# 3R - 440

**GWMR** 

12/18/2012





# ENTERPRISE PRODUCTS PARTNERS L.P. ENTERPRISE PRODUCTS HOLDINGS LLC (General Partner)

**ENTERPRISE PRODUCTS OPERATING LLC** 

December 18, 2012

Return Receipt Requested 7010 1870 0001 2945 3927

Mr. Glenn von Gonten New Mexico Energy, Minerals & Natural Resources Department - Oil Conservation Division 1220 South St. Francis Drive Santa Fe. New Mexico 87505

Attn: Jim Griswold

Re: Groundwater Investigation Report

Lateral K-31 Dec. 2011 Pipeline Release

SE ¼ SW ¼, Sec 16, T25N, R6W Rio Arriba County, New Mexico

Dear Mr. Von Gonten:

Enterprise Field Services, LLC (Enterprise) is submitting the enclosed report entitled: Groundwater Investigation Report, Lateral K-31 December 2011 Pipeline Release, dated November 28, 2012. This report documents the results of the September 2012 soil and groundwater investigation conducted at the release site, and was performed in accordance with the work plan entitled: Groundwater Investigation Work Plan for the Lateral K-31 December 2011 Pipeline Release, dated July 30, 2012.

During this investigation, a total of nine monitor wells were installed at the release site. Dissolved-phase benzene concentrations exceeding applicable Water Quality Control Commission (WQCC) Groundwater Quality Standards were present at four monitor well locations (MW-1, MW-5, MW-6 and MW-8). The highest benzene concentration in groundwater, measured at MW-6, was 37  $\mu$ g/L. Dissolved-phase concentrations of toluene, ethylbenzene, and xylene were below applicable WQCC standards. No soil samples obtained during this investigation exceeded applicable NMOCD action levels.

Enterprise believes the dissolved-phase groundwater constituent concentrations observed at the release site will degrade naturally, and routine groundwater monitoring events will be continued to monitor site conditions. If necessary, Enterprise will evaluate additional remedial actions are necessary to complete site closure. If you have any questions concerning the enclosed report, please do not hesitate to contact me at (713) 381-2286, or via email at: drsmith@eprod.com.

Sincerely,

David R. Smith, P.G.

Sr. Environmental Scientist

Rodney M. Sartor, REM Manager, Remediation

/dep

Enclosure – Groundwater Investigation Report, Lateral K-31 December 2011 Pipeline Release

cc: Brandon Powell, New Mexico Oil Conservation Division, Aztec, NM

Bill Liess, Bureau of Land Management, Farmington, NM

ec: Tami Ross - Animas Environmental Services, LLC, Farmington, NM



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> Durango, Colorado 970 403 3274

Prepared for:
Brandon Powell
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

Glenn von Gonten New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

> Groundwater Investigation Report Enterprise Products Company Lateral K-31 December 2011 Pipeline Release SE¼ SW¼ Section 16, T25N, R6W Rio Arriba County, New Mexico

November 28, 2012

Prepared on behalf of: Enterprise Products Company 614 Reilly Avenue Farmington, NM 87401

Prepared by:
Animas Environmental Services, LLC
624 E. Comanche
Farmington, New Mexico 87401

# Contents

1.0 Introduction	on	L
	ation and NMOCD Ranking	
2.0 Groundwar	ter Investigation – August and September 2012	3
2.2 Installat 2.2.1 Dr 2.2.2 Sc 2.2.3 Sc 2.2.4 Sc 2.3 Ground 2.3.1 Gr 2.3.2 Gr 2.3.3 Pr 2.4 Ground 2.5 Soil and 2.6 Soil Field	d Coordination and Job Safety Analysis	3 3 4 4 4 5 5 5 5
3.0 Conclusion	s and Recommendations 6	5
4.0 Certification	n	7
5.0 References	i	3
Figure 1. Figure 2. Figure 3. Figure 4. Figure 5. Figure 6.	Topographic Site Location Map Aerial Site Map Soil Analytical Results, August 2012 Groundwater Elevation Contours, September 2012 Groundwater Contaminant Concentrations, September 2012 Dissolved Phase Benzene Concentration Contours, September 2012	
Tables Table 1. Table 2. Table 3.	Summary of Soil Field Screening and Laboratory Analytical Results Summary of Groundwater Measurements and Water Quality Data Summary of Groundwater Laboratory Analytical Results	
Appendices Appendix A. Appendix B. Appendix C. Appendix D.	Soil Boring Logs Disposal Documents and Monitor Well Development Form Soil Laboratory Analytical Reports (Hall 1208683 and 1208732) Groundwater Sampling Forms September 2012 and Groundwater Laboratory Analytical Reports (Hall 1209242)	

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#### 1.0 Introduction

Animas Environmental Services, LLC (AES), on behalf of Enterprise Products Company, Inc. (Enterprise), has prepared this Groundwater Investigation Report for the Lateral K-31 pipeline release that was discovered in December 2011. This investigation was conducted in accordance with the work plan prepared by AES and titled *Groundwater Investigation Work Plan for the Lateral K-31 December 2011 Pipeline Release*, dated July 30, 2012, and submitted to Enterprise and New Mexico Oil Conservation Division (NMOCD). Note that details of the initial release assessment and investigation were submitted in the AES *Pipeline Release Letter Report* dated December 30, 2011, and *Site Investigation Report* dated May 16, 2012.

## 1.1 Site Location and NMOCD Ranking

The release area is located on Federal land under jurisdiction of the Bureau of Land Management (BLM) within the SE¼ SW¼, Section 16, T25N, R6W, Rio Arriba County, New Mexico. Latitude and longitude of the release were recorded as N36.39373 and W107.47519, respectively. The release location is within the Largo Canyon floodplain, and surface runoff drains northeast towards Largo Canyon, which is 1,550 feet east of the release location. Based on measurements from the site investigation, depth to groundwater is approximately 14 feet below ground surface (bgs). A topographic site location map is included as Figure 1, and an aerial map showing the release location is included as Figure 2.

Prior to site work, the site was ranked in accordance with NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993). The ranking score was obtained in part by reviewing available records of nearby oil/gas wells using the NMOCD online database; however, no records were found to aid in the assessment. Additionally, the New Mexico Office of the State Engineer (NMOSE) database was reviewed for the presence of nearby water wells, and no registered water wells were reported to be located within 1,000 feet of the location. Google Earth and the New Mexico Tech Petroleum Recovery Research Center online mapping tool (<a href="https://ford.nmt.edu/react/pitrules\_index.html">https://ford.nmt.edu/react/pitrules\_index.html</a>) were accessed to aid in the identification of downgradient surface water. No surface waters were identified within 1,000 feet of the release location. Based on this information and the known depth to groundwater, the release location was assessed a ranking score of 20.

#### 1.2 Initial Release Assessment and Investigation

A release was reported at the location on December 2, 2011, by Enterprise personnel, and on the same date Enterprise personnel were dispatched to locate and isolate the leak in the pipeline. The line repair was also completed on December 2, 2011. The cause of the release was identified as a corrosion hole on the underside of the line.

On December 8, 2011, four test holes (TP-1 through TP-4) were each excavated to a total depth of 15.5 feet bgs, from which a total of six soil samples were collected for laboratory analysis. A groundwater sample from an existing monitor well labeled MW-4, which is located near the release area, was collected for laboratory analysis. Soil laboratory analytical results for total benzene, toluene, ethylbenzene, and xylenes (BTEX) and total petroleum hydrocarbons (TPH) exceeded applicable NMOCD action levels in two of the four test holes. Groundwater was not encountered in the test holes; however, depth to water was measured at 14 feet bgs in the nearby groundwater monitor well. The laboratory analytical results for the groundwater sample collected from this well showed reported benzene and total BTEX concentrations below laboratory detection limits. Details of the initial release assessment were submitted to Enterprise in a letter report dated January 20, 2012.

Based on the field screening readings, laboratory analytical results, and the shallow depth of groundwater, AES and Enterprise determined that a limited investigation of the release would be appropriate prior to implementing further mitigation measures. On March 15 and 16, 2012, AES completed a site investigation in order to delineate the full extent of hydrocarbon impact on subsurface soils and groundwater resulting from the release. The investigation included the installation of 12 soil borings (SB-1 through SB-12) and the collection of soil and groundwater samples. Soil samples collected for laboratory analysis showed that contaminant concentrations exceeded NMOCD action levels for TPH in borings SB-1, SB-9, and SB-11. The highest TPH concentration was reported in SB-9 with 8,700 mg/kg.

Dissolved phase analytical results from the March 2012 groundwater investigation indicated groundwater was impacted above the New Mexico Water Quality Control Commission (WQCC) standard for benzene in SB-1W through SB-4W, SB-7W, SB-9W, SB-11W, and SB-12W. The highest concentration for benzene was reported in SB-11W with 1,400  $\mu$ g/L. Concentration contours of dissolved phase contaminants indicated that migration of the plume is primarily north along the pipeline corridor and to the northeast (following gradient) towards Largo Canyon. The highest dissolved phase concentrations of BTEX were noted in SB-3W and SB-11W.

Based on the depth and lateral extent of contaminant impacted soil and groundwater, AES recommended installing permanent groundwater monitor wells and collecting additional monitoring and sampling data from which a corrective action plan can be developed.

#### Groundwater Investigation – August and September 2012 2.0

On August 20 through September 5, 2012, AES completed a groundwater investigation in order to further delineate the extent of the dissolved phase hydrocarbon contaminants associated with the Lateral K-31 pipeline release.

During the site investigation, AES personnel installed nine monitor wells (MW-1 through MW-9). Work was completed in accordance with NMOCD guidelines, AES' Standard Operating Procedures (SOPs), U.S. Environmental Protection Agency (USEPA) Environmental Response Team's SOPs, and applicable American Society of Testing and Materials (ASTM) standards. The locations of the monitor wells are presented on Figure 2.

#### 2.1 Pre-Field Coordination and Job Safety Analysis

Prior to field work, AES utilized the New Mexico One-Call system to identify and mark all underground utilities at the site and submitted required 48 hour notifications to representatives of Enterprise, Bureau of Land Management (BLM), and NMOCD, in writing and by telephone. Additionally, AES prepared and implemented a comprehensive sitespecific Job Safety Analysis (JSA) addressing the site investigation activities associated with monitoring well installation and soil and groundwater sampling. All onsite personnel were required to read and sign the JSA to acknowledge their understanding of the information contained within the JSA. The JSA was implemented and enforced on site by the assigned Site Safety and Health Officer.

#### 2.2 Installation of Soil Borings

On August 13 through 15, 2012, AES installed nine soil borings within and adjacent to the December 2011 excavation area in order to delineate the extent of the dissolved phase contaminant impact. The soil borings were each advanced to a total depth of 25 feet bgs and completed as monitor wells (MW-1 through MW-9).

#### 2.2.1 Drilling Methods

Soil borings were advanced to a total depth of 25 feet bgs with a CME-75 truck mounted drill rig equipped with hollow stem augers and 4-inch outer diameter (OD) core barrel. The drill rig was operated by Kyvek Energy Services, Inc. of Aztec, New Mexico.

#### 2.2.2 Soil Sample Collection

Soil samples were collected from continuously driven core-barrel samplers during advancement of the soil borings. At 5-foot intervals, a soil sample was collected from the core barrel sampler and transferred to appropriately labeled sample containers. The sample was split for field screening of volatile organic compounds (VOCs) with a photo-ionization detector (PID) organic vapor meter (OVM) and laboratory analysis. Two soil samples were collected for laboratory analysis from each soil boring.

For each soil boring, a Soil Boring Log was completed. These logs recorded sample identification, depth collected, and method of collection, as well as observations of soil moisture, color, grain size, contaminant presence, and overall stratigraphy. Soil Boring Logs are presented in Appendix A.

#### 2.2.3 Soil Field Screening

Samples were collected at 5-foot intervals from each soil sampling location and field screened for volatile organic vapors utilizing a PID-OVM, which was calibrated to 100 parts per million (ppm) with isobutylene gas. Field screening followed AES' SOP for heated headspace analysis of VOCs.

#### 2.2.4 Soil Lithology

The local site lithology consists of alluvium and floodplain material which constitutes the wash of Largo Canyon. Bedrock was not encountered in the soil borings. Soil observed during the investigation consisted primarily of dark gray, fine grained, moist sand in the upper five feet, grading to sandy clay with depth, which was brown to dark gray to black, moist to wet, and sometimes exhibiting a strong odor and heavy staining. Brown, fine grained, wet sand with no odor or staining was encountered at depths greater than approximately 15 feet bgs.

#### 2.3 Groundwater Monitor Well Installation

#### 2.3.1 Groundwater Monitor Well Installation and Construction

Groundwater monitor wells were installed within all soil borings to a total depth of approximately 24 feet bgs each. Monitor well construction consisted of 2.375-inch outside diameter (OD) [2.067-inch inside diameter (ID)] Schedule 40 PVC screen and 2.0-inch blank riser casing. The screened interval extended 15 feet across the water table. The wells were constructed of a 2.375-inch OD PVC well screen (0.010-inch slot). Colorado silica sand (filter pack) was placed from total depth to approximately 2 feet above the top of the well screen. A 2 foot bentonite seal was placed above the sand pack, and concrete grout with approximately 5 percent bentonite was poured from the top of the bentonite plug up to within 0.5 feet of ground surface. An above grade locking steel protective casing, enclosed with a shroud of concrete, was installed on the well to prevent unauthorized access and damage. Monitor well schematics are presented on the Soil Boring Logs in Appendix A.

#### 2.3.2 Groundwater Monitor Well Development

Following monitor well installation and completion, each well was developed in order to remove fine grained sediments and to increase hydraulic conductivity through the well screen. Each well was developed by a combination of surging and bailing techniques. Groundwater purged from the wells was contained in labeled and sealed 55-gallon drums and transported to Envirotech Landfarm for proper disposal. Monitor wells were developed

in accordance with AES SOPs. Disposal manifests and a groundwater monitor well development form are presented in Appendix B.

#### 2.3.3 Professional Survey

The location and elevation of the top of each well casing was surveyed to the nearest 0.01 foot with reference to mean sea level by Enterprise personnel in order to accurately determine the local groundwater depth and flow direction beneath the site. Each well was tied to an existing USGS benchmark.

### 2.4 Groundwater Monitoring and Sampling

On September 5, 2012, nine monitor wells (MW-1 through MW-9) were gauged by AES to determine water table elevation and groundwater gradient. The wells were purged of a minimum of three well volumes, and a groundwater sample was collected from each well with a new disposable bailer equipped with a low-flow release valve. Purging data, including pH, temperature, conductivity, oxidation-reduction potential, and dissolved oxygen, were measured with a YSI water quality meter and documented on Water Sample Collection Forms along with purged water volume and sample depth. All sampling equipment was thoroughly decontaminated between uses. Purged water was contained and labeled in a sealed 55-gallon drum and transported to the Envirotech Landfarm for proper disposal. Disposal documents for the purged water are included in Appendix B.

#### 2.5 Soil and Groundwater Laboratory Analyses

All soil and groundwater samples were submitted to Hall Environmental Analysis Laboratory (Hall), Albuquerque, New Mexico, for analysis of the following parameters:

BTEX per USEPA Method 8021.

Additionally, soil samples were analyzed for:

 TPH – Gasoline Range Organics (GRO)/Diesel Range Organics (DRO) per USEPA Method 8015B.

Once collected, all samples were preserved in laboratory-supplied containers and stored in an insulated cooler containing ice. Samples were shipped by Hall personnel in insulated coolers containing ice at less than 6°C via bus to the analytical laboratory.

#### 2.6 Soil Field Screening and Laboratory Analytical Results

During the August 2012 site investigation, soil field screening readings showed VOC concentrations ranging from 3.5 ppm in MW-9 at 5 feet bgs up to 2,379 ppm in MW-1 at 10 feet bgs. Soil laboratory analytical results for benzene ranged from below laboratory

detection limits in several borings up to 0.13 mg/kg in MW-3 at 10 feet bgs. Total BTEX concentrations ranged from below laboratory detection limits up to 1.10 mg/kg in MW-4 at 0 to 2 feet bgs. TPH concentrations above laboratory detection limits ranged from 5.0 mg/kg GRO in MW-1 at 0 to 2 feet bgs up to 37 mg/kg DRO in MW-1 at 10 feet bgs. Tabulated field screening and laboratory analytical results are presented in Table 1, and soil laboratory analytical reports are provided in Appendix C.

2.7 Groundwater Field Measurements and Laboratory Analytical Results
Depth to water was gauged, and water quality measurements were recorded prior to sample collection. Depth to water ranged from 15.88 feet bgs in MW- 5 to 19.44 feet bgs in MW-1.
Groundwater was encountered at depths ranging from 6226.55 feet above mean sea level (amsl) in MW-3 to 6225.26 feet amsl in MW-9. Calculated hydraulic gradient trends northnortheast at approximately 0.005 foot/foot. Groundwater elevations and contours are presented in Figure 4.

Temperature readings ranged from 14.52°C in MW-1 to 15.74°C in MW-5. Conductivity readings were between 7.542 mS in MW-7 and 10.637 mS in MW-5, and pH ranged from 7.28 in MW-9 to 7.61 in MW-5. Dissolved oxygen ranged from 0.62 mg/L in MW-8 up to 2.76 mg/L in MW-5. Water quality measurements are included in Table 2, and water sample collection forms are presented in Appendix D.

Groundwater laboratory analytical results showed that dissolved phase benzene concentrations were at or above the WQCC standard of 10  $\mu$ g/L in MW-1 (18  $\mu$ g/L), MW-5 (10  $\mu$ g/L), MW-6 (37  $\mu$ g/L), and MW-8 (20  $\mu$ g/L). Concentrations of dissolved phase toluene, ethylbenzene, and xylene were below the WQCC standards of 750  $\mu$ g/L, 750  $\mu$ g/L, and 620  $\mu$ g/L, respectively, in all wells. Tabulated groundwater analytical results are presented in Table 3 and on Figure 3, and groundwater laboratory analytical reports are presented in Appendix D.

#### 3.0 Conclusions and Recommendations

A total of nine monitor wells were installed at the Lateral K-31 release location by AES on September 13 through 15, 2012, in accordance with the work plan submitted by AES in July 2012. Soil laboratory analytical results indicated benzene, total BTEX, and TPH concentrations were not above NMOCD action levels in any of the soil borings. However, laboratory results confirmed dissolved phase benzene concentrations above the WQCC standard of 10  $\mu$ g/L in four wells, including MW-1 (18  $\mu$ g/L), MW-5 (10  $\mu$ g/L), MW-6 (37  $\mu$ g/L), and MW-8 (20  $\mu$ g/L). Dissolved phase toluene, ethylbenzene, and xylenes concentrations were below WQCC standards in all monitor wells.

Based on laboratory analytical results from the August and September 2012 investigation, groundwater continues to be impacted slightly above WQCC standards in the vicinity of the December 2011 release. However, because concentrations are not significantly high, the site appears to be appropriate for monitored natural attenuation. AES recommends quarterly monitoring for a period of two years. If groundwater concentrations of contaminants increase over time, AES recommends evaluation of an oxygen release compound (ORC) compound to promote biodegradation of residual contaminants.

#### 4.0 Certification

I, the undersigned, am personally familiar with the information presented in this Site Investigation Report, prepared on behalf of Enterprise Products Company, Inc. for the Lateral K-31 December 2011 pipeline release. I attest that it is true and complete to the best of my knowledge.

Tami C. Ross, CHMM Project Manager

Ross Kennemer Senior Project Manager

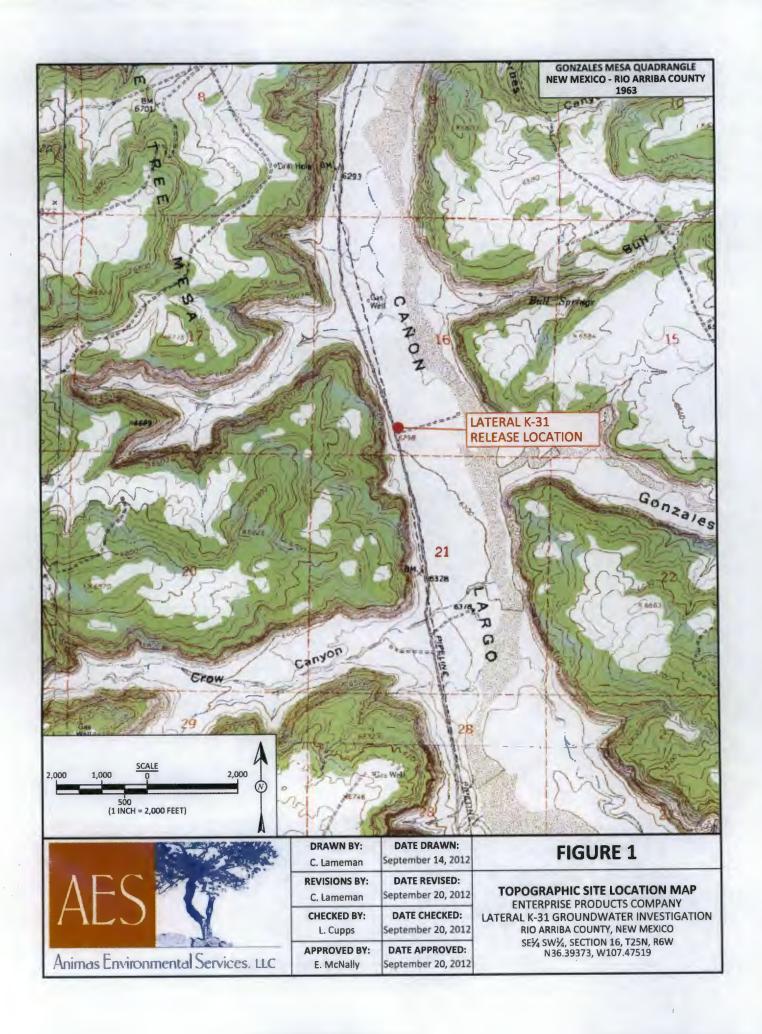
Elizabeth McNally, P.E.

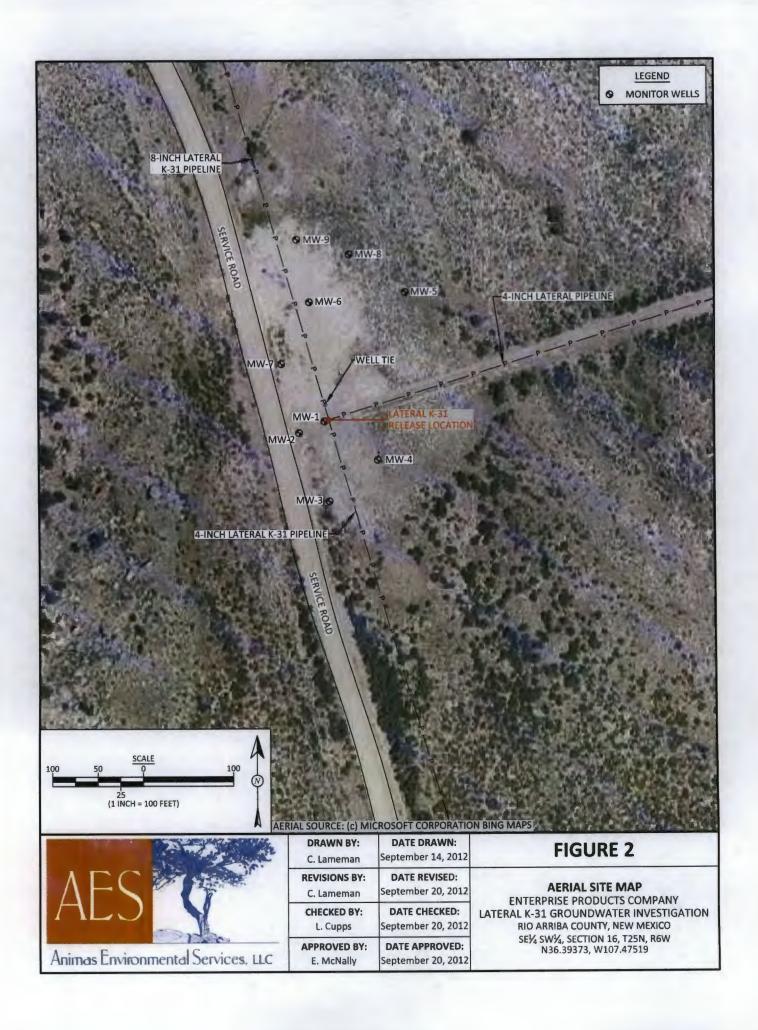
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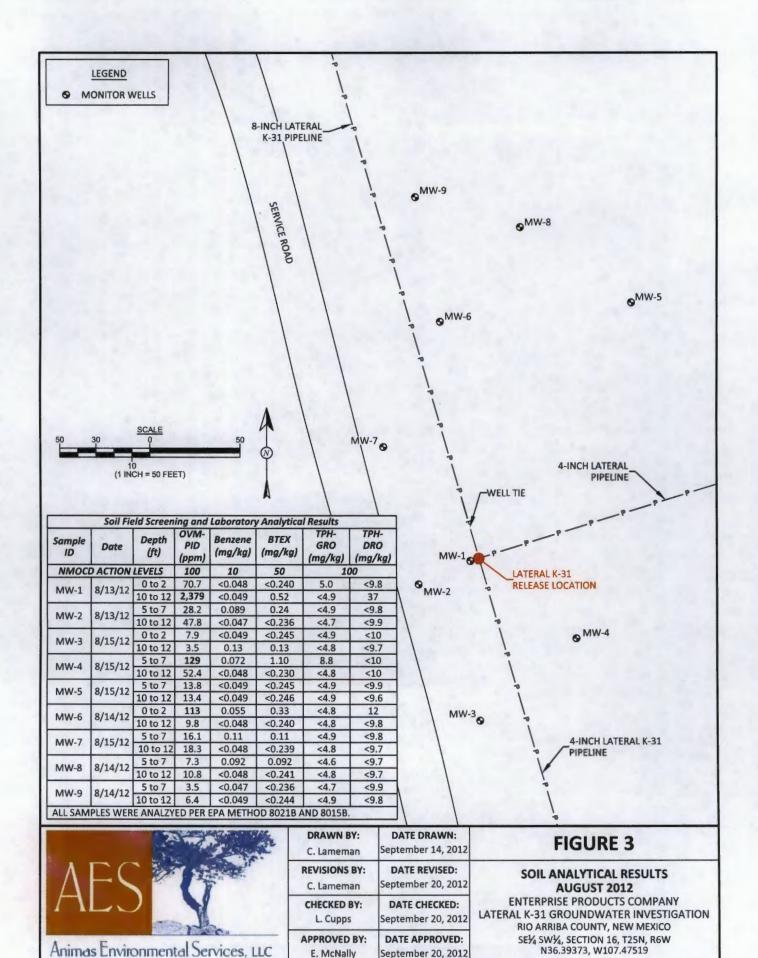
Principal

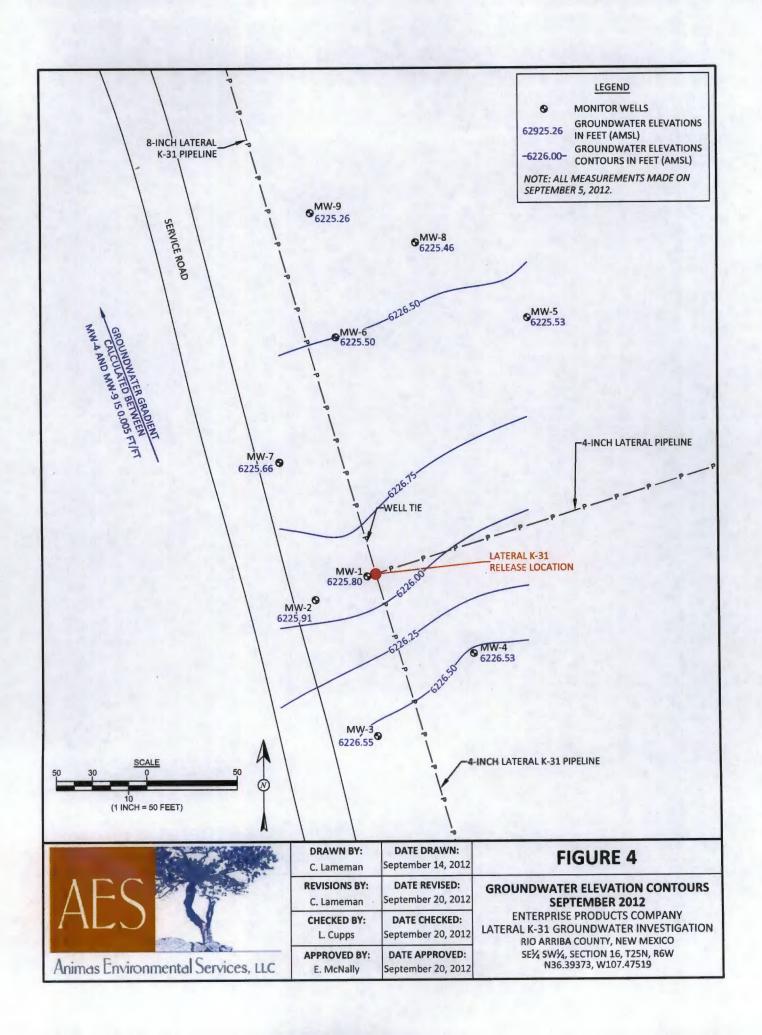
#### 5.0 References

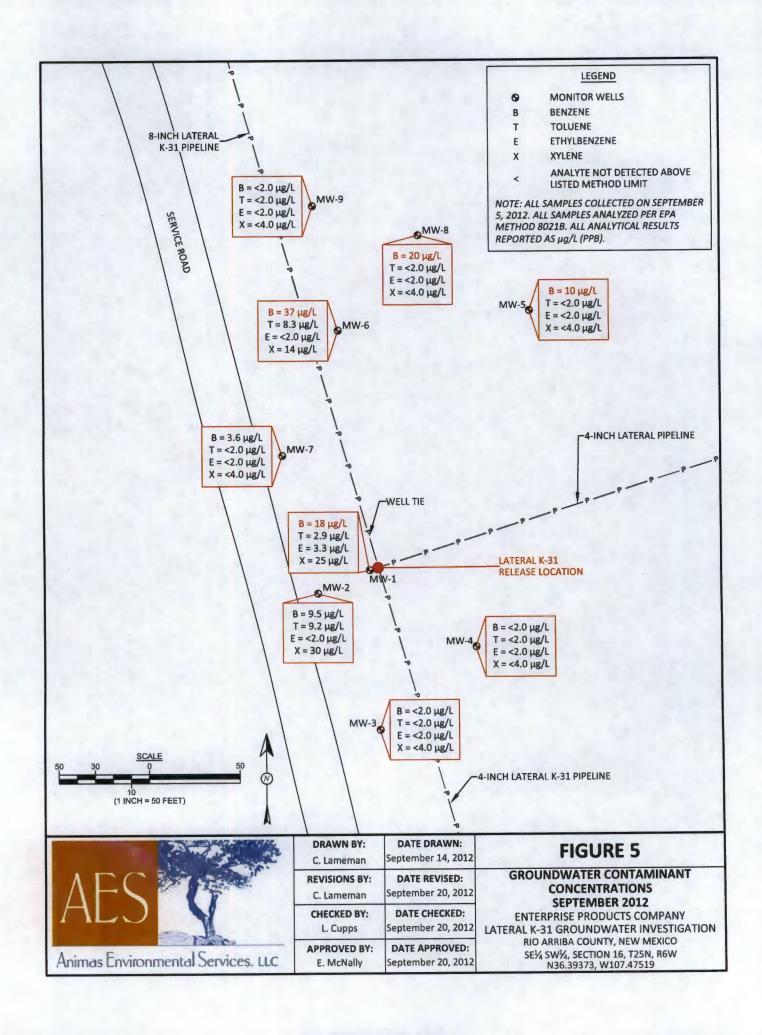
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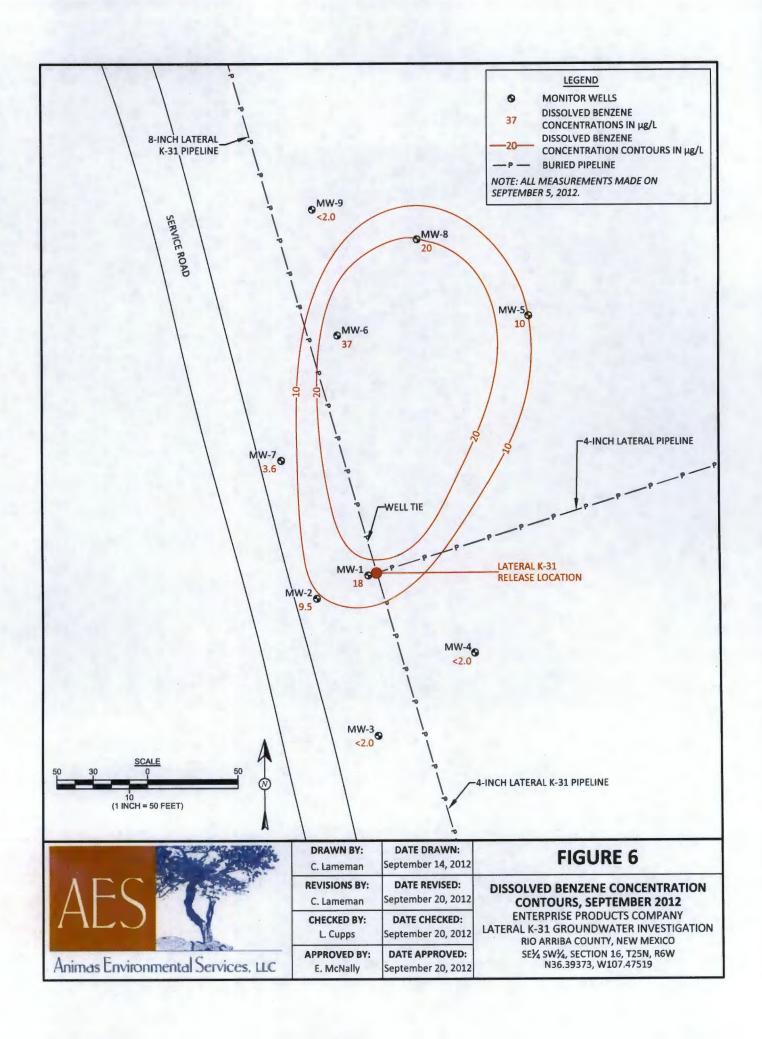












Groundwater Investigation Report November 29, 2012

TABLE 1
SUMMARY OF SOIL FIELD SCREENING AND ANALYTICAL RESULTS
Enterprise Products Company Lateral K-31 Groundwater Investigation
Rio Arriba County, New Mexico

Sample ID	Date Sampled	Depth (ft)	VOCs OVM (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- benzene (mg/kg)	Xylene (mg/kg)	BTEX (mg/kg)	GRO (C6-C10) (mg/kg)	DRO (C10-C22) (mg/kg)	TPH (mg/kg)
	NMOCD Action Level	tion Level	100	10	JN	NE	NE	20	NE	NE	100
1 /4/4/	17 4 17	0 to 2	7.07	<0.048	<0.048	<0.048	960'0>	<0.240	5.0	<9.8	2.0
T-00101	13-Aug-12	10 to 12	2,379	<0.049	<0.049	90.0	0.45	0.520	<4.9	37	37
C /V/V/	12 4.14 17	5 to 7	47.8	0.089	<0.049	<0.049	0.15	0.240	<4.9	<9.8	<15
7-00101	13-Aug-17	10 to 12	24.3	<0.047	<0.047	<0.047	<0.095	<0.236	<4.7	<9.9	<15
6 /4/4/4	15 0.12 13	0 to 2	6.7	<0.049	<0.049	<0.049	<0.098	<0.245	<4.9	<10	<15
C-00101	71-8nW-CT	10 to 12	3.5	0.13	<0.048	<0.048	<0.095	0.130	<4.8	<9.7	<15
V /V\V	15 0.12 13	0 to 2	129	0.072	<0.049	0.059	0.97	1.10	8.8	<10	8.8
+- MIN	T3-Ang-17	10 to 12	52.4	<0.048	<0.048	<0.048	0.23	0.230	<4.8	<10	<15
2/4/4/	15 0.12 13	5 to 7	13.8	<0.049	<0.049	<0.049	<0.098	<0.245	<4.9	<9.9	<15
C-MM	13-Aug-17	10 to 12	13.4	<0.049	<0.049	<0.049	<0.099	<0.246	<4.9	<9.6	<15
2 /4/4/	14 0.12 12	0 to 2	113	0.055	<0.048	<0.048	0.27	0.330	<4.8	12	12
0-00	14-Aug-17	10 to 12	8.6	<0.048	<0.048	<0.048	<0.096	<0.240	<4.8	<9.8	<15
7 / / / / 4	1E A 12	5 to 7	16.1	0.11	<0.049	<0.049	<0.098	0.110	<4.9	<9.8	<15
/- MIN	T2-Ang-17	10 to 12	18.3	<0.048	<0.048	<0.048	<0.095	<0.239	<4.8	<9.7	<15
0 /4/4/	14 0.12 13	5 to 7	7.3	0.092	<0.046	<0.046	<0.093	0.092	<4.6	<9.7	<15
0-00101	14-Aug-12	10 to 12	10.8	<0.048	<0.048	<0.048	<0.097	<0.241	<4.8	<9.7	<15
0 /4/4/4	14 6.12	5 to 7	3.5	<0.047	<0.047	<0.047	<0.095	<0.236	<4.7	<9.9	<15
6-MIN	14-Aug-12	10 to 12	6.4	<0.049	<0.049	<0.049	<0.097	<0.244	<4.9	<9.8	<15

**NOTES** NE = Not Established

TABLE 2
SUMMARY OF GROUNDWATER MEASUREMENTS AND WATER QUALITY DATA
Enterprise Products Company Lateral K-31 Groundwater Investigation

Rio Arriba County, New Mexico

Date 05-Sep-12 05-Sep-12 05-Sep-12 05-Sep-12 05-Sep-12 05-Sep-12 05-Sep-12	er Surveyed ) TOC (ft) 44 6245.24	GW Elev.					
Date 05-Sep-12 05-Sep-12 05-Sep-12 05-Sep-12 05-Sep-12 05-Sep-12				Conductivity	Oxygen	Temp.	ORP
05-Sep-12 05-Sep-12 05-Sep-12 05-Sep-12 05-Sep-12		(11)	рН	(mS)	(mg/L)	(¿C)	(mV)
05-Sep-12 05-Sep-12 05-Sep-12 05-Sep-12 05-Sep-12		6225.80	7.40	7.623	0.86	14.52	-90.7
05-Sep-12 05-Sep-12 05-Sep-12 05-Sep-12	69 6242.58	6225.89	7.39	8.519	1.30	15.35	-48.7
05-Sep-12 05-Sep-12 05-Sep-12	93 6245.48	6226.55	7.42	7.631	0.97	14.93	-63.9
05-Sep-12 05-Sep-12	55 6244.08	6226.53	7.42	10.05	1.97	14.61	-46.7
05-Sep-12	88 6241.41	6225.53	7.61	10.637	2.76	15.74	-105.0
	41 6242.91	6225.50	7.38	8.370	0.90	15.48	-48.3
MW-7   05-Sep-12   17.61	6243.27	6225.66	7.39	7.542	1.19	15.25	-57.2
MW-8 05-Sep-12 16.55	55 6242.01	6225.46	7.49	8.827	0.62	15.54	-76.3
MW-9 05-Sep-12 16.33	33 6241.59	6225.26	7.28	8.183	1.02	14.95	-40.5

TABLE 3
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
Enterprise Products Company Lateral K-31 Groundwater Investigation

Rio Arriba County, New Mexico

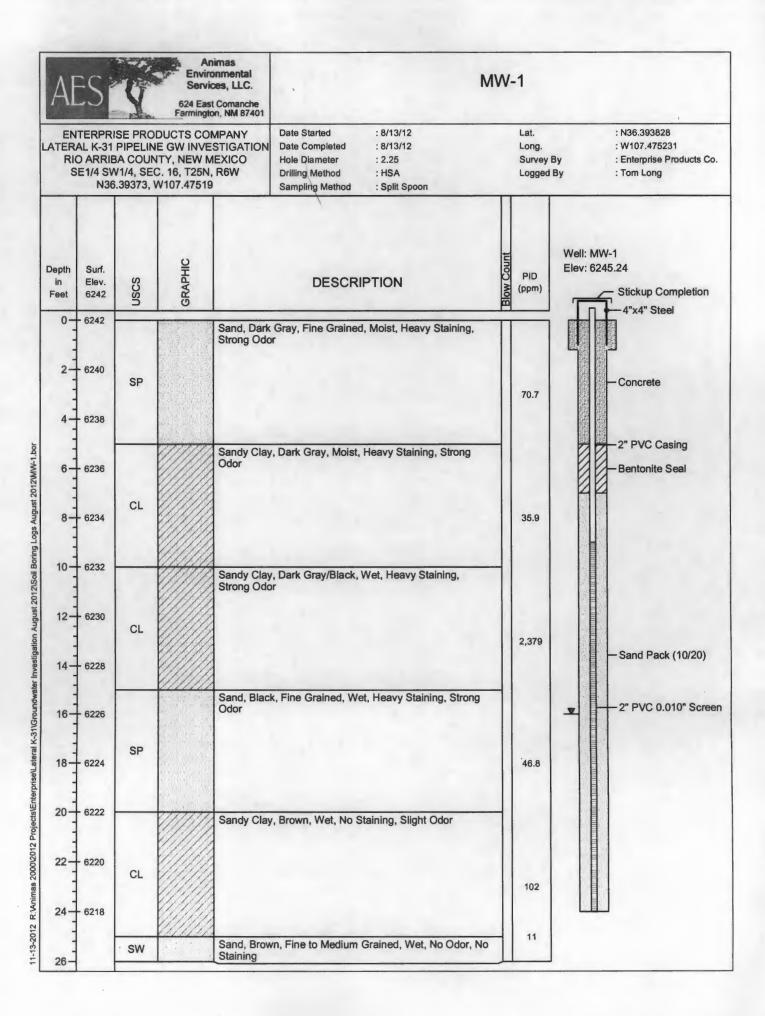
Well ID	Date Sampled	Benzene	Toluene	Ethyl- benzene	Xylenes
		μg/L	μg/L	μg/L	μg/L
Sa	mple Method		EPA Meth	od 8021	
WQ	CC STANDARD	10	750	750	620
MW-1	05-Sep-12	18	2.9	3.3	25
MW-2	05-Sep-12	9.5	9.2	<2.0	30
MW-3	05-Sep-12	<2.0	<2.0	<2.0	<4.0
MW-4	05-Sep-12	<2.0	<2.0	<2.0	<4.0
MW-5	05-Sep-12	10	<2.0	<2.0	<4.0
MW-6	05-Sep-12	37	8.3	<2.0	14
MW-7	05-Sep-12	3.6	<2.0	<2.0	<4.0
MW-8	05-Sep-12	20	<2.0	<2.0	<4.0
MW-9	05-Sep-12	<2.0	<2.0	<2.0	<4.0

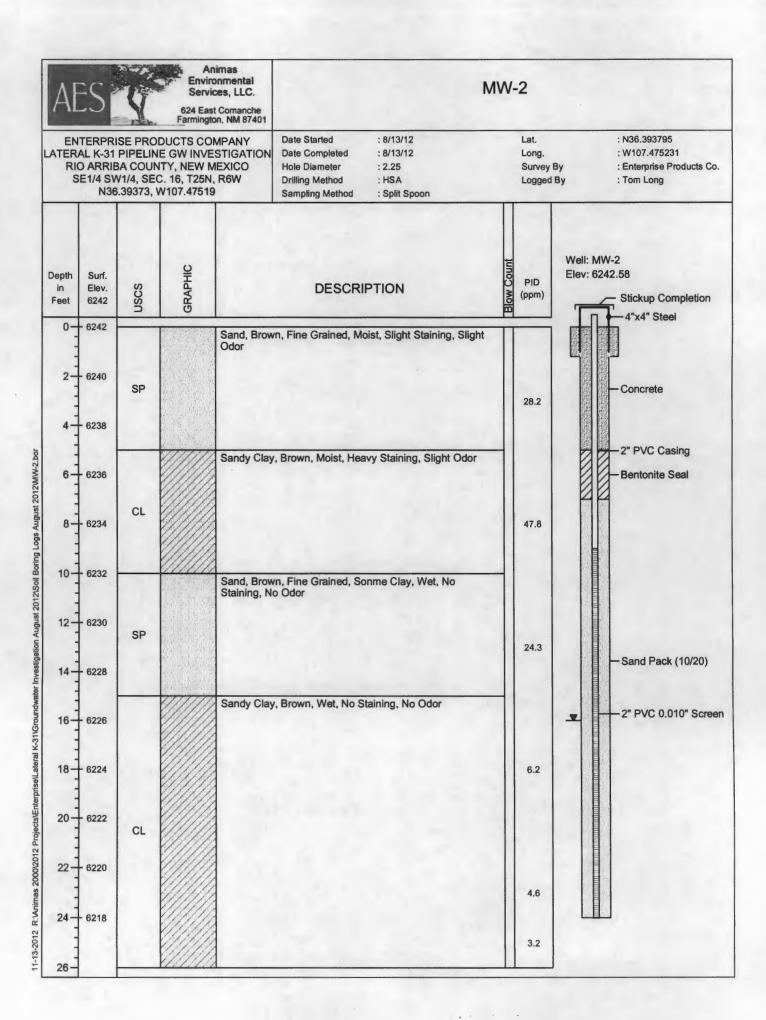
Notes:

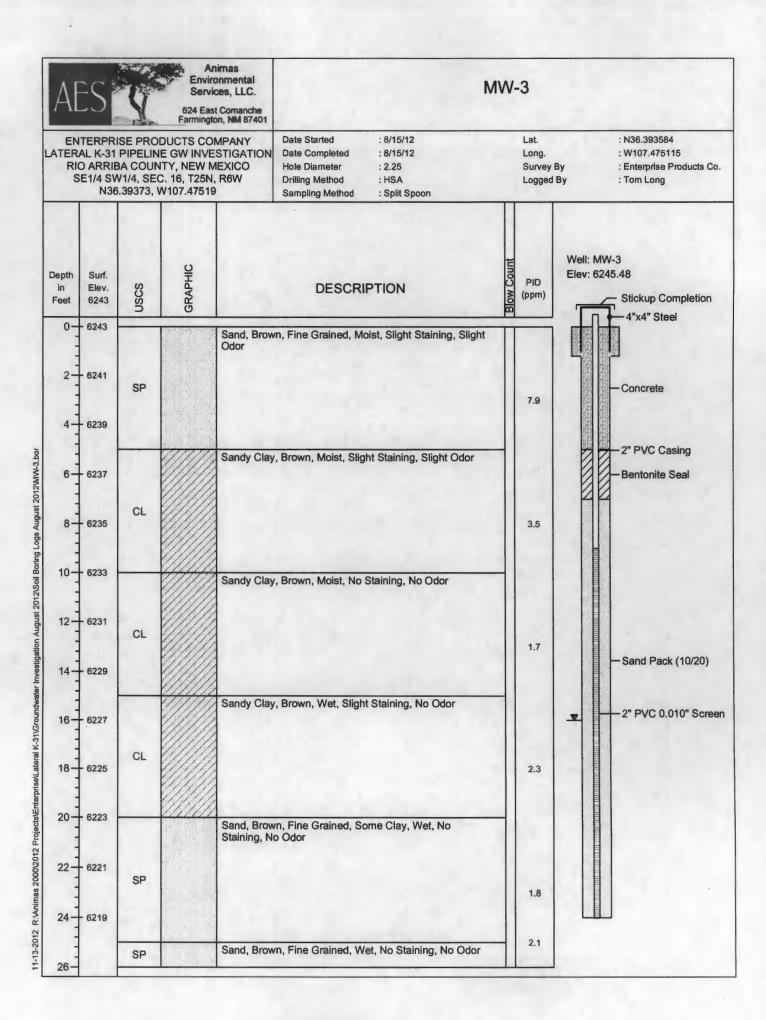
Analyte not detected above listed method limit

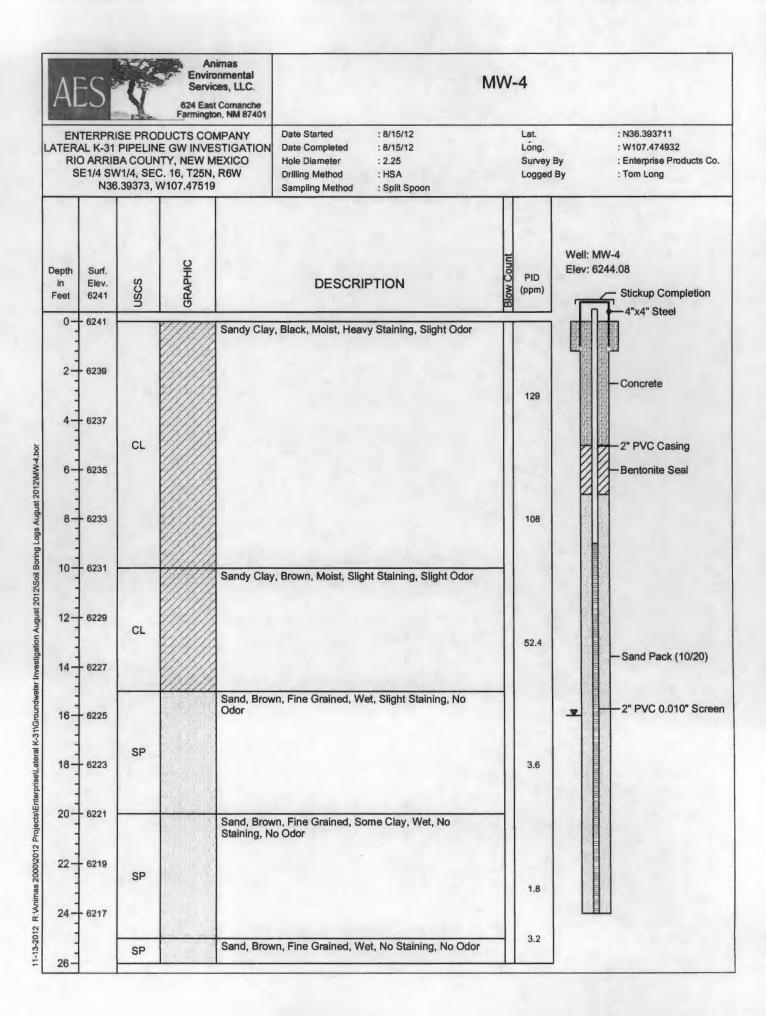
NE Not established

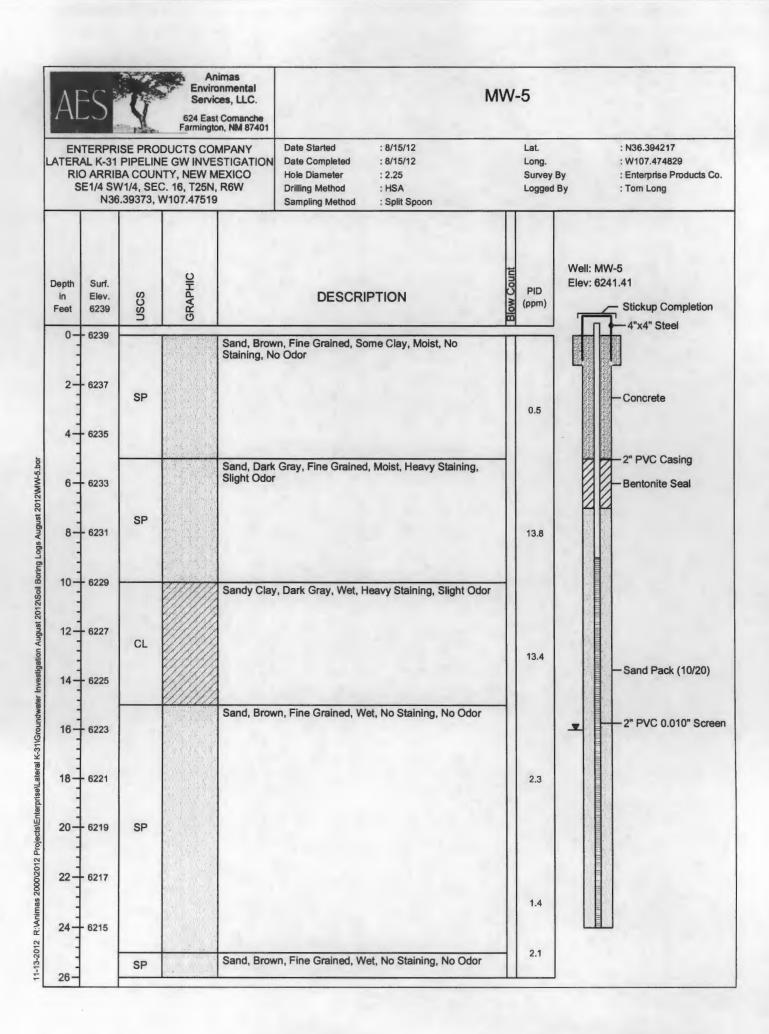
μg/L Micrograms per liter (ppb)

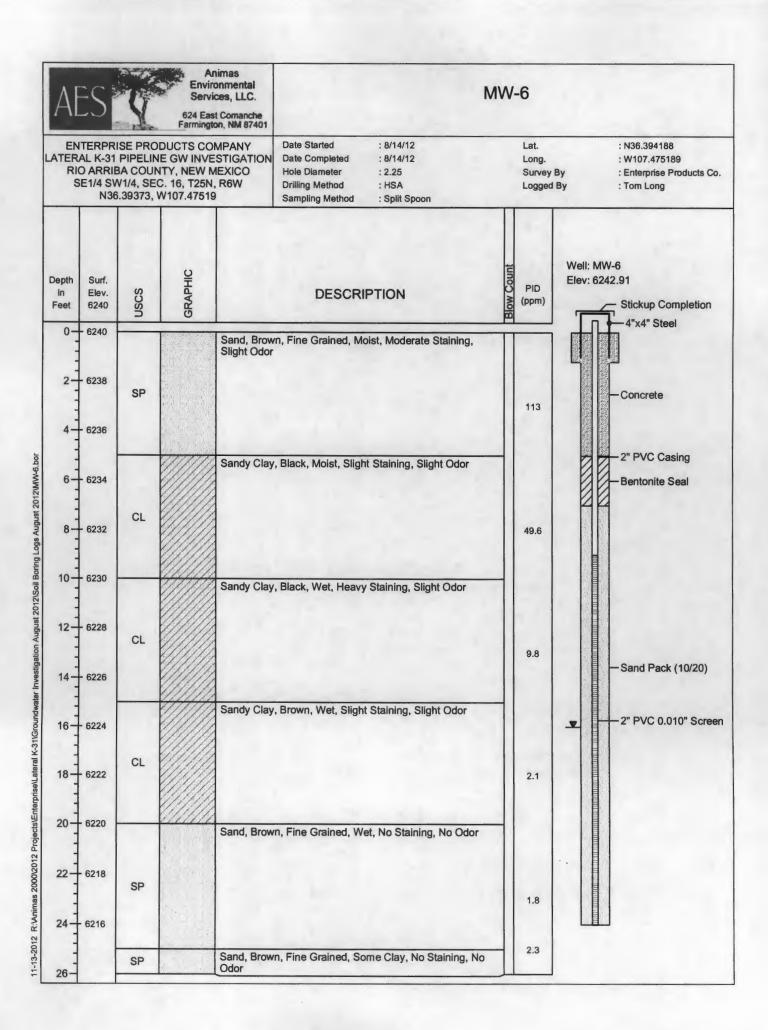


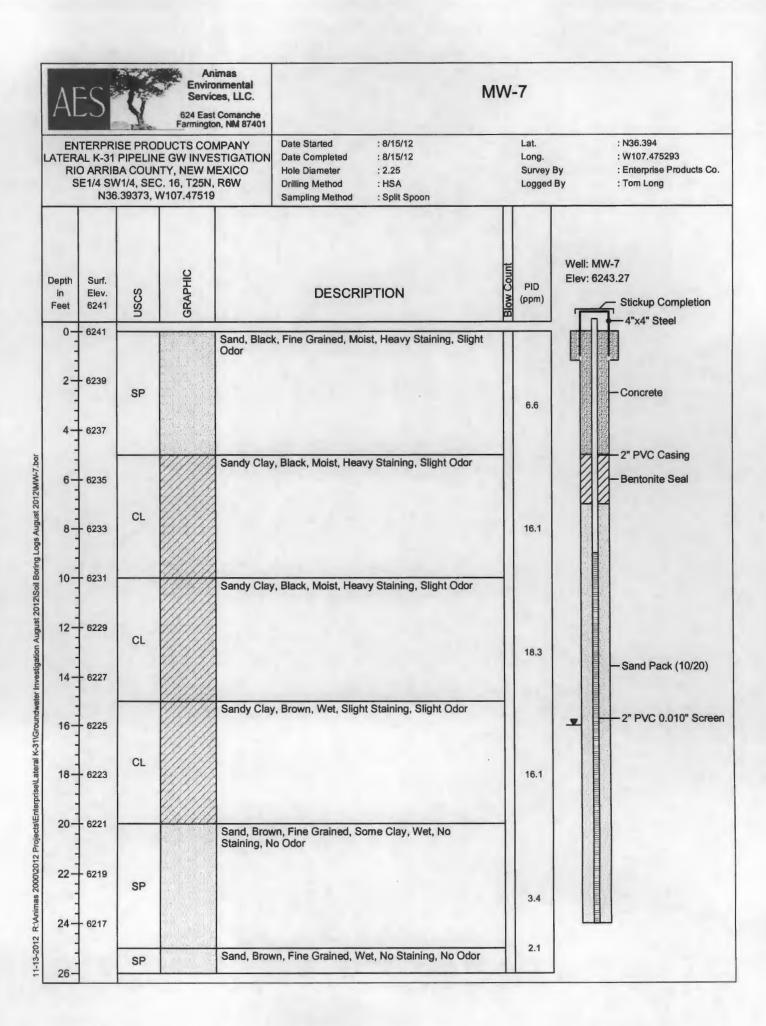


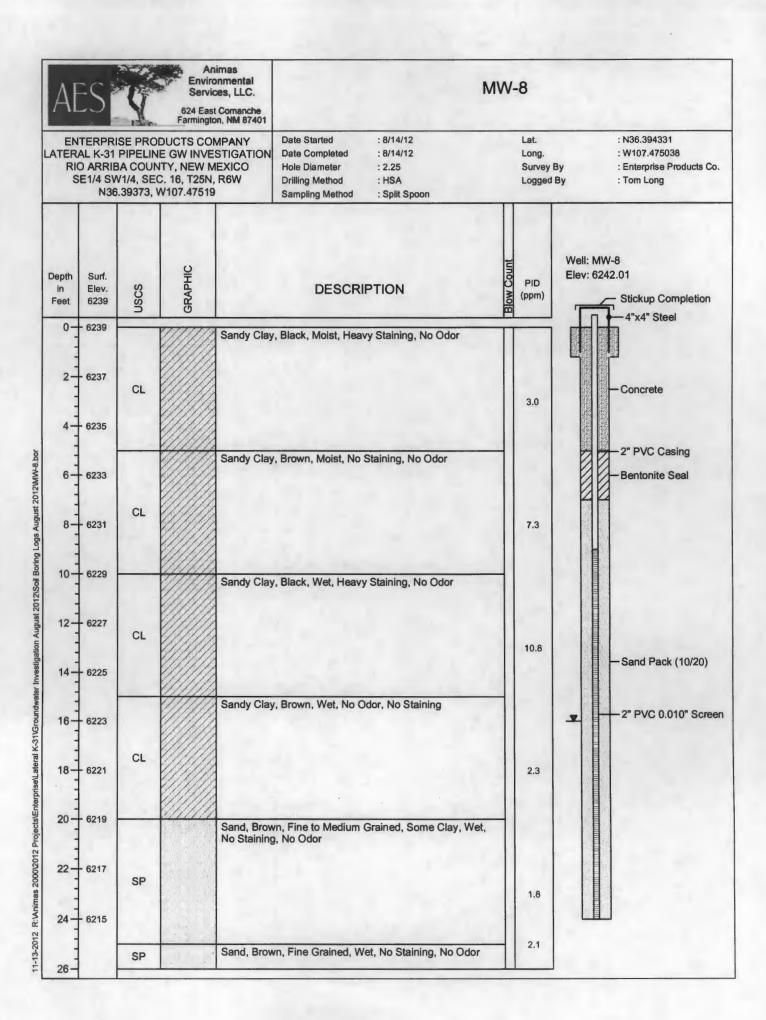


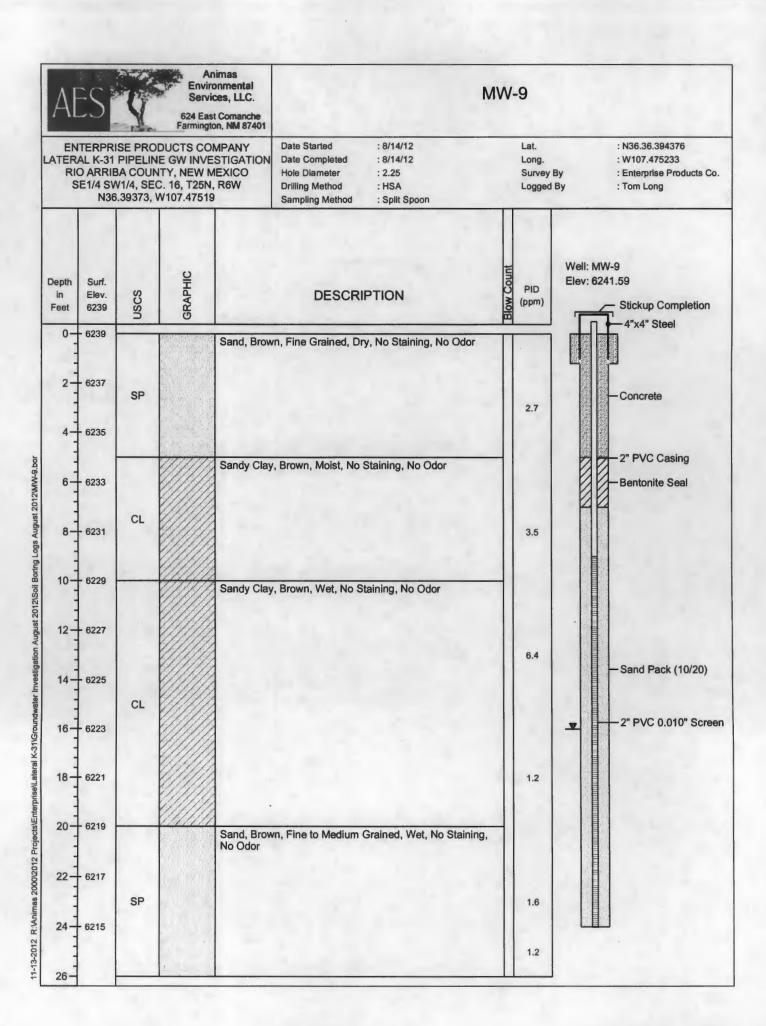












District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

#### State of New Mexico Energy Minerals and Natural Resources

Form C-138 Revised March 12, 2007

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

\*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE
1. Generator Name and Address: Enterprise Products Operating, LP.
2. Originating Site: Lateral K-31 Pipeline
3. Location of Material (Street Address, City, State or ULSTR): Unit N, Sec 16, T25N R16W (N 36.39373 W -107.47519), Rio Arriba County NM
4. Source and Description of Waste:
Source: Groundwater well installation
Description: Exempt stained soil from the development of remediation related groundwater wells  Estimated Volume10yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) (yd³) bbls
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS
I,Aaron Dailey, representative or authorized agent forEnterprise Products Operating, LP  SIGNATURE OF REPRESENTATIVE PRINT NAME  do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's  July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)
RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste.  Operator Use Only: Waste Acceptance Frequency Monthly Weekly Per Load
RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)
GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS
I, Aaron Dailey, representative for Enterprise Products Operating, LP_ authorize Envirotech to complete the required testing/sign the Generator Waste Testing Certification.
I, do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.
5. Transporter: Kyvek Energy Services
OCD Permitted Surface Waste Management Facility
Name and Facility Permit #: Envirotech Inc. Soil Remediation Facility Permit # NM-01-0011
Address of Facility: Hilltop, New Mexico
Method of Treatment and/or Disposal:  Evaporation Injection Treating Plant Industry Industry Injection Inj
Waste Acceptance Status:  APPROVED  DENIED (Must Be Maintained As Permanent Record)
PRINT NAME: WASH WASH WASH WASH WASH SIGNATURE: Surface Waste Management Facility Authorized Agent TELEPHONE NO.: 632-0615
V

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

#### State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 97057-0521 FREVISED M

Form C-138 Revised March 12, 2007

\*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

# REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

	REQUEST TOK THE TO THE CELL TOO BID WHOTE
1.	Generator Name and Address: Enterprise Products Operating, LP
2.	Originating Site: Lateral K-31
3.	Location of Material (Street Address, City, State or ULSTR): Unit N, Section 16, T25N, R6W; 36.39379, -107.47519
4.	Source and Description of Waste: hydrocarbon contaminated groundwater from produced water from monitor well development and sampling (from pipeline gas/condensate release)
Es	timated Volume 5_yd³ (bbls) Known Volume (to be entered by the operator at the end of the haul) 4 yd³ (bbls)
5.	GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS
do	, representative or authorized agent for Enterprise Products Company  SIGNATURE OF REPRESENTATIVE PRINT NAME  hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's 1988 regulatory determination, the above described waste is: (Check the appropriate classification)
	RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste.  **Operator Use Only: Waste Acceptance Frequency   Monthly   Weekly   Per Load
	RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)
	MSDS Information    RCRA Hazardous Waste Analysis    Process Knowledge    Other (Provide description in Box 4)
	GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS
of co sa	TIGNATURE OF REPRESENTATIVE COMPANY NAME  the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to nform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative mples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.
5.	Transporter: Animas Environmental Services, Inc.
ОC	D Permitted Surface Waste Management Facility
1	Name and Facility Permit #: Envirotech Inc. Soil Remediation Facility Permit # NM-01-0011
,	Address of Facility: #43 Road 7175, south of Bloomfield NM
ì	Method of Treatment and/or Disposal:
	☐ Evaporation ☐ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other
Wa	ste Acceptance Status:  APPROVED  DENIED (Must Be Maintained As Permanent Record)
PRI	NT NAME: Kendra Runung TITLE: Waste Coordinator DATE: 8 22 12
SIC	NATURE: Runda Runda TELEPHONE NO.: 505-632-0615  Surface Waste Management Facility Authorized Agent

#### Animas Environmental Services GROUNDWATER MONITORING WELL 624 E. Comanche, Farmington NM 87401 **DEVELOPMENT FORM** Tel. (505) 564-2281 Fax (505) 324-2022 Project: Enterprise Products Company Project No.: Date: 8/20/12 4 8/21/12 Site: hateral K-31 Location: N36.39373, 41107.47519 Time: 1415 + 1015 Tech: N. Willis Form: Well Depth to NAPL Depth to **Purged Volume** Method / Notes / Observations (ft.) Water (ft.) (gal.) Total Dopth = 26.61' Start: 1445 Finish: 1630 12 gal. 8/20 PMW 16,21 MW-9 6 gal. 8/21 Used Disposible Bailer + Dumpa Purged Volume Well Depth to NAPL Depth to Method / Notes / Observations Water (ft.) (ft.) (gal.) Total Deptn = 26.89, Used Development pump, 16.49 MW-8 start: 1101 Finish: 1158 Z.3 foot stick up Well Depth to Depth to NAPL **Purged Volume** Method / Notes / Observations Water (ft.) (ft.) (gal.) PMU-6 Used Development Pump 17,33 16 MARIE Start: 1202 Finish: 1250 Depth to Well Depth to NAPL **Purged Volume** Method / Notes / Observations Water (ft.) (ft.) (gal.) Used Development Pump 15,83 MW-2 Start 1 305 Finish: 1354 Well Depth to **Purged Volume** Depth to NAPL Method / Notes / Observations ID (ft.) Water (ft.) (gal.) Used Development Pump 15 PMW-4 17,48 Start = 1405 Finish = 1445 Depth to Well Depth to NAPL **Purged Volume** Method / Notes / Observations ID Water (ft.) (ft.) (gal.) Used Development Pump PMW-1 19.28 12 Start = 1457 Finish = 1559 Well Depth to NAPL **Purged Volume** Depth to Method / Notes / Observations ID (ft.) Water (ft.) (gal.) Used Development Pump PMW-3 8.88 12 Start=1605 Finish=1645 Well Depth to **Purged Volume** Depth to NAPL Method / Notes / Observations ID Water (ft.) (ft.) (gal.) Used Development Pump PMW-Z 16.64 14 Start = 1649 Finish = 1735 Well **Purged Volume** Depth to NAPL Depth to Method / Notes / Observations ID (ft.) Water (ft.) (gal.) Used Development Pump PMW-7 15 17.56 Start = 1737 Finish = 1823 Well Depth to NAPL Depth to **Purged Volume** Method / Notes / Observations ΙĐ (ft.) Water (ft.) (gal.) Puged Water Storage, Transport, and Disposal Information:

Water De	velopme	nt Record			Anima	as Environmenta	l Services
Monitor We	ell No:	1-WMC				Comanche, Farmington	
<u> </u>						5) 564-2281 Fax (505) 3	324-2022
Project:	Enterpr	ise Products	Company		Projec		
Site: Location:	Lateral N2/20		47515	-		Date: 8/21/12 Time: 1457	
Sampler:		373, W107 N. Willis	, 77319	•	Wa	ather: Clear	
Sampling I		Development	Pump	- Air	Temper		
Depth of W		Z6.68	Ψ		ell Diam		
Depth to W		19.28		•	Elevation		
	Temp	Conductivity	DO		ORP	PURGED VOLUME	
Time	(deg C)	(µS) (mS)	(mg/L)	рН	(mV)	(gallons)	Notes/Observations
1513	13.50	7,474	1.25	7.08	-99.0	0	
1528	13.65	7.220	0.35	7.08	-115.2	3	5:147
1534	13.66	7.341	0.23	7.02	-127.5	3	
1544	13,22	7.387	0.22	7.01	-177.5	3	
1549	13.22	7.404	0.18	6.78	-128,0	3	
			<b>*</b>			Total = 12 gal.	4 gas meter
			1.30	tropicis of		J -	read 2% LEL
					\$.		on this well
							while sanding
							next to it
							Hzs also at
		WHI I					12 ppm
		A CONTRACTOR OF THE CONTRACTOR					
Analytical I	Parameters	Sampled For (i	nclude Me	thod #):			
Disposal of	Purged Wa	ater:					
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ord Complete?	(Y/N)				
Analytical I	_aboratory:						
Equipment	Used Durin	ng Sampling:					
Other Note:	s/Comment	s				ALVERO CONTRACTOR CONT	
Hick	Up=2.3	Coot					
			The state of the s	.,, ,			
26.68	3-19.2.	8 = 7.40	) x 0,	163Z	= 1.2	x 10 = 12 gal	

Water D	evelonme	nt Record			Anima	as Environmenta	l Services
I	-					Comanche, Farmington	
INICITION W	ell No. PI	NW-Z				5) 564-2281 Fax (505)	
Project:	Enterpris	e Products	Company			ct No.:	
Site:	Lateral	K-31		-		Date: 8/21/12	
Location: Sampler:	NSG. 39. Tech:	373 , W107. W. Willis	47519	-	We	Time: <u> 649</u> eather: Clear	
Sampling		Development	Pump	- Ai	r Temper		
Depth of V		25.00	1000		/ell Diam		
Depth to V	Vater (ft):	16.64		Site	Elevation	on (ft):	<b>Y</b>
	Temp	Conductivity	DO		ORP	PURGED VOLUME	
Time	(deg C)	(µS) (mS)	(mg/L)	рН	(mV)	(gallons)	Notes/Observations
1655	14.03	8,313	2.03	6.69	-46.0	0	
1704	14.07	8,198	1, 11	6.83	47.9	3	5:14,
1710	13.81	8,195	1.09	6.90	-55.7	3	
1718	13.85	8,294	1,32	7.01	-58.5	3	
1724	13.91	8.230	1,73	7.03	-59.2	3	)
1730	13.87	8.244	1,42	7.01	~58.9	2	
			•			Total = 14 gal.	
						9	
					<u> </u>		
					\		
	<u> </u>			<u> </u>	<u> </u>		
	<u> </u>			<b></b>			
	<u> </u>	<u> </u>	<u> </u>	İ	<u> </u>		
	_						
Analytical	Parameters	Sampled For (	include Me	thod #):			
	· · · · · · · · · · · · · · · · · · ·						
Disposal o	f Purged W	ater:					
Chain of C	ustody Rec	ord Complete?	(Y/N)				
Analytical	Laboratory						
Equipmen	t Used Durii	ng Sampling:					
						<del></del>	
Other Note	es/Commen	ts					
Stick	00:00	·O foot	(man h	ale)			
1.5	<u> </u>	1001	× 1 100 1 1 1	<u></u>		ALL CONTROL OF THE PROPERTY OF	
	<del></del>						
75-11	664= 8	3/2 × 10 11	ススモー	36 v	0 = 12	3.6 = 14 gal.	
20 10	e. G   " D	1-10 × U116	ر ا <sup>-</sup> ال	JA Y	U - 10	re - i gali	

Water De	velopme	nt Record	-		Anima	as Environmenta	l Services		
Monitor We	eli No:	PMW-3	3			Comanche, Farmington			
					Tel. (505) 564-2281 Fax (505) 324-2022				
Project:	Enterp	ise Product	s Compan	4	Project No.:				
Site:	Lateral	14-31	- 1		Date: 8/21/12				
Location: <u>N36, 39373, W1074354</u>						Time: 605 ather: Clear			
Sampler: Sampling N	Tech ;	N. W:113	Pump	Air	Temper				
Depth of W		Development Z6.18	POMP		ell Diam				
Depth to W		18.88			Elevation				
	Temp	Conductivity	DO		ORP	PURGED VOLUME			
Time	(deg C)	(µS) ( <b>@\$</b> )	(mg/L)	рН	(mV)	(gallons)	Notes/Observations		
1612	13.70	7.240	3.05	6.54	-76.5	0			
1621	14.25	7.069	1.28	6.98	-81.7	3	5:14,		
1629	13.84	7.143	0,83	6.73	-651	3			
1637	13.58	7,350	0,91	6.68	-75.2	3			
1642	13.77	7,330	0.71	6.57	-67.5	3	4-		
						Total = 1Zgal.			
Analytical	Parameters	Sampled For (	include Me	thod #):					
Disposal o	f Purged W	ater:							
Chain of C	ustody Rec	ord Complete?	(Y/N)						
Analytical	Laboratory				····				
Equipment	Used Duri	ng Sampling:							
Other Note	Other Notes/Comments								
Stick Up = foot									
	١								
26.18-1	8.88	= 7.3 × (	0.1632=	= 1.19	× 10	= 11.9 = 12 gal.			

Water Do	evelopme	nt Record			Anima	as Environmenta	l Services		
Monitor W	lell No: $ {\cal D} $	MW-H			624 E. C	Comanche, Farmington	NM 87401		
<u></u>					Tel. (505) 564-2281 Fax (505) 324-2022				
Project: Site:	Enterpr	ise Product K-31	s Company	<u>L</u>	Project No.: Date: 8/2///Z				
Location:	Lateral	9373, WIO	1. 47519	-		Date: 8/21/1Z Time: 1405			
Sampler: Tech: N. Willis Weather: Clear									
Sampling	Method:	Developmen	t Pump		Temper	rature: 92°F			
Depth of V	, ,	26.80			/ell Diam				
Depth to V	Temp	Conductivity	DO	Site	Elevation ORP	purged volume			
Time	(deg C)	(µS) (mS)	(mg/L)	рH	(mV)	(gallons)	   Notes/Observations		
1407	14.80	7.623	1,41	7.0Z	-41.8	(ganoris)	140tes/Observations		
1413	14.00	8,991	0,69	6.97	-50,2	3	Silty		
1419	14.08	9.349	0.71	6.93	-57.1	3	/		
1428	13.71	9,454		6.95	63.0	3			
1433	13.47	9.878	0.47	6.88	~70.0	3	)		
1439	13.55	9.874	0.50	6.92	-69.9				
						Total = 15 gali			
						2			
						***			
Analytical	Parameters	Sampled For (i	nclude Me	thod #):					
Disposal o	f Purged Wa	ater:							
Chain of C	ustody Rec	ord Complete?	(Y/N)						
Analytical	Laboratory:								
Equipment	Used Durin	ng Sampling:							
	s/Comment	-		o almie - viii -					
Stick	Up = Z	foot							
	-								
26.80	17.48	=9.32 x 0	0.163Z	= 1.5	x 10 =	15			

Water De	Water Development Record Animas Environmental Services								
Monitor W	•					Comanche, Farmington			
Wichitor W	en No. P	MW-5				5) 564-2281 Fax (505) 3			
Project:	Enterprise		Company	Project No.:					
Site:	Lateral	K-31	2 / 5/6	7	Date: 8/21/12				
Location: <del>Sampler:</del>	N. 36. :	<u>۱۷ ، ۲۶۶۹۶</u> خالن ۷ ، ۷	0+.41319	ī		Time: <u>    305</u>   ather: <u>  Clear</u>			
<del>Sampli</del> ng l		Development	Pump	Aiı	Temper				
Depth of W		26.14			/ell Diam				
Depth to W	/ater (ft):	5,83		Site	Site Elevation (ft):				
	Temp	Conductivity	DO		ORP	PURGED VOLUME	:		
Time	(deg C)	(µS) (က်9)	(mg/L)	pН	(mV)	(gallons)	Notes/Observations		
1303	15.31	10.06	3.28	7.16	- <b>8</b> Z.	0	3:1ty		
1320	15.40	9,915	0.66	7.15	-107.1	3	<b>\</b>		
1327	15,42	9,941	0.52	7.18	-114.6	3			
1334	15,27	9.940	0.45	7.72	-124.7	<u>3</u> 3			
1340	15.39	10.05	0.44	7.72	-123.7	3			
1345	15,23	10,14	0.41	7,23	-128,9	3			
1351	15.26	10,20	0.43	7.19	-126.4	2			
						total = 17 gal.			
Analytical	Parameters	Sampled For (i	include Me	thod #):	·				
***************************************									
Disposal o	f Purged Wa	ater:					4.4		
Chain of C	ustody Rec	ord Complete?	(Y/N)		. <del></del>				
Analytical	Laboratory:	 							
Equipment	Used Durin	ng Sampling:							
	Other Notes/Comments								
Stick	UP = 1	, 9 foot							
				, , , , , , , , , , , , , , , , , , , ,					
					and the special of th				
			<b></b>						
26.11	4-15.83	= 10.31 x	0.1632	Z = I	68 X	10 = 16.8 a = 1	7 gal.		

Water Development Record Animas Environmental Services											
			,								
Monitor We		MW-				Comanche, Farmington 5) 564-2281 Fax (505) 3					
Project:	Enterpri	se Products	Company	Project No.:							
Site:						Date: 8/Z1//Z					
Location: <del>Sample</del> r:		4373, WO	1.47519	-		Time: 12.02					
Sampling.	<u>/ecv</u> √ethod:	N. Will's Development	00	- Δir		ather: <u>Clear</u> ature: 89°F					
Depth of W		Z7.16	POMIA			. (in.): Z"					
Depth to W		17.33		-	Elevation	· · · · · · · · · · · · · · · · · · ·					
	Temp	Conductivity	DO		ORP	PURGED VOLUME					
Time	(deg C)	(µS) (fnS)	(mg/L)	pН	(mV)	(gallons)	Notes/Observations				
1213	13.58	7.668	2.61	7.04	-69,7	0					
1221	14,15	8,198	1,19	6,92	-48.2	3	Silty				
1227	14.21	8,237	0.97	6.87	-45.9	3	Silty				
233	13,86	8,176		6.90		3	Slightly & Clear				
1239	13.54	8,069	0,90	6.88	-58.7	3					
1245	13.61	8,070	0.83	6.84	-58.1	Tky	2				
						total = 16 gal.					
						)					
Analytical I	Parameters	Sampled For (i	nclude Me	thod #):							
Disposal of											
	······································	ord Complete?	(Y/N)								
Analytical L				<del></del>							
Equipment	Used Durir	ng Sampling:									
Other Note:	s/Comment	s									
Stick of											
- 10 - 10	<del></del>	- <b>-</b>									
				<del>,</del>							
27.16	- 17.33	= 9,33 x	0.1637	1= 1.6	× 10	) = 16					

Water De	velopme	nt Record			Anima	as Environmental	Services		
Monitor W	ell No:	PMW-7				Comanche, Farmington I 5) 564-2281 Fax (505) 3	1		
Project:	Entenori	se Products	Company		Projec				
Site:	Lateral	K-31			-	Date: 8/21/12			
Location:	N.36.3	9373, W107	47519			Time:  737			
Sampler:	Tech! 1	J. Willis		Weather: Clear					
Sampling I		Developmen	+ Pump	Air Temperature: 95°F					
Depth of W	lell (ft):	26,43		W	ell Diam	. (in.):			
Depth to W	later (ft):	17.56		Site	Elevation	on (ft):			
	Temp	Conductivity	DO		ORP	PURGED VOLUME			
Time	(deg C)	(µS) (mS)	(mg/L)	рН	(mV)	(gallons)	Notes/Observations		
1742	1500	7.439	2.16	7.40	-95.1	0			
1751	14.74	7,426	1,33	7.22	-78.5	3	5,14		
1758	14.62	7,393	1.00	7.12	-69,7	3	(		
1804	14.53	7,385	0.91	7.09	-67.3	3			
1810	14,44	7,377	0.80	7,04	64.7	3	)		
1817	14.22	7.372	0.73	7,00	-6Z.6	3			
						Total = 15 gali			
						9			
	I			L	<u></u>				
Analytical	Parameters	Sampled For (	nclude Me	thod #):					
·									
Disposal o	f Purged W	ater:							
Chain of C	ustody Rec	ord Complete?	(Y/N)						
Analytical	Laboratory	, ,							
Equipment	Used Duri	ng Sampling:							
Other Note	Other Notes/Comments								
Stick	1.1°	9 foot							
	\								
26.43	26.43 - 17.56 = 8.87 x 0.1632 = 145 × 10 = 14.5 = 15 gal.								

Water De	evelopme	nt Record			Anıma	as Environmenta	Services			
Monitor W	ell No: F	8-WM				Comanche, Farmington 5) 564-2281 Fax (505) 3				
Project:	Enteronis	e Products	Company			ct No.:				
Site:	Latero	U K-31	· '	-		Date: 8/21/17				
Location:		9373, WIOT.	47519	Time: I)Ol						
Sampler:		<u>રૂ. બંગાંડ</u>		- A:	Weather: <u>Clear</u> Air Temperature: 89°F					
Sampling I Depth of W	Development pum	β	777	r । emper /ell Diam						
Depth to W		<u> 26.89'</u> 16.49	м. п.		Elevation					
	Temp	Conductivity	DO		ORP	PURGED VOLUME				
Time	(deg C)	(µS) (£13)	(mg/L)	рН	(mV)	(gallons)	Notes/Observations			
1115	15.06	5.978	3.48	7.27	-49,4	0	A Lot of 5.14			
1126	13.90	7.833	1.70	7.05	-68.3	3				
1132	13.73	8,178	1.09	7.02	-68,5	3				
1137	13.76	8,555	1.33	6.98		3				
1140	13.85	8,548	1,27	6,97		3				
1149	14,19	8,122	1.12	6.96		3				
1156	14.30	8.337	1.02	6.92	-8010	Z				
						total = 17 gal.				
						7				
***										
Analytical l	Parameters	Sampled For (i	include Me	ethod #):						
		1								
Disposal o	f Purged W	ater:								
Chain of C	ustody Rec	ord Complete?	(Y/N)							
Analytical I	_aboratory:									
Equipment	Used Duri	ng Sampling:								
Other Note										
2.3	foot si	lick op								
	,									
26.89	- 16.49	= 10.40'	10.	4'x 0.	1632 =	1,7g. 1.7x1	0=17q.			
							J			

Water D	ater Development Record Animas Environmental Services								
Monitor W		PMW-	9			Comanche, Farmington 5) 564-2281 Fax (505)			
Project:	Enteronis	e Products	Company			ct No.:			
Site:	<u>Lateral</u>	K-31		-		Date: 8/20/12			
Location:	-N36.3	59373, W10	7.47519	_		Time: 1445			
Sampler:	Tech:	<u>W. Willis</u>		_		eather: <u>Clear</u>			
	Sampling Method: Disposible Bailes / pump Air Temperature: 73°F								
	Depth of Well (ft): Well Diam. (in.): Z"  Depth to Water (ft): Gite Elevation (ft):								
Deptil to v	T			Site	1	PURGED VOLUME			
l	Temp	Conductivity	DO		ORP				
Time	(deg C)	(µS) (mS)	(mg/L)	рН	(mV)	(gallons)	Notes/Observations		
1033	14.64	7,831	Z,93	7.05	-37.1	0	Dute 8/21/12		
1054	13,13	7.882	2.66	6.72	-44.4		Silty but		
				***			slightly clear		
						***************************************			
Analytical I	Parameters	Sampled For (i	nclude Met	thod #):		***************************************			
	Purged Wa								
		ord Complete?	(Y/N)						
Analytical L									
Equipment	Used Durin	g Sampling:							
Other Notes	Other Notes/Comments								
	26.61 - 16.21 = 10.4' of water $10.4 \times 0.1632 = hylo 1.7 gal (one well volume)$								
		10.4 x 0.16	32 = 1/2	a 1.7.	s (one	well volume)			
		= 01x F.	17 gal.						
	Z foot stick up								



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

OrderNo.: 1208683

August 23, 2012

Tami Ross
Animas Environmental Services
624 East Comanche
Farmington, NM 87401
TEL: (505) 793-2072

FAX

RE: Enterprise Lateral K-31

1

### Dear Tami Ross:

Hall Environmental Analysis Laboratory received 10 sample(s) on 8/15/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1208683

Date Reported: 8/23/2012

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Enterprise Lateral K-31

Lab ID: 1208683-001

Project:

Chent Bampie

Client Sample ID: MW-1 0-2 ft

**Collection Date:** 8/13/2012 12:08:00 PM

Received Date: 8/15/2012 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE ORGANICS				Analyst: <b>JMP</b>
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	8/19/2012 7:24:37 PM
Surr: DNOP	110	77.6-140	%REC	1	8/19/2012 7:24:37 PM
EPA METHOD 8015B: GASOLINE R	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	5.0	4.8	mg/Kg	1	8/17/2012 3:48:37 PM
Surr: BFB	99.9	84-116	%REC	1	8/17/2012 3:48:37 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.048	mg/Kg	1	8/17/2012 3:48:37 PM
Toluene	ND	0.048	mg/Kg	1	8/17/2012 3:48:37 PM
Ethylbenzene	ND	0.048	mg/Kg	1	8/17/2012 3:48:37 PM
Xylenes, Total	ND	0.096	mg/Kg	1	8/17/2012 3:48:37 PM
Surr: 4-Bromofluorobenzene	103	80-120	%REC	1	8/17/2012 3:48:37 PM

Matrix: SOIL

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
  - S Spike Recovery outside accepted recovery limits Page 1 of 13

Lab Order 1208683

Date Reported: 8/23/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Client Sample ID: MW-1 10-12 ft

Enterprise Lateral K-31 Project:

**Collection Date: 8/13/2012 12:20:00 PM** 

Lab ID: 1208683-002 Matrix: SOIL

**Received Date:** 8/15/2012 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015B: DIESEL RANG	E ORGANICS				Analyst: <b>JMP</b>	
Diesel Range Organics (DRO)	37	9.8	mg/Kg	1	8/20/2012 5:38:30 AM	
Surr: DNOP	105	77.6-140	%REC	1	8/20/2012 5:38:30 AM	
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB	
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/17/2012 4:17:25 PM	
Surr: BFB	114	84-116	%REC	1	8/17/2012 4:17:25 PM	
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>	
Benzene	ND	0.049	mg/Kg	1	8/17/2012 4:17:25 PM	
Toluene	ND	0.049	mg/Kg	1	8/17/2012 4:17:25 PM	
Ethylbenzene	0.065	0.049	mg/Kg	1	8/17/2012 4:17:25 PM	
Xylenes, Total	0.45	0.097	mg/Kg	1	8/17/2012 4:17:25 PM	
Surr: 4-Bromofluorobenzene	103	80-120	%REC	1	8/17/2012 4:17:25 PM	

- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Η
- Not Detected at the Reporting Limit ND
- Reporting Detection Limit RL
- Value exceeds Maximum Contaminant Level.
- Е Value above quantitation range
- Analyte detected below quantitation limits J
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
  Page 2 of 13

### **Analytical Report** Lab Order 1208683

Date Reported: 8/23/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Client Sample ID: MW-2 5-7 ft

**Project:** Enterprise Lateral K-31 Collection Date: 8/13/2012 2:28:00 PM

Lab ID: 1208683-003 Matrix: SOIL

Received Date: 8/15/2012 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E ORGANICS				Analyst: <b>JMP</b>
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	8/20/2012 6:00:09 AM
Surr: DNOP	105	77.6-140	%REC	1	8/20/2012 6:00:09 AM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/17/2012 4:46:07 PM
Surr: BFB	106	84-116	%REC	1	8/17/2012 4:46:07 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	0.089	0.049	mg/Kg	1	8/17/2012 4:46:07 PM
Toluene	ND	0.049	mg/Kg	1	8/17/2012 4:46:07 PM
Ethylbenzene	ND	0.049	mg/Kg	1	8/17/2012 4:46:07 PM
Xylenes, Total	0.15	0.098	mg/Kg	1	8/17/2012 4:46:07 PM
Surr: 4-Bromofluorobenzene	105	80-120	%REC	1	8/17/2012 4:46:07 PM

- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- Reporting Detection Limit RL
- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits Page 3 of 13

Lab Order 1208683

Date Reported: 8/23/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Client Sample ID: MW-2 10-12 ft

Project: Enterprise Lateral K-31 **Collection Date:** 8/13/2012 2:33:00 PM

Lab ID: 1208683-004 Matrix: SOIL

Received Date: 8/15/2012 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E ORGANICS				Analyst: JMP
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	8/20/2012 6:21:51 AM
Surr: DNOP	104	77.6-140	%REC	1	8/20/2012 6:21:51 AM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	8/21/2012 1:39:33 PM
Surr: BFB	98.2	84-116	%REC	1	8/21/2012 1:39:33 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.047	mg/Kg	1	8/21/2012 1:39:33 PM
Toluene	ND	0.047	mg/Kg	1	8/21/2012 1:39:33 PM
Ethylbenzene	ND	0.047	mg/Kg	1	8/21/2012 1:39:33 PM
Xylenes, Total	ND	0.095	mg/Kg	1	8/21/2012 1:39:33 PM
Surr: 4-Bromofluorobenzene	100	80-120	%REC	1	8/21/2012 1:39:33 PM

- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Reporting Detection Limit RL
- Value exceeds Maximum Contaminant Level.
- Е Value above quantitation range
- Analyte detected below quantitation limits
- RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
  Page 4 of 13

Lab Order 1208683

Date Reported: 8/23/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Enterprise Lateral K-31

Lab ID: 1208683-005

Project:

Client Sample ID: MW-6 0-2 ft

Collection Date: 8/14/2012 10:51:00 AM

Received Date: 8/15/2012 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	SE ORGANICS				Analyst: JMP
Diesel Range Organics (DRO)	12	9.9	mg/Kg	1	8/20/2012 6:43:38 AM
Surr: DNOP	112	77.6-140	%REC	1	8/20/2012 6:43:38 AM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/17/2012 10:31:20 PM
Surr: BFB	102	84-116	%REC	1	8/17/2012 10:31:20 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	0.055	0.048	mg/Kg	1	8/17/2012 10:31:20 PM
Toluene	ND	0.048	mg/Kg	1	8/17/2012 10:31:20 PM
Ethylbenzene	ND	0.048	mg/Kg	1	8/17/2012 10:31:20 PM
Xylenes, Total	0.27	0.095	mg/Kg	1	8/17/2012 10:31:20 PM
Surr: 4-Bromofluorobenzene	97.9	80-120	%REC	1	8/17/2012 10:31:20 PM

Matrix: SOIL

- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Reporting Detection Limit RL
- Value exceeds Maximum Contaminant Level.
- Е Value above quantitation range
- Analyte detected below quantitation limits J
- RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits Page 5 of 13

Lab Order 1208683

Date Reported: 8/23/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

**Project:** Enterprise Lateral K-31

Lab ID: 1208683-006 Client Sample ID: MW-6 10-12 ft

Collection Date: 8/14/2012 11:03:00 AM

Received Date: 8/15/2012 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E ORGANICS				Analyst: JMP
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	8/20/2012 7:05:20 AM
Surr: DNOP	103	77.6-140	%REC	1	8/20/2012 7:05:20 AM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/17/2012 11:00:06 PM
Surr: BFB	97.5	84-116	%REC	1	8/17/2012 11:00:06 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.048	mg/Kg	1	8/17/2012 11:00:06 PM
Toluene	ND	0.048	mg/Kg	1	8/17/2012 11:00:06 PM
Ethylbenzene	ND	0.048	mg/Kg	1	8/17/2012 11:00:06 PM
Xylenes, Total	ND	0.096	mg/Kg	1	8/17/2012 11:00:06 PM
Surr: 4-Bromofluorobenzene	99.7	80-120	%REC	1	8/17/2012 11:00:06 PM

Matrix: SOIL

- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RLReporting Detection Limit
- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- RPD outside accepted recovery limits
  - Spike Recovery outside accepted recovery limits
    Page 6 of 13

Lab Order 1208683

Date Reported: 8/23/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Enterprise Lateral K-31

Lab ID: 1208683-007

**Project:** 

Client Sample ID: MW-9 5-7 ft

Collection Date: 8/14/2012 1:03:00 PM

Received Date: 8/15/2012 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE ORGANICS				Analyst: JMP
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	8/20/2012 7:27:09 AM
Surr: DNOP	99.8	77.6-140	%REC	1	8/20/2012 7:27:09 AM
EPA METHOD 8015B: GASOLINE R	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	8/17/2012 11:28:50 PM
Surr: BFB	94.3	84-116	%REC	1	8/17/2012 11:28:50 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.047	mg/Kg	1	8/17/2012 11:28:50 PM
Toluene	ND	0.047	mg/Kg	1	8/17/2012 11:28:50 PM
Ethylbenzene	ND	0.047	mg/Kg	1	8/17/2012 11:28:50 PM
Xylenes, Total	ND	0.095	mg/Kg	1	8/17/2012 11:28:50 PM
Surr: 4-Bromofluorobenzene	95.9	80-120	%REC	1	8/17/2012 11:28:50 PM

Matrix: SOIL

- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- RLReporting Detection Limit
- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- RPD outside accepted recovery limits
  - Spike Recovery outside accepted recovery limits
    Page 7 of 13

Lab Order 1208683

Date Reported: 8/23/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services Client Sample ID: MW-9 10-12 ft

Project: Enterprise Lateral K-31 **Collection Date:** 8/14/2012 1:07:00 PM Lab ID: 1208683-008 Matrix: SOIL Received Date: 8/15/2012 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE ORGANICS				Analyst: JMP
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	8/20/2012 7:48:50 AM
Surr: DNOP	101	77.6-140	%REC	1	8/20/2012 7:48:50 AM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/17/2012 11:57:32 PM
Surr: BFB	95.4	84-116	%REC	1	8/17/2012 11:57:32 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.049	mg/Kg	1	8/17/2012 11:57:32 PM
Toluene	ND	0.049	mg/Kg	1	8/17/2012 11:57:32 PM
Ethylbenzene	ND	0.049	mg/Kg	1	8/17/2012 11:57:32 PM
Xylenes, Total	ND	0.097	mg/Kg	1	8/17/2012 11:57:32 PM
Surr: 4-Bromofluorobenzene	95.1	80-120	%REC	1	8/17/2012 11:57:32 PM

- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RLReporting Detection Limit
- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- RPD outside accepted recovery limits
  - Spike Recovery outside accepted recovery limits Page 8 of 13

Lab Order 1208683

Date Reported: 8/23/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Project: Enterprise Lateral K-31

Lab ID: 1208683-009 Client Sample ID: MW-8 5-7 ft

Collection Date: 8/14/2012 2:37:00 PM

Received Date: 8/15/2012 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE ORGANICS				Analyst: <b>JMP</b>
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	8/20/2012 8:10:44 AM
Surr: DNOP	99.0	77.6-140	%REC	1	8/20/2012 8:10:44 AM
EPA METHOD 8015B: GASOLINE R	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	8/18/2012 12:26:14 AM
Surr: BFB	95.8	84-116	%REC	1	8/18/2012 12:26:14 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	0.092	0.046	mg/Kg	1	8/18/2012 12:26:14 AM
Toluene	ND	0.046	mg/Kg	1	8/18/2012 12:26:14 AM
Ethylbenzene	ND	0.046	mg/Kg	1	8/18/2012 12:26:14 AM
Xylenes, Total	ND	0.093	mg/Kg	1	8/18/2012 12:26:14 AM
Surr: 4-Bromofluorobenzene	97.6	80-120	%REC	1	8/18/2012 12:26:14 AM

Matrix: SOIL

- В Analyte detected in the associated Method Blank
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RLReporting Detection Limit
- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits  $\underset{\mbox{\footnotesize Page 9 of 13}}{\mbox{\footnotesize Page 9 of 13}}$

Lab Order 1208683

Date Reported: 8/23/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Enterprise Lateral K-31 **Project:** 

Lab ID: 1208683-010 Matrix: SOIL

**Collection Date:** 8/14/2012 2:41:00 PM Received Date: 8/15/2012 10:00:00 AM

Client Sample ID: MW-8 10-12 ft

nalyses Result RL Qual Units				DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE	ORGANICS				Analyst: JMP
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	8/19/2012 1:43:09 PM
Surr: DNOP	105	77.6-140	%REC	1	8/19/2012 1:43:09 PM
EPA METHOD 8015B: GASOLINE RAI	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/18/2012 12:54:56 AM
Surr: BFB	96.3	84-116	%REC	1	8/18/2012 12:54:56 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.048	mg/Kg	1	8/18/2012 12:54:56 AM
Toluene	ND	0.048	mg/Kg	1	8/18/2012 12:54:56 AM
Ethylbenzene	ND	0.048	mg/Kg	1	8/18/2012 12:54:56 AM
Xylenes, Total	ND	0.097	mg/Kg	1	8/18/2012 12:54:56 AM
Surr: 4-Bromofluorobenzene	98.2	80-120	%REC	1	8/18/2012 12:54:56 AM

- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- Reporting Detection Limit RL
- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- RPD outside accepted recovery limits
  - Spike Recovery outside accepted recovery limits Page 10 of 13

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1208683

23-Aug-12

Client:

Animas Environmental Services

Project:

Enterprise Lateral K-31

Sample ID MB-3379	SampT	ype: ME	BLK	TestCode: EPA Method 8015B: Diesel Range Organics								
Client ID: PB\$	Batch	ID: <b>33</b>	79	F	RunNo: <b>4949</b>							
Prep Date: 8/17/2012	Analysis D	ate: 8/	18/2012	5	SeqNo: 1	39960	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range Organics (DRO)	ND	10										
Surr: DNOP	9.7		10.00		96.6	77.6	140					

Sample ID LCS-3379	S	TestCode: EPA Method 8015B: Diesel Range Organics									
Client ID: LCSS	Batch	n ID: 33	79	F	RunNo: 4	949					
Prep Date: 8/17/2012	Analysis D	ate: <b>8/</b>	18/2012	9	SeqNo: 1	39962	Units: mg/F	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	31	10	50.00	0	62.3	52.6	130				
Surr: DNOP	4.4		5.000		87.7	77.6	140				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

Page 11 of 13

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1208683

23-Aug-12

Client:

Animas Environmental Services

Project:

Enterprise Lateral K-31

Sample ID MB-3371

SampType: MBLK

TestCode: EPA Method 8015B: Gasoline Range

Client ID: Prep Date:

PBS

Batch ID: 3371 Analysis Date: 8/17/2012 RunNo: 4945

%REC

SeqNo: 139865

LowLimit

84

HighLimit

Units: mg/Kg

%RPD **RPDLimit** 

Qual

Analyte Surr: BFB

Prep Date:

Analyte

Gasoline Range Organics (GRO)

8/16/2012

5.0 ND 990

1000

SPK value SPK Ref Val

SPK value SPK Ref Val

98.5

116

Sample ID LCS-3371

SampType: LCS

Analysis Date: 8/17/2012

**PQL** 

PQL

TestCode: EPA Method 8015B: Gasoline Range

Client ID:

8/16/2012

Batch ID: 3371

Result

RunNo: 4945 SeqNo: 139866

%REC

Units: mg/Kg

%RPD

Qual

Gasoline Range Organics (GRO) Surr: BFB

22 1000

Result

960

Result

5.0 25.00 1000 86.4 103

84

LowLimit

HighLimit 116 **RPDLimit** 

Sample ID MB-3410

SampType: MBLK

RunNo: 4995

TestCode: EPA Method 8015B: Gasoline Range

Client ID: PBS Prep Date: 8/20/2012

Sample ID LCS-3410

8/20/2012

Client ID: LCSS

Batch ID: 3410 Analysis Date: 8/21/2012

SeqNo: 142179

96.1

Units: %REC

%RPD

Analyte

PQL

SPK value SPK Ref Val %REC

LowLimit

HighLimit 116 **RPDLimit** 

Qual

Surr: BFB

SampType: LCS Batch ID: 3410

TestCode: EPA Method 8015B: Gasoline Range

84

RunNo: 4995

Units: %REC

Analyte Surr: BFB

Prep Date:

Analysis Date: 8/21/2012

%REC SPK value SPK Ref Val

SeqNo: 142180 LowLimit

HighLimit

%RPD

**RPDLimit** 

Qual

1000

Result

1000

1000

101

116

#### Qualifiers:

- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND Reporting Detection Limit
- Value above quantitation range
- R RPD outside accepted recovery limits
- Page 12 of 13
- Spike Recovery outside accepted recovery limits

Analyte detected below quantitation limits

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1208683

23-Aug-12

Client: Animas Environmental Services

Project:

Sample ID MB-3371

Enterprise Lateral K-31

TestCode: EPA Method 8021B: Volatiles

SampType: MBLK Client ID: **PBS** Batch ID: 3371 RunNo: 4945

Prep Date: 8/16/2012 Analysis Date: 8/17/2012 SeqNo: 139892 Units: mg/Kg

SPK value SPK Ref Val %REC LowLimit **RPDLimit** Analyte Result **PQL** HighLimit %RPD Qual

Benzene ND 0.050 ND 0.050 Toluene Ethylbenzene ND 0.050 Xylenes, Total ND 0.10

1.000 Surr: 4-Bromofluorobenzene 1.0 102 80 120

Sample ID LCS-3371 SampType: LCS TestCode: EPA Method 8021B: Volatiles

Client ID: LCSS Batch ID: 3371 RunNo: 4945

Prep Date: 8/16/2012 Analysis Date: 8/17/2012 SeqNo: 139893 Units: mg/Kg

Analyte SPK value SPK Ref Val Result **PQL** %REC LowLimit HighLimit %RPD **RPDLimit** Qual Benzene 0.94 0.050 1.000 76.3 0 94.4 117 Toluene 0.96 1.000 0.050 0 96.3 80 120 Ethylbenzene 1.0 0.050 1.000 0 99.5 **7**7 116 Xylenes, Total 3.0 0.10 3.000 0 101 76.7 117 Surr: 4-Bromofluorobenzene 1.000 108 1.1 120

Sample ID MB-3410 SampType: MBLK TestCode: EPA Method 8021B: Volatiles

Client ID: Batch ID: 3410 RunNo: 4995

Prep Date: 8/20/2012 Analysis Date: 8/21/2012 SeqNo: 142255 Units: %REC

Analyte SPK value SPK Ref Val Result **PQL** %REC %RPD **RPDLimit** LowLimit HighLimit Qual

Surr: 4-Bromofluorobenzene 1.0 1.000 100

Sample ID LCS-3410 SampType: LCS TestCode: EPA Method 8021B: Volatiles

Client ID: LCSS Batch ID: 3410 RunNo: 4995

Prep Date: 8/20/2012 Analysis Date: 8/21/2012 SegNo: 142267 Units: %REC

Analyte SPK value SPK Ref Val %REC %RPD **RPDLimit** Result PQL HighLimit Qual

Surr: 4-Bromofluorobenzene 1.1 1.000 105 80 120

#### **Oualifiers:**

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded Н

ND Not Detected at the Reporting Limit

Reporting Detection Limit

Value above quantitation range

Analyte detected below quantitation limits

R RPD outside accepted recovery limits

Spike Recovery outside accepted recovery limits

Page 13 of 13



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

# Sample Log-In Check List

Clien	t Name:	Animas Env	rironmental	, ,	Wo	rk Ord	ler N	lumb	er. 1	208683	
Rece	eived by/date	: AG	!	18/15/11	)_						
Logg	ed By:	Michelle Ga	arcia	8/15/2012 10:	00:00 AM				-Mich	ull Genus	
Com	pleted By:	Michelle Ga	arcia/n	8/15/2012 3:1	7:51 PM				min	ull Garrie	
Revi	ewed By:	ma	/	08/16/19	)					•	
<u>Cha</u>	in of Cust	tody		00/1-7/2	•						
1.	Were seals	intact?	7			Yes	1	No		Not Present ✓	
		Custody comp	lete?			Yes	<b>~</b>	No	:	Not Present	
3.	How was the	e sample deliv	vered?			Cour	ier				
Log	<u>in</u>										
4.	Coolers are	present? (see	e 19. for cooler	specific information	on)	Yes	<b>~</b>	No	!	NA <sup>1</sup>	
5.	Was an atte	empt made to	cool the sample	es?		Yes		No	! ;	NA :	
6.	Were all sar	mples receive	d at a temperat	ure of >0° C to 6	.0°C	Yes	✓.	No	:	NA ·	
7.	Sample(s) in	n proper conta	ainer(s)?			Yes	<b>.</b>	No			
8.	Sufficient sa	ample volume	for indicated te	st(s)?		Yes	~	No			
9.	Are sample:	s (except VOA	and ONG) pro	perly preserved?		Yes	~	No			
10.	Was preser	vative added t	to bottles?			Yes		No	<b>V</b>	NA ·	
11.	VOA vials h	ave zero head	dspace?			Yes	:	No	:	No VOA Vials 🗸	
12.	Were any s	ample contain	ers received br	oken?		Yes	' i	No	✓	1	
13.		work match be epancies on ch	ottle labels? hain of custody)			Yes	<b>~</b>	No		# of preserved bottles checked for pH:	
14.	Are matrice	s correctly ide	entified on Chair	of Custody?		Yes	~	No	. :		(<2 or >12 unless noted)
15.	Is it clear w	hat analyses v	were requested	?		Yes	~	No	. :	Adjuste	d?
16.		lding times ab	ele to be met? authorization.)			Yes	<b>~</b>	No		Checked	d by:
Spe		lling (if app	-							Oneditor	
			discrepancies w	ith this order?		Yes	: 1	No	:	NA 🗸	
	Person	n Notified:		annungan menangkan pengangkan pengangkan	Date:		en ornenes	11 THE L DAY		THE STATE OF THE S	
	By Wh	nom:			Via:	eMa	il (	P	none	Fax In Pers	on
	Regar	ding:	A CONTRACTOR OF THE PARTY OF TH		THE RESERVE TO SERVE THE PARTY OF THE PARTY		ye v a source, par	and the second	A CONTRACTOR OF STREET	A A A A A A A A A A A A A A A A A A A	<u> </u>
	Client	Instructions:		The state of the s							· ·
18.	Additional re	emarks:									
19	Cooler Info	ormation									
	Cooler N		Condition	Seal Intact   Se	al No   S	eal Da	ite	L	Signe	ed By	
	1	1.0		Yes							

	AALL ENVIKONMENTAL ANALYSIS LABORATORY	www.hallenvironmental.com	kins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	Anal	(*(			(h.4.1) (HA) (808)	als Als Als Als	EDB (Methors of PNA control (PNA control of PNA control of Posticical Control of Posticical of Posti												BITO Entroprise	
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nd Time:	ird 🗆 Rush	五	tual K-31			Manager:	Sess		Thomas Leng		Preservative Fig. 18	126 -001		-003		- 005				6	010- 1		Date Time	Date OS   S   2
Turn-Around Time:	☑ Standard	Project Name:	Latera	Project #:		Project Ma			Sampler:		Container Type and #	ماحتر يتصل									>		Received by:	Received by:
Chain-of-Custody Record	1. Services		E Concorche		1876			☐ Level 4 (Full Validation)			Sample Request ID	MW 7 0-2F	MW-1 10-12FE	MW-3 5-7Pe	MW-2 10-13A.	Mw-b 0-2fe	MW-6 10-13A	MW-9 5-7FE	MW-9 10-12Pt	MW-8 5-79t	MW -8 10-184		Jest	. Was be the
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hain-	Animes		Mailing Address:	avoring for		Fax#:	ackage:	ard	ation P	Type)		8061	000	14%	1433	1501	103	1309	130)	137	7		Time: R	Time: R
Ö	Client:		Mailing A	( }	Phone #:	email or Fax#:	QA∕/QC Package:	☑ Standard	Accreditation □ NELAP	□ EDD (Type)	Date	8-13-12			->	8-1-43					<u>-</u> >		Date: 8-14-19	Date:



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

OrderNo.: 1208732

August 22, 2012

Tami Ross
Animas Environmental Services
624 East Comanche
Farmington, NM 87401
TEL: (505) 793-2072

**FAX** 

RE: Enterprise Lateral K-31

Dear Tami Ross:

Hall Environmental Analysis Laboratory received 8 sample(s) on 8/16/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1208732

Date Reported: 8/22/2012

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Project: Enterprise Lateral K-31

Lab ID: 1208732-001

Client Sample ID: MW-5 5-7'

**Collection Date:** 8/15/2012 9:01:00 AM

Received Date: 8/16/2012 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed		
EPA METHOD 8015B: DIESEL RANG	E ORGANICS				Analyst: JMP		
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	8/19/2012 2:49:29 PM		
Surr: DNOP	110	77.6-140	%REC	1	8/19/2012 2:49:29 PM		
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: RAA		
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/18/2012 11:29:50 PM		
Surr: BFB	99.1	84-116	%REC	1	8/18/2012 11:29:50 PM		
EPA METHOD 8021B: VOLATILES					Analyst: RAA		
Benzene	ND	0.049	mg/Kg	1	8/18/2012 11:29:50 PM		
Toluene	ND	0.049	mg/Kg	1	8/18/2012 11:29:50 PM		
Ethylbenzene	ND	0.049	mg/Kg	1	8/18/2012 11:29:50 PM		
Xylenes, Total	ND	0.098	mg/Kg	1	8/18/2012 11:29:50 PM		
Surr: 4-Bromofluorobenzene	97.3	80-120	%REC	1	8/18/2012 11:29:50 PM		

Matrix: SOIL

Qualifiers:

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
  - J Samples with CaleVal < MDL

Page 1 of 11

### Lab Order 1208732

Date Reported: 8/22/2012

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Project: Enterprise Lateral K-31

**Lab ID:** 1208732-002

Client Sample ID: MW-5 10-12'

**Collection Date:** 8/15/2012 9:06:00 AM

Received Date: 8/16/2012 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGI	ORGANICS				Analyst: JMP
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	8/19/2012 3:11:32 PM
Surr: DNOP	112	77.6-140	%REC	1	8/19/2012 3:11:32 PM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/18/2012 11:58:35 PM
Surr: BFB	96.0	84-116	%REC	1	8/18/2012 11:58:35 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.049	mg/Kg	1	8/18/2012 11:58:35 PM
Toluene	ND	0.049	mg/Kg	1	8/18/2012 11:58:35 PM
Ethylbenzene	ND	0.049	mg/Kg	1	8/18/2012 11:58:35 PM
Xylenes, Total	ND	0.099	mg/Kg	1	8/18/2012 11:58:35 PM
Surr: 4-Bromofluorobenzene	97.1	80-120	%REC	1	8/18/2012 11:58:35 PM

Matrix: SOIL

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
  - U Samples with CalcVal < MDL

Lab Order 1208732

Date Reported: 8/22/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Project: Enterprise Lateral K-31

**Lab ID:** 1208732-003

Client Sample ID: MW-4 0-2'

**Collection Date:** 8/15/2012 10:07:00 AM

Received Date: 8/16/2012 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE ORGANICS				Analyst: JMP
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/19/2012 3:33:45 PM
Surr: DNOP	116	77.6-140	%REC	1	8/19/2012 3:33:45 PM
EPA METHOD 8015B: GASOLINE R	ANGE				Analyst: RAA
Gasoline Range Organics (GRO)	8.8	4.9	mg/Kg	1	8/19/2012 12:27:19 AM
Surr: BFB	113	84-116	%REC	1	8/19/2012 12:27:19 AM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	0.072	0.049	mg/Kg	1	8/19/2012 12:27:19 AM
Toluene	ND	0.049	mg/Kg	1	8/19/2012 12:27:19 AM
Ethylbenzene	0.059	0.049	mg/Kg	1	8/19/2012 12:27:19 AM
Xylenes, Total	0.97	0.098	mg/Kg	1	8/19/2012 12:27:19 AM
Surr: 4-Bromofluorobenzene	102	80-120	%REC	1	8/19/2012 12:27:19 AM

Matrix: SOIL

Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

U Samples with CalcVal < MDL

Page 3 of 11

### Lab Order 1208732

Date Reported: 8/22/2012

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services Client Sample ID: MW-4 10-12'

 Project:
 Enterprise Lateral K-31
 Collection Date: 8/15/2012 10:15:00 AM

 Lab ID:
 1208732-004
 Matrix: SOIL
 Received Date: 8/16/2012 10:00:00 AM

Analyses	Result	RL Qual Units		DF	Date Analyzed	
EPA METHOD 8015B: DIESEL RANG	E ORGANICS				Analyst: JMP	
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/19/2012 3:55:52 PM	
Surr: DNOP	115	77.6-140	%REC	1	8/19/2012 3:55:52 PM	
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: RAA	
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/19/2012 12:56:02 AM	
Surr: BFB	102	84-116	%REC	1	8/19/2012 12:56:02 AM	
EPA METHOD 8021B: VOLATILES					Analyst: RAA	
Веплепе	ND	0.048	mg/Kg	1	8/19/2012 12:56:02 AM	
Toluene	ND	0.048	mg/Kg	1	8/19/2012 12:56:02 AM	
Ethylbenzene	ND	0.048	mg/Kg	1	8/19/2012 12:56:02 AM	
Xylenes, Total	0.23	0.097	mg/Kg	1	8/19/2012 12:56:02 AM	
Surr: 4-Bromofluorobenzene	98.9	80-120	%REC	1	8/19/2012 12:56:02 AM	

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL</p>

Lab Order 1208732

Date Reported: 8/22/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Project: Enterprise Lateral K-31

Lab ID: 1208732-005

Client Sample ID: MW-3 0-2'

Collection Date: 8/15/2012 12:08:00 PM

Received Date: 8/16/2012 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RAN	GE ORGANICS				Analyst: JMP
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/19/2012 4:18:00 PM
Surr: DNOP	115	77.6-140	%REC	1	8/19/2012 4:18:00 PM
EPA METHOD 8015B: GASOLINE R	ANGE				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/19/2012 1:24:39 AM
Surr: BFB	99.3	84-116	%REC	1	8/19/2012 1:24:39 AM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.049	mg/Kg	1	8/19/2012 1:24:39 AM
Toluene	ND	0.049	mg/Kg	1	8/19/2012 1:24:39 AM
Ethylbenzene	ND	0.049	mg/Kg	1	8/19/2012 1:24:39 AM
Xylenes, Total	ND	0.098	mg/Kg	1	8/19/2012 1:24:39 AM
Surr: 4-Bromofluorobenzene	99.3	80-120	%REC	1	8/19/2012 1:24:39 AM

Matrix: SOIL

О	 a	li	f	a	r	c

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Page 5 of 11

Lab Order 1208732

Date Reported: 8/22/2012

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Project: Enterprise Lateral K-31

**Lab ID:** 1208732-006

Client Sample ID: MW-3 10-12'

**Collection Date:** 8/15/2012 12:20:00 PM

Received Date: 8/16/2012 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	SE ORGANICS				Analyst: JMP
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	8/19/2012 4:40:05 PM
Surr: DNOP	114	77.6-140	%REC	1	8/19/2012 4:40:05 PM
EPA METHOD 8015B: GASOLINE R.	ANGE				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/19/2012 1:53:19 AM
Surr: BFB	98.9	84-116	%REC	1	8/19/2012 1:53:19 AM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	0.13	0.048	mg/Kg	1	8/19/2012 1:53:19 AM
Toluene	ND	0.048	mg/Kg	1	8/19/2012 1:53:19 AM
Ethylbenzene	ND	0.048	mg/Kg	1	8/19/2012 1:53:19 AM
Xylenes, Total	ND	0.095	mg/Kg	1	8/19/2012 1:53:19 AM
Surr: 4-Bromofluorobenzene	101	80-120	%REC	1	8/19/2012 1:53:19 AM

Matrix: SOIL

- \*/X Value exceeds Maximum Contaminant Level.
  - E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Lab Order 1208732

Date Reported: 8/22/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Enterprise Lateral K-31

Lab ID: 1208732-007

**Project:** 

Client Sample ID: MW-7 5-7'

Collection Date: 8/15/2012 1:40:00 PM

Received Date: 8/16/2012 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	SE ORGANICS				Analyst: <b>JMP</b>
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	8/19/2012 5:02:17 PM
Surr: DNOP	120	77.6-140	%REC	1	8/19/2012 5:02:17 PM
EPA METHOD 8015B: GASOLINE R	ANGE				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/19/2012 2:22:09 AM
Surr: BFB	98.3	84-116	%REC	1	8/19/2012 2:22:09 AM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	0.11	0.049	mg/Kg	1	8/19/2012 2:22:09 AM
Toluene	ND	0.049	mg/Kg	1	8/19/2012 2:22:09 AM
Ethylbenzene	ND	0.049	mg/Kg	1	8/19/2012 2:22:09 AM
Xylenes, Total	ND	0.098	mg/Kg	1	8/19/2012 2:22:09 AM
Surr: 4-Bromofluorobenzene	97.1	80-120	%REC	1	8/19/2012 2:22:09 AM

Matrix: SOIL

#### Qualifiers:

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
  - J Samples with CalcVal < MDL</p>

Page 7 of 11

### Lab Order 1208732

Date Reported: 8/22/2012

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Enterprise Lateral K-31

Lab ID: 1208732-008

Project:

Client Sample ID: MW-7 10-12'

**Collection Date:** 8/15/2012 1:44:00 PM

Received Date: 8/16/2012 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	SE ORGANICS				Analyst: <b>JMP</b>
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	8/19/2012 6:40:28 PM
Surr: DNOP	117	77.6-140	%REC	1	8/19/2012 6:40:28 PM
EPA METHOD 8015B: GASOLINE RA	ANGE				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/19/2012 2:50:54 AM
Surr: BFB	95.7	84-116	%REC	1	8/19/2012 2:50:54 AM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.048	mg/Kg	1	8/19/2012 2:50:54 AM
Toluene	ND	0.048	mg/Kg	1	8/19/2012 2:50:54 AM
Ethylbenzene	ND	0.048	mg/Kg	1	8/19/2012 2:50:54 AM
Xylenes, Total	ND	0.095	mg/Kg	1	8/19/2012 2:50:54 AM
Surr: 4-Bromofluorobenzene	96.0	80-120	%REC	1	8/19/2012 2:50:54 AM

Matrix: SOIL

Qualifiers:

- \*/X Value exceeds Maximum Contaminant Level.
  - Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
  - U Samples with CalcVal < MDL</p>

Page 8 of 11

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1208732

22-Aug-12

Client:

Animas Environmental Services

Project:

Enterprise Lateral K-31

Sample ID MB-3388

SampType: MBLK

TestCode: EPA Method 8015B: Diesel Range Organics

Client ID: PBS

Batch ID: 3388

Result

RunNo: 4949

Prep Date: 8/17/2012

Analysis Date: 8/18/2012

SeqNo: 139961

Units: mg/Kg

%RPD **RPDLimit** 

Qual

Diesel Range Organics (DRO)

ND

10.00

119

140

HighLimit

Surr: DNOP

Prep Date: 8/17/2012

12

77.6

%RPD

Sample ID LCS-3388

SampType: LCS

Analysis Date: 8/18/2012

TestCode: EPA Method 8015B: Diesel Range Organics

Client ID: LCSS

Batch ID: 3388

RunNo: 4949 SeqNo: 139963

Units: mg/Kg

Analyte

Result **PQL** SPK value SPK Ref Val 10 50.00

%REC LowLimit 69.2

52.6

HighLimit 130 **RPDLimit** Qual

Diesel Range Organics (DRO) Surr: DNOP

35 4.7

5.000

SPK value SPK Ref Val %REC LowLimit

93.6

77.6

140

### Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.

Value above quantitation range

Analyte detected below quantitation limits RPD outside accepted recovery limits

Analyte detected in the associated Method Blank В

Holding times for preparation or analysis exceeded Н

Not Detected at the Reporting Limit Reporting Detection Limit

Page 9 of 11

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1208732

22-Aug-12

Qual

Client:

Animas Environmental Services

Project:

Enterprise Lateral K-31

TestCode: EPA Method 8015B: Gasoline Range Sample ID MB-3385 SampType: MBLK RunNo: 4951 Client ID: PBS Batch ID: 3385 Analysis Date: 8/18/2012 SeqNo: 139979 Units: mg/Kg Prep Date: 8/17/2012 HighLimit %RPD **RPDLimit** SPK value SPK Ref Val %REC LowLimit Analyte Result

Gasoline Range Organics (GRO) ND 5.0

97.0 84 116 970 1000 Surr: BFB

Sample ID LCS-3385 SampType: LCS TestCode: EPA Method 8015B: Gasoline Range RunNo: 4951 Client ID: LCSS Batch ID: 3385 SeqNo: 139983 Units: mg/Kg Prep Date: 8/17/2012 Analysis Date: 8/18/2012 %REC LowLimit HighLimit %RPD **RPDLimit** Qual SPK value SPK Ref Val Result **PQL** Analyte 74 117

93.8 5.0 25.00 Gasoline Range Organics (GRO) 23 84 116 1000 1000 100 Surr: BFB

### Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.

Value above quantitation range

Analyte detected below quantitation limits

R RPD outside accepted recovery limits

Analyte detected in the associated Method Blank В

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit Reporting Detection Limit

Page 10 of 11

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1208732

22-Aug-12

Client:

Sample ID MB-3385

Animas Environmental Services

Project:

Enterprise Lateral K-31

TestCode: EPA Method 8021B: Volatiles

SampType: MBLK Client ID: PBS Batch ID: 3385 RunNo: 4951

SeqNo: 140000 Prep Date: 8/17/2012 Analysis Date: 8/18/2012 Units: mg/Kg SPK value SPK Ref Val %REC LowLimit **RPDLimit** Qual Analyte Result **PQL** HighLimit %RPD Benzene ND 0.050 Toluene ND 0.050 Ethylbenzene ND 0.050 Xylenes, Total ND 0.10 Surr: 4-Bromofluorobenzene 1.0 1.000 101 80 120

Sample ID LCS-3385	SampT	ype: LC	s	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batch	ID: 33	85	F	RunNo: 4	951				
Prep Date: 8/17/2012	Analysis D	ate: 8/	18/2012	S	SeqNo: 1	40004	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.050	1.000	0	91.1	76.3	117			
Toluene	0.94	0.050	1.000	0	93.9	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.9	77	116			
Xylenes, Total	2.9	0.10	3.000	0	97.0	76.7	117			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

### Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.

Value above quantitation range

Analyte detected below quantitation limits

RPD outside accepted recovery limits

В Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Reporting Detection Limit

Page 11 of 11



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-410; Website: www.hallenvironmental.con

# Sample Log-In Check List

1	Vork Order Number: 1208732
Received by/date: ACT 08/16/1C	
Logged By: Lindsay Mangin 8/16/2012 10:00:00 AM	A J-J-Mgo
Completed By: Lindsay Mangin 8/16/2012 12:44:30 PM	M John John John John John John John John
Reviewed By: O8 (LC) 7	
Chain of Custody	
1. Were seals intact?	Yes 🗌 No 🗌 Not Present 🗹
2. Is Chain of Custody complete?	Yes ✓ No ☐ Not Present ☐
3. How was the sample delivered?	Courier
<u>Log In</u>	
Coolers are present? (see 19. for cooler specific information)	Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples?	Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)?	Yes 🗹 No 🗌
8. Sufficient sample volume for indicated test(s)?	Yes 🗹 No 🗌
9. Are samples (except VOA and ONG) properly preserved?	Yes 🗹 No 🗌
10. Was preservative added to bottles?	Yes ☐ No 🗹 NA ☐
11. VOA vials have zero headspace?	Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken?	Yes No 🗹
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✓ No ☐ # of preserved bottles checked for pH:
14. Are matrices correctly identified on Chain of Custody?	Yes ✓ No ☐ (<2 or >12 unless noted)
15. Is it clear what analyses were requested?	Yes ✓ No ☐ Adjusted?
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✓ No ☐ Checked by:
Special Handling (if applicable)	
17. Was client notified of all discrepancies with this order?	Yes No No NA 🗹
Person Notified: Date:	
By Whom: Via:	eMail Phone Fax In Person
Regarding:	
Client Instructions:	,
18. Additional remarks:	
19. Cooler Information	
Cooler No Temp °C Condition Seal Intact Seal No	Seal Date Signed By
1 2.1 Good Yes	

INTRACTION	ANALYSIS LABORATORY	com	NM 87109	505-345-4107	st					ΌΛ	AOV) 80828 -ime2) 0728 seiddu8 riA										
	YSIS LA	www.hallenvironmental.com	- Albuquerque, NM 87109	Fax 505-34	Analysis Request					Sepi ON'I	PCRA 8 Me Cr,C Subsideration 1998										Parte (pirst
	ANAL	www.ha	4901 Hawkins NE	Tel. 505-345-3975	4				15B (( 18.1) (1.40	9 P	HPH Method TPH (Method DE (Method ANA) 01:88	メ	又	-L	シ		トース	بر_	<u> </u>		Sil 70 Farte (prise
			4	Τ							<del>тм +</del> ХЭТ8 ITM + ХЭТ8	×	<b>-</b> メ	بر_	<b>y</b>	٧.	ب	لايا	_ ソ		Remarks:
		8									35 35 11	1001	700-	- 603	-004	-co5	-00¢	-1007	500		Substantial Plate Time Date Time $S[10]$ [2]
Time:		( <u>)</u>	ral K-3			ger:	Tani Ress		homas loug	e in it is	Preservative Type	1se	1						<del>)</del>		abah
Turn-Around Time:	☑ Standard	Project Name:	Letrial	Project #:		Project Manager:	_		Sampler: 7	Tell alumbes	Container Type and #	102 Jar							->		Received by: Received by:
Chain-of-Custody Record	, Serres		Mailing Address: 624 E.Comanche	NW	13 (6-			☐ Level 4 (Full Validation)	9		Sample Request ID	140-5 5-71	10-01 5-01W	16-0 h-MW	10-01 h-mm	MW-3 0-2'	MW-3 10-171	mw-7 5-7'	MW-7 10-13,		Singuished by:  Munter Lan Deele
-of-C	Arimas Em.		269	Fourington, NW	F `				□ Other		Matrix	Soil			_				<b>^</b>		Refinduished by: Refinduished by:
hain	Arime		Address	Few mi	Phone #: SoS -Shy	r Fax#:	QA/QC Package:	dard	tation AP	(Type)	Time	1060	70h0	L99)	5101	806)	1,30	ohsi	hh&1		Time: 178   1738
O	Client:		Mailing		Phone 3	email or Fax#:	QA/QC	□ Standard	Accreditation	☐ EDD (Type)	Date	7-12-12							$\rightarrow$		Date: 7-1/2 Date: 1/5/1/2

# **Animas Environmental Services DEPTH TO GROUNDWATER** 624 E. Comanche, Farmington NM 87401 **MEASUREMENT FORM** Tel. (505) 564-2281 Fax (505) 324-2022 Project No.: Project: ENTERPRISE Site: Date: 9-5.2012 LATERAL K-31 Time: Location: Form: Tech: LAVINA LAMORE & ZACH TRUTILLO NAPL Well Depth to NAPL Depth to Notes / Observations I.D. (ft.) Water (ft.) Thickness (ft.) 19.44 Product odor ... NO NAPL! 2 16.69 18.93 4 17.55 "Propone" odor when well was initially opened 5 15.88 6 17.41 7 17.61 8 16.55 9

Wells measured with KECK water level or KECK interface tape, decontaminated between each well measurement.

Water Sa	ampling R	ecord			Anima	as Env	ironmenta	I Services			
Monitor W	ell No: M	N - 1			624 E. C	Comanch	e, Farmington	NM 87401			
	,,,,	, ,					81 Fax (505)				
	Enterpri			_	Projec						
Site:	Lateral	K-31		-	Date: 9-5-2012						
Location:	11 6			-	Time: 0957 (1043 S						
Sampler: Sampling I	LL&Z			Weather: Clear Time Air Temperature:							
Depth of W		Briler 19884 2	7.02	Well Diam. (in.): 2							
Depth to W			9.44	-	Elevation						
	Temp	Conductivity	DO		ORP		D VOLUME				
Time	(deg C)	(µS) (mS)	(mg/L)	pН	(mV)	(g	allons)	Notes/Observations			
1034	15.72	7.634	1.45	7.57	-104.4		al.	Brown Hzo			
1036	14.61	7.609	0.93	7.46	-983	2.0	gal	Tan Hzo			
1039	14.39	7.594	1.24	7.43	-944		gul				
1043	14.52	7.623	0.84	7.40	-90.7	3.79	gad				
·····											
Analytical I	Parameters	Sampled For (i	nclude Me	thod #):	8	021	B BTE	ΣX			
	ustody Rec	ater: 65 ga ord Complete? H.E.A.	(Y/N) Y	·				чем ЕТБН			
				ساء الع			Cla 14				
u+.	lily knife	g Sampling:	probe;	YSI	weter		rio per men	MIN!			
Other Note:		_	120 colun	, I	H20	brown	shaht	odoR, NO			
			Volume		She	,	1 " )				
		3 72	gal. pur	00.		·					
		2.12	797. [141	<del>J*  </del>							
				-							

Water Sa	ampling R	ecord		Animas Environmental Services							
Monitor W	ell No: 2						Farmington 1 Fax (505) 3				
Project:	ENTERP	215/5		···········	Projec						
Site:		- K31		•	•	Date: 9	5.2012	1109 SAMPLE			
Location:						Time: 10		TIME			
Sampler:	1142			-	We	ather: (	eur/w	ARM			
Sampling	Method:	Bailer		Air Temperature:							
Depth of V		24.70		Well Diam. (in.):							
Depth to V	Vater (ft):	14.69	<u> </u>	Site	Elevation			T			
	Temp	Conductivity	DO		ORP	PURGED	VOLUME				
Time	(deg C)	(μS) (mS)	(mg/L)	рН	(mV)		lons)	Notes/Observations			
1/02	15.77	8.609	1.27	7.50	-50.8	1.0	gal	clear			
1104	15.28	8.526	1.21	7.4.3	-50.7	2.0	gal	TaN, 1.15			
1104	15.20	8.518	1.32	7.40	4.5	30	gal				
1109	15.35	8.519	1.30	7.39	-48.7	4.0	gul	dear			
Analytical	Parameters	Sampled For (	include Me	thod #):	80	21 B	BTEX				
	Manufacture and the same and th										
		······································									
					_						
			•		um, D	ELIMENE	TO ETE	ECH LANDFARM.			
		ord Complete?		1							
	Laboratory:			1 . <i>1</i>		1		11'1' L 1 'C-			
Equipmen ys	t Used Duri	ng Sampling: MP/Ph meler	, produc	1 5/000 1 + prob	Flo At	trethout voas;	3 buck	g; Utility knife ets, Alonox			
	es/Commen	•				·					
8.01			lean 1	20 to	lite	Tan	No odor	e			
1.31	Volume			,		1					
	purge										
	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \										

Water Sa	mpling R	ecord		Animas Environmental Services							
Monitor W	ell No: MV	1.3				omanche, Farmington	- 1				
						5) 564-2281 Fax (505) 3	324-2022				
Project:	Enterprise		www.		Projec						
Site:	<i>lateral</i>	K-31				Date: 9-5-2012	(120 11)				
l .	MW-3					Time:	1/29 sample				
Sampler:	LL 4	ZT				ather: Cleur   Ite	Twe !				
Sampling I		Bailer		Air Temperature: Well Diam. (in.):							
Depth of W		24.12		Site Elevation (ft):							
Depth to W		18.93									
	Temp	Conductivity	DO		ORP		Notes/Observations				
Time	(deg C)	(µS) (mS)	(mg/L)	рН	(mV)	(gallons)	Notes/Observations				
1120	15.34	7.738	1.29	7.56		1st Briler	Tan Color H20				
1124	15.31	7.788	0.85	7.45	-68.3	1.0 god					
1(24	14.79	7.777	1.01	7.45		20 gal					
1129	14.93	7.631	0.97	7.42	-63.9	3.50 gal					
11.61		1.62									
						·					
***************************************											
			<u></u>								
			: 								
Analytical	Daramotore	Sampled For (	include Me	thad #):	ä	POZIB BTEX					
Allalytical	rafaffieters	Sampled For (	iliciade Me	tijou #j.		O DICA					
	· · · · · · · · · · · · · · · · · · ·		···								
Disposal o	f Durand W	ator: Tuby	35 001	chal	مال	deliverer Tal	ANDFARM (E-784)				
Disposar o	ruiged vv	ater. = Arp	0/01	1	orum	- CONTROL INC	MOSITION CE 12.1				
		ord Complete? . H. E. ∆.	(Y/N)	<u></u>							
	Laboratory:				<i>C</i> al	0 01.1	1. 14) 1 to 140.00				
Equipment	Used Duri	ng Sampling: \	mierw	String	* Ylow	MOW WHACKMEN	f. Wility knige				
		451 meer	product	projus/	3 VO	As ( 3 buckets,	155 gal. drum.				
Other Note	s/Commen	ts									
7.19	Hzo	Column	Tan	color	H20.	no odor, no s	heen.				
1.173	Volum			-	- 1	!					
3.57						<del></del>					
	- <u>941 -</u>	17.19.4				**************************************					

Water Sa	ampling R	ecord		Animas Environmental Services								
Monitor W	ell No: M	w-4			624 E. C	Comanche, Farmington	NM 87401					
	141	** 1				5) 564-2281 Fax (505)	1					
Project:					Projec	t No.:						
Site:	LAteral	K		-		Date: 9.5.2012						
Location:	MW-4						1150 sample time					
Sampler:	LLEZJ			_	Weather: Cleave							
Sampling		Briler			Air Temperature:							
Depth of V		26.93			Well Diam. (in.): 2 Site Elevation (ft):							
Depth to V	T	17.55		Site								
	Temp	Conductivity	DO		ORP	PURGED VOLUME						
Time	(deg C)	(µS) (mS)	(mg/L)	pH	(mV)	(gallons)	Notes/Observations					
1138	15.52	1016	1.14	7.38	-38.3	1st Bailer 13 gel						
1140	15.07	9.793	1.12	7.42	-36.4	1.0 gal	Tan/silt Hu					
1143	15.18	9.892	1.07	7.41	-38.5	2.0 gal	Tan Hzo					
1145	14.93	10.02	1.//	7.41	4/2.2	3.0 gal.						
1147	14.67	10.07	1.26	7.40	-46.4	4,0 gal.	Tan 4/20					
1150	14.61	10.05	1.57	7.42	-46.7	5.0 gal	Tan Hu					
			•			,						
	<del> </del>			<del> </del>								
				ļ								
  Δnalytical	Parameters	Sampled For (	include Me	ethod #):								
Analytical	1 dramitters	8021 C										
		8021 6	0 0/6	<u> </u>								
Disposal o	of Purged W	ater: Inte	55 5	ul 50	teel o	lrum						
1		ord Complete?										
Analytical	Laboratory	: 14	<del>,,,,</del> 14	SAL.								
Equipmen	t Used Duri	ng Sampling:	Bailers	rhie	da L	it ston flow nedects; string; 1	altachment					
		451 / product	proise,	B UUAS;	3 13	uckets; string; 1	55 gal. drum.					
1	es/Commen		·	•								
	Hzo Colum		an Hza	) NO	sh	een no odel	-					
	volumy		leco	very	is abo	een, po odef d.						
	purged				J							
	T											

Water Sa	mpling R	ecord		Animas Environmental Services						
Monitor W	ell No: 5					Comanche, Farmington	I			
						5) 564-2281 Fax (505) 3	324-2022			
	Enterpris				Projec					
Site:	Lateral	K-31				Date: 9.5.2012				
Location:	11 / 77	-			10/0	Time: 1016 (ather: Clevel www.	1216) sample Time			
Sampler: Sampling i	IL & ZT	Bailer		Δir	Temper		V			
Depth of W		25.31		Well Diam. (in.): 2						
Depth to W		15.88		Site Elevation (ft):						
	Temp	Conductivity	DO		ORP	PURGED VOLUME				
Time	(deg C)	(µS) (mS)	(mg/L)	рН	(mV)	(gallons)	Notes/Observations			
1208	17.61	10.761	201.61	7.72	-122.4	15+ Bail				
1210	16.65	10.568	1, 25	7.70	-117.5	1st gallon	Brown/No small			
1212	16.12	10.613	1.22	7.68	-113.2	2 gallons	Brown			
1214	15.91	10.602	1.28	7.69	-110.7	3 gallons	Brown			
1215	15.93	10.604	1.62	7.67	-109.6	4 gallous	Brown			
1216	15.74	10.637	2.76	7.61	-105.0	4.75 gallors	Biown			
	<u> </u>	L		L						
Analytical	Daramatara	Sampled For (i	naluda Ma	thad #\:	-	1021 B BTE	· V			
Analytical	Parameters	Sampled For (i	nciude we	tnoa #):		04 13 DIE	X			
Dienosalo	f Durgod W	ator: Tala Co	1	ام امدا	1	delivers to LAND	TAN W (FTACH)			
		ord Complete?	_	ofeet C	yum a	Selivery to LANG	FREM (CIECIT)			
	Laboratory:									
				1500	Flo all	tachment / whility	knife:			
A+x C	00/Temp/P)	meter/	Product	Probe	3 Bu	tachment / Utility ckets/ 155 gal.	drum/3 40A5			
	s/Comment	_	43 420							
			4 Volum							
			62 Per							
				<del>)</del>						
	TO THE STATE OF TH	The second secon								

Water Sa	mpling R	ecord		Animas Environmental Services							
Monitor W	ell No: 💪				624 E. C	Comanche, Farmington	NM 87401				
	•				Tel. (505	5) 564-2281 Fax (505) 3	324-2022				
Project:	Enterpri	્રિદ			Projec	t No.:					
Site:		K-31		•		Date: 9-5-2012					
Location:						Time: 1004	242) Sample Time				
Sampler:	LL& Z	- T			We	ather: Clear					
Sampling I		Bailer			Air Temperature:						
Depth of W	• •	27,18		Well Diam. (in.): 2							
Depth to W	later (ft):	17.41		Site Elevation (ft):							
	Temp	Conductivity	DO		ORP	PURGED VOLUME					
Time	(deg C)	(µS) (mS)	(mg/L)	pН	(mV)	(gallons)	Notes/Observations				
1230	16.01	8,491	1.74	7.58	-40.4	1st Bail					
1231	14.98	8.494	1.29	7.48	-37.2	1.09al	Clear / Brown Hes				
12384	15.10	8.475	1.26	7,46	-39.5	2,0 901	Brown Hzo				
1237	15.13	8.488	1.10	7,45	-412.6	3.0 gal	Brown 1/20				
1240	14.98	8.498	1.39	7.44	-43.7	4.0 gal	Brown HZD				
1243	15.48	8,370	0.90	7.38	~48.3	4.75 gal	Brown / south				
				<u> </u>							
			<u> </u>								
				İ	L						
						2.0.0					
Analytical	Parameters	Sampled For (i	nclude Me	thod #):		8021 B BTE	5X				
Disposal o	f Purged W	ater: In to	55 gal	Steel	Drum	Delivered To	LANDFARM CETECH				
Chain of C	ustody Rec	ord Complete?	(Y/N) Y								
Analytical I	Laboratory:	H. E. A. L									
Equipment	Used Duri	ng Sampling: \	Sailer W	1 510w	Flo	Attachment (Util	ity Knife				
		_	3 bh	ctets /	1 55	igal, Jrum) 45	I) Product Probe				
Other Note	s/Commen	ts 9,77	Hao Go	lvan							
		1,59	Volume								
		4.77	Perg								
			_								

Water Sa	ampling R	ecord		Animas Environmental Services						
Monitor W	ell No: 7				624 E. C	Comanche, Farmington	NM 87401			
	•				Tel. (505	5) 564-2281 Fax (505) 3	324-2022			
Project:	Enterpris	s <b>G</b>	·		Projec	t No.:				
Site:	LAteral	K-31		<del>.</del>		Date: 9-5-2012				
Location:				_		Time: 1002 (	301) Sample Time			
	LL + Z.	T.				ather: Clear				
Sampling		34 (1) 3	.,			ature:				
Depth of V		26.47	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>		Elevatio	. (in.): <u>a</u>				
Depth to V	1	17.61		Site	·	PURGED VOLUME				
	Temp	Conductivity	DO		ORP		Nata (Observations			
Time	(deg C)	(µS) (mS)	(mg/L)	pH	(mV)	(gallons)	Notes/Observations			
1252	16.03	7.558	1.17	7,44	-73.8	1st Bailer	Clear			
1255	15.68	7.522	1.46	7.41	-58.9	1.0 9al	Brown			
1257	15.10	7.514	1.13	7.39	-63,9	2.0 921	Brown Silty			
1259	14,94	7.528	0.73	7.38	-65.0	3.0	Bown / Sitty			
1301	15.25	7.542	1,19	7,39	-57.2	4,35 gal	Brown			
					<u> </u>					
					<u> </u>					
				<u> </u>						
			· · · · · · · · · · · · · · · · · · ·							
	_l		<u> </u>	-L						
Analytical	Darameters	Sampled For (	includa Me	thad #\:	*	BTE BTE	FX			
Anaiyticai	Parameters	Sampled For (	menade me	iliou #j.		04 5 1-1-				
**********										
Disposal o	of Purged W	ater: Th to	55 9A1	Steel	Drui	- Delivered to	Land Farm (ETech)			
1		ord Complete?								
		H. E. A.								
				/ 615	Flas	Attachment /uti	1:44 Unife			
Equipmen	t occu bull	g camping.	XVI 1 E1	JIVW	110W	Woning 104	H I I I I I I I I I I I I I I I I I I I			
Other Note	es/Commen	ts 8,86 F	Do Colum		1120	is Brown and	Saty			
	1.44 volume the Recovery on well is very									
			era		goud.	VV-1				
		ا ده ۱۱	<del>™</del>		Jane .					
					·····					
		· · · · · · · · · · · · · · · · · · ·								

Water Sa	ampling R	ecord		Animas Environmental Services							
Monitor W	ell No: 🖇					Comanche, Farmington					
						5) 564-2281 Fax (505)	324-2022				
Project:	Enterpris			-	Projec						
Site:	<u>lateral</u>	K-31		-	Date: 95.2017 Time: 1011 (1325) San Ple Tine						
Location: Sampler:	LL & Z			Weather: Clear WARM							
Sampling			OA'S	Air Temperature:							
Depth of V		27,70	V	Well Diam. (in.): 2							
Depth to V	Vater (ft):	16.55		Site Elevation (ft):							
	Temp	Conductivity	DO		ORP	PURGED VOLUME					
Time	(deg C)	(µS) (mS)	(mg/L)	рН	(mV)	(gallons)	Notes/Observations				
1311	17.16	8.062	2.18	7.66	-75.1	1st Bail	21				
1314	15.87	8,350	0.94	7.61	-82.2	1.0 9Al	H20 Brown				
1316	15.61	8.654	1.06	7.58	-79.6	2.0 gal	H20 Brown				
1318	15.11	8.787	0.62	7,53	-77,9	3.0 gal	H20 Brown				
1320	14.88	8.888	1,03	7.53	-73,4	4.0 901	H20 Brown				
1325	15.54	8.827	0.62	7,49	-76.3	5,30	HZO BOOML				
	· · · · · · · · · · · · · · · · · · ·	L.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<u> </u>	1, .,							
  Analytical	Parameters	Sampled For (	include Me	thod #):	30%	21 B BIEV					
					<del></del>						
		, , , , , , , , , , , , , , , , , , ,			······································						
Disposal o	of Purged W	ater: Into 55	gal. Ste	el draw	n deli	vered to Land Cu	rm (ETech)				
Chain of C	ustody Rec	ord Complete?	(Y/N) Y	1	1.350	-					
	Laboratory:	\ .									
		ng Sampling:	Baiten	utili	ty kni	fe, slow-flow at	tachment,				
YSI	Temp/DO/		1	7							
Other Not	es/Commen	ts 11.15 Hz	O Column								
	1.81 Volume										
15, 11, 8, 1244111			819								
		<u> </u>	ــــــــــــــــــــــــــــــــــــــ								

Water Sa	ampling R	ecord	-	Animas Environmental Services							
Monitor W	ell No: 9				624 E. C	Comanche, Farmington	NM 87401				
	•				Tel. (505	5) 564-2281 Fax (505) 3	324-2022				
Project:	Enterpri	se			Projec						
Site:	Lateral	K-31		_		Date: 9-5-2012	1359				
Location:				-		Time: 1007	SAMPLE TIME				
Sampler: Sampling	LL 4 Z			Δir		ather: <u>clear / w</u>	HILM				
Depth of V		13a,1er 26.57		Air Temperature:							
Depth to V		16.33			Elevation						
	Temp	Conductivity	DO		ORP	PURGED VOLUME					
Time	(deg C)	(µS) (mS)	(mg/L)	рН	(mV)	(gallons)	Notes/Observations				
1341	17.01	8.104	0.84	7.60	-62.4	1st Barlen					
1343	15.29	8.158	103	7.51	51.8	1.0 gal	Hou some				
<del>111345</del>	1500	3.163	0.90	7.45	-47.0	/ 1 A	HEU Some				
1354	15:00	3.248	1.08	7.34	-45.2		5,17				
1354	14.86	8.216	1.15	7.33	-43.4	4.0 gul					
1350	14.95	8-183	1.02	7.28	-455	5.0 gul					
,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					J					
		<u> </u>									
Analytical	Parameters	Sampled For (	include Me	ethod #):							
Analytical	Tarameters	, campica i oi (									
				<del></del>							
Disposal	of Purged W	lator: EE o	امعات ا	٨	الماء .	VERED TO LANDFE	ARM (E-TECH)				
		cord Complete?		Ofun	1 040 11	OBIGED ID GILLER					
		: H. E. A. L									
<del></del>				:::(4.v. //	Lise S	low flow Attation	4				
-quipinen	. Coca Dull	9k	wii 101 1 V1	·     71   16	-171 , -	- ATTORION					
Other Note	es/Commen	its .									
10.21	Hzo colu										
1.671	ru/ume	717.70									
606	A DING										
V 10 9	~ Pivi y			····							



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

September 11, 2012

Tami Ross
Animas Environmental Services
624 East Comanche
Farmington, NM 87401
TEL: (505) 793-2072

**FAX** 

RE: Lateral K-31 OrderNo.: 1209242

#### Dear Tami Ross:

Hall Environmental Analysis Laboratory received 9 sample(s) on 9/7/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1209242

Date Reported: 9/11/2012

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Project: Lateral K-31

Collection Date: 9/5/2012 10:43:00 AM

Client Sample ID: MW-1

**Lab ID:** 1209242-001

Matrix: AQUEOUS

Received Date: 9/7/2012 9:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	18	2.0	μg/L	2	9/7/2012 4:30:36 PM
Toluene	2.9	2.0	μg/L	2	9/7/2012 4:30:36 PM
Ethylbenzene	3.3	2.0	μg/L	2	9/7/2012 4:30:36 PM
Xylenes, Total	25	4.0	μg/L	2	9/7/2012 4:30:36 PM
Surr: 4-Bromofluorobenzene	108	55-140	%REC	2	9/7/2012 4:30:36 PM

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

## Lab Order 1209242

Date Reported: 9/11/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Client Sample 1D: MW-2

Project: Lateral K-31 **Collection Date:** 9/5/2012 11:09:00 AM

Lab ID: 1209242-002

Matrix: AQUEOUS

Received Date: 9/7/2012 9:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	9.5	2.0	μg/L	2	9/7/2012 5:00:59 PM
Toluene	9.2	2.0	μg/L	2	9/7/2012 5:00:59 PM
Ethylbenzene	ND	2.0	μg/L	2	9/7/2012 5:00:59 PM
Xylenes, Total	30	4.0	μg/L	2	9/7/2012 5:00:59 PM
Surr: 4-Bromofluorobenzene	98.4	55-140	%REC	2	9/7/2012 5:00:59 PM

- Value exceeds Maximum Contaminant Level.
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit ND
- Reporting Detection Limit

Lab Order 1209242

Date Reported: 9/11/2012

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: MW-3

Project: Lateral K-31

Collection Date: 9/5/2012 11:29:00 AM

Lab ID: 1209242-003 Matrix: AQUEOUS

Received Date: 9/7/2012 9:50:00 AM

Analyses	Result	RL Qu	RL Qual Units		Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	2.0	μg/L	2	9/7/2012 5:31:13 PM
Toluene	ND	2.0	μg/L	2	9/7/2012 5:31:13 PM
Ethylbenzene	ND	2.0	μg/L	2	9/7/2012 5:31:13 PM
Xylenes, Total	ND	4.0	μg/L	2	9/7/2012 5:31:13 PM
Surr: 4-Bromofluorobenzene	110	55-140	%REC	2	9/7/2012 5:31:13 PM

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Page 3 of 10

Lab Order 1209242

Date Reported: 9/11/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Client Sample ID: MW-4

Project: Lateral K-31 Collection Date: 9/5/2012 11:50:00 AM

Lab ID: 1209242-004

Matrix: AQUEOUS

Received Date: 9/7/2012 9:50:00 AM

Analyses	Result RL Qual Units		al Units	DF	Date Analyzed		
EPA METHOD 8021B: VOLATILES					Analyst: NSB		
Benzene	ND	2.0	μg/L	2	9/7/2012 6:01:28 PM		
Toluene	ND	2.0	μg/L	2	9/7/2012 6:01:28 PM		
Ethylbenzene	ND	2.0	μg/L	2	9/7/2012 6:01:28 PM		
Xylenes, Total	ND	4.0	μg/L	2	9/7/2012 6:01:28 PM		
Surr: 4-Bromofluorobenzene	105	55-140	%REC	2	9/7/2012 6:01:28 PM		

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits J
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit
- Reporting Detection Limit

Lab Order 1209242

Date Reported: 9/11/2012

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: MW-5

**Project:** Lateral K-31

Collection Date: 9/5/2012 12:16:00 PM

Lab ID: 1209242-005 Matrix: AQUEOUS

Received Date: 9/7/2012 9:50:00 AM

Analyses	Result RL Qual Units		DF	Date Analyzed	
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	10	2.0	μg/L	2	9/7/2012 6:31:36 PM
Toluene	ND	2.0	μg/L	2	9/7/2012 6:31:36 PM
Ethylbenzene	ND	2.0	μg/L	2	9/7/2012 6:31:36 PM
Xylenes, Total	ND	4.0	μg/L	2	9/7/2012 6:31:36 PM
Surr: 4-Bromofluorobenzene	97.7	55-140	%REC	2	9/7/2012 6:31:36 PM

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Lab Order 1209242

Date Reported: 9/11/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

1209242-006

Client Sample ID: MW-6

**Project:** Lateral K-31

Lab ID:

Collection Date: 9/5/2012 12:42:00 PM Received Date: 9/7/2012 9:50:00 AM

Analyses	Result RL Qual Units		DF	Date Analyzed	
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	37	2.0	µg/L	2	9/7/2012 7:01:46 PM
Toluene	8.3	2.0	µg/L	2	9/7/2012 7:01:46 PM
Ethylbenzene	ND	2.0	μg/L	2	9/7/2012 7:01:46 PM
Xylenes, Total	14	4.0	μg/L	2	9/7/2012 7:01:46 PM
Surr: 4-Bromofluombenzene	111	55-140	%REC	2	9/7/2012 7:01:46 PM

Matrix: AQUEOUS

## Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Page 6 of 10

### Lab Order 1209242

Date Reported: 9/11/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Client Sample ID: MW-7

Project: Lateral K-31

**Collection Date:** 9/5/2012 1:01:00 PM

**Lab ID:** 1209242-007

Matrix: AQUEOUS Received Date: 9/7/2012 9:50:00 AM

Analyses	alyses Result RL Qual Units		DF	Date Analyzed	
EPA METHOD 8021B: VOLATILES		-			Analyst: NSB
Benzene	3.6	2.0	μg/L	2	9/7/2012 7:32:00 PM
Toluene	ND	2.0	μg/L	2	9/7/2012 7:32:00 PM
Ethylbenzene	ND	2.0	μg/L	2	9/7/2012 7:32:00 PM
Xylenes, Total	ND	4.0	µg/L	2	9/7/2012 7:32:00 PM
Surr: 4-Bromofluorobenzene	94.1	55-140	%REC	2	9/7/2012 7:32:00 PM

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Page 7 of 10

Lab Order 1209242

Date Reported: 9/11/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Client Sample ID: MW-8

Project: Lateral K-31

Collection Date: 9/5/2012 1:25:00 PM

Lab ID: 1209242-008

Matrix: AQUEOUS Received Date: 9/7/2012 9:50:00 AM

Analyses	rses Result RL Qual Units		DF	Date Analyzed		
EPA METHOD 8021B: VOLATILES					Analyst: NSB	
Benzene	20	2.0	μg/L	2	9/7/2012 8:02:21 PM	
Toluene	ND	2.0	µg/L	2	9/7/2012 8:02:21 PM	
Ethylbenzene	ND	2.0	µg/L	2	9/7/2012 8:02:21 PM	
Xylenes, Total	ND	4.0	μg/L	2	9/7/2012 8:02:21 PM	
Surr: 4-Bromofluorobenzene	90.7	55-140	%REC	2	9/7/2012 8:02:21 PM	

- \* Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Lab Order 1209242

Date Reported: 9/11/2012

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Client Sample ID: MW-9

**Project:** Lateral K-31

Collection Date: 9/5/2012 1:59:00 PM

**Lab ID:** 1209242-009

Matrix: AQUEOUS Received Date: 9/7/2012 9:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	2.0	μg/L	2	9/7/2012 11:03:27 PM
Toluene	ND	2.0	μg/L	2	9/7/2012 11:03:27 PM
Ethylbenzene	ND	2.0	μg/L	2	9/7/2012 11:03:27 PM
Xylenes, Total	ND	4.0	μg/L	2	9/7/2012 11:03:27 PM
Surr: 4-Bromofluorobenzene	111	55-140	%REC	2	9/7/2012 11:03:27 PM

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1209242

11-Sep-12

Client:

Animas Environmental Services

Project:

Lateral K-31

Sample ID 5ML RB	SampT	SampType: MBLK		Tes	TestCode: EPA Method 8021B: Volatiles					
Client ID: PBW	Batch	Batch ID: R5383		F	lunNo: 5	383				
Prep Date:	Analysis D	ate: 9/	7/2012	S	eqNo: 1	53371	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	19		20.00		93.1	55	140			

Sample ID 100NG BTEX LCS	SampT	SampType: LCS			tCode: E					
Client ID: LCSW	Batch	Batch ID: R5383			RunNo: 5383					
Prep Date:	Analysis D	ate: <b>9/</b>	7/2012	S	SeqNo: 1	53372	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	112	80	120			
Toluene	22	1.0	20.00	0	112	80	120			
Ethylbenzene	23	1.0	20.00	0	114	80	120			
Xylenes, Total	69	2.0	60.00	0	115	80	120			
Surr: 4-Bromofluorobenzene	21		20.00		103	55	140			

Sample ID 1209229-001AM	<b>S</b> Samp1	SampType: <b>MS</b>			tCode: E	PA Method				
Client ID: BatchQC	Batcl	Batch ID: R5383			RunNo: <b>5</b>	383				
Prep Date:	Analysis [	Date: <b>9/</b>	7/2012	S	SeqNo: 1	53374	Units: μg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	130	5.0	100.0	0	125	74.1	124			S
Toluene	120	5.0	100.0	2.920	121	75.2	124			
Ethylbenzene	120	5.0	100.0	0	123	69	125			
Xylenes, Total	370	10	300.0	4.080	122	73.1	126			
Surr: 4-Bromofluorobenzene	120		100.0		121	55	140			

Sample ID 1209229-001AM	SD SampT	SampType: MSD			TestCode: EPA Method 8021B: Volatiles					
Client ID: BatchQC	Batch	Batch ID: R5383			RunNo: 5383					
Prep Date:	Analysis D	ate: 9/	7/2012	S	SeqNo: 1	53375	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	120	5.0	100.0	0	118	74.1	124	6.00	11.2	
Toluene	120	5.0	100.0	2.920	114	75.2	124	6.00	11.9	
Ethylbenzene	120	5.0	100.0	0	116	69	125	5.93	13.5	
Xylenes, Total	350	10	300.0	4.080	115	73.1	126	5.69	13	
Surr: 4-Bromofluorobenzene	120		100.0		123	55	140	0	0	

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting LimitRL Reporting Detection Limit

Page 10 of 10



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

IEL: 505-345-39/5 FAX: 505-345-410/ Website: www.hallenvironmental.com

# Sample Log-In Check List

Clier	nt Name: Animas Environmental	Work Order Number: 1209242
Rece	eived by/date: MA 09/67//2	
Logg	ged By: Ashley Gallegos 9/7/2012 9:50:00 All	A * * * * * * * * * * * * * * * * * * *
Com	pleted By: Ashley Gallegos 9/7/2012 10:32:09 A	·M
Revi	ewed By: Mg 09/61/12	4
Cha	in of Custody	
	Were seals intact?	Yes i No Not Present ✔
2.	Is Chain of Custody complete?	Yes V No Not Present
3.	How was the sample delivered?	Client
<u>Log</u>	<u>In</u>	
4.	Coolers are present? (see 19. for cooler specific information)	Yes No !! NA
5.	Was an attempt made to cool the samples?	Yes V No NA
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes V No NA
7.	Sample(s) in proper container(s)?	Yes V No
8.	Sufficient sample volume for indicated test(s)?	Yes V No
9.	Are samples (except VOA and ONG) properly preserved?	Yes V No
10.	Was preservative added to bottles?	Yes No ✔ NA
11.	VOA vials have zero headspace?	Yes V No No VOA Vials
12.	Were any sample containers received broken?	Yes No ✓
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes V No # of preserved bottles checked for pH:
14.	Are matrices correctly identified on Chain of Custody?	Yes ✔ No (<2 or >12 unless noted)
<b>15</b> .	Is it clear what analyses were requested?	Yes ✔ No Adjusted?
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✓ No Checked by:
<u>Spe</u>	<u>cial Handling (if applicable)</u>	
17.	Was client notified of all discrepancies with this order?	Yes No NA ✔
	Person Notified: Date	3. The second of the second of
	By Whom: Via:	eMail Phone Fax In Person
	Regarding:	
	Client Instructions:	HANNELSON DER BER BER BER BER BER BER BER BER BER B
18.	Additional remarks:	·
19	Cooler Information	
. • •	Cooler No Temp °C Condition Seal Intact Seal No	Seal Date Signed By
	1 1.0 Good Yes	

	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	Analysis	(10	S <sup>†</sup> POc	() () () () () ()	r.8r r.40 (HA) (A)	oc bo oc bo oc bo oc bo oc oc oc oc oc oc oc oc oc oc oc oc oc	DH (Methors) Hq7 ANG) (Methors) 610 ANG) 0156 ANG) ANG) 70 ANG) 620 ANG) 62	B 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8										BILL TO ENTERPRESE  FRANCES CON PRINCE	(I) (III) (I) (III) (III) (III) (III) (III) (IIII) (IIII) (IIIII) (IIIII) (IIIIII) (IIIIIIII
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Turn-Around Time:	X Standard   Rush	Project Name:	B Lateral K	Project #:		Project Manager:	Jami R	Sampler: AVINA LANG			Container Preservative Type and # Type	3 vors Hell					1			<b>&gt;</b>		The Waster	accredited lah
	Client: Animas Environmental Services A	_	Mailing Address: 1024 E Conumble	/.	20 72	105 324 2022 T	QA/QC Package:	(10000000000000000000000000000000000000	□ NELAP □ Other	□ EDD (Type)	Date Time Matrix Sample Request ID T	3512 1043 120 MW-1 3	2	179 MW-3	-	1746 NW-5	1242 NW - 6	1301 HW-7	1325   MW-B	V 1359 V 10MW-9			