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July 12, 2013

**SourceGas, LLC Wolf Creek #12 Dehydration Building Demolition  
Site Characterization Report  
HCSI Job #13-113**

## **Introduction**

This comprehensive report presents the site background, characterization, and summary for the Wolf Creek #12 Dehydration Building (dehy building) Demolition Site Characterization. Field work was conducted on June 8 through June 26, 2013. The purpose of the site characterization was to define the lateral and vertical extent of possible soil and/or groundwater contamination within, and around the immediate area of the former Wolf Creek #12 dehy building and associated above ground storage tanks (AST).

The Wolf Creek #12 pad is located in the NW SE quarter quarter of Sec. 35, Township 8 South, Range 90 West in the White River National Forest of Pitkin County, Colorado (Latitude 39.314452°, Longitude -107.404040°).

## **Background**

HRL Compliance Solutions, Inc. (HCSI) was contacted by SourceGas, LLC to conduct a site characterization pertaining to the demolition of the Wolf Creek #12 dehy building and associated AST's. The demolished building and equipment are to be upgraded at a later date. The chemicals of concern associated with the facility include glycol, methanol, and produced water.

## **Site Characterization**

On June 8 and 9, 2013 HCSI personnel mobilized to the site with a CME 55 track drill rig to initiate drilling of fourteen (14) vertical boreholes to an approximate depth of 12 feet below ground surface (bgs) or until groundwater was encountered. Eleven (11) boreholes were located within close proximity (approximately 2 to 10 feet) outside of the perimeter of the pre-existing dehy building, and three (3) boreholes were located within the footprint of the dehy building.

Of the fourteen (14) boreholes drilled, six (6) (BH01/PZ01, BH02/PZ02, BH06/PZ03, BH10/PZ04, BH11/PZ05, and BH12/PZ06) encountered groundwater at depths ranging from approximately 2.5 to 6 feet bgs. These six (6) boreholes were converted to temporary piezometers so groundwater could be collected for analysis. Borehole/piezometer locations are presented in Appendix A, Figure 1.

Drilling was performed utilizing a CME 55 track drill rig equipped with a 4.25 inch diameter solid stem augers. A two (2) foot split spoon, was utilized for the collection of soil samples at two (2) foot intervals (0-2', 2-4', etc...) and field screened utilizing a handheld Photoionization Detector (PID). The highest PID reading of 46.5 ppm was observed in BH02/PZ02 in the 0-2 feet sample interval bgs. Two (2) soil samples from each boring were collected. Soil samples from the sample interval with the highest PID reading and the terminus (bottom of borehole) were

submitted to ALS Environmental in Holland, MI on June 10, 2013 for analysis of diesel range organics (DRO), gasoline range organics (GRO), glycols, and methanol. Field screen results are presented in Appendix B, Table 1.

On June 10, 2013, HCSI mobilized to the site to collect groundwater samples from six (6) temporary piezometers (BH01/PZ01 - BH12/PZ06). Groundwater samples were collected using a peristaltic pump. Groundwater was present as a 'perched' water table and was encountered at a depth of five (5) to six (6) feet bgs. Groundwater samples were submitted to ALS Environmental in Holland, MI on June 10, 2013 and analyzed for benzene-toluene-ethylbenzene-xylenes (BTEX), DRO, GRO, glycols, and methanol. Field parameters for groundwater quality were also collected using a YSI 556 multi-parameter water quality meter and are presented in Appendix B, Table 2.

On June 21, 2013 HCSI mobilized to the site to re-sample the six (6) previously installed piezometers (BH01/PZ01 - BH12/PZ06). During this sampling event, BH10/PZ04 was dry and was not sampled. A down-gradient seep sample (DG Seep 01) was also collected. The seep sample was collected to the north, at the toe of #12 well pad where water exits the existing culvert (Appendix A, Figure 1). The velocity of the water exiting the culvert measured an average of 0.23 ft/s and a maximum of 0.30 ft/s. Water quality field parameters were collected using a YSI 556 multi-parameter water quality meter. Samples were submitted to ALS Environmental in Holland, MI on June 24, 2013 for the analysis of BTEX and glycols for BH01/PZ01 - BH12/PZ06, and DRO, GRO, glycols, methanol, metals and BTEX for DG Seep 01.

On June 24 and 25, 2013 HCSI mobilized to the site to drill ten (10) additional soil borings (BH15 - BH23, and BH16A) utilizing a 4.25 inch hollow stem auger and a 2 foot split spoon. Three (3) additional piezometers (BH20/PZ07 - BH22/PZ09) were also installed. While drilling, groundwater was present in these boreholes as a 'perched' water table and was encountered at a depth of approximately five (5) to six (6) feet bgs. Soil samples from these boreholes were collected at various depths after field screening using a PID and a Dextsil PetroFlag® hydrocarbon test unit. PID readings ranged from 0.0 ppm (BH20/PZ07 6'-8') to 444 ppm (BH16). PetroFlag® readings ranged from 0.0 ppm (BH20/PZ07) to 450 ppm (BH17 4'-6'). The velocity of the water exiting the culvert was again measured at this time and measured an average of 0.23 ft/s and a maximum of 0.30 ft/s. Soil samples were submitted to ALS Environmental in Holland, MI on June 25, 2013 and were analyzed for DRO, GRO, glycols, methanol, and BTEX.

On June 26, 2013 HCSI mobilized to the site to collect groundwater samples from the newly installed piezometers (BH20/PZ07, BH21/PZ08, and BH22/PZ09). Samples were collected utilizing a peristaltic pump and water quality field parameters were collected utilizing a YSI 556 multi-parameter meter. BH20/PZ07 was dry and was not sampled. BH22/PZ09 was sampled but did not provide enough water for water quality field parameters. Samples were submitted to ALS Environmental in Holland, MI on June 26, 2013 for the analysis of DRO, GRO, glycols, methanol, and BTEX.

## Conclusions

This site characterization revealed that there are impacts to both soil and water which exceed either or both of the Colorado Oil and Gas Conservation Commission (COGCC) Table 910-1 and the Colorado Department of Public Health and Environment (CDPHE) Colorado Soil Evaluation Values (CSEV) Table 1 standards.

Water samples BH01/PZ01, BH02/PZ02, BH06/PZ03, BH11/PZ05, and BH12/PZ06, collected on June 10, 2012 exceed the CSEV standard of 14 mg/L for ethylene glycol. Water samples collected on June 21, 2013 from these same piezometer sample locations were below the CSEV standard of 14 mg/L for ethylene glycol.

Samples from BH01/PZ01, BH02/PZ02, BH06/PZ03, BH11/PZ05, BH21/PZ08, and BH22/PZ09 exceed both the COGCC and CSEV standard of 0.005 mg/L for benzene.

Soil samples BH01/PZ01 (2'-4' and 4'-6' depth) and BH02/PZ02 (0'-2' depth) exceed the COGCC standard of 500 mg/Kg for Total Petroleum Hydrocarbons (TPH).

Table 3 and Table 4 of Appendix C present the analytical results for both soil and groundwater samples.

Refer to Appendix D for soil boring logs.

Refer to Appendix E for analytical laboratory reports.

HCSI recommends the excavation of soils below the pre-existing dehy building footprint to depths that comply with COGCC allowable standards for TPH. Upon completion of remediation, HCSI recommends continued sampling of the piezometers (if water is present). After four (4) quarters of analytical data indicating results less than COGCC Table 910-1 and CSEV Table 1 allowable standards for groundwater, closure will be requested.

cc: file

### Appendices:

Appendix A: Borehole Location Map

Appendix B: Table 1 and Table 2

Appendix C: Table 3 and Table 4

Appendix D: Soil Boring Logs

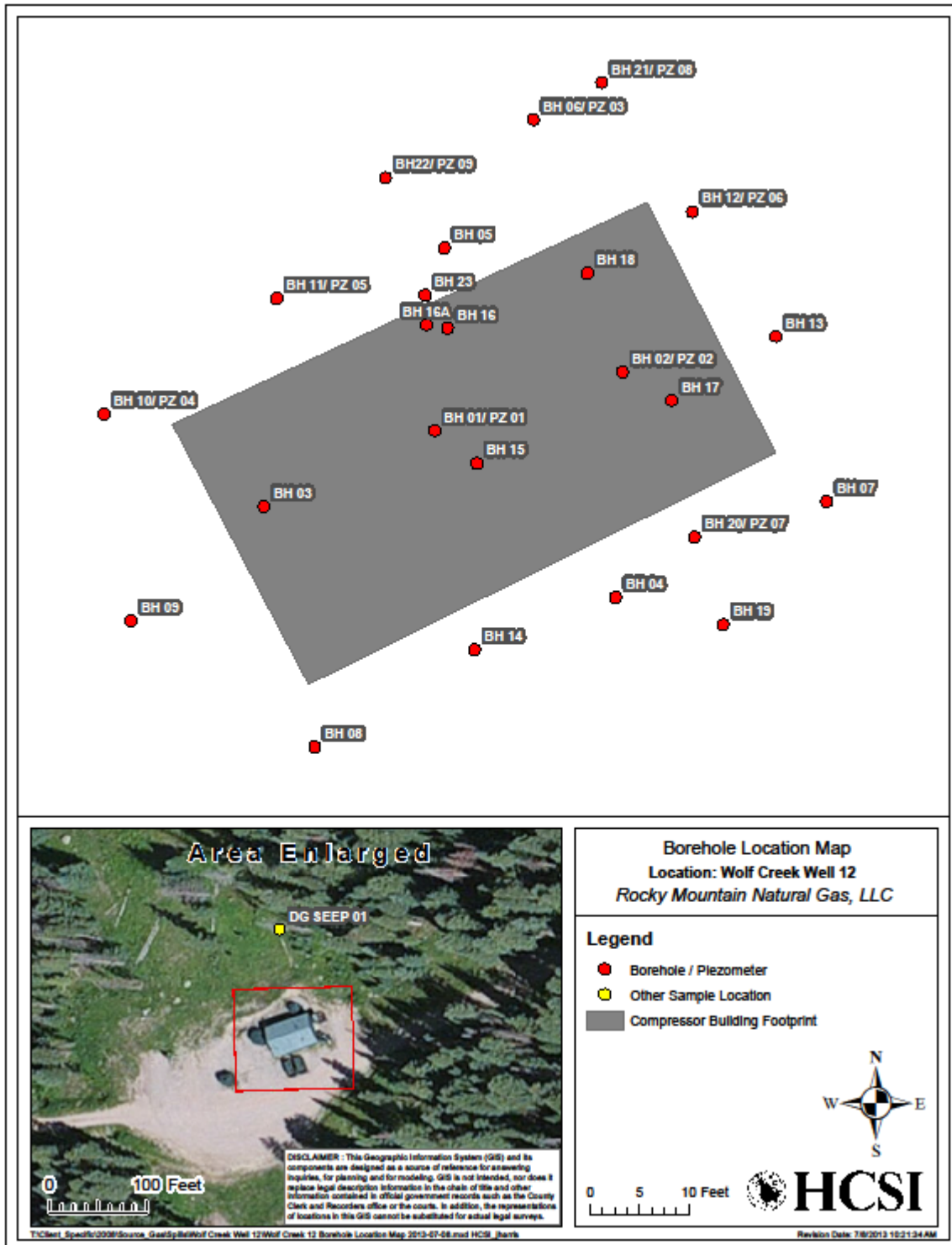
Appendix E: Analytical Laboratory Reports

# **Appendix A**

## **Borehole Location Map**



Figure1. Borehole, Piezometer, and Sample Locations.



# **Appendix B**

**Table 1 Field Screen Results  
And  
Table 2 Water Quality Field Parameters**

Table 1. Field Screen Results.

SourceGas Wolf Creek #12 Dehydration Building Demolition Field Screen Results									
Location	Latitude	Longitude	Date	Depth (ft.) from	Depth (ft.) to	PID Reading (ppm)	PetroFlag Reading (ppm)	Sampled (Y/N)	Notes
BH01/PZ01	39.314465	-107.404049	6/8/2013	0	2	9.2	N/A	N	-
BH01/PZ01	39.314465	-107.404049	6/8/2013	2	4	16.3	N/A	Y	Water @ 4 ft.
BH01/PZ01	39.314465	-107.404049	6/8/2013	4	6	15.2	N/A	Y	-
BH02/PZ02	39.314482	-107.403982	6/8/2013	0	2	46.5	N/A	Y	-
BH02/PZ02	39.314482	-107.403982	6/8/2013	2	4	6.9	N/A	N	-
BH02/PZ02	39.314482	-107.403982	6/8/2013	4	6	11.8	N/A	N	Water @ 6 ft.
BH02/PZ02	39.314482	-107.403982	6/8/2013	6	8	7.3	N/A	Y	-
BH03	39.314442	-107.404109	6/8/2013	0	2	0.0	N/A	N	-
BH03	39.314442	-107.404109	6/8/2013	2	4	3.8	N/A	N	-
BH03	39.314442	-107.404109	6/8/2013	4	6	6.1	N/A	Y	-
BH03	39.314442	-107.404109	6/8/2013	6	8	3.1	N/A	N	-
BH03	39.314442	-107.404109	6/8/2013	8	10	3.0	N/A	N	-
BH03	39.314442	-107.404109	6/8/2013	10	12	7.2	N/A	Y	-
BH04	39.314420	-107.403982	6/8/2013	0	2	22.1	N/A	Y	-
BH04	39.314420	-107.403982	6/8/2013	2	4	2.6	N/A	N	-
BH04	39.314420	-107.403982	6/8/2013	4	6	2.4	N/A	N	-
BH04	39.314420	-107.403982	6/8/2013	6	8	2.1	N/A	N	-
BH04	39.314420	-107.403982	6/8/2013	8	10	2.0	N/A	N	-
BH04	39.314420	-107.403982	6/8/2013	10	12	1.0	N/A	Y	-
BH05	39.314516	-107.404047	6/8/2013	0	2	1.5	N/A	N	-
BH05	39.314516	-107.404047	6/8/2013	2	4	2.9	N/A	N	-
BH05	39.314516	-107.404047	6/8/2013	4	6	4.2	N/A	N	-
BH05	39.314516	-107.404047	6/8/2013	6	8	3.6	N/A	N	-
BH05	39.314516	-107.404047	6/8/2013	8	10	4.5	N/A	Y	-
BH05	39.314516	-107.404047	6/8/2013	10	12	4.8	N/A	Y	-
BH06/PZ03	39.314552	-107.404016	6/8/2013	0	2	3.6	N/A	N	-
BH06/PZ03	39.314552	-107.404016	6/8/2013	2	4	4.2	N/A	Y	-
BH06/PZ03	39.314552	-107.404016	6/8/2013	4	6	2.2	N/A	Y	Water @ 5 ft.
BH07	39.314448	-107.403907	6/8/2013	0	2	0.6	N/A	N	-
BH07	39.314448	-107.403907	6/8/2013	2	4	1.2	N/A	N	-
BH07	39.314448	-107.403907	6/8/2013	4	6	1.4	N/A	N	-
BH07	39.314448	-107.403907	6/8/2013	6	8	3.2	N/A	Y	-
BH07	39.314448	-107.403907	6/8/2013	8	10	3.1	N/A	N	-
BH07	39.314448	-107.403907	6/8/2013	10	12	1.9	N/A	Y	-
BH08	39.314376	-107.404089	6/9/2013	0	2	0.3	N/A	N	-
BH08	39.314376	-107.404089	6/9/2013	2	4	1.6	N/A	N	-
BH08	39.314376	-107.404089	6/9/2013	4	6	3.1	N/A	N	-
BH08	39.314376	-107.404089	6/9/2013	6	8	2.8	N/A	N	-
BH08	39.314376	-107.404089	6/9/2013	8	10	3.6	N/A	Y	-
BH08	39.314376	-107.404089	6/9/2013	10	12	2.5	N/A	Y	-
BH09	39.314410	-107.404156	6/9/2013	0	2	3.8	N/A	Y	-
BH09	39.314410	-107.404156	6/9/2013	2	4	1.4	N/A	N	-
BH09	39.314410	-107.404156	6/9/2013	4	6	3.0	N/A	N	-
BH09	39.314410	-107.404156	6/9/2013	6	8	1.6	N/A	N	-
BH09	39.314410	-107.404156	6/9/2013	8	10	0.5	N/A	N	-
BH09	39.314410	-107.404156	6/9/2013	10	12	1.1	N/A	Y	-
BH10/PZ04	39.314467	-107.404168	6/9/2013	0	2	2.6	N/A	Y	-
BH10/PZ04	39.314467	-107.404168	6/9/2013	2	4	4.1	N/A	Y	Water @ 2.5 ft.
BH11/PZ05	39.314500	-107.404107	6/9/2013	0	2	3.7	N/A	N	-
BH11/PZ05	39.314500	-107.404107	6/9/2013	2	4	4.0	N/A	N	-
BH11/PZ05	39.314500	-107.404107	6/9/2013	4	6	4.3	N/A	Y	-
BH11/PZ05	39.314500	-107.404107	6/9/2013	6	8	8.2	N/A	Y	Water @ 7 ft.
BH12/PZ06	39.314528	-107.403958	6/9/2013	0	2	3.3	N/A	N	-
BH12/PZ06	39.314528	-107.403958	6/9/2013	2	4	4.8	N/A	Y	-
BH12/PZ06	39.314528	-107.403958	6/9/2013	4	6	5.8	N/A	Y	Water @ 4.5 ft.
BH13	39.314494	-107.403927	6/9/2013	0	2	2.8	N/A	N	-
BH13	39.314494	-107.403927	6/9/2013	2	4	1.4	N/A	N	-
BH13	39.314494	-107.403927	6/9/2013	4	6	6.1	N/A	Y	-
BH13	39.314494	-107.403927	6/9/2013	6	8	3.7	N/A	Y	-

Table 1. Field Screen Results continued...

SourceGas Wolf Creek #12 Dehydration Building Demolition Field Screen Results									
Location	Latitude	Longitude	Date	Depth (ft.) from	Depth (ft.) to	PID Reading (ppm)	PetroFlag Reading (ppm)	Sampled (Y/N)	Notes
BH14	39.314404	-107.404032	6/9/2013	0	2	3.2	N/A	Y	-
BH14	39.314404	-107.404032	6/9/2013	2	4	2.9	N/A	N	-
BH14	39.314404	-107.404032	6/9/2013	4	6	3.1	N/A	N	-
BH14	39.314404	-107.404032	6/9/2013	6	8	1.6	N/A	N	-
BH14	39.314404	-107.404032	6/9/2013	8	10	1.0	N/A	N	-
BH14	39.314404	-107.404032	6/9/2013	10	12	2.8	N/A	Y	-
BH15	39.314456	-107.404033	6/24/2013	3	4.5	53.0	N/A	N	-
BH15	39.314456	-107.404033	6/24/2013	8	10	3.6	30.0	Y	-
BH16	39.314493	-107.404045	6/24/2013	4	6	444.0	N/A	N	-
BH16	39.314493	-107.404045	6/24/2013	8	10	6.8	61.0	Y	-
BH16A	39.314494	-107.404053	6/24/2013	2	3	27.3	N/A	Y	-
BH17	39.314475	-107.403964	6/24/2013	4	6	100.0	450.0	N	Water @ 6 ft.
BH17	39.314475	-107.403964	6/24/2013	8	10	4.6	16.0	Y	-
BH18	39.314510	-107.403996	6/24/2013	3	5	22.4	N/A	N	-
BH18	39.314510	-107.403996	6/24/2013	8	10	4.7	5.0	Y	-
BH19	39.314413	-107.403943	6/25/2013	2	4	186.0	N/A	N	-
BH19	39.314413	-107.403943	6/25/2019	4	6	82.0	N/A	N	-
BH19	39.314413	-107.403943	6/25/2025	6	8	93.3	N/A	N	-
BH19	39.314413	-107.403943	6/25/2031	8	10	1.0	N/A	N	Erratic PID readings.
BH20/PZ07	39.314437	-107.403954	6/25/2013	2	4	0.8	231.0	Y	-
BH20/PZ07	39.314437	-107.403954	6/25/2019	4	6	2.0	0.0	N	-
BH20/PZ07	39.314437	-107.403954	6/25/2025	6	8	0.0	N/A	N	-
BH21/PZ08	39.314563	-107.403992	6/25/2013	2	4	75.6	N/A	N	-
BH21/PZ08	39.314563	-107.403992	6/25/2019	4	6	45.0	N/A	N	Water @ 4-5 ft.
BH21/PZ08	39.314563	-107.403992	6/25/2025	6	8	0.9	0.0	Y	-
BH22/PZ09	39.314535	-107.404069	6/25/2013	2	4	31.3	N/A	N	-
BH22/PZ09	39.314535	-107.404069	6/25/2019	4	6	5.6	177.0	Y	-
BH22/PZ09	39.314535	-107.404069	6/25/2025	6	8	29.0	29.0	Y	-
BH23	39.314502	-107.404054	6/25/2013	6	8	4.7	N/A	Y	-
BH23	39.314502	-107.404054	6/25/2019	10	12	2.8	N/A	Y	-
BH23	39.314502	-107.404054	6/25/2025	15	17	1.4	N/A	N	-

Table 2. Water Quality Field Parameters.

SourceGas Wolf Creek #12 Dehydration Building Demolition Site Characterization																						
Sample ID	Latitude	Longitude	Date	Time	Depth to Water (ft.) From TOC	Depth to Water (ft.) Below Ground Surface	Depth of Well (ft.)	°C	mS/cm <sup>c</sup>	mS/cm	Ω*cm	TDS g/L	Sal	DO %	DO mg/L	pH	pHmV	ORP	Flow Velocity (ft./s) Avg.	Flow Velocity (ft./s) Max	Sampled (Y/N)	Notes
BH01/PZ01	39.314465	-107.404049	6/10/2013	1257	4.38	not measured	5.04	14.16	3.596	2.853	350.57	2.334	1.90	26.3	2.67	5.80	14.9	70.9	N/A	N/A	Y	-
BH01/PZ01	39.314465	-107.404049	6/21/2013	1444	3.80	not measured	5.04	15.13	2.797	2.269	440.65	1.818	1.46	49.1	4.88	4.87	61.7	83.4	N/A	N/A	Y	-
BH01/PZ01	39.314465	-107.404049	6/25/2013	N/A	4.22	not measured	5.04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	-
BH01/PZ01	39.314465	-107.404049	6/26/2013	1243	4.40	4.08	5.04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	-
BH02/PZ02	39.314482	-107.403982	6/10/2013	1215	3.32	not measured	6.66	15.03	6.635	5.376	185.96	4.302	3.64	22.3	2.19	6.59	23.0	-99.0	N/A	N/A	Y	-
BH02/PZ02	39.314482	-107.403982	6/21/2013	1502	3.20	not measured	6.66	14.05	4.239	3.353	298.25	2.756	2.27	21.4	2.18	6.23	-15.8	-71.5	N/A	N/A	Y	-
BH02/PZ02	39.314482	-107.403982	6/25/2013	N/A	3.40	not measured	6.66	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	-
BH02/PZ02	39.314482	-107.403982	6/26/2013	1246	3.56	3.56	6.66	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	-
BH06/PZ03	39.314552	-107.404016	6/10/2013	1318	4.10	not measured	4.92	12.29	2.626	1.990	502.47	1.706	1.37	32.1	3.40	5.73	18.6	91.3	N/A	N/A	Y	-
BH06/PZ03	39.314552	-107.404016	6/21/2013	1514	4.22	not measured	4.92	14.13	2.140	1.695	590.14	1.389	1.10	26.1	2.65	4.90	45.2	83.5	N/A	N/A	Y	-
BH06/PZ03	39.314552	-107.404016	6/25/2013	N/A	not measured	3.53	4.92	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	-
BH06/PZ03	39.314552	-107.404016	6/26/2013	1252	4.31	3.56	4.92	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	-
BH10/PZ04	39.314467	-107.404168	6/10/2013	1325	2.52	not measured	5.06	16.08	1.377	1.142	875.49	0.895	0.69	20.6	2.01	6.24	-5.5	-63.4	N/A	N/A	Y	-
BH10/PZ04	39.314467	-107.404168	6/21/2013	1530	4.62	not measured	5.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	Not enough water for sample or parameters.
BH10/PZ04	39.314467	-107.404168	6/25/2013	N/A	DRY	DRY	5.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	DRY
BH10/PZ04	39.314467	-107.404168	6/26/2013	1255	DRY	DRY	5.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	DRY
BH11/PZ05	39.314500	-107.404107	6/10/2013	1345	6.22	not measured	9.94	13.65	3.130	2.448	408.51	2.039	1.65	28.7	2.96	4.66	70.8	119.9	N/A	N/A	Y	-
BH11/PZ05	39.314500	-107.404107	6/21/2013	1541	6.32	not measured	9.94	11.9	2.181	1.637	610.81	1.417	1.12	18.1	1.92	5.3	29.2	162	N/A	N/A	Y	-
BH11/PZ05	39.314500	-107.404107	6/25/2013	N/A	4.85	not measured	9.94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	-
BH11/PZ05	39.314500	-107.404107	6/26/2013	1250	6.50	4.78	9.94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	-
BH12/PZ06	39.314528	-107.403958	6/10/2013	1405	5.26	not measured	7.88	12.87	3.328	2.558	390.93	2.162	1.75	17.6	1.84	6.24	-6.0	-64.1	N/A	N/A	Y	-
BH12/PZ06	39.314528	-107.403958	6/21/2013	1600	5.28	not measured	7.88	14.94	2.547	2.060	485.30	1.654	1.32	17.3	1.72	6.21	-15.1	-22.9	N/A	N/A	Y	-
BH12/PZ06	39.314528	-107.403958	6/25/2013	N/A	4.40	not measured	7.88	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	-
BH12/PZ06	39.314528	-107.403958	6/26/2013	1248	5.46	4.51	7.88	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	-
BH20/PZ07	39.31444	-107.40395	6/26/2013	1115	DRY	DRY	8.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	DRY
BH21/PZ08	39.31456	-107.40399	6/26/2013	1152	4.31	3.91	8.34	12.24	1.905	1.442	693.10	1.237	0.97	29.2	3.05	4.77	52.6	146	N/A	N/A	Y	-
BH22/PZ09	39.31453	-107.40407	6/26/2013	1226	8.32	7.60	9.36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	Sampled but not enough water for parameters.
DG Seep 01	39.31471	-107.40407	6/21/2013	1344	N/A	N/A	N/A	10.41	0.107	0.077	13040	0.069	0.05	63.2	7.03	6.68	-36.5	40.7	0.23	0.30	Y	Flow measured apx. 2 feet north of culvert exit.
DG Seep 01	39.31471	-107.40407	6/25/2013	1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.28	0.30	N	Flow measured apx. 2 feet north of culvert exit.

# **Appendix C**

**Table 3 Soil Analytical Results  
And  
Table 4 Water Analytical Results**

Table 3. Soil Analytical Lab Results.

Soil Analysis							Method	SW8015M [DR O_8015_S]	SW8015 [GRO_8 015_S]	SW8015M [GCF ID_8015_S]	SW8015M [GCF ID_8015_S]	SW8015M [GCF ID_8015_S]	SW8015M [GCF ID_8015_S]	A2540 G [MOIST URE]	SW8260 [VOC_ 8260_S]	SW8260 [VOC_ 8260_S]	SW8260 [VOC_ 8260_S]	SW8260 [VOC_ 8260_S]	SW8260 [VOC_ 8260_S]	SW8260 [VOC_ 8260_S]
N/A = Not Applicable							Analyte	DRO (C10- C28)	GRO (C6- C10)	Ethylene glycol	Methanol	Propylene glycol	Triethylene glycol	Moisture	Benzene	Ethylbenzene	m,p-Xylene	o-Xylene	Toluene	Xylenes, Total
							Units	mg/Kg - dry	mg/Kg - dry	mg/Kg - dry	mg/Kg - dry	mg/Kg - dry	mg/Kg - dry	% of sample	mg/Kg - dry	mg/Kg - dry	mg/Kg - dry	mg/Kg - dry	mg/Kg - dry	mg/Kg - dry
							COGCC Table 910-1 Standards	500	500	N/A	N/A	N/A	N/A	N/A	0.17	100	N/A	N/A	85	175
Sample ID	Well #	Latitude	Longitude	Matrix	Sample Date	WO #	CSEV Standards	N/A	N/A	81000	N/A	N/A	N/A	N/A	1.6	7.8	N/A	N/A	24000	1000
BH01/PZ01 2' -4'	12	39.314465	-107.404049	Soil	6/8/2013	1306367-01		830	<3.6	110	510	<7.1	1600	30	NT	NT	NT	NT	NT	NT
BH01/PZ01 4' -6'	12	39.314465	-107.404049	Soil	6/8/2013	1306367-02		780	<3.7	140	540	<7.4	2300	32	NT	NT	NT	NT	NT	NT
BH02/PZ02 0' -2'	12	39.314482	-107.403982	Soil	6/8/2013	1306367-03		5600	<2.9	87	42	<5.8	21000	13	NT	NT	NT	NT	NT	NT
BH02/PZ02 6' -8'	12	39.314482	-107.403982	Soil	6/8/2013	1306367-04		290	<3.1	23	<6.2	<6.2	1400	19	NT	NT	NT	NT	NT	NT
BH03 4' -6'	12	39.314442	-107.404109	Soil	6/8/2013	1306367-05		100	<3.0	<5.9	<5.9	<5.9	<5.9	15	NT	NT	NT	NT	NT	NT
BH03 10' -12'	12	39.314442	-107.404109	Soil	6/8/2013	1306367-06		35	<3.1	<6.2	<6.2	<6.2	<6.2	19	NT	NT	NT	NT	NT	NT
BH04 0' -2'	12	39.314420	-107.403982	Soil	6/8/2013	1306367-07		390	40	<5.9	2700	<5.9	<5.9	15	NT	NT	NT	NT	NT	NT
BH04 10' -12'	12	39.314420	-107.403982	Soil	6/8/2013	1306367-08		28	<3.0	130	16	<6.0	<6.0	17	NT	NT	NT	NT	NT	NT
BH05 8' -12'	12	39.314516	-107.404047	Soil	6/8/2013	1306367-09		78	<3.4	39	<6.7	<6.7	<6.7	25	NT	NT	NT	NT	NT	NT
BH05 10' -12'	12	39.314516	-107.404047	Soil	6/8/2013	1306367-10		49	<3.2	53	<6.4	<6.4	<6.4	22	NT	NT	NT	NT	NT	NT
BH06/PZ03 2' -4'	12	39.314552	-107.404016	Soil	6/8/2013	1306367-11		43	<3.0	63	<6.0	<6.0	<6.0	16	NT	NT	NT	NT	NT	NT
BH06/PZ03 4' -6'	12	39.314552	-107.404016	Soil	6/8/2013	1306367-12		68	<3.3	71	<6.6	<6.6	<6.6	24	NT	NT	NT	NT	NT	NT
BH07 6' -8'	12	39.314448	-107.403907	Soil	6/8/2013	1306367-13		44	<3.2	<6.4	<6.4	<6.4	<6.4	22	NT	NT	NT	NT	NT	NT
BH07 10' -12'	12	39.314448	-107.403907	Soil	6/8/2013	1306367-14		35	<3.1	<6.3	<6.3	<6.3	<6.3	20	NT	NT	NT	NT	NT	NT
BH08 8' -10'	12	39.314376	-107.404089	Soil	6/9/2013	1306367-15		50	<3.1	<6.2	<6.2	<6.2	<6.2	19	NT	NT	NT	NT	NT	NT
BH08 10' -12'	12	39.314376	-107.404089	Soil	6/9/2013	1306367-16		24	<3.1	<6.2	<6.2	<6.2	<6.2	19	NT	NT	NT	NT	NT	NT
BH09 0' -2'	12	39.314410	-107.404156	Soil	6/9/2013	1306367-17		41	<3.0	<5.9	<5.9	<5.9	<5.9	16	NT	NT	NT	NT	NT	NT
BH09 10' -12'	12	39.314410	-107.404156	Soil	6/9/2013	1306367-18		27	<3.1	<6.2	<6.2	<6.2	<6.2	20	NT	NT	NT	NT	NT	NT
BH10/PZ04 0' -2'	12	39.314467	-107.404168	Soil	6/9/2013	1306367-19		53	<3.2	<6.4	<6.4	<6.4	<6.4	22	NT	NT	NT	NT	NT	NT
BH10/PZ04 2' -4'	12	39.314467	-107.404168	Soil	6/9/2013	1306367-20		91	<3.5	<7.0	<7.0	<7.0	<7.0	29	NT	NT	NT	NT	NT	NT
BH11/PZ05 4' -6'	12	39.314500	-107.404107	Soil	6/9/2013	1306367-21		200	<3.7	40	84	<7.5	120	33	NT	NT	NT	NT	NT	NT
BH11/PZ05 6' -8'	12	39.314500	-107.404107	Soil	6/9/2013	1306367-22		89	<3.5	<7.0	110	<7.0	210	29	NT	NT	NT	NT	NT	NT
BH12/PZ06 2' -4'	12	39.314528	-107.403958	Soil	6/9/2013	1306367-23		29	<2.8	<5.6	<5.6	<5.6	<5.6	11	NT	NT	NT	NT	NT	NT
BH12/PZ06 4' -6'	12	39.314528	-107.403958	Soil	6/9/2013	1306367-24		120	<3.5	<6.9	13	<6.9	<6.9	28	NT	NT	NT	NT	NT	NT
BH13 4' -6''	12	39.314494	-107.403927	Soil	6/9/2013	1306367-25		74	<3.2	<6.5	<6.5	<6.5	<6.5	23	NT	NT	NT	NT	NT	NT
BH13 6' -8'	12	39.314494	-107.403927	Soil	6/9/2013	1306367-26		38	<3.2	<6.5	<6.5	<6.5	<6.5	23	NT	NT	NT	NT	NT	NT
BH14 0' -2'	12	39.314404	-107.404032	Soil	6/9/2013	1306367-27		120	<2.9	<5.7	<5.7	<5.7	86	12	NT	NT	NT	NT	NT	NT
BH14 10' -12'	12	39.314404	-107.404032	Soil	6/9/2013	1306367-28		32	<3.0	<6.0	<6.0	<6.0	<6.0	17	NT	NT	NT	NT	NT	NT
BH15 8' -10'	12	39.314456	-107.404033	Soil	6/24/2013	13061065-01		26	< 3.1	< 6.2	< 6.2	< 6.2	< 6.2	20	< 0.037	< 0.037	<0.075	< 0.037	< 0.037	<0.110
BH16 8.5' -9.5'	12	39.314493	-107.404045	Soil	6/24/2013	13061065-02		< 5.1	< 3.1	< 6.2	< 6.2	< 6.2	< 6.2	20	<0.037	<0.037	<0.075	<0.037	<0.037	<0.110
BH16A 2' -3'	12	39.314494	-107.404053	Soil	6/24/2013	13061065-05		39	< 3.4	< 6.8	< 6.8	< 6.8	< 6.8	26	0.041	0.041	<0.081	0.041	0.097	<0.120
BH17 8' -10'	12	39.314475	-107.403964	Soil	6/24/2013	13061065-03		28	< 3.2	< 6.4	< 6.4	< 6.4	44	21	0.038	0.038	<0.076	0.038	0.038	<0.110
BH18 8' -10'	12	39.314510	-107.403996	Soil	6/24/2013	13061065-04		< 5.3	< 3.2	< 6.4	< 6.4	< 6.4	25	21	0.038	0.038	<0.110	0.038	0.038	<0.110
BH20/PZ07 2' -4'	12	39.314437	-107.403954	Soil	6/25/2013	13061057-01		57	< 3.3	< 6.6	< 6.6	< 6.6	< 6.6	24	<0.040	<0.040	<0.079	<0.040	<0.040	<0.120
BH21/PZ08 6' -8'	12	39.314563	-107.403992	Soil	6/25/2013	13061057-02		27	< 3.3	< 6.5	< 6.5	< 6.5	< 6.5	24	<0.039	<0.039	<0.079	<0.039	<0.039	<0.120
BH22/PZ09 4' -6'	12	39.314535	-107.404069	Soil	6/25/2013	13061057-03		45	< 3.1	< 6.2	< 6.2	< 6.2	< 6.2	19	<0.037	<0.037	<0.074	<0.037	<0.037	<0.110
BH22/PZ09 6' -8'	12	39.314535	-107.404069	Soil	6/25/2013	13061057-04		32	< 3.3	< 6.6	130	< 6.6	< 6.6	24	<0.039	<0.039	<0.079	<0.039	<0.039	<0.120
BH23 6' -8'	12	39.314502	-107.404054	Soil	6/25/2013	13061057-05		< 5.4	< 3.3	< 6.5	< 6.5	< 6.5	< 6.5	24	<0.039	<0.039	<0.078	<0.039	<0.039	<0.120
BH23 10' -12'	12	39.314502	-107.404054	Soil	6/25/2013	13061057-06		< 5.1	< 3.1	< 6.3	< 6.3	< 6.3	< 6.3	20	<0.038	<0.038	<0.075	<0.038	<0.038	<0.110





# **Appendix D**

## **Soil Boring Logs**

# Well Summary

744 Horizon Court, Ste. 140  
Grand Junction, CO 81501  
970-243-3271

BH01/PZ01

Project: Wolf Creek #12 Demo  
Location: Wolf Creek Pad #12  
Date(s): 6/8/13  
Contractor: HCSI  
Rig Type: CMES5  
Drilling Method: 4" Solid Auger  
Sample Type: Split Spoon 2'

Well Name: ~~BH1/PZ1~~  
Total Depth: 6'  
Elevation TOC:  
Elevation Ground:  
Latitude:  
Longitude:  
Logged By: ML

Page 1 of 1

Depth	Sample Interval	Recovery	Graphic Log Well Construction	Well Construction Graphic Log	Material Description
0	22				Ground Surface
2	33				
4	40				
4	X 33	90% Clay		Native Soil	Green to brown clay, med. moist, stiff, high plasticity, odd odor
4	X 33				Brown to dk, red stiff clay, med. moist, high plasticity, organic material
6	X 33	90%		Sand / Blended	Brown silty clay, wet, organic odor, bottom 6" med moist, green clay, high plasticity, med. stiffness, organic odor.
6	44				
8					
10					
12					
14					
16					
18					
20					
22					
24					
26					
28					
30					
32					
34					
36					
38					
40					

9.2 Apr  
16.3  
ppm

15.2  
ppm

source  
gas 13-113

## Well Summary

744 Horizon Court, Ste. 140  
Grand Junction, CO 81501  
970-243-3271

BH02/PZ02

Project: Wolf Creek #12 Demo  
Location: Wolf Creek Pad #12  
Date(s): 6/8/13  
Contractor: HCSF  
Rig Type: CMES5  
Drilling Method: 4" Soli  
Sample Type: Split Spoon 2'

Well Name: ~~BH 2 / PZ 2~~  
Total Depth: 8'  
Elevation TOC:  
Elevation Ground:  
Latitude:  
Longitude:  
Logged By: ML

Page 1 of 1

Depth	Sample Interval	Recovery	Well Construction	Graphic Log	Material Description
					Ground Surface
0	X 22.1	22.1	Native Soil	f.g. Sand	Green to gray, f.g., poorly sorted (no other sizes) sand, organic (peat) odor
2	20.1	20.1			46.5 ppm dry
4	2.3	2.3			Brown to gray clay, med. moist, high plasticity, med. stiffness, organic odor
6	0.1	0.1			(Not HC) odor 6.9 ppm
6	2.4	2.4	Sand	Clay	Brown to dark gray clay, 2" of wood chips, moist, No HC odor
6	2.3	2.3	1/5 Straph / 1		No staining, stiff, high plasticity 11.8 ppm
8	X 46.1	46.1			Brown to gray clay, moist, stiff, No odor / No staining, Bottom 6" is green
					Stiff, high plasticity clay, 7.3 ppm
10					
12					
14					
16					
18					
20					
22					
24					
26					
28					
30					
32					
34					
36					
38					
40					

# Well Summary

744 Horizon Court, Ste. 140  
Grand Junction, CO 81501  
970-243-3271

BH03

Project: Wolf Creek Well #12  
Location: Wolf Creek Well Pad #12  
Date(s): 6/8/13  
Contractor: HCST  
Rig Type: CMES5  
Drilling Method: 4" Solid Auger  
Sample Type: Split Spoon 2'

Well Name: BH3  
Total Depth: 12'  
Elevation TOC:  
Elevation Ground:  
Latitude:  
Longitude:  
Logged By: ML

Page 1 of 1

Depth	Sample Interval	Recovery	Well Construction	Graphic Log	Material Description
0	3,3				Ground Surface
2	3,4				Sandy clay, 80% clay, brown, slight moist med. stiffness, fissile, 10% fine sand, 10% angular gravel, No odor, No staining 0.0ppm
4	2,2				Brown clay, med. moist, med plasticity, med. stiffness, 10% angular gravel. 3.8ppm
6	3,3				Brown clay, med moist low plasticity, med. stiffness, 10% angular pebble to gravel, No odor, No staining 6.1ppm
8	3,3				Green to gray stiff clay, med. moist, high plasticity, No odor, No staining 3.1ppm
10	3,3				Orange to green, moist high plasticity, stiff clay, No odor, No staining 5% angular gravel. 3.0ppm
12	3,3				Brown clay, high plasticity, med. stiff, med. moist, No odor, No staining 10% angular gravel. 7.2ppm
14					
16					
18					
20					
22					
24					
26					
28					
30					
32					
34					
36					
38					
40					

9950

# Well Summary

744 Horizon Court, Ste. 140  
Grand Junction, CO 81501  
970-243-3271

BH04

Project: Wolf Creek #12 Demo  
Location: Wolf Creek Well #12  
Date(s): 6/8/13  
Contractor: HCSI  
Rig Type: CMES5  
Drilling Method: 4" Solid Auger  
Sample Type: Split Spun 2'

Well Name: BH4  
Total Depth:  
Elevation TOC:  
Elevation Ground:  
Latitude:  
Longitude:  
Logged By: ML

Page 1 of 1

Depth	Sample Interval	Recovery	Well Construction	Graphic Log	Material Description
0		3.3			Ground Surface
2	X	2.4 50%			Lt. brown to Red Sandy Clay, stiff, med. moist, 30% f.g. Sand, No odor No staining. 22.1ppm
4		2.4 50%			Hard Stiff Clay, low plasticity, dk brown, No odor, N/S 2.6ppm
6		2.3 3.6 70%		Clay	Brown to gray stiff clay, low plasticity, N/o, N/s, 10% angular gravel, med, moist 2.4ppm
8		2.3 3.6 80%			Dk gray to green clay, mod moist low plasticity, stiff, N/o, N/s Red FeO streaks 15% angular pebbles 2.1ppm
10		2.3 4.5 50%			Brown clay, mod plasticity, soft, 5% FeO N/o, N/s 2.0ppm
12	X	5.3 4.7 50%			Sandy Clay, high plasticity, soft, med, moist, 30% f.g. Sand 70% Clay Dk Red to Brown, N/o, N/s, 1.0ppm
14					
16					
18					
20					
22					
24					
26					
28					
30					
32					
34					
36					
38					
40					

# Well Summary

744 Horizon Court, Ste. 140  
Grand Junction, CO 81501  
970-243-3271

BH05

Project: Wolf Creek #12 Demo  
Location: Wolf Creek Rd #12  
Date(s): 6/8/13  
Contractor: HCSI  
Rig Type: CMES  
Drilling Method: 4" Solid Auger  
Sample Type: 2' Split Spoon

Well Name: BH 5  
Total Depth: 12'  
Elevation TOC:  
Elevation Ground:  
Latitude:  
Longitude:  
Logged By: ML

Page 1 of 1

Depth	Sample Interval	Recovery	Well Construction	Graphic Log	Material Description
0	3, 3				Ground Surface
2	7, 6				Sandy clay, 80% red, stiff, slight moist clay, low plasticity, 20% green fine g. sand, minimal red FeO clots, N/O, N/S 1.5ppm
4	8, 1				Dk, gray-brown clay, soft, mod plast., 10% wood chips, N/O, N/S 2.9ppm
6	3, 3				Same as above, but no wood chips, 4.2ppm
8	2, 2			Clay	Dk. gray-brown silty clay, clay 80% mod moist, mod. plasticity, mod. stiffness N/O, N/S 3.6ppm
10	2, 3				Dk gray to brown clay, soft, low plasticity, mod moist, N/O, N/S, 4.5ppm
12	3, 5				Dk gray to brown, clay, soft, high plast. N/O, N/S 4.8ppm
14	5, 7				
16	8, 0				
18	3, 4				
20	2, 0				
22					
24					
26					
28					
30					
32					
34					
36					
38					
40					



# Well Summary

744 Horizon Court, Ste. 140  
Grand Junction, CO 81501  
970-243-3271

BH06/PZ03

Project: Wolf Creek #12 Damo  
Location: Wolf Creek #12 Pad  
Date(s): 6/8/13  
Contractor: HCST  
Rig Type: CME 55  
Drilling Method: 4" Solid Auger  
Sample Type: 2' Split Spread

Well Name: BH06/PZ06  
Total Depth: 6'  
Elevation TOC:  
Elevation Ground:  
Latitude:  
Longitude:  
Logged By: ML

Page 1 of 1

Depth	Sample Interval	Recovery	Well Construction	Graphic Log	Material Description
0					Ground Surface
2	2,2 2,3 60%		Native Soil	Clay	Red-Brown clay 80%, soft, high plast, mod. moist. 20% green fg. sand N/o, N/s 3.6ppm
4	X 3,3 3,6 60%		Sand	Sand	Green fg. sand wet 80%, 20% brown clay, soft, No plasticity, Mod moist, N/o, N/s, 4.2ppm
6	X 4,3 2,3 30%		Clay	Clay	Sandy clay wet, lower 6" is brown, mod. moist, mod stiff, mod. plast. N/o, N/s 2.2ppm
8					
10					
12					
14					
16					
18					
20					
22					
24					
26					
28					
30					
32					
34					
36					
38					
40					

H2O

# Well Summary

744 Horizon Court, Ste. 140  
Grand Junction, CO 81501  
970-243-3271

BH07

Project: Wolf Creek #12 Demo  
Location: Wolf Creek Pad #12  
Date(s): 6/8/13  
Contractor: HCSI  
Rig Type: CMES5  
Drilling Method: 4" Solid Auger  
Sample Type: 2' Split Spore

Well Name: BH7  
Total Depth: 10'7"  
Elevation TOC:  
Elevation Ground:  
Latitude:  
Longitude:  
Logged By: ML

Page 1 of 1

Depth	Sample Interval	Recovery	Well Construction	Graphic Log	Material Description
0					Ground Surface
2	0.0 - 2.0	100%		Gravel	Angular gravel 60%. Medium grained sand, green, slight moist, bottom 6" is dk brown-red clay, stiff, low plasticity (20% fg. sand) N/O, N/S, 0.6ppm
4	2.0 - 4.0	100%			Dk. Brown-red clay, high plasticity, high stiffness, N/O, N/S, some (2%) wood chips. 1.2ppm
6	4.0 - 6.0	100%		Clay	Dk gray, Clay, mod. plast., med. stiffness, some (5%) FeO clasts of pebbles. N/O, N/S 1.4ppm
8	6.0 - 8.0	100%			Brown-orange, Sandy Clay. Clay 70%, high stiffness, low plasticity, Sand 30%. fg to mg. Some FeO clasts. N/O, N/S 3.2ppm
10	8.0 - 10.0	100%			Red clay, high plast., high stiffness, mod. Moist, N/O, N/S 3.1ppm
12	10.0 - 12.0	5.11			Red clay, high plast., mod. stiffness, N/O, N/S 1.9ppm
14					
16					
18					
20					
22					
24					
26					
28					
30					
32					
34					
36					
38					
40					

69

Beart  
Boulder



# Well Summary

744 Horizon Court, Ste. 140  
Grand Junction, CO 81501  
970-243-3271

BH08

Project: Wolf Creek #12 Demo  
Location: Wolf Creek Well #12  
Date(s): 6/9/13  
Contractor: HCS I  
Rig Type: CMES5  
Drilling Method: 4" Solid Auger  
Sample Type: 2' Split Spoon

Well Name: BH 8  
Total Depth: 12'  
Elevation TOC:  
Elevation Ground:  
Latitude:  
Longitude:  
Logged By: ML

Page 1 of 1

Depth	Sample Interval	Recovery	Well Construction	Graphic Log	Material Description
0					Ground Surface
2					Gray to brown silty clay, stiffness high, low plasticity, slightly moist, N/o, N/s. 0.3 ppm
4					DK gray-brown sandy clay 80% clay, stiffness high, low plast. f.g. sand 20%, N/o, N/s, slightly moist 1.6 ppm
6				Clay	Gray silty clay, clay 60%, slightly moist, low plast, med. stiffness silt 40% N/o N/s 3.1 ppm
8					Upper 6" is gray clay, slight moist, low plast, mod. stiffness. Bottom 1.5' is orange (FeO) vfg sandy clay (clay 80%), mod. stiffness, low plast. N/o, N/s 2.8 ppm
10	X				Brown clay, slight moist, mod. stiffness, high plast. N/o, N/s 5% angular basal gravel 3.6 ppm
12	X				Brown clay 80%, high plast, low stiffness, mod. moist, 20% angular gravel, N/o, N/s 2.5 ppm
14					
16					
18					
20					
22					
24					
26					
28					
30					
32					
34					
36					
38					
40					

# Well Summary

744 Horizon Court, Ste. 140  
Grand Junction, CO 81501  
970-243-3271

Project: *Wolf Creek #12 Demo*  
Location: *Wolf Creek Pad #12*  
Date(s): *6/9/13*  
Contractor: *HCSI*  
Rig Type: *CMESS*  
Drilling Method: *4" Solid Auger*  
Sample Type: *2' Split Spoon*

*BH09*  
Well Name: *BH9*  
Total Depth: *12'*  
Elevation TOC:  
Elevation Ground:  
Latitude:  
Longitude:  
Logged By: *ML*

Page 1 of 1

Depth	Sample Interval	Recovery	Well Construction	Graphic Log	Material Description
0					Ground Surface
0	X	4/6 10/10		Fg. Sand	Green fine grained sand 80%, dry, 20% angular gravel, N/O, N/S. 1.7ppm 3.8ppm
2		2/3 3/3			DK brown silty clay, low plast, mod. stiff, mod. moist, N/O, N/S 1.4ppm
4		2/4 3/4			Gray sandy clay, clay 70%, mod. stiff, slight moist, low plast, green
6		2/4 3/4		Clay	Fg. Sand 30%, N/O, N/S 3.0ppm
8		1/4 2/4			Gray-brown clay, high plast, high sh thres, FeO streaks. Bottom 2" is
10		2/4 3/4			Red oxidized basalt gravel, N/O, N/S 1.6ppm
10	X	2/4 3/4			60% Brown clay, soft, high plast, mod. moist, 30% Fg. Sand, 10% angular gravel, N/O, N/S, 0.5ppm
12		2/4 3/4			Brown-gray clay, soft, high plast., mod moist, N/O, N/S 1.1ppm
14					
16					
18					
20					
22					
24					
26					
28					
30					
32					
34					
36					
38					
40					

# Well Summary

744 Horizon Court, Ste. 140  
Grand Junction, CO 81501  
970-243-3271

BH10/PZ04

Project: Wolf Creek #12 Demo  
Location: Wolf Creek Pad #12  
Date(s): 6/19/13  
Contractor: HCSI  
Rig Type: CMES5  
Drilling Method: 4" Solid Auger  
Sample Type: 2' Split Spoon

Well Name: ~~BH10/PZ10~~  
Total Depth: 4'  
Elevation TOC:  
Elevation Ground:  
Latitude:  
Longitude:  
Logged By: ML

Page 1 of 1

Depth	Sample Interval	Recovery	Well Construction	Graphic Log	Material Description
0			Native Soil		Ground Surface
2	X 2,3 4,4 6,0		Sand	Clay	Sandy-gravelly clay, clay 60% Red soft, low plastic, mod. moist, 20% angular gravel, 20% green f.g. sand. N/O, N/S. Z. Open Bottom 4" is dark gray clay w/ abundant organic matter. Upper 8" is brown silty clay, mod stiffness, low plasticity and wet. 4.1 ppm
4	X 1,3 2,3 5,0		Clay		
6					
8					
10					
12					
14					
16					
18					
20					
22					
24					
26					
28					
30					
32					
34					
36					
38					
40					

Water @ 2.5'

# Well Summary

744 Horizon Court, Ste. 140  
Grand Junction, CO 81501  
970-243-3271

BH11/PZ05

Project: Wolf Creek #12 Demo  
Location: Wolf Creek #12  
Date(s): 6/9/13  
Contractor: HCSI  
Rig Type: CMES5  
Drilling Method: 4" Solid Auger  
Sample Type: 2' Split Spoon

Well Name: ~~BH11/PZ11~~  
Total Depth: 8'  
Elevation TOC:  
Elevation Ground:  
Latitude:  
Longitude:  
Logged By: ML

Page 1 of 1

Depth	Sample Interval	Recovery	Well Construction	Graphic Log	Material Description
0		3.3			Ground Surface
2		4.5	Native Soil		Sandy-gravelly clay, Brown clay 60% stiff, low plast. mod moist, 20% angular gravel, 20% green f.g. sand, N/O, N/S 3.7ppm
4		1.3			Brown-gray clay, mod moist, med stiff, low plast, N/O, N/S 4.0ppm
6	X	1.2			80% gray-brown clay 5. ft, low plast, 20% wood, N/O, N/S 4.3ppm
8	X	1.3			green-gray clay on bottom 6", Primarily dry, stiff, high plast., upper 1.5' is green-gray silty clay, wet, high plast, med stiff, N/O, N/S, Organic (Pet) odor 3.7ppm
10		2.0			
12					
14					
16					
18					
20					
22					
24					
26					
28					
30					
32					
34					
36					
38					
40					



# Well Summary

744 Horizon Court, Ste. 140  
Grand Junction, CO 81501  
970-243-3271

BH12/PZ06

Project: Wolf Creek #12 Demo  
Location: Wolf Creek Pad #12  
Date(s): 6/9/13  
Contractor: HESI  
Rig Type: CMES5  
Drilling Method: 4" Solid Auger  
Sample Type: 2' Split Spoon

Well Name: BH12/PZ12  
Total Depth: 6'  
Elevation TOC:  
Elevation Ground:  
Latitude:  
Longitude:  
Logged By: ML

Page 1 of 1

Depth	Sample Interval	Recovery	Well Construction	Graphic Log	Material Description
0	6.9 4.3				Ground Surface
2	X 2.3 2.3		Native Soil	Sand	Sandy-gravelly clay, 80% green f.g. Sand, 10% brown clay, mod. stiff, low plast, 10% angular gravel, N/O, N/S 3.3ppm
4	X 1.2 30%		Sand	Sand	20% Green f.g. Sand, N/O, N/S 4.8ppm
6			Clay	Clay	Bottom 6" is dark gray clay, soft, mod. moist, high plast, Upper 1' is gray silty clay, wet, N/O, N/S 5.8ppm
8					
10					
12					
14					
16					
18					
20					
22					
24					
26					
28					
30					
32					
34					
36					
38					
40					

Water

# Well Summary

744 Horizon Court, Ste. 140  
Grand Junction, CO 81501  
970-243-3271

Project: Wolf Creek #12 Demo  
Location: Wolf Creek Pad #12  
Date(s): 6/9/13  
Contractor: HCS I  
Rig Type: CME 55  
Drilling Method: 4" solid auger  
Sample Type: 2' Split Spoon

Well Name: BH13  
Total Depth: 6'  
Elevation TOC:  
Elevation Ground:  
Latitude:  
Longitude:  
Logged By: ML

Page 1 of 1

Depth	Sample Interval	Recovery	Well Construction	Graphic Log	Material Description
0					Ground Surface
2	3 2, 3 50%			Clay	Sandy-gravelly clay, clay 60%, Brown, high stiffness, low plast., 30% green fg. Sand, 10% angular gravel w/ FeO <del>clasts</del> streaks, N/o, N/s 2.8ppm
4	3 2, 3 50%			F. & S	Green gravelly-fg. Sand, Sand 80%, gravel 20%, N/o, N/s 1.4ppm
6	X 9.9 3.5 50%				Dk gray clay, high stiffness, high plast., moist, 10% angular basalt gravel 10% wood chips, N/o, N/s 6.1ppm
8	X 3.3 7, 10 50%			Clay	Brown-gray clay, high stiff, mod. plast., wet, N/o, N/s 3.7ppm
10					
12					
14					
16					
18					
20					
22					
24					
26					
28					
30					
32					
34					
36					
38					
40					

# Well Summary

744 Horizon Court, Ste. 140  
Grand Junction, CO 81501  
970-243-3271

Project: Wolf Creek #12 Demo  
Location: Wolf Creek Pad #12  
Date(s): 6/9/13  
Contractor: HCSI  
Rig Type: CME 55  
Drilling Method: 4" Solid Auger  
Sample Type: 2' Split Spun

Well Name: BH 14  
Total Depth: 12'  
Elevation TOC:  
Elevation Ground:  
Latitude:  
Longitude:  
Logged By: ML

Page 1 of 1

Depth	Sample Interval	Recovery	Well Construction	Graphic Log	Material Description
0	X 2.2	1.2			Ground Surface
2		2.2			Loose gravel and silt, brown, dry, N/o, N/s 3.2 ppm
4		3.5			Dk Brown clay, mod, moist, mod stickiness, <sup>mod</sup> high plasticity, N/o N/s, 5% wood chips 2.9 ppm
6		4.4			Lt. gray to brown clay, slight moist, mod. stiff, mod. plast, N/o, N/s 10% green silt/veg sand. 3.1 ppm
8		5.3			gray silty clay w/ orange FeO streaks, mod stiff, high plast, slight moist N/o, N/s 1.6 ppm
10		6.1			gray-brown clay, soft, high plast, mod. moist, N/o, N/s, FeO streaks 1.0 ppm
12	X 2.3	3.7			Gray-brown clay, soft, high plast, slight moist, N/o, N/s, 2.8 ppm
14		5.1			
16					
18					
20					
22					
24					
26					
28					
30					
32					
34					
36					
38					
40					



**HCSI**  
THE HIGHEST QUALITY DRILLING SERVICE

2385 F 1/2 Road  
Grand Junction, CO 81505  
970-243-3271

### Borehole Summary

Project: *Source Gas Wolf Creek #12 Site Change.*

Location: *Wolf Creek #12*

Date(s): *6/24/13*

Contractor: *HCSI*

Rig Type: *CME55*

Drilling Method: *4.25" ID Hollow Stem*

Sample Type: *Split Spoon 20'*

Borehole Number *BH 15*

Total Depth: *10'*

Elevation Ground:

State Plane Cord. North:

State Plane Cord. East:

Logged By: *ML*

Page 1 of 1

Depth	Sample Interval	Recovery	Graphic Log	Material Description
0				Ground Surface
2				
4		50%		Silty clay, med, moist, glycol odor/staining, 20% wood chips, 10% angular gravel. 53ppm
6			Clay	
8				
10	X	100%		Brown stick clay, 5% wood chips, glycol odor, FeO streaks, med. plast. mod. moist. 3,6 ppm Petroflag 30 ppm. (8-10') depth
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				





# HCSI

THE HOLLOW STERN INDUSTRIES COMPANY

2385 F 1/2 Road  
Grand Junction, CO 81505  
970-243-3271

## Borehole Summary

Project: *Southern Wolf Creek #12 Site Change*  
Location: *Wolf Creek #12*  
Date(s): *6/24/13*  
Contractor: *HCSI*  
Rig Type: *CME 55*  
Drilling Method: *4.25" ID Hollow Stem*  
Sample Type: *Split Spore 2.0'*

Borehole Number *BH 16; ~~BH 16A~~*  
Total Depth: *10'*  
Elevation Ground:  
State Plane Cord. North:  
State Plane Cord. East:  
Logged By: *ML*

*(18' North of BH 16)*

Page 1 of 1

Depth	Sample Interval	Recovery	Graphic Log	Material Description
0				Ground Surface
2				
4				
6		90%		Brown to dk. gray, stiff mod. plast. clay, 20% organic wood chips, slight prod. theo odor, Gray coloration <u>may</u> be staining. 441 ppm (?)
8			Clay	
10		95%		gray to gray, mod. moist, stiff, mod. plast. clay, FeO streaks, N/O, N/S 6.8 ppm 61 ppm Petroflag.
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				



**HCSI**  
THE HIGHEST QUALITY DRILLING COMPANY

2385 F 1/2 Road  
Grand Junction, CO 81505  
970-243-3271

### Borehole Summary

Project: Source Gas Wolf Creek #12

Location: Wolf Creek #12

Date(s): 6/24/13

Contractor: HCSI

Rig Type: CME 55

Drilling Method: 4.25" ID Hollow Stem

Sample Type: 2' Split Spoon

18" North of BH16

Borehole Number

Total Depth: 6'

Elevation Ground:

State Plane Cord. North:

State Plane Cord. East:

Logged By: ML

Page 1 of 1

Depth	Sample Interval	Recovery	Graphic Log	Material Description
0				Ground Surface
2				
4				
6				
8				
10				
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				



**HCSI**  
THE HYDROLOGICAL CONSULTING SOCIETY

2385 F 1/2 Road  
Grand Junction, CO 81505  
970-243-3271

### Borehole Summary

Project: *Source Gas Wolf Creek #12*  
Location: *Wolf Creek #12*  
Date(s): *6/24/13*  
Contractor: *HCSI*  
Rig Type: *CME 55*  
Drilling Method: *4.25" ID Hollow Stem*  
Sample Type: *2' split Spoon*

Borehole Number *BH 17*  
Total Depth: *10'*  
Elevation Ground:  
State Plane Cord. North:  
State Plane Cord. East:  
Logged By: *ML*

Page 1 of 1

Depth	Sample Interval	Recovery	Graphic Log	Material Description
0				Ground Surface
2				
4				
6		<i>60%</i>		<i>Silty clay, 80% gray-brown med. stiff, high plast. clay, 10% silt 10% organic wood chips, sticky odor (prod. water/glycol?) wet. N/S 100ppm 450ppm (Petroflag)</i>
8			<i>Clay</i>	
10	<i>X 60%</i>			<i>DK. gray-brown moist clay, high plast., med. stiff, N/S, smelly odor (prod. water/glycol?) 5% angular basalt gravel. 46ppm Petroflag 16ppm</i>
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				



**HCSI**  
THE HIGH QUALITY SERVICE INTERNATIONAL

2385 F 1/2 Road  
Grand Junction, CO 81505  
970-243-3271

### Borehole Summary

Project: Source Gas Wolf Creek #12  
Location: Wolf Creek #12  
Date(s): 6/24/13  
Contractor: HCSI  
Rig Type: CME 55  
Drilling Method: 4.25" ID Hollow Stem Auger  
Sample Type: 2' Split Spoon

Borehole Number BH 18  
Total Depth: 10'  
Elevation Ground:  
State Plane Cord. North:  
State Plane Cord. East:  
Logged By: ML

Page 1 of 1

Depth	Sample Interval	Recovery	Graphic Log	Material Description
0				Ground Surface
2				
4		100%		Gray clay, moist, high plast., mod. stiffness, stinky odor (Prod. water/glycol) 22.4 ppm PID
6				
8				
10	X	80%		Dk brown-gray moist clay, mod. stiff, low plast., smelly odor. 4.7 ppm PID 5 ppm Petrolog
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				



**HCSI**  
THE HYDRO-CARBON SERVICES INTERNATIONAL

2385 F 1/2 Road  
Grand Junction, CO 81505  
970-243-3271

### Borehole Summary

Project: *Source Gas Wolf Creek #12*

Location: *Wolf Creek #12*

Date(s): *6/24/13 6/25/13*

Contractor: *HCSI*

Rig Type: *CME 55*

Drilling Method: *425" ID Hollow Stem 4" Solid Stem Auger*

Sample Type: *2' Split Spoon*

Borehole Number *BH 19*

Total Depth: *10'*

Elevation Ground:

State Plane Cord. North:

State Plane Cord. East:

Logged By: *ML*

Page 1 of 1

Depth	Sample Interval	Recovery	Graphic Log	Material Description
0				Ground Surface
2				
4		30%		Gray-brown, clay, mod. moist, high stiff, mod. plat, 5% wood chips, N/s, N/G <del>415 ppm PID</del>
6		90%		Same as above + slight (sweet) odor @ 4-5', 82 ppm
8		80%		Same. N/G, <del>N/s</del> slight odor (? Not sweet ID) 93.3 ppm PID
10		50%		Brown clay, stiff (high), high plat, N/G, N/s <del>344 ppm PID</del> 1 ppm PID
12				Note: erratic PID readings here. low → high → low
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				





# HCSI

THE HIGHEST QUALITY DRILLING CONTRACTORS

2385 F 1/2 Road  
Grand Junction, CO 81505  
970-243-3271

## Borehole Summary

Project: ~~Source Gas~~ Wolf Creek #12

Location: Wolf Creek #12

Date(s): 6/25/13

Contractor: HCSI

Rig Type: CME 55

Drilling Method: 4" Solid Stem Auger

Sample Type: 2' Split Spoon

BH20/PZ07

Borehole Number ~~BH20/PZ20~~

Total Depth: 8'

Elevation Ground:

State Plane Cord. North:

State Plane Cord. East:

Logged By: ML

Page 1 of 1

Depth	Sample Interval	Recovery	Graphic Log	Material Description
0				Ground Surface
2	X	50%	Bentonite	DK gray - brown clay, slight sheen, high plastic, mod stiff, mod moist 0.8 ppm PID
4		80%	Screen	231 ppm Petrolog
6		60%	Screen	DK gray - brown clay, 'sticky' (high plastic), mod. stiff, mod. moisture, N/O, N/S 2.0 ppm PID
8				0.0 ppm Petrolog
10				Same as above + Red and orange FeO streaks. 0.0 ppm PID
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				



**HCSI**  
THE HIGHEST QUALITY SERVICE

2385 F 1/2 Road  
Grand Junction, CO 81505  
970-243-3271

### Borehole Summary

Project: *Sour Gas Wolf Creek #12*

Location: *Wolf Creek #12*

Date(s): *6/25/13*

Contractor: *HCSI*

Rig Type: *CME 55*

Drilling Method: *4" Solid Auger*

Sample Type: *2' Split Spoon*

Borehole Number

Total Depth: *8'*

Elevation Ground:

State Plane Cord. North:

State Plane Cord. East:

Logged By: *ML*

*BH21/P208*

*BH21/P221*

Page 1 of 1

Depth	Sample Interval	Recovery	Graphic Log	Material Description
0				Ground Surface
2			Bentonite	
4			green	2'-2.2' is competent f.g. sandstone. Rest is silt, brown, sl. moist. Sandstone
4		100%	fg sand	has slight odor, wet 75.6 ppm PID
6		60%	Screen	4'-4.5' is green f.g. competent sandstone, Rest 30%. Rest is gray-brown clay, wet
6			Clay	with 10% organic wood chips. Mod. odor 45.0 ppm PID
8		40%		Gray to brown clay, stiff, high plast., mod. moist., sl. odor, N/S. 0.9 ppm PID
8				0.0 ppm Petroflag.
10				
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				



**HCSI**  
HOLE CORE SAMPLING INTERNATIONAL

2385 F 1/2 Road  
Grand Junction, CO 81505  
970-243-3271

### Borehole Summary

Project: Source Gas Wolf Creek #12  
Location: Wolf Creek #12  
Date(s): 6/25/13  
Contractor: HCSI  
Rig Type: CMES5  
Drilling Method: 4" Solid Auger  
Sample Type: 2' Split Spoon

BH22/PZ09  
Borehole Number: ~~BH22/PZ22~~  
Total Depth: 8'  
Elevation Ground:  
State Plane Cord. North:  
State Plane Cord. East:  
Logged By: ML

Page 1 of 1

Depth	Sample Interval	Recovery	Graphic Log	Material Description
0				Ground Surface
2			Bentonite	
4	60%		Sand	Dk brown clay, soft, mod, moist, high plastic, sl. odor, N/S 31.3ppm PID
6	60%		Screen	Same as above 5.6ppm PID 177ppm Petrofluor
8	80%			Same as above 1.5ppm PID 29ppm Petrofluor
10				
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				





# HCSI

THE HYDROLOGICAL CONSULTING SERVICES INC.

2385 F 1/2 Road  
Grand Junction, CO 81505  
970-243-3271

## Borehole Summary

Project: *Source Gas Wolf Creek #12*

Location: *Wolf Creek #12*

Date(s): *6/25/13*

Contractor: *HCSI*

Rig Type: *CME55*

Drilling Method: *4" Solid Stem Auger*

Sample Type: *2' Split Spoon*

Borehole Number

Total Depth: *17'*

Elevation Ground:

State Plane Cord. North:

State Plane Cord. East:

Logged By: *ML*

*BH 23*

Page 1 of 1

Depth	Sample Interval	Recovery	Graphic Log	Material Description
0				Ground Surface
2				
4				
6				
8	X 60%			Brown clay, mod. moist, mod stiff, high plast., sl. odor, no shining 4.7 ppm PID
10	X 70%		clay	± Brown-orange clay, soft, high plast, mod moist, N/O, N/S. 2.8 ppm PID.
12				
14				
16		50%		Brown Clay with soft silty clay (30%), wet, high plast. N/O, N/S. Cobbles below 16', 1.4 ppm PID
18				
20				
22				
24				
26				
28				
30				
32				
34				

water  
bubbles

# **Appendix E**

## **Analytical Laboratory Reports**



11-Jul-2013

Herman Lucero  
HRL Compliance Solutions  
2385 F 1/2 Road  
Grand Junction, CO 81505

Re: **Source Gas Wolf Creek #12 13-113 6/25/13**

Work Order: **13061057**  
Revision: **1**

Dear Herman,

ALS Environmental received 6 samples on 27-Jun-2013 09:30 AM for the analyses presented in the following report.

This is a REVISED REPORT. The Case Narrative provides information discussing the reason for issuing a revised report. The total number of pages in this revision is 26.

If you have any questions regarding these test results, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: MN 532786

### Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

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Environmental 

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

---

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/25/13  
**Work Order:** 13061057

**Work Order Sample Summary**

---

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
13061057-01	BH20/PZ07 2-4'	Soil		6/25/2013 10:50	6/27/2013 09:30	<input type="checkbox"/>
13061057-02	BH21/PZ08 6-8'	Soil		6/25/2013 11:59	6/27/2013 09:30	<input type="checkbox"/>
13061057-03	BH22/PZ09 4-6'	Soil		6/25/2013 12:27	6/27/2013 09:30	<input type="checkbox"/>
13061057-04	BH22/PZ09 6-8'	Soil		6/25/2013 12:31	6/27/2013 09:30	<input type="checkbox"/>
13061057-05	BH23 6-8'	Soil		6/25/2013 13:10	6/27/2013 09:30	<input type="checkbox"/>
13061057-06	BH23 10-12'	Soil		6/25/2013 13:14	6/27/2013 09:30	<input type="checkbox"/>

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**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/25/13  
**Work Order:** 13061057

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**Case Narrative**

At the request of the client, the sample IDs were changed in this revised report. No results were changed.

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/25/13  
**WorkOrder:** 13061057

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight



# ALS Group USA, Corp

Date: 11-Jul-13

Client: HRL Compliance Solutions

Project: Source Gas Wolf Creek #12 13-113 6/25/13

Sample ID: BH20/PZ07 2-4'

Collection Date: 6/25/2013 10:50 AM

Work Order: 13061057

Lab ID: 13061057-01

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: 6/27/2013	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>57</b>		<b>5.5</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/27/2013 06:54 PM
Surr: 4-Terphenyl-d14	40.2		39-115	%REC	1	6/27/2013 06:54 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.6	mg/Kg-dry	1	6/27/2013 07:02 PM
Methanol	ND		6.6	mg/Kg-dry	1	6/28/2013 12:18 AM
Propylene glycol	ND		6.6	mg/Kg-dry	1	6/27/2013 07:02 PM
Triethylene glycol	ND		6.6	mg/Kg-dry	1	6/27/2013 07:02 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.3	mg/Kg-dry	50	6/27/2013 01:18 PM
Surr: Toluene-d8	103		50-150	%REC	50	6/27/2013 01:18 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260B</b>		Prep Date: 6/27/2013	Analyst: <b>RS</b>
Benzene	ND		40	µg/Kg-dry	1	6/27/2013 12:30 PM
Ethylbenzene	ND		40	µg/Kg-dry	1	6/27/2013 12:30 PM
m,p-Xylene	ND		79	µg/Kg-dry	1	6/27/2013 12:30 PM
o-Xylene	ND		40	µg/Kg-dry	1	6/27/2013 12:30 PM
Toluene	ND		40	µg/Kg-dry	1	6/27/2013 12:30 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	6/27/2013 12:30 PM
Surr: 1,2-Dichloroethane-d4	91.2		70-130	%REC	1	6/27/2013 12:30 PM
Surr: 4-Bromofluorobenzene	87.4		70-130	%REC	1	6/27/2013 12:30 PM
Surr: Dibromofluoromethane	96.8		70-130	%REC	1	6/27/2013 12:30 PM
Surr: Toluene-d8	94.8		70-130	%REC	1	6/27/2013 12:30 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>JJG</b>
Moisture	24		0.050	% of sample	1	6/27/2013 08:24 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 11-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/25/13  
**Sample ID:** BH21/PZ08 6-8'  
**Collection Date:** 6/25/2013 11:59 AM

**Work Order:** 13061057  
**Lab ID:** 13061057-02  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>27</b>		<b>5.3</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/27/2013 07:54 PM
Surr: 4-Terphenyl-d14	42.0		39-115	%REC	1	6/27/2013 07:54 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.5	mg/Kg-dry	1	6/27/2013 07:13 PM
Methanol	ND		6.5	mg/Kg-dry	1	6/28/2013 12:47 AM
Propylene glycol	ND		6.5	mg/Kg-dry	1	6/27/2013 07:13 PM
Triethylene glycol	ND		6.5	mg/Kg-dry	1	6/27/2013 07:13 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.3	mg/Kg-dry	50	6/27/2013 01:43 PM
Surr: Toluene-d8	104		50-150	%REC	50	6/27/2013 01:43 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260B</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>RS</b>
Benzene	ND		39	µg/Kg-dry	1	6/27/2013 12:52 PM
Ethylbenzene	ND		39	µg/Kg-dry	1	6/27/2013 12:52 PM
m,p-Xylene	ND		79	µg/Kg-dry	1	6/27/2013 12:52 PM
o-Xylene	ND		39	µg/Kg-dry	1	6/27/2013 12:52 PM
Toluene	ND		39	µg/Kg-dry	1	6/27/2013 12:52 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	6/27/2013 12:52 PM
Surr: 1,2-Dichloroethane-d4	99.0		70-130	%REC	1	6/27/2013 12:52 PM
Surr: 4-Bromofluorobenzene	84.3		70-130	%REC	1	6/27/2013 12:52 PM
Surr: Dibromofluoromethane	102		70-130	%REC	1	6/27/2013 12:52 PM
Surr: Toluene-d8	92.6		70-130	%REC	1	6/27/2013 12:52 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>JJG</b>
<b>Moisture</b>	<b>24</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/27/2013 08:24 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 11-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/25/13  
**Sample ID:** BH22/PZ09 4-6'  
**Collection Date:** 6/25/2013 12:27 PM

**Work Order:** 13061057  
**Lab ID:** 13061057-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>45</b>		<b>5.1</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/27/2013 08:24 PM
Surr: 4-Terphenyl-d14	40.4		39-115	%REC	1	6/27/2013 08:24 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.2	mg/Kg-dry	1	6/27/2013 07:24 PM
Methanol	ND		6.2	mg/Kg-dry	1	6/28/2013 01:15 AM
Propylene glycol	ND		6.2	mg/Kg-dry	1	6/27/2013 07:24 PM
Triethylene glycol	ND		6.2	mg/Kg-dry	1	6/27/2013 07:24 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.1	mg/Kg-dry	50	6/27/2013 02:08 PM
Surr: Toluene-d8	105		50-150	%REC	50	6/27/2013 02:08 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260B</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>RS</b>
Benzene	ND		37	µg/Kg-dry	1	6/27/2013 01:15 PM
Ethylbenzene	ND		37	µg/Kg-dry	1	6/27/2013 01:15 PM
m,p-Xylene	ND		74	µg/Kg-dry	1	6/27/2013 01:15 PM
o-Xylene	ND		37	µg/Kg-dry	1	6/27/2013 01:15 PM
Toluene	ND		37	µg/Kg-dry	1	6/27/2013 01:15 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	6/27/2013 01:15 PM
Surr: 1,2-Dichloroethane-d4	95.0		70-130	%REC	1	6/27/2013 01:15 PM
Surr: 4-Bromofluorobenzene	87.0		70-130	%REC	1	6/27/2013 01:15 PM
Surr: Dibromofluoromethane	98.2		70-130	%REC	1	6/27/2013 01:15 PM
Surr: Toluene-d8	96.2		70-130	%REC	1	6/27/2013 01:15 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>JJG</b>
Moisture	<b>19</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/27/2013 08:24 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 11-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/25/13  
**Sample ID:** BH22/PZ09 6-8'  
**Collection Date:** 6/25/2013 12:31 PM

**Work Order:** 13061057  
**Lab ID:** 13061057-04  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>32</b>		<b>5.3</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/27/2013 08:54 PM
Surr: 4-Terphenyl-d14	42.4		39-115	%REC	1	6/27/2013 08:54 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.6	mg/Kg-dry	1	6/27/2013 07:35 PM
<b>Methanol</b>	<b>130</b>		<b>6.6</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/28/2013 01:44 AM
Propylene glycol	ND		6.6	mg/Kg-dry	1	6/27/2013 07:35 PM
Triethylene glycol	ND		6.6	mg/Kg-dry	1	6/27/2013 07:35 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.3	mg/Kg-dry	50	6/27/2013 02:33 PM
Surr: Toluene-d8	101		50-150	%REC	50	6/27/2013 02:33 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260B</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>RS</b>
Benzene	ND		39	µg/Kg-dry	1	6/27/2013 01:38 PM
Ethylbenzene	ND		39	µg/Kg-dry	1	6/27/2013 01:38 PM
m,p-Xylene	ND		79	µg/Kg-dry	1	6/27/2013 01:38 PM
o-Xylene	ND		39	µg/Kg-dry	1	6/27/2013 01:38 PM
Toluene	ND		39	µg/Kg-dry	1	6/27/2013 01:38 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	6/27/2013 01:38 PM
Surr: 1,2-Dichloroethane-d4	94.6		70-130	%REC	1	6/27/2013 01:38 PM
Surr: 4-Bromofluorobenzene	92.6		70-130	%REC	1	6/27/2013 01:38 PM
Surr: Dibromofluoromethane	96.4		70-130	%REC	1	6/27/2013 01:38 PM
Surr: Toluene-d8	100		70-130	%REC	1	6/27/2013 01:38 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>JJG</b>
<b>Moisture</b>	<b>24</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/27/2013 08:24 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 11-Jul-13

Client: HRL Compliance Solutions

Project: Source Gas Wolf Creek #12 13-113 6/25/13

Sample ID: BH23 6-8'

Collection Date: 6/25/2013 01:10 PM

Work Order: 13061057

Lab ID: 13061057-05

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>			<b>SW8015M</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>CW</b>
DRO (C10-C28)	ND		5.4	mg/Kg-dry	1	6/27/2013 09:23 PM
Surr: 4-Terphenyl-d14	42.9		39-115	%REC	1	6/27/2013 09:23 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.5	mg/Kg-dry	1	6/27/2013 07:46 PM
Methanol	ND		6.5	mg/Kg-dry	1	6/28/2013 02:12 AM
Propylene glycol	ND		6.5	mg/Kg-dry	1	6/27/2013 07:46 PM
Triethylene glycol	ND		6.5	mg/Kg-dry	1	6/27/2013 07:46 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.3	mg/Kg-dry	50	6/27/2013 02:58 PM
Surr: Toluene-d8	102		50-150	%REC	50	6/27/2013 02:58 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>RS</b>
Benzene	ND		39	µg/Kg-dry	1	6/27/2013 02:00 PM
Ethylbenzene	ND		39	µg/Kg-dry	1	6/27/2013 02:00 PM
m,p-Xylene	ND		78	µg/Kg-dry	1	6/27/2013 02:00 PM
o-Xylene	ND		39	µg/Kg-dry	1	6/27/2013 02:00 PM
Toluene	ND		39	µg/Kg-dry	1	6/27/2013 02:00 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	6/27/2013 02:00 PM
Surr: 1,2-Dichloroethane-d4	94.4		70-130	%REC	1	6/27/2013 02:00 PM
Surr: 4-Bromofluorobenzene	87.0		70-130	%REC	1	6/27/2013 02:00 PM
Surr: Dibromofluoromethane	97.0		70-130	%REC	1	6/27/2013 02:00 PM
Surr: Toluene-d8	94.9		70-130	%REC	1	6/27/2013 02:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JJG</b>
Moisture	24		0.050	% of sample	1	6/27/2013 08:24 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 11-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/25/13  
**Sample ID:** BH23 10-12'  
**Collection Date:** 6/25/2013 01:14 PM

**Work Order:** 13061057  
**Lab ID:** 13061057-06  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>			<b>SW8015M</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>CW</b>
DRO (C10-C28)	ND		5.1	mg/Kg-dry	1	6/27/2013 06:24 PM
Surr: 4-Terphenyl-d14	46.3		39-115	%REC	1	6/27/2013 06:24 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.3	mg/Kg-dry	1	6/27/2013 07:58 PM
Methanol	ND		6.3	mg/Kg-dry	1	6/28/2013 02:41 AM
Propylene glycol	ND		6.3	mg/Kg-dry	1	6/27/2013 07:58 PM
Triethylene glycol	ND		6.3	mg/Kg-dry	1	6/27/2013 07:58 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.1	mg/Kg-dry	50	6/27/2013 03:23 PM
Surr: Toluene-d8	98.6		50-150	%REC	50	6/27/2013 03:23 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>RS</b>
Benzene	ND		38	µg/Kg-dry	1	6/27/2013 02:23 PM
Ethylbenzene	ND		38	µg/Kg-dry	1	6/27/2013 02:23 PM
m,p-Xylene	ND		75	µg/Kg-dry	1	6/27/2013 02:23 PM
o-Xylene	ND		38	µg/Kg-dry	1	6/27/2013 02:23 PM
Toluene	ND		38	µg/Kg-dry	1	6/27/2013 02:23 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	6/27/2013 02:23 PM
Surr: 1,2-Dichloroethane-d4	94.7		70-130	%REC	1	6/27/2013 02:23 PM
Surr: 4-Bromofluorobenzene	87.2		70-130	%REC	1	6/27/2013 02:23 PM
Surr: Dibromofluoromethane	95.1		70-130	%REC	1	6/27/2013 02:23 PM
Surr: Toluene-d8	95.0		70-130	%REC	1	6/27/2013 02:23 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JJG</b>
Moisture	20		0.050	% of sample	1	6/27/2013 08:24 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1



# ALS Group USA, Corp

Date: 11-Jul-13

**Client:** HRL Compliance Solutions

**Work Order:** 13061057

**Project:** Source Gas Wolf Creek #12 13-113 6/25/13

## QC BATCH REPORT

Batch ID: **49357**

Instrument ID **GC8**

Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKS1-49357-49357</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/27/2013 04:24 PM</b>		
Client ID:		Run ID: <b>GC8_130627B</b>				SeqNo: <b>2364628</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	0.7267	0	1.667	0	43.6	39-115	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-49357-49357</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/27/2013 04:54 PM</b>		
Client ID:		Run ID: <b>GC8_130627B</b>				SeqNo: <b>2364629</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	154.6	4.2	166.7	0	92.8	49-124	0			
Surr: 4-Terphenyl-d14	0.8337	0	1.667	0	50	39-115	0			

<b>MS</b>		Sample ID: <b>13061057-06B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/27/2013 05:24 PM</b>		
Client ID: <b>BH23 10-12'</b>		Run ID: <b>GC8_130627B</b>				SeqNo: <b>2364630</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	281.2	7.9	317.6	0	88.5	49-130	0			
Surr: 4-Terphenyl-d14	1.428	0	3.176	0	45	39-115	0			

<b>MSD</b>		Sample ID: <b>13061057-06B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/27/2013 05:54 PM</b>		
Client ID: <b>BH23 10-12'</b>		Run ID: <b>GC8_130627B</b>				SeqNo: <b>2364631</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	298.6	8.2	327.4	0	91.2	49-130	281.2	6.03	30	
Surr: 4-Terphenyl-d14	1.566	0	3.274	0	47.8	39-115	1.428	9.17	30	

The following samples were analyzed in this batch:

13061057-01B	13061057-02B	13061057-03B
13061057-04B	13061057-05B	13061057-06B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Report Page: 1 of 9

**Client:** HRL Compliance Solutions  
**Work Order:** 13061057  
**Project:** Source Gas Wolf Creek #12 13-113 6/25/13

# QC BATCH REPORT

Batch ID: **R122931**      Instrument ID **GC5**      Method: **SW8015M**

<b>MBLK</b>	Sample ID: <b>MB-R122931-R122931</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 06:05 PM</b>		
Client ID:	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364342</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      ND      5.0

<b>MBLK</b>	Sample ID: <b>MB-R122931-R122931</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/27/2013 11:21 PM</b>		
Client ID:	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364376</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      ND      5.0

<b>LCS</b>	Sample ID: <b>LCS-R122931-R122931</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 06:34 PM</b>		
Client ID:	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364343</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      471.3      5.0      500      0      94.3      50-150      0

<b>LCS</b>	Sample ID: <b>LCS-R122931-R122931</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/27/2013 11:49 PM</b>		
Client ID:	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364377</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      488.5      5.0      500      0      97.7      50-150      0

<b>MS</b>	Sample ID: <b>13061064-02B MS</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 08:00 PM</b>		
Client ID:	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364347</b>		Prep Date:		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      946      10      1000      0      94.6      50-150      0

<b>MS</b>	Sample ID: <b>13061065-03A MS</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/28/2013 05:03 AM</b>		
Client ID:	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364387</b>		Prep Date:		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      990.1      10      1000      0      99      50-150      0

<b>MSD</b>	Sample ID: <b>13061064-02B MSD</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 08:29 PM</b>		
Client ID:	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364348</b>		Prep Date:		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      963      10      1000      0      96.3      50-150      946      1.78      30

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

**Client:** HRL Compliance Solutions  
**Work Order:** 13061057  
**Project:** Source Gas Wolf Creek #12 13-113 6/25/13

## QC BATCH REPORT

Batch ID: **R122931** Instrument ID **GC5** Method: **SW8015M**

MSD		Sample ID: 13061065-03A MSD				Units: mg/Kg		Analysis Date: 6/28/2013 05:31 AM		
Client ID:		Run ID: GC5_130627B		SeqNo: 2364388		Prep Date:		DF: 2		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Methanol	980.9	10	1000	0	98.1	50-150	990.1	0.933	30	

The following samples were analyzed in this batch:

13061057-01A	13061057-02A	13061057-03A
13061057-04A	13061057-05A	13061057-06A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Report Page: 3 of 9

**Client:** HRL Compliance Solutions  
**Work Order:** 13061057  
**Project:** Source Gas Wolf Creek #12 13-113 6/25/13

## QC BATCH REPORT

Batch ID: **R122932** Instrument ID **GC11** Method: **SW8015M**

<b>MBLK</b>	Sample ID: <b>MB-R122932-R122932</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 05:21 PM</b>		
Client ID:	Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364391</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	ND	5.0								
Propylene glycol	ND	10								
Triethylene glycol	ND	5.0								

<b>MBLK</b>	Sample ID: <b>MB-R122932-R122932</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/27/2013 06:51 PM</b>		
Client ID:	Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364456</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	ND	5.0								
Propylene glycol	ND	5.0								
Triethylene glycol	ND	5.0								

<b>LCS</b>	Sample ID: <b>LCS-R122932-R122932</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 06:17 PM</b>		
Client ID:	Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364392</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	515.6	5.0	500	0	103	50-150	0			
Propylene glycol	499.7	10	500	0	99.9	50-150	0			
Triethylene glycol	514.8	5.0	500	0	103	50-150	0			

<b>LCS</b>	Sample ID: <b>LCS-R122932-R122932</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/28/2013 09:29 AM</b>		
Client ID:	Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364457</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	531.8	5.0	500	0	106	50-150	0			
Propylene glycol	526.1	5.0	500	0	105	50-150	0			
Triethylene glycol	301.8	5.0	500	0	60.4	50-150	0			

<b>MS</b>	Sample ID: <b>13061064-02B MS</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 05:55 PM</b>		
Client ID:	Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364395</b>		Prep Date:		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	994	10	1000	0	99.4	50-150	0			
Propylene glycol	932.2	20	1000	0	93.2	50-150	0			
Triethylene glycol	1004	10	1000	34.99	96.9	50-150	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

**Client:** HRL Compliance Solutions  
**Work Order:** 13061057  
**Project:** Source Gas Wolf Creek #12 13-113 6/25/13

## QC BATCH REPORT

Batch ID: **R122932**      Instrument ID **GC11**      Method: **SW8015M**

<b>MS</b>		Sample ID: <b>13061057-06B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/28/2013 10:52 AM</b>		
Client ID: <b>BH23 10-12'</b>		Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364464</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	1050	10	1000	0	105	50-150	0			
Propylene glycol	1032	10	1000	0	103	50-150	0			
Triethylene glycol	821.4	10	1000	0	82.1	50-150	0			

<b>MSD</b>		Sample ID: <b>13061064-02B MSD</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 06:06 PM</b>		
Client ID:		Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364396</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	1029	10	1000	0	103	50-150	994	3.49	30	
Propylene glycol	1011	20	1000	0	101	50-150	932.2	8.15	30	
Triethylene glycol	1030	10	1000	34.99	99.5	50-150	1004	2.58	30	

<b>MSD</b>		Sample ID: <b>13061057-06B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/28/2013 11:04 AM</b>		
Client ID: <b>BH23 10-12'</b>		Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364465</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	1045	10	1000	0	104	50-150	1050	0.565	30	
Propylene glycol	1041	10	1000	0	104	50-150	1032	0.914	30	
Triethylene glycol	860.5	10	1000	0	86.1	50-150	821.4	4.65	30	

The following samples were analyzed in this batch:

13061057-01B	13061057-02B	13061057-03B
13061057-04B	13061057-05B	13061057-06B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

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**Client:** HRL Compliance Solutions  
**Work Order:** 13061057  
**Project:** Source Gas Wolf Creek #12 13-113 6/25/13

# QC BATCH REPORT

Batch ID: **R122905**      Instrument ID **GC10**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>GBLK1-130627-R122905</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/27/2013 12:54 PM</b>		
Client ID:		Run ID: <b>GC10_130627A</b>				SeqNo: <b>2363662</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
<i>Surr: Toluene-d8</i>	<i>108.3</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>108</i>	<i>70-130</i>	<i>0</i>			

<b>LCS</b>		Sample ID: <b>GLCS1-130627-R122905</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/27/2013 12:29 PM</b>		
Client ID:		Run ID: <b>GC10_130627A</b>				SeqNo: <b>2363661</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	8612	200	10000	0	86.1	70-130	0			
<i>Surr: Toluene-d8</i>	<i>112.6</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>113</i>	<i>70-130</i>	<i>0</i>			

<b>MS</b>		Sample ID: <b>13061058-06A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/27/2013 09:43 PM</b>		
Client ID:		Run ID: <b>GC10_130627A</b>				SeqNo: <b>2364194</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	8168	200	10000	0	81.7	70-130	0			
<i>Surr: Toluene-d8</i>	<i>109</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>109</i>	<i>70-130</i>	<i>0</i>			

<b>MSD</b>		Sample ID: <b>13061058-06A MSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/27/2013 10:08 PM</b>		
Client ID:		Run ID: <b>GC10_130627A</b>				SeqNo: <b>2364195</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	7849	200	10000	0	78.5	70-130	8168	3.99	30	
<i>Surr: Toluene-d8</i>	<i>108.6</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>109</i>	<i>70-130</i>	<i>109</i>	<i>0.368</i>	<i>30</i>	

The following samples were analyzed in this batch:

13061057-01A	13061057-02A	13061057-03A
13061057-04A	13061057-05A	13061057-06A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Report Page: 6 of 9



**Client:** HRL Compliance Solutions  
**Work Order:** 13061057  
**Project:** Source Gas Wolf Creek #12 13-113 6/25/13

# QC BATCH REPORT

Batch ID: **49358**      Instrument ID **VMS5**      Method: **SW8260B**

<b>MBLK</b>		Sample ID: <b>MBLK-49358-49358</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/27/2013 12:56 PM</b>		
Client ID:		Run ID: <b>VMS5_130627A</b>				SeqNo: <b>2363098</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
Surr: 1,2-Dichloroethane-d4	905.5	0	1000	0	90.6	70-130	0			
Surr: 4-Bromofluorobenzene	1068	0	1000	0	107	70-130	0			
Surr: Dibromofluoromethane	963	0	1000	0	96.3	70-130	0			
Surr: Toluene-d8	989.5	0	1000	0	99	70-130	0			

<b>LCS</b>		Sample ID: <b>LCS1-49358-49358</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/27/2013 11:46 AM</b>		
Client ID:		Run ID: <b>VMS5_130627A</b>				SeqNo: <b>2363096</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	993	30	1000	0	99.3	75-125	0			
Ethylbenzene	952.5	30	1000	0	95.2	75-125	0			
m,p-Xylene	1918	60	2000	0	95.9	80-125	0			
o-Xylene	961	30	1000	0	96.1	75-125	0			
Toluene	979	30	1000	0	97.9	70-125	0			
Xylenes, Total	2879	90	3000	0	96	75-125	0			
Surr: 1,2-Dichloroethane-d4	919	0	1000	0	91.9	70-130	0			
Surr: 4-Bromofluorobenzene	1072	0	1000	0	107	70-130	0			
Surr: Dibromofluoromethane	958	0	1000	0	95.8	70-130	0			
Surr: Toluene-d8	1064	0	1000	0	106	70-130	0			

<b>MS</b>		Sample ID: <b>13061074-03A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>7/1/2013 09:16 PM</b>		
Client ID:		Run ID: <b>VMS6_130701A</b>				SeqNo: <b>2366871</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1019	30	1000	0	102	75-125	0			
Ethylbenzene	983	30	1000	0	98.3	75-125	0			
m,p-Xylene	1984	60	2000	0	99.2	80-125	0			
o-Xylene	982	30	1000	0	98.2	75-125	0			
Toluene	972.5	30	1000	0	97.2	70-125	0			
Xylenes, Total	2966	90	3000	0	98.8	75-125	0			
Surr: 1,2-Dichloroethane-d4	994.5	0	1000	0	99.4	70-130	0			
Surr: 4-Bromofluorobenzene	991	0	1000	0	99.1	70-130	0			
Surr: Dibromofluoromethane	981.5	0	1000	0	98.2	70-130	0			
Surr: Toluene-d8	963	0	1000	0	96.3	70-130	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

**Client:** HRL Compliance Solutions  
**Work Order:** 13061057  
**Project:** Source Gas Wolf Creek #12 13-113 6/25/13

## QC BATCH REPORT

Batch ID: **49358** Instrument ID **VMS5** Method: **SW8260B**

MSD				Sample ID: 13061074-03A MSD				Units: µg/Kg			Analysis Date: 7/1/2013 09:41 PM				
Client ID:				Run ID: VMS6_130701A				SeqNo: 2366872			Prep Date: 6/27/2013			DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual					
Benzene	941.5	30	1000	0	94.2	75-125	1019	7.91	30						
Ethylbenzene	943.5	30	1000	0	94.4	75-125	983	4.1	30						
m,p-Xylene	1890	60	2000	0	94.5	80-125	1984	4.8	30						
o-Xylene	952	30	1000	0	95.2	75-125	982	3.1	30						
Toluene	925.5	30	1000	0	92.6	70-125	972.5	4.95	30						
Xylenes, Total	2842	90	3000	0	94.8	75-125	2966	4.24	30						
Surr: 1,2-Dichloroethane-d4	968.5	0	1000	0	96.8	70-130	994.5	2.65	30						
Surr: 4-Bromofluorobenzene	1013	0	1000	0	101	70-130	991	2.2	30						
Surr: Dibromofluoromethane	976	0	1000	0	97.6	70-130	981.5	0.562	30						
Surr: Toluene-d8	976.5	0	1000	0	97.6	70-130	963	1.39	30						

The following samples were analyzed in this batch:

13061057-01A	13061057-02A	13061057-03A
13061057-04A	13061057-05A	13061057-06A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

**Client:** HRL Compliance Solutions  
**Work Order:** 13061057  
**Project:** Source Gas Wolf Creek #12 13-113 6/25/13

## QC BATCH REPORT

Batch ID: **R122898** Instrument ID **MOIST** Method: **A2540 G**

MBLK	Sample ID: WBLKS-R122898					Units: % of sample			Analysis Date: 6/27/2013 08:24 AM		
Client ID:			Run ID: MOIST_130627A			SeqNo: 2363495		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture ND 0.050

LCS				Sample ID: LCS-R122898				Units: % of sample				Analysis Date: 6/27/2013 08:24 AM					
Client ID:				Run ID: MOIST_130627A				SeqNo: 2363491				Prep Date:				DF: 1	
Analyte		Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual					

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 13061015-01A DUP					Units: % of sample			Analysis Date: 6/27/2013 08:24 AM	
Client ID:			Run ID: MOIST_130627A			SeqNo: 2363481		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 22.67 0.050 0 0 0 0-0 20.1 12 20

DUP				Sample ID: 13061057-01B DUP				Units: % of sample			Analysis Date: 6/27/2013 08:24 AM		
Client ID: BH20/PZ07 2-4'				Run ID: MOIST_130627A				SeqNo: 2363484			Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

Moisture 23.67 0.050 0 0 0 0-0 24.45 3.24 20

The following samples were analyzed in this batch:

13061057-01B	13061057-02B	13061057-03B
13061057-04B	13061057-05B	13061057-06B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Report Page: 9 of 9



# ALS Laboratory Group

3352 128th Avenue Holland MI, 49424

PH: (616) 399-6070

## Chain-of-Custody

Form 202r8

WORKORDER  
#

13061057

PROJECT NAME	Source Area Wolf Creek #12	SAMPLER	Mike Lobato	DATE	6/25/13	PAGE	1 of 1
PROJECT No.	13-113	SITE ID	Wolf Creek #12	TURNAROUND	24 hr	DISPOSAL	By Lab or Return to Client
COMPANY NAME	HRL Compliance Solutions Inc.	EDD FORMAT					
SEND REPORT TO	Herman Lucero, Mike Lobato	PURCHASE ORDER					
ADDRESS	2385 F <sup>1</sup> / <sub>2</sub> Rd.	BILL TO COMPANY	HRL Compliance Solutions				
CITY / STATE / ZIP	Grand Junction, CO 81505	INVOICE ATTN TO	Herman Lucero				
PHONE	970-243-3271	ADDRESS	2385 F <sup>1</sup> / <sub>2</sub> Rd.				
FAX	970-243-3280	CITY / STATE / ZIP	Grand Junction CO 81505				
E-MAIL	hlucero@hrlcomp.com, mlobato@hrlcomp.com	PHONE	970-243-3271				
		FAX	970-243-3280				
		E-MAIL	hlucero@hrlcomp.com				

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	DRO SW8015M	GRD SW8015M	GLYCOL SW8015M	BTEX SW8260	Methand SW8015M
1	BH20/PZ20 2'-4'	S	6/25/13	1050	2	8		X	X	X	X	
2	BH21/PZ21 6'-8'			1159								
3	BH22/PZ22 4'-6'			1227								
4	BH22/PZ22 6'-8'			1231								
5	BH23 6'-8'			1310								
6	BH23 10'-12'			1314								

JP 6/27/13

\*Time Zone (Circle): EST CST MST PST Matrix: O=oil S=soil NS=non-soil solid W=water L=liquid E=extract F=filter

For metals or anions, please detail analytes below.

Comments:	If Moisture > 30% please adjust parameters to within 60% and CSEV Standards.
	3.8 <
QC PACKAGE (check below)	
<input checked="" type="checkbox"/> LEVEL II (Standard QC)	
<input type="checkbox"/> LEVEL III (Std QC + forms)	
<input type="checkbox"/> LEVEL IV (Std QC + forms + raw data)	
Preservative Key:	1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Mike Lobato	Mike Lobato	6-25-13	1640
RECEIVED BY	Nick M.	Nick M.	6-25-13	1700
RELINQUISHED BY	Nick M.	Nick M.	6-25-13	1740
RECEIVED BY	Diane F. Sklar	Diane F. Sklar	6/27/13	0930
RELINQUISHED BY				
RECEIVED BY				

SOILS	
WOLF CREEK #12	WOLF CREEK #12
OLD	AMMENDED
BH1/PZ1 2'04'	BH01/PZ01 2'-4'
BH1/PZ1 4'06'	BH01/PZ01 4'-6'
BH2/PZ2 0'02'	BH02/PZ02 0'-2'
BH2/PZ2 6'08'	BH02/PZ02 6'-8'
BH3 4'06'	BH03 4'-6'
BH3 10'012'	BH03 10'-12'
BH4 0'02'	BH04 0'02'
BH4 10'012'	BH04 10'012'
BH5 8'012'	BH05 8'012'
BH5 10'012'	BH05 10'012'
BH6/PZ6 2'-4'	BH06/PZ03 2'-4'
BH6/PZ6 4'06'	BH06/PZ03 4'06'
BH7 6'08'	BH07 6'-8'
BH7 10'012'	BH07 10'-12'
BH8 8'010'	BH08 8'-10'
BH8 10'012'	BH08 10'-12'
BH9 0'02'	BH09 0'-2'
BH9 10'012'	BH09 10'-12'
BH10/PZ10 0'02'	BH10/PZ04 0'-2'
BH10/PZ10 2'04'	BH10/PZ04 2'-4'
BH11/PZ11 4'06'	BH11/PZ05 4'-6'
BH11/PZ11 6'08'	BH11/PZ05 6'-8'
BH12/PZ12 2'04'	BH12/PZ06 2'-4'
BH12/PZ12 4'06'	BH12/PZ06 4'-6'
BH13 4'06"	BH13 4'-6'
BH13 6'08'	BH13 6'08'
BH14 0'02'	BH14 0'02'
BH14 10'012'	BH14 10'012'
BH15 8-10'	BH15 8'-10'
BH16 8.5-9.5'	BH16 8.5'-9.5'
BH16A 2-3'	BH16A 2'-3'
BH17 8-10'	BH17 8'-10'
BH18 8-10'	BH18 8'-10'
BH20/PZ20 2-4'	BH20/PZ07 2'-4'
BH21/PZ21 6-8'	BH21/PZ08 6'-8'
BH22/PZ22 4-6'	BH22/PZ09 4'-6'
BH22/PZ22 6-8'	BH22/PZ09 6'-8'
BH23 6-8'	BH23 6'-8'
BH23 10-12'	BH23 10'-12'

WATER	
WOLF CREEK #12	WOLF CREEK #12
OLD	AMMENDED
BH1/PZ1	BH01/PZ01
BH2/PZ2	BH02/PZ02
BH6/PZ6	BH06/PZ03
BH10/PZ10	BH10/PZ04
BH11/PZ11	BH11/PZ05
BH12/PZ12	BH12/PZ06
<del>BH20/PZ20</del>	<del>BH20/PZ07</del>
BH21/PZ21	BH21/PZ08
BH22/PZ22	BH22/PZ09

1306369  
1306971

13061064

1306367

13061065

W0# 13061057

SOILS	
WOLF CREEK #5	WOLF CREEK #5
OLD	AMMENDED
Piez01/SS01	Piez01/SS01
Piez01/SS01 Duplicate	Piez01/SS01 Duplicate
SS02	SS02
Piez03/SS03	Piez02/SS03
Piez04/SS04	SS04
Piez05/SS05	Piez03/SS05
Piez06/SS06	SS06

} 1307003 ✓



Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 27-Jun-13 09:30

Work Order: 13061057

Received by: DS

Checklist completed by Diane Shaw 27-Jun-13  
eSignature Date

Reviewed by: Ann Preston 28-Jun-13  
eSignature Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.8 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>6/27/2013 9:40:19 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	-		
Login Notes:			

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

Revision: 1

From: (970) 424-4749  
Lab Hub, LLC  
127 E First Street  
PARACHUTE, CO 81635

Origin ID: RILA



Ship Date: 25JUN13  
ActWgt: 55.0 LB  
CAD: 103923490/NET3370

Dims: 25 X 14 X 15 IN

Delivery Address Bar Code



Ref # 1001-062513-2  
Invoice #  
PO #  
Dept #

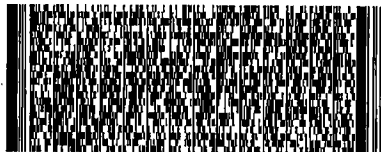
SHIP TO: (616) 399-6870  
Sample recieving  
ALS Holland  
3352 128TH AVE

BILL RECIPIENT

HOLLAND, MI 49424

WED - 26 JUN 3:00P  
STANDARD OVERNIGHT

TRK# 7960 9265 2673  
0201



XX GRRR

49424  
MI-US  
GRR



518GUD77763AB

## After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on [fedex.com](http://fedex.com). FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Lab Hub, LLC. Custody seal

Date: 7/15/15  
Time: 10:00

Lab Hub LLC. Custody seal

Date:

6/25

Time:

11:00



12-Jul-2013

Herman Lucero  
HRL Compliance Solutions  
2385 F 1/2 Road  
Grand Junction, CO 81505

Re: **Source Gas Wolf Creek #12 13-113 6/24/13**

Work Order: **13061065**  
Revision: **1**

Dear Herman,

ALS Environmental received 5 samples on 27-Jun-2013 09:30 AM for the analyses presented in the following report.

This is a REVISED REPORT. The Case Narrative provides information discussing the reason for issuing a revised report. The total number of pages in this revision is 23.

If you have any questions regarding these test results, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: MN 532786

### Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Group An ALS Limited Company

Environmental 

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/24/13  
**Work Order:** 13061065

**Work Order Sample Summary**

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
13061065-01	BH15 8'-10'	Soil		6/24/2013 12:17	6/27/2013 09:30	<input type="checkbox"/>
13061065-02	BH16 8.5'-9.5'	Soil		6/24/2013 13:16	6/27/2013 09:30	<input type="checkbox"/>
13061065-03	BH17 8'-10'	Soil		6/24/2013 14:24	6/27/2013 09:30	<input type="checkbox"/>
13061065-04	BH18 8'-10'	Soil		6/24/2013 15:35	6/27/2013 09:30	<input type="checkbox"/>
13061065-05	BH16A 2'-3'	Soil		6/24/2013 16:06	6/27/2013 09:30	<input type="checkbox"/>

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**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/24/13  
**Work Order:** 13061065

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**Case Narrative**

At the request of the client, the sample IDs were changed in this revised report. No results were changed.



**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/24/13  
**WorkOrder:** 13061065

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

# ALS Group USA, Corp

Date: 11-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/24/13  
**Sample ID:** BH15 8'-10'  
**Collection Date:** 6/24/2013 12:17 PM

**Work Order:** 13061065  
**Lab ID:** 13061065-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>26</b>		<b>5.1</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/27/2013 09:53 PM
Surr: 4-Terphenyl-d14	55.7		39-115	%REC	1	6/27/2013 09:53 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.2	mg/Kg-dry	1	6/28/2013 08:30 AM
Methanol	ND		6.2	mg/Kg-dry	1	6/28/2013 03:38 AM
Propylene glycol	ND		6.2	mg/Kg-dry	1	6/28/2013 08:30 AM
Triethylene glycol	ND		6.2	mg/Kg-dry	1	6/28/2013 08:30 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.1	mg/Kg-dry	50	6/27/2013 03:48 PM
Surr: Toluene-d8	103		50-150	%REC	50	6/27/2013 03:48 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260B</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>RS</b>
Benzene	ND		37	µg/Kg-dry	1	6/27/2013 03:09 PM
Ethylbenzene	ND		37	µg/Kg-dry	1	6/27/2013 03:09 PM
m,p-Xylene	ND		75	µg/Kg-dry	1	6/27/2013 03:09 PM
o-Xylene	ND		37	µg/Kg-dry	1	6/27/2013 03:09 PM
Toluene	ND		37	µg/Kg-dry	1	6/27/2013 03:09 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	6/27/2013 03:09 PM
Surr: 1,2-Dichloroethane-d4	91.7		70-130	%REC	1	6/27/2013 03:09 PM
Surr: 4-Bromofluorobenzene	86.8		70-130	%REC	1	6/27/2013 03:09 PM
Surr: Dibromofluoromethane	94.2		70-130	%REC	1	6/27/2013 03:09 PM
Surr: Toluene-d8	94.8		70-130	%REC	1	6/27/2013 03:09 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>CH</b>
<b>Moisture</b>	<b>20</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/27/2013 02:33 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 11-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/24/13  
**Sample ID:** BH16 8.5'-9.5'  
**Collection Date:** 6/24/2013 01:16 PM

**Work Order:** 13061065  
**Lab ID:** 13061065-02  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>CW</b>
DRO (C10-C28)	ND		5.1	mg/Kg-dry	1	6/27/2013 10:23 PM
Surr: 4-Terphenyl-d14	45.4		39-115	%REC	1	6/27/2013 10:23 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.2	mg/Kg-dry	1	6/28/2013 08:42 AM
Methanol	ND		6.2	mg/Kg-dry	1	6/28/2013 04:06 AM
Propylene glycol	ND		6.2	mg/Kg-dry	1	6/28/2013 08:42 AM
Triethylene glycol	ND		6.2	mg/Kg-dry	1	6/28/2013 08:42 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.1	mg/Kg-dry	50	6/27/2013 04:13 PM
Surr: Toluene-d8	103		50-150	%REC	50	6/27/2013 04:13 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260B</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>RS</b>
Benzene	ND		37	µg/Kg-dry	1	6/27/2013 03:32 PM
Ethylbenzene	ND		37	µg/Kg-dry	1	6/27/2013 03:32 PM
m,p-Xylene	ND		75	µg/Kg-dry	1	6/27/2013 03:32 PM
o-Xylene	ND		37	µg/Kg-dry	1	6/27/2013 03:32 PM
Toluene	ND		37	µg/Kg-dry	1	6/27/2013 03:32 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	6/27/2013 03:32 PM
Surr: 1,2-Dichloroethane-d4	93.6		70-130	%REC	1	6/27/2013 03:32 PM
Surr: 4-Bromofluorobenzene	86.8		70-130	%REC	1	6/27/2013 03:32 PM
Surr: Dibromofluoromethane	96.4		70-130	%REC	1	6/27/2013 03:32 PM
Surr: Toluene-d8	92.8		70-130	%REC	1	6/27/2013 03:32 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>CH</b>
Moisture	20		0.050	% of sample	1	6/27/2013 02:33 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 11-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/24/13  
**Sample ID:** BH17 8'-10'  
**Collection Date:** 6/24/2013 02:24 PM

**Work Order:** 13061065  
**Lab ID:** 13061065-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>28</b>		<b>5.2</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/27/2013 10:53 PM
Surr: 4-Terphenyl-d14	43.4		39-115	%REC	1	6/27/2013 10:53 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.4	mg/Kg-dry	1	6/28/2013 08:54 AM
Methanol	ND		6.4	mg/Kg-dry	1	6/28/2013 04:34 AM
Propylene glycol	ND		6.4	mg/Kg-dry	1	6/28/2013 08:54 AM
Triethylene glycol	<b>44</b>		<b>6.4</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/28/2013 08:54 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.2	mg/Kg-dry	50	6/27/2013 04:39 PM
Surr: Toluene-d8	103		50-150	%REC	50	6/27/2013 04:39 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260B</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>RS</b>
Benzene	ND		38	µg/Kg-dry	1	6/27/2013 03:55 PM
Ethylbenzene	ND		38	µg/Kg-dry	1	6/27/2013 03:55 PM
m,p-Xylene	ND		76	µg/Kg-dry	1	6/27/2013 03:55 PM
o-Xylene	ND		38	µg/Kg-dry	1	6/27/2013 03:55 PM
Toluene	ND		38	µg/Kg-dry	1	6/27/2013 03:55 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	6/27/2013 03:55 PM
Surr: 1,2-Dichloroethane-d4	97.0		70-130	%REC	1	6/27/2013 03:55 PM
Surr: 4-Bromofluorobenzene	90.8		70-130	%REC	1	6/27/2013 03:55 PM
Surr: Dibromofluoromethane	97.1		70-130	%REC	1	6/27/2013 03:55 PM
Surr: Toluene-d8	99.2		70-130	%REC	1	6/27/2013 03:55 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>CH</b>
Moisture	<b>21</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/27/2013 02:33 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 11-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/24/13  
**Sample ID:** BH18 8'-10'  
**Collection Date:** 6/24/2013 03:35 PM

**Work Order:** 13061065  
**Lab ID:** 13061065-04  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>CW</b>
DRO (C10-C28)	ND		5.3	mg/Kg-dry	1	6/27/2013 11:23 PM
Surr: 4-Terphenyl-d14	45.1		39-115	%REC	1	6/27/2013 11:23 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.4	mg/Kg-dry	1	6/28/2013 09:05 AM
Methanol	ND		6.4	mg/Kg-dry	1	6/28/2013 06:00 AM
Propylene glycol	ND		6.4	mg/Kg-dry	1	6/28/2013 09:05 AM
Triethylene glycol	25		6.4	mg/Kg-dry	1	6/28/2013 09:05 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.2	mg/Kg-dry	50	6/27/2013 05:04 PM
Surr: Toluene-d8	103		50-150	%REC	50	6/27/2013 05:04 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260B</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>RS</b>
Benzene	ND		38	µg/Kg-dry	1	6/27/2013 04:18 PM
Ethylbenzene	ND		38	µg/Kg-dry	1	6/27/2013 04:18 PM
m,p-Xylene	100		76	µg/Kg-dry	1	6/27/2013 04:18 PM
o-Xylene	ND		38	µg/Kg-dry	1	6/27/2013 04:18 PM
Toluene	ND		38	µg/Kg-dry	1	6/27/2013 04:18 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	6/27/2013 04:18 PM
Surr: 1,2-Dichloroethane-d4	93.4		70-130	%REC	1	6/27/2013 04:18 PM
Surr: 4-Bromofluorobenzene	86.8		70-130	%REC	1	6/27/2013 04:18 PM
Surr: Dibromofluoromethane	93.8		70-130	%REC	1	6/27/2013 04:18 PM
Surr: Toluene-d8	92.0		70-130	%REC	1	6/27/2013 04:18 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>CH</b>
Moisture	21		0.050	% of sample	1	6/27/2013 02:33 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 11-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/24/13  
**Sample ID:** BH16A 2'-3'  
**Collection Date:** 6/24/2013 04:06 PM

**Work Order:** 13061065  
**Lab ID:** 13061065-05  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>39</b>		<b>5.6</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/27/2013 11:53 PM
Surr: 4-Terphenyl-d14	48.5		39-115	%REC	1	6/27/2013 11:53 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.8	mg/Kg-dry	1	6/28/2013 09:17 AM
Methanol	ND		6.8	mg/Kg-dry	1	6/28/2013 06:28 AM
Propylene glycol	ND		6.8	mg/Kg-dry	1	6/28/2013 09:17 AM
Triethylene glycol	ND		6.8	mg/Kg-dry	1	6/28/2013 09:17 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.4	mg/Kg-dry	50	6/27/2013 05:29 PM
Surr: Toluene-d8	96.3		50-150	%REC	50	6/27/2013 05:29 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260B</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>RS</b>
Benzene	ND		41	µg/Kg-dry	1	6/27/2013 02:46 PM
Ethylbenzene	ND		41	µg/Kg-dry	1	6/27/2013 02:46 PM
m,p-Xylene	ND		81	µg/Kg-dry	1	6/27/2013 02:46 PM
o-Xylene	ND		41	µg/Kg-dry	1	6/27/2013 02:46 PM
<b>Toluene</b>	<b>97</b>		<b>41</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/27/2013 02:46 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	6/27/2013 02:46 PM
Surr: 1,2-Dichloroethane-d4	95.6		70-130	%REC	1	6/27/2013 02:46 PM
Surr: 4-Bromofluorobenzene	81.8		70-130	%REC	1	6/27/2013 02:46 PM
Surr: Dibromofluoromethane	97.7		70-130	%REC	1	6/27/2013 02:46 PM
Surr: Toluene-d8	94.4		70-130	%REC	1	6/27/2013 02:46 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>CH</b>
<b>Moisture</b>	<b>26</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/27/2013 02:33 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: HRL Compliance Solutions

# QC BATCH REPORT

Work Order: 13061065

Project: Source Gas Wolf Creek #12 13-113 6/24/13

Batch ID: 49357

Instrument ID GC8

Method: SW8015M

<b>MBLK</b>		Sample ID: <b>DBLKS1-49357-49357</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/27/2013 04:24 PM</b>		
Client ID:		Run ID: <b>GC8_130627B</b>				SeqNo: <b>2364628</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	0.7267	0	1.667	0	43.6	39-115	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-49357-49357</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/27/2013 04:54 PM</b>		
Client ID:		Run ID: <b>GC8_130627B</b>				SeqNo: <b>2364629</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	154.6	4.2	166.7	0	92.8	49-124	0			
Surr: 4-Terphenyl-d14	0.8337	0	1.667	0	50	39-115	0			

<b>MS</b>		Sample ID: <b>13061057-06B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/27/2013 05:24 PM</b>		
Client ID:		Run ID: <b>GC8_130627B</b>				SeqNo: <b>2364630</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	281.2	7.9	317.6	0	88.5	49-130	0			
Surr: 4-Terphenyl-d14	1.428	0	3.176	0	45	39-115	0			

<b>MSD</b>		Sample ID: <b>13061057-06B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/27/2013 05:54 PM</b>		
Client ID:		Run ID: <b>GC8_130627B</b>				SeqNo: <b>2364631</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	298.6	8.2	327.4	0	91.2	49-130	281.2	6.03	30	
Surr: 4-Terphenyl-d14	1.566	0	3.274	0	47.8	39-115	1.428	9.17	30	

The following samples were analyzed in this batch:

13061065-01B	13061065-02B	13061065-03B
13061065-04B	13061065-05B	

**Client:** HRL Compliance Solutions  
**Work Order:** 13061065  
**Project:** Source Gas Wolf Creek #12 13-113 6/24/13

## QC BATCH REPORT

Batch ID: **R122931**      Instrument ID **GC5**      Method: **SW8015M**

<b>MBLK</b>	Sample ID: <b>MB-R122931-R122931</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 06:05 PM</b>		
Client ID:	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364342</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      ND      5.0

<b>MBLK</b>	Sample ID: <b>MB-R122931-R122931</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/27/2013 11:21 PM</b>		
Client ID:	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364376</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      ND      5.0

<b>LCS</b>	Sample ID: <b>LCS-R122931-R122931</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 06:34 PM</b>		
Client ID:	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364343</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      471.3      5.0      500      0      94.3      50-150      0

<b>LCS</b>	Sample ID: <b>LCS-R122931-R122931</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/27/2013 11:49 PM</b>		
Client ID:	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364377</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      488.5      5.0      500      0      97.7      50-150      0

<b>MS</b>	Sample ID: <b>13061064-02B MS</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 08:00 PM</b>		
Client ID:	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364347</b>		Prep Date:		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      946      10      1000      0      94.6      50-150      0

<b>MS</b>	Sample ID: <b>13061065-03A MS</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/28/2013 05:03 AM</b>		
Client ID: <b>BH17 8'-10'</b>	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364387</b>		Prep Date:		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      990.1      10      1000      0      99      50-150      0

<b>MSD</b>	Sample ID: <b>13061064-02B MSD</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 08:29 PM</b>		
Client ID:	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364348</b>		Prep Date:		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      963      10      1000      0      96.3      50-150      946      1.78      30

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**



**Client:** HRL Compliance Solutions  
**Work Order:** 13061065  
**Project:** Source Gas Wolf Creek #12 13-113 6/24/13

## QC BATCH REPORT

Batch ID: **R122931** Instrument ID **GC5** Method: **SW8015M**

<b>MSD</b>		Sample ID: <b>13061065-03A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/28/2013 05:31 AM</b>		
Client ID: <b>BH17 8'-10'</b>		Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364388</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Methanol	980.9	10	1000	0	98.1	50-150	990.1	0.933	30	

The following samples were analyzed in this batch:

13061065-01A	13061065-02A	13061065-03A
13061065-04A	13061065-05A	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 3 of 9

**Client:** HRL Compliance Solutions  
**Work Order:** 13061065  
**Project:** Source Gas Wolf Creek #12 13-113 6/24/13

## QC BATCH REPORT

Batch ID: **R122932**      Instrument ID **GC11**      Method: **SW8015M**

<b>MBLK</b>	Sample ID: <b>MB-R122932-R122932</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 05:21 PM</b>		
Client ID:	Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364391</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	ND	5.0								
Propylene glycol	ND	10								
Triethylene glycol	ND	5.0								

<b>MBLK</b>	Sample ID: <b>MB-R122932-R122932</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/27/2013 06:51 PM</b>		
Client ID:	Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364456</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	ND	5.0								
Propylene glycol	ND	5.0								
Triethylene glycol	ND	5.0								

<b>LCS</b>	Sample ID: <b>LCS-R122932-R122932</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 06:17 PM</b>		
Client ID:	Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364392</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	515.6	5.0	500	0	103	50-150	0			
Propylene glycol	499.7	10	500	0	99.9	50-150	0			
Triethylene glycol	514.8	5.0	500	0	103	50-150	0			

<b>LCS</b>	Sample ID: <b>LCS-R122932-R122932</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/28/2013 09:29 AM</b>		
Client ID:	Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364457</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	531.8	5.0	500	0	106	50-150	0			
Propylene glycol	526.1	5.0	500	0	105	50-150	0			
Triethylene glycol	301.8	5.0	500	0	60.4	50-150	0			

<b>MS</b>	Sample ID: <b>13061064-02B MS</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 05:55 PM</b>		
Client ID:	Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364395</b>		Prep Date:		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	994	10	1000	0	99.4	50-150	0			
Propylene glycol	932.2	20	1000	0	93.2	50-150	0			
Triethylene glycol	1004	10	1000	34.99	96.9	50-150	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 4 of 9

**Client:** HRL Compliance Solutions  
**Work Order:** 13061065  
**Project:** Source Gas Wolf Creek #12 13-113 6/24/13

## QC BATCH REPORT

Batch ID: **R122932**      Instrument ID **GC11**      Method: **SW8015M**

<b>MS</b>		Sample ID: <b>13061057-06B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/28/2013 10:52 AM</b>		
Client ID:		Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364464</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	1050	10	1000	0	105	50-150	0			
Propylene glycol	1032	10	1000	0	103	50-150	0			
Triethylene glycol	821.4	10	1000	0	82.1	50-150	0			

<b>MSD</b>		Sample ID: <b>13061064-02B MSD</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 06:06 PM</b>		
Client ID:		Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364396</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	1029	10	1000	0	103	50-150	994	3.49	30	
Propylene glycol	1011	20	1000	0	101	50-150	932.2	8.15	30	
Triethylene glycol	1030	10	1000	34.99	99.5	50-150	1004	2.58	30	

<b>MSD</b>		Sample ID: <b>13061057-06B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/28/2013 11:04 AM</b>		
Client ID:		Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364465</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	1045	10	1000	0	104	50-150	1050	0.565	30	
Propylene glycol	1041	10	1000	0	104	50-150	1032	0.914	30	
Triethylene glycol	860.5	10	1000	0	86.1	50-150	821.4	4.65	30	

The following samples were analyzed in this batch:

13061065-01B	13061065-02B	13061065-03B
13061065-04B	13061065-05B	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 5 of 9

**Client:** HRL Compliance Solutions  
**Work Order:** 13061065  
**Project:** Source Gas Wolf Creek #12 13-113 6/24/13

## QC BATCH REPORT

Batch ID: **R122905**      Instrument ID **GC10**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>GBLK1-130627-R122905</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/27/2013 12:54 PM</b>		
Client ID:		Run ID: <b>GC10_130627A</b>				SeqNo: <b>2363662</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
<i>Surr: Toluene-d8</i>	<i>108.3</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>108</i>	<i>70-130</i>	<i>0</i>			

<b>LCS</b>		Sample ID: <b>GLCS1-130627-R122905</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/27/2013 12:29 PM</b>		
Client ID:		Run ID: <b>GC10_130627A</b>				SeqNo: <b>2363661</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	8612	200	10000	0	86.1	70-130	0			
<i>Surr: Toluene-d8</i>	<i>112.6</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>113</i>	<i>70-130</i>	<i>0</i>			

<b>MS</b>		Sample ID: <b>13061058-06A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/27/2013 09:43 PM</b>		
Client ID:		Run ID: <b>GC10_130627A</b>				SeqNo: <b>2364194</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	8168	200	10000	0	81.7	70-130	0			
<i>Surr: Toluene-d8</i>	<i>109</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>109</i>	<i>70-130</i>	<i>0</i>			

<b>MSD</b>		Sample ID: <b>13061058-06A MSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/27/2013 10:08 PM</b>		
Client ID:		Run ID: <b>GC10_130627A</b>				SeqNo: <b>2364195</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	7849	200	10000	0	78.5	70-130	8168	3.99	30	
<i>Surr: Toluene-d8</i>	<i>108.6</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>109</i>	<i>70-130</i>	<i>109</i>	<i>0.368</i>	<i>30</i>	

The following samples were analyzed in this batch:

13061065-01A	13061065-02A	13061065-03A
13061065-04A	13061065-05A	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 6 of 9

**Client:** HRL Compliance Solutions  
**Work Order:** 13061065  
**Project:** Source Gas Wolf Creek #12 13-113 6/24/13

## QC BATCH REPORT

Batch ID: **49358**      Instrument ID **VMS5**      Method: **SW8260B**

<b>MBLK</b>		Sample ID: <b>MBLK-49358-49358</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/27/2013 12:56 PM</b>		
Client ID:		Run ID: <b>VMS5_130627A</b>				SeqNo: <b>2363098</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
Surr: 1,2-Dichloroethane-d4	905.5	0	1000	0	90.6	70-130	0			
Surr: 4-Bromofluorobenzene	1068	0	1000	0	107	70-130	0			
Surr: Dibromofluoromethane	963	0	1000	0	96.3	70-130	0			
Surr: Toluene-d8	989.5	0	1000	0	99	70-130	0			

<b>LCS</b>		Sample ID: <b>LCS1-49358-49358</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/27/2013 11:46 AM</b>		
Client ID:		Run ID: <b>VMS5_130627A</b>				SeqNo: <b>2363096</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	993	30	1000	0	99.3	75-125	0			
Ethylbenzene	952.5	30	1000	0	95.2	75-125	0			
m,p-Xylene	1918	60	2000	0	95.9	80-125	0			
o-Xylene	961	30	1000	0	96.1	75-125	0			
Toluene	979	30	1000	0	97.9	70-125	0			
Xylenes, Total	2879	90	3000	0	96	75-125	0			
Surr: 1,2-Dichloroethane-d4	919	0	1000	0	91.9	70-130	0			
Surr: 4-Bromofluorobenzene	1072	0	1000	0	107	70-130	0			
Surr: Dibromofluoromethane	958	0	1000	0	95.8	70-130	0			
Surr: Toluene-d8	1064	0	1000	0	106	70-130	0			

<b>MS</b>		Sample ID: <b>13061074-03A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>7/1/2013 09:16 PM</b>		
Client ID:		Run ID: <b>VMS6_130701A</b>				SeqNo: <b>2366871</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1019	30	1000	0	102	75-125	0			
Ethylbenzene	983	30	1000	0	98.3	75-125	0			
m,p-Xylene	1984	60	2000	0	99.2	80-125	0			
o-Xylene	982	30	1000	0	98.2	75-125	0			
Toluene	972.5	30	1000	0	97.2	70-125	0			
Xylenes, Total	2966	90	3000	0	98.8	75-125	0			
Surr: 1,2-Dichloroethane-d4	994.5	0	1000	0	99.4	70-130	0			
Surr: 4-Bromofluorobenzene	991	0	1000	0	99.1	70-130	0			
Surr: Dibromofluoromethane	981.5	0	1000	0	98.2	70-130	0			
Surr: Toluene-d8	963	0	1000	0	96.3	70-130	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

**Client:** HRL Compliance Solutions  
**Work Order:** 13061065  
**Project:** Source Gas Wolf Creek #12 13-113 6/24/13

# QC BATCH REPORT

Batch ID: **49358**      Instrument ID **VMS5**      Method: **SW8260B**

<b>MSD</b>		Sample ID: <b>13061074-03A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>7/1/2013 09:41 PM</b>		
Client ID:		Run ID: <b>VMS6_130701A</b>				SeqNo: <b>2366872</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	941.5	30	1000	0	94.2	75-125	1019	7.91	30	
Ethylbenzene	943.5	30	1000	0	94.4	75-125	983	4.1	30	
m,p-Xylene	1890	60	2000	0	94.5	80-125	1984	4.8	30	
o-Xylene	952	30	1000	0	95.2	75-125	982	3.1	30	
Toluene	925.5	30	1000	0	92.6	70-125	972.5	4.95	30	
Xylenes, Total	2842	90	3000	0	94.8	75-125	2966	4.24	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	968.5	0	1000	0	96.8	70-130	994.5	2.65	30	
<i>Surr: 4-Bromofluorobenzene</i>	1013	0	1000	0	101	70-130	991	2.2	30	
<i>Surr: Dibromofluoromethane</i>	976	0	1000	0	97.6	70-130	981.5	0.562	30	
<i>Surr: Toluene-d8</i>	976.5	0	1000	0	97.6	70-130	963	1.39	30	

The following samples were analyzed in this batch:

13061065-01A	13061065-02A	13061065-03A
13061065-04A	13061065-05A	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 8 of 9

**Client:** HRL Compliance Solutions  
**Work Order:** 13061065  
**Project:** Source Gas Wolf Creek #12 13-113 6/24/13

## QC BATCH REPORT

Batch ID: **R122940** Instrument ID **MOIST** Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS-R122940</b>				Units: % of sample			Analysis Date: <b>6/27/2013 02:33 PM</b>		
Client ID:		Run ID: <b>MOIST_130627B</b>				SeqNo: <b>2364616</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture ND 0.050

<b>LCS</b>		Sample ID: <b>LCS-R122940</b>				Units: % of sample			Analysis Date: <b>6/27/2013 02:33 PM</b>		
Client ID:		Run ID: <b>MOIST_130627B</b>				SeqNo: <b>2364615</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 100 0.050 100 0 100 99.5-100.5 0

<b>DUP</b>		Sample ID: <b>13061039-06B DUP</b>				Units: % of sample			Analysis Date: <b>6/27/2013 02:33 PM</b>		
Client ID:		Run ID: <b>MOIST_130627B</b>				SeqNo: <b>2364600</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 6.59 0.050 0 0 0 0-0 6.93 5.03 20

The following samples were analyzed in this batch:

13061065-01B	13061065-02B	13061065-03B
13061065-04B	13061065-05B	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 9 of 9

## ALS Laboratory Group

3352 128th Avenue Holland MI, 49424

PH: (616) 399-6070

## Chain-of-Custody

Form 202r8

**WORKORDER**  
#

13061065

**PAGE**

of

## DISPOSAL

By Lab or Return to Client

[illegible]

\*Time Zone (Circle): EST CST **MST** PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

**For metals or anions, please detail analytes below.**

<b>Comments:</b> If moisture > 30%, please adjust parameters to within CGCC's CSFV Standards.  <div style="text-align: center; font-size: 1.5em;">3.82</div>	<b>QC PACKAGE (check below)</b>	
	<input checked="" type="checkbox"/>	LEVEL II (Standard QC)
	<input type="checkbox"/>	LEVEL III (Std QC + forms)
	<input type="checkbox"/>	LEVEL IV (Std QC + forms + raw data)
<b>Preservative Key:</b> 1-HCl   2-HNO3   3-H2SO4   4-NaOH   5-NaHSO4   7-Other   8-4 degrees C   9-5035		

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Mike Lobato</i>	Mike Lobato	6/25/13	1700
RECEIVED BY	<i>Diane F. Sha</i>	Diane F. Sha	6/27/13	0935
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				



SOILS	
WOLF CREEK #12	WOLF CREEK #12
OLD	AMMENDED
BH1/PZ1 2'4'	BH01/PZ01 2'-4'
BH1/PZ1 4'6'	BH01/PZ01 4'-6'
BH2/PZ2 0'2'	BH02/PZ02 0'-2'
BH2/PZ2 6'8'	BH02/PZ02 6'-8'
BH3 4'6'	BH03 4'-6'
BH3 10'12'	BH03 10'-12'
BH4 0'2'	BH04 0'2'
BH4 10'12'	BH04 10'12'
BH5 8'12'	BH05 8'12'
BH5 10'12'	BH05 10'12'
BH6/PZ6 2'-4'	BH06/PZ03 2'-4'
BH6/PZ6 4'6'	BH06/PZ03 4'6'
BH7 6'8'	BH07 6'-8'
BH7 10'12'	BH07 10'-12'
BH8 8'10'	BH08 8'-10'
BH8 10'12'	BH08 10'-12'
BH9 0'2'	BH09 0'-2'
BH9 10'12'	BH09 10'-12'
BH10/PZ10 0'2'	BH10/PZ04 0'-2'
BH10/PZ10 2'4'	BH10/PZ04 2'-4'
BH11/PZ11 4'6'	BH11/PZ05 4'-6'
BH11/PZ11 6'8'	BH11/PZ05 6'-8'
BH12/PZ12 2'4'	BH12/PZ06 2'-4'
BH12/PZ12 4'6'	BH12/PZ06 4'-6'
BH13 4'6"	BH13 4'-6'
BH13 6'8'	BH13 6'8'
BH14 0'2'	BH14 0'2'
BH14 10'12'	BH14 10'12'
BH15 8-10'	BH15 8'-10'
BH16 8.5-9.5'	BH16 8.5'-9.5'
BH16A 2-3'	BH16A 2'-3'
BH17 8-10'	BH17 8'-10'
BH18 8-10'	BH18 8'-10'
BH20/PZ20 2-4'	BH20/PZ07 2'-4'
BH21/PZ21 6-8'	BH21/PZ08 6'-8'
BH22/PZ22 4-6'	BH22/PZ09 4'-6'
BH22/PZ22 6-8'	BH22/PZ09 6'-8'
BH23 6-8'	BH23 6'-8'
BH23 10-12'	BH23 10'-12'

WATER	
WOLF CREEK #12	WOLF CREEK #12
OLD	AMMENDED
BH1/PZ1	BH01/PZ01
BH2/PZ2	BH02/PZ02
BH6/PZ6	BH06/PZ03
BH10/PZ10	BH10/PZ04
BH11/PZ11	BH11/PZ05
BH12/PZ12	BH12/PZ06
<del>BH20/PZ20</del>	<del>BH20/PZ07</del>
BH21/PZ21	BH21/PZ08
BH22/PZ22	BH22/PZ09

1306369  
1306971

1306367

13061065

W0# 13061057

13061064

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 27-Jun-13 09:30

Work Order: 13061065

Received by: DS

Checklist completed by Diane Shaw 27-Jun-13  
eSignature Date

Reviewed by: Bill Carey 27-Jun-13  
eSignature Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.8 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>6/27/2013 10:42:03 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	-		
Login Notes:			

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

Revision: 1

# CUSTODY SEAL



ENVIRONMENTAL SAMPLING SUPPLY

9601 San Leandro St. Oakland, CA 800-233-8425

Date: 6/25/13

Signature: Mik L. Lento

# CUSTODY SEAL



ENVIRONMENTAL SAMPLING SUPPLY

9601 San Leandro St. Oakland, CA 800-233-8425

Date: 6/25/13

Signature: Red Will

# FedEx Express US Airbill

FedEx Tracking Number

8722 9438 1230

0200 Form ID No.

FedEx Copy

fedex.com 1.800.GoFedEx 1.800.463.3339

**1 From**  
 Date 6/25/13 Sender's FedEx Account Number  
 Sender's Name Mike Lobato Phone 970 243-3271  
 Company HRL Compliance Solutions, Inc  
 Address 2385 F 1/2 Rd  
 City Grand Junction State CO ZIP 81505

**2 Your Internal Billing Reference**

**3 To**  
 Recipient's Name Sample Receiving Phone 616 399 6070  
 Company ALS Laboratory  
 Address 3352 128th Ave  
 City Holland State MI ZIP 49424

**HOLD Weekday**  
 FedEx location address REQUIRED, NOT available for FedEx First Overnight.  
**HOLD Saturday**  
 FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.



8722 9438 1230

**4a Express Package Service** \*To most locations. Packages up to 150 lbs.  
 01 ☒ FedEx Priority Overnight Next business morning. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
 05 ☐ FedEx Standard Overnight Next business afternoon. Saturday Delivery NOT available.  
 06 ☐ FedEx First Overnight Earliest next business morning delivery to select locations.  
 03 ☐ FedEx 2Day Second business day. Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
 20 ☐ FedEx Express Saver Third business day. Saturday Delivery NOT available.

**4b Express Freight Service** \*\*To most locations. Packages over 150 lbs.  
 70 ☐ FedEx 1 Day Freight Next business day. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. FedEx 1 Day Freight Booking No.  
 80 ☐ FedEx 2 Day Freight Second business day. Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
 83 ☐ FedEx 3 Day Freight Third business day. Saturday Delivery NOT available.

**5 Packaging** \*Declared value limit \$500.  
 06 ☐ FedEx Envelope\* 02 ☐ FedEx Pak\* Includes FedEx Small Pak and FedEx Large Pak.  
 03 ☐ FedEx Box 04 ☐ FedEx Tube 01 ☒ Other

**6 Special Handling and Delivery Signature Options**

**03 SATURDAY DELIVERY**  
☒ No Signature Required Package may be left without obtaining a signature for delivery.  
 10 ☐ Direct Signature Someone at recipient's address may sign for delivery. Fee applies.  
 34 ☐ Indirect Signature If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.  
 Does this shipment contain dangerous goods?  
 One box must be checked.  
☒ No 04 ☐ Yes per attached Shipper's Declaration. ☐ Yes Shipper's Declaration not required.  
 06 ☐ Dry Ice Dry Ice, 9, UN 1845 x kg  
 Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box. ☐ Cargo Aircraft Only

**7 Payment Bill to:**  
 Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No. ☐  
 1 ☐ Sender Acct. No. in Section 1 will be billed. 2 ☒ Recipient 3 ☐ Third Party 4 ☐ Credit Card 5 ☐ Cash/Check  
 FedEx Acct. No. 222973422 Exp. Date \_\_\_\_\_  
 Total Packages Total Weight Total Declared Value<sup>1</sup> Credit Card Auth.

<sup>1</sup>Our liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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12-Jul-2013

Herman Lucero  
HRL Compliance Solutions  
2385 F 1/2 Road  
Grand Junction, CO 81505

Re: **Source Gas Wolf Creek Well #12 6/8-6/9/13**

Work Order: **1306367**

Dear Herman,

Revision: **1**

ALS Environmental received 28 samples on 11-Jun-2013 09:30 AM for the analyses presented in the following report.

This is a REVISED REPORT. The Case Narrative provides information discussing the reason for issuing a revised report. The total number of pages in this revision is 51.

If you have any questions regarding these test results, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: MN 532786

### Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Work Order:** 1306367

## Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1306367-01	BH01/PZ01 2'-4'	Soil		6/8/2013 11:23	6/11/2013 09:30	<input type="checkbox"/>
1306367-02	BH01/PZ01 4'-6'	Soil		6/8/2013 11:26	6/11/2013 09:30	<input type="checkbox"/>
1306367-03	BH02/PZ02 0'-2'	Soil		6/8/2013 11:47	6/11/2013 09:30	<input type="checkbox"/>
1306367-04	BH02/PZ02 6'-8'	Soil		6/8/2013 12:15	6/11/2013 09:30	<input type="checkbox"/>
1306367-05	BH03 4'-6'	Soil		6/8/2013 12:46	6/11/2013 09:30	<input type="checkbox"/>
1306367-06	BH03 10'-12'	Soil		6/8/2013 13:06	6/11/2013 09:30	<input type="checkbox"/>
1306367-07	BH04 0'-2'	Soil		6/8/2013 13:24	6/11/2013 09:30	<input type="checkbox"/>
1306367-08	BH04 10'-12'	Soil		6/8/2013 13:16	6/11/2013 09:30	<input type="checkbox"/>
1306367-09	BH05 8'-12'	Soil		6/8/2013 14:18	6/11/2013 09:30	<input type="checkbox"/>
1306367-10	BH05 10'-12'	Soil		6/8/2013 14:24	6/11/2013 09:30	<input type="checkbox"/>
1306367-11	BH06/PZ03 2'-4'	Soil		6/8/2013 15:23	6/11/2013 09:30	<input type="checkbox"/>
1306367-12	BH06/PZ03 4'-6'	Soil		6/8/2013 15:30	6/11/2013 09:30	<input type="checkbox"/>
1306367-13	BH07 6'-8'	Soil		6/8/2013 16:03	6/11/2013 09:30	<input type="checkbox"/>
1306367-14	BH07 10'-12'	Soil		6/8/2013 16:16	6/11/2013 09:30	<input type="checkbox"/>
1306367-15	BH08 8'-10'	Soil		6/9/2013 10:27	6/11/2013 09:30	<input type="checkbox"/>
1306367-16	BH08 10'-12'	Soil		6/9/2013 10:32	6/11/2013 09:30	<input type="checkbox"/>
1306367-17	BH09 0'-2'	Soil		6/9/2013 10:52	6/11/2013 09:30	<input type="checkbox"/>
1306367-18	BH09 10'-12'	Soil		6/9/2013 12:05	6/11/2013 09:30	<input type="checkbox"/>
1306367-19	BH10/PZ04 0'-2'	Soil		6/9/2013 12:23	6/11/2013 09:30	<input type="checkbox"/>
1306367-20	BH10/PZ04 2'-4'	Soil		6/9/2013 12:23	6/11/2013 09:30	<input type="checkbox"/>
1306367-21	BH11/PZ05 4'-6'	Soil		6/9/2013 12:53	6/11/2013 09:30	<input type="checkbox"/>
1306367-22	BH11/PZ05 6'-8'	Soil		6/9/2013 12:59	6/11/2013 09:30	<input type="checkbox"/>
1306367-23	BH12/PZ06 2'-4'	Soil		6/9/2013 13:19	6/11/2013 09:30	<input type="checkbox"/>
1306367-24	BH12/PZ06 4'-6'	Soil		6/9/2013 13:22	6/11/2013 09:30	<input type="checkbox"/>
1306367-25	BH13 4'-6"	Soil		6/9/2013 13:46	6/11/2013 09:30	<input type="checkbox"/>
1306367-26	BH13 6'-8'	Soil		6/9/2013 13:52	6/11/2013 09:30	<input type="checkbox"/>
1306367-27	BH14 0'-2'	Soil		6/9/2013 14:09	6/11/2013 09:30	<input type="checkbox"/>
1306367-28	BH14 10'-12'	Soil		6/9/2013 14:33	6/11/2013 09:30	<input type="checkbox"/>

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**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Work Order:** 1306367

---

**Case Narrative**

At the request of the client, the sample IDs were changed in this revised report. No results were changed.

Batch 49036 sample BH01/PZ01 2'-4' MS recovery for DRO and the RPD were outside control limits due to and extraction error; however, all other QC was within range. No data requires qualification.

Batch 49036 sample 1306367-03 DRO surrogate recovery was above the upper control limits. The sample results may be biased high due to matrix interference.

Batch R122122 MS/MSD data for GRO is not related to this project's samples. No data requires qualification.

Batch R122136 sample BH02/PZ02 0'-2' GRO MSD recovery was outside of the control limit. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for GRO.

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**WorkOrder:** 1306367

**QUALIFIERS,  
ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight



# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH01/PZ01 2'-4'  
**Collection Date:** 6/8/2013 11:23 AM

**Work Order:** 1306367  
**Lab ID:** 1306367-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>830</b>		<b>5.9</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/13/2013 07:35 PM
Surr: 4-Terphenyl-d14	57.8		39-115	%REC	1	6/13/2013 07:35 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	110		7.1	mg/Kg-dry	1	6/14/2013 01:27 PM
Methanol	510		7.1	mg/Kg-dry	1	6/14/2013 10:08 PM
Propylene glycol	ND		7.1	mg/Kg-dry	1	6/14/2013 01:27 PM
Triethylene glycol	1,600		14	mg/Kg-dry	2	6/17/2013 03:07 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.6	mg/Kg-dry	50	6/12/2013 09:48 PM
Surr: Toluene-d8	101		50-150	%REC	50	6/12/2013 09:48 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	30		0.050	% of sample	1	6/11/2013 03:10 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH01/PZ01 4'-6'  
**Collection Date:** 6/8/2013 11:26 AM

**Work Order:** 1306367  
**Lab ID:** 1306367-02  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>780</b>		<b>6.0</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/13/2013 08:05 PM
Surr: 4-Terphenyl-d14	55.5		39-115	%REC	1	6/13/2013 08:05 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	140		7.4	mg/Kg-dry	1	6/14/2013 01:38 PM
Methanol	540		7.4	mg/Kg-dry	1	6/14/2013 10:37 PM
Propylene glycol	ND		7.4	mg/Kg-dry	1	6/14/2013 01:38 PM
Triethylene glycol	2,300		15	mg/Kg-dry	2	6/17/2013 03:18 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.7	mg/Kg-dry	50	6/13/2013 12:15 PM
Surr: Toluene-d8	103		50-150	%REC	50	6/13/2013 12:15 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	32		0.050	% of sample	1	6/11/2013 03:10 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH02/PZ02 0'-2'  
**Collection Date:** 6/8/2013 11:47 AM

**Work Order:** 1306367  
**Lab ID:** 1306367-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>5,600</b>		<b>19</b>	<b>mg/Kg-dry</b>	<b>4</b>	6/14/2013 04:48 PM
Surr: 4-Terphenyl-d14	187	S	39-115	%REC	4	6/14/2013 04:48 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	87		5.8	mg/Kg-dry	1	6/14/2013 02:34 PM
Methanol	42		5.8	mg/Kg-dry	1	6/14/2013 11:05 PM
Propylene glycol	ND		5.8	mg/Kg-dry	1	6/14/2013 02:34 PM
Triethylene glycol	21,000		290	mg/Kg-dry	50	6/17/2013 03:29 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		2.9	mg/Kg-dry	50	6/13/2013 12:40 PM
Surr: Toluene-d8	103		50-150	%REC	50	6/13/2013 12:40 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	13		0.050	% of sample	1	6/11/2013 03:10 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH02/PZ02 6'-8'  
**Collection Date:** 6/8/2013 12:15 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-04  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>290</b>		<b>5.1</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/13/2013 09:05 PM
Surr: 4-Terphenyl-d14	57.8		39-115	%REC	1	6/13/2013 09:05 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
<b>Ethylene glycol</b>	<b>23</b>		<b>6.2</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 02:45 PM
Methanol	ND		6.2	mg/Kg-dry	1	6/14/2013 11:33 PM
Propylene glycol	ND		6.2	mg/Kg-dry	1	6/14/2013 02:45 PM
<b>Triethylene glycol</b>	<b>1,400</b>		<b>12</b>	<b>mg/Kg-dry</b>	<b>2</b>	6/17/2013 03:40 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>3.1</b>	<b>mg/Kg-dry</b>	<b>50</b>	6/13/2013 01:04 AM
Surr: Toluene-d8	102		50-150	%REC	50	6/13/2013 01:04 AM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
<b>Moisture</b>	<b>19</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/11/2013 03:10 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**Revision: 1**

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions

**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13

**Work Order:** 1306367

**Sample ID:** BH03 4'-6'

**Lab ID:** 1306367-05

**Collection Date:** 6/8/2013 12:46 PM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>100</b>		<b>4.9</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/13/2013 09:35 PM
Surr: 4-Terphenyl-d14	61.8		39-115	%REC	1	6/13/2013 09:35 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		5.9	mg/Kg-dry	1	6/14/2013 02:56 PM
Methanol	ND		5.9	mg/Kg-dry	1	6/15/2013 12:02 AM
Propylene glycol	ND		5.9	mg/Kg-dry	1	6/14/2013 02:56 PM
Triethylene glycol	ND		5.9	mg/Kg-dry	1	6/14/2013 02:56 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.0	mg/Kg-dry	50	6/13/2013 01:29 AM
Surr: Toluene-d8	104		50-150	%REC	50	6/13/2013 01:29 AM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	15		0.050	% of sample	1	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**Revision: 1**

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH03 10'-12'  
**Collection Date:** 6/8/2013 01:06 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-06  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>35</b>		<b>5.1</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/13/2013 10:35 PM
Surr: 4-Terphenyl-d14	45.0		39-115	%REC	1	6/13/2013 10:35 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.2	mg/Kg-dry	1	6/14/2013 03:07 PM
Methanol	ND		6.2	mg/Kg-dry	1	6/15/2013 12:31 AM
Propylene glycol	ND		6.2	mg/Kg-dry	1	6/14/2013 03:07 PM
Triethylene glycol	ND		6.2	mg/Kg-dry	1	6/14/2013 03:07 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.1	mg/Kg-dry	50	6/13/2013 01:53 AM
Surr: Toluene-d8	101		50-150	%REC	50	6/13/2013 01:53 AM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	19		0.050	% of sample	1	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH04 0'-2'  
**Collection Date:** 6/8/2013 01:24 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-07  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>390</b>		<b>4.9</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/13/2013 11:05 PM
Surr: 4-Terphenyl-d14	45.9		39-115	%REC	1	6/13/2013 11:05 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		5.9	mg/Kg-dry	1	6/14/2013 03:18 PM
<b>Methanol</b>	<b>2,700</b>		<b>29</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/17/2013 11:56 AM
Propylene glycol	ND		5.9	mg/Kg-dry	1	6/14/2013 03:18 PM
Triethylene glycol	ND		5.9	mg/Kg-dry	1	6/14/2013 03:18 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
<b>GRO (C6-C10)</b>	<b>40</b>		<b>2.9</b>	<b>mg/Kg-dry</b>	<b>50</b>	6/13/2013 02:18 AM
Surr: Toluene-d8	99.9		50-150	%REC	50	6/13/2013 02:18 AM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
<b>Moisture</b>	<b>15</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH04 10'-12'  
**Collection Date:** 6/8/2013 01:16 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-08  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>28</b>		<b>4.9</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/13/2013 11:35 PM
Surr: 4-Terphenyl-d14	48.1		39-115	%REC	1	6/13/2013 11:35 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
<b>Ethylene glycol</b>	<b>130</b>		<b>6.0</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 03:29 PM
<b>Methanol</b>	<b>16</b>		<b>6.0</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/15/2013 01:28 AM
Propylene glycol	ND		6.0	mg/Kg-dry	1	6/14/2013 03:29 PM
Triethylene glycol	ND		6.0	mg/Kg-dry	1	6/14/2013 03:29 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>3.0</b>	<b>mg/Kg-dry</b>	<b>50</b>	6/13/2013 02:42 AM
Surr: Toluene-d8	102		50-150	%REC	50	6/13/2013 02:42 AM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
<b>Moisture</b>	<b>17</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1



# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH05 8'-12'  
**Collection Date:** 6/8/2013 02:18 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-09  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>78</b>		<b>5.6</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 12:05 PM
Surr: 4-Terphenyl-d14	40.3		39-115	%REC	1	6/14/2013 12:05 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
<b>Ethylene glycol</b>	<b>39</b>		<b>6.7</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 03:40 PM
Methanol	ND		6.7	mg/Kg-dry	1	6/15/2013 01:56 AM
Propylene glycol	ND		6.7	mg/Kg-dry	1	6/14/2013 03:40 PM
Triethylene glycol	ND		6.7	mg/Kg-dry	1	6/14/2013 03:40 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>3.4</b>	<b>mg/Kg-dry</b>	<b>50</b>	6/13/2013 03:07 AM
Surr: Toluene-d8	101		50-150	%REC	50	6/13/2013 03:07 AM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
<b>Moisture</b>	<b>25</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH05 10'-12'  
**Collection Date:** 6/8/2013 02:24 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-10  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>49</b>		<b>5.3</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 12:35 PM
Surr: 4-Terphenyl-d14	46.8		39-115	%REC	1	6/14/2013 12:35 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
<b>Ethylene glycol</b>	<b>53</b>		<b>6.4</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 03:52 PM
Methanol	ND		6.4	mg/Kg-dry	1	6/15/2013 02:25 AM
Propylene glycol	ND		6.4	mg/Kg-dry	1	6/14/2013 03:52 PM
Triethylene glycol	ND		6.4	mg/Kg-dry	1	6/14/2013 03:52 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>3.2</b>	<b>mg/Kg-dry</b>	<b>50</b>	6/13/2013 03:31 AM
Surr: Toluene-d8	105		50-150	%REC	50	6/13/2013 03:31 AM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
<b>Moisture</b>	<b>22</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH06/PZ03 2'-4'  
**Collection Date:** 6/8/2013 03:23 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-11  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>43</b>		<b>5.0</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 01:06 AM
Surr: 4-Terphenyl-d14	45.4		39-115	%REC	1	6/14/2013 01:06 AM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
<b>Ethylene glycol</b>	<b>63</b>		<b>6.0</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 04:03 PM
Methanol	ND		6.0	mg/Kg-dry	1	6/15/2013 03:50 AM
Propylene glycol	ND		6.0	mg/Kg-dry	1	6/14/2013 04:03 PM
Triethylene glycol	ND		6.0	mg/Kg-dry	1	6/14/2013 04:03 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>3.0</b>	<b>mg/Kg-dry</b>	<b>50</b>	6/13/2013 03:56 AM
Surr: Toluene-d8	103		50-150	%REC	50	6/13/2013 03:56 AM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
<b>Moisture</b>	<b>16</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/12/2013 02:20 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**Revision: 1**

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH06/PZ03 4'-6'  
**Collection Date:** 6/8/2013 03:30 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-12  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>68</b>		<b>5.4</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 01:36 AM
Surr: 4-Terphenyl-d14	51.5		39-115	%REC	1	6/14/2013 01:36 AM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
<b>Ethylene glycol</b>	<b>71</b>		<b>6.6</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 04:14 PM
Methanol	ND		6.6	mg/Kg-dry	1	6/15/2013 04:18 AM
Propylene glycol	ND		6.6	mg/Kg-dry	1	6/14/2013 04:14 PM
Triethylene glycol	ND		6.6	mg/Kg-dry	1	6/14/2013 04:14 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>3.3</b>	<b>mg/Kg-dry</b>	<b>50</b>	6/13/2013 04:20 AM
Surr: Toluene-d8	104		50-150	%REC	50	6/13/2013 04:20 AM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
<b>Moisture</b>	<b>24</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**Revision: 1**

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH07 6'-8'  
**Collection Date:** 6/8/2013 04:03 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-13  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>44</b>		<b>5.3</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 02:06 AM
Surr: 4-Terphenyl-d14	47.3		39-115	%REC	1	6/14/2013 02:06 AM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.4	mg/Kg-dry	1	6/14/2013 04:47 PM
Methanol	ND		6.4	mg/Kg-dry	1	6/15/2013 04:47 AM
Propylene glycol	ND		6.4	mg/Kg-dry	1	6/14/2013 04:47 PM
Triethylene glycol	ND		6.4	mg/Kg-dry	1	6/14/2013 04:47 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.2	mg/Kg-dry	50	6/13/2013 04:45 AM
Surr: Toluene-d8	104		50-150	%REC	50	6/13/2013 04:45 AM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	22		0.050	% of sample	1	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH07 10'-12'  
**Collection Date:** 6/8/2013 04:16 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-14  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>35</b>		<b>5.1</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 02:36 AM
Surr: 4-Terphenyl-d14	47.2		39-115	%REC	1	6/14/2013 02:36 AM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.3	mg/Kg-dry	1	6/14/2013 04:58 PM
Methanol	ND		6.3	mg/Kg-dry	1	6/15/2013 05:15 AM
Propylene glycol	ND		6.3	mg/Kg-dry	1	6/14/2013 04:58 PM
Triethylene glycol	ND		6.3	mg/Kg-dry	1	6/14/2013 04:58 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.1	mg/Kg-dry	50	6/13/2013 05:09 AM
Surr: Toluene-d8	104		50-150	%REC	50	6/13/2013 05:09 AM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	<b>20</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions

**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13

**Work Order:** 1306367

**Sample ID:** BH08 8'-10'

**Lab ID:** 1306367-15

**Collection Date:** 6/9/2013 10:27 AM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>50</b>		<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
<i>Surr: 4-Terphenyl-d14</i>	<i>50.8</i>		<i>39-115</i>	<i>%REC</i>	<i>1</i>	6/14/2013 03:36 AM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
Ethylene glycol	ND		6.2	mg/Kg-dry	1	6/14/2013 05:10 PM
Methanol	ND		6.2	mg/Kg-dry	1	6/15/2013 05:43 AM
Propylene glycol	ND		6.2	mg/Kg-dry	1	6/14/2013 05:10 PM
Triethylene glycol	ND		6.2	mg/Kg-dry	1	6/14/2013 05:10 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>			Analyst: <b>RD</b>
<i>Surr: Toluene-d8</i>	<i>102</i>		<i>50-150</i>	<i>%REC</i>	<i>50</i>	6/13/2013 05:34 AM
<b>MOISTURE</b>						
<b>Moisture</b>	<b>19</b>		<b>A2540 G</b>	<b>% of sample</b>	<b>1</b>	Analyst: <b>BD</b> 6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**Revision: 1**

**ALS Group USA, Corp**

Date: 12-Jul-13

**Client:** HRL Compliance Solutions**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13**Work Order:** 1306367**Sample ID:** BH08 10'-12'**Lab ID:** 1306367-16**Collection Date:** 6/9/2013 10:32 AM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>24</b>		<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
			<b>5.1</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 04:06 AM
Surr: 4-Terphenyl-d14	50.1		39-115	%REC	1	6/14/2013 04:06 AM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.2	mg/Kg-dry	1	6/14/2013 05:21 PM
Methanol	ND		6.2	mg/Kg-dry	1	6/15/2013 07:08 AM
Propylene glycol	ND		6.2	mg/Kg-dry	1	6/14/2013 05:21 PM
Triethylene glycol	ND		6.2	mg/Kg-dry	1	6/14/2013 05:21 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.1	mg/Kg-dry	50	6/13/2013 05:58 AM
Surr: Toluene-d8	102		50-150	%REC	50	6/13/2013 05:58 AM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	19		0.050	% of sample	1	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.**Revision: 1**



# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions

**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13

**Work Order:** 1306367

**Sample ID:** BH09 0'-2'

**Lab ID:** 1306367-17

**Collection Date:** 6/9/2013 10:52 AM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>41</b>		<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
<i>Surr: 4-Terphenyl-d14</i>	<i>39.9</i>		<i>39-115</i>	<i>%REC</i>	<i>1</i>	6/14/2013 04:36 AM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
Ethylene glycol	ND		5.9	mg/Kg-dry	1	6/14/2013 05:32 PM
Methanol	ND		5.9	mg/Kg-dry	1	6/15/2013 07:36 AM
Propylene glycol	ND		5.9	mg/Kg-dry	1	6/14/2013 05:32 PM
Triethylene glycol	ND		5.9	mg/Kg-dry	1	6/14/2013 05:32 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>			Analyst: <b>RD</b>
<i>Surr: Toluene-d8</i>	<i>100</i>		<i>50-150</i>	<i>%REC</i>	<i>50</i>	6/13/2013 06:23 AM
<b>MOISTURE</b>						
<b>Moisture</b>	<b>16</b>		<b>A2540 G</b>	<b>% of sample</b>	<b>1</b>	Analyst: <b>BD</b> 6/12/2013 02:20 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**Revision: 1**

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH09 10'-12'  
**Collection Date:** 6/9/2013 12:05 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-18  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>27</b>		<b>5.1</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 05:06 AM
Surr: 4-Terphenyl-d14	49.9		39-115	%REC	1	6/14/2013 05:06 AM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.2	mg/Kg-dry	1	6/14/2013 05:43 PM
Methanol	ND		6.2	mg/Kg-dry	1	6/15/2013 08:04 AM
Propylene glycol	ND		6.2	mg/Kg-dry	1	6/14/2013 05:43 PM
Triethylene glycol	ND		6.2	mg/Kg-dry	1	6/14/2013 05:43 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.1	mg/Kg-dry	50	6/13/2013 06:47 AM
Surr: Toluene-d8	101		50-150	%REC	50	6/13/2013 06:47 AM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	<b>20</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH10/PZ04 0'-2'  
**Collection Date:** 6/9/2013 12:23 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-19  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/13/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>53</b>		<b>5.2</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 05:37 AM
Surr: 4-Terphenyl-d14	49.1		39-115	%REC	1	6/14/2013 05:37 AM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.4	mg/Kg-dry	1	6/14/2013 05:54 PM
Methanol	ND		6.4	mg/Kg-dry	1	6/17/2013 11:28 AM
Propylene glycol	ND		6.4	mg/Kg-dry	1	6/14/2013 05:54 PM
Triethylene glycol	ND		6.4	mg/Kg-dry	1	6/14/2013 05:54 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.2	mg/Kg-dry	50	6/13/2013 07:12 AM
Surr: Toluene-d8	103		50-150	%REC	50	6/13/2013 07:12 AM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	22		0.050	% of sample	1	6/12/2013 02:20 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

**ALS Group USA, Corp**

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH10/PZ04 2'-4'  
**Collection Date:** 6/9/2013 12:23 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-20  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: 6/13/2013	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>91</b>		<b>5.8</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 06:07 AM
Surr: 4-Terphenyl-d14	43.8		39-115	%REC	1	6/14/2013 06:07 AM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		7.0	mg/Kg-dry	1	6/14/2013 06:05 PM
Methanol	ND		7.0	mg/Kg-dry	1	6/17/2013 12:25 PM
Propylene glycol	ND		7.0	mg/Kg-dry	1	6/14/2013 06:05 PM
Triethylene glycol	ND		7.0	mg/Kg-dry	1	6/14/2013 06:05 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.5	mg/Kg-dry	50	6/13/2013 07:36 AM
Surr: Toluene-d8	103		50-150	%REC	50	6/13/2013 07:36 AM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
<b>Moisture</b>	<b>29</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

**ALS Group USA, Corp**

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH11/PZ05 4'-6'  
**Collection Date:** 6/9/2013 12:53 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-21  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/14/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>200</b>		<b>6.6</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 11:50 PM
Surr: 4-Terphenyl-d14	59.0		39-115	%REC	1	6/14/2013 11:50 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	40		7.5	mg/Kg-dry	1	6/14/2013 07:12 PM
Methanol	84		7.5	mg/Kg-dry	1	6/17/2013 12:53 PM
Propylene glycol	ND		7.5	mg/Kg-dry	1	6/14/2013 07:12 PM
Triethylene glycol	120		7.5	mg/Kg-dry	1	6/14/2013 07:12 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		3.7	mg/Kg-dry	50	6/13/2013 08:01 AM
Surr: Toluene-d8	104		50-150	%REC	50	6/13/2013 08:01 AM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	33		0.050	% of sample	1	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH11/PZ05 6'-8'  
**Collection Date:** 6/9/2013 12:59 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-22  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/14/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>89</b>		<b>5.8</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/15/2013 12:21 PM
Surr: 4-Terphenyl-d14	48.7		39-115	%REC	1	6/15/2013 12:21 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		7.0	mg/Kg-dry	1	6/14/2013 07:23 PM
<b>Methanol</b>	<b>110</b>		<b>7.0</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/17/2013 01:22 PM
Propylene glycol	ND		7.0	mg/Kg-dry	1	6/14/2013 07:23 PM
<b>Triethylene glycol</b>	<b>210</b>		<b>7.0</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 07:23 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>CW</b>
GRO (C6-C10)	ND		3.5	mg/Kg-dry	50	6/14/2013 12:31 PM
Surr: Toluene-d8	102		50-150	%REC	50	6/14/2013 12:31 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
<b>Moisture</b>	<b>29</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH12/PZ06 2'-4'  
**Collection Date:** 6/9/2013 01:19 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-23  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/14/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>29</b>		<b>4.7</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/15/2013 12:51 PM
Surr: 4-Terphenyl-d14	47.3		39-115	%REC	1	6/15/2013 12:51 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		5.6	mg/Kg-dry	1	6/14/2013 07:34 PM
Methanol	ND		5.6	mg/Kg-dry	1	6/17/2013 01:50 PM
Propylene glycol	ND		5.6	mg/Kg-dry	1	6/14/2013 07:34 PM
Triethylene glycol	ND		5.6	mg/Kg-dry	1	6/14/2013 07:34 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>CW</b>
GRO (C6-C10)	ND		2.8	mg/Kg-dry	50	6/14/2013 12:56 PM
Surr: Toluene-d8	102		50-150	%REC	50	6/14/2013 12:56 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	11		0.050	% of sample	1	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH12/PZ06 4'-6'  
**Collection Date:** 6/9/2013 01:22 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-24  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/14/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>120</b>		<b>5.7</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/15/2013 01:21 AM
Surr: 4-Terphenyl-d14	46.8		39-115	%REC	1	6/15/2013 01:21 AM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.9	mg/Kg-dry	1	6/14/2013 07:46 PM
<b>Methanol</b>	<b>13</b>		<b>6.9</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/17/2013 02:19 PM
Propylene glycol	ND		6.9	mg/Kg-dry	1	6/14/2013 07:46 PM
Triethylene glycol	ND		6.9	mg/Kg-dry	1	6/14/2013 07:46 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>CW</b>
GRO (C6-C10)	ND		3.5	mg/Kg-dry	50	6/14/2013 01:20 PM
Surr: Toluene-d8	102		50-150	%REC	50	6/14/2013 01:20 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
<b>Moisture</b>	<b>28</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**Revision: 1**



# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH13 4'-6"  
**Collection Date:** 6/9/2013 01:46 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-25  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: 6/14/2013	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>74</b>		<b>5.3</b>	<b>mg/Kg-dry</b>	1	6/15/2013 01:51 AM
Surr: 4-Terphenyl-d14	43.8		39-115	%REC	1	6/15/2013 01:51 AM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.5	mg/Kg-dry	1	6/14/2013 07:57 PM
Methanol	ND		6.5	mg/Kg-dry	1	6/17/2013 02:47 PM
Propylene glycol	ND		6.5	mg/Kg-dry	1	6/14/2013 07:57 PM
Triethylene glycol	ND		6.5	mg/Kg-dry	1	6/14/2013 07:57 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>CW</b>
GRO (C6-C10)	ND		3.2	mg/Kg-dry	50	6/14/2013 01:45 PM
Surr: Toluene-d8	102		50-150	%REC	50	6/14/2013 01:45 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	23		0.050	% of sample	1	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

**ALS Group USA, Corp**

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH13 6'-8'  
**Collection Date:** 6/9/2013 01:52 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-26  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: 6/14/2013	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>38</b>		<b>5.3</b>	<b>mg/Kg-dry</b>	1	6/15/2013 02:21 AM
Surr: 4-Terphenyl-d14	49.8		39-115	%REC	1	6/15/2013 02:21 AM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.5	mg/Kg-dry	1	6/14/2013 08:08 PM
Methanol	ND		6.5	mg/Kg-dry	1	6/17/2013 03:15 PM
Propylene glycol	ND		6.5	mg/Kg-dry	1	6/14/2013 08:08 PM
Triethylene glycol	ND		6.5	mg/Kg-dry	1	6/14/2013 08:08 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>CW</b>
GRO (C6-C10)	ND		3.2	mg/Kg-dry	50	6/14/2013 02:10 PM
Surr: Toluene-d8	99.8		50-150	%REC	50	6/14/2013 02:10 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
<b>Moisture</b>	<b>23</b>		<b>0.050</b>	<b>% of sample</b>	1	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

**ALS Group USA, Corp**

Date: 12-Jul-13

**Client:** HRL Compliance Solutions**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13**Work Order:** 1306367**Sample ID:** BH14 0'-2'**Lab ID:** 1306367-27**Collection Date:** 6/9/2013 02:09 PM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>120</b>		<b>SW8015M</b>		Prep Date: <b>6/14/2013</b>	Analyst: <b>RD</b>
			<b>6.7</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/15/2013 02:52 AM
Surr: 4-Terphenyl-d14	51.0		39-115	%REC	1	6/15/2013 02:52 AM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		5.7	mg/Kg-dry	1	6/14/2013 08:19 PM
Methanol	ND		5.7	mg/Kg-dry	1	6/17/2013 03:44 PM
Propylene glycol	ND		5.7	mg/Kg-dry	1	6/14/2013 08:19 PM
Triethylene glycol	<b>86</b>		<b>5.7</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/14/2013 08:19 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>CW</b>
GRO (C6-C10)	ND		2.9	mg/Kg-dry	50	6/14/2013 02:34 PM
Surr: Toluene-d8	99.1		50-150	%REC	50	6/14/2013 02:34 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	<b>12</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/11/2013 03:50 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.**Revision: 1**

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13  
**Sample ID:** BH14 10'-12'  
**Collection Date:** 6/9/2013 02:33 PM

**Work Order:** 1306367  
**Lab ID:** 1306367-28  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/14/2013</b>	Analyst: <b>RD</b>
<b>DRO (C10-C28)</b>	<b>32</b>		<b>5.0</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/15/2013 03:52 AM
<i>Surr: 4-Terphenyl-d14</i>	<i>43.6</i>		<i>39-115</i>	<i>%REC</i>	<i>1</i>	6/15/2013 03:52 AM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		6.0	mg/Kg-dry	1	6/14/2013 08:30 PM
Methanol	ND		6.0	mg/Kg-dry	1	6/17/2013 04:13 PM
Propylene glycol	ND		6.0	mg/Kg-dry	1	6/14/2013 08:30 PM
Triethylene glycol	ND		6.0	mg/Kg-dry	1	6/14/2013 08:30 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>CW</b>
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>3.0</b>	<b>mg/Kg-dry</b>	<b>50</b>	6/14/2013 02:59 PM
<i>Surr: Toluene-d8</i>	<i>101</i>		<i>50-150</i>	<i>%REC</i>	<i>50</i>	6/14/2013 02:59 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>BD</b>
<b>Moisture</b>	<b>17</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	6/12/2013 02:20 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions

## QC BATCH REPORT

**Work Order:** 1306367

**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13

Batch ID: **49036**

Instrument ID **GC8**

Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKS1-49036-49036</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/13/2013 05:34 PM</b>		
Client ID:		Run ID: <b>GC8_130613A</b>				SeqNo: <b>2349750</b>		Prep Date: <b>6/13/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	0.976	0	1.667	0	58.6	39-115	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-49036-49036</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/13/2013 06:04 PM</b>		
Client ID:		Run ID: <b>GC8_130613A</b>				SeqNo: <b>2349751</b>		Prep Date: <b>6/13/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	159.4	4.2	166.7	0	95.7	49-124	0			
Surr: 4-Terphenyl-d14	0.8477	0	1.667	0	50.9	39-115	0			

<b>MS</b>		Sample ID: <b>1306367-01A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/13/2013 06:34 PM</b>		
Client ID: <b>BH01/PZ01 2'-4'</b>		Run ID: <b>GC8_130613A</b>				SeqNo: <b>2349752</b>		Prep Date: <b>6/13/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	326.1	8.2	326.1	580.7	-78.1	49-130	0			S
Surr: 4-Terphenyl-d14	1.332	0	3.261	0	40.8	39-115	0			

<b>MSD</b>		Sample ID: <b>1306367-01A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/13/2013 07:05 PM</b>		
Client ID: <b>BH01/PZ01 2'-4'</b>		Run ID: <b>GC8_130613A</b>				SeqNo: <b>2349753</b>		Prep Date: <b>6/13/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	814.2	8.1	324.7	580.7	71.9	49-130	326.1	85.6	30	R
Surr: 4-Terphenyl-d14	1.92	0	3.247	0	59.1	39-115	1.332	36.2	30	R

The following samples were analyzed in this batch:

1306367-01A	1306367-02A	1306367-03A
1306367-04A	1306367-05A	1306367-06A
1306367-07A	1306367-08A	1306367-09A
1306367-10A	1306367-11A	1306367-12A
1306367-13A	1306367-14A	1306367-15A
1306367-16A	1306367-17A	1306367-18A
1306367-19A	1306367-20A	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 1 of 12

**Client:** HRL Compliance Solutions  
**Work Order:** 1306367  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13

## QC BATCH REPORT

Batch ID: **49059**      Instrument ID **GC8**      Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKS1-49059-49059</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 08:49 PM</b>		
Client ID:		Run ID: <b>GC8_130614B</b>				SeqNo: <b>2351081</b>		Prep Date: <b>6/14/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
<i>Surr: 4-Terphenyl-d14</i>	<i>0.9403</i>	<i>0</i>	<i>1.667</i>	<i>0</i>	<i>56.4</i>	<i>39-115</i>	<i>0</i>			

<b>LCS</b>		Sample ID: <b>DLCSS1-49059-49059</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 09:20 PM</b>		
Client ID:		Run ID: <b>GC8_130614B</b>				SeqNo: <b>2351082</b>		Prep Date: <b>6/14/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	149.2	4.2	166.7	0	89.5	49-124	0			
<i>Surr: 4-Terphenyl-d14</i>	<i>0.964</i>	<i>0</i>	<i>1.667</i>	<i>0</i>	<i>57.8</i>	<i>39-115</i>	<i>0</i>			

<b>MS</b>		Sample ID: <b>1306497-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 10:20 PM</b>		
Client ID:		Run ID: <b>GC8_130614B</b>				SeqNo: <b>2351083</b>		Prep Date: <b>6/14/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	285.9	7.9	317.8	19.5	83.8	49-130	0			
<i>Surr: 4-Terphenyl-d14</i>	<i>1.529</i>	<i>0</i>	<i>3.178</i>	<i>0</i>	<i>48.1</i>	<i>39-115</i>	<i>0</i>			

<b>MSD</b>		Sample ID: <b>1306497-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 10:50 PM</b>		
Client ID:		Run ID: <b>GC8_130614B</b>				SeqNo: <b>2351084</b>		Prep Date: <b>6/14/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	279.7	7.9	317.4	19.5	82	49-130	285.9	2.18	30	
<i>Surr: 4-Terphenyl-d14</i>	<i>1.478</i>	<i>0</i>	<i>3.174</i>	<i>0</i>	<i>46.6</i>	<i>39-115</i>	<i>1.529</i>	<i>3.39</i>	<i>30</i>	

The following samples were analyzed in this batch:

1306367-21A	1306367-22A	1306367-23A
1306367-24A	1306367-25A	1306367-26A
1306367-27A	1306367-28A	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 2 of 12

**Client:** HRL Compliance Solutions  
**Work Order:** 1306367  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13

## QC BATCH REPORT

Batch ID: **R122222**      Instrument ID **GC5**      Method: **SW8015M**

<b>MBLK</b>	Sample ID: <b>MB-R122222-R122222</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 07:52 AM</b>		
Client ID:	Run ID: <b>GC5_130614A</b>				SeqNo: <b>2349559</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      ND      5.0

<b>LCS</b>	Sample ID: <b>LCS-R122222-R122222</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 08:21 AM</b>		
Client ID:	Run ID: <b>GC5_130614A</b>				SeqNo: <b>2349560</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      484.2      5.0      500      0      96.8      50-150      0

<b>MS</b>	Sample ID: <b>1306496-05A MS</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 11:11 AM</b>		
Client ID:	Run ID: <b>GC5_130614A</b>				SeqNo: <b>2349566</b>		Prep Date:		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      950.9      10      1000      0      95.1      50-150      0

<b>MSD</b>	Sample ID: <b>1306496-05A MSD</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 11:40 AM</b>		
Client ID:	Run ID: <b>GC5_130614A</b>				SeqNo: <b>2349567</b>		Prep Date:		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      943.4      10      1000      0      94.3      50-150      950.9      0.795      30

The following samples were analyzed in this batch:

1306367-01A	1306367-02A	1306367-03A
1306367-04A	1306367-05A	1306367-06A
1306367-07A	1306367-08A	1306367-09A
1306367-10A	1306367-11A	1306367-12A
1306367-13A	1306367-14A	1306367-15A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 3 of 12

**Client:** HRL Compliance Solutions  
**Work Order:** 1306367  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13

## QC BATCH REPORT

Batch ID: **R122334** Instrument ID **GC11** Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>MB-R122334-R122334</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 01:16 PM</b>		
Client ID:		Run ID: <b>GC11_130614A</b>				SeqNo: <b>2351720</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	ND	5.0								
Propylene glycol	ND	5.0								
Triethylene glycol	ND	5.0								

<b>LCS</b>		Sample ID: <b>LCS-R122334-R122334</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 02:11 PM</b>		
Client ID:		Run ID: <b>GC11_130614A</b>				SeqNo: <b>2351721</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	528.3	5.0	500	0	106	50-150	0			
Propylene glycol	516.1	5.0	500	0	103	50-150	0			
Triethylene glycol	526	5.0	500	0	105		0			

<b>MS</b>		Sample ID: <b>1306367-02A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 01:49 PM</b>		
Client ID: <b>BH01/PZ01 4'-6'</b>		Run ID: <b>GC11_130614A</b>				SeqNo: <b>2351724</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	516.1	10	500	95.13	84.2	50-150	0			
Propylene glycol	570.5	10	500	0	114	50-150	0			
Triethylene glycol	2086	10	500	1623	92.7	50-150	0			

<b>MSD</b>		Sample ID: <b>1306367-02A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 02:00 PM</b>		
Client ID: <b>BH01/PZ01 4'-6'</b>		Run ID: <b>GC11_130614A</b>				SeqNo: <b>2351725</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	535.7	10	500	95.13	88.1	50-150	516.1	3.74	30	
Propylene glycol	577.2	10	500	0	115	50-150	570.5	1.16	30	
Triethylene glycol	2138	10	500	1623	103	50-150	2086	2.45	30	

The following samples were analyzed in this batch:

1306367-01A	1306367-02A	1306367-03A
1306367-04A	1306367-05A	1306367-06A
1306367-07A	1306367-08A	1306367-09A
1306367-10A	1306367-11A	1306367-12A
1306367-13A	1306367-14A	1306367-15A
1306367-16A	1306367-17A	1306367-18A
1306367-19A	1306367-20A	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

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**Client:** HRL Compliance Solutions  
**Work Order:** 1306367  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13

## QC BATCH REPORT

Batch ID: **R122338**      Instrument ID **GC11**      Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>MB-R122338-R122338</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 06:28 PM</b>		
Client ID:		Run ID: <b>GC11_130614B</b>				SeqNo: <b>2351781</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	ND	5.0								
Propylene glycol	ND	5.0								
Triethylene glycol	ND	5.0								

<b>LCS</b>		Sample ID: <b>LCS-R122338-R122338</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 06:39 PM</b>		
Client ID:		Run ID: <b>GC11_130614B</b>				SeqNo: <b>2351782</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	489.1	5.0	500	0	97.8	50-150	0			
Propylene glycol	479.1	5.0	500	0	95.8	50-150	0			
Triethylene glycol	287.8	5.0	500	0	57.6	50-150	0			

<b>MS</b>		Sample ID: <b>1306367-28A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 08:41 PM</b>		
Client ID: <b>BH14 10'-12'</b>		Run ID: <b>GC11_130614B</b>				SeqNo: <b>2351791</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	511.6	10	500	0	102	50-150	0			
Propylene glycol	459.6	10	500	0	91.9	50-150	0			
Triethylene glycol	454.4	10	500	0	90.9	50-150	0			

<b>MSD</b>		Sample ID: <b>1306367-28A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 08:52 PM</b>		
Client ID: <b>BH14 10'-12'</b>		Run ID: <b>GC11_130614B</b>				SeqNo: <b>2351792</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	529.3	10	500	0	106	50-150	511.6	3.4	30	
Propylene glycol	441.4	10	500	0	88.3	50-150	459.6	4.03	30	
Triethylene glycol	434.7	10	500	0	86.9	50-150	454.4	4.44	30	

The following samples were analyzed in this batch:

1306367-21A	1306367-22A	1306367-23A
1306367-24A	1306367-25A	1306367-26A
1306367-27A	1306367-28A	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 5 of 12

**Client:** HRL Compliance Solutions  
**Work Order:** 1306367  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13

## QC BATCH REPORT

Batch ID: **R122341** Instrument ID **GC5** Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>MB-R122341-R122341</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/15/2013 06:12 AM</b>		
Client ID:		Run ID: <b>GC5_130614C</b>		SeqNo: <b>2351858</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol ND 5.0

<b>LCS</b>		Sample ID: <b>LCS-R122341-R122341</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/15/2013 06:40 AM</b>		
Client ID:		Run ID: <b>GC5_130614C</b>		SeqNo: <b>2351859</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol 471.2 5.0 500 0 94.2 50-150 0

<b>MS</b>		Sample ID: <b>1306367-28A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/17/2013 04:41 PM</b>		
Client ID: <b>BH14 10'-12'</b>		Run ID: <b>GC5_130614C</b>		SeqNo: <b>2351873</b>		Prep Date:		DF: <b>2</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol 921.6 10 1000 0 92.2 50-150 0

<b>MSD</b>		Sample ID: <b>1306367-28A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/17/2013 05:10 PM</b>		
Client ID: <b>BH14 10'-12'</b>		Run ID: <b>GC5_130614C</b>		SeqNo: <b>2351874</b>		Prep Date:		DF: <b>2</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol 931.5 10 1000 0 93.1 50-150 921.6 1.07 30

The following samples were analyzed in this batch:

1306367-16A	1306367-17A	1306367-18A
1306367-19A	1306367-20A	1306367-21A
1306367-22A	1306367-23A	1306367-24A
1306367-25A	1306367-26A	1306367-27A
1306367-28A		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

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**Client:** HRL Compliance Solutions  
**Work Order:** 1306367  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13

## QC BATCH REPORT

Batch ID: **R122122**      Instrument ID **GC10**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>GBLK1-130612-R122122</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/12/2013 01:30 PM</b>		
Client ID:		Run ID: <b>GC10_130612A</b>				SeqNo: <b>2347565</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
<i>Surr: Toluene-d8</i>	<i>109</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>109</i>	<i>70-130</i>	<i>0</i>			

<b>LCS</b>		Sample ID: <b>GLCS1-130612-R122122</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/12/2013 01:05 PM</b>		
Client ID:		Run ID: <b>GC10_130612A</b>				SeqNo: <b>2347564</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	7570	200	10000	0	75.7	70-130	0			
<i>Surr: Toluene-d8</i>	<i>110.7</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>111</i>	<i>70-130</i>	<i>0</i>			

<b>MS</b>		Sample ID: <b>1306369-04A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/12/2013 10:12 PM</b>		
Client ID:		Run ID: <b>GC10_130612A</b>				SeqNo: <b>2347899</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	7544	200	10000	255.1	72.9	70-130	0			
<i>Surr: Toluene-d8</i>	<i>109.2</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>109</i>	<i>70-130</i>	<i>0</i>			

<b>MSD</b>		Sample ID: <b>1306369-04A MSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/12/2013 10:37 PM</b>		
Client ID:		Run ID: <b>GC10_130612A</b>				SeqNo: <b>2347900</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	7247	200	10000	255.1	69.9	70-130	7544	4.02	30	S
<i>Surr: Toluene-d8</i>	<i>108.6</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>109</i>	<i>70-130</i>	<i>109.2</i>	<i>0.578</i>	<i>30</i>	

The following samples were analyzed in this batch:

1306367-01A

Client: HRL Compliance Solutions  
 Work Order: 1306367  
 Project: Source Gas Wolf Creek Well #12 6/8-6/9/13

## QC BATCH REPORT

Batch ID: **R122136** Instrument ID **GC10** Method: **SW8015**

<b>MBLK</b>	Sample ID: <b>GBLK2-130612-R122136</b>					Units: <b>µg/L</b>		Analysis Date: <b>6/12/2013 11:51 PM</b>		
Client ID:	Run ID: <b>GC10_130612B</b>				SeqNo: <b>2347957</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
<i>Surr: Toluene-d8</i>	<i>108.5</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>108</i>	<i>70-130</i>	<i>0</i>			

<b>LCS</b>	Sample ID: <b>GLCS2-130612-R122136</b>					Units: <b>µg/L</b>		Analysis Date: <b>6/12/2013 11:26 PM</b>		
Client ID:	Run ID: <b>GC10_130612B</b>				SeqNo: <b>2347955</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	7453	200	10000	0	74.5	70-130	0			
<i>Surr: Toluene-d8</i>	<i>111</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>111</i>	<i>70-130</i>	<i>0</i>			

<b>MS</b>	Sample ID: <b>1306367-03A MS</b>					Units: <b>µg/Kg</b>		Analysis Date: <b>6/13/2013 08:25 AM</b>		
Client ID: <b>BH02/PZ02 0'-2'</b>	Run ID: <b>GC10_130612B</b>				SeqNo: <b>2347999</b>		Prep Date:		DF: <b>50</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	360700	2,500	500000	0	72.1	70-130	0			
<i>Surr: Toluene-d8</i>	<i>5224</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>104</i>	<i>50-150</i>	<i>0</i>			

<b>MSD</b>	Sample ID: <b>1306367-03A MSD</b>					Units: <b>µg/Kg</b>		Analysis Date: <b>6/13/2013 08:50 AM</b>		
Client ID: <b>BH02/PZ02 0'-2'</b>	Run ID: <b>GC10_130612B</b>				SeqNo: <b>2348001</b>		Prep Date:		DF: <b>50</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	342200	2,500	500000	0	68.4	70-130	360700	5.29	30	S
<i>Surr: Toluene-d8</i>	<i>4967</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>99.3</i>	<i>50-150</i>	<i>5224</i>	<i>5.03</i>	<i>30</i>	

The following samples were analyzed in this batch:

1306367-02A	1306367-03A	1306367-04A
1306367-05A	1306367-06A	1306367-07A
1306367-08A	1306367-09A	1306367-10A
1306367-11A	1306367-12A	1306367-13A
1306367-14A	1306367-15A	1306367-16A
1306367-17A	1306367-18A	1306367-19A
1306367-20A	1306367-21A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

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**Client:** HRL Compliance Solutions  
**Work Order:** 1306367  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13

## QC BATCH REPORT

Batch ID: **R122224**      Instrument ID **GC10**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>GBLK1-130614-R122224</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/14/2013 10:28 AM</b>		
Client ID:		Run ID: <b>GC10_130614A</b>				SeqNo: <b>2349585</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
Surr: Toluene-d8	106.8	0	100	0	107	70-130	0			

<b>LCS</b>		Sample ID: <b>GLCS1-130614-R122224</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/14/2013 10:03 AM</b>		
Client ID:		Run ID: <b>GC10_130614A</b>				SeqNo: <b>2349584</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	8667	200	10000	0	86.7	70-130	0			
Surr: Toluene-d8	109.6	0	100	0	110	70-130	0			

<b>MS</b>		Sample ID: <b>1306422-02A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/14/2013 07:07 PM</b>		
Client ID:		Run ID: <b>GC10_130614A</b>				SeqNo: <b>2350772</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	9130	200	10000	0	91.3	70-130	0			
Surr: Toluene-d8	109.5	0	100	0	109	70-130	0			

<b>MSD</b>		Sample ID: <b>1306422-02A MSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/14/2013 07:31 PM</b>		
Client ID:		Run ID: <b>GC10_130614A</b>				SeqNo: <b>2350774</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	8847	200	10000	0	88.5	70-130	9130	3.14	30	
Surr: Toluene-d8	106	0	100	0	106	70-130	109.5	3.26	30	

The following samples were analyzed in this batch:

1306367-22A	1306367-23A	1306367-24A
1306367-25A	1306367-26A	1306367-27A
1306367-28A		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

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**Client:** HRL Compliance Solutions  
**Work Order:** 1306367  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13

## QC BATCH REPORT

Batch ID: **R122069**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>	Sample ID: <b>WBLKS-R122069</b>				Units: % of sample			Analysis Date: <b>6/11/2013 03:10 PM</b>		
Client ID:	Run ID: <b>MOIST_130611A</b>				SeqNo: <b>2346878</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      ND      0.050

<b>LCS</b>	Sample ID: <b>LCS-R122069</b>				Units: % of sample			Analysis Date: <b>6/11/2013 03:10 PM</b>		
Client ID:	Run ID: <b>MOIST_130611A</b>				SeqNo: <b>2346877</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      99.99      0.050      100      0      100      99.5-100.5      0

<b>DUP</b>	Sample ID: <b>1306368-01B DUP</b>				Units: % of sample			Analysis Date: <b>6/11/2013 03:10 PM</b>		
Client ID:	Run ID: <b>MOIST_130611A</b>				SeqNo: <b>2346866</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      6.87      0.050      0      0      0      0-0      7.07      2.87      20

<b>DUP</b>	Sample ID: <b>1306368-09B DUP</b>				Units: % of sample			Analysis Date: <b>6/11/2013 03:10 PM</b>		
Client ID:	Run ID: <b>MOIST_130611A</b>				SeqNo: <b>2346875</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      43.27      0.050      0      0      0      0-0      43.55      0.645      20

The following samples were analyzed in this batch:

1306367-01A	1306367-02A	1306367-03A
1306367-04A		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

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**Client:** HRL Compliance Solutions  
**Work Order:** 1306367  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13

## QC BATCH REPORT

Batch ID: **R122073**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS-R122073</b>				Units: % of sample		Analysis Date: <b>6/11/2013 03:50 PM</b>		
Client ID:		Run ID: <b>MOIST_130611B</b>				SeqNo: <b>2346947</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      ND      0.050

<b>LCS</b>		Sample ID: <b>LCS-R122073</b>				Units: % of sample		Analysis Date: <b>6/11/2013 03:50 PM</b>		
Client ID:		Run ID: <b>MOIST_130611B</b>				SeqNo: <b>2346946</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      99.99      0.050      100      0      100      99.5-100.5      0

<b>DUP</b>		Sample ID: <b>1306367-06A DUP</b>				Units: % of sample		Analysis Date: <b>6/11/2013 03:50 PM</b>		
Client ID: <b>BH03 10'-12'</b>		Run ID: <b>MOIST_130611B</b>				SeqNo: <b>2346926</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      17.99      0.050      0      0      0      0-0      18.87      4.77      20

<b>DUP</b>		Sample ID: <b>1306367-15A DUP</b>				Units: % of sample		Analysis Date: <b>6/11/2013 03:50 PM</b>		
Client ID: <b>BH08 8'-10'</b>		Run ID: <b>MOIST_130611B</b>				SeqNo: <b>2346935</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      19.83      0.050      0      0      0      0-0      19.43      2.04      20

The following samples were analyzed in this batch:

1306367-05A	1306367-06A	1306367-07A
1306367-08A	1306367-09A	1306367-10A
1306367-12A	1306367-13A	1306367-14A
1306367-15A	1306367-16A	1306367-18A
1306367-20A	1306367-21A	1306367-22A
1306367-23A	1306367-24A	1306367-25A
1306367-26A	1306367-27A	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

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**Client:** HRL Compliance Solutions  
**Work Order:** 1306367  
**Project:** Source Gas Wolf Creek Well #12 6/8-6/9/13

## QC BATCH REPORT

Batch ID: **R122138**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS-R122138</b>				Units: % of sample			Analysis Date: <b>6/12/2013 02:20 PM</b>		
Client ID:		Run ID: <b>MOIST_130612B</b>				SeqNo: <b>2347985</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Moisture	0.03	0.050								J	

<b>LCS</b>		Sample ID: <b>LCS-R122138</b>				Units: % of sample			Analysis Date: <b>6/12/2013 02:20 PM</b>		
Client ID:		Run ID: <b>MOIST_130612B</b>				SeqNo: <b>2347982</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Moisture	100	0.050	100	0	100	99.5-100.5	0				

<b>DUP</b>		Sample ID: <b>1306367-11A DUP</b>				Units: % of sample			Analysis Date: <b>6/12/2013 02:20 PM</b>		
Client ID: <b>BH06/PZ03 2'-4'</b>		Run ID: <b>MOIST_130612B</b>				SeqNo: <b>2347948</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Moisture	16.07	0.050	0	0	0	0-0	16.36	1.79	20		

<b>DUP</b>		Sample ID: <b>1306368-25A DUP</b>				Units: % of sample			Analysis Date: <b>6/12/2013 02:20 PM</b>		
Client ID:		Run ID: <b>MOIST_130612B</b>				SeqNo: <b>2347968</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Moisture	38.3	0.050	0	0	0	0-0	35.03	8.92	20		

The following samples were analyzed in this batch:

1306367-11A	1306367-17A	1306367-19A
1306367-28A		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 12 of 12





# ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524  
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

## Chain-of-Custody

Form 202r8

WORKORDER #	1306367
PAGE	1 of 3
DISPOSAL	By Lab or Return to Client

PROJECT NAME	Sample Gas		SAMPLER	Mike Lobato		DATE	6/10/13	
PROJECT No.	WOLF Creek Well #12		SITE ID	WOLF Creek Well #12		TURNAROUND	STD	
COMPANY NAME	HRL Compliance Solutions		EDD FORMAT					
SEND REPORT TO	Kris Rowe / Herman		PURCHASE ORDER					
ADDRESS	2385 Flz		BILL TO COMPANY	HRL				
CITY / STATE / ZIP	Grand Junction, CO		INVOICE ATTN TO					
PHONE	970 243 3271		ADDRESS					
FAX	970 243 3280		CITY / STATE / ZIP					
E-MAIL	KRowe@HRLComp.com		PHONE					
			FAX					
			E-MAIL					

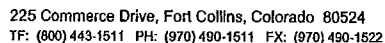
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	Methanol	GLYCOLS	DRO'S	GR0'S
1	BH1/PZ1 2'-4'	S	6/8/13	1128	2			X	X	X	X
2	BH1/PZ1 4'-6'		6/8/13	1126	2			X	X	X	X
3	BH2/PZ2 0'-2'		6/8/13	1147	2			X	X	X	X
4	BH2/PZ2 6'-8'		6/8/13	1215	2			X	X	X	X
5	BH3 4'-6'		6/8/13	1246	2			X	X	X	X
6	BH3 10'-12'		6/8/13	1306	2			X	X	X	X
7	BH4 0'-2'		6/8/13	1324	2			X	X	X	X
8	BH4 10'-12'		6/8/13	1316	2			X	X	X	X
9	BH5 8'-12'		6/8/13	1418	2			X	X	X	X
10	BH5 10'-12'	V	6/8/13	1424	2			X	X	X	X

\*Time Zone (Circle): EST CST MS PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)
5.2°C	<input checked="" type="checkbox"/> LEVEL II (Standard QC)
	<input type="checkbox"/> LEVEL III (Std QC + forms)
	<input type="checkbox"/> LEVEL IV (Std QC + forms + raw data)
	<input type="checkbox"/>
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035	

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Mike Lobato	6/10/13	1800
RECEIVED BY		Diane F. Shaw	6/11/13	0930
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				



## Form 202r8

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filler

**For metals or anions, please detail analytes below.**

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Mike Lobato</i>	Mike Lobato	6/10/13	1800
RECEIVED BY	<i>[Signature]</i>	Diane F Shaw	6/11/13	0930
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

## ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524  
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

## Chain-of-Custody

Form 202r8

**WORKORDER**  
#

1306365

**PAGE**

3 of 3


DISPOSAL

By Lab or Return to Client

PROJECT NAME		SAMPLER		DATE		PAGE	
PROJECT No.		SITE ID		TURNAROUND		DISPOSAL	
COMPANY NAME		PURCHASE ORDER		By Lab		or Return to Client	
SEND REPORT TO		INVOICE ATTN TO					
ADDRESS		ADDRESS					
CITY / STATE / ZIP		CITY / STATE / ZIP					
PHONE		PHONE					
FAX		FAX					
E-MAIL		E-MAIL					
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC
21	BH11/PZ11 4'-6'	S	6/9/13	1253	2		
22	BH11/PZ11 6'-8'		6/9/13	1259	2		
23	BH12/PZ12 2'-4'		6/9/13	1319	2		
24	BH12/PZ12 4'-6'		6/9/13	1322	2		
25	BH13 4'-6'		6/9/13	1346	2		
26	BH13 6'-8'		6/9/13	1352	2		
27	BH14 0'-2'		6/9/13	1409	2		
28	BH14 10'-12'	↓	6/9/13	1433	2		

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

**For metals or anions, please detail analytes below.**

<b>Comments:</b>  <div style="text-align: center;"> <math>5.2^{\circ}\text{C}</math>   </div>	<b>QC PACKAGE (check below)</b>							
	<input checked="" type="checkbox"/>	LEVEL II (Standard QC)						
	<input type="checkbox"/>	LEVEL III (Std QC + forms)						
	<input type="checkbox"/>	LEVEL IV (Std QC + forms + raw data)						
<b>Preservative Key:</b> 1-HCl   2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH   5-NaHSO <sub>4</sub> 7-Other   8-4 degrees C   9-5035								

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Mike Lobato</i>	Mike Lobato	6/10/13	1800
RECEIVED BY	<i>Diane F Shaw</i>	Diane F Shaw	6/11/13	0930
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

SOILS	
WOLF CREEK #12	WOLF CREEK #12
OLD	AMMENDED
BH1/PZ1 2'24'	BH01/PZ01 2'-4'
BH1/PZ1 4'26'	BH01/PZ01 4'-6'
BH2/PZ2 0'22'	BH02/PZ02 0'-2'
BH2/PZ2 6'28'	BH02/PZ02 6'-8'
BH3 4'26'	BH03 4'-6'
BH3 10'212'	BH03 10'-12'
BH4 0'22'	BH04 0'22'
BH4 10'212'	BH04 10'212'
BH5 8'212'	BH05 8'212'
BH5 10'212'	BH05 10'212'
BH6/PZ6 2'-4'	BH06/PZ03 2'-4'
BH6/PZ6 4'26'	BH06/PZ03 4'26'
BH7 6'28'	BH07 6'-8'
BH7 10'212'	BH07 10'-12'
BH8 8'210'	BH08 8'-10'
BH8 10'212'	BH08 10'-12'
BH9 0'22'	BH09 0'-2'
BH9 10'212'	BH09 10'-12'
BH10/PZ10 0'22'	BH10/PZ04 0'-2'
BH10/PZ10 2'24'	BH10/PZ04 2'-4'
BH11/PZ11 4'26'	BH11/PZ05 4'-6'
BH11/PZ11 6'28'	BH11/PZ05 6'-8'
BH12/PZ12 2'24'	BH12/PZ06 2'-4'
BH12/PZ12 4'26'	BH12/PZ06 4'-6'
BH13 4'26"	BH13 4'-6'
BH13 6'28'	BH13 6'28'
BH14 0'22'	BH14 0'22'
BH14 10'212'	BH14 10'212'
BH15 8-10'	BH15 8'-10'
BH16 8.5-9.5'	BH16 8.5'-9.5'
BH16A 2-3'	BH16A 2'-3'
BH17 8-10'	BH17 8'-10'
BH18 8-10'	BH18 8'-10'
BH20/PZ20 2-4'	BH20/PZ07 2'-4'
BH21/PZ21 6-8'	BH21/PZ08 6'-8'
BH22/PZ22 4-6'	BH22/PZ09 4'-6'
BH22/PZ22 6-8'	BH22/PZ09 6'-8'
BH23 6-8'	BH23 6'-8'
BH23 10-12'	BH23 10'-12'

WATER	
WOLF CREEK #12	WOLF CREEK #12
OLD	AMMENDED
BH1/PZ1	BH01/PZ01
BH2/PZ2	BH02/PZ02
BH6/PZ6	BH06/PZ03
BH10/PZ10	BH10/PZ04
BH11/PZ11	BH11/PZ05
BH12/PZ12	BH12/PZ06
<del>BH20/PZ20</del>	<del>BH20/PZ07</del>
BH21/PZ21	BH21/PZ08
BH22/PZ22	BH22/PZ09

1306369  
1306971

13061064

# 1306367

13061065

W0# 13061057

SOILS	
WOLF CREEK #5	WOLF CREEK #5
OLD	AMMENDED
Piez01/SS01	Piez01/SS01
Piez01/SS01 Duplicate	Piez01/SS01 Duplicate
SS02	SS02
Piez03/SS03	Piez02/SS03
Piez04/SS04	SS04
Piez05/SS05	Piez03/SS05
Piez06/SS06	SS06

} 1307003 ✓

# ALS Group USA, Corp

## Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 11-Jun-13 09:30

Work Order: 1306367

Received by: DS

Checklist completed by Diane Shaw 11-Jun-13  
eSignature Date

Reviewed by: Ann Preston 13-Jun-13  
eSignature Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>5.2 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>6/11/2013 1:23:43 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			
Login Notes:			

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

Revision: 1

ORIGIN ID:GJTA (616) 399-6070  
ALS LABORATORY GROUP  
3352 128TH AVE  
HOLLAND, MI 494249263  
UNITED STATES US

SHIP DATE: 10JUN13  
ACTWGT: 64.2 LB  
CAD: 7POS1400  
DIMS: 24x14x14 IN  
BILL SENDER

TO **SAMPLE RECEIVING**  
**ALS ENVIRONMENTAL**  
**3352 128TH AVE**

**HOLLAND MI 49424**

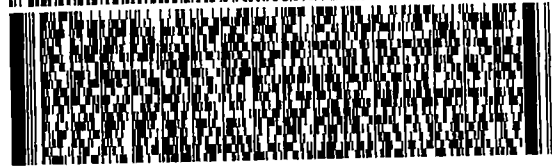
(616) 738-7318

REF:

INU:

PO:

DEPT:



**FedEx**  
Express



2 of 2

MPS# **7957 8842 9474**

Mstr# 8722 9438 1150

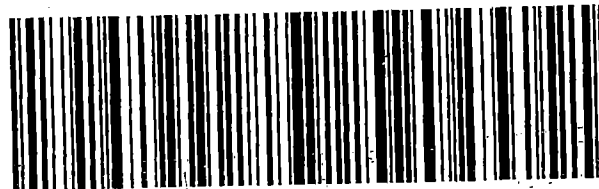
0200

**TUE - 11 JUN 10:30A**  
**PRIORITY OVERNIGHT**


**XX GRRA**

**49424**

MI-US **GRR**



**828 5 B**  
9474  
06.11

 <b>ALS Environmental</b> 3352 128th Avenue Holland, Michigan 49424 Tel. +1 616 399 6070 Fax. +1 616 399 6185	<b>CUSTODY SEAL</b>		Seal Broken By:
	Date: <u>6/10/13</u>	Time: <u>1746</u>	Date:
	Name: <u>Mike L</u>	Company: <u>HL Comp Sol</u>	

Align Open End of FedEx Pouch Here



11-Jul-2013

Herman Lucero  
HRL Compliance Solutions  
2385 F 1/2 Road  
Grand Junction, CO 81505

Re: **Source Gas Wolf Creek #12 13-113 6/26/13**

Work Order: **13061064**  
Revision: **1**

Dear Herman,

ALS Environmental received 3 samples on 27-Jun-2013 09:30 AM for the analyses presented in the following report.

This is a REVISED REPORT. The Case Narrative provides information discussing the reason for issuing a revised report. The total number of pages in this revision is 21.

If you have any questions regarding these test results, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: MN 532786

### Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Group An ALS Limited Company

Environmental 

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER



---

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/26/13  
**Work Order:** 13061064

**Work Order Sample Summary**

---

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
13061064-01	BH21/PZ08	Water		6/26/2013 11:52	6/27/2013 09:30	<input type="checkbox"/>
13061064-02	BH22/PZ09	Water		6/26/2013 12:26	6/27/2013 09:30	<input type="checkbox"/>
13061064-03	Trip Blank	Water		6/26/2013 11:52	6/27/2013 09:30	<input type="checkbox"/>

---

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/26/13  
**Work Order:** 13061064

---

**Case Narrative**

At the request of the client, the sample IDs were changed in this revised report. No results were changed.

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/26/13  
**WorkOrder:** 13061064

## QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

# ALS Group USA, Corp

Date: 11-Jul-13

Client: HRL Compliance Solutions

Project: Source Gas Wolf Creek #12 13-113 6/26/13

Sample ID: BH21/PZ08

Collection Date: 6/26/2013 11:52 AM

Work Order: 13061064

Lab ID: 13061064-01

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>			<b>SW8015M</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>7.6</b>		<b>0.35</b>	<b>mg/L</b>	<b>1</b>	6/27/2013 04:24 PM
Surr: 4-Terphenyl-d14	61.8		21-90	%REC	1	6/27/2013 04:24 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		5.0	mg/L	1	6/27/2013 05:33 PM
Methanol	ND		5.0	mg/L	1	6/27/2013 07:03 PM
Propylene glycol	ND		5.0	mg/L	1	6/27/2013 05:33 PM
Triethylene glycol	<b>680</b>		<b>5.0</b>	<b>mg/L</b>	<b>1</b>	6/27/2013 05:33 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>			<b>SW8015</b>			Analyst: <b>RD</b>
<b>GRO (C6-C10)</b>	<b>0.78</b>		<b>0.20</b>	<b>mg/L</b>	<b>1</b>	6/27/2013 05:54 PM
Surr: Toluene-d8	103		70-130	%REC	1	6/27/2013 05:54 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>AK</b>
<b>Benzene</b>	<b>7.2</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	6/27/2013 02:55 PM
<b>Ethylbenzene</b>	<b>1.0</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	6/27/2013 02:55 PM
<b>m,p-Xylene</b>	<b>8.6</b>		<b>2.0</b>	<b>µg/L</b>	<b>1</b>	6/27/2013 02:55 PM
<b>o-Xylene</b>	<b>2.9</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	6/27/2013 02:55 PM
<b>Toluene</b>	<b>22</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	6/27/2013 02:55 PM
<b>Xylenes, Total</b>	<b>11</b>		<b>3.0</b>	<b>µg/L</b>	<b>1</b>	6/27/2013 02:55 PM
Surr: 1,2-Dichloroethane-d4	101		70-120	%REC	1	6/27/2013 02:55 PM
Surr: 4-Bromofluorobenzene	92.0		75-120	%REC	1	6/27/2013 02:55 PM
Surr: Dibromofluoromethane	104		85-115	%REC	1	6/27/2013 02:55 PM
Surr: Toluene-d8	99.6		85-120	%REC	1	6/27/2013 02:55 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 11-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/26/13  
**Sample ID:** BH22/PZ09  
**Collection Date:** 6/26/2013 12:26 PM

**Work Order:** 13061064  
**Lab ID:** 13061064-02  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>			<b>SW8015M</b>		Prep Date: <b>6/27/2013</b>	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>2.0</b>		<b>0.10</b>	<b>mg/L</b>	1	6/27/2013 04:54 PM
Surr: 4-Terphenyl-d14	56.6		21-90	%REC	1	6/27/2013 04:54 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		5.0	mg/L	1	6/27/2013 05:44 PM
Methanol	ND		5.0	mg/L	1	6/27/2013 07:31 PM
Propylene glycol	ND		5.0	mg/L	1	6/27/2013 05:44 PM
Triethylene glycol	35		5.0	mg/L	1	6/27/2013 05:44 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>			<b>SW8015</b>			Analyst: <b>RD</b>
<b>GRO (C6-C10)</b>	<b>0.27</b>		<b>0.20</b>	<b>mg/L</b>	1	6/27/2013 06:19 PM
Surr: Toluene-d8	109		70-130	%REC	1	6/27/2013 06:19 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>AK</b>
<b>Benzene</b>	<b>9.5</b>		<b>1.0</b>	<b>µg/L</b>	1	6/27/2013 03:19 PM
<b>Ethylbenzene</b>	<b>1.4</b>		<b>1.0</b>	<b>µg/L</b>	1	6/27/2013 03:19 PM
<b>m,p-Xylene</b>	<b>8.7</b>		<b>2.0</b>	<b>µg/L</b>	1	6/27/2013 03:19 PM
<b>o-Xylene</b>	<b>2.1</b>		<b>1.0</b>	<b>µg/L</b>	1	6/27/2013 03:19 PM
Toluene	ND		1.0	µg/L	1	6/27/2013 03:19 PM
<b>Xylenes, Total</b>	<b>11</b>		<b>3.0</b>	<b>µg/L</b>	1	6/27/2013 03:19 PM
Surr: 1,2-Dichloroethane-d4	98.1		70-120	%REC	1	6/27/2013 03:19 PM
Surr: 4-Bromofluorobenzene	90.0		75-120	%REC	1	6/27/2013 03:19 PM
Surr: Dibromofluoromethane	102		85-115	%REC	1	6/27/2013 03:19 PM
Surr: Toluene-d8	99.6		85-120	%REC	1	6/27/2013 03:19 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

**ALS Group USA, Corp****Date:** 11-Jul-13**Client:** HRL Compliance Solutions**Project:** Source Gas Wolf Creek #12 13-113 6/26/13**Work Order:** 13061064**Sample ID:** Trip Blank**Lab ID:** 13061064-03**Collection Date:** 6/26/2013 11:52 AM**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>AK</b>
Benzene	ND		1.0	µg/L	1	6/27/2013 01:43 PM
Ethylbenzene	ND		1.0	µg/L	1	6/27/2013 01:43 PM
m,p-Xylene	ND		2.0	µg/L	1	6/27/2013 01:43 PM
o-Xylene	ND		1.0	µg/L	1	6/27/2013 01:43 PM
Toluene	ND		1.0	µg/L	1	6/27/2013 01:43 PM
Xylenes, Total	ND		3.0	µg/L	1	6/27/2013 01:43 PM
Surr: 1,2-Dichloroethane-d4	98.5		70-120	%REC	1	6/27/2013 01:43 PM
Surr: 4-Bromofluorobenzene	90.3		75-120	%REC	1	6/27/2013 01:43 PM
Surr: Dibromofluoromethane	104		85-115	%REC	1	6/27/2013 01:43 PM
Surr: Toluene-d8	98.9		85-120	%REC	1	6/27/2013 01:43 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.**Revision: 1**

Analytical Results Page 3 of 3

# ALS Group USA, Corp

Date: 11-Jul-13

**Client:** HRL Compliance Solutions

## QC BATCH REPORT

**Work Order:** 13061064

**Project:** Source Gas Wolf Creek #12 13-113 6/26/13

Batch ID: **49363**

Instrument ID **GC8**

Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKW1-49363-49363</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 02:24 PM</b>		
Client ID:		Run ID: <b>GC8_130627A</b>				SeqNo: <b>2363778</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	0.10								
Surr: 4-Terphenyl-d14	0.06359	0	0.1143	0	55.6	21-90	0			

<b>LCS</b>		Sample ID: <b>DLCSW1-49363-49363</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 02:54 PM</b>		
Client ID:		Run ID: <b>GC8_130627A</b>				SeqNo: <b>2363779</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	6.124	0.10	11.43	0	53.6	44-116	0			
Surr: 4-Terphenyl-d14	0.06896	0	0.1143	0	60.3	21-90	0			

<b>MS</b>		Sample ID: <b>13061064-01B MS</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 03:24 PM</b>		
Client ID: <b>BH21/PZ08</b>		Run ID: <b>GC8_130627A</b>				SeqNo: <b>2363780</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	25.42	0.35	40	7.626	44.5	44-116	0			
Surr: 4-Terphenyl-d14	0.2656	0	0.4	0	66.4	21-90	0			

<b>MSD</b>		Sample ID: <b>13061064-01B MSD</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 03:54 PM</b>		
Client ID: <b>BH21/PZ08</b>		Run ID: <b>GC8_130627A</b>				SeqNo: <b>2363781</b>		Prep Date: <b>6/27/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	26.06	0.35	40	7.626	46.1	44-116	25.42	2.49	30	
Surr: 4-Terphenyl-d14	0.2701	0	0.4	0	67.5	21-90	0.2656	1.67	30	

The following samples were analyzed in this batch:

13061064-01B	13061064-02B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Report Page: 1 of 8

**Client:** HRL Compliance Solutions  
**Work Order:** 13061064  
**Project:** Source Gas Wolf Creek #12 13-113 6/26/13

# QC BATCH REPORT

Batch ID: **R122931**      Instrument ID **GC5**      Method: **SW8015M**

<b>MBLK</b>	Sample ID: <b>MB-R122931-R122931</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 06:05 PM</b>		
Client ID:	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364342</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      ND      5.0

<b>MBLK</b>	Sample ID: <b>MB-R122931-R122931</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/27/2013 11:21 PM</b>		
Client ID:	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364376</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      ND      5.0

<b>LCS</b>	Sample ID: <b>LCS-R122931-R122931</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 06:34 PM</b>		
Client ID:	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364343</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      471.3      5.0      500      0      94.3      50-150      0

<b>LCS</b>	Sample ID: <b>LCS-R122931-R122931</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/27/2013 11:49 PM</b>		
Client ID:	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364377</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      488.5      5.0      500      0      97.7      50-150      0

<b>MS</b>	Sample ID: <b>13061064-02B MS</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 08:00 PM</b>		
Client ID: <b>BH22/PZ09</b>	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364347</b>		Prep Date:		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      946      10      1000      0      94.6      50-150      0

<b>MS</b>	Sample ID: <b>13061065-03A MS</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/28/2013 05:03 AM</b>		
Client ID:	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364387</b>		Prep Date:		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      990.1      10      1000      0      99      50-150      0

<b>MSD</b>	Sample ID: <b>13061064-02B MSD</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 08:29 PM</b>		
Client ID: <b>BH22/PZ09</b>	Run ID: <b>GC5_130627B</b>				SeqNo: <b>2364348</b>		Prep Date:		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      963      10      1000      0      96.3      50-150      946      1.78      30

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**



**Client:** HRL Compliance Solutions  
**Work Order:** 13061064  
**Project:** Source Gas Wolf Creek #12 13-113 6/26/13

## QC BATCH REPORT

Batch ID: **R122931** Instrument ID **GC5** Method: **SW8015M**

MSD		Sample ID: 13061065-03A MSD				Units: mg/Kg		Analysis Date: 6/28/2013 05:31 AM		
Client ID:		Run ID: GC5_130627B		SeqNo: 2364388		Prep Date:		DF: 2		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Methanol	980.9	10	1000	0	98.1	50-150	990.1	0.933	30	

The following samples were analyzed in this batch:

13061064-01B	13061064-02B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

**Client:** HRL Compliance Solutions  
**Work Order:** 13061064  
**Project:** Source Gas Wolf Creek #12 13-113 6/26/13

# QC BATCH REPORT

Batch ID: **R122932** Instrument ID **GC11** Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>MB-R122932-R122932</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 05:21 PM</b>		
Client ID:		Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364391</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	ND	5.0								
Propylene glycol	ND	10								
Triethylene glycol	ND	5.0								

<b>MBLK</b>		Sample ID: <b>MB-R122932-R122932</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/27/2013 06:51 PM</b>		
Client ID:		Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364456</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	ND	5.0								
Propylene glycol	ND	5.0								
Triethylene glycol	ND	5.0								

<b>LCS</b>		Sample ID: <b>LCS-R122932-R122932</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 06:17 PM</b>		
Client ID:		Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364392</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	515.6	5.0	500	0	103	50-150	0			
Propylene glycol	499.7	10	500	0	99.9	50-150	0			
Triethylene glycol	514.8	5.0	500	0	103	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-R122932-R122932</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/28/2013 09:29 AM</b>		
Client ID:		Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364457</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	531.8	5.0	500	0	106	50-150	0			
Propylene glycol	526.1	5.0	500	0	105	50-150	0			
Triethylene glycol	301.8	5.0	500	0	60.4	50-150	0			

<b>MS</b>		Sample ID: <b>13061064-02B MS</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 05:55 PM</b>		
Client ID: <b>BH22/PZ09</b>		Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364395</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	994	10	1000	0	99.4	50-150	0			
Propylene glycol	932.2	20	1000	0	93.2	50-150	0			
Triethylene glycol	1004	10	1000	34.99	96.9	50-150	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

**Client:** HRL Compliance Solutions  
**Work Order:** 13061064  
**Project:** Source Gas Wolf Creek #12 13-113 6/26/13

## QC BATCH REPORT

Batch ID: **R122932**      Instrument ID **GC11**      Method: **SW8015M**

<b>MS</b>		Sample ID: <b>13061057-06B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/28/2013 10:52 AM</b>		
Client ID:		Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364464</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	1050	10	1000	0	105	50-150	0			
Propylene glycol	1032	10	1000	0	103	50-150	0			
Triethylene glycol	821.4	10	1000	0	82.1	50-150	0			

<b>MSD</b>		Sample ID: <b>13061064-02B MSD</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/27/2013 06:06 PM</b>		
Client ID: <b>BH22/PZ09</b>		Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364396</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	1029	10	1000	0	103	50-150	994	3.49	30	
Propylene glycol	1011	20	1000	0	101	50-150	932.2	8.15	30	
Triethylene glycol	1030	10	1000	34.99	99.5	50-150	1004	2.58	30	

<b>MSD</b>		Sample ID: <b>13061057-06B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/28/2013 11:04 AM</b>		
Client ID:		Run ID: <b>GC11_130627B</b>				SeqNo: <b>2364465</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	1045	10	1000	0	104	50-150	1050	0.565	30	
Propylene glycol	1041	10	1000	0	104	50-150	1032	0.914	30	
Triethylene glycol	860.5	10	1000	0	86.1	50-150	821.4	4.65	30	

The following samples were analyzed in this batch:

13061064-01B	13061064-02B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Report Page: 5 of 8

**Client:** HRL Compliance Solutions  
**Work Order:** 13061064  
**Project:** Source Gas Wolf Creek #12 13-113 6/26/13

# QC BATCH REPORT

Batch ID: **R122905**      Instrument ID **GC10**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>GBLK1-130627-R122905</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/27/2013 12:54 PM</b>		
Client ID:		Run ID: <b>GC10_130627A</b>				SeqNo: <b>2363662</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
<i>Surr: Toluene-d8</i>	<i>108.3</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>108</i>	<i>70-130</i>	<i>0</i>			

<b>LCS</b>		Sample ID: <b>GLCS1-130627-R122905</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/27/2013 12:29 PM</b>		
Client ID:		Run ID: <b>GC10_130627A</b>				SeqNo: <b>2363661</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	8612	200	10000	0	86.1	70-130	0			
<i>Surr: Toluene-d8</i>	<i>112.6</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>113</i>	<i>70-130</i>	<i>0</i>			

<b>MS</b>		Sample ID: <b>13061058-06A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/27/2013 09:43 PM</b>		
Client ID:		Run ID: <b>GC10_130627A</b>				SeqNo: <b>2364194</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	8168	200	10000	0	81.7	70-130	0			
<i>Surr: Toluene-d8</i>	<i>109</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>109</i>	<i>70-130</i>	<i>0</i>			

<b>MSD</b>		Sample ID: <b>13061058-06A MSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/27/2013 10:08 PM</b>		
Client ID:		Run ID: <b>GC10_130627A</b>				SeqNo: <b>2364195</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	7849	200	10000	0	78.5	70-130	8168	3.99	30	
<i>Surr: Toluene-d8</i>	<i>108.6</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>109</i>	<i>70-130</i>	<i>109</i>	<i>0.368</i>	<i>30</i>	

The following samples were analyzed in this batch:

13061064-01A	13061064-02A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Report Page: 6 of 8

**Client:** HRL Compliance Solutions  
**Work Order:** 13061064  
**Project:** Source Gas Wolf Creek #12 13-113 6/26/13

# QC BATCH REPORT

Batch ID: **R122877A**      Instrument ID **VMS8**      Method: **SW8260**

<b>MBLK</b>		Sample ID: <b>VBLKW1-130627-R122877A</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/27/2013 01:18 PM</b>		
Client ID:		Run ID: <b>VMS8_130627A</b>				SeqNo: <b>2363810</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	19.9	0	20	0	99.5	70-120	0			
Surr: 4-Bromofluorobenzene	18.57	0	20	0	92.8	75-120	0			
Surr: Dibromofluoromethane	20.91	0	20	0	105	85-115	0			
Surr: Toluene-d8	19.65	0	20	0	98.2	85-120	0			

<b>LCS</b>		Sample ID: <b>VLCSW1-130627-R122877A</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/27/2013 11:59 AM</b>		
Client ID:		Run ID: <b>VMS8_130627A</b>				SeqNo: <b>2363809</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.94	1.0	20	0	99.7	80-120	0			
Ethylbenzene	20.22	1.0	20	0	101	75-125	0			
m,p-Xylene	39.97	2.0	40	0	99.9	75-130	0			
o-Xylene	20.02	1.0	20	0	100	80-120	0			
Toluene	19.57	1.0	20	0	97.8	75-120	0			
Xylenes, Total	59.99	3.0	60	0	100	75-130	0			
Surr: 1,2-Dichloroethane-d4	19.94	0	20	0	99.7	70-120	0			
Surr: 4-Bromofluorobenzene	19.28	0	20	0	96.4	75-120	0			
Surr: Dibromofluoromethane	21.08	0	20	0	105	85-115	0			
Surr: Toluene-d8	19.94	0	20	0	99.7	85-120	0			

<b>MS</b>		Sample ID: <b>13061024-01A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/27/2013 09:23 PM</b>		
Client ID:		Run ID: <b>VMS8_130627A</b>				SeqNo: <b>2363840</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.86	1.0	20	0	99.3	80-120	0			
Ethylbenzene	19.74	1.0	20	0	98.7	75-125	0			
m,p-Xylene	39.15	2.0	40	0	97.9	75-130	0			
o-Xylene	19.2	1.0	20	0	96	80-120	0			
Toluene	19.51	1.0	20	0	97.6	75-120	0			
Xylenes, Total	58.35	3.0	60	0	97.2	75-130	0			
Surr: 1,2-Dichloroethane-d4	19.58	0	20	0	97.9	70-120	0			
Surr: 4-Bromofluorobenzene	18.87	0	20	0	94.4	75-120	0			
Surr: Dibromofluoromethane	20.94	0	20	0	105	85-115	0			
Surr: Toluene-d8	19.68	0	20	0	98.4	85-120	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

**Client:** HRL Compliance Solutions  
**Work Order:** 13061064  
**Project:** Source Gas Wolf Creek #12 13-113 6/26/13

## QC BATCH REPORT

Batch ID: **R122877A** Instrument ID **VMS8** Method: **SW8260**

MSD		Sample ID: <b>13061024-01A MSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/27/2013 09:47 PM</b>		
Client ID:		Run ID: <b>VMS8_130627A</b>				SeqNo: <b>2363841</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.15	1.0	20	0	101	80-120	19.86	1.45	30	
Ethylbenzene	19.89	1.0	20	0	99.4	75-125	19.74	0.757	30	
m,p-Xylene	39.13	2.0	40	0	97.8	75-130	39.15	0.0511	30	
o-Xylene	19.38	1.0	20	0	96.9	80-120	19.2	0.933	30	
Toluene	19.51	1.0	20	0	97.6	75-120	19.51	0	30	
Xylenes, Total	58.51	3.0	60	0	97.5	75-130	58.35	0.274	30	
Surr: 1,2-Dichloroethane-d4	19.9	0	20	0	99.5	70-120	19.58	1.62	30	
Surr: 4-Bromofluorobenzene	18.91	0	20	0	94.6	75-120	18.87	0.212	30	
Surr: Dibromofluoromethane	20.99	0	20	0	105	85-115	20.94	0.238	30	
Surr: Toluene-d8	19.72	0	20	0	98.6	85-120	19.68	0.203	30	

The following samples were analyzed in this batch:

13061064-01A	13061064-02A	13061064-03A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Report Page: 8 of 8



# ALS Laboratory Group

3352 128th Avenue Holland MI, 49424

PH: (616) 399-6070

## Chain-of-Custody

Form 202r8

WORKORDER #

13061064

PROJECT NAME		SAMPLER		DATE		PAGE	
Source Gas Wolf Creek #12		Mike Lobato		6/26/13		1 of 1	
PROJECT No.		SITE ID		TURNAROUND		DISPOSAL	
13-113				24 hr		By Lab or Return to Client	
COMPANY NAME		BILL TO COMPANY		BTX SW8015M			
HRL Compliance Solutions, Inc.		HRL Compliance Solutions, Inc.		DRO SW8015M			
SEND REPORT TO		INVOICE ATTN TO		GRO SW8015			
Herman Lucero, Mike Lobato		Herman Lucero		Glycols SW8015			
ADDRESS		ADDRESS		Methanol SW8015M			
2385 F <sup>1</sup> / <sub>2</sub> Rd		2385 F <sup>1</sup> / <sub>2</sub> Rd.					
CITY / STATE / ZIP		CITY / STATE / ZIP					
Grand Junction, CO 81505		Grand Junction, CO 81505					
PHONE		PHONE					
970-243-3271		970-243-3271					
FAX		FAX					
970-243-3280		970-243-3280					
E-MAIL		E-MAIL					
hlucero@hrlcomp.com mlobato@hrlcomp.com		hlucero@hrlcomp.com					
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC
1	BH21/PZ21 <sup>08</sup>	W	6/26/13	1152	8	1,8	X X X X X
2	BH22/PZ22 <sup>09</sup>	W	6/26/13	1226	4	1,8	X X X X X
3	Trip Blank	W	6/26/13	1152	1	8	X X X
4	Temperature Blank	W	6/26/13	1152	1	8	

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)
BH22/PZ22 only has 4 total Vials (2 clear HCL and 2 amb). Priority order of tests: BTX, TPH, Glycols, Methanol.  3.0°C	<input checked="" type="checkbox"/> LEVEL II (Standard QC) <input type="checkbox"/> LEVEL III (Std QC + forms) <input type="checkbox"/> LEVEL IV (Std QC + forms + raw data)
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035	

SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Mike Lobato	6/26/13	1700
RECEIVED BY	Diane F. Shaw	6/27/13	0930
RELINQUISHED BY			
RECEIVED BY			
RELINQUISHED BY			
RECEIVED BY			

SOILS	
WOLF CREEK #12	WOLF CREEK #12
OLD	AMMENDED
BH1/PZ1 2'24'	BH01/PZ01 2'-4'
BH1/PZ1 4'26'	BH01/PZ01 4'-6'
BH2/PZ2 0'22'	BH02/PZ02 0'-2'
BH2/PZ2 6'28'	BH02/PZ02 6'-8'
BH3 4'26'	BH03 4'-6'
BH3 10'212'	BH03 10'-12'
BH4 0'22'	BH04 0'22'
BH4 10'212'	BH04 10'212'
BH5 8'212'	BH05 8'212'
BH5 10'212'	BH05 10'212'
BH6/PZ6 2'-4'	BH06/PZ03 2'-4'
BH6/PZ6 4'26'	BH06/PZ03 4'26'
BH7 6'28'	BH07 6'-8'
BH7 10'212'	BH07 10'-12'
BH8 8'210'	BH08 8'-10'
BH8 10'212'	BH08 10'-12'
BH9 0'22'	BH09 0'-2'
BH9 10'212'	BH09 10'-12'
BH10/PZ10 0'22'	BH10/PZ04 0'-2'
BH10/PZ10 2'24'	BH10/PZ04 2'-4'
BH11/PZ11 4'26'	BH11/PZ05 4'-6'
BH11/PZ11 6'28'	BH11/PZ05 6'-8'
BH12/PZ12 2'24'	BH12/PZ06 2'-4'
BH12/PZ12 4'26'	BH12/PZ06 4'-6'
BH13 4'26"	BH13 4'-6'
BH13 6'28'	BH13 6'28'
BH14 0'22'	BH14 0'22'
BH14 10'212'	BH14 10'212'
BH15 8-10'	BH15 8'-10'
BH16 8.5-9.5'	BH16 8.5'-9.5'
BH16A 2-3'	BH16A 2'-3'
BH17 8-10'	BH17 8'-10'
BH18 8-10'	BH18 8'-10'
BH20/PZ20 2-4'	BH20/PZ07 2'-4'
BH21/PZ21 6-8'	BH21/PZ08 6'-8'
BH22/PZ22 4-6'	BH22/PZ09 4'-6'
BH22/PZ22 6-8'	BH22/PZ09 6'-8'
BH23 6-8'	BH23 6'-8'
BH23 10-12'	BH23 10'-12'

WATER	
WOLF CREEK #12	WOLF CREEK #12
OLD	AMMENDED
BH1/PZ1	BH01/PZ01
BH2/PZ2	BH02/PZ02
BH6/PZ6	BH06/PZ03
BH10/PZ10	BH10/PZ04
BH11/PZ11	BH11/PZ05
BH12/PZ12	BH12/PZ06
<del>BH20/PZ20</del>	<del>BH20/PZ07</del>
BH21/PZ21	BH21/PZ08
BH22/PZ22	BH22/PZ09

1306369  
1306971

13061064

# 1306367

13061065

W0# 13061057



SOILS	
WOLF CREEK #5	WOLF CREEK #5
OLD	AMMENDED
Piez01/SS01	Piez01/SS01
Piez01/SS01 Duplicate	Piez01/SS01 Duplicate
SS02	SS02
Piez03/SS03	Piez02/SS03
Piez04/SS04	SS04
Piez05/SS05	Piez03/SS05
Piez06/SS06	SS06

} 1307003 ✓

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 27-Jun-13 09:30

Work Order: 13061064

Received by: DS

Checklist completed by Diane Shaw 27-Jun-13  
eSignature Date

Reviewed by: Bill Carey 27-Jun-13  
eSignature Date

Matrices: Water

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.0 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>6/27/2013 10:29:44 AM</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	-		
Login Notes:			

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

Revision: 1

# CUSTODY SEAL



ENVIRONMENTAL SAMPLING SUPPLY

9601 San Leandro St. Oakland, CA 800-233-8425

Date: 6/26/13

Signature: *Mike J. Lente*

# FedEx Express US Airbill

FedEx Tracking Number

8722 9438 1241

0200 Form 10 No.

FedEx Retrieval Copy

1 From  
Date 6/26/13 Sender's FedEx Account Number  
Sender's Name Mike Lobato Phone 970 361 2216

Company HRL Compliance Solutions, Inc.  
Address 2385 F<sup>1</sup>/<sub>2</sub> Road  
City Grand Junction State CO ZIP 81505

## 2 Your Internal Billing Reference

3 To Recipient's Name Sample Receiving Phone 616 399 6070

Company ALS Laboratory  
Address 3352 128<sup>th</sup> Ave  
We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address Holland State MI ZIP 49424  
Use this line for the HOLD location address or for continuation of your shipping address.

01 ☐ HOLD Weekday  
FedEx location address  
REQUIRED. NOT available for  
FedEx First Overnight.  
031 ☐ HOLD Saturday  
FedEx location address  
REQUIRED. Available ONLY for  
FedEx Priority Overnight and  
FedEx 2Day to select locations.

4a Express Package Service \* To most locations. Packages up to 150 lbs.  
01 ☒ FedEx Priority Overnight Next business morning. \* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
05 ☐ FedEx Standard Overnight Next business afternoon. \* Saturday Delivery NOT available.  
06 ☐ FedEx First Overnight Earliest next business morning delivery to select locations.  
03 ☐ FedEx 2Day Second business day. \* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
20 ☐ FedEx Express Saver Third business day. \* Saturday Delivery NOT available.

4b Express Freight Service \*\* To most locations. Packages over 150 lbs.  
70 ☐ FedEx 10day Freight Next business day. \*\* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. FedEx 10day Freight Booking No.  
80 ☐ FedEx 2day Freight Second business day. \*\* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
83 ☐ FedEx 3day Freight Third business day. \* Saturday Delivery NOT available.

5 Packaging \* Declared value limit \$500.  
06 ☐ FedEx Envelope 02 ☐ FedEx Pak\* Includes FedEx Small Pak and FedEx Large Pak. 03 ☐ FedEx Box 04 ☐ FedEx Tube 01 ☒ Other

## 6 Special Handling and Delivery Signature Options

03 ☐ SATURDAY DELIVERY  
No Signature Required Package may be left without obtaining a signature for delivery.  
10 ☐ Direct Signature Someone at recipient's address may sign for delivery. Fee applies.  
34 ☐ Indirect Signature If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.  
Does this shipment contain dangerous goods? One box must be checked.  
No ☒ Yes ☐ Yes As per attached Shipper's Declaration. Yes Shipper's Declaration not required.  
06 ☐ Dry Ice Dry ice, 9, UN 1845 kg  
Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.  
☐ Cargo Aircraft Only

7 Payment Bill to:  
Sender Acct. No. in Section 1 will be billed. 2 ☒ Recipient 3 ☐ Third Party 4 ☐ Credit Card 5 ☐ Cash/Check  
Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No. ☐  
Total Packages Total Weight lbs. Credit Card Auth.

Your liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.

606

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fedex.com 1.800.GoFedEx 1.800.463.3339



8722 9438 1241



12-Jul-2013

Herman Lucero  
HRL Compliance Solutions  
2385 F 1/2 Road  
Grand Junction, CO 81505

Re: **Source Gas Wolf Creek #12 13-113 6/10/13**

Work Order: **1306369**

Dear Herman,

Revision: **1**

ALS Environmental received 6 samples on 11-Jun-2013 09:30 AM for the analyses presented in the following report.

This is a REVISED REPORT. The Case Narrative provides information discussing the reason for issuing a revised report. The total number of pages in this revision is 26.

If you have any questions regarding these test results, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: MN 532786

### Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

---

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13  
**Work Order:** 1306369

**Work Order Sample Summary**

---

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1306369-01	BH01/PZ01	Water		6/10/2013 12:15	6/11/2013 09:30	<input type="checkbox"/>
1306369-02	BH02/PZ02	Water		6/10/2013 12:57	6/11/2013 09:30	<input type="checkbox"/>
1306369-03	BH06/PZ03	Water		6/10/2013 13:18	6/11/2013 09:30	<input type="checkbox"/>
1306369-04	BH10/PZ04	Water		6/10/2013 13:25	6/11/2013 09:30	<input type="checkbox"/>
1306369-05	BH11/PZ05	Water		6/10/2013 13:45	6/11/2013 09:30	<input type="checkbox"/>
1306369-06	BH12/PZ06	Water		6/10/2013 14:05	6/11/2013 09:30	<input type="checkbox"/>

---

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13  
**Work Order:** 1306369

---

**Case Narrative**

At the request of the client, the sample IDs were changed in this revised report. No results were changed.

Batch R122122 sample BH10/PZ04 MSD recovery for GRO was slightly below control limits. Both the MS recovery and RPD met quality control criteria. No data requires qualification.

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13  
**WorkOrder:** 1306369

**QUALIFIERS,  
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter



# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13  
**Sample ID:** BH01/PZ01  
**Collection Date:** 6/10/2013 12:15 PM

**Work Order:** 1306369  
**Lab ID:** 1306369-01  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>			<b>SW8015M</b>		Prep Date: <b>6/11/2013</b>	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>17</b>		<b>0.35</b>	<b>mg/L</b>	<b>1</b>	6/11/2013 08:03 PM
Surr: 4-Terphenyl-d14	30.7		21-90	%REC	1	6/11/2013 08:03 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>			<b>SW8015M</b>			Analyst: <b>JD</b>
<b>Ethylene glycol</b>	<b>350</b>		<b>5.0</b>	<b>mg/L</b>	<b>1</b>	6/13/2013 05:05 PM
<b>Methanol</b>	<b>20</b>		<b>5.0</b>	<b>mg/L</b>	<b>1</b>	6/14/2013 02:02 PM
Propylene glycol	ND		5.0	mg/L	1	6/13/2013 05:05 PM
<b>Triethylene glycol</b>	<b>13,000</b>		<b>250</b>	<b>mg/L</b>	<b>50</b>	6/14/2013 12:31 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>			<b>SW8015</b>			Analyst: <b>RD</b>
<b>GRO (C6-C10)</b>	<b>5.2</b>		<b>0.20</b>	<b>mg/L</b>	<b>1</b>	6/12/2013 03:09 PM
Surr: Toluene-d8	106		70-130	%REC	1	6/12/2013 03:09 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>RS</b>
<b>Benzene</b>	<b>5.9</b>		<b>5.0</b>	<b>µg/L</b>	<b>5</b>	6/14/2013 06:41 AM
Ethylbenzene	ND		5.0	µg/L	5	6/14/2013 06:41 AM
m,p-Xylene	ND		10	µg/L	5	6/14/2013 06:41 AM
o-Xylene	ND		5.0	µg/L	5	6/14/2013 06:41 AM
Toluene	ND		5.0	µg/L	5	6/14/2013 06:41 AM
Xylenes, Total	ND		15	µg/L	5	6/14/2013 06:41 AM
Surr: 1,2-Dichloroethane-d4	110		70-120	%REC	5	6/14/2013 06:41 AM
Surr: 4-Bromofluorobenzene	96.3		75-120	%REC	5	6/14/2013 06:41 AM
Surr: Dibromofluoromethane	97.8		85-115	%REC	5	6/14/2013 06:41 AM
Surr: Toluene-d8	103		85-120	%REC	5	6/14/2013 06:41 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**Revision: 1**

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13  
**Sample ID:** BH02/PZ02  
**Collection Date:** 6/10/2013 12:57 PM

**Work Order:** 1306369  
**Lab ID:** 1306369-02  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/14/2013</b>	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>74</b>		<b>1.2</b>	<b>mg/L</b>	<b>1</b>	6/14/2013 07:19 PM
Surr: 4-Terphenyl-d14	64.3		21-90	%REC	1	6/14/2013 07:19 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
<b>Ethylene glycol</b>	<b>1,800</b>		<b>50</b>	<b>mg/L</b>	<b>10</b>	6/14/2013 12:42 PM
<b>Methanol</b>	<b>3,400</b>		<b>25</b>	<b>mg/L</b>	<b>5</b>	6/17/2013 10:31 AM
Propylene glycol	ND		5.0	mg/L	1	6/13/2013 05:16 PM
<b>Triethylene glycol</b>	<b>7,900</b>		<b>50</b>	<b>mg/L</b>	<b>10</b>	6/14/2013 12:42 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
<b>GRO (C6-C10)</b>	<b>41</b>		<b>0.20</b>	<b>mg/L</b>	<b>1</b>	6/12/2013 03:34 PM
Surr: Toluene-d8	111		70-130	%REC	1	6/12/2013 03:34 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260</b>			Analyst: <b>RS</b>
<b>Benzene</b>	<b>22</b>		<b>15</b>	<b>µg/L</b>	<b>25</b>	6/14/2013 07:02 AM
<b>Ethylbenzene</b>	<b>18</b>		<b>15</b>	<b>µg/L</b>	<b>25</b>	6/14/2013 07:02 AM
<b>m,p-Xylene</b>	<b>67</b>		<b>50</b>	<b>µg/L</b>	<b>25</b>	6/14/2013 07:02 AM
<b>o-Xylene</b>	<b>36</b>		<b>25</b>	<b>µg/L</b>	<b>25</b>	6/14/2013 07:02 AM
<b>Toluene</b>	<b>58</b>		<b>25</b>	<b>µg/L</b>	<b>25</b>	6/14/2013 07:02 AM
<b>Xylenes, Total</b>	<b>100</b>		<b>75</b>	<b>µg/L</b>	<b>25</b>	6/14/2013 07:02 AM
Surr: 1,2-Dichloroethane-d4	107		70-120	%REC	25	6/14/2013 07:02 AM
Surr: 4-Bromofluorobenzene	100		75-120	%REC	25	6/14/2013 07:02 AM
Surr: Dibromofluoromethane	102		85-115	%REC	25	6/14/2013 07:02 AM
Surr: Toluene-d8	96.3		85-120	%REC	25	6/14/2013 07:02 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13  
**Sample ID:** BH06/PZ03  
**Collection Date:** 6/10/2013 01:18 PM

**Work Order:** 1306369  
**Lab ID:** 1306369-03  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/11/2013</b>	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>2.5</b>		<b>0.10</b>	<b>mg/L</b>	1	6/11/2013 08:33 PM
Surr: 4-Terphenyl-d14	65.7		21-90	%REC	1	6/11/2013 08:33 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
<b>Ethylene glycol</b>	<b>490</b>		<b>5.0</b>	<b>mg/L</b>	1	6/13/2013 05:27 PM
<b>Methanol</b>	<b>15</b>		<b>5.0</b>	<b>mg/L</b>	1	6/14/2013 03:00 PM
Propylene glycol	ND		5.0	mg/L	1	6/13/2013 05:27 PM
Triethylene glycol	ND		5.0	mg/L	1	6/13/2013 05:27 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
<b>GRO (C6-C10)</b>	<b>0.83</b>		<b>0.20</b>	<b>mg/L</b>	1	6/15/2013 01:41 AM
Surr: Toluene-d8	102		70-130	%REC	1	6/15/2013 01:41 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260</b>			Analyst: <b>RS</b>
<b>Benzene</b>	<b>10</b>		<b>1.0</b>	<b>µg/L</b>	1	6/14/2013 07:24 AM
Ethylbenzene	ND		1.0	µg/L	1	6/14/2013 07:24 AM
<b>m,p-Xylene</b>	<b>4.7</b>		<b>2.0</b>	<b>µg/L</b>	1	6/14/2013 07:24 AM
<b>o-Xylene</b>	<b>1.5</b>		<b>1.0</b>	<b>µg/L</b>	1	6/14/2013 07:24 AM
<b>Toluene</b>	<b>16</b>		<b>1.0</b>	<b>µg/L</b>	1	6/14/2013 07:24 AM
<b>Xylenes, Total</b>	<b>6.3</b>		<b>3.0</b>	<b>µg/L</b>	1	6/14/2013 07:24 AM
Surr: 1,2-Dichloroethane-d4	108		70-120	%REC	1	6/14/2013 07:24 AM
Surr: 4-Bromofluorobenzene	97.8		75-120	%REC	1	6/14/2013 07:24 AM
Surr: Dibromofluoromethane	98.8		85-115	%REC	1	6/14/2013 07:24 AM
Surr: Toluene-d8	94.8		85-120	%REC	1	6/14/2013 07:24 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**Revision: 1**

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13  
**Sample ID:** BH10/PZ04  
**Collection Date:** 6/10/2013 01:25 PM

**Work Order:** 1306369  
**Lab ID:** 1306369-04  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/11/2013</b>	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>1.5</b>		<b>0.10</b>	<b>mg/L</b>	<b>1</b>	6/11/2013 09:03 PM
Surr: 4-Terphenyl-d14	58.9		21-90	%REC	1	6/11/2013 09:03 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		5.0	mg/L	1	6/13/2013 05:38 PM
Methanol	ND		5.0	mg/L	1	6/14/2013 03:28 PM
Propylene glycol	ND		5.0	mg/L	1	6/13/2013 05:38 PM
Triethylene glycol	ND		5.0	mg/L	1	6/13/2013 05:38 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
<b>GRO (C6-C10)</b>	<b>0.21</b>		<b>0.20</b>	<b>mg/L</b>	<b>1</b>	6/15/2013 02:06 AM
Surr: Toluene-d8	110		70-130	%REC	1	6/15/2013 02:06 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260</b>			Analyst: <b>RS</b>
Benzene	ND		1.0	µg/L	1	6/14/2013 07:46 AM
Ethylbenzene	ND		1.0	µg/L	1	6/14/2013 07:46 AM
m,p-Xylene	ND		2.0	µg/L	1	6/14/2013 07:46 AM
o-Xylene	ND		1.0	µg/L	1	6/14/2013 07:46 AM
<b>Toluene</b>	<b>1.7</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	6/14/2013 07:46 AM
Xylenes, Total	ND		3.0	µg/L	1	6/14/2013 07:46 AM
Surr: 1,2-Dichloroethane-d4	105		70-120	%REC	1	6/14/2013 07:46 AM
Surr: 4-Bromofluorobenzene	95.1		75-120	%REC	1	6/14/2013 07:46 AM
Surr: Dibromofluoromethane	103		85-115	%REC	1	6/14/2013 07:46 AM
Surr: Toluene-d8	93.0		85-120	%REC	1	6/14/2013 07:46 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13  
**Sample ID:** BH11/PZ05  
**Collection Date:** 6/10/2013 01:45 PM

**Work Order:** 1306369  
**Lab ID:** 1306369-05  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/14/2013</b>	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>37</b>		<b>1.2</b>	<b>mg/L</b>	<b>1</b>	6/14/2013 07:49 PM
Surr: 4-Terphenyl-d14	57.8		21-90	%REC	1	6/14/2013 07:49 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
<b>Ethylene glycol</b>	<b>1,900</b>		<b>100</b>	<b>mg/L</b>	<b>20</b>	6/14/2013 12:53 PM
<b>Methanol</b>	<b>2,000</b>		<b>25</b>	<b>mg/L</b>	<b>5</b>	6/17/2013 10:59 AM
Propylene glycol	ND		5.0	mg/L	1	6/13/2013 05:49 PM
<b>Triethylene glycol</b>	<b>7,600</b>		<b>100</b>	<b>mg/L</b>	<b>20</b>	6/14/2013 12:53 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
<b>GRO (C6-C10)</b>	<b>18</b>		<b>0.20</b>	<b>mg/L</b>	<b>1</b>	6/12/2013 04:48 PM
Surr: Toluene-d8	110		70-130	%REC	1	6/12/2013 04:48 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260</b>			Analyst: <b>RS</b>
<b>Benzene</b>	<b>12</b>		<b>12</b>	<b>µg/L</b>	<b>20</b>	6/14/2013 08:07 AM
Ethylbenzene	ND		20	µg/L	20	6/14/2013 08:07 AM
<b>m,p-Xylene</b>	<b>17</b>		<b>12</b>	<b>µg/L</b>	<b>20</b>	6/14/2013 08:07 AM
o-Xylene	ND		20	µg/L	20	6/14/2013 08:07 AM
<b>Toluene</b>	<b>17</b>		<b>12</b>	<b>µg/L</b>	<b>20</b>	6/14/2013 08:07 AM
<b>Xylenes, Total</b>	<b>17</b>		<b>12</b>	<b>µg/L</b>	<b>20</b>	6/14/2013 08:07 AM
Surr: 1,2-Dichloroethane-d4	120		70-120	%REC	20	6/14/2013 08:07 AM
Surr: 4-Bromofluorobenzene	101		75-120	%REC	20	6/14/2013 08:07 AM
Surr: Dibromofluoromethane	110		85-115	%REC	20	6/14/2013 08:07 AM
Surr: Toluene-d8	96.8		85-120	%REC	20	6/14/2013 08:07 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**Revision: 1**

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13  
**Sample ID:** BH12/PZ06  
**Collection Date:** 6/10/2013 02:05 PM

**Work Order:** 1306369  
**Lab ID:** 1306369-06  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/11/2013</b>	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>3.3</b>		<b>0.10</b>	<b>mg/L</b>	1	6/11/2013 09:34 PM
Surr: 4-Terphenyl-d14	52.9		21-90	%REC	1	6/11/2013 09:34 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
<b>Ethylene glycol</b>	<b>260</b>		<b>5.0</b>	<b>mg/L</b>	1	6/13/2013 06:00 PM
<b>Methanol</b>	<b>5.3</b>		<b>5.0</b>	<b>mg/L</b>	1	6/14/2013 04:26 PM
Propylene glycol	ND		5.0	mg/L	1	6/13/2013 06:00 PM
<b>Triethylene glycol</b>	<b>420</b>		<b>5.0</b>	<b>mg/L</b>	1	6/13/2013 06:00 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
<b>GRO (C6-C10)</b>	<b>0.62</b>		<b>0.20</b>	<b>mg/L</b>	1	6/15/2013 02:30 AM
Surr: Toluene-d8	110		70-130	%REC	1	6/15/2013 02:30 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260</b>			Analyst: <b>BG</b>
<b>Benzene</b>	<b>3.0</b>		<b>1.0</b>	<b>µg/L</b>	1	6/14/2013 10:11 PM
Ethylbenzene	ND		1.0	µg/L	1	6/14/2013 10:11 PM
m,p-Xylene	ND		2.0	µg/L	1	6/14/2013 10:11 PM
o-Xylene	ND		1.0	µg/L	1	6/14/2013 10:11 PM
<b>Toluene</b>	<b>1.6</b>		<b>1.0</b>	<b>µg/L</b>	1	6/14/2013 10:11 PM
Xylenes, Total	ND		3.0	µg/L	1	6/14/2013 10:11 PM
Surr: 1,2-Dichloroethane-d4	97.2		70-120	%REC	1	6/14/2013 10:11 PM
Surr: 4-Bromofluorobenzene	100		75-120	%REC	1	6/14/2013 10:11 PM
Surr: Dibromofluoromethane	99.1		85-115	%REC	1	6/14/2013 10:11 PM
Surr: Toluene-d8	96.3		85-120	%REC	1	6/14/2013 10:11 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions

## QC BATCH REPORT

**Work Order:** 1306369

**Project:** Source Gas Wolf Creek #12 13-113 6/10/13

Batch ID: **48981B**

Instrument ID **GC8**

Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKW1-48981-48981B</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/11/2013 05:32 PM</b>		
Client ID:		Run ID: <b>GC8_130611B</b>				SeqNo: <b>2347457</b>		Prep Date: <b>6/11/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	0.10								
<i>Surr: 4-Terphenyl-d14</i>	<i>0.07886</i>	<i>0</i>	<i>0.1143</i>	<i>0</i>	<i>69</i>	<i>21-90</i>	<i>0</i>			

<b>LCS</b>		Sample ID: <b>DLCSW1-48981-48981B</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/11/2013 06:02 PM</b>		
Client ID:		Run ID: <b>GC8_130611B</b>				SeqNo: <b>2347458</b>		Prep Date: <b>6/11/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	7.196	0.10	11.43	0	63	44-116	0			
<i>Surr: 4-Terphenyl-d14</i>	<i>0.08546</i>	<i>0</i>	<i>0.1143</i>	<i>0</i>	<i>74.8</i>	<i>21-90</i>	<i>0</i>			

<b>MS</b>		Sample ID: <b>1306341-02B MS</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/11/2013 06:32 PM</b>		
Client ID:		Run ID: <b>GC8_130611B</b>				SeqNo: <b>2347459</b>		Prep Date: <b>6/11/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	32.03	0.35	40	8.294	59.3	44-116	0			
<i>Surr: 4-Terphenyl-d14</i>	<i>0.3062</i>	<i>0</i>	<i>0.4</i>	<i>0</i>	<i>76.5</i>	<i>21-90</i>	<i>0</i>			

<b>MSD</b>		Sample ID: <b>1306341-02B MSD</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/11/2013 07:03 PM</b>		
Client ID:		Run ID: <b>GC8_130611B</b>				SeqNo: <b>2347460</b>		Prep Date: <b>6/11/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	33.26	0.35	40	8.294	62.4	44-116	32.03	3.77	30	
<i>Surr: 4-Terphenyl-d14</i>	<i>0.3086</i>	<i>0</i>	<i>0.4</i>	<i>0</i>	<i>77.2</i>	<i>21-90</i>	<i>0.3062</i>	<i>0.807</i>	<i>30</i>	

The following samples were analyzed in this batch:

1306369-01B	1306369-03B	1306369-04B
1306369-06B		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 1 of 11

**Client:** HRL Compliance Solutions  
**Work Order:** 1306369  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13

## QC BATCH REPORT

Batch ID: **49075**      Instrument ID **GC8**      Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKW1-49075-49075</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/14/2013 04:48 PM</b>		
Client ID:		Run ID: <b>GC8_130614A</b>				SeqNo: <b>2351573</b>		Prep Date: <b>6/14/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	0.10								
<i>Surr: 4-Terphenyl-d14</i>	<i>0.06937</i>	<i>0</i>	<i>0.1143</i>	<i>0</i>	<i>60.7</i>	<i>21-90</i>	<i>0</i>			

<b>LCS</b>		Sample ID: <b>DLCSW1-49075-49075</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/14/2013 05:18 PM</b>		
Client ID:		Run ID: <b>GC8_130614A</b>				SeqNo: <b>2351574</b>		Prep Date: <b>6/14/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	6.169	0.10	11.43	0	54	44-116	0			
<i>Surr: 4-Terphenyl-d14</i>	<i>0.07703</i>	<i>0</i>	<i>0.1143</i>	<i>0</i>	<i>67.4</i>	<i>21-90</i>	<i>0</i>			

<b>MS</b>		Sample ID: <b>1306502-01B MS</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/14/2013 05:49 PM</b>		
Client ID:		Run ID: <b>GC8_130614A</b>				SeqNo: <b>2351575</b>		Prep Date: <b>6/14/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	21.55	0.35	40	0	53.9	44-116	0			
<i>Surr: 4-Terphenyl-d14</i>	<i>0.277</i>	<i>0</i>	<i>0.4</i>	<i>0</i>	<i>69.2</i>	<i>21-90</i>	<i>0</i>			

<b>MSD</b>		Sample ID: <b>1306502-01B MSD</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/14/2013 06:19 PM</b>		
Client ID:		Run ID: <b>GC8_130614A</b>				SeqNo: <b>2351576</b>		Prep Date: <b>6/14/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	19.74	0.35	40	0	49.3	44-116	21.55	8.77	30	
<i>Surr: 4-Terphenyl-d14</i>	<i>0.2726</i>	<i>0</i>	<i>0.4</i>	<i>0</i>	<i>68.2</i>	<i>21-90</i>	<i>0.277</i>	<i>1.57</i>	<i>30</i>	

The following samples were analyzed in this batch:

1306369-02B	1306369-05B
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**Client:** HRL Compliance Solutions  
**Work Order:** 1306369  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13

## QC BATCH REPORT

Batch ID: **R122322**      Instrument ID **GC5**      Method: **SW8015M**

<b>MBLK</b>	Sample ID: <b>MB-R122322-R122322</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/14/2013 12:37 PM</b>		
Client ID:	Run ID: <b>GC5_130614B</b>				SeqNo: <b>2351452</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      ND      5.0

<b>LCS</b>	Sample ID: <b>LCS-R122322-R122322</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/14/2013 01:05 PM</b>		
Client ID:	Run ID: <b>GC5_130614B</b>				SeqNo: <b>2351453</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      482.4      5.0      500      0      96.5      50-150      0

<b>MS</b>	Sample ID: <b>1306500-08B MS</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/14/2013 07:45 PM</b>		
Client ID:	Run ID: <b>GC5_130614B</b>				SeqNo: <b>2351466</b>		Prep Date:		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      957.3      10      1000      0      95.7      50-150      0

<b>MSD</b>	Sample ID: <b>1306500-08B MSD</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/14/2013 08:14 PM</b>		
Client ID:	Run ID: <b>GC5_130614B</b>				SeqNo: <b>2351467</b>		Prep Date:		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      958.6      10      1000      0      95.9      50-150      957.3      0.14      30

The following samples were analyzed in this batch:

1306369-01C	1306369-02C	1306369-03C
1306369-04C	1306369-05C	1306369-06C

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

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**Client:** HRL Compliance Solutions  
**Work Order:** 1306369  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13

## QC BATCH REPORT

Batch ID: **R122327**      Instrument ID **GC11**      Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>MB-R122327-R122327</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/13/2013 04:09 PM</b>		
Client ID:		Run ID: <b>GC11_130613B</b>				SeqNo: <b>2351553</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	ND	5.0								
Propylene glycol	ND	10								
Triethylene glycol	ND	5.0								

<b>LCS</b>		Sample ID: <b>LCS-R122327-R122327</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/13/2013 06:12 PM</b>		
Client ID:		Run ID: <b>GC11_130613B</b>				SeqNo: <b>2351554</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	395.2	5.0	500	0	79	50-150	0			
Propylene glycol	451.3	10	500	0	90.3	50-150	0			
Triethylene glycol	479	5.0	500	0	95.8	50-150	0			

<b>MS</b>		Sample ID: <b>1306034-06C MS</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/13/2013 04:42 PM</b>		
Client ID:		Run ID: <b>GC11_130613B</b>				SeqNo: <b>2351557</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	458.5	10	500	0	91.7	50-150	0			
Propylene glycol	448	20	500	0	89.6	50-150	0			
Triethylene glycol	455	10	500	0	91	50-150	0			

<b>MSD</b>		Sample ID: <b>1306034-06C MSD</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/13/2013 04:54 PM</b>		
Client ID:		Run ID: <b>GC11_130613B</b>				SeqNo: <b>2351558</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	453.1	10	500	0	90.6	50-150	458.5	1.19	30	
Propylene glycol	442.4	20	500	0	88.5	50-150	448	1.26	30	
Triethylene glycol	451.8	10	500	0	90.4	50-150	455	0.702	30	

The following samples were analyzed in this batch:

1306369-01B	1306369-02B	1306369-03B
1306369-04B	1306369-05B	1306369-06B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 4 of 11

**Client:** HRL Compliance Solutions  
**Work Order:** 1306369  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13

## QC BATCH REPORT

Batch ID: **R122334**      Instrument ID **GC11**      Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>MB-R122334-R122334</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 01:16 PM</b>		
Client ID:		Run ID: <b>GC11_130614A</b>				SeqNo: <b>2351720</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	ND	5.0								
Triethylene glycol	ND	5.0								

<b>LCS</b>		Sample ID: <b>LCS-R122334-R122334</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 02:11 PM</b>		
Client ID:		Run ID: <b>GC11_130614A</b>				SeqNo: <b>2351721</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	528.3	5.0	500	0	106	50-150	0			
Triethylene glycol	526	5.0	500	0	105		0			

<b>MS</b>		Sample ID: <b>1306367-02A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 01:49 PM</b>		
Client ID:		Run ID: <b>GC11_130614A</b>				SeqNo: <b>2351724</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	516.1	10	500	95.13	84.2	50-150	0			
Triethylene glycol	2086	10	500	1623	92.7	50-150	0			

<b>MSD</b>		Sample ID: <b>1306367-02A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2013 02:00 PM</b>		
Client ID:		Run ID: <b>GC11_130614A</b>				SeqNo: <b>2351725</b>		Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylene glycol	535.7	10	500	95.13	88.1	50-150	516.1	3.74	30	
Triethylene glycol	2138	10	500	1623	103	50-150	2086	2.45	30	

The following samples were analyzed in this batch:

1306369-01B	1306369-02B	1306369-05B
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**Client:** HRL Compliance Solutions  
**Work Order:** 1306369  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13

## QC BATCH REPORT

Batch ID: **R122122**      Instrument ID **GC10**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>GBLK1-130612-R122122</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/12/2013 01:30 PM</b>		
Client ID:		Run ID: <b>GC10_130612A</b>				SeqNo: <b>2347565</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
<i>Surr: Toluene-d8</i>	<i>109</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>109</i>	<i>70-130</i>	<i>0</i>			

<b>LCS</b>		Sample ID: <b>GLCS1-130612-R122122</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/12/2013 01:05 PM</b>		
Client ID:		Run ID: <b>GC10_130612A</b>				SeqNo: <b>2347564</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	7570	200	10000	0	75.7	70-130	0			
<i>Surr: Toluene-d8</i>	<i>110.7</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>111</i>	<i>70-130</i>	<i>0</i>			

<b>MS</b>		Sample ID: <b>1306369-04A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/12/2013 10:12 PM</b>		
Client ID: <b>BH10/PZ04</b>		Run ID: <b>GC10_130612A</b>				SeqNo: <b>2347899</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	7544	200	10000	255.1	72.9	70-130	0			
<i>Surr: Toluene-d8</i>	<i>109.2</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>109</i>	<i>70-130</i>	<i>0</i>			

<b>MSD</b>		Sample ID: <b>1306369-04A MSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/12/2013 10:37 PM</b>		
Client ID: <b>BH10/PZ04</b>		Run ID: <b>GC10_130612A</b>				SeqNo: <b>2347900</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	7247	200	10000	255.1	69.9	70-130	7544	4.02	30	S
<i>Surr: Toluene-d8</i>	<i>108.6</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>109</i>	<i>70-130</i>	<i>109.2</i>	<i>0.578</i>	<i>30</i>	

The following samples were analyzed in this batch:

1306369-01A	1306369-02A	1306369-03A
1306369-04A	1306369-05A	1306369-06A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 6 of 11

**Client:** HRL Compliance Solutions  
**Work Order:** 1306369  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13

## QC BATCH REPORT

Batch ID: **R122287**      Instrument ID **GC10**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>GBLK2-130614-R122287</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/14/2013 08:45 PM</b>		
Client ID:		Run ID: <b>GC10_130614B</b>				SeqNo: <b>2350819</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
Surr: Toluene-d8	105.7	0	100	0	106	70-130	0			

<b>LCS</b>		Sample ID: <b>GLCS2-130614-R122287</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/14/2013 08:21 PM</b>		
Client ID:		Run ID: <b>GC10_130614B</b>				SeqNo: <b>2350817</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	8842	200	10000	0	88.4	70-130	0			
Surr: Toluene-d8	112.7	0	100	0	113	70-130	0			

<b>MS</b>		Sample ID: <b>1306499-04A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/15/2013 04:09 AM</b>		
Client ID:		Run ID: <b>GC10_130614B</b>				SeqNo: <b>2350839</b>		Prep Date:		DF: <b>50</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	458700	2,500	500000	0	91.7	70-130	0			
Surr: Toluene-d8	5491	0	5000	0	110	50-150	0			

<b>MSD</b>		Sample ID: <b>1306499-04A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/15/2013 04:33 AM</b>		
Client ID:		Run ID: <b>GC10_130614B</b>				SeqNo: <b>2350841</b>		Prep Date:		DF: <b>50</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	437300	2,500	500000	0	87.5	70-130	458700	4.78	30	
Surr: Toluene-d8	5425	0	5000	0	108	50-150	5491	1.21	30	

The following samples were analyzed in this batch:

1306369-03A	1306369-04A	1306369-06A
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**Client:** HRL Compliance Solutions  
**Work Order:** 1306369  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13

## QC BATCH REPORT

Batch ID: **R122203**      Instrument ID **VMS9**      Method: **SW8260**

<b>MBLK</b>		Sample ID: <b>VBLKW1-130613-R122203</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/14/2013 01:15 AM</b>		
Client ID:		Run ID: <b>VMS9_130613A</b>				SeqNo: <b>2349522</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	20.84	0	20	0	104	70-120	0			
Surr: 4-Bromofluorobenzene	19.45	0	20	0	97.2	75-120	0			
Surr: Dibromofluoromethane	19.93	0	20	0	99.6	85-115	0			
Surr: Toluene-d8	20.03	0	20	0	100	85-120	0			

<b>LCS</b>		Sample ID: <b>VLCSW1-130613-R122203</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/14/2013 12:32 PM</b>		
Client ID:		Run ID: <b>VMS9_130613A</b>				SeqNo: <b>2349545</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.8	1.0	20	0	99	80-120	0			
Ethylbenzene	20.68	1.0	20	0	103	75-125	0			
m,p-Xylene	41.74	2.0	40	0	104	75-130	0			
o-Xylene	21.15	1.0	20	0	106	80-120	0			
Toluene	19.92	1.0	20	0	99.6	75-120	0			
Xylenes, Total	62.89	3.0	60	0	105	75-130	0			
Surr: 1,2-Dichloroethane-d4	20.07	0	20	0	100	70-120	0			
Surr: 4-Bromofluorobenzene	20.42	0	20	0	102	75-120	0			
Surr: Dibromofluoromethane	20.4	0	20	0	102	85-115	0			
Surr: Toluene-d8	20	0	20	0	100	85-120	0			

<b>MS</b>		Sample ID: <b>1306453-09A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/14/2013 08:51 AM</b>		
Client ID:		Run ID: <b>VMS9_130613A</b>				SeqNo: <b>2349543</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	18.68	1.0	20	0	93.4	80-120	0			
Ethylbenzene	19.33	1.0	20	0	96.6	75-125	0			
m,p-Xylene	38.26	2.0	40	0	95.6	75-130	0			
o-Xylene	18.73	1.0	20	0	93.6	80-120	0			
Toluene	18.55	1.0	20	0	92.8	75-120	0			
Xylenes, Total	56.99	3.0	60	0	95	75-130	0			
Surr: 1,2-Dichloroethane-d4	20.76	0	20	0	104	70-120	0			
Surr: 4-Bromofluorobenzene	19.39	0	20	0	97	75-120	0			
Surr: Dibromofluoromethane	20.7	0	20	0	104	85-115	0			
Surr: Toluene-d8	18.57	0	20	0	92.8	85-120	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

**Client:** HRL Compliance Solutions  
**Work Order:** 1306369  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13

# QC BATCH REPORT

Batch ID: **R122203**      Instrument ID **VMS9**      Method: **SW8260**

<b>MSD</b>		Sample ID: <b>1306453-09A MSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/14/2013 09:13 AM</b>		
Client ID:		Run ID: <b>VMS9_130613A</b>				SeqNo: <b>2349544</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19	1.0	20	0	95	80-120	18.68	1.7	30	
Ethylbenzene	19.88	1.0	20	0	99.4	75-125	19.33	2.81	30	
m,p-Xylene	40.1	2.0	40	0	100	75-130	38.26	4.7	30	
o-Xylene	19.88	1.0	20	0	99.4	80-120	18.73	5.96	30	
Toluene	19.18	1.0	20	0	95.9	75-120	18.55	3.34	30	
Xylenes, Total	59.98	3.0	60	0	100	75-130	56.99	5.11	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>21.19</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>106</i>	<i>70-120</i>	<i>20.76</i>	<i>2.05</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>19.52</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>97.6</i>	<i>75-120</i>	<i>19.39</i>	<i>0.668</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>20.52</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>103</i>	<i>85-115</i>	<i>20.7</i>	<i>0.873</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>19.03</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>95.2</i>	<i>85-120</i>	<i>18.57</i>	<i>2.45</i>	<i>30</i>	

The following samples were analyzed in this batch:

1306369-01A	1306369-02A	1306369-03A
1306369-04A	1306369-05A	1306369-06A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

**Client:** HRL Compliance Solutions  
**Work Order:** 1306369  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13

## QC BATCH REPORT

Batch ID: **R122235**      Instrument ID **VMS6**      Method: **SW8260**

<b>MBLK</b>		Sample ID: <b>VBLKW1-130614-R122235</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/14/2013 02:54 PM</b>		
Client ID:		Run ID: <b>VMS6_130614A</b>				SeqNo: <b>2350161</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	19.93	0	20	0	99.6	70-120	0			
Surr: 4-Bromofluorobenzene	19.2	0	20	0	96	75-120	0			
Surr: Dibromofluoromethane	19.87	0	20	0	99.4	85-115	0			
Surr: Toluene-d8	19.15	0	20	0	95.8	85-120	0			

<b>LCS</b>		Sample ID: <b>VLCSW1-130614-R122235</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/14/2013 02:04 PM</b>		
Client ID:		Run ID: <b>VMS6_130614A</b>				SeqNo: <b>2350160</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.22	1.0	20	0	101	80-120	0			
Ethylbenzene	19.08	1.0	20	0	95.4	75-125	0			
m,p-Xylene	37.99	2.0	40	0	95	75-130	0			
o-Xylene	19.19	1.0	20	0	96	80-120	0			
Toluene	18.91	1.0	20	0	94.6	75-120	0			
Xylenes, Total	57.18	3.0	60	0	95.3	75-130	0			
Surr: 1,2-Dichloroethane-d4	19.05	0	20	0	95.2	70-120	0			
Surr: 4-Bromofluorobenzene	20.07	0	20	0	100	75-120	0			
Surr: Dibromofluoromethane	20.23	0	20	0	101	85-115	0			
Surr: Toluene-d8	19.39	0	20	0	97	85-120	0			

<b>MS</b>		Sample ID: <b>1306583-01A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/14/2013 11:48 PM</b>		
Client ID:		Run ID: <b>VMS6_130614A</b>				SeqNo: <b>2350920</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	23.77	1.0	20	2.01	109	80-120	0			
Ethylbenzene	20.58	1.0	20	0	103	75-125	0			
m,p-Xylene	40.81	2.0	40	0	102	75-130	0			
o-Xylene	20.44	1.0	20	0	102	80-120	0			
Toluene	20.17	1.0	20	0	101	75-120	0			
Xylenes, Total	61.25	3.0	60	0	102	75-130	0			
Surr: 1,2-Dichloroethane-d4	19.49	0	20	0	97.4	70-120	0			
Surr: 4-Bromofluorobenzene	21.04	0	20	0	105	75-120	0			
Surr: Dibromofluoromethane	20.2	0	20	0	101	85-115	0			
Surr: Toluene-d8	19.63	0	20	0	98.2	85-120	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**



**Client:** HRL Compliance Solutions  
**Work Order:** 1306369  
**Project:** Source Gas Wolf Creek #12 13-113 6/10/13

# QC BATCH REPORT

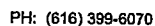
Batch ID: **R122235**      Instrument ID **VMS6**      Method: **SW8260**

<b>MSD</b>		Sample ID: <b>1306583-01A MSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/15/2013 12:13 PM</b>		
Client ID:		Run ID: <b>VMS6_130614A</b>				SeqNo: <b>2350921</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	22.66	1.0	20	2.01	103	80-120	23.77	4.78	30	
Ethylbenzene	19.82	1.0	20	0	99.1	75-125	20.58	3.76	30	
m,p-Xylene	39.17	2.0	40	0	97.9	75-130	40.81	4.1	30	
o-Xylene	19.49	1.0	20	0	97.4	80-120	20.44	4.76	30	
Toluene	19.12	1.0	20	0	95.6	75-120	20.17	5.34	30	
Xylenes, Total	58.66	3.0	60	0	97.8	75-130	61.25	4.32	30	
Surr: 1,2-Dichloroethane-d4	18.93	0	20	0	94.6	70-120	19.49	2.92	30	
Surr: 4-Bromofluorobenzene	20.48	0	20	0	102	75-120	21.04	2.7	30	
Surr: Dibromofluoromethane	20.63	0	20	0	103	85-115	20.2	2.11	30	
Surr: Toluene-d8	19.46	0	20	0	97.3	85-120	19.63	0.87	30	

The following samples were analyzed in this batch: 1306369-06A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**



**WORKORDER**  
#

1306369

Form 202r8

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

**For metals or anions, please detail analytes below.**

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Mike Lobato</i>	Mike Lobato	6/10/13	1800
RECEIVED BY	<i>Diane F. Shaw</i>	Diane F. Shaw	6/11/13	0930
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

SOILS	
WOLF CREEK #12	WOLF CREEK #12
OLD	AMMENDED
BH1/PZ1 2'04'	BH01/PZ01 2'-4'
BH1/PZ1 4'06'	BH01/PZ01 4'-6'
BH2/PZ2 0'02'	BH02/PZ02 0'-2'
BH2/PZ2 6'08'	BH02/PZ02 6'-8'
BH3 4'06'	BH03 4'-6'
BH3 10'012'	BH03 10'-12'
BH4 0'02'	BH04 0'02'
BH4 10'012'	BH04 10'012'
BH5 8'012'	BH05 8'012'
BH5 10'012'	BH05 10'012'
BH6/PZ6 2'-4'	BH06/PZ03 2'-4'
BH6/PZ6 4'06'	BH06/PZ03 4'06'
BH7 6'08'	BH07 6'-8'
BH7 10'012'	BH07 10'-12'
BH8 8'010'	BH08 8'-10'
BH8 10'012'	BH08 10'-12'
BH9 0'02'	BH09 0'-2'
BH9 10'012'	BH09 10'-12'
BH10/PZ10 0'02'	BH10/PZ04 0'-2'
BH10/PZ10 2'04'	BH10/PZ04 2'-4'
BH11/PZ11 4'06'	BH11/PZ05 4'-6'
BH11/PZ11 6'08'	BH11/PZ05 6'-8'
BH12/PZ12 2'04'	BH12/PZ06 2'-4'
BH12/PZ12 4'06'	BH12/PZ06 4'-6'
BH13 4'06''	BH13 4'-6'
BH13 6'08'	BH13 6'08'
BH14 0'02'	BH14 0'02'
BH14 10'012'	BH14 10'012'
BH15 8-10'	BH15 8'-10'
BH16 8.5-9.5'	BH16 8.5'-9.5'
BH16A 2-3'	BH16A 2'-3'
BH17 8-10'	BH17 8'-10'
BH18 8-10'	BH18 8'-10'
BH20/PZ20 2-4'	BH20/PZ07 2'-4'
BH21/PZ21 6-8'	BH21/PZ08 6'-8'
BH22/PZ22 4-6'	BH22/PZ09 4'-6'
BH22/PZ22 6-8'	BH22/PZ09 6'-8'
BH23 6-8'	BH23 6'-8'
BH23 10-12'	BH23 10'-12'

WATER	
WOLF CREEK #12	WOLF CREEK #12
OLD	AMMENDED
BH1/PZ1	BH01/PZ01
BH2/PZ2	BH02/PZ02
BH6/PZ6	BH06/PZ03
BH10/PZ10	BH10/PZ04
BH11/PZ11	BH11/PZ05
BH12/PZ12	BH12/PZ06
<del>BH20/PZ20</del>	<del>BH20/PZ07</del>
BH21/PZ21	BH21/PZ08
BH22/PZ22	BH22/PZ09

1306369  
1306971

13061064

1306367

13061065

W0# 13061057

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 11-Jun-13 09:30

Work Order: 1306369

Received by: DS

Checklist completed by Diane Shaw 11-Jun-13  
eSignature Date

Reviewed by: Ann Preston 13-Jun-13  
eSignature Date

Matrices: Water

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>5.2 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>6/11/2013 1:30:11 PM</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			
Login Notes:			

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

Revision: 1

ORIGIN ID: 6JTA (616) 399-6070  
ALS LABORATORY GROUP

3352 128TH AVE

HOLLAND, MI 494249263  
UNITED STATES US

SHIP DATE: 10JUN13  
ACTWGT: 38.9 LB  
CAD: /POS1400  
DIMS: 24x18x14 IN

BILL SENDER

TO **SAMPLE RECEIVING**  
**ALS ENVIRONMENTAL**  
**3352 128TH AVE**

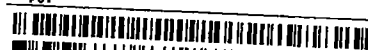
**HOLLAND MI 49424**

(616) 738-7318

REF:

DEPT:

PO:



**FedEx**  
Express



J13111302120126

1 of 2

TRK# 8722 9438 1150  
0200

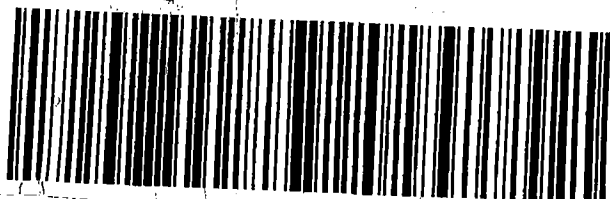
## MASTER ##

**XX GRRA**

**TUE - 11 JUN 10:30A**  
**PRIORITY OVERNIGHT**

**49424**

**MI-US GRR**



**ALS Environmental**

3352 128th Avenue  
Holland, Michigan 49424  
Tel. +1-616 399 6070  
Fax. +1 616 399 6185

**CUSTODY SEAL**

Date: 6/10/13 Time: 1746  
Name: Mike C  
Company: HRL Comp. Sol.

Seal Broken By:

Date:

# FedEx Express US Airbill

FedEx Tracking Number

8722 9438 1150

0200 Form 10 No.

FedEx Retrieval Copy

**1 From**  
 Date 6/10/13 Sender's FedEx Account Number  
 Sender's Name Mikel Lofato Phone 970 243 3271  
 Company HRL Compliance Solutions, Inc.  
 Address 2385 F 1/2 Road  
 City Grand Junction State CO ZIP 81505

## 2 Your Internal Billing Reference

**3 To**  
 Recipient's Name Sample Receiving Phone  
 Company ALS Env. Laboratory  
 Address 3352 128th Ave  
 We cannot deliver to P.O. boxes or P.O. ZIP codes.  
 Address  
 Use this line for the HOLD location address or for confirmation of your shipping address.  
 City Holland State MI ZIP 49424

**HOLD Weekday**  
 FedEx location address REQUIRED, NOT available for FedEx First Overnight.  
**HOLD Saturday**  
 FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

## 4a Express Package Service

☒ **FedEx Priority Overnight** \* To most locations. Packages up to 150 lbs.  
 Next business morning. \* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
☐ **FedEx Standard Overnight** \* To most locations. Packages up to 150 lbs.  
 Next business afternoon. \* Saturday Delivery NOT available.  
☐ **FedEx First Overnight** \* To most locations. Packages up to 150 lbs.  
 Earliest next business morning delivery to select locations.  
☐ **FedEx 2Day** \* To most locations. Packages up to 150 lbs.  
 Second business day. \* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
☐ **FedEx Express Saver** \* To most locations. Packages up to 150 lbs.  
 Third business day. \* Saturday Delivery NOT available.

## 4b Express Freight Service

☐ **FedEx 1Day Freight** \* To most locations. Packages over 150 lbs.  
 Next business day. \* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
☐ **FedEx 2Day Freight** \* To most locations. Packages over 150 lbs.  
 Second business day. \* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
☐ **FedEx 3Day Freight** \* To most locations. Packages over 150 lbs.  
 Third business day. \* Saturday Delivery NOT available.

## 5 Packaging

☐ **FedEx Envelope\*** \* Declared value limit \$500.  
☐ **FedEx Pak\*** Includes FedEx Small Pak and FedEx Large Pak.  
☐ **FedEx Box**  
☐ **FedEx Tube**  
☒ **Other**

## 6 Special Handling and Delivery Signature Options

### 03 SATURDAY DELIVERY

☒ **No Signature Required**  
 Packages may be left without obtaining a signature for delivery.  
☐ **Direct Signature**  
 Someone at recipient's address may sign for delivery. Fee applies.  
☐ **Indirect Signature**  
 If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.  
 Does this shipment contain dangerous goods?  
 One box must be checked.  
☒ **No**  
☐ **Yes** As per attached Shipper's Declaration. ☐ **Yes** Shipper's Declaration not required.  
 Dangerous goods (excluding dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.  
☐ **Dry Ice**  
 Dry Ice, 9, UN 1845 \_\_\_\_\_ kg  
☐ **Cargo Aircraft Only**

## 7 Payment Bill to:

**1** Sender Acct. No. in Section 1 will be billed. **2** Recipient **3** Third Party **4** Credit Card **5** Cash/Check  
 Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No. ☐  
 Total Packages 2 Total Weight: 10 lbs. Credit Card Auth. 606



8722 9438 1150

fedex.com 1800.GoFedEx 1800.463.3339

fedex.com 1800.GoFedEx 1800.463.3339



12-Jul-2013

Herman Lucero  
HRL Compliance Solutions  
2385 F 1/2 Road  
Grand Junction, CO 81505

Re: **Source Gas Wolf Creek #12 13-113 6/21/13**

Work Order: **1306971**

Dear Herman,

Revision: **1**

ALS Environmental received 7 samples on 25-Jun-2013 10:15 AM for the analyses presented in the following report.

This is a REVISED REPORT. The Case Narrative provides information discussing the reason for issuing a revised report. The total number of pages in this revision is 26.

If you have any questions regarding these test results, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: MN 532786

### Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/21/13  
**Work Order:** 1306971

**Work Order Sample Summary**

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1306971-01	DG Seep 01	Water		6/21/2013 13:44	6/25/2013 10:15	<input type="checkbox"/>
1306971-02	BH01/PZ01	Water		6/21/2013 14:44	6/25/2013 10:15	<input type="checkbox"/>
1306971-03	BH02/PZ02	Water		6/21/2013 15:02	6/25/2013 10:15	<input type="checkbox"/>
1306971-04	BH06/PZ03	Water		6/21/2013 15:14	6/25/2013 10:15	<input type="checkbox"/>
1306971-05	BH11/PZ05	Water		6/21/2013 15:41	6/25/2013 10:15	<input type="checkbox"/>
1306971-06	BH12/PZ06	Water		6/21/2013 16:00	6/25/2013 10:15	<input type="checkbox"/>
1306971-07	Trip Blank	Water		6/21/2013	6/25/2013 10:15	<input type="checkbox"/>



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**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/21/13  
**Work Order:** 1306971

---

**Case Narrative**

At the request of the client, the sample IDs were changed in this revised report. No results were changed.

Batch R122743 sample 1306971-02, 1306971-03, and 1306971-05 were run at dilution for BTEX due to a foamy matrix.

Batch R122786 sample 1306971-01 was received after the holding time had expired for Hexavalent Chromium. Results should be considered estimated.

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/21/13  
**WorkOrder:** 1306971

**QUALIFIERS,  
ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/21/13  
**Sample ID:** DG Seep 01  
**Collection Date:** 6/21/2013 01:44 PM

**Work Order:** 1306971  
**Lab ID:** 1306971-01  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/25/2013</b>	Analyst: <b>CW</b>
DRO (C10-C28)	ND		0.10	mg/L	1	6/25/2013 05:32 PM
Surr: 4-Terphenyl-d14	62.0		21-90	%REC	1	6/25/2013 05:32 PM
<b>ORGANIC COMPOUNDS BY GC-FID</b>						
			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		5.0	mg/L	1	6/26/2013 12:19 PM
Methanol	ND		5.0	mg/L	1	6/26/2013 03:52 PM
Propylene glycol	ND		5.0	mg/L	1	6/26/2013 12:19 PM
Triethylene glycol	ND		5.0	mg/L	1	6/26/2013 12:19 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RD</b>
GRO (C6-C10)	ND		0.20	mg/L	1	6/25/2013 05:41 PM
Surr: Toluene-d8	108		70-130	%REC	1	6/25/2013 05:41 PM
<b>MERCURY BY CVAA</b>						
			<b>SW7470</b>		Prep Date: <b>6/26/2013</b>	Analyst: <b>LR</b>
Mercury	ND		0.00020	mg/L	1	6/26/2013 04:05 PM
<b>METALS BY ICP-MS</b>						
			<b>SW6020A</b>		Prep Date: <b>6/25/2013</b>	Analyst: <b>RH</b>
Arsenic	ND		0.0050	mg/L	1	6/25/2013 09:56 PM
<b>Barium</b>	<b>0.095</b>		<b>0.0050</b>	<b>mg/L</b>	1	6/25/2013 09:56 PM
Cadmium	ND		0.0020	mg/L	1	6/25/2013 09:56 PM
Chromium	ND		0.0050	mg/L	1	6/25/2013 09:56 PM
Copper	ND		0.0050	mg/L	1	6/28/2013 02:56 PM
Lead	ND		0.0050	mg/L	1	6/25/2013 09:56 PM
<b>Nickel</b>	<b>0.0064</b>		<b>0.0050</b>	<b>mg/L</b>	1	6/25/2013 09:56 PM
Selenium	ND		0.0050	mg/L	1	6/25/2013 09:56 PM
Silver	ND		0.0050	mg/L	1	6/28/2013 02:56 PM
<b>Zinc</b>	<b>0.14</b>		<b>0.010</b>	<b>mg/L</b>	1	6/25/2013 09:56 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260</b>			Analyst: <b>RS</b>
Benzene	ND		1.0	µg/L	1	6/25/2013 12:24 PM
Ethylbenzene	ND		1.0	µg/L	1	6/25/2013 12:24 PM
m,p-Xylene	ND		2.0	µg/L	1	6/25/2013 12:24 PM
o-Xylene	ND		1.0	µg/L	1	6/25/2013 12:24 PM
Toluene	ND		1.0	µg/L	1	6/25/2013 12:24 PM
Xylenes, Total	ND		3.0	µg/L	1	6/25/2013 12:24 PM
Surr: 1,2-Dichloroethane-d4	103		70-120	%REC	1	6/25/2013 12:24 PM
Surr: 4-Bromofluorobenzene	81.0		75-120	%REC	1	6/25/2013 12:24 PM
Surr: Dibromofluoromethane	107		85-115	%REC	1	6/25/2013 12:24 PM
Surr: Toluene-d8	92.6		85-120	%REC	1	6/25/2013 12:24 PM
<b>CHROMIUM, TRIVALENT</b>						
			<b>CALCULATION</b>			Analyst: <b>MB</b>
Chromium, Trivalent	0.0026			mg/L	1	6/26/2013 10:25 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

## ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions

**Project:** Source Gas Wolf Creek #12 13-113 6/21/13

**Work Order:** 1306971

**Sample ID:** DG Seep 01

**Lab ID:** 1306971-01

**Collection Date:** 6/21/2013 01:44 PM

**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>			Analyst: <b>JB</b>
Chromium, Hexavalent	ND	H	0.0050	mg/L	1	6/25/2013 03:00 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**Revision: 1**

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/21/13  
**Sample ID:** BH01/PZ01  
**Collection Date:** 6/21/2013 02:44 PM

**Work Order:** 1306971  
**Lab ID:** 1306971-02  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>ORGANIC COMPOUNDS BY GC-FID</b>			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		5.0	mg/L	1	6/26/2013 12:30 PM
Propylene glycol	ND		5.0	mg/L	1	6/26/2013 12:30 PM
Triethylene glycol	8,400		100	mg/L	20	6/26/2013 02:46 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>RS</b>
Benzene	25		5.0	µg/L	5	6/25/2013 12:46 PM
Ethylbenzene	23		5.0	µg/L	5	6/25/2013 12:46 PM
m,p-Xylene	58		10	µg/L	5	6/25/2013 12:46 PM
o-Xylene	33		5.0	µg/L	5	6/25/2013 12:46 PM
Toluene	48		5.0	µg/L	5	6/25/2013 12:46 PM
Xylenes, Total	91		15	µg/L	5	6/25/2013 12:46 PM
Surr: 1,2-Dichloroethane-d4	99.3		70-120	%REC	5	6/25/2013 12:46 PM
Surr: 4-Bromofluorobenzene	91.2		75-120	%REC	5	6/25/2013 12:46 PM
Surr: Dibromofluoromethane	98.3		85-115	%REC	5	6/25/2013 12:46 PM
Surr: Toluene-d8	90.4		85-120	%REC	5	6/25/2013 12:46 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/21/13  
**Sample ID:** BH02/PZ02  
**Collection Date:** 6/21/2013 03:02 PM

**Work Order:** 1306971  
**Lab ID:** 1306971-03  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>ORGANIC COMPOUNDS BY GC-FID</b>			<b>SW8015M</b>		Analyst: <b>JD</b>	
Ethylene glycol	ND		5.0	mg/L	1	6/26/2013 12:41 PM
Propylene glycol	ND		5.0	mg/L	1	6/26/2013 12:41 PM
<b>Triethylene glycol</b>	<b>5,800</b>		<b>50</b>	<b>mg/L</b>	10	6/26/2013 02:57 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>		Analyst: <b>RS</b>	
Benzene	ND		25	µg/L	25	6/25/2013 01:09 PM
Ethylbenzene	ND		25	µg/L	25	6/25/2013 01:09 PM
m,p-Xylene	ND		50	µg/L	25	6/25/2013 01:09 PM
o-Xylene	ND		25	µg/L	25	6/25/2013 01:09 PM
Toluene	ND		25	µg/L	25	6/25/2013 01:09 PM
Xylenes, Total	ND		75	µg/L	25	6/25/2013 01:09 PM
Surr: 1,2-Dichloroethane-d4	93.6		70-120	%REC	25	6/25/2013 01:09 PM
Surr: 4-Bromofluorobenzene	84.6		75-120	%REC	25	6/25/2013 01:09 PM
Surr: Dibromofluoromethane	97.9		85-115	%REC	25	6/25/2013 01:09 PM
Surr: Toluene-d8	88.0		85-120	%REC	25	6/25/2013 01:09 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**Revision: 1**

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/21/13  
**Sample ID:** BH06/PZ03  
**Collection Date:** 6/21/2013 03:14 PM

**Work Order:** 1306971  
**Lab ID:** 1306971-04  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>ORGANIC COMPOUNDS BY GC-FID</b>			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		5.0	mg/L	1	6/26/2013 02:35 PM
Propylene glycol	ND		5.0	mg/L	1	6/26/2013 02:35 PM
Triethylene glycol	ND		5.0	mg/L	1	6/26/2013 02:35 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>RS</b>
<b>Benzene</b>	<b>9.9</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	6/25/2013 02:17 PM
Ethylbenzene	ND		1.0	µg/L	1	6/25/2013 02:17 PM
<b>m,p-Xylene</b>	<b>4.3</b>		<b>2.0</b>	<b>µg/L</b>	<b>1</b>	6/25/2013 02:17 PM
<b>o-Xylene</b>	<b>1.3</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	6/25/2013 02:17 PM
<b>Toluene</b>	<b>15</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	6/25/2013 02:17 PM
<b>Xylenes, Total</b>	<b>5.6</b>		<b>3.0</b>	<b>µg/L</b>	<b>1</b>	6/25/2013 02:17 PM
Surr: 1,2-Dichloroethane-d4	99.5		70-120	%REC	1	6/25/2013 02:17 PM
Surr: 4-Bromofluorobenzene	87.4		75-120	%REC	1	6/25/2013 02:17 PM
Surr: Dibromofluoromethane	96.2		85-115	%REC	1	6/25/2013 02:17 PM
Surr: Toluene-d8	93.2		85-120	%REC	1	6/25/2013 02:17 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**Revision: 1**

**ALS Group USA, Corp**

Date: 12-Jul-13

**Client:** HRL Compliance Solutions**Project:** Source Gas Wolf Creek #12 13-113 6/21/13**Sample ID:** BH11/PZ05**Collection Date:** 6/21/2013 03:41 PM**Work Order:** 1306971**Lab ID:** 1306971-05**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>ORGANIC COMPOUNDS BY GC-FID</b>			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		5.0	mg/L	1	6/26/2013 01:04 PM
Propylene glycol	ND		5.0	mg/L	1	6/26/2013 01:04 PM
<b>Triethylene glycol</b>	<b>5,900</b>		<b>50</b>	<b>mg/L</b>	10	6/26/2013 03:08 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>RS</b>
<b>Benzene</b>	<b>12</b>		<b>12</b>	<b>µg/L</b>	20	6/25/2013 01:32 PM
Ethylbenzene	ND		20	µg/L	20	6/25/2013 01:32 PM
m,p-Xylene	ND		40	µg/L	20	6/25/2013 01:32 PM
o-Xylene	ND		20	µg/L	20	6/25/2013 01:32 PM
<b>Toluene</b>	<b>12</b>		<b>12</b>	<b>µg/L</b>	20	6/25/2013 01:32 PM
Xylenes, Total	ND		60	µg/L	20	6/25/2013 01:32 PM
Surr: 1,2-Dichloroethane-d4	101		70-120	%REC	20	6/25/2013 01:32 PM
Surr: 4-Bromofluorobenzene	86.8		75-120	%REC	20	6/25/2013 01:32 PM
Surr: Dibromofluoromethane	102		85-115	%REC	20	6/25/2013 01:32 PM
Surr: Toluene-d8	92.6		85-120	%REC	20	6/25/2013 01:32 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.**Revision: 1**



# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions  
**Project:** Source Gas Wolf Creek #12 13-113 6/21/13  
**Sample ID:** BH12/PZ06  
**Collection Date:** 6/21/2013 04:00 PM

**Work Order:** 1306971  
**Lab ID:** 1306971-06  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>ORGANIC COMPOUNDS BY GC-FID</b>			<b>SW8015M</b>			Analyst: <b>JD</b>
Ethylene glycol	ND		5.0	mg/L	1	6/26/2013 01:15 PM
Propylene glycol	ND		5.0	mg/L	1	6/26/2013 01:15 PM
<b>Triethylene glycol</b>	<b>460</b>		<b>5.0</b>	<b>mg/L</b>	1	6/26/2013 01:15 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>RS</b>
<b>Benzene</b>	<b>3.5</b>		<b>1.0</b>	<b>µg/L</b>	1	6/25/2013 01:54 PM
Ethylbenzene	ND		1.0	µg/L	1	6/25/2013 01:54 PM
m,p-Xylene	ND		2.0	µg/L	1	6/25/2013 01:54 PM
o-Xylene	ND		1.0	µg/L	1	6/25/2013 01:54 PM
<b>Toluene</b>	<b>3.0</b>		<b>1.0</b>	<b>µg/L</b>	1	6/25/2013 01:54 PM
Xylenes, Total	ND		3.0	µg/L	1	6/25/2013 01:54 PM
Surr: 1,2-Dichloroethane-d4	91.2		70-120	%REC	1	6/25/2013 01:54 PM
Surr: 4-Bromofluorobenzene	85.6		75-120	%REC	1	6/25/2013 01:54 PM
Surr: Dibromofluoromethane	90.0		85-115	%REC	1	6/25/2013 01:54 PM
Surr: Toluene-d8	94.4		85-120	%REC	1	6/25/2013 01:54 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**Revision: 1**

**ALS Group USA, Corp**

Date: 12-Jul-13

**Client:** HRL Compliance Solutions**Project:** Source Gas Wolf Creek #12 13-113 6/21/13**Work Order:** 1306971**Sample ID:** Trip Blank**Lab ID:** 1306971-07**Collection Date:** 6/21/2013**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>RS</b>
Benzene	ND		1.0	µg/L	1	6/25/2013 12:01 PM
Ethylbenzene	ND		1.0	µg/L	1	6/25/2013 12:01 PM
m,p-Xylene	ND		2.0	µg/L	1	6/25/2013 12:01 PM
o-Xylene	ND		1.0	µg/L	1	6/25/2013 12:01 PM
Toluene	ND		1.0	µg/L	1	6/25/2013 12:01 PM
Xylenes, Total	ND		3.0	µg/L	1	6/25/2013 12:01 PM
Surr: 1,2-Dichloroethane-d4	107		70-120	%REC	1	6/25/2013 12:01 PM
Surr: 4-Bromofluorobenzene	87.1		75-120	%REC	1	6/25/2013 12:01 PM
Surr: Dibromofluoromethane	105		85-115	%REC	1	6/25/2013 12:01 PM
Surr: Toluene-d8	94.0		85-120	%REC	1	6/25/2013 12:01 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.**Revision: 1**

# ALS Group USA, Corp

Date: 12-Jul-13

**Client:** HRL Compliance Solutions

## QC BATCH REPORT

**Work Order:** 1306971

**Project:** Source Gas Wolf Creek #12 13-113 6/21/13

Batch ID: **49300**

Instrument ID **GC8**

Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKW1-49300-49300</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/25/2013 03:32 PM</b>		
Client ID:		Run ID: <b>GC8_130625A</b>				SeqNo: <b>2361285</b>		Prep Date: <b>6/25/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	0.10								
Surr: 4-Terphenyl-d14	0.0653	0	0.1143	0	57.1	21-90	0			

<b>LCS</b>		Sample ID: <b>DLCSW1-49300-49300</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/25/2013 04:02 PM</b>		
Client ID:		Run ID: <b>GC8_130625A</b>				SeqNo: <b>2361286</b>		Prep Date: <b>6/25/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	5.89	0.10	11.43	0	51.5	44-116	0			
Surr: 4-Terphenyl-d14	0.07349	0	0.1143	0	64.3	21-90	0			

<b>MS</b>		Sample ID: <b>1306971-01A MS</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/25/2013 04:32 PM</b>		
Client ID: <b>DG Seep 01</b>		Run ID: <b>GC8_130625A</b>				SeqNo: <b>2361287</b>		Prep Date: <b>6/25/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	21.71	0.35	40	0	54.3	44-116	0			
Surr: 4-Terphenyl-d14	0.2678	0	0.4	0	66.9	21-90	0			

<b>MSD</b>		Sample ID: <b>1306971-01A MSD</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/25/2013 05:02 PM</b>		
Client ID: <b>DG Seep 01</b>		Run ID: <b>GC8_130625A</b>				SeqNo: <b>2361288</b>		Prep Date: <b>6/25/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	22.11	0.35	40	0	55.3	44-116	21.71	1.81	30	
Surr: 4-Terphenyl-d14	0.2632	0	0.4	0	65.8	21-90	0.2678	1.72	30	

The following samples were analyzed in this batch: | 1306971-01A |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 1 of 9

**Client:** HRL Compliance Solutions  
**Work Order:** 1306971  
**Project:** Source Gas Wolf Creek #12 13-113 6/21/13

## QC BATCH REPORT

Batch ID: **R122851** Instrument ID **GC11** Method: **SW8015M**

<b>MBLK</b>	Sample ID: <b>MB-R122851-R122851</b>				Units: <b>mg/L</b>			Analysis Date: <b>6/26/2013 12:08 PM</b>		
Client ID:	Run ID: <b>GC11_130626A</b>				SeqNo: <b>2362177</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	ND	5.0								
Propylene glycol	ND	10								
Triethylene glycol	ND	5.0								

<b>LCS</b>	Sample ID: <b>LCS-R122851-R122851</b>				Units: <b>mg/L</b>			Analysis Date: <b>6/26/2013 01:50 PM</b>		
Client ID:	Run ID: <b>GC11_130626A</b>				SeqNo: <b>2362178</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	537.3	5.0	500	0	107	50-150	0			
Propylene glycol	484.2	10	500	0	96.8	50-150	0			
Triethylene glycol	503.6	5.0	500	0	101	50-150	0			

<b>MS</b>	Sample ID: <b>1306971-06B MS</b>				Units: <b>mg/L</b>			Analysis Date: <b>6/26/2013 01:26 PM</b>		
Client ID: <b>BH12/PZ06</b>	Run ID: <b>GC11_130626A</b>				SeqNo: <b>2362185</b>			Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	1152	10	1000	0	115	50-150	0			
Propylene glycol	947.9	20	1000	0	94.8	50-150	0			
Triethylene glycol	1455	10	1000	463.6	99.2	50-150	0			

<b>MSD</b>	Sample ID: <b>1306971-06B MSD</b>				Units: <b>mg/L</b>			Analysis Date: <b>6/26/2013 01:37 PM</b>		
Client ID: <b>BH12/PZ06</b>	Run ID: <b>GC11_130626A</b>				SeqNo: <b>2362186</b>			Prep Date:		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ethylene glycol	1084	10	1000	0	108	50-150	1152	6	30	
Propylene glycol	906.5	20	1000	0	90.6	50-150	947.9	4.46	30	
Triethylene glycol	1438	10	1000	463.6	97.5	50-150	1455	1.17	30	

The following samples were analyzed in this batch:

1306971-01A	1306971-02B	1306971-03B
1306971-04B	1306971-05B	1306971-06B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 2 of 9

**Client:** HRL Compliance Solutions  
**Work Order:** 1306971  
**Project:** Source Gas Wolf Creek #12 13-113 6/21/13

## QC BATCH REPORT

Batch ID: **R122852**      Instrument ID **GC5**      Method: **SW8015M**

<b>MBLK</b>	Sample ID: <b>MB-R122852-R122852</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/26/2013 02:55 PM</b>		
Client ID:	Run ID: <b>GC5_130626A</b>				SeqNo: <b>2362191</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      ND      5.0

<b>LCS</b>	Sample ID: <b>LCS-R122852-R122852</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/26/2013 03:24 PM</b>		
Client ID:	Run ID: <b>GC5_130626A</b>				SeqNo: <b>2362192</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      483.6      5.0      500      0      96.7      50-150      0

<b>MS</b>	Sample ID: <b>1306971-01B MS</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/26/2013 04:21 PM</b>		
Client ID: <b>DG Seep 01</b>	Run ID: <b>GC5_130626A</b>				SeqNo: <b>2362194</b>		Prep Date:		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      1007      10      1000      0      101      50-150      0

<b>MSD</b>	Sample ID: <b>1306971-01B MSD</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/26/2013 04:50 PM</b>		
Client ID: <b>DG Seep 01</b>	Run ID: <b>GC5_130626A</b>				SeqNo: <b>2362195</b>		Prep Date:		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Methanol      1019      10      1000      0      102      50-150      1007      1.14      30

The following samples were analyzed in this batch:

1306971-01B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 3 of 9

Client: HRL Compliance Solutions  
 Work Order: 1306971  
 Project: Source Gas Wolf Creek #12 13-113 6/21/13

## QC BATCH REPORT

Batch ID: **R122806** Instrument ID **GC10** Method: **SW8015**

<b>MBLK</b>	Sample ID: <b>GBLK1-130625-R122806</b>					Units: <b>µg/L</b>		Analysis Date: <b>6/25/2013 11:00 AM</b>		
Client ID:	Run ID: <b>GC10_130625A</b>				SeqNo: <b>2361026</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
<i>Surr: Toluene-d8</i>	112	0	100	0	112	70-130	0			

<b>LCS</b>	Sample ID: <b>GLCS1-130625-R122806</b>					Units: <b>µg/L</b>		Analysis Date: <b>6/25/2013 10:36 AM</b>		
Client ID:	Run ID: <b>GC10_130625A</b>				SeqNo: <b>2361025</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	8289	200	10000	0	82.9	70-130	0			
<i>Surr: Toluene-d8</i>	115.2	0	100	0	115	70-130	0			

<b>MS</b>	Sample ID: <b>1306957-03A MS</b>					Units: <b>µg/Kg</b>		Analysis Date: <b>6/25/2013 07:48 PM</b>		
Client ID:	Run ID: <b>GC10_130625A</b>				SeqNo: <b>2361044</b>		Prep Date:		DF: <b>50</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	412000	2,500	500000	0	82.4	70-130	0			
<i>Surr: Toluene-d8</i>	5280	0	5000	0	106	50-150	0			

<b>MSD</b>	Sample ID: <b>1306957-03A MSD</b>					Units: <b>µg/Kg</b>		Analysis Date: <b>6/25/2013 08:13 PM</b>		
Client ID:	Run ID: <b>GC10_130625A</b>				SeqNo: <b>2361045</b>		Prep Date:		DF: <b>50</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	396400	2,500	500000	0	79.3	70-130	412000	3.86	30	
<i>Surr: Toluene-d8</i>	5181	0	5000	0	104	50-150	5280	1.89	30	

The following samples were analyzed in this batch:

1306971-01C

**Client:** HRL Compliance Solutions  
**Work Order:** 1306971  
**Project:** Source Gas Wolf Creek #12 13-113 6/21/13

## QC BATCH REPORT

Batch ID: **49327**      Instrument ID **HG1**      Method: **SW7470**

<b>MBLK</b>	Sample ID: <b>MBLK-49327-49327</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/26/2013 03:57 PM</b>		
Client ID:	Run ID: <b>HG1_130626A</b>				SeqNo: <b>2362138</b>		Prep Date: <b>6/26/2013</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      ND      0.00020

<b>LCS</b>	Sample ID: <b>LCS-49327-49327</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/26/2013 03:59 PM</b>		
Client ID:	Run ID: <b>HG1_130626A</b>				SeqNo: <b>2362139</b>		Prep Date: <b>6/26/2013</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.001938      0.00020      0.002      0      96.9      80-120      0

<b>MS</b>	Sample ID: <b>1306978-18AMS</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/26/2013 04:09 PM</b>		
Client ID:	Run ID: <b>HG1_130626A</b>				SeqNo: <b>2362144</b>		Prep Date: <b>6/26/2013</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.001809      0.00020      0.002      -0.00008      94.4      75-125      0

<b>MSD</b>	Sample ID: <b>1306978-18AMSD</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/26/2013 04:11 PM</b>		
Client ID:	Run ID: <b>HG1_130626A</b>				SeqNo: <b>2362145</b>		Prep Date: <b>6/26/2013</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.001774      0.00020      0.002      -0.00008      92.7      75-125      0.001809      1.95      20

The following samples were analyzed in this batch:

1306971-01D

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 5 of 9

**Client:** HRL Compliance Solutions  
**Work Order:** 1306971  
**Project:** Source Gas Wolf Creek #12 13-113 6/21/13

## QC BATCH REPORT

Batch ID: **49295**      Instrument ID **ICPMS2**      Method: **SW6020A**

<b>MBLK</b>	Sample ID: <b>MBLK-49295-49295</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/25/2013 02:21 PM</b>		
Client ID:	Run ID: <b>ICPMS2_130625A</b>				SeqNo: <b>2360888</b>		Prep Date: <b>6/25/2013</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Lead      ND      0.0050

<b>LCS</b>	Sample ID: <b>LCS-49295-49295</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/25/2013 02:26 PM</b>		
Client ID:	Run ID: <b>ICPMS2_130625A</b>				SeqNo: <b>2360889</b>		Prep Date: <b>6/25/2013</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Lead      0.09873      0.0050      0.1      0      98.7      80-120      0

<b>MS</b>	Sample ID: <b>1306879-03BMS</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/25/2013 02:37 PM</b>		
Client ID:	Run ID: <b>ICPMS2_130625A</b>				SeqNo: <b>2360891</b>		Prep Date: <b>6/25/2013</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Lead      0.1032      0.0050      0.1      0.001885      101      75-125      0

<b>MSD</b>	Sample ID: <b>1306879-03BMSD</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/25/2013 02:42 PM</b>		
Client ID:	Run ID: <b>ICPMS2_130625A</b>				SeqNo: <b>2360892</b>		Prep Date: <b>6/25/2013</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Lead      0.1018      0.0050      0.1      0.001885      99.9      75-125      0.1032      1.37      20

The following samples were analyzed in this batch:

1306971-01D

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 6 of 9



**Client:** HRL Compliance Solutions  
**Work Order:** 1306971  
**Project:** Source Gas Wolf Creek #12 13-113 6/21/13

# QC BATCH REPORT

Batch ID: **R122743**      Instrument ID **VMS9**      Method: **SW8260**

<b>MBLK</b>		Sample ID: <b>VBLKW1-130625-R122743</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/25/2013 11:38 AM</b>		
Client ID:		Run ID: <b>VMS9_130625A</b>				SeqNo: <b>2361047</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	20.52	0	20	0	103	70-120	0			
Surr: 4-Bromofluorobenzene	16.68	0	20	0	83.4	75-120	0			
Surr: Dibromofluoromethane	20.57	0	20	0	103	85-115	0			
Surr: Toluene-d8	18.82	0	20	0	94.1	85-120	0			

<b>LCS</b>		Sample ID: <b>VLCSW1-130625-R122743</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/25/2013 10:53 AM</b>		
Client ID:		Run ID: <b>VMS9_130625A</b>				SeqNo: <b>2361046</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	18.21	1.0	20	0	91	80-120	0			
Ethylbenzene	18.98	1.0	20	0	94.9	75-125	0			
m,p-Xylene	38.56	2.0	40	0	96.4	75-130	0			
o-Xylene	18.77	1.0	20	0	93.8	80-120	0			
Toluene	18.92	1.0	20	0	94.6	75-120	0			
Xylenes, Total	57.33	3.0	60	0	95.6	75-130	0			
Surr: 1,2-Dichloroethane-d4	19.68	0	20	0	98.4	70-120	0			
Surr: 4-Bromofluorobenzene	18.72	0	20	0	93.6	75-120	0			
Surr: Dibromofluoromethane	20.89	0	20	0	104	85-115	0			
Surr: Toluene-d8	20.26	0	20	0	101	85-120	0			

<b>MS</b>		Sample ID: <b>1306902-15A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/25/2013 08:21 PM</b>		
Client ID:		Run ID: <b>VMS9_130625A</b>				SeqNo: <b>2361065</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	18.06	1.0	20	0	90.3	80-120	0			
Ethylbenzene	18.35	1.0	20	0	91.8	75-125	0			
m,p-Xylene	37.8	2.0	40	0	94.5	75-130	0			
o-Xylene	17.95	1.0	20	0	89.8	80-120	0			
Toluene	18.04	1.0	20	0	90.2	75-120	0			
Xylenes, Total	55.75	3.0	60	0	92.9	75-130	0			
Surr: 1,2-Dichloroethane-d4	18.69	0	20	0	93.4	70-120	0			
Surr: 4-Bromofluorobenzene	18.37	0	20	0	91.8	75-120	0			
Surr: Dibromofluoromethane	20.3	0	20	0	102	85-115	0			
Surr: Toluene-d8	19.4	0	20	0	97	85-120	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

**Client:** HRL Compliance Solutions  
**Work Order:** 1306971  
**Project:** Source Gas Wolf Creek #12 13-113 6/21/13

## QC BATCH REPORT

Batch ID: **R122743**      Instrument ID **VMS9**      Method: **SW8260**

MSD		Sample ID: <b>1306902-15A MSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/25/2013 08:44 PM</b>		
Client ID:		Run ID: <b>VMS9_130625A</b>				SeqNo: <b>2361066</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	17.89	1.0	20	0	89.4	80-120	18.06	0.946	30	
Ethylbenzene	17.94	1.0	20	0	89.7	75-125	18.35	2.26	30	
m,p-Xylene	36.89	2.0	40	0	92.2	75-130	37.8	2.44	30	
o-Xylene	17.78	1.0	20	0	88.9	80-120	17.95	0.952	30	
Toluene	17.65	1.0	20	0	88.2	75-120	18.04	2.19	30	
Xylenes, Total	54.67	3.0	60	0	91.1	75-130	55.75	1.96	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>19</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>95</i>	<i>70-120</i>	<i>18.69</i>	<i>1.64</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>18.57</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>92.8</i>	<i>75-120</i>	<i>18.37</i>	<i>1.08</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>20.3</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>102</i>	<i>85-115</i>	<i>20.3</i>	<i>0</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>19.51</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>97.6</i>	<i>85-120</i>	<i>19.4</i>	<i>0.565</i>	<i>30</i>	

The following samples were analyzed in this batch:

1306971-01C	1306971-02A	1306971-03A
1306971-04A	1306971-05A	1306971-06A
1306971-07A		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 8 of 9

**Client:** HRL Compliance Solutions  
**Work Order:** 1306971  
**Project:** Source Gas Wolf Creek #12 13-113 6/21/13

## QC BATCH REPORT

Batch ID: **R122786**      Instrument ID **WETCHEM**      Method: **SW7196A**

<b>MBLK</b>	Sample ID: <b>WBLKW1-130625-R122786</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/25/2013 03:00 PM</b>		
Client ID:	Run ID: <b>WETCHEM_130625N</b>				SeqNo: <b>2360813</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      ND      0.0050

<b>LCS</b>	Sample ID: <b>WLCSW1-130625-R122786</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/25/2013 03:00 PM</b>		
Client ID:	Run ID: <b>WETCHEM_130625N</b>				SeqNo: <b>2360814</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      0.1971      0.0050      0.2      0      98.6      80-120      0

<b>MS</b>	Sample ID: <b>1306971-01E MS</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/25/2013 03:00 PM</b>		
Client ID: <b>DG Seep 01</b>	Run ID: <b>WETCHEM_130625N</b>				SeqNo: <b>2360816</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      0.1884      0.0050      0.2      0      94.2      75-125      0      H

<b>MSD</b>	Sample ID: <b>1306971-01E MSD</b>					Units: <b>mg/L</b>		Analysis Date: <b>6/25/2013 03:00 PM</b>		
Client ID: <b>DG Seep 01</b>	Run ID: <b>WETCHEM_130625N</b>				SeqNo: <b>2360817</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      0.1884      0.0050      0.2      0      94.2      75-125      0.1884      0      30      H

The following samples were analyzed in this batch:

1306971-01E

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Revision: 1**

QC Page: 9 of 9



# ALS Laboratory Group

3352 128th Avenue Holland MI, 49424

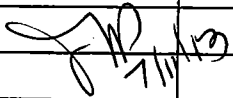
PH: (616) 399-6070

## Chain-of-Custody

Form 202r8

WORKORDER  
#


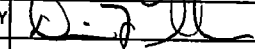
1306971

PROJECT NAME	Source Gas Wolf Creek #12		SAMPLER	Mike Lobato		DATE	6/24/13		PAGE	1 of 1		
PROJECT No.	#13-113		SITE ID	Wolf Creek #12		TURNAROUND	24 hr		DISPOSAL	By Lab or Return to Client		
COMPANY NAME	HRL Compliance Solutions, Inc.		EDD FORMAT			ARD SW8015M GRO SW8015 Glycols SW8015 Methanol SW8015M Metals (910-1) BTEX SW8015M						
SEND REPORT TO	Herman Lucero		PURCHASE ORDER									
ADDRESS	2385 F <sup>1</sup> / <sub>2</sub> Rd.		BILL TO COMPANY	HRL Compliance Solutions, Inc.								
CITY / STATE / ZIP	Grand Junction CO 81505		INVOICE ATTN TO	Herman Lucero								
PHONE	970-243-3271		ADDRESS	2385 F <sup>1</sup> / <sub>2</sub> Rd.								
FAX	970-243-3280		CITY / STATE / ZIP	Grand Junction, CO 81505								
E-MAIL	hlucero@hrlcomp.com, mlobato@hrlcomp.com		PHONE	970-243-3271								
			FAX	970-243-3280								
			E-MAIL	hlucero@hrlcomp.com								
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC					
1	DG Seap 01	W	6/21/13	1344	11	1,8		X	X	X	X	X
2	BH01/PZ01	1		1444	8	1,8			X		X	
3	BH02/PZ02			1502	8	1,8			X		X	
4	BH06/PZ-6 <sup>th</sup>			1514	8	1,8			X		X	
5	BH11/PZ H05			1541	8	1,8			X		X	
6	BH12/PZ H20 <sup>th</sup>	↓	↓	1600	8	1,8			X		X	
7	Trip Blank											
												

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:	5.0°C	QC PACKAGE (check below)
		<input checked="" type="checkbox"/> LEVEL II (Standard QC)
		<input type="checkbox"/> LEVEL III (Std QC + forms)
		<input type="checkbox"/> LEVEL IV (Std QC + forms + raw data)
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035		

SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY 	Mike Lobato	6/24/13	1700
RECEIVED BY 	Diane F. Shaw	6/25/13	1015
RELINQUISHED BY			
RECEIVED BY			
RELINQUISHED BY			
RECEIVED BY			

SOILS	
WOLF CREEK #12	WOLF CREEK #12
OLD	AMMENDED
BH1/PZ1 2'04'	BH01/PZ01 2'-4'
BH1/PZ1 4'06'	BH01/PZ01 4'-6'
BH2/PZ2 0'02'	BH02/PZ02 0'-2'
BH2/PZ2 6'08'	BH02/PZ02 6'-8'
BH3 4'06'	BH03 4'-6'
BH3 10'012'	BH03 10'-12'
BH4 0'02'	BH04 0'02'
BH4 10'012'	BH04 10'012'
BH5 8'012'	BH05 8'012'
BH5 10'012'	BH05 10'012'
BH6/PZ6 2'-4'	BH06/PZ03 2'-4'
BH6/PZ6 4'06'	BH06/PZ03 4'06'
BH7 6'08'	BH07 6'-8'
BH7 10'012'	BH07 10'-12'
BH8 8'010'	BH08 8'-10'
BH8 10'012'	BH08 10'-12'
BH9 0'02'	BH09 0'-2'
BH9 10'012'	BH09 10'-12'
BH10/PZ10 0'02'	BH10/PZ04 0'-2'
BH10/PZ10 2'04'	BH10/PZ04 2'-4'
BH11/PZ11 4'06'	BH11/PZ05 4'-6'
BH11/PZ11 6'08'	BH11/PZ05 6'-8'
BH12/PZ12 2'04'	BH12/PZ06 2'-4'
BH12/PZ12 4'06'	BH12/PZ06 4'-6'
BH13 4'06"	BH13 4'-6'
BH13 6'08'	BH13 6'08'
BH14 0'02'	BH14 0'02'
BH14 10'012'	BH14 10'012'
BH15 8-10'	BH15 8'-10'
BH16 8.5-9.5'	BH16 8.5'-9.5'
BH16A 2-3'	BH16A 2'-3'
BH17 8-10'	BH17 8'-10'
BH18 8-10'	BH18 8'-10'
BH20/PZ20 2-4'	BH20/PZ07 2'-4'
BH21/PZ21 6-8'	BH21/PZ08 6'-8'
BH22/PZ22 4-6'	BH22/PZ09 4'-6'
BH22/PZ22 6-8'	BH22/PZ09 6'-8'
BH23 6-8'	BH23 6'-8'
BH23 10-12'	BH23 10'-12'

WATER	
WOLF CREEK #12	WOLF CREEK #12
OLD	AMMENDED
BH1/PZ1	BH01/PZ01
BH2/PZ2	BH02/PZ02
BH6/PZ6	BH06/PZ03
BH10/PZ10	BH10/PZ04
BH11/PZ11	BH11/PZ05
BH12/PZ12	BH12/PZ06
<del>BH20/PZ20</del>	<del>BH20/PZ07</del>
BH21/PZ21	BH21/PZ08
BH22/PZ22	BH22/PZ09

1306369  
1306971

13061064

1306367

13061065

W0# 13061057

SOILS	
WOLF CREEK #5	WOLF CREEK #5
OLD	AMMENDED
Piez01/SS01	Piez01/SS01
Piez01/SS01 Duplicate	Piez01/SS01 Duplicate
SS02	SS02
Piez03/SS03	Piez02/SS03
Piez04/SS04	SS04
Piez05/SS05	Piez03/SS05
Piez06/SS06	SS06

} 1307003 ✓

# ALS Group USA, Corp

## Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 25-Jun-13 10:15

Work Order: 1306971

Received by: DS

Checklist completed by Diane Shaw 25-Jun-13  
eSignature Date

Reviewed by: Bill Carey 25-Jun-13  
eSignature Date

Matrices: Water

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>5.0 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>6/25/2013 11:31:40 AM</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:			
Login Notes:	<u>Hexachrome received past hold time.</u>		

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

Revision: 1

# CUSTODY SEAL



ENVIRONMENTAL SAMPLING SUPPLY

9601 San Leandro St. Oakland, CA 94625

Date: 6/24/13

Signature: [Signature]

**FedEx** US Airbill  
Express

FedEx  
Tracking  
Number

8722 9438 1220

0200 Form  
ID No.

FedEx Retrieval Copy

1 From  
Date: 6/24/13 Sender's FedEx  
Account Number

Sender's Name: [Handwritten: Mrs. [unclear]] Phone:

Company: [Handwritten: HPL Compliance Solutions]

Address: [Handwritten: 2385 5th Rd.] Dept./Floor/Suite/Room:

City: [Handwritten: Grand Junction] State: [Handwritten: CO] ZIP: [Handwritten: 81505]

2 Your Internal Billing Reference

3 To Recipient's Name: [Handwritten: Sample Receiving] Phone: [Handwritten: 616 399 6070]

Company: [Handwritten: ALS Laboratory]

Address: [Handwritten: 3350 136th Ave] We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room:

Address: [Handwritten: Holland] Use this line for the HOLD location address or for continuation of your shipping address.

City: [Handwritten: Holland] State: [Handwritten: MI] ZIP: [Handwritten: 48124]

HOLD Weekday  
FedEx location address  
REQUIRED, NOT available for  
FedEx First Overnight.

HOLD Saturday  
FedEx location address  
REQUIRED. Available ONLY for  
FedEx Priority Overnight and  
FedEx 2Day to select locations.

4a Express Package Service

\* To most locations.

Packages up to 150 lbs.

01 ☒ FedEx Priority Overnight  
Next business morning. \* Friday  
shipments will be delivered on Monday  
unless SATURDAY Delivery is selected.

05 ☐ FedEx Standard Overnight  
Next business afternoon.  
Saturday Delivery NOT available.

06 ☐ FedEx First Overnight  
Earliest next business morning  
delivery to select locations.

03 ☐ FedEx 2Day  
Second business day. \* Thursday  
shipments will be delivered on Monday  
unless SATURDAY Delivery is selected.

20 ☐ FedEx Express Saver  
Third business day.  
Saturday Delivery NOT available.

4b Express Freight Service

\*\* To most locations.

Packages over 150 lbs.

70 ☐ FedEx 1Day Freight  
Next business day. \*\* Friday shipments will  
be delivered on Monday unless SATURDAY  
Delivery is selected.

FedEx 1Day Freight Declines To

80 ☐ FedEx 2Day Freight  
Second business day. \* Thursday shipments will be delivered  
on Monday unless SATURDAY Delivery is selected.

83 ☐ FedEx 3Day Freight  
Third business day. \* Saturday Delivery NOT available.

5 Packaging \*Declared value limit \$500

08 ☐ FedEx  
Envelope\*

02 ☐ FedEx Pak\*  
Includes FedEx Small Pak and  
FedEx Large Pak.

03 ☐ FedEx  
Box

04 ☐ FedEx  
Tube

01 ☐ Other

6 Special Handling and Delivery Signature Options

03 ☒ SATURDAY DELIVERY

☐ No Signature Required  
Package may be left without  
obtaining a signature for delivery.

10 ☐ Direct Signature  
Someone at recipient's address  
may sign for delivery. Fee applies.

34 ☐ Indirect Signature  
If no one is available at recipient's  
address, someone at a neighboring  
address may sign for delivery. Fee applies  
for residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

One box must be checked.

☒ No ☐ Yes  
As per attached  
Shipper's Declaration.

☐ Yes  
Shipper's Declaration  
not required.

06 ☐ Dry Ice  
Dry Ice, 3 UN 1845.

☐ Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging  
or placed in a FedEx Express Drop Box.

7 Payment Bill to:

1 ☐ Sender  
Account No. in Section  
1 of this bill. 2 ☒ Recipient 3 ☐ Third Party 4 ☐ Credit Card 5 ☐ Cash/Check

Total Packages

Total Weight

Credit Card Acct.

Your liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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