

# Method Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN
300.0	Anions, Ion Chromatography	MCAWW	TAL SL
6020	Metals (ICP/MS)	SW846	TAL DEN
6020	Metals (ICP/MS)	SW846	TAL SEA
300.0	Anions, Ion Chromatography	MCAWW	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
410.4	COD	MCAWW	TAL DEN
SM 2120B	Color, Colorimetric	SM	TAL DEN
SM 5310B	Organic Carbon, Total (TOC)	SM	TAL DEN
3010A	Preparation, Total Metals	SW846	TAL SEA
3020A	Preparation, Total Metals	SW846	TAL DEN
5030B	Purge and Trap	SW846	TAL DEN

#### Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.  
SM = "Standard Methods For The Examination Of Water And Wastewater"  
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100  
TAL SEA = Eurofins TestAmerica, Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310  
TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# Sample Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-133158-1	HUL-012320-29	Water	01/23/20 14:45	01/24/20 09:20	
280-133158-2	TRIP BLANK	Water	01/23/20 14:45	01/24/20 09:20	

---

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

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

Client Sample ID: HUL-012320-29

Lab Sample ID: 280-133158-1

Date Collected: 01/23/20 14:45

Matrix: Water

Date Received: 01/24/20 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 21:19	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 21:19	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 21:19	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 21:19	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 21:19	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 21:19	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 21:19	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 21:19	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 21:19	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 21:19	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 21:19	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 21:19	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 21:19	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 21:19	1
2-Hexanone	ND		5.0		ug/L			01/30/20 21:19	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 21:19	1
Acetone	ND		10		ug/L			01/30/20 21:19	1
Acrylonitrile	ND		20		ug/L			01/30/20 21:19	1
Benzene	ND		0.50		ug/L			01/30/20 21:19	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 21:19	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 21:19	1
Bromoform	ND		0.50		ug/L			01/30/20 21:19	1
Bromomethane	ND		0.50		ug/L			01/30/20 21:19	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 21:19	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 21:19	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 21:19	1
Chloroethane	ND		0.50		ug/L			01/30/20 21:19	1
Chloroform	ND		0.50		ug/L			01/30/20 21:19	1
Chloromethane	ND		0.50		ug/L			01/30/20 21:19	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 21:19	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 21:19	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 21:19	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 21:19	1
Dibromomethane	ND		0.50		ug/L			01/30/20 21:19	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 21:19	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 21:19	1
Iodomethane	ND		1.0		ug/L			01/30/20 21:19	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 21:19	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 21:19	1
o-Xylene	ND		0.50		ug/L			01/30/20 21:19	1
Styrene	ND		0.50		ug/L			01/30/20 21:19	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 21:19	1
Toluene	ND		0.50		ug/L			01/30/20 21:19	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 21:19	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 21:19	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 21:19	1
Trichloroethene	ND		0.50		ug/L			01/30/20 21:19	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 21:19	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 21:19	1

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HUL-012320-29

Date Collected: 01/23/20 14:45

Date Received: 01/24/20 09:20

Lab Sample ID: 280-133158-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.50		ug/L			01/30/20 21:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		70 - 127		01/30/20 21:19	1
4-Bromofluorobenzene (Surr)	101		78 - 120		01/30/20 21:19	1
Dibromofluoromethane (Surr)	101		77 - 120		01/30/20 21:19	1
Toluene-d8 (Surr)	99		80 - 125		01/30/20 21:19	1

Client Sample ID: TRIP BLANK

Date Collected: 01/23/20 14:45

Date Received: 01/24/20 09:20

Lab Sample ID: 280-133158-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 21:40	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 21:40	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 21:40	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 21:40	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 21:40	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 21:40	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 21:40	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 21:40	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 21:40	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 21:40	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 21:40	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 21:40	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 21:40	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 21:40	1
2-Hexanone	ND		5.0		ug/L			01/30/20 21:40	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 21:40	1
Acetone	ND		10		ug/L			01/30/20 21:40	1
Acrylonitrile	ND		20		ug/L			01/30/20 21:40	1
Benzene	ND		0.50		ug/L			01/30/20 21:40	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 21:40	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 21:40	1
Bromoform	ND		0.50		ug/L			01/30/20 21:40	1
Bromomethane	ND		0.50		ug/L			01/30/20 21:40	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 21:40	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 21:40	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 21:40	1
Chloroethane	ND		0.50		ug/L			01/30/20 21:40	1
Chloroform	ND		0.50		ug/L			01/30/20 21:40	1
Chloromethane	ND		0.50		ug/L			01/30/20 21:40	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 21:40	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 21:40	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 21:40	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 21:40	1
Dibromomethane	ND		0.50		ug/L			01/30/20 21:40	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 21:40	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 21:40	1
Iodomethane	ND		1.0		ug/L			01/30/20 21:40	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 21:40	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-133158-2

Date Collected: 01/23/20 14:45

Matrix: Water

Date Received: 01/24/20 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 21:40	1
o-Xylene	ND		0.50		ug/L			01/30/20 21:40	1
Styrene	ND		0.50		ug/L			01/30/20 21:40	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 21:40	1
Toluene	ND		0.50		ug/L			01/30/20 21:40	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 21:40	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 21:40	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 21:40	1
Trichloroethene	ND		0.50		ug/L			01/30/20 21:40	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 21:40	1
Vinyl acetate	ND		3.0		ug/L			01/30/20 21:40	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 21:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		70 - 127		01/30/20 21:40	1
4-Bromofluorobenzene (Surr)	100		78 - 120		01/30/20 21:40	1
Dibromofluoromethane (Surr)	101		77 - 120		01/30/20 21:40	1
Toluene-d8 (Surr)	98		80 - 125		01/30/20 21:40	1

## Method: 300.0 - Anions, Ion Chromatography - DL2

Client Sample ID: HUL-012320-29

Lab Sample ID: 280-133158-1

Date Collected: 01/23/20 14:45

Matrix: Water

Date Received: 01/24/20 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.0		0.60		mg/L			02/14/20 12:52	10
Sulfate	11		0.50		mg/L			02/14/20 12:52	10

## Method: 6020 - Metals (ICP/MS)

Client Sample ID: HUL-012320-29

Lab Sample ID: 280-133158-1

Date Collected: 01/23/20 14:45

Matrix: Water

Date Received: 01/24/20 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Total	ND		0.0050		mg/L		01/28/20 09:00	02/05/20 18:23	1
Iron, Total	ND		0.18		mg/L		01/29/20 15:23	01/30/20 19:26	5
Manganese, Total	0.0011		0.0010		mg/L		01/28/20 09:00	02/05/20 18:23	1
Zinc, Total	0.020		0.010		mg/L		01/28/20 09:00	02/05/20 18:23	1

## General Chemistry

Client Sample ID: HUL-012320-29

Lab Sample ID: 280-133158-1

Date Collected: 01/23/20 14:45

Matrix: Water

Date Received: 01/24/20 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.3		0.20		mg/L			01/24/20 18:15	1
Nitrite as N	ND		0.50		mg/L			01/24/20 18:15	1
Ammonia	ND		0.10		mg/L			01/31/20 15:26	1
Chemical Oxygen Demand	ND		8.7		mg/L			01/29/20 12:54	1
Total Organic Carbon - Quad	ND		1.0		mg/L			01/28/20 03:47	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

## General Chemistry (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color	5.0		5.0		PCU			01/24/20 21:08	1

# Surrogate Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

**Matrix: Water**

**Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (70-127)	BFB (78-120)	DBFM (77-120)	TOL (80-125)
280-133158-1	HUL-012320-29	109	101	101	99
280-133158-2	TRIP BLANK	109	100	101	98
280-133195-E-3 MSD	Matrix Spike Duplicate	105	101	101	100
280-133195-F-3 MS	Matrix Spike	106	102	101	99
LCS 280-484517/4	Lab Control Sample	102	100	100	99
LCSD 280-484517/5	Lab Control Sample Dup	104	99	101	98
MB 280-484517/8	Method Blank	106	101	100	99

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

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

Lab Sample ID: MB 280-484517/8  
Matrix: Water  
Analysis Batch: 484517

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 17:42	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/30/20 17:42	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/30/20 17:42	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/30/20 17:42	1
1,1-Dichloroethane	ND		0.50		ug/L			01/30/20 17:42	1
1,1-Dichloroethene	ND		0.50		ug/L			01/30/20 17:42	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/30/20 17:42	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			01/30/20 17:42	1
1,2-Dibromoethane	ND		1.0		ug/L			01/30/20 17:42	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/30/20 17:42	1
1,2-Dichloroethane	ND		0.50		ug/L			01/30/20 17:42	1
1,2-Dichloropropane	ND		0.50		ug/L			01/30/20 17:42	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/30/20 17:42	1
2-Butanone (MEK)	ND		6.0		ug/L			01/30/20 17:42	1
2-Hexanone	ND		5.0		ug/L			01/30/20 17:42	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/30/20 17:42	1
Acetone	ND		10		ug/L			01/30/20 17:42	1
Acrylonitrile	ND		20		ug/L			01/30/20 17:42	1
Benzene	ND		0.50		ug/L			01/30/20 17:42	1
Bromochloromethane	ND		0.50		ug/L			01/30/20 17:42	1
Bromodichloromethane	ND		0.50		ug/L			01/30/20 17:42	1
Bromoform	ND		0.50		ug/L			01/30/20 17:42	1
Bromomethane	ND		0.50		ug/L			01/30/20 17:42	1
Carbon disulfide	ND		0.50		ug/L			01/30/20 17:42	1
Carbon tetrachloride	ND		0.50		ug/L			01/30/20 17:42	1
Chlorobenzene	ND		0.50		ug/L			01/30/20 17:42	1
Chloroethane	ND		0.50		ug/L			01/30/20 17:42	1
Chloroform	ND		0.50		ug/L			01/30/20 17:42	1
Chloromethane	ND		0.50		ug/L			01/30/20 17:42	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 17:42	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 17:42	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 17:42	1
Dibromochloromethane	ND		0.50		ug/L			01/30/20 17:42	1
Dibromomethane	ND		0.50		ug/L			01/30/20 17:42	1
Dichlorodifluoromethane	ND		2.0		ug/L			01/30/20 17:42	1
Ethylbenzene	ND		1.0		ug/L			01/30/20 17:42	1
Iodomethane	ND		1.0		ug/L			01/30/20 17:42	1
Methylene Chloride	ND		2.0		ug/L			01/30/20 17:42	1
m-Xylene & p-Xylene	ND		0.50		ug/L			01/30/20 17:42	1
o-Xylene	ND		0.50		ug/L			01/30/20 17:42	1
Styrene	ND		0.50		ug/L			01/30/20 17:42	1
Tetrachloroethene	ND		0.50		ug/L			01/30/20 17:42	1
Toluene	ND		0.50		ug/L			01/30/20 17:42	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/30/20 17:42	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/30/20 17:42	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			01/30/20 17:42	1
Trichloroethene	ND		0.50		ug/L			01/30/20 17:42	1
Trichlorofluoromethane	ND		0.50		ug/L			01/30/20 17:42	1

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 280-484517/8**  
**Matrix: Water**  
**Analysis Batch: 484517**

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Vinyl acetate	ND		3.0		ug/L			01/30/20 17:42	1
Vinyl chloride	ND		0.50		ug/L			01/30/20 17:42	1
Surrogate	MB	MB	Limits				Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
1,2-Dichloroethane-d4 (Surr)	106		70 - 127					01/30/20 17:42	1
4-Bromofluorobenzene (Surr)	101		78 - 120					01/30/20 17:42	1
Dibromofluoromethane (Surr)	100		77 - 120					01/30/20 17:42	1
Toluene-d8 (Surr)	99		80 - 125					01/30/20 17:42	1

**Lab Sample ID: LCS 280-484517/4**  
**Matrix: Water**  
**Analysis Batch: 484517**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	24.5		ug/L		98	65 - 135
1,1,2,2-Tetrachloroethane	25.0	27.3		ug/L		109	58 - 135
1,1,2-Trichloroethane	25.0	26.7		ug/L		107	64 - 135
1,1-Dichloroethane	25.0	25.9		ug/L		104	65 - 135
1,1-Dichloroethene	25.0	25.9		ug/L		104	65 - 136
1,2,3-Trichloropropane	25.0	26.9		ug/L		107	65 - 135
1,2-Dibromo-3-Chloropropane	25.0	20.0		ug/L		80	57 - 135
1,2-Dibromoethane	25.0	26.5		ug/L		106	65 - 135
1,2-Dichlorobenzene	25.0	26.7		ug/L		107	65 - 135
1,2-Dichloroethane	25.0	27.4		ug/L		109	65 - 135
1,2-Dichloropropane	25.0	26.5		ug/L		106	64 - 135
1,4-Dichlorobenzene	25.0	26.7		ug/L		107	65 - 135
2-Butanone (MEK)	100	102		ug/L		102	44 - 177
2-Hexanone	100	111		ug/L		111	57 - 139
4-Methyl-2-pentanone (MIBK)	100	109		ug/L		109	60 - 150
Acetone	100	104		ug/L		104	39 - 156
Acrylonitrile	250	276		ug/L		110	56 - 135
Benzene	25.0	25.8		ug/L		103	65 - 135
Bromochloromethane	25.0	25.8		ug/L		103	65 - 135
Bromodichloromethane	25.0	28.2		ug/L		113	65 - 135
Bromoform	25.0	26.9		ug/L		108	62 - 135
Bromomethane	25.0	32.1		ug/L		128	45 - 135
Carbon disulfide	25.0	25.3		ug/L		101	55 - 143
Carbon tetrachloride	25.0	21.6		ug/L		87	65 - 135
Chlorobenzene	25.0	25.9		ug/L		104	65 - 135
Chloroethane	25.0	28.6		ug/L		114	46 - 136
Chloroform	25.0	26.5		ug/L		106	65 - 135
Chloromethane	25.0	26.8		ug/L		107	34 - 145
cis-1,2-Dichloroethene	25.0	26.3		ug/L		105	65 - 135
cis-1,3-Dichloropropene	25.0	22.5		ug/L		90	65 - 135
Dibromochloromethane	25.0	22.6		ug/L		90	65 - 135
Dibromomethane	25.0	27.2		ug/L		109	65 - 135
Dichlorodifluoromethane	25.0	33.3		ug/L		133	43 - 142

Eurofins TestAmerica, Denver

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-484517/4				Client Sample ID: Lab Control Sample			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 484517							
Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec. Limits
	Added	Result	Qualifier				
Ethylbenzene	25.0	25.8		ug/L		103	65 - 135
Iodomethane	25.0	18.7		ug/L		75	65 - 142
Methylene Chloride	25.0	26.8		ug/L		107	54 - 141
m-Xylene & p-Xylene	25.0	25.4		ug/L		102	65 - 135
o-Xylene	25.0	26.8		ug/L		107	65 - 135
Styrene	25.0	28.3		ug/L		113	65 - 135
Tetrachloroethene	25.0	24.4		ug/L		98	65 - 135
Toluene	25.0	25.4		ug/L		102	65 - 135
trans-1,2-Dichloroethene	25.0	25.9		ug/L		104	65 - 135
trans-1,3-Dichloropropene	25.0	19.0		ug/L		76	65 - 135
trans-1,4-Dichloro-2-butene	25.0	21.9		ug/L		87	53 - 135
Trichloroethene	25.0	24.7		ug/L		99	65 - 135
Trichlorofluoromethane	25.0	28.0		ug/L		112	53 - 137
Vinyl acetate	50.0	49.0		ug/L		98	11 - 187
Vinyl chloride	25.0	26.3		ug/L		105	40 - 137

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	102		70 - 127
4-Bromofluorobenzene (Surr)	100		78 - 120
Dibromofluoromethane (Surr)	100		77 - 120
Toluene-d8 (Surr)	99		80 - 125

Lab Sample ID: LCSD 280-484517/5				Client Sample ID: Lab Control Sample Dup					
Matrix: Water				Prep Type: Total/NA					
Analysis Batch: 484517									
Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
	Added	Result	Qualifier						
1,1,1,2-Tetrachloroethane	25.0	21.8		ug/L		87	65 - 135	3	20
1,1,1-Trichloroethane	25.0	23.9		ug/L		96	65 - 135	2	20
1,1,2,2-Tetrachloroethane	25.0	25.9		ug/L		104	58 - 135	5	20
1,1,2-Trichloroethane	25.0	25.9		ug/L		103	64 - 135	3	27
1,1-Dichloroethane	25.0	25.5		ug/L		102	65 - 135	2	21
1,1-Dichloroethene	25.0	25.2		ug/L		101	65 - 136	3	20
1,2,3-Trichloropropane	25.0	26.1		ug/L		104	65 - 135	3	23
1,2-Dibromo-3-Chloropropane	25.0	19.5		ug/L		78	57 - 135	3	22
1,2-Dibromoethane	25.0	26.2		ug/L		105	65 - 135	1	27
1,2-Dichlorobenzene	25.0	25.1		ug/L		100	65 - 135	6	20
1,2-Dichloroethane	25.0	26.7		ug/L		107	65 - 135	2	20
1,2-Dichloropropane	25.0	26.2		ug/L		105	64 - 135	1	20
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	65 - 135	6	23
2-Butanone (MEK)	100	100		ug/L		100	44 - 177	2	32
2-Hexanone	100	109		ug/L		109	57 - 139	2	25
4-Methyl-2-pentanone (MIBK)	100	108		ug/L		108	60 - 150	1	22
Acetone	100	101		ug/L		101	39 - 156	4	23
Acrylonitrile	250	268		ug/L		107	56 - 135	3	30
Benzene	25.0	25.1		ug/L		100	65 - 135	3	20
Bromochloromethane	25.0	25.8		ug/L		103	65 - 135	0	29
Bromodichloromethane	25.0	27.4		ug/L		110	65 - 135	3	20

Eurofins TestAmerica, Denver

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-484517/5				Client Sample ID: Lab Control Sample Dup							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 484517											
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit		
Bromoform	25.0	26.4		ug/L		106	62 - 135	2	27		
Bromomethane	25.0	30.9		ug/L		124	45 - 135	4	33		
Carbon disulfide	25.0	24.8		ug/L		99	55 - 143	2	20		
Carbon tetrachloride	25.0	21.4		ug/L		86	65 - 135	1	21		
Chlorobenzene	25.0	25.1		ug/L		101	65 - 135	3	20		
Chloroethane	25.0	28.0		ug/L		112	46 - 136	2	25		
Chloroform	25.0	26.0		ug/L		104	65 - 135	2	20		
Chloromethane	25.0	26.1		ug/L		104	34 - 145	3	24		
cis-1,2-Dichloroethene	25.0	26.2		ug/L		105	65 - 135	0	20		
cis-1,3-Dichloropropene	25.0	21.8		ug/L		87	65 - 135	3	26		
Dibromochloromethane	25.0	21.9		ug/L		88	65 - 135	3	20		
Dibromomethane	25.0	26.5		ug/L		106	65 - 135	3	26		
Dichlorodifluoromethane	25.0	31.3		ug/L		125	43 - 142	6	30		
Ethylbenzene	25.0	25.0		ug/L		100	65 - 135	3	20		
Iodomethane	25.0	18.8		ug/L		75	65 - 142	0	25		
Methylene Chloride	25.0	26.5		ug/L		106	54 - 141	1	26		
m-Xylene & p-Xylene	25.0	25.0		ug/L		100	65 - 135	2	20		
o-Xylene	25.0	26.0		ug/L		104	65 - 135	3	20		
Styrene	25.0	27.5		ug/L		110	65 - 135	3	26		
Tetrachloroethene	25.0	23.9		ug/L		95	65 - 135	2	20		
Toluene	25.0	24.9		ug/L		100	65 - 135	2	20		
trans-1,2-Dichloroethene	25.0	25.9		ug/L		104	65 - 135	0	24		
trans-1,3-Dichloropropene	25.0	18.5		ug/L		74	65 - 135	3	26		
trans-1,4-Dichloro-2-butene	25.0	20.7		ug/L		83	53 - 135	5	25		
Trichloroethene	25.0	24.4		ug/L		98	65 - 135	1	20		
Trichlorofluoromethane	25.0	27.0		ug/L		108	53 - 137	4	27		
Vinyl acetate	50.0	47.8		ug/L		96	11 - 187	2	24		
Vinyl chloride	25.0	26.4		ug/L		106	40 - 137	0	24		

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	104		70 - 127
4-Bromofluorobenzene (Surr)	99		78 - 120
Dibromofluoromethane (Surr)	101		77 - 120
Toluene-d8 (Surr)	98		80 - 125

Lab Sample ID: 280-133195-E-3 MSD				Client Sample ID: Matrix Spike Duplicate							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 484517											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND	F2	25.0	16.2	F2	ug/L		65	65 - 135	26	20
1,1,1-Trichloroethane	ND	F2	25.0	20.1	F2	ug/L		80	65 - 135	25	20
1,1,2,2-Tetrachloroethane	ND	F2	25.0	19.7	F2	ug/L		79	58 - 135	28	20
1,1,2-Trichloroethane	ND	F2	25.0	19.1	F2	ug/L		76	64 - 135	29	27
1,1-Dichloroethane	ND	F2	25.0	20.5	F2	ug/L		82	65 - 135	26	21
1,1-Dichloroethene	ND	F2	25.0	22.0	F2	ug/L		88	65 - 136	29	20
1,2,3-Trichloropropane	ND	F2	25.0	19.5	F2	ug/L		78	65 - 135	29	23
1,2-Dibromo-3-Chloropropane	ND	F1 F2	25.0	13.5	F1 F2	ug/L		54	57 - 135	25	22

Eurofins TestAmerica, Denver

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-133195-E-3 MSD

Matrix: Water

Analysis Batch: 484517

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
1,2-Dibromoethane	ND		25.0	19.3		ug/L		77	65 - 135	27	27
1,2-Dichlorobenzene	ND	F2	25.0	19.3	F2	ug/L		77	65 - 135	27	20
1,2-Dichloroethane	ND	F2	25.0	20.4	F2	ug/L		82	65 - 135	28	20
1,2-Dichloropropane	ND	F2	25.0	19.8	F2	ug/L		79	64 - 135	27	20
1,4-Dichlorobenzene	ND	F2	25.0	19.8	F2	ug/L		79	65 - 135	25	23
2-Butanone (MEK)	ND		100	74.7		ug/L		75	44 - 177	27	32
2-Hexanone	ND	F2	100	79.7	F2	ug/L		80	57 - 139	27	25
4-Methyl-2-pentanone (MIBK)	ND	F2	100	78.5	F2	ug/L		78	60 - 150	28	22
Acetone	ND	F2	100	75.7	F2	ug/L		76	39 - 156	26	23
Acrylonitrile	ND		250	202		ug/L		81	56 - 135	26	30
Benzene	ND	F2	25.0	20.0	F2	ug/L		80	65 - 135	26	20
Bromochloromethane	ND		25.0	19.0		ug/L		76	65 - 135	25	29
Bromodichloromethane	ND	F2	25.0	20.3	F2	ug/L		81	65 - 135	28	20
Bromoform	ND		25.0	18.9		ug/L		75	62 - 135	25	27
Bromomethane	ND		25.0	22.3		ug/L		89	45 - 135	0	33
Carbon disulfide	ND	F2	25.0	21.3	F2	ug/L		85	55 - 143	26	20
Carbon tetrachloride	ND	F2	25.0	18.4	F2	ug/L		74	65 - 135	22	21
Chlorobenzene	ND	F2	25.0	19.9	F2	ug/L		80	65 - 135	25	20
Chloroethane	ND		25.0	26.5		ug/L		106	46 - 136	10	25
Chloroform	ND	F2	25.0	20.5	F2	ug/L		82	65 - 135	27	20
Chloromethane	ND		25.0	23.5		ug/L		94	34 - 145	7	24
cis-1,2-Dichloroethene	ND	F2	25.0	20.6	F2	ug/L		82	65 - 135	26	20
cis-1,3-Dichloropropene	ND	F1	25.0	14.9	F1	ug/L		59	65 - 135	26	26
Dibromochloromethane	ND	F1 F2	25.0	15.8	F1 F2	ug/L		63	65 - 135	26	20
Dibromomethane	ND	F2	25.0	20.1	F2	ug/L		80	65 - 135	27	26
Dichlorodifluoromethane	ND	F1	25.0	37.5	F1	ug/L		150	43 - 142	8	30
Ethylbenzene	ND	F2	25.0	20.2	F2	ug/L		81	65 - 135	25	20
Iodomethane	ND	F1	25.0	11.9	F1	ug/L		47	65 - 142	11	25
Methylene Chloride	ND		25.0	19.9		ug/L		79	54 - 141	26	26
m-Xylene & p-Xylene	ND	F2	25.0	20.1	F2	ug/L		81	65 - 135	25	20
o-Xylene	ND	F2	25.0	20.5	F2	ug/L		82	65 - 135	26	20
Styrene	ND		25.0	21.1		ug/L		85	65 - 135	25	26
Tetrachloroethene	ND	F2	25.0	20.3	F2	ug/L		81	65 - 135	23	20
Toluene	ND	F2	25.0	19.9	F2	ug/L		79	65 - 135	27	20
trans-1,2-Dichloroethene	ND	F2	25.0	20.9	F2	ug/L		84	65 - 135	25	24
trans-1,3-Dichloropropene	ND	F1	25.0	12.0	F1	ug/L		48	65 - 135	25	26
trans-1,4-Dichloro-2-butene	ND	F2	25.0	13.2	F2	ug/L		53	53 - 135	31	25
Trichloroethene	ND	F2	25.0	19.7	F2	ug/L		79	65 - 135	27	20
Trichlorofluoromethane	ND	F1	25.0	31.5		ug/L		126	53 - 137	9	27
Vinyl acetate	ND	F2	50.0	30.8	F2	ug/L		62	11 - 187	25	24
Vinyl chloride	ND		25.0	27.4		ug/L		110	40 - 137	7	24
<b>Surrogate</b>		<b>MSD</b>		<b>MSD</b>							
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
1,2-Dichloroethane-d4 (Surr)	105		70 - 127								
4-Bromofluorobenzene (Surr)	101		78 - 120								
Dibromofluoromethane (Surr)	101		77 - 120								
Toluene-d8 (Surr)	100		80 - 125								



# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-133195-F-3 MS

Matrix: Water

Analysis Batch: 484517

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
1,1,1,2-Tetrachloroethane	ND	F2	25.0	21.1		ug/L		84	65 - 135
1,1,1-Trichloroethane	ND	F2	25.0	25.7		ug/L		103	65 - 135
1,1,2,2-Tetrachloroethane	ND	F2	25.0	26.1		ug/L		104	58 - 135
1,1,2-Trichloroethane	ND	F2	25.0	25.5		ug/L		102	64 - 135
1,1-Dichloroethane	ND	F2	25.0	26.5		ug/L		106	65 - 135
1,1-Dichloroethene	ND	F2	25.0	29.4		ug/L		118	65 - 136
1,2,3-Trichloropropane	ND	F2	25.0	26.0		ug/L		104	65 - 135
1,2-Dibromo-3-Chloropropane	ND	F1 F2	25.0	17.4		ug/L		70	57 - 135
1,2-Dibromoethane	ND		25.0	25.3		ug/L		101	65 - 135
1,2-Dichlorobenzene	ND	F2	25.0	25.3		ug/L		101	65 - 135
1,2-Dichloroethane	ND	F2	25.0	27.2		ug/L		109	65 - 135
1,2-Dichloropropane	ND	F2	25.0	26.1		ug/L		104	64 - 135
1,4-Dichlorobenzene	ND	F2	25.0	25.5		ug/L		102	65 - 135
2-Butanone (MEK)	ND		100	97.9		ug/L		98	44 - 177
2-Hexanone	ND	F2	100	105		ug/L		105	57 - 139
4-Methyl-2-pentanone (MIBK)	ND	F2	100	104		ug/L		104	60 - 150
Acetone	ND	F2	100	98.6		ug/L		99	39 - 156
Acrylonitrile	ND		250	263		ug/L		105	56 - 135
Benzene	ND	F2	25.0	26.0		ug/L		104	65 - 135
Bromochloromethane	ND		25.0	24.4		ug/L		98	65 - 135
Bromodichloromethane	ND	F2	25.0	27.0		ug/L		108	65 - 135
Bromoform	ND		25.0	24.2		ug/L		97	62 - 135
Bromomethane	ND		25.0	22.2		ug/L		89	45 - 135
Carbon disulfide	ND	F2	25.0	27.8		ug/L		111	55 - 143
Carbon tetrachloride	ND	F2	25.0	23.0		ug/L		92	65 - 135
Chlorobenzene	ND	F2	25.0	25.5		ug/L		102	65 - 135
Chloroethane	ND		25.0	29.1		ug/L		117	46 - 136
Chloroform	ND	F2	25.0	26.9		ug/L		107	65 - 135
Chloromethane	ND		25.0	25.3		ug/L		101	34 - 145
cis-1,2-Dichloroethene	ND	F2	25.0	26.7		ug/L		107	65 - 135
cis-1,3-Dichloropropene	ND	F1	25.0	19.2		ug/L		77	65 - 135
Dibromochloromethane	ND	F1 F2	25.0	20.6		ug/L		83	65 - 135
Dibromomethane	ND	F2	25.0	26.2		ug/L		105	65 - 135
Dichlorodifluoromethane	ND	F1	25.0	40.7	F1	ug/L		163	43 - 142
Ethylbenzene	ND	F2	25.0	26.1		ug/L		104	65 - 135
Iodomethane	ND	F1	25.0	10.7	F1	ug/L		43	65 - 142
Methylene Chloride	ND		25.0	25.8		ug/L		103	54 - 141
m-Xylene & p-Xylene	ND	F2	25.0	25.8		ug/L		103	65 - 135
o-Xylene	ND	F2	25.0	26.6		ug/L		107	65 - 135
Styrene	ND		25.0	27.3		ug/L		109	65 - 135
Tetrachloroethene	ND	F2	25.0	25.7		ug/L		103	65 - 135
Toluene	ND	F2	25.0	26.1		ug/L		104	65 - 135
trans-1,2-Dichloroethene	ND	F2	25.0	26.9		ug/L		107	65 - 135
trans-1,3-Dichloropropene	ND	F1	25.0	15.5	F1	ug/L		62	65 - 135
trans-1,4-Dichloro-2-butene	ND	F2	25.0	18.1		ug/L		72	53 - 135
Trichloroethene	ND	F2	25.0	25.9		ug/L		104	65 - 135
Trichlorofluoromethane	ND	F1	25.0	34.4	F1	ug/L		138	53 - 137
Vinyl acetate	ND	F2	50.0	39.7		ug/L		79	11 - 187

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## QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-133195-F-3 MS

Matrix: Water

Analysis Batch: 484517

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Vinyl chloride	ND		25.0	29.4		ug/L		118	40 - 137
<b>Surrogate</b>									
	MS	MS							
	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	106		70 - 127						
4-Bromofluorobenzene (Surr)	102		78 - 120						
Dibromofluoromethane (Surr)	101		77 - 120						
Toluene-d8 (Surr)	99		80 - 125						

### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 160-460294/46

Matrix: Water

Analysis Batch: 460294

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	ND		0.20		mg/L			02/14/20 06:16	1
Sulfate	ND		0.20		mg/L			02/14/20 06:16	1

Lab Sample ID: LCS 160-460294/47

Matrix: Water

Analysis Batch: 460294

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
Chloride	2.00	1.92		mg/L		96	90 - 110
Sulfate	8.00	7.49		mg/L		94	90 - 110

### Method: 300.0 - Anions, Ion Chromatography - DL

Lab Sample ID: 280-133115-F-9 MS

Matrix: Water

Analysis Batch: 460294

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Chloride - DL	5.8		20.0	24.6		mg/L		94	90 - 110
Sulfate - DL	9.0		40.0	46.3		mg/L		93	90 - 110

Lab Sample ID: 280-133115-F-9 DU

Matrix: Water

Analysis Batch: 460294

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
Chloride - DL	5.8		5.60		mg/L		3	3	20
Sulfate - DL	9.0		8.77		mg/L		3	3	20

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

## Method: 6020 - Metals (ICP/MS)

<b>Lab Sample ID: MB 580-321644/9-A</b>						<b>Client Sample ID: Method Blank</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 321837</b>						<b>Prep Batch: 321644</b>				
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Iron, Total	ND		0.18		mg/L		01/29/20 15:23	01/30/20 18:49	5	
<b>Lab Sample ID: LCS 580-321644/10-A</b>						<b>Client Sample ID: Lab Control Sample</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 321837</b>						<b>Prep Batch: 321644</b>				
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	
Iron, Total			20.0	20.5		mg/L		102	80 - 120	
<b>Lab Sample ID: LCSD 580-321644/11-A</b>						<b>Client Sample ID: Lab Control Sample Dup</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 321837</b>						<b>Prep Batch: 321644</b>				
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD Limit
Iron, Total			20.0	20.5		mg/L		103	80 - 120	0 20
<b>Lab Sample ID: 280-133116-C-1-C MS</b>						<b>Client Sample ID: Matrix Spike</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 321837</b>						<b>Prep Batch: 321644</b>				
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits	
Iron, Total	ND		20.0	19.2		mg/L		96	80 - 120	
<b>Lab Sample ID: 280-133116-C-1-D MSD</b>						<b>Client Sample ID: Matrix Spike Duplicate</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 321837</b>						<b>Prep Batch: 321644</b>				
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD Limit
Iron, Total	ND		20.0	19.8		mg/L		99	80 - 120	3 20
<b>Lab Sample ID: 280-133116-C-1-B DU</b>						<b>Client Sample ID: Duplicate</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 321837</b>						<b>Prep Batch: 321644</b>				
Analyte	Sample Result	Sample Qualifier			DU Qualifier	Unit	D			RPD Limit
Iron, Total	ND				ND	mg/L				NC 20
<b>Lab Sample ID: MB 280-484046/1-A</b>						<b>Client Sample ID: Method Blank</b>				
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>				
<b>Analysis Batch: 485172</b>						<b>Prep Batch: 484046</b>				
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic, Total	ND		0.0050		mg/L		01/28/20 09:00	02/05/20 18:15	1	
Manganese, Total	ND		0.0010		mg/L		01/28/20 09:00	02/05/20 18:15	1	
Zinc, Total	ND		0.010		mg/L		01/28/20 09:00	02/05/20 18:15	1	

## QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

### Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-484046/2-A  
Matrix: Water  
Analysis Batch: 485172

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 484046  
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic, Total	0.0400	0.0395		mg/L		99	85 - 117
Manganese, Total	0.0400	0.0397		mg/L		99	85 - 117
Zinc, Total	0.0400	0.0418		mg/L		105	83 - 122

Lab Sample ID: 280-133158-1 MS  
Matrix: Water  
Analysis Batch: 485172

Client Sample ID: HUL-012320-29  
Prep Type: Total/NA  
Prep Batch: 484046  
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic, Total	ND		0.0400	0.0416		mg/L		103	85 - 117
Manganese, Total	0.0011		0.0400	0.0424		mg/L		103	85 - 117
Zinc, Total	0.020		0.0400	0.0632		mg/L		108	83 - 122

Lab Sample ID: 280-133158-1 MSD  
Matrix: Water  
Analysis Batch: 485172

Client Sample ID: HUL-012320-29  
Prep Type: Total/NA  
Prep Batch: 484046  
%Rec.  
RPD

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic, Total	ND		0.0400	0.0415		mg/L		103	85 - 117	0	20
Manganese, Total	0.0011		0.0400	0.0428		mg/L		104	85 - 117	1	20
Zinc, Total	0.020		0.0400	0.0637		mg/L		110	83 - 122	1	20

### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-483916/6  
Matrix: Water  
Analysis Batch: 483916

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20		mg/L			01/24/20 12:07	1
Nitrite as N	ND		0.50		mg/L			01/24/20 12:07	1

Lab Sample ID: LCS 280-483916/4  
Matrix: Water  
Analysis Batch: 483916

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Nitrate as N	5.00	5.06		mg/L		101	90 - 110
Nitrite as N	5.00	5.11		mg/L		102	90 - 110

Lab Sample ID: LCSD 280-483916/5  
Matrix: Water  
Analysis Batch: 483916

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Nitrate as N	5.00	5.06		mg/L		101	90 - 110	0	10
Nitrite as N	5.00	5.10		mg/L		102	90 - 110	0	10

## QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

### Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MRL 280-483916/3  
Matrix: Water  
Analysis Batch: 483916

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.500	0.512		mg/L		102	50 - 150
Nitrite as N	0.500	ND		mg/L		91	50 - 150

Lab Sample ID: 280-133158-1 MS  
Matrix: Water  
Analysis Batch: 483916

Client Sample ID: HUL-012320-29  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.3		5.00	7.19		mg/L		98	80 - 120
Nitrite as N	ND		5.00	5.03		mg/L		101	80 - 120

Lab Sample ID: 280-133158-1 MSD  
Matrix: Water  
Analysis Batch: 483916

Client Sample ID: HUL-012320-29  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	2.3		5.00	7.57		mg/L		106	80 - 120	5	20
Nitrite as N	ND		5.00	5.14		mg/L		103	80 - 120	2	20

Lab Sample ID: 280-133158-1 DU  
Matrix: Water  
Analysis Batch: 483916

Client Sample ID: HUL-012320-29  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	2.3		2.13		mg/L		7	15
Nitrite as N	ND		ND		mg/L		NC	15

### Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-484652/19  
Matrix: Water  
Analysis Batch: 484652

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.10		mg/L			01/31/20 13:32	1

Lab Sample ID: MB 280-484652/73  
Matrix: Water  
Analysis Batch: 484652

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.10		mg/L			01/31/20 15:20	1

Lab Sample ID: LCS 280-484652/18  
Matrix: Water  
Analysis Batch: 484652

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.55		mg/L		102	90 - 110

Eurofins TestAmerica, Denver

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

## Method: 350.1 - Nitrogen, Ammonia (Continued)

<b>Lab Sample ID: LCS 280-484652/71</b>				<b>Client Sample ID: Lab Control Sample</b>					
<b>Matrix: Water</b>				<b>Prep Type: Total/NA</b>					
<b>Analysis Batch: 484652</b>									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia	2.50	2.43		mg/L		97	90 - 110		

<b>Lab Sample ID: LCSD 280-484652/72</b>				<b>Client Sample ID: Lab Control Sample Dup</b>					
<b>Matrix: Water</b>				<b>Prep Type: Total/NA</b>					
<b>Analysis Batch: 484652</b>									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	2.50	2.56		mg/L		102	90 - 110	5	10

<b>Lab Sample ID: 280-133169-A-2 MS</b>				<b>Client Sample ID: Matrix Spike</b>							
<b>Matrix: Water</b>				<b>Prep Type: Total/NA</b>							
<b>Analysis Batch: 484652</b>											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia	ND		1.00	1.01		mg/L		101	90 - 110		

<b>Lab Sample ID: 280-133169-A-2 MSD</b>				<b>Client Sample ID: Matrix Spike Duplicate</b>							
<b>Matrix: Water</b>				<b>Prep Type: Total/NA</b>							
<b>Analysis Batch: 484652</b>											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	ND		1.00	1.02		mg/L		102	90 - 110	2	10

## Method: 410.4 - COD

<b>Lab Sample ID: MB 280-484363/5</b>				<b>Client Sample ID: Method Blank</b>					
<b>Matrix: Water</b>				<b>Prep Type: Total/NA</b>					
<b>Analysis Batch: 484363</b>									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		8.7		mg/L			01/29/20 12:54	1

<b>Lab Sample ID: LCS 280-484363/3</b>				<b>Client Sample ID: Lab Control Sample</b>					
<b>Matrix: Water</b>				<b>Prep Type: Total/NA</b>					
<b>Analysis Batch: 484363</b>									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	100	99.3		mg/L		99	90 - 110		

<b>Lab Sample ID: LCSD 280-484363/4</b>				<b>Client Sample ID: Lab Control Sample Dup</b>					
<b>Matrix: Water</b>				<b>Prep Type: Total/NA</b>					
<b>Analysis Batch: 484363</b>									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	100	102		mg/L		102	90 - 110	2	11

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

## Method: 410.4 - COD (Continued)

Lab Sample ID: 580-92298-F-1 MS  
Matrix: Water  
Analysis Batch: 484363

Client Sample ID: Matrix Spike  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	ND	F1	50.0	65.7	F1	mg/L		131	90 - 110

Lab Sample ID: 580-92298-F-1 MSD  
Matrix: Water  
Analysis Batch: 484363

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	ND	F1	50.0	70.3	F1	mg/L		141	90 - 110	7	11

## Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 280-483992/1  
Matrix: Water  
Analysis Batch: 483992

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color	ND		5.0		PCU			01/24/20 21:08	1

Lab Sample ID: 280-133158-1 DU  
Matrix: Water  
Analysis Batch: 483992

Client Sample ID: HUL-012320-29  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Color	5.0		5.00		PCU		0	20

## Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-484196/5  
Matrix: Water  
Analysis Batch: 484196

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	ND		1.0		mg/L			01/27/20 18:55	1

Lab Sample ID: LCS 280-484196/4  
Matrix: Water  
Analysis Batch: 484196

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	25.0	24.9		mg/L		100	88 - 112

Lab Sample ID: 280-133125-A-1 MS  
Matrix: Water  
Analysis Batch: 484196

Client Sample ID: Matrix Spike  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Quad	ND		25.0	23.9		mg/L		96	88 - 112

Eurofins TestAmerica, Denver

# QC Sample Results

Client: SCS Engineers  
 Project/Site: Hidden Valley LF

Job ID: 280-133158-1

## Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 280-133125-A-1 MSD  
 Matrix: Water  
 Analysis Batch: 484196

Client Sample ID: Matrix Spike Duplicate  
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Quad	ND		25.0	24.2		mg/L		97	88 - 112	1	15



# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

## GC/MS VOA

### Analysis Batch: 484517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133158-1	HUL-012320-29	Total/NA	Water	8260B	
280-133158-2	TRIP BLANK	Total/NA	Water	8260B	
MB 280-484517/8	Method Blank	Total/NA	Water	8260B	
LCS 280-484517/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 280-484517/5	Lab Control Sample Dup	Total/NA	Water	8260B	
280-133195-E-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
280-133195-F-3 MS	Matrix Spike	Total/NA	Water	8260B	

## HPLC/IC

### Analysis Batch: 460294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133158-1 - DL2	HUL-012320-29	Total/NA	Water	300.0	
MB 160-460294/46	Method Blank	Total/NA	Water	300.0	
LCS 160-460294/47	Lab Control Sample	Total/NA	Water	300.0	
280-133115-F-9 MS - DL	Matrix Spike	Total/NA	Water	300.0	
280-133115-F-9 DU - DL	Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 321644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133158-1	HUL-012320-29	Total/NA	Water	3010A	
MB 580-321644/9-A	Method Blank	Total/NA	Water	3010A	
LCS 580-321644/10-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 580-321644/11-A	Lab Control Sample Dup	Total/NA	Water	3010A	
280-133116-C-1-C MS	Matrix Spike	Total/NA	Water	3010A	
280-133116-C-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	
280-133116-C-1-B DU	Duplicate	Total/NA	Water	3010A	

### Analysis Batch: 321837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133158-1	HUL-012320-29	Total/NA	Water	6020	321644
MB 580-321644/9-A	Method Blank	Total/NA	Water	6020	321644
LCS 580-321644/10-A	Lab Control Sample	Total/NA	Water	6020	321644
LCSD 580-321644/11-A	Lab Control Sample Dup	Total/NA	Water	6020	321644
280-133116-C-1-C MS	Matrix Spike	Total/NA	Water	6020	321644
280-133116-C-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	6020	321644
280-133116-C-1-B DU	Duplicate	Total/NA	Water	6020	321644

### Prep Batch: 484046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133158-1	HUL-012320-29	Total/NA	Water	3020A	
MB 280-484046/1-A	Method Blank	Total/NA	Water	3020A	
LCS 280-484046/2-A	Lab Control Sample	Total/NA	Water	3020A	
280-133158-1 MS	HUL-012320-29	Total/NA	Water	3020A	
280-133158-1 MSD	HUL-012320-29	Total/NA	Water	3020A	

### Analysis Batch: 485172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133158-1	HUL-012320-29	Total/NA	Water	6020	484046
MB 280-484046/1-A	Method Blank	Total/NA	Water	6020	484046

Eurofins TestAmerica, Denver

# QC Association Summary

Client: SCS Engineers  
 Project/Site: Hidden Valley LF

Job ID: 280-133158-1

## Metals (Continued)

### Analysis Batch: 485172 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-484046/2-A	Lab Control Sample	Total/NA	Water	6020	484046
280-133158-1 MS	HUL-012320-29	Total/NA	Water	6020	484046
280-133158-1 MSD	HUL-012320-29	Total/NA	Water	6020	484046

## General Chemistry

### Analysis Batch: 483916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133158-1	HUL-012320-29	Total/NA	Water	300.0	
MB 280-483916/6	Method Blank	Total/NA	Water	300.0	
LCS 280-483916/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-483916/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-483916/3	Lab Control Sample	Total/NA	Water	300.0	
280-133158-1 MS	HUL-012320-29	Total/NA	Water	300.0	
280-133158-1 MSD	HUL-012320-29	Total/NA	Water	300.0	
280-133158-1 DU	HUL-012320-29	Total/NA	Water	300.0	

### Analysis Batch: 483992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133158-1	HUL-012320-29	Total/NA	Water	SM 2120B	
MB 280-483992/1	Method Blank	Total/NA	Water	SM 2120B	
280-133158-1 DU	HUL-012320-29	Total/NA	Water	SM 2120B	

### Analysis Batch: 484196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133158-1	HUL-012320-29	Total/NA	Water	SM 5310B	
MB 280-484196/5	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-484196/4	Lab Control Sample	Total/NA	Water	SM 5310B	
280-133125-A-1 MS	Matrix Spike	Total/NA	Water	SM 5310B	
280-133125-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

### Analysis Batch: 484363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133158-1	HUL-012320-29	Total/NA	Water	410.4	
MB 280-484363/5	Method Blank	Total/NA	Water	410.4	
LCS 280-484363/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-484363/4	Lab Control Sample Dup	Total/NA	Water	410.4	
580-92298-F-1 MS	Matrix Spike	Total/NA	Water	410.4	
580-92298-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	

### Analysis Batch: 484652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133158-1	HUL-012320-29	Total/NA	Water	350.1	
MB 280-484652/19	Method Blank	Total/NA	Water	350.1	
MB 280-484652/73	Method Blank	Total/NA	Water	350.1	
LCS 280-484652/18	Lab Control Sample	Total/NA	Water	350.1	
LCS 280-484652/71	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-484652/72	Lab Control Sample Dup	Total/NA	Water	350.1	
280-133169-A-2 MS	Matrix Spike	Total/NA	Water	350.1	
280-133169-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133158-1

**Client Sample ID: HUL-012320-29**

**Lab Sample ID: 280-133158-1**

**Date Collected: 01/23/20 14:45**

**Matrix: Water**

**Date Received: 01/24/20 09:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484517	01/30/20 21:19	JZ	TAL DEN
Total/NA	Analysis	300.0	DL2	10			460294	02/14/20 12:52	JCB	TAL SL
Total/NA	Prep	3020A			50 mL	50 mL	484046	01/28/20 09:00	AL	TAL DEN
Total/NA	Analysis	6020		1			485172	02/05/20 18:23	LMT	TAL DEN
Total/NA	Prep	3010A			50 mL	50 mL	321644	01/29/20 15:23	ART	TAL SEA
Total/NA	Analysis	6020		5	50 mL	50 mL	321837	01/30/20 19:26	FCW	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	483916	01/24/20 18:15	JAP	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	484652	01/31/20 15:26	BWH	TAL DEN
Total/NA	Analysis	410.4		1	2 mL	2 mL	484363	01/29/20 12:54	SGB	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	483992	01/24/20 21:08	CKB	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	484196	01/28/20 03:47	SGB	TAL DEN

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 280-133158-2**

**Date Collected: 01/23/20 14:45**

**Matrix: Water**

**Date Received: 01/24/20 09:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	484517	01/30/20 21:40	JZ	TAL DEN

**Laboratory References:**

- TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
- TAL SEA = Eurofins TestAmerica, Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310
- TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Chain of Custody Record

<b>Client Information</b> Client Contact: Sam Graber Company: SCS Engineers Address: 2405 140th Avenue NE Suite 107 City: Bellevue State/Zip: WA, 98005-1877 Phone: 206-760-3362 Email: SGrab@scsengineers.com Project Name: Hidden Valley Landfill Site:		Sample: Sara G. Lab PM: Sara, Betsy A E-Mail: betsy.sara@testamericainc.com Carrier Tracking No(s): COC No: 280-21692-4512-1 Page: Page 1 of 1 Job #: 04220002.02	
Due Date Requested: TAT Requested (days): Standard		Analysis Requested Total Number of Containers: 8	
PO #: 225-760-3362 Purchase Order not requir WO #: Project #: 28003580-Water Supply Wells SSOW#:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - Ph 4-5 Z - other (specify)	
Sample Identification HVL-012320-29 Top blank		Special Instructions/Note: Short Holds: NO3/NO2(I), Color	
Sample Date: 1/23/20 Sample Time: 1445 Sample Type (C=Comp, G=grab): W Matrix (W=Water, S=solid, O=Other, B=Blank): W		Field Filtered Sample (Yes or No): N Perform MS/MSD (Yes or No): N Total Metals: A D N S Total Iron (A Seattle): X X X X X NO3/NO2(I)/Color: X X X X X Cl/SO4 (A St. Louis): X X X X X TOC/COD/Ammonia: X X X X X	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiobiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: [Signature] Date/Time: 1/23/20 17:00 Company: SCS		Received by: [Signature] Date/Time: 1/24/20 09:20 Company: T-ASEN	
Relinquished by: [Signature] Date/Time:		Received by: [Signature] Date/Time:	
Relinquished by: [Signature] Date/Time:		Received by: [Signature] Date/Time:	
Custody Seals Intact: Yes <input type="checkbox"/> No <input type="checkbox"/>		Cooler Temperature(s) °C and Other Remarks: 1.8 to 9.6 (29.5) 1/24/20	

# Do Not Lift Using This Tag

ORIGIN ID:SEAA

SHIP DATE: 23JAN20  
ACTWGT: 59.10 LB  
CAD: /55FE2021  
DIMS: 24x19x13 IN

TO TEST AMERICA  
TEST AMERICA  
4955 YARROW ST

ARVADA CO 80002

(US)

(303) 738-0100

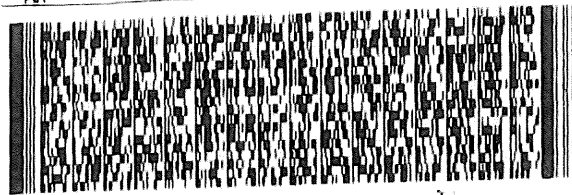
REF:

PHU:  
POI:

DEPT:



280-133158 Waybill



FedEx  
Express



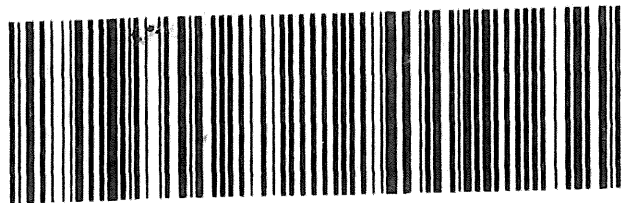
JAN102000 1130Z

TRK# 8156 5923 0230  
0667

FRI - 24 JAN 10:30A  
PRIORITY OVERNIGHT

# XH WHHA

80002  
CO - US DEN



319

1

10:30

A

02/30  
01/21





## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133158-1

**Login Number: 133158**

**List Source: Eurofins TestAmerica, Denver**

**List Number: 1**

**Creator: Zimmerman, Steven M**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	



## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133158-1

**Login Number: 133158**  
**List Number: 3**  
**Creator: Hobbs, Kenneth F**

**List Source: Eurofins TestAmerica, Seattle**  
**List Creation: 01/29/20 12:27 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	IR6=1.7/1.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133158-1

Login Number: 133158  
List Number: 2  
Creator: Harris, Lorin C

List Source: Eurofins TestAmerica, St. Louis  
List Creation: 01/28/20 01:55 PM

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

## ANALYTICAL REPORT

Eurofins TestAmerica, Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Tel: (303)736-0100

Side-Slope Leachate  
Side-Slope Leak Detection  
Trip Blank

Laboratory Job ID: 280-133382-1  
Client Project/Site: Hidden Valley LF

For:  
SCS Engineers  
2405 140th Avenue NE  
Suite 107  
Bellevue, Washington 98005-1877

Attn: Mr. Kevin Lakey



---

Authorized for release by:  
2/21/2020 10:51:51 AM

Betsy Sara, Project Manager II  
(303)736-0189  
betsy.sara@testamericainc.com

### LINKS

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*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

### Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

### General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

## Glossary

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

# Case Narrative

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

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**Job ID: 280-133382-1**

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**Laboratory: Eurofins TestAmerica, Denver**

**Narrative**

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**CASE NARRATIVE**

**Client: SCS Engineers**

**Project: Hidden Valley LF**

**Report Number: 280-133382-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

**Sample Receiving**

The samples were received on 02/01/2020; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 3.5 C.

**Holding Times**

Due to an instrument error, the samples HVL-013120-01 and HVL-013120-02 were analyzed for Nitrate Method 300.0 approximately 27 hours past the 48-hour holding time.

All other holding times were within established control limits.

**Method Blanks**

All Method Blanks were within established control limits.

**Laboratory Control Samples (LCS)**

The Method 8260B LCSD recovery for Iodomethane was above control limits. Because the data are considered to be biased high and the associated sample was non-detect above the reporting limit for Iodomethane, corrective action was deemed unnecessary.

All other Laboratory Control Samples were within established control limits.

**Matrix Spike (MS) and Matrix Spike Duplicate (MSD)**

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) for Method 8260B, however, an LCS/LCSD pair was analyzed to demonstrate method precision and accuracy.

The percent recoveries and/or relative percent difference of the MS/MSD performed on sample LRI-013120-01 were outside control limits for Total Manganese Method 6020 because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

All other MS and MSD samples were within established control limits.

# Case Narrative

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

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## Job ID: 280-133382-1 (Continued)

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Laboratory: Eurofins TestAmerica, Denver (Continued)

### Organics

The samples HVL-013120-01 and HVL-013120-02 were analyzed at a dilution for Method 8260B due to foamy matrix. As a result, the reporting limits were elevated.

### General Comments

For samples requiring analysis at a dilution, the dilution factor has been multiplied by the Method Detection Limit (MDL) for each analyte and evaluated versus the project-specific reporting limit (PSRL). If the obtained value is below the PSRL, then the PSRL is preserved as the reporting limit for the diluted result, otherwise, the obtained value becomes the reporting limit. This is done in order to maintain the PSRL to meet permit requirements at the request of the client and to report the lowest possible RL for each analyte.

The analysis for Chloride and Sulfate Method 300.0 was performed at the TestAmerica's St. Louis Laboratory.  
13715 Rider Trail North  
Earth City, MO 63045  
Phone: 314-298-8566

## Detection Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

**Client Sample ID: HVL-013120-01      Side-Slope Leachate      Lab Sample ID: 280-133382-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	17		10		ug/L	5		8260B	Total/NA
Benzene	2.8		0.80		ug/L	5		8260B	Total/NA
Carbon disulfide	6.4		0.84		ug/L	5		8260B	Total/NA
Ethylbenzene	1.8		1.0		ug/L	5		8260B	Total/NA
m-Xylene & p-Xylene	1.0		0.77		ug/L	5		8260B	Total/NA
Toluene	3.2		0.85		ug/L	5		8260B	Total/NA
Sulfate - DL	590		5.0		mg/L	100		300.0	Total/NA
Chloride - DL2	7600		300		mg/L	5000		300.0	Total/NA
Calcium, Total	17		0.78		mg/L	10		6010B	Total/NA
Magnesium, Total	28		0.26		mg/L	10		6010B	Total/NA
Potassium, Total	500		2.4		mg/L	10		6010B	Total/NA
Sodium, Total	6100		3.7		mg/L	10		6010B	Total/NA
Iron, Total	1.0		0.18		mg/L	5		6020	Total/NA
Manganese, Total	0.10		0.0050		mg/L	10		6020	Total/NA
Ammonia	460		2.2		mg/L	100		350.1	Total/NA
Alkalinity	7800		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	24000		470		mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	7.6		4.0		mg/L	1		SM 2540D	Total/NA
Total Organic Carbon - Quad	730		35		mg/L	100		SM 5310B	Total/NA

**Client Sample ID: HVL-013120-02      Side-Slope Leak Detection      Lab Sample ID: 280-133382-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.7		0.75		ug/L	5		8260B	Total/NA
Toluene	0.93		0.85		ug/L	5		8260B	Total/NA
Sulfate - DL	610		5.0		mg/L	100		300.0	Total/NA
Chloride - DL2	5500		300		mg/L	5000		300.0	Total/NA
Calcium, Total	40		0.78		mg/L	10		6010B	Total/NA
Magnesium, Total	25		0.26		mg/L	10		6010B	Total/NA
Potassium, Total	300		2.4		mg/L	10		6010B	Total/NA
Sodium, Total	4200		3.7		mg/L	10		6010B	Total/NA
Iron, Total	0.90		0.18		mg/L	5		6020	Total/NA
Manganese, Total	0.23		0.0050		mg/L	10		6020	Total/NA
Nitrate as N	55	H	0.90		mg/L	10		300.0	Total/NA
Ammonia	230		2.2		mg/L	100		350.1	Total/NA
Alkalinity	5500		10		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	17000		470		mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	7.2		4.0		mg/L	1		SM 2540D	Total/NA
Total Organic Carbon - Quad	360		35		mg/L	100		SM 5310B	Total/NA

**Client Sample ID: Trip Blank      Lab Sample ID: 280-133382-3**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver



# Method Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN
300.0	Anions, Ion Chromatography	MCAWW	TAL SL
6010B	Metals (ICP)	SW846	TAL DEN
6020	Metals (ICP/MS)	SW846	TAL DEN
6020	Metals (ICP/MS)	SW846	TAL SEA
300.0	Anions, Ion Chromatography	MCAWW	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN
SM 5310B	Organic Carbon, Total (TOC)	SM	TAL DEN
3010A	Preparation, Total Metals	SW846	TAL DEN
3010A	Preparation, Total Metals	SW846	TAL SEA
3020A	Preparation, Total Metals	SW846	TAL DEN
5030B	Purge and Trap	SW846	TAL DEN

#### Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.  
SM = "Standard Methods For The Examination Of Water And Wastewater"  
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100  
TAL SEA = Eurofins TestAmerica, Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310  
TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# Sample Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-133382-1	HVL-013120-01	Water	01/31/20 10:30	02/01/20 09:35	
280-133382-2	HVL-013120-02	Water	01/31/20 11:00	02/01/20 09:35	
280-133382-3	Trip Blank	Water	01/31/20 11:00	02/01/20 09:35	

---

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

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

**Client Sample ID: HVL-013120-01**

**Date Collected: 01/31/20 10:30**

**Date Received: 02/01/20 09:35**

**Lab Sample ID: 280-133382-1**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.1		ug/L			02/11/20 16:51	5
1,1,1-Trichloroethane	ND		0.80		ug/L			02/11/20 16:51	5
1,1,2,2-Tetrachloroethane	ND		1.1		ug/L			02/11/20 16:51	5
1,1,2-Trichloroethane	ND		1.4		ug/L			02/11/20 16:51	5
1,1-Dichloroethane	ND		1.1		ug/L			02/11/20 16:51	5
1,1-Dichloroethene	ND		1.2		ug/L			02/11/20 16:51	5
1,2,3-Trichloropropane	ND		1.7		ug/L			02/11/20 16:51	5
1,2-Dibromo-3-Chloropropane	ND		2.4		ug/L			02/11/20 16:51	5
1,2-Dibromoethane	ND		1.0		ug/L			02/11/20 16:51	5
1,2-Dichlorobenzene	ND		0.75		ug/L			02/11/20 16:51	5
1,2-Dichloroethane	ND		0.65		ug/L			02/11/20 16:51	5
1,2-Dichloropropane	ND		0.90		ug/L			02/11/20 16:51	5
1,4-Dichlorobenzene	ND		0.80		ug/L			02/11/20 16:51	5
2-Butanone (MEK)	ND		10		ug/L			02/11/20 16:51	5
2-Hexanone	ND		8.5		ug/L			02/11/20 16:51	5
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			02/11/20 16:51	5
<b>Acetone</b>	<b>17</b>		10		ug/L			02/11/20 16:51	5
Acrylonitrile	ND		20		ug/L			02/11/20 16:51	5
<b>Benzene</b>	<b>2.8</b>		0.80		ug/L			02/11/20 16:51	5
Bromochloromethane	ND		0.50		ug/L			02/11/20 16:51	5
Bromodichloromethane	ND		0.85		ug/L			02/11/20 16:51	5
Bromoform	ND		2.3		ug/L			02/11/20 16:51	5
Bromomethane	ND		1.1		ug/L			02/11/20 16:51	5
<b>Carbon disulfide</b>	<b>6.4</b>		0.84		ug/L			02/11/20 16:51	5
Carbon tetrachloride	ND		0.95		ug/L			02/11/20 16:51	5
Chlorobenzene	ND		0.85		ug/L			02/11/20 16:51	5
Chloroethane	ND		2.1		ug/L			02/11/20 16:51	5
Chloroform	ND		0.80		ug/L			02/11/20 16:51	5
Chloromethane	ND		1.5		ug/L			02/11/20 16:51	5
cis-1,2-Dichloroethene	ND		0.75		ug/L			02/11/20 16:51	5
cis-1,3-Dichloropropene	ND		0.80		ug/L			02/11/20 16:51	5
cis-1,4-Dichloro-2-butene	ND		4.5		ug/L			02/11/20 16:51	5
Dibromochloromethane	ND		0.85		ug/L			02/11/20 16:51	5
Dibromomethane	ND		0.85		ug/L			02/11/20 16:51	5
Dichlorodifluoromethane	ND		2.0		ug/L			02/11/20 16:51	5
<b>Ethylbenzene</b>	<b>1.8</b>		1.0		ug/L			02/11/20 16:51	5
Iodomethane	ND *		1.2		ug/L			02/11/20 16:51	5
Methylene Chloride	ND		4.7		ug/L			02/11/20 16:51	5
<b>m-Xylene &amp; p-Xylene</b>	<b>1.0</b>		0.77		ug/L			02/11/20 16:51	5
o-Xylene	ND		0.95		ug/L			02/11/20 16:51	5
Styrene	ND		1.8		ug/L			02/11/20 16:51	5
Tetrachloroethene	ND		1.0		ug/L			02/11/20 16:51	5
<b>Toluene</b>	<b>3.2</b>		0.85		ug/L			02/11/20 16:51	5
trans-1,2-Dichloroethene	ND		0.75		ug/L			02/11/20 16:51	5
trans-1,3-Dichloropropene	ND		0.95		ug/L			02/11/20 16:51	5
trans-1,4-Dichloro-2-butene	ND		4.0		ug/L			02/11/20 16:51	5
Trichloroethene	ND		0.80		ug/L			02/11/20 16:51	5
Trichlorofluoromethane	ND		1.5		ug/L			02/11/20 16:51	5
Vinyl acetate	ND		4.7		ug/L			02/11/20 16:51	5

Eurofins TestAmerica, Denver

# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: HVL-013120-01							Lab Sample ID: 280-133382-1			
Date Collected: 01/31/20 10:30							Matrix: Water			
Date Received: 02/01/20 09:35										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Vinyl chloride	ND		0.50		ug/L			02/11/20 16:51	5	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	96		70 - 127					02/11/20 16:51	5	
4-Bromofluorobenzene (Surr)	91		78 - 120					02/11/20 16:51	5	
Dibromofluoromethane (Surr)	101		77 - 120					02/11/20 16:51	5	
Toluene-d8 (Surr)	96		80 - 125					02/11/20 16:51	5	

Client Sample ID: HVL-013120-02							Lab Sample ID: 280-133382-2			
Date Collected: 01/31/20 11:00							Matrix: Water			
Date Received: 02/01/20 09:35										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
1,1,1,2-Tetrachloroethane	ND		1.1		ug/L			02/11/20 17:12	5	
1,1,1-Trichloroethane	ND		0.80		ug/L			02/11/20 17:12	5	
1,1,2,2-Tetrachloroethane	ND		1.1		ug/L			02/11/20 17:12	5	
1,1,2-Trichloroethane	ND		1.4		ug/L			02/11/20 17:12	5	
1,1-Dichloroethane	ND		1.1		ug/L			02/11/20 17:12	5	
1,1-Dichloroethene	ND		1.2		ug/L			02/11/20 17:12	5	
1,2,3-Trichloropropane	ND		1.7		ug/L			02/11/20 17:12	5	
1,2-Dibromo-3-Chloropropane	ND		2.4		ug/L			02/11/20 17:12	5	
1,2-Dibromoethane	ND		1.0		ug/L			02/11/20 17:12	5	
1,2-Dichlorobenzene	ND		0.75		ug/L			02/11/20 17:12	5	
1,2-Dichloroethane	ND		0.65		ug/L			02/11/20 17:12	5	
1,2-Dichloropropane	ND		0.90		ug/L			02/11/20 17:12	5	
1,4-Dichlorobenzene	ND		0.80		ug/L			02/11/20 17:12	5	
2-Butanone (MEK)	ND		10		ug/L			02/11/20 17:12	5	
2-Hexanone	ND		8.5		ug/L			02/11/20 17:12	5	
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			02/11/20 17:12	5	
Acetone	ND		10		ug/L			02/11/20 17:12	5	
Acrylonitrile	ND		20		ug/L			02/11/20 17:12	5	
Benzene	ND		0.80		ug/L			02/11/20 17:12	5	
Bromochloromethane	ND		0.50		ug/L			02/11/20 17:12	5	
Bromodichloromethane	ND		0.85		ug/L			02/11/20 17:12	5	
Bromoform	ND		2.3		ug/L			02/11/20 17:12	5	
Bromomethane	ND		1.1		ug/L			02/11/20 17:12	5	
Carbon disulfide	ND		0.84		ug/L			02/11/20 17:12	5	
Carbon tetrachloride	ND		0.95		ug/L			02/11/20 17:12	5	
Chlorobenzene	ND		0.85		ug/L			02/11/20 17:12	5	
Chloroethane	ND		2.1		ug/L			02/11/20 17:12	5	
Chloroform	ND		0.80		ug/L			02/11/20 17:12	5	
Chloromethane	ND		1.5		ug/L			02/11/20 17:12	5	
cis-1,2-Dichloroethene	1.7		0.75		ug/L			02/11/20 17:12	5	
cis-1,3-Dichloropropene	ND		0.80		ug/L			02/11/20 17:12	5	
cis-1,4-Dichloro-2-butene	ND		4.5		ug/L			02/11/20 17:12	5	
Dibromochloromethane	ND		0.85		ug/L			02/11/20 17:12	5	
Dibromomethane	ND		0.85		ug/L			02/11/20 17:12	5	
Dichlorodifluoromethane	ND		2.0		ug/L			02/11/20 17:12	5	
Ethylbenzene	ND		1.0		ug/L			02/11/20 17:12	5	
Iodomethane	ND *		1.2		ug/L			02/11/20 17:12	5	
Methylene Chloride	ND		4.7		ug/L			02/11/20 17:12	5	

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: HVL-013120-02**

**Lab Sample ID: 280-133382-2**

**Date Collected: 01/31/20 11:00**

**Matrix: Water**

**Date Received: 02/01/20 09:35**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.77		ug/L			02/11/20 17:12	5
o-Xylene	ND		0.95		ug/L			02/11/20 17:12	5
Styrene	ND		1.8		ug/L			02/11/20 17:12	5
Tetrachloroethene	ND		1.0		ug/L			02/11/20 17:12	5
<b>Toluene</b>	<b>0.93</b>		0.85		ug/L			02/11/20 17:12	5
trans-1,2-Dichloroethene	ND		0.75		ug/L			02/11/20 17:12	5
trans-1,3-Dichloropropene	ND		0.95		ug/L			02/11/20 17:12	5
trans-1,4-Dichloro-2-butene	ND		4.0		ug/L			02/11/20 17:12	5
Trichloroethene	ND		0.80		ug/L			02/11/20 17:12	5
Trichlorofluoromethane	ND		1.5		ug/L			02/11/20 17:12	5
Vinyl acetate	ND		4.7		ug/L			02/11/20 17:12	5
Vinyl chloride	ND		0.50		ug/L			02/11/20 17:12	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 127		02/11/20 17:12	5
4-Bromofluorobenzene (Surr)	91		78 - 120		02/11/20 17:12	5
Dibromofluoromethane (Surr)	100		77 - 120		02/11/20 17:12	5
Toluene-d8 (Surr)	97		80 - 125		02/11/20 17:12	5

**Client Sample ID: Trip Blank**

**Lab Sample ID: 280-133382-3**

**Date Collected: 01/31/20 11:00**

**Matrix: Water**

**Date Received: 02/01/20 09:35**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/11/20 17:33	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/11/20 17:33	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/11/20 17:33	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/11/20 17:33	1
1,1-Dichloroethane	ND		0.50		ug/L			02/11/20 17:33	1
1,1-Dichloroethene	ND		0.50		ug/L			02/11/20 17:33	1
1,2,3-Trichloropropane	ND		1.0		ug/L			02/11/20 17:33	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			02/11/20 17:33	1
1,2-Dibromoethane	ND		1.0		ug/L			02/11/20 17:33	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/11/20 17:33	1
1,2-Dichloroethane	ND		0.50		ug/L			02/11/20 17:33	1
1,2-Dichloropropane	ND		0.50		ug/L			02/11/20 17:33	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/11/20 17:33	1
2-Butanone (MEK)	ND		6.0		ug/L			02/11/20 17:33	1
2-Hexanone	ND		5.0		ug/L			02/11/20 17:33	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			02/11/20 17:33	1
Acetone	ND		10		ug/L			02/11/20 17:33	1
Acrylonitrile	ND		20		ug/L			02/11/20 17:33	1
Benzene	ND		0.50		ug/L			02/11/20 17:33	1
Bromochloromethane	ND		0.50		ug/L			02/11/20 17:33	1
Bromodichloromethane	ND		0.50		ug/L			02/11/20 17:33	1
Bromoform	ND		0.50		ug/L			02/11/20 17:33	1
Bromomethane	ND		0.50		ug/L			02/11/20 17:33	1
Carbon disulfide	ND		0.50		ug/L			02/11/20 17:33	1
Carbon tetrachloride	ND		0.50		ug/L			02/11/20 17:33	1
Chlorobenzene	ND		0.50		ug/L			02/11/20 17:33	1
Chloroethane	ND		0.50		ug/L			02/11/20 17:33	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: Trip Blank						Lab Sample ID: 280-133382-3			
Date Collected: 01/31/20 11:00						Matrix: Water			
Date Received: 02/01/20 09:35									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		0.50		ug/L			02/11/20 17:33	1
Chloromethane	ND		0.50		ug/L			02/11/20 17:33	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/11/20 17:33	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/11/20 17:33	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			02/11/20 17:33	1
Dibromochloromethane	ND		0.50		ug/L			02/11/20 17:33	1
Dibromomethane	ND		0.50		ug/L			02/11/20 17:33	1
Dichlorodifluoromethane	ND		2.0		ug/L			02/11/20 17:33	1
Ethylbenzene	ND		1.0		ug/L			02/11/20 17:33	1
Iodomethane	ND	*	1.0		ug/L			02/11/20 17:33	1
Methylene Chloride	ND		2.0		ug/L			02/11/20 17:33	1
m-Xylene & p-Xylene	ND		0.50		ug/L			02/11/20 17:33	1
o-Xylene	ND		0.50		ug/L			02/11/20 17:33	1
Styrene	ND		0.50		ug/L			02/11/20 17:33	1
Tetrachloroethene	ND		0.50		ug/L			02/11/20 17:33	1
Toluene	ND		0.50		ug/L			02/11/20 17:33	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/11/20 17:33	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/11/20 17:33	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			02/11/20 17:33	1
Trichloroethene	ND		0.50		ug/L			02/11/20 17:33	1
Trichlorofluoromethane	ND		0.50		ug/L			02/11/20 17:33	1
Vinyl acetate	ND		3.0		ug/L			02/11/20 17:33	1
Vinyl chloride	ND		0.50		ug/L			02/11/20 17:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 127					02/11/20 17:33	1
4-Bromofluorobenzene (Surr)	93		78 - 120					02/11/20 17:33	1
Dibromofluoromethane (Surr)	99		77 - 120					02/11/20 17:33	1
Toluene-d8 (Surr)	96		80 - 125					02/11/20 17:33	1

## Method: 300.0 - Anions, Ion Chromatography - DL

Client Sample ID: HVL-013120-01						Lab Sample ID: 280-133382-1			
Date Collected: 01/31/20 10:30						Matrix: Water			
Date Received: 02/01/20 09:35									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	590		5.0		mg/L			02/20/20 10:36	100

Client Sample ID: HVL-013120-02						Lab Sample ID: 280-133382-2			
Date Collected: 01/31/20 11:00						Matrix: Water			
Date Received: 02/01/20 09:35									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	610		5.0		mg/L			02/20/20 11:13	100

## Method: 300.0 - Anions, Ion Chromatography - DL2

Client Sample ID: HVL-013120-01						Lab Sample ID: 280-133382-1			
Date Collected: 01/31/20 10:30						Matrix: Water			
Date Received: 02/01/20 09:35									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7600		300		mg/L			02/20/20 10:55	5000

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

## Method: 300.0 - Anions, Ion Chromatography - DL2

Client Sample ID: HVL-013120-02

Lab Sample ID: 280-133382-2

Date Collected: 01/31/20 11:00

Matrix: Water

Date Received: 02/01/20 09:35

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5500		300		mg/L			02/20/20 11:32	5000

## Method: 6010B - Metals (ICP)

Client Sample ID: HVL-013120-01

Lab Sample ID: 280-133382-1

Date Collected: 01/31/20 10:30

Matrix: Water

Date Received: 02/01/20 09:35

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Total	17		0.78		mg/L		02/05/20 08:00	02/06/20 00:01	10
Magnesium, Total	28		0.26		mg/L		02/05/20 08:00	02/06/20 00:01	10
Potassium, Total	500		2.4		mg/L		02/05/20 08:00	02/06/20 00:01	10
Sodium, Total	6100		3.7		mg/L		02/05/20 08:00	02/06/20 23:22	10

Client Sample ID: HVL-013120-02

Lab Sample ID: 280-133382-2

Date Collected: 01/31/20 11:00

Matrix: Water

Date Received: 02/01/20 09:35

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Total	40		0.78		mg/L		02/05/20 08:00	02/06/20 00:05	10
Magnesium, Total	25		0.26		mg/L		02/05/20 08:00	02/06/20 00:05	10
Potassium, Total	300		2.4		mg/L		02/05/20 08:00	02/06/20 00:05	10
Sodium, Total	4200		3.7		mg/L		02/05/20 08:00	02/06/20 23:26	10

## Method: 6020 - Metals (ICP/MS)

Client Sample ID: HVL-013120-01

Lab Sample ID: 280-133382-1

Date Collected: 01/31/20 10:30

Matrix: Water

Date Received: 02/01/20 09:35

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Total	1.0		0.18		mg/L		02/14/20 13:15	02/18/20 18:12	5
Manganese, Total	0.10		0.0050		mg/L		02/05/20 08:00	02/14/20 01:15	10

Client Sample ID: HVL-013120-02

Lab Sample ID: 280-133382-2

Date Collected: 01/31/20 11:00

Matrix: Water

Date Received: 02/01/20 09:35

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Total	0.90		0.18		mg/L		02/14/20 13:15	02/18/20 18:09	5
Manganese, Total	0.23		0.0050		mg/L		02/05/20 08:00	02/14/20 01:18	10

## General Chemistry

Client Sample ID: HVL-013120-01

Lab Sample ID: 280-133382-1

Date Collected: 01/31/20 10:30

Matrix: Water

Date Received: 02/01/20 09:35

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	H	0.90		mg/L			02/03/20 16:00	10
Ammonia	460		2.2		mg/L			02/06/20 13:04	100
Alkalinity	7800		10		mg/L			02/03/20 15:55	1
Total Dissolved Solids	24000		470		mg/L			02/04/20 09:50	1
Total Suspended Solids	7.6		4.0		mg/L			02/03/20 11:59	1
Total Organic Carbon - Quad	730		35		mg/L			02/03/20 22:52	100

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

## General Chemistry

Client Sample ID: HVL-013120-02

Date Collected: 01/31/20 11:00

Date Received: 02/01/20 09:35

Lab Sample ID: 280-133382-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	55	H	0.90		mg/L			02/03/20 16:52	10
Ammonia	230		2.2		mg/L			02/06/20 13:18	100
Alkalinity	5500		10		mg/L			02/03/20 15:40	1
Total Dissolved Solids	17000		470		mg/L			02/04/20 09:50	1
Total Suspended Solids	7.2		4.0		mg/L			02/03/20 11:59	1
Total Organic Carbon - Quad	360		35		mg/L			02/03/20 22:37	100



# Surrogate Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

**Matrix: Water**

**Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (70-127)	BFB (78-120)	DBFM (77-120)	TOL (80-125)
280-133382-1	HVL-013120-01	96	91	101	96
280-133382-2	HVL-013120-02	96	91	100	97
280-133382-3	Trip Blank	95	93	99	96
LCS 280-485544/4	Lab Control Sample	94	93	101	96
LCSD 280-485544/5	Lab Control Sample Dup	94	93	103	96
MB 280-485544/8	Method Blank	96	100	101	98

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

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

Lab Sample ID: MB 280-485544/8  
Matrix: Water  
Analysis Batch: 485544

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/11/20 11:52	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/11/20 11:52	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/11/20 11:52	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/11/20 11:52	1
1,1-Dichloroethane	ND		0.50		ug/L			02/11/20 11:52	1
1,1-Dichloroethene	ND		0.50		ug/L			02/11/20 11:52	1
1,2,3-Trichloropropane	ND		1.0		ug/L			02/11/20 11:52	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			02/11/20 11:52	1
1,2-Dibromoethane	ND		1.0		ug/L			02/11/20 11:52	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/11/20 11:52	1
1,2-Dichloroethane	ND		0.50		ug/L			02/11/20 11:52	1
1,2-Dichloropropane	ND		0.50		ug/L			02/11/20 11:52	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/11/20 11:52	1
2-Butanone (MEK)	ND		6.0		ug/L			02/11/20 11:52	1
2-Hexanone	ND		5.0		ug/L			02/11/20 11:52	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			02/11/20 11:52	1
Acetone	ND		10		ug/L			02/11/20 11:52	1
Acrylonitrile	ND		20		ug/L			02/11/20 11:52	1
Benzene	ND		0.50		ug/L			02/11/20 11:52	1
Bromochloromethane	ND		0.50		ug/L			02/11/20 11:52	1
Bromodichloromethane	ND		0.50		ug/L			02/11/20 11:52	1
Bromoform	ND		0.50		ug/L			02/11/20 11:52	1
Bromomethane	ND		0.50		ug/L			02/11/20 11:52	1
Carbon disulfide	ND		0.50		ug/L			02/11/20 11:52	1
Carbon tetrachloride	ND		0.50		ug/L			02/11/20 11:52	1
Chlorobenzene	ND		0.50		ug/L			02/11/20 11:52	1
Chloroethane	ND		0.50		ug/L			02/11/20 11:52	1
Chloroform	ND		0.50		ug/L			02/11/20 11:52	1
Chloromethane	ND		0.50		ug/L			02/11/20 11:52	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/11/20 11:52	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/11/20 11:52	1
cis-1,4-Dichloro-2-butene	ND		3.0		ug/L			02/11/20 11:52	1
Dibromochloromethane	ND		0.50		ug/L			02/11/20 11:52	1
Dibromomethane	ND		0.50		ug/L			02/11/20 11:52	1
Dichlorodifluoromethane	ND		2.0		ug/L			02/11/20 11:52	1
Ethylbenzene	ND		1.0		ug/L			02/11/20 11:52	1
Iodomethane	ND		1.0		ug/L			02/11/20 11:52	1
Methylene Chloride	ND		2.0		ug/L			02/11/20 11:52	1
m-Xylene & p-Xylene	ND		0.50		ug/L			02/11/20 11:52	1
o-Xylene	ND		0.50		ug/L			02/11/20 11:52	1
Styrene	ND		0.50		ug/L			02/11/20 11:52	1
Tetrachloroethene	ND		0.50		ug/L			02/11/20 11:52	1
Toluene	ND		0.50		ug/L			02/11/20 11:52	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/11/20 11:52	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/11/20 11:52	1
trans-1,4-Dichloro-2-butene	ND		3.0		ug/L			02/11/20 11:52	1
Trichloroethene	ND		0.50		ug/L			02/11/20 11:52	1
Trichlorofluoromethane	ND		0.50		ug/L			02/11/20 11:52	1

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-485544/8

Matrix: Water

Analysis Batch: 485544

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl acetate	ND		3.0		ug/L			02/11/20 11:52	1
Vinyl chloride	ND		0.50		ug/L			02/11/20 11:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 127		02/11/20 11:52	1
4-Bromofluorobenzene (Surr)	100		78 - 120		02/11/20 11:52	1
Dibromofluoromethane (Surr)	101		77 - 120		02/11/20 11:52	1
Toluene-d8 (Surr)	98		80 - 125		02/11/20 11:52	1

Lab Sample ID: LCS 280-485544/4

Matrix: Water

Analysis Batch: 485544

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	21.6		ug/L		86	65 - 135
1,1,1-Trichloroethane	25.0	23.2		ug/L		93	65 - 135
1,1,2,2-Tetrachloroethane	25.0	21.9		ug/L		88	58 - 135
1,1,2-Trichloroethane	25.0	24.1		ug/L		97	64 - 135
1,1-Dichloroethane	25.0	23.0		ug/L		92	65 - 135
1,1-Dichloroethene	25.0	23.8		ug/L		95	65 - 136
1,2,3-Trichloropropane	25.0	22.6		ug/L		90	65 - 135
1,2-Dibromo-3-Chloropropane	25.0	21.1		ug/L		84	57 - 135
1,2-Dibromoethane	25.0	22.7		ug/L		91	65 - 135
1,2-Dichlorobenzene	25.0	23.3		ug/L		93	65 - 135
1,2-Dichloroethane	25.0	22.0		ug/L		88	65 - 135
1,2-Dichloropropane	25.0	23.0		ug/L		92	64 - 135
1,4-Dichlorobenzene	25.0	23.8		ug/L		95	65 - 135
2-Butanone (MEK)	100	86.9		ug/L		87	44 - 177
2-Hexanone	100	84.3		ug/L		84	57 - 139
4-Methyl-2-pentanone (MIBK)	100	89.0		ug/L		89	60 - 150
Acetone	100	82.7		ug/L		83	39 - 156
Acrylonitrile	250	225		ug/L		90	56 - 135
Benzene	25.0	23.3		ug/L		93	65 - 135
Bromochloromethane	25.0	26.1		ug/L		104	65 - 135
Bromodichloromethane	25.0	22.6		ug/L		90	65 - 135
Bromoform	25.0	20.4		ug/L		82	62 - 135
Bromomethane	25.0	30.2		ug/L		121	45 - 135
Carbon disulfide	25.0	22.3		ug/L		89	55 - 143
Carbon tetrachloride	25.0	22.0		ug/L		88	65 - 135
Chlorobenzene	25.0	23.8		ug/L		95	65 - 135
Chloroethane	25.0	24.1		ug/L		97	46 - 136
Chloroform	25.0	23.7		ug/L		95	65 - 135
Chloromethane	25.0	27.4		ug/L		110	34 - 145
cis-1,2-Dichloroethene	25.0	25.2		ug/L		101	65 - 135
cis-1,3-Dichloropropene	25.0	21.6		ug/L		86	65 - 135
Dibromochloromethane	25.0	21.6		ug/L		86	65 - 135
Dibromomethane	25.0	25.2		ug/L		101	65 - 135
Dichlorodifluoromethane	25.0	31.8		ug/L		127	43 - 142

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-485544/4				Client Sample ID: Lab Control Sample			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 485544							
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	25.0	23.7		ug/L		95	65 - 135
Iodomethane	25.0	34.9		ug/L		140	65 - 142
Methylene Chloride	25.0	22.1		ug/L		88	54 - 141
m-Xylene & p-Xylene	25.0	23.4		ug/L		93	65 - 135
o-Xylene	25.0	23.5		ug/L		94	65 - 135
Styrene	25.0	24.0		ug/L		96	65 - 135
Tetrachloroethene	25.0	24.4		ug/L		98	65 - 135
Toluene	25.0	24.6		ug/L		98	65 - 135
trans-1,2-Dichloroethene	25.0	24.0		ug/L		96	65 - 135
trans-1,3-Dichloropropene	25.0	21.4		ug/L		86	65 - 135
trans-1,4-Dichloro-2-butene	25.0	20.2		ug/L		81	53 - 135
Trichloroethene	25.0	23.7		ug/L		95	65 - 135
Trichlorofluoromethane	25.0	27.5		ug/L		110	53 - 137
Vinyl acetate	50.0	39.5		ug/L		79	11 - 187
Vinyl chloride	25.0	28.4		ug/L		114	40 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		70 - 127
4-Bromofluorobenzene (Surr)	93		78 - 120
Dibromofluoromethane (Surr)	101		77 - 120
Toluene-d8 (Surr)	96		80 - 125

Lab Sample ID: LCSD 280-485544/5				Client Sample ID: Lab Control Sample Dup					
Matrix: Water				Prep Type: Total/NA					
Analysis Batch: 485544									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	22.4		ug/L		90	65 - 135	4	20
1,1,1-Trichloroethane	25.0	24.1		ug/L		96	65 - 135	4	20
1,1,2,2-Tetrachloroethane	25.0	22.3		ug/L		89	58 - 135	2	20
1,1,2-Trichloroethane	25.0	24.8		ug/L		99	64 - 135	3	27
1,1-Dichloroethane	25.0	23.6		ug/L		94	65 - 135	3	21
1,1-Dichloroethene	25.0	25.5		ug/L		102	65 - 136	7	20
1,2,3-Trichloropropane	25.0	22.8		ug/L		91	65 - 135	1	23
1,2-Dibromo-3-Chloropropane	25.0	22.6		ug/L		91	57 - 135	7	22
1,2-Dibromoethane	25.0	23.7		ug/L		95	65 - 135	4	27
1,2-Dichlorobenzene	25.0	23.6		ug/L		94	65 - 135	1	20
1,2-Dichloroethane	25.0	22.0		ug/L		88	65 - 135	0	20
1,2-Dichloropropane	25.0	23.1		ug/L		93	64 - 135	1	20
1,4-Dichlorobenzene	25.0	24.3		ug/L		97	65 - 135	2	23
2-Butanone (MEK)	100	90.4		ug/L		90	44 - 177	4	32
2-Hexanone	100	88.3		ug/L		88	57 - 139	5	25
4-Methyl-2-pentanone (MIBK)	100	94.1		ug/L		94	60 - 150	6	22
Acetone	100	85.5		ug/L		85	39 - 156	3	23
Acrylonitrile	250	235		ug/L		94	56 - 135	4	30
Benzene	25.0	23.7		ug/L		95	65 - 135	2	20
Bromochloromethane	25.0	26.5		ug/L		106	65 - 135	2	29
Bromodichloromethane	25.0	23.1		ug/L		93	65 - 135	2	20

Eurofins TestAmerica, Denver

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-485544/5  
Matrix: Water  
Analysis Batch: 485544

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromoform	25.0	21.6		ug/L		87	62 - 135	6	27
Bromomethane	25.0	28.3		ug/L		113	45 - 135	6	33
Carbon disulfide	25.0	22.6		ug/L		90	55 - 143	1	20
Carbon tetrachloride	25.0	23.7		ug/L		95	65 - 135	8	21
Chlorobenzene	25.0	24.3		ug/L		97	65 - 135	2	20
Chloroethane	25.0	23.3		ug/L		93	46 - 136	4	25
Chloroform	25.0	24.3		ug/L		97	65 - 135	2	20
Chloromethane	25.0	27.9		ug/L		112	34 - 145	2	24
cis-1,2-Dichloroethene	25.0	25.3		ug/L		101	65 - 135	0	20
cis-1,3-Dichloropropene	25.0	21.8		ug/L		87	65 - 135	1	26
Dibromochloromethane	25.0	22.6		ug/L		90	65 - 135	4	20
Dibromomethane	25.0	26.1		ug/L		104	65 - 135	3	26
Dichlorodifluoromethane	25.0	32.4		ug/L		130	43 - 142	2	30
Ethylbenzene	25.0	23.9		ug/L		96	65 - 135	1	20
Iodomethane	25.0	37.5 *		ug/L		150	65 - 142	7	25
Methylene Chloride	25.0	22.3		ug/L		89	54 - 141	1	26
m-Xylene & p-Xylene	25.0	23.9		ug/L		96	65 - 135	2	20
o-Xylene	25.0	23.8		ug/L		95	65 - 135	1	20
Styrene	25.0	24.8		ug/L		99	65 - 135	3	26
Tetrachloroethene	25.0	24.8		ug/L		99	65 - 135	1	20
Toluene	25.0	25.3		ug/L		101	65 - 135	3	20
trans-1,2-Dichloroethene	25.0	25.3		ug/L		101	65 - 135	5	24
trans-1,3-Dichloropropene	25.0	22.0		ug/L		88	65 - 135	3	26
trans-1,4-Dichloro-2-butene	25.0	20.5		ug/L		82	53 - 135	2	25
Trichloroethene	25.0	24.7		ug/L		99	65 - 135	4	20
Trichlorofluoromethane	25.0	28.2		ug/L		113	53 - 137	2	27
Vinyl acetate	50.0	40.8		ug/L		82	11 - 187	3	24
Vinyl chloride	25.0	29.1		ug/L		116	40 - 137	2	24

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	94		70 - 127
4-Bromofluorobenzene (Surr)	93		78 - 120
Dibromofluoromethane (Surr)	103		77 - 120
Toluene-d8 (Surr)	96		80 - 125

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 160-461104/10  
Matrix: Water  
Analysis Batch: 461104

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	ND		0.20		mg/L			02/20/20 04:00	1
Sulfate	ND		0.20		mg/L			02/20/20 04:00	1

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## QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

### Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 160-461104/11			Client Sample ID: Lab Control Sample						
Matrix: Water			Prep Type: Total/NA						
Analysis Batch: 461104									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	2.00	1.93		mg/L		97	90 - 110		
Sulfate	8.00	7.99		mg/L		100	90 - 110		

### Method: 300.0 - Anions, Ion Chromatography - DL

Lab Sample ID: 280-133345-D-1 MS			Client Sample ID: Matrix Spike						
Matrix: Water			Prep Type: Total/NA						
Analysis Batch: 461104									
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride - DL	9.5		40.0	47.1		mg/L		94	90 - 110
Sulfate - DL	83		80.0	163		mg/L		100	90 - 110

Lab Sample ID: 280-133345-D-1 DU			Client Sample ID: Duplicate						
Matrix: Water			Prep Type: Total/NA						
Analysis Batch: 461104									
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD	Limit
Chloride - DL	9.5		10.5		mg/L		9	20	
Sulfate - DL	83		82.7		mg/L		0.6	20	

### Method: 6010B - Metals (ICP)

Lab Sample ID: MB 280-484792/1-A			Client Sample ID: Method Blank						
Matrix: Water			Prep Type: Total/NA						
Analysis Batch: 485167			Prep Batch: 484792						
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Total	ND		0.20		mg/L		02/05/20 08:00	02/05/20 23:38	1
Magnesium, Total	ND		0.10		mg/L		02/05/20 08:00	02/05/20 23:38	1
Potassium, Total	ND		2.0		mg/L		02/05/20 08:00	02/05/20 23:38	1
Sodium, Total	ND		1.0		mg/L		02/05/20 08:00	02/05/20 23:38	1

Lab Sample ID: LCS 280-484792/2-A			Client Sample ID: Lab Control Sample						
Matrix: Water			Prep Type: Total/NA						
Analysis Batch: 485167			Prep Batch: 484792						
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Calcium, Total	50.0	49.3		mg/L		99	90 - 111		
Magnesium, Total	50.0	49.5		mg/L		99	90 - 113		
Potassium, Total	50.0	48.1		mg/L		96	89 - 114		
Sodium, Total	50.0	48.5		mg/L		97	90 - 115		

Lab Sample ID: 280-133363-C-1-B MS			Client Sample ID: Matrix Spike						
Matrix: Water			Prep Type: Total/NA						
Analysis Batch: 485167			Prep Batch: 484792						
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium, Total	66		50.0	110		mg/L		88	48 - 153
Magnesium, Total	59		50.0	104		mg/L		90	62 - 146

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 280-133363-C-1-B MS  
Matrix: Water  
Analysis Batch: 485167

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 484792  
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Potassium, Total	4.2		50.0	51.3		mg/L		94	76 - 132

Lab Sample ID: 280-133363-C-1-B MS  
Matrix: Water  
Analysis Batch: 485349

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 484792  
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Sodium, Total	70		50.0	117		mg/L		94	70 - 203

Lab Sample ID: 280-133363-C-1-C MSD  
Matrix: Water  
Analysis Batch: 485167

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 484792  
%Rec. RPD

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Calcium, Total	66		50.0	112		mg/L		91	48 - 153	1	20
Magnesium, Total	59		50.0	106		mg/L		94	62 - 146	2	20
Potassium, Total	4.2		50.0	51.9		mg/L		95	76 - 132	1	20

Lab Sample ID: 280-133363-C-1-C MSD  
Matrix: Water  
Analysis Batch: 485349

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 484792  
%Rec. RPD

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Sodium, Total	70		50.0	119		mg/L		99	70 - 203	2	20

## Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 580-322804/7-A  
Matrix: Water  
Analysis Batch: 323103

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 322804

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Total	ND		0.18		mg/L		02/14/20 13:15	02/18/20 18:06	5

Lab Sample ID: LCS 580-322804/8-A  
Matrix: Water  
Analysis Batch: 323103

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 322804  
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Iron, Total	20.0	18.7		mg/L		93	80 - 120

Lab Sample ID: LCSD 580-322804/9-A  
Matrix: Water  
Analysis Batch: 323103

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 322804  
%Rec. RPD

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Iron, Total	20.0	18.8		mg/L		94	80 - 120	1	20

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# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

## Method: 6020 - Metals (ICP/MS) (Continued)

<b>Lab Sample ID: 280-133382-1 MS</b> <b>Matrix: Water</b> <b>Analysis Batch: 323103</b>						<b>Client Sample ID: HVL-013120-01</b> <b>Prep Type: Total/NA</b> <b>Prep Batch: 322804</b> %Rec.					
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits		
Iron, Total	1.0		20.0	20.4		mg/L		97	80 - 120		
<b>Lab Sample ID: 280-133382-1 MSD</b> <b>Matrix: Water</b> <b>Analysis Batch: 323103</b>						<b>Client Sample ID: HVL-013120-01</b> <b>Prep Type: Total/NA</b> <b>Prep Batch: 322804</b> %Rec. RPD					
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Iron, Total	1.0		20.0	19.3		mg/L		91	80 - 120	6	20
<b>Lab Sample ID: 280-133382-1 DU</b> <b>Matrix: Water</b> <b>Analysis Batch: 323103</b>						<b>Client Sample ID: HVL-013120-01</b> <b>Prep Type: Total/NA</b> <b>Prep Batch: 322804</b> RPD					
Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D		RPD	Limit	
Iron, Total	1.0			1.01		mg/L			3	20	
<b>Lab Sample ID: MB 280-484788/1-A</b> <b>Matrix: Water</b> <b>Analysis Batch: 485975</b>						<b>Client Sample ID: Method Blank</b> <b>Prep Type: Total/NA</b> <b>Prep Batch: 484788</b>					
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Manganese, Total	ND		0.0050		mg/L		02/05/20 08:00	02/14/20 00:49	1		
<b>Lab Sample ID: LCS 280-484788/2-A</b> <b>Matrix: Water</b> <b>Analysis Batch: 485975</b>						<b>Client Sample ID: Lab Control Sample</b> <b>Prep Type: Total/NA</b> <b>Prep Batch: 484788</b> %Rec.					
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
Manganese, Total			0.0400	0.0399		mg/L		100	85 - 117		
<b>Lab Sample ID: 280-133381-D-2-B MS</b> <b>Matrix: Water</b> <b>Analysis Batch: 485975</b>						<b>Client Sample ID: Matrix Spike</b> <b>Prep Type: Total/NA</b> <b>Prep Batch: 484788</b> %Rec.					
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits		
Manganese, Total	4.1		0.0400	4.15	4	mg/L		225	85 - 117		
<b>Lab Sample ID: 280-133381-D-2-C MSD</b> <b>Matrix: Water</b> <b>Analysis Batch: 485975</b>						<b>Client Sample ID: Matrix Spike Duplicate</b> <b>Prep Type: Total/NA</b> <b>Prep Batch: 484788</b> %Rec. RPD					
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Manganese, Total	4.1		0.0400	4.11	4	mg/L		128	85 - 117	1	20



# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-484710/6  
Matrix: Water  
Analysis Batch: 484710

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.50		mg/L			02/03/20 10:51	1

Lab Sample ID: LCS 280-484710/4  
Matrix: Water  
Analysis Batch: 484710

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	5.00	4.82		mg/L		96	90 - 110

Lab Sample ID: LCSD 280-484710/5  
Matrix: Water  
Analysis Batch: 484710

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	5.00	4.83		mg/L		97	90 - 110	0	10

Lab Sample ID: MRL 280-484710/3  
Matrix: Water  
Analysis Batch: 484710

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.500	ND		mg/L		91	50 - 150

Lab Sample ID: 280-133383-A-3 MS  
Matrix: Water  
Analysis Batch: 484710

Client Sample ID: Matrix Spike  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	ND		5.00	4.94		mg/L		99	80 - 120

Lab Sample ID: 280-133383-A-3 MSD  
Matrix: Water  
Analysis Batch: 484710

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	ND		5.00	5.00		mg/L		100	80 - 120	1	20

Lab Sample ID: 280-133383-A-3 DU  
Matrix: Water  
Analysis Batch: 484710

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	ND		ND		mg/L		NC	15

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

## Method: 350.1 - Nitrogen, Ammonia

<b>Lab Sample ID: MB 280-485204/20</b>						<b>Client Sample ID: Method Blank</b>			
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>			
<b>Analysis Batch: 485204</b>									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.10		mg/L			02/06/20 12:12	1

<b>Lab Sample ID: LCS 280-485204/18</b>						<b>Client Sample ID: Lab Control Sample</b>			
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>			
<b>Analysis Batch: 485204</b>									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia	2.50	2.53		mg/L		101	90 - 110		

<b>Lab Sample ID: LCSD 280-485204/19</b>						<b>Client Sample ID: Lab Control Sample Dup</b>			
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>			
<b>Analysis Batch: 485204</b>									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	2.50	2.55		mg/L		102	90 - 110	1	10

<b>Lab Sample ID: 280-133344-D-2 MS</b>						<b>Client Sample ID: Matrix Spike</b>			
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>			
<b>Analysis Batch: 485204</b>									
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	ND		1.00	1.01		mg/L		96	90 - 110

<b>Lab Sample ID: 280-133344-D-2 MSD</b>						<b>Client Sample ID: Matrix Spike Duplicate</b>					
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>					
<b>Analysis Batch: 485204</b>											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	ND		1.00	1.01		mg/L		96	90 - 110	0	10

## Method: SM 2320B - Alkalinity

<b>Lab Sample ID: MB 280-484801/5</b>						<b>Client Sample ID: Method Blank</b>			
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>			
<b>Analysis Batch: 484801</b>									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	ND		10		mg/L			02/03/20 14:35	1

<b>Lab Sample ID: LCS 280-484801/4</b>						<b>Client Sample ID: Lab Control Sample</b>			
<b>Matrix: Water</b>						<b>Prep Type: Total/NA</b>			
<b>Analysis Batch: 484801</b>									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity	1000	989		mg/L		99	89 - 109		

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

## Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 280-133151-B-3 DU  
Matrix: Water  
Analysis Batch: 484801

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
Alkalinity	5100		5080		mg/L			0.5	10

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

Lab Sample ID: MB 280-484843/1  
Matrix: Water  
Analysis Batch: 484843

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	ND		10		mg/L			02/04/20 09:50	1

Lab Sample ID: LCS 280-484843/2  
Matrix: Water  
Analysis Batch: 484843

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

Lab Sample ID: LCSD 280-484843/3  
Matrix: Water  
Analysis Batch: 484843

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit

Lab Sample ID: 280-133347-C-1 DU  
Matrix: Water  
Analysis Batch: 484843

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
Total Dissolved Solids	150		157		mg/L			4	10

## Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-484769/1  
Matrix: Water  
Analysis Batch: 484769

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Suspended Solids	ND		4.0		mg/L			02/03/20 11:59	1

Lab Sample ID: LCS 280-484769/2  
Matrix: Water  
Analysis Batch: 484769

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

# QC Sample Results

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

## Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

<b>Lab Sample ID: LCSD 280-484769/3</b>				<b>Client Sample ID: Lab Control Sample Dup</b>						
<b>Matrix: Water</b>				<b>Prep Type: Total/NA</b>						
<b>Analysis Batch: 484769</b>										
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit	
Total Suspended Solids	100	88.8		mg/L		89	79 - 114	4	20	

<b>Lab Sample ID: 280-133384-J-2 DU</b>				<b>Client Sample ID: Duplicate</b>						
<b>Matrix: Water</b>				<b>Prep Type: Total/NA</b>						
<b>Analysis Batch: 484769</b>										
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	%Rec	RPD	RPD Limit	
Total Suspended Solids	12		12.8		mg/L			10	10	

## Method: SM 5310B - Organic Carbon, Total (TOC)

<b>Lab Sample ID: MB 280-484842/4</b>				<b>Client Sample ID: Method Blank</b>						
<b>Matrix: Water</b>				<b>Prep Type: Total/NA</b>						
<b>Analysis Batch: 484842</b>										
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Total Organic Carbon - Quad	ND		1.0		mg/L			02/03/20 16:55	1	

<b>Lab Sample ID: LCS 280-484842/3</b>				<b>Client Sample ID: Lab Control Sample</b>						
<b>Matrix: Water</b>				<b>Prep Type: Total/NA</b>						
<b>Analysis Batch: 484842</b>										
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits			
Total Organic Carbon - Quad	25.0	23.3		mg/L		93	88 - 112			

<b>Lab Sample ID: 280-133383-B-5 MS</b>				<b>Client Sample ID: Matrix Spike</b>						
<b>Matrix: Water</b>				<b>Prep Type: Total/NA</b>						
<b>Analysis Batch: 484842</b>										
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Total Organic Carbon - Quad	ND		25.0	24.3		mg/L		93	88 - 112	

<b>Lab Sample ID: 280-133383-B-5 MSD</b>				<b>Client Sample ID: Matrix Spike Duplicate</b>							
<b>Matrix: Water</b>				<b>Prep Type: Total/NA</b>							
<b>Analysis Batch: 484842</b>											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Quad	ND		25.0	24.2		mg/L		93	88 - 112	1	15

# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

## GC/MS VOA

### Analysis Batch: 485544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133382-1	HVL-013120-01	Total/NA	Water	8260B	
280-133382-2	HVL-013120-02	Total/NA	Water	8260B	
280-133382-3	Trip Blank	Total/NA	Water	8260B	
MB 280-485544/8	Method Blank	Total/NA	Water	8260B	
LCS 280-485544/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 280-485544/5	Lab Control Sample Dup	Total/NA	Water	8260B	

## HPLC/IC

### Analysis Batch: 461104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133382-1 - DL	HVL-013120-01	Total/NA	Water	300.0	
280-133382-1 - DL2	HVL-013120-01	Total/NA	Water	300.0	
280-133382-2 - DL	HVL-013120-02	Total/NA	Water	300.0	
280-133382-2 - DL2	HVL-013120-02	Total/NA	Water	300.0	
MB 160-461104/10	Method Blank	Total/NA	Water	300.0	
LCS 160-461104/11	Lab Control Sample	Total/NA	Water	300.0	
280-133345-D-1 MS - DL	Matrix Spike	Total/NA	Water	300.0	
280-133345-D-1 DU - DL	Duplicate	Total/NA	Water	300.0	

## Metals

### Prep Batch: 322804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133382-1	HVL-013120-01	Total/NA	Water	3010A	
280-133382-2	HVL-013120-02	Total/NA	Water	3010A	
MB 580-322804/7-A	Method Blank	Total/NA	Water	3010A	
LCS 580-322804/8-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 580-322804/9-A	Lab Control Sample Dup	Total/NA	Water	3010A	
280-133382-1 MS	HVL-013120-01	Total/NA	Water	3010A	
280-133382-1 MSD	HVL-013120-01	Total/NA	Water	3010A	
280-133382-1 DU	HVL-013120-01	Total/NA	Water	3010A	

### Analysis Batch: 323103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133382-1	HVL-013120-01	Total/NA	Water	6020	322804
280-133382-2	HVL-013120-02	Total/NA	Water	6020	322804
MB 580-322804/7-A	Method Blank	Total/NA	Water	6020	322804
LCS 580-322804/8-A	Lab Control Sample	Total/NA	Water	6020	322804
LCSD 580-322804/9-A	Lab Control Sample Dup	Total/NA	Water	6020	322804
280-133382-1 MS	HVL-013120-01	Total/NA	Water	6020	322804
280-133382-1 MSD	HVL-013120-01	Total/NA	Water	6020	322804
280-133382-1 DU	HVL-013120-01	Total/NA	Water	6020	322804

### Prep Batch: 484788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133382-1	HVL-013120-01	Total/NA	Water	3020A	
280-133382-2	HVL-013120-02	Total/NA	Water	3020A	
MB 280-484788/1-A	Method Blank	Total/NA	Water	3020A	
LCS 280-484788/2-A	Lab Control Sample	Total/NA	Water	3020A	
280-133381-D-2-B MS	Matrix Spike	Total/NA	Water	3020A	
280-133381-D-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	3020A	

Eurofins TestAmerica, Denver

# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

## Metals

### Prep Batch: 484792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133382-1	HVL-013120-01	Total/NA	Water	3010A	
280-133382-2	HVL-013120-02	Total/NA	Water	3010A	
MB 280-484792/1-A	Method Blank	Total/NA	Water	3010A	
LCS 280-484792/2-A	Lab Control Sample	Total/NA	Water	3010A	
280-133363-C-1-B MS	Matrix Spike	Total/NA	Water	3010A	
280-133363-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	

### Analysis Batch: 485167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133382-1	HVL-013120-01	Total/NA	Water	6010B	484792
280-133382-2	HVL-013120-02	Total/NA	Water	6010B	484792
MB 280-484792/1-A	Method Blank	Total/NA	Water	6010B	484792
LCS 280-484792/2-A	Lab Control Sample	Total/NA	Water	6010B	484792
280-133363-C-1-B MS	Matrix Spike	Total/NA	Water	6010B	484792
280-133363-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	6010B	484792

### Analysis Batch: 485349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133382-1	HVL-013120-01	Total/NA	Water	6010B	484792
280-133382-2	HVL-013120-02	Total/NA	Water	6010B	484792
280-133363-C-1-B MS	Matrix Spike	Total/NA	Water	6010B	484792
280-133363-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	6010B	484792

### Analysis Batch: 485975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133382-1	HVL-013120-01	Total/NA	Water	6020	484788
280-133382-2	HVL-013120-02	Total/NA	Water	6020	484788
MB 280-484788/1-A	Method Blank	Total/NA	Water	6020	484788
LCS 280-484788/2-A	Lab Control Sample	Total/NA	Water	6020	484788
280-133381-D-2-B MS	Matrix Spike	Total/NA	Water	6020	484788
280-133381-D-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	6020	484788

## General Chemistry

### Analysis Batch: 484710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133382-1	HVL-013120-01	Total/NA	Water	300.0	
280-133382-2	HVL-013120-02	Total/NA	Water	300.0	
MB 280-484710/6	Method Blank	Total/NA	Water	300.0	
LCS 280-484710/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-484710/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-484710/3	Lab Control Sample	Total/NA	Water	300.0	
280-133383-A-3 MS	Matrix Spike	Total/NA	Water	300.0	
280-133383-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
280-133383-A-3 DU	Duplicate	Total/NA	Water	300.0	

### Analysis Batch: 484769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133382-1	HVL-013120-01	Total/NA	Water	SM 2540D	
280-133382-2	HVL-013120-02	Total/NA	Water	SM 2540D	
MB 280-484769/1	Method Blank	Total/NA	Water	SM 2540D	

Eurofins TestAmerica, Denver

# QC Association Summary

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

## General Chemistry (Continued)

### Analysis Batch: 484769 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-484769/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-484769/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
280-133384-J-2 DU	Duplicate	Total/NA	Water	SM 2540D	

### Analysis Batch: 484801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133382-1	HVL-013120-01	Total/NA	Water	SM 2320B	
280-133382-2	HVL-013120-02	Total/NA	Water	SM 2320B	
MB 280-484801/5	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-484801/4	Lab Control Sample	Total/NA	Water	SM 2320B	
280-133151-B-3 DU	Duplicate	Total/NA	Water	SM 2320B	

### Analysis Batch: 484842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133382-1	HVL-013120-01	Total/NA	Water	SM 5310B	
280-133382-2	HVL-013120-02	Total/NA	Water	SM 5310B	
MB 280-484842/4	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-484842/3	Lab Control Sample	Total/NA	Water	SM 5310B	
280-133383-B-5 MS	Matrix Spike	Total/NA	Water	SM 5310B	
280-133383-B-5 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

### Analysis Batch: 484843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133382-1	HVL-013120-01	Total/NA	Water	SM 2540C	
280-133382-2	HVL-013120-02	Total/NA	Water	SM 2540C	
MB 280-484843/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-484843/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 280-484843/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
280-133347-C-1 DU	Duplicate	Total/NA	Water	SM 2540C	

### Analysis Batch: 485204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-133382-1	HVL-013120-01	Total/NA	Water	350.1	
280-133382-2	HVL-013120-02	Total/NA	Water	350.1	
MB 280-485204/20	Method Blank	Total/NA	Water	350.1	
LCS 280-485204/18	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-485204/19	Lab Control Sample Dup	Total/NA	Water	350.1	
280-133344-D-2 MS	Matrix Spike	Total/NA	Water	350.1	
280-133344-D-2 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

**Client Sample ID: HVL-013120-01**

**Lab Sample ID: 280-133382-1**

Date Collected: 01/31/20 10:30

Matrix: Water

Date Received: 02/01/20 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	5 mL	5 mL	485544	02/11/20 16:51	JLS	TAL DEN
Total/NA	Analysis	300.0	DL	100			461104	02/20/20 10:36	BLH	TAL SL
Total/NA	Analysis	300.0	DL2	5000			461104	02/20/20 10:55	BLH	TAL SL
Total/NA	Prep	3010A			50 mL	50 mL	484792	02/05/20 08:00	AL	TAL DEN
Total/NA	Analysis	6010B		10			485167	02/06/20 00:01	LMT	TAL DEN
Total/NA	Prep	3010A			50 mL	50 mL	484792	02/05/20 08:00	AL	TAL DEN
Total/NA	Analysis	6010B		10			485349	02/06/20 23:22	LMT	TAL DEN
Total/NA	Prep	3020A			50 mL	50 mL	484788	02/05/20 08:00	AL	TAL DEN
Total/NA	Analysis	6020		10			485975	02/14/20 01:15	LMT	TAL DEN
Total/NA	Prep	3010A			50 mL	50 mL	322804	02/14/20 13:15	ART	TAL SEA
Total/NA	Analysis	6020		5	50 mL	50 mL	323103	02/18/20 18:12	FCW	TAL SEA
Total/NA	Analysis	300.0		10	5 mL	5 mL	484710	02/03/20 16:00	JAP	TAL DEN
Total/NA	Analysis	350.1		100	10 mL	10 mL	485204	02/06/20 13:04	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484801	02/03/20 15:55	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	1 mL	100 mL	484843	02/04/20 09:50	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	484769	02/03/20 11:59	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		100	20 mL	20 mL	484842	02/03/20 22:52	SGB	TAL DEN

**Client Sample ID: HVL-013120-02**

**Lab Sample ID: 280-133382-2**

Date Collected: 01/31/20 11:00

Matrix: Water

Date Received: 02/01/20 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	5 mL	5 mL	485544	02/11/20 17:12	JLS	TAL DEN
Total/NA	Analysis	300.0	DL	100			461104	02/20/20 11:13	BLH	TAL SL
Total/NA	Analysis	300.0	DL2	5000			461104	02/20/20 11:32	BLH	TAL SL
Total/NA	Prep	3010A			50 mL	50 mL	484792	02/05/20 08:00	AL	TAL DEN
Total/NA	Analysis	6010B		10			485167	02/06/20 00:05	LMT	TAL DEN
Total/NA	Prep	3010A			50 mL	50 mL	484792	02/05/20 08:00	AL	TAL DEN
Total/NA	Analysis	6010B		10			485349	02/06/20 23:26	LMT	TAL DEN
Total/NA	Prep	3020A			50 mL	50 mL	484788	02/05/20 08:00	AL	TAL DEN
Total/NA	Analysis	6020		10			485975	02/14/20 01:18	LMT	TAL DEN
Total/NA	Prep	3010A			50 mL	50 mL	322804	02/14/20 13:15	ART	TAL SEA
Total/NA	Analysis	6020		5	50 mL	50 mL	323103	02/18/20 18:09	FCW	TAL SEA
Total/NA	Analysis	300.0		10	5 mL	5 mL	484710	02/03/20 16:52	JAP	TAL DEN
Total/NA	Analysis	350.1		100	10 mL	10 mL	485204	02/06/20 13:18	BWH	TAL DEN
Total/NA	Analysis	SM 2320B		1			484801	02/03/20 15:40	SPG	TAL DEN
Total/NA	Analysis	SM 2540C		1	1 mL	100 mL	484843	02/04/20 09:50	ECL	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	484769	02/03/20 11:59	ECL	TAL DEN
Total/NA	Analysis	SM 5310B		100	20 mL	20 mL	484842	02/03/20 22:37	SGB	TAL DEN



# Lab Chronicle

Client: SCS Engineers  
Project/Site: Hidden Valley LF

Job ID: 280-133382-1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 280-133382-3**

**Date Collected: 01/31/20 11:00**

**Matrix: Water**

**Date Received: 02/01/20 09:35**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	485544	02/11/20 17:33	JLS	TAL DEN

**Laboratory References:**

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

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

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Chain of Custody Record

<b>Client Information</b> Client Contact: Sam Graber Company: SCS Engineers Address: 2405 140th Avenue NE Suite 107 Bellevue State, Zip: WA, 98005-1877 Phone: 425-766-3362 Email: sgrab@scseng.com		Lab PM: Sara, Betsy A E-Mail: betsy.sara@lestamerica.com Career Tracking No(s): 8156 5923 0923 Job #: 04220001.072	
Due Date Requested: Standard TAT Requested (days): PO #: Purchase Order not required WO #:		Analysis Requested Total Iron (TA Seattle) Total Metals (60108/6020) NO3(C)/TDS/Alks TOC(Ammonia) 82608 Perform MSMSD (Yes or No) Field Filled Sample (Yes or No)	
Project #: 28003580-Leachate and Leak Detection Sumps SSOW#:		Total Number of Containers Special Instructions/Note: Short Holds NO3(1C)	
Sample Identification HUL-013120-01 HUL-013120-02 Trip blank		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNEO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dosecalhydrate U - Acetone V - MCMA W - pH 4-5 Z - other (Specify)	
Sample Date: 1/31/20 Sample Time: 1030 Sample Type (C=comp, G=grab): G Matrix (W=water, S=solid, O=organic, A=air) Preservation Code: W		Total Iron (TA Seattle) X Total Metals (60108/6020) X NO3(C)/TDS/Alks X TOC(Ammonia) X 82608 X Perform MSMSD (Yes or No) N Field Filled Sample (Yes or No) N	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by:		Special Instructions/QC Requirements:	
Relinquished by: [Signature] Date/Time: 1/31/20 1300 Company: SCS		Method of Shipment:	
Relinquished by: [Signature] Date/Time: 1/31/20 0935 Company: [Signature]		Date/Time: 1/31/20 0935 Company: [Signature]	
Relinquished by: [Signature] Date/Time: 1/31/20 1250 Company: [Signature]		Date/Time: 1/31/20 1250 Company: [Signature]	
Custody Seal No.: 1250974 Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cooling Impurities, C and Other Remarks: 60108/6020 1/31/20	

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**SATURDAY DELIVER**  
Shipments tendered on Friday are delivered on Saturday to most locations.

280-133382 Waybill



8156 5923 0928

Release Signature  
For nonstatement deliveries.

For FedEx Use Only  
Employee Number

Other

Total Charges

By signing you authorize us to deliver this package without postage if it is returned and give us indemnity and hold us harmless from any resulting claims.

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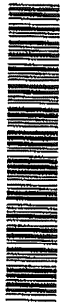
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Keep this liner for your records.

There is an official watermark on this document. Hold at an angle to view.



# Chain of Custody Record



<b>Client Information (Sub Contract Lab)</b>		Lab PM: Sara, Betsy A	Carrier Tracking No(s):	COC No: 280-514369.1
Client Contact: 5755 8th Street East, Tacoma WA, 98424		Phone: 253-922-2310 (Tel) 253-922-5047 (Fax)	State of Origin: Washington	Page: Page 1 of 1
Shipping/Receiving: TestAmerica Laboratories, Inc.		Address: 5755 8th Street East, Tacoma WA, 98424	Job #: 280-133382-1	Job #: 280-133382-1
Project Name: Hidden Valley LF		Site: Hidden Valley LF	<b>Preservation Codes:</b> A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Due Date Requested: 2/18/2020		TAT Requested (days):	<b>Analysis Requested</b>	
PO #:		WO #:	M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Project #: 28003580		SSOW#:	Total Number of Containers	
Site:		Project #:	Special Instructions/Note:	
Site:		SSOW#:	Special Instructions/Note:	
<b>Sample Identification - Client ID (Lab ID)</b>		Project #:	Special Instructions/Note:	
HVL-013120-01 (280-133382-1)		SSOW#:	Special Instructions/Note:	
HVL-013120-02 (280-133382-2)		SSOW#:	Special Instructions/Note:	
Sample Date		Sample Time	Sample Type (C-comp, G-grab)	Matrix (W-water, S-solid, O-waste/liq, BT-Tissue, AF-Air)
1/31/20	10:30 Pacific	Water		
1/31/20	11:00 Pacific	Water		
Perform MS/MSD (Yes or No)		Field Filled Sample (Yes or No)		6020/3010A Total Iron (TA Seattle)
X		X		X
X		X		X

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

**Possible Hazard Identification**  
 Unconfirmed  
 Deliverable Requested: I, II, III, IV, Other (specify) \_\_\_\_\_

Primary Deliverable Rank: 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  
 Disposal By Lab  
 Archive For \_\_\_\_\_ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: 2/3/2020 1410  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Custody Seals Intact: \_\_\_\_\_  
 Δ Yes Δ No

Custody Seal No.: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: \_\_\_\_\_

## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133382-1

**Login Number: 133382**

**List Source: Eurofins TestAmerica, Denver**

**List Number: 1**

**Creator: Lubin, Julius C**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133382-1

**Login Number: 133382**

**List Number: 3**

**Creator: Hobbs, Kenneth F**

**List Source: Eurofins TestAmerica, Seattle**

**List Creation: 02/08/20 01:50 PM**

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

## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 280-133382-1

**Login Number: 133382**  
**List Number: 2**  
**Creator: Harris, Lorin C**

**List Source: Eurofins TestAmerica, St. Louis**  
**List Creation: 02/04/20 11:44 AM**

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