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LAT 2D-1LP(OLMER4)/2011

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3274

Prepared for:

Mr. Jonathan Kelly
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

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

Groundwater Investigation Report
Enterprise Products Company
2D-1LP (Olmer #4) Pipeline Release
August 2011
SW¼ NE¼ Section 26, T28N, R10W
San Juan County, New Mexico

March 12, 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

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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 2D-1LP (Olmer #4) pipeline release, which was discovered in August 2011.

1.1 Site Location

The pipeline release occurred on Federal land under jurisdiction of the Bureau of Land Management (BLM), within the SW¼ NE¼, Section 26, T28N, R10W, San Juan County, New Mexico. Latitude and longitude of the release were recorded as N36°38.033 and W107°51.832, respectively. 36.6339, 107.8639

The elevation of the release area is approximately 5,480 feet above mean sea level (amsl) and is located within the Armenta Wash floodplain. Surface runoff drains north to an unnamed arroyo which discharges into the Armenta Wash. A topographic site location map is included as Figure 1, and an aerial map with the release location is included as Figure 2.

1.2 Release Information and Response

A release was reported at the location on August 2, 2011, by Shane Cooley of Enterprise. AES was subsequently contacted by Aaron Dailey of Enterprise on August 3, 2011, and on August 8, 2011, Tami Ross of AES met with Enterprise representatives at the release location. The cause of the release was attributed to a corrosion hole in the pipeline.

1.3 NMOCD Ranking

Based upon New Mexico Oil Conservation Division (NMOCD) ranking criteria, the site location is within a floodplain associated with Armenta Wash, and depth to groundwater is approximately 8 feet below ground surface (bgs). Based upon a review of the New Mexico Office of State Engineer (NMOSE) database, no registered water wells were located in the area. Based upon this information, the site was assigned a NMOCD ranking score of 40.

2.0 Release Investigation

2.1 Initial Assessment

AES was initially contacted by Aaron Dailey of Enterprise on August 3, 2011, and on August 8, 2011, Tami Ross of AES met with Enterprise representatives at the release location. Initial excavation activities were conducted on August 8, 2011, and representatives from Enterprise, AES and Southwest Field Services were present.

During initial excavation, soil samples were collected from the base and mid-walls of the excavation, which measured approximately 20 ft by 20 ft by 8 ft deep. Benzene, toluene,

ethylbenzene, and total xylenes (BTEX) and total petroleum hydrocarbons (TPH) concentrations for all three soil samples collected were either below laboratory detection limits or below applicable New Mexico Oil Conservation Division (NMOCD) action levels. Of the volume of soil excavated, approximately 12 cubic yards were transported by Southwest Field Services for disposal at Envirotech Landfarm, near Bloomfield, New Mexico. The remaining soils (overburden) were field screened and determined not to have been impacted by the release. These soils were stockpiled for use as backfill.

A grab sample from shallow groundwater was also collected from near the base of the excavation for laboratory analysis. Dissolved phase benzene, toluene, and total xylene concentrations were reported above the New Mexico Water Quality Control Commission (WQCC) standards for groundwater. Ethylbenzene was reported at 280 µg/L, which is below the WQCC standard of 750 µg/L.

On August 22, 2011, Tami Ross and Ross Kennemer of AES met with Aaron Dailey of Enterprise at the release location. Two test holes were excavated within the pipeline right-of-way (ROW) and were located approximately 30 feet from the release area of the pipeline. The first test hole was excavated north of the release area, and one soil and one groundwater sample were collected. The second test hole was excavated east of the release area, and one soil and one groundwater sample were also collected. BTEX and TPH concentrations for the two soil samples were below laboratory detection limits. Dissolved phase benzene concentrations were reported above the WQCC standard for groundwater in the north test hole with 240 µg/L.

A vacuum truck was used to pump out the groundwater from the excavation that was originally dug on August 8, 2011. Fresh groundwater had been allowed to infiltrate into the excavation, and a groundwater sample was collected. The sample was not submitted for laboratory analysis since strong hydrocarbon odors were detected. Based on this observation, AES and Enterprise personnel discussed continued excavation options at the site.

On August 23, 2011, Enterprise personnel, Tami Ross of AES, and IMI personnel returned to the site. A track hoe was used to extend and deepen the excavation to approximately 4 feet below the pipeline, for a total depth of 12 feet below ground surface (bgs). The excavation was extended horizontally to the west about 10 feet, resulting in an excavation area approximately 30 feet by 20 feet. Approximately 48 cubic yards of soil were stockpiled for disposal at a NMOCD approved landfarm facility.

Prior to backfilling the excavation, one groundwater sample was collected from the excavation for laboratory analysis. Dissolved phase benzene concentrations were reported above the WQCC standard with 31 µg/L. No soil samples were collected during the August

23, 2011, excavation activities since the soil samples collected from the excavation on August 8, 2011, were below NMOCD action levels.

3.0 Groundwater Investigation – November and December 2011

On November 29, 2011, a groundwater investigation was conducted by AES in order to delineate the full extent of petroleum hydrocarbon impact on groundwater resulting from the release. The investigation included the installation of four soil borings (SB-1 through SB-4), which were completed as groundwater monitor wells (MW-1 through MW-4). The monitor wells were developed on December 16, 2011, and groundwater samples were collected on December 29, 2011. Soil and groundwater samples were collected in accordance with U.S. Environmental Protection Agency (USEPA) Environmental Response Team's Standard Operating Procedures (SOPs), and applicable American Society of Testing and Materials (ASTM) standards.

3.1 Permits and Access Agreements

No property access agreements were necessary; however, Enterprise obtained necessary approvals from BLM prior to implementation of the groundwater investigation.

3.2 Utilities Notification

AES utilized the New Mexico One-Call system to identify and mark all underground utilities at the site before initiating the investigation.

3.3 Notification

AES notified Aaron Daily and Shane Cooley of Enterprise by telephone 48 hours prior to field activities.

3.4 Health and Safety Plan

Prior to the start of the investigation, AES prepared and implemented a comprehensive site-specific Job Safety Analysis (JSA) addressing the site investigation and associated soil and groundwater sampling. All employees and subcontractors 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. A tailgate meeting was held and documented during field activities, and addressed site-specific health and safety concerns or issues.

3.5 Installation and Sampling of Soil Borings

On November 29, 2011, AES installed four soil borings (SB-1 through SB-4) within and adjacent to the August 2011 excavation area in order to define the lateral and vertical extent of near surface and subsurface soil contamination. The soil borings were each advanced to a total depth of 15 feet bgs. The locations of soil borings are presented on Figures 2 and 3.

3.5.1 Drilling Methods

Soil borings were completed with a GeoProbe DT 6620 track-mounted direct push rig operated by Earth Worx, Los Lunas, New Mexico.

3.5.2 Soil Sample Collection

Soil samples were collected from continuously driven core-barrel samplers during advancement of the soil borings. At 4-ft 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. The soil samples collected for laboratory analysis were collected from the capillary fringe.

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 included in Appendix A.

3.5.3 Field Screening

Samples were collected at 4 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.

Once collected, the soil samples to be field screened were immediately placed in 1 quart glass mason jars and sealed with aluminum foil. The soil samples were then allowed to warm to approximately 80°F. Approximately 10 minutes were allowed for the soil to be heated and for any VOCs in the soil to accumulate in the headspace of the glass jar. During the initial stages of headspace development, the sample was gently shaken for one minute to promote vapor development and disaggregate the sample. Volatile gases were then measured by penetrating the aluminum foil with the sampling tube of the PID-OVM. The highest (peak) measurements were recorded onto the Soil Boring Logs.

3.5.4 Laboratory Analyses - Soil

Soil samples collected from borings were submitted to Hall Environmental Analysis Laboratory (Hall), Albuquerque, New Mexico, for laboratory analysis of the following parameters:

- BTEX – USEPA Method 8021
- TPH Gasoline Range Organics (GRO) and Diesel Range Organics (DRO)– EPA Method 8015 Modified

Once collected, soil 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 laboratory.

3.6 Groundwater Monitor Well Installation

3.6.1 Groundwater Monitor Well Installation and Construction

A total of four monitor wells (MW-1 through MW-4) were installed at the site. Monitor wells were positioned around the excavation area in order to define any horizontal extent of contaminants in groundwater. Monitor well construction consisted of 2-inch outside diameter (OD) Schedule 40 PVC screen and blank riser casing. The screened interval extended approximately 10 feet across the water table. The screen was packed with 10/20 Colorado silica sand. A 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 to approximately 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 construction diagrams for MW-1 through MW-4 are included on the soil boring logs in Appendix A.

3.6.2 Groundwater Monitor Well Development

Following monitor well installation and completion, each well was developed in order to remove fine-grained sediments from the sand pack and to increase hydraulic conductivity through the well screen. Each well was developed by a combination of surging and pumping techniques. Groundwater purged from the wells was contained in labeled and sealed plastic water tank. Approximately 50 gallons of development water were disposed of at Envirotech's NMOCD permitted landfarm. Monitor wells were developed in strict accordance with AES SOPs. Details of monitor well development, including purged water volume, are included on a Groundwater Monitor Well Development Form, which is presented in Appendix B.

3.6.3 Monitor Well 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 Arrow Engineering, a New Mexico Licensed Professional Surveyor. Each well was tied to an existing USGS benchmark.

3.7 Groundwater Sample Collection

3.7.1 Groundwater Sample Collection

On December 29, 2011, a total of four groundwater samples were collected from the groundwater monitor wells (MW-1 through MW-4). Prior to purging each groundwater monitor well, depth to groundwater was measured with a water level indicator. The water

level indicator was decontaminated prior to measuring the depth to groundwater in each well. Depth to groundwater for each well was recorded on the field groundwater sampling forms.

After measuring depth to groundwater in each monitoring well, each well was purged using a disposable bailer. Three well volumes were purged from each well, and water quality parameters (pH, temperature, electric cal conductivity, dissolved oxygen and oxygen reduction potential) were recorded on the field groundwater sampling forms. After the three well volumes were purged, a groundwater sample was collected using the same disposable bailer that was used to purge the well.

3.7.2 Laboratory Analyses - Groundwater

All groundwater analytical samples were analyzed for the following parameters:

- BTEX – USEPA Method 8021
- TPH (DRO/GRO) – USEPA Method 8015B Modified

3.7.3 Sample Preservation and Handling

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 laboratory.

4.0 Field and Laboratory Soil and Groundwater Results – November and December 2011

4.1 Soil

Field screening VOC vapor readings (via OVM) ranged from non-detectable in SB-1, SB-2 and SB-4 up to 59.4 ppm in SB-3. Soil analytical results showed that soil samples from the capillary fringe in SB-1 through SB-4 were below NMOCD action levels or below laboratory detection limits for benzene, BTEX, and TPH. The field screening and analytical results have been tabulated and are presented in Table 1 and on Figure 3. Soil analytical laboratory reports are presented in Appendix C.

4.2 Groundwater

Depth of groundwater ranged from 7.94 feet below top of casing (TOC) in MW-3 down to 11.51 feet TOC in MW-3. Based on depth to groundwater measurements, the gradient is 0.0006 ft/ft in a northeastern direction. Groundwater elevation contours for December 2011 are included as Figure 4.

Groundwater pH ranged from 6.42 in MW-4 up to 7.14 in MW-1. Dissolved oxygen readings ranged from 1.28 mg/L in MW-2 up to 3.19 mg/L in MW-4, and conductivity readings were between 4.53 mS and 8.44 mS.

Dissolved phase analytical results show reported concentrations for benzene, toluene, and xylenes were below laboratory detection limits in MW-1, MW-2, and MW-4. The highest ethylbenzene concentration was reported at 2.4 µg/L in MW-3 and is well below the applicable WQCC standard of 750 µg/L. TPH as GRO and DRO in MW-1 through MW-4 were below laboratory detection limits. The analytical results for groundwater samples have been tabulated and are presented in Table 3 and on Figure 5. Groundwater analytical laboratory reports are presented in Appendix C.

5.0 Conclusion and Recommendations

A total of four soil borings (SB-1 through SB-4) were installed by AES in November 2011 and subsequently completed as monitor wells MW-1 through MW-4. Soil analytical results confirm that soil samples collected from SB-1 through SB-4 were below NMOCD action levels or below laboratory detection limits for benzene, total BTEX, and TPH.

Analytical results for samples collected from MW-1 through MW-4 in December 2011 show that concentrations for BTEX were below applicable WQCC standards and for TPH were below laboratory detection limits.

Based upon the results of the groundwater investigation associated with the Olmer #4 Pipeline release, groundwater has not been impacted within the source area above applicable WQCC standards. AES recommends at least three additional quarterly groundwater monitoring and sampling events to confirm contaminant concentrations remain below WQCC standards.

6.0 Certification

I, the undersigned, am personally familiar with the information submitted in this Groundwater Investigation Report, prepared on behalf of Enterprise Products Company, Inc. for the November and December 2011 site investigation activities associated with the August 2011 2D-1LP (Olmer #4) pipeline release in San Juan County, New Mexico. I attest that it is true and complete to the best of my knowledge.

Tami Ross

Tami C. Ross, CHMM
Project Manager

Elizabeth McNally

Elizabeth McNally, P.E.
Principal

7.0 References

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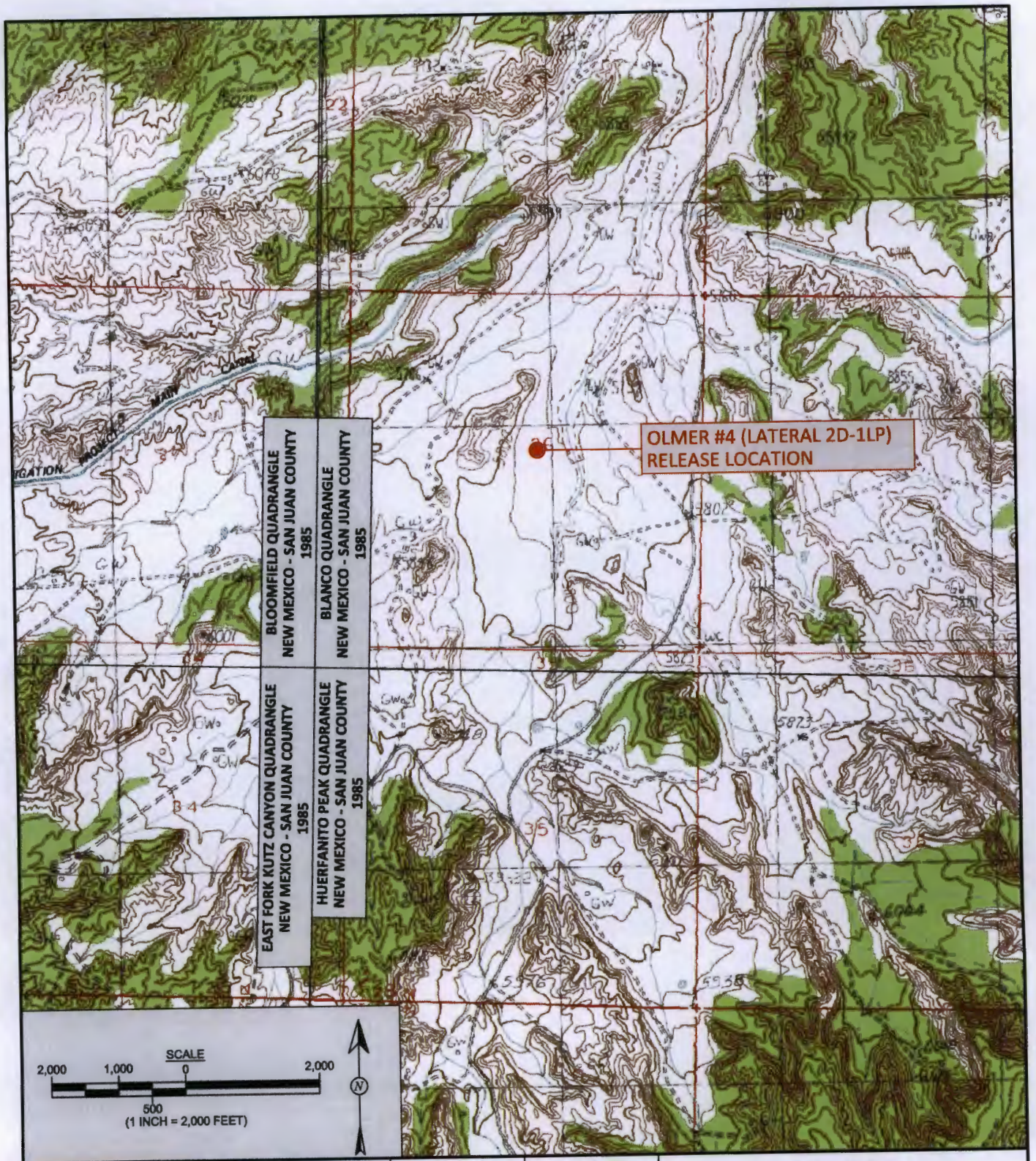
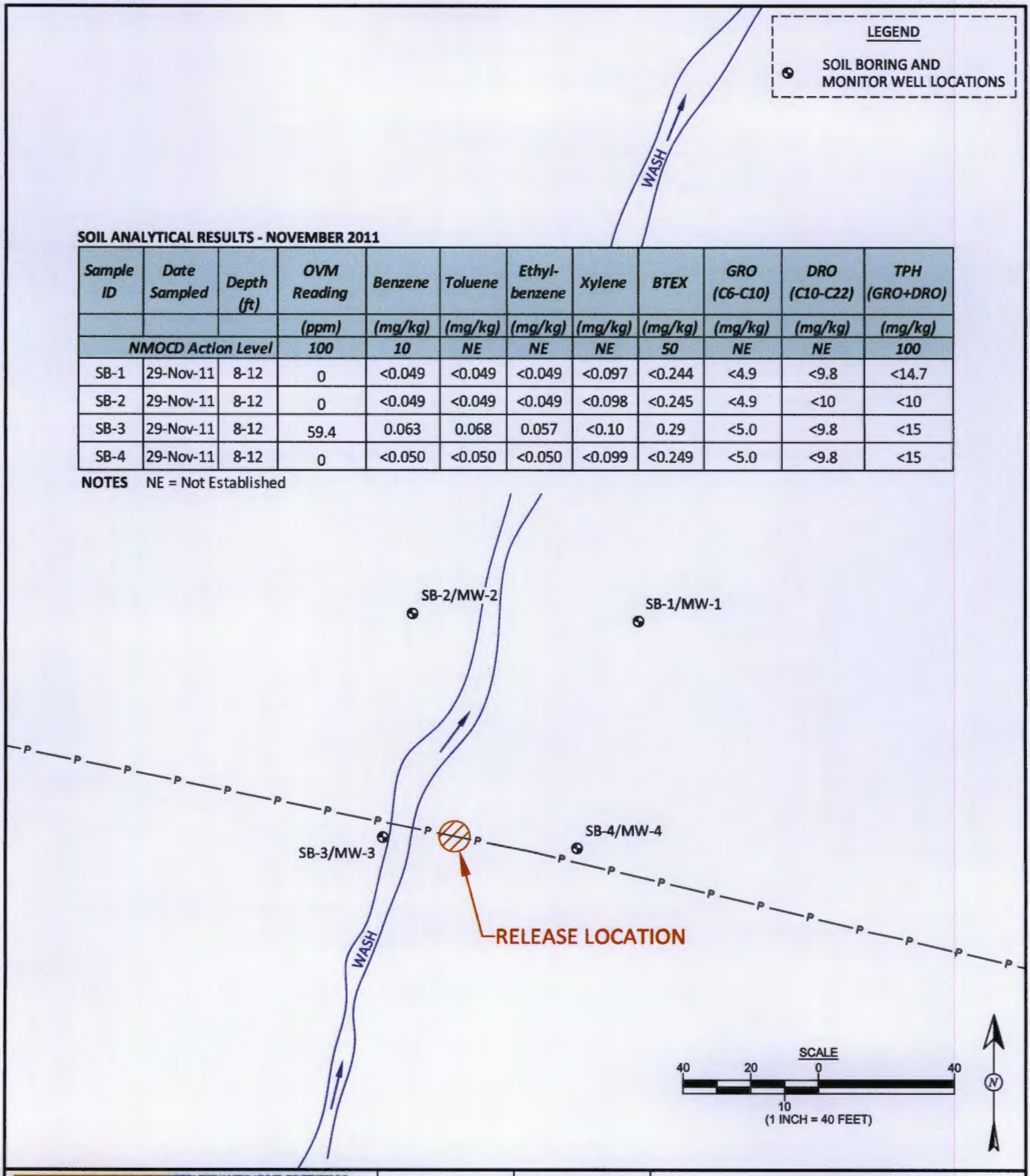


Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** January 19, 2012	**FIGURE 1**
REVISIONS BY: C. Lameman	**DATE REVISED:** January 19, 2012	**TOPOGRAPHIC SITE LOCATION MAP**
CHECKED BY: T. Ross	**DATE CHECKED:** January 19, 2012	ENTERPRISE PRODUCTS COMPANY OLMER #4 (LATERAL 2D-1LP) PIPELINE GROUNDWATER INVESTIGATION
APPROVED BY: E. McNally	**DATE APPROVED:** March 12, 2012	SAN JUAN COUNTY, NEW MEXICO SW¼, NE¼, SEC. 26, T28N, R10W 36°38.033'N, 107°51.832W

Animas Environmental Services, LLC		
DRAWN BY: C. Lameman	DATE DRAWN: January 19, 2012	**FIGURE 2**
REVISIONS BY: C. Lameman	DATE REVISED: January 19, 2012	**GENERAL SITE MAP** ENTERPRISE PRODUCTS COMPANY OLMER #4 (LATERAL 2D-1LP) PIPELINE GROUNDWATER INVESTIGATION SAN JUAN COUNTY, NEW MEXICO SW¼, NE¼, SEC. 26, T28N, R10W 36°38.033'N, 107°51.832W
CHECKED BY: T. Ross	DATE CHECKED: January 19, 2012	
APPROVED BY: E. McNally	DATE APPROVED: March 12, 2012	



SOIL ANALYTICAL RESULTS - NOVEMBER 2011

Sample ID	Date Sampled	Depth (ft)	OVM Reading	Benzene	Toluene	Ethyl-benzene	Xylene	BTEX	GRO (C6-C10)	DRO (C10-C22)	TPH (GRO+DRO)
			(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
NMOCD Action Level			100	10	NE	NE	NE	50	NE	NE	100
SB-1	29-Nov-11	8-12	0	<0.049	<0.049	<0.049	<0.097	<0.244	<4.9	<9.8	<14.7
SB-2	29-Nov-11	8-12	0	<0.049	<0.049	<0.049	<0.098	<0.245	<4.9	<10	<10
SB-3	29-Nov-11	8-12	59.4	0.063	0.068	0.057	<0.10	0.29	<5.0	<9.8	<15
SB-4	29-Nov-11	8-12	0	<0.050	<0.050	<0.050	<0.099	<0.249	<5.0	<9.8	<15

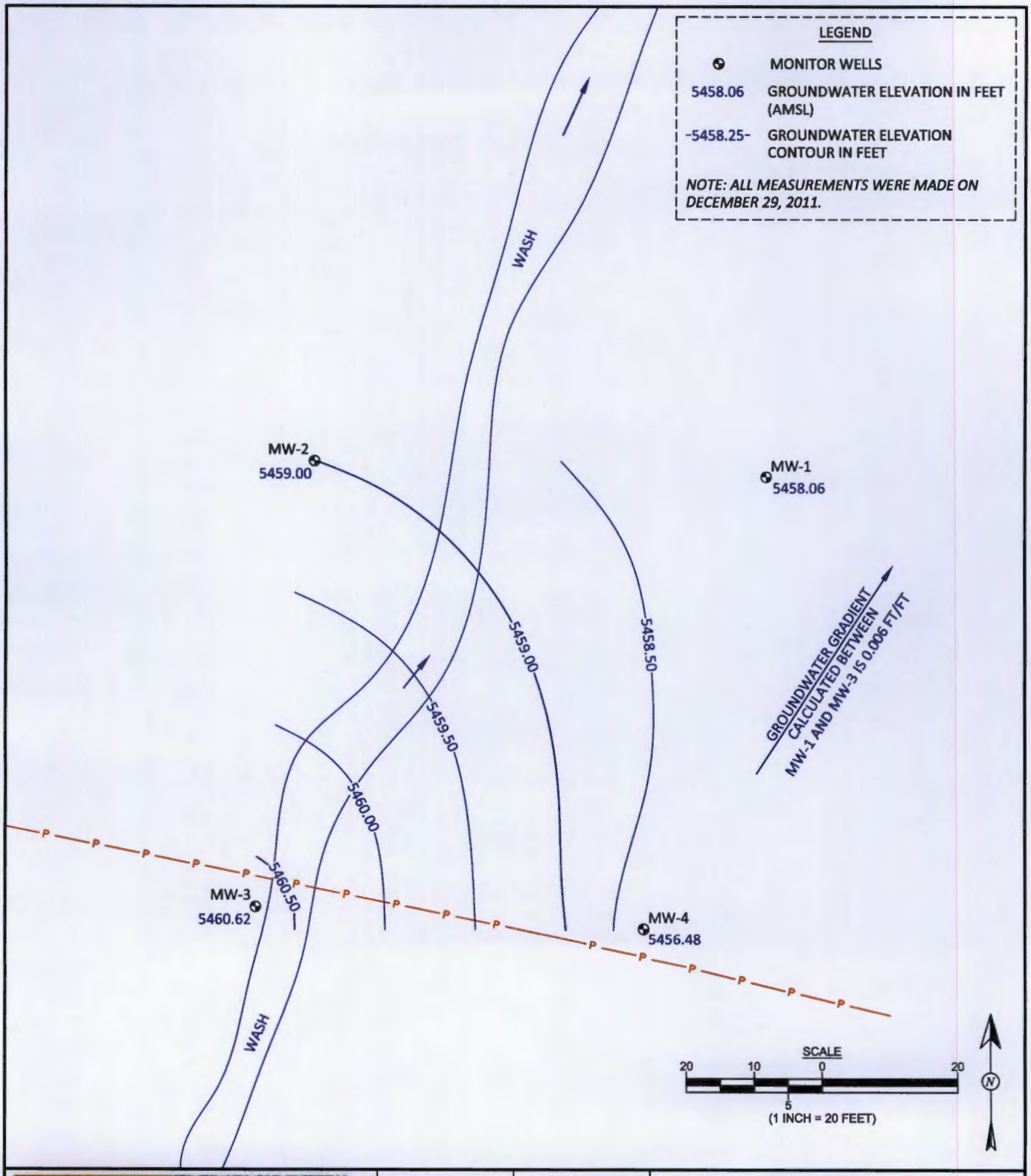
NOTES NE = Not Established

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** January 19, 2012
REVISIONS BY: C. Lameman	**DATE REVISED:** January 19, 2012
CHECKED BY: T. Ross	**DATE CHECKED:** January 19, 2012
APPROVED BY: E. McNally	**DATE APPROVED:** March 12, 2012

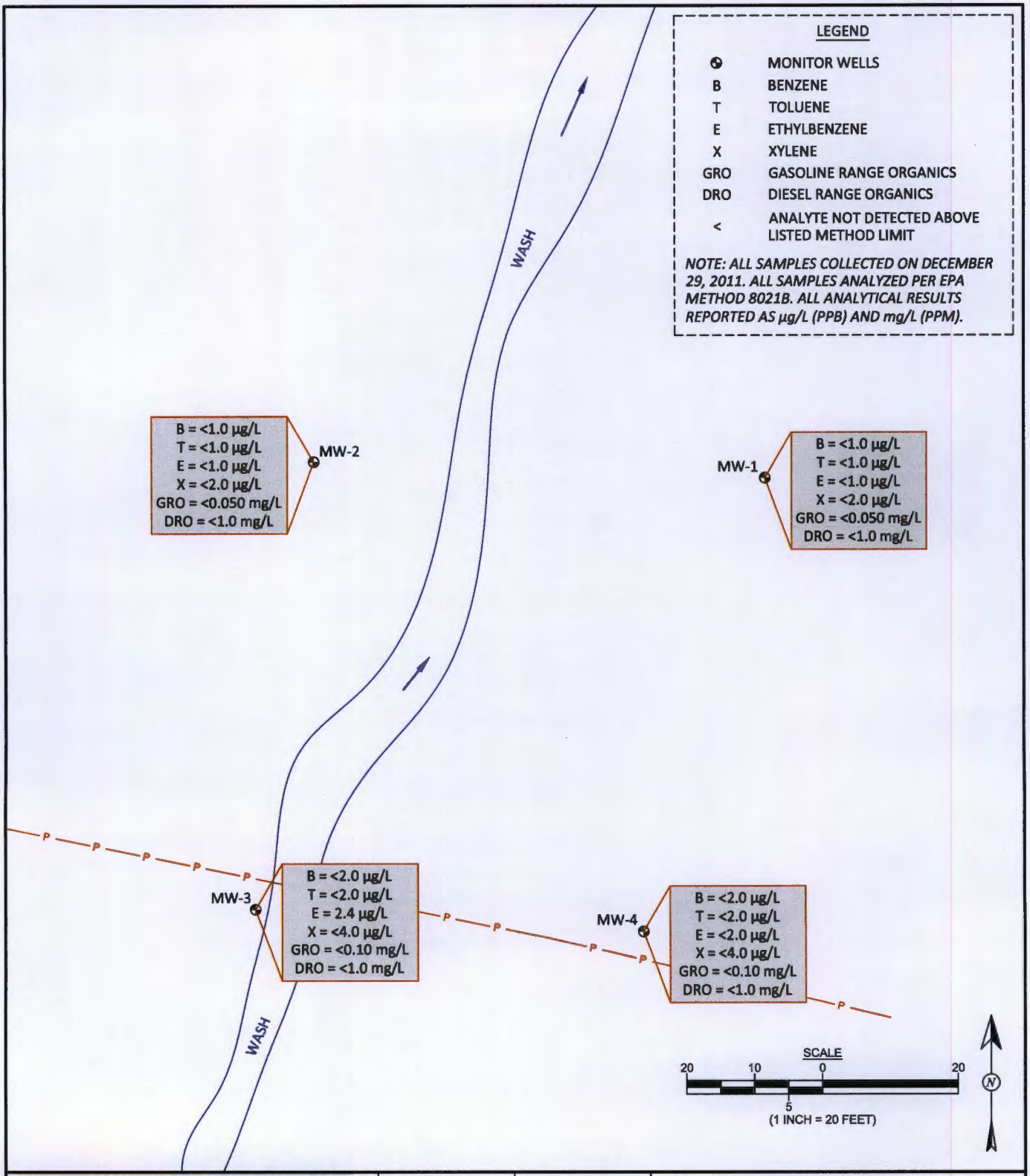
FIGURE 3

SOIL ANALYTICAL RESULTS
NOVEMBER 2011
ENTERPRISE PRODUCTS COMPANY
OLMER #4 (LATERAL 2D-1LP) PIPELINE
GROUNDWATER INVESTIGATION
SAN JUAN COUNTY, NEW MEXICO
SW¼, NE¼, SEC. 26, T28N, R10W
36°38.033'N, 107°51.832W



DRAWN BY: C. Lameman	**DATE DRAWN:** January 19, 2012	**FIGURE 4**
REVISIONS BY: C. Lameman	**DATE REVISED:** February 6, 2012	**GROUNDWATER ELEVATION CONTOURS DECEMBER 2011**
CHECKED BY: T. Long	**DATE CHECKED:** February 6, 2012	ENTERPRISE PRODUCTS COMPANY OLMER #4 (LATERAL 2D-1LP) PIPELINE GROUNDWATER INVESTIGATION
APPROVED BY: E. McNally	**DATE APPROVED:** March 12, 2012	SAN JUAN COUNTY, NEW MEXICO SW¼, NE¼, SEC. 26, T28N, R10W 36°38.033'N, 107°51.832W

AES
Animas Environmental Services, LLC



AES Animas Environmental Services, LLC	DRAWN BY: C. Lameman	DATE DRAWN: February 7, 2012
	REVISIONS BY: C. Lameman	DATE REVISED: February 7, 2012
	CHECKED BY: T. Long	DATE CHECKED: February 7, 2012
	APPROVED BY: E. McNally	DATE APPROVED: March 12, 2012

FIGURE 5

GROUNDWATER CONTAMINANT CONCENTRATIONS, DECEMBER 2011
ENTERPRISE PRODUCTS COMPANY
OLMER #4 (LATERAL 2D-1LP) PIPELINE
GROUNDWATER INVESTIGATION
SAN JUAN COUNTY, NEW MEXICO
SW¼, NE¼, SEC. 26, T28N, R10W
36°38.033'N, 107°51.832W

TABLE 1

SUMMARY OF SOIL FIELD-SCREENING AND LABORATORY ANALYTICAL RESULTS

Enterprise Products Company Olmer #4 Site Investigation

San Juan County, New Mexico

Sample ID	*Date Sampled*	*Depth (ft)*	*OVM Reading*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Xylene*	*BTEX*	*GRO (C6-C10)*	*DRO (C10-C22)*	*TPH (GRO+DRO)*
			(ppm)	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*	*(mg/kg)*
NMOCD Action Level			*100*	*10*	*NE*	*NE*	*NE*	*50*	*NE*	*NE*	*100*
SB-1	29-Nov-11	8-12	0	<0.049	<0.049	<0.049	<0.097	<0.244	<4.9	<9.8	<14.7
SB-2	29-Nov-11	8-12	0	<0.049	<0.049	<0.049	<0.098	<0.245	<4.9	<10	<10
SB-3	29-Nov-11	8-12	59.4	0.063	0.068	0.057	<0.10	0.29	<5.0	<9.8	<15
SB-4	29-Nov-11	8-12	0	<0.050	<0.050	<0.050	<0.099	<0.249	<5.0	<9.8	<15

NOTES NE = Not Established

NA = Not Analyzed

TABLE 2
SUMMARY OF GROUNDWATER MEASUREMENTS AND WATER QUALITY DATA
Enterprise Products Company Olmer #4 Site Investigation
San Juan County, New Mexico

Well ID	Date	Depth to Water (ft below TOC)	Surveyed TOC (ft)	GW Elev. (ft)	pH	Conductivity (mS)	Dissolved Oxygen (mg/L)	Temp. (ºC)	Purge Volume (gallons)
MW-1	29-Dec-11	9.92	5467.98	5458.06	7.14	4.53	1.48	12.47	2.64
MW-2	29-Dec-11	9.10	5468.10	5459.00	7.13	4.624	1.28	12.06	2.49
MW-3	29-Dec-11	7.94	5468.56	5460.62	6.67	8.44	2.29	10.44	2.82
MW-4	29-Dec-11	11.51	5467.99	5456.48	6.42	4.712	3.19	13.15	2.37

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Xylenes	GRO C6-C10	DRO C10-C22
		µg/L	µg/L	µg/L	µg/L	mg/L	mg/L
Sample Method		EPA Method 8021				EPA Method 8015M	
WQCC STANDARD		10	750	750	620	NE	NE
MW-1	29-Dec-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-2	29-Dec-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-3	29-Dec-11	<2.0	<2.0	2.4	<4.0	<0.10	<1.0
MW-4	29-Dec-11	<2.0	<2.0	<2.0	<4.0	<0.10	<1.0

Notes:

<	Analyte not detected above listed method limit
NE	Not established
µg/L	Micrograms per liter (ppb)
mg/L	Milligrams per liter (ppm)
GRO	Gasoline range organics
DRO	Diesel range organics

TABLE 3

SUMMARY OF GROUNDWATER ANALYTICALS RESULTS

Enterprise Products Company Olmer #4 Site Investigation

San Juan County, New Mexico

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Xylenes	GRO C6-C10	DRO C10-C22
		µg/L	µg/L	µg/L	µg/L	mg/L	mg/L
Sample Method		EPA Method 8021				EPA Method 8015M	
WQCC STANDARD		10	750	750	620	NE	NE
MW-1	29-Dec-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-2	29-Dec-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-3	29-Dec-11	<2.0	<2.0	2.4	<4.0	<0.10	<1.0
MW-4	29-Dec-11	<2.0	<2.0	<2.0	<4.0	<0.10	<1.0

Notes:

<	Analyte not detected above listed method limit
NE	Not established
µg/L	Micrograms per liter (ppb)
mg/L	Milligrams per liter (ppm)
GRO	Gasoline range organics
DRO	Diesel range organics

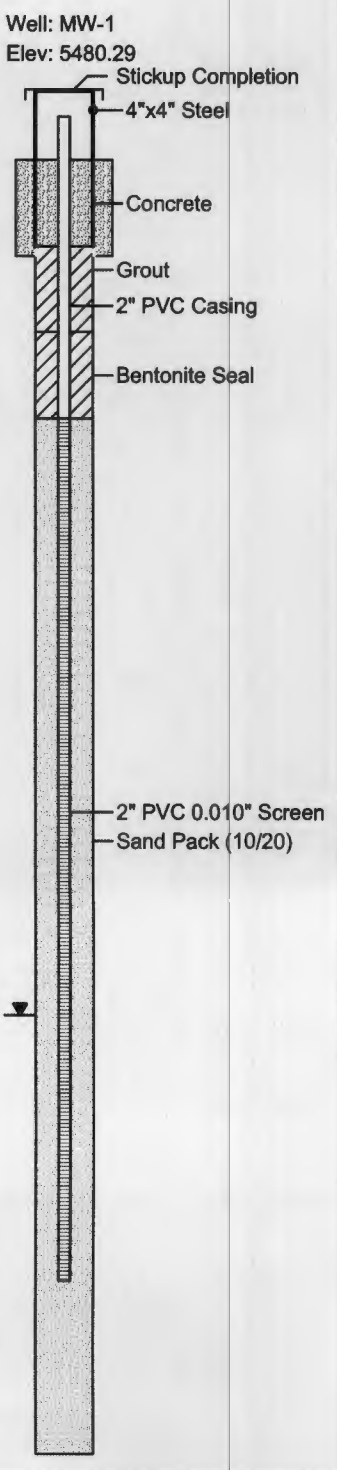
Animas Environmental Services, LLC.
624 East Comanche St.
Farmington, NM 87401

SB-1 / MW-1

ENTERPRISE PRODUCTS COMPANY
OLMER #4 LATERAL 2D-1LP PIPELINE
SAN JUAN COUNTY, NEW MEXICO
SW1/4, NE1/4, SEC. 26, T28N, R10W

Date Started	: 11/29/11	Northing	: 1945948.544
Date Completed	: 11/29/11	Easting	: 2576314.452
Hole Diameter	: 2.25	Survey By	: Arrow Engineering
Drilling Method	: GeoProbe	Logged By	: Tami Ross
Sampling Method	: None		

Depth in Feet	Surf. Elev. 0	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0–3	0 to -3	SP		Sand, Coarse, Brown, Dry.		0.0
4–7	-4 to -7	SP		Sand, Coarse, Brown, Saturated at 8 feet.		0.0
8–15	-8 to -15	SM		Silty Sand, Brown, Saturated, Slight Hydrocarbon Odor.		



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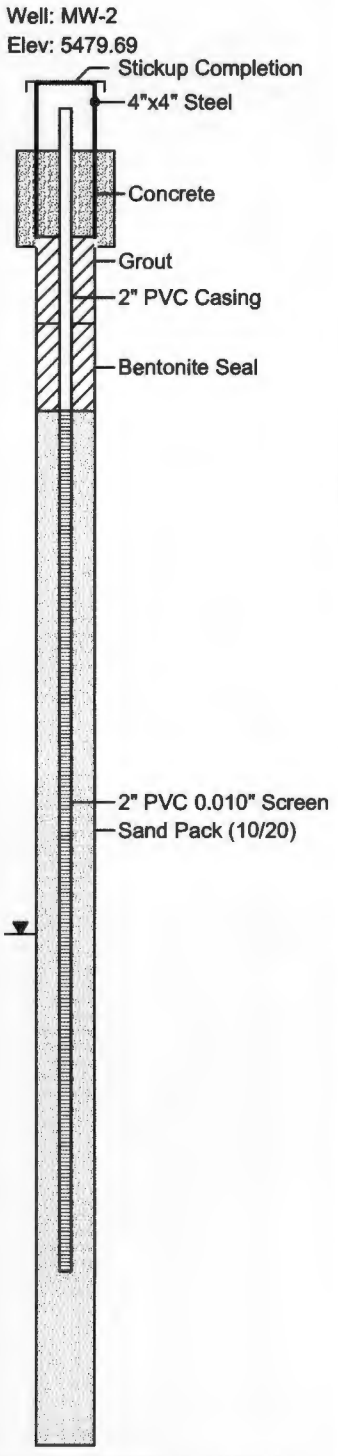
Animas Environmental Services, LLC.
624 East Comanche St.
Farmington, NM 87401

SB-2 / MW-2

ENTERPRISE PRODUCTS COMPANY
OLMER #4 LATERAL 2D-1LP PIPELINE
SAN JUAN COUNTY, NEW MEXICO
SW1/4, NE1/4, SEC. 26, T28N, R10W

Date Started	: 11/29/11	Northing	: 1945950.869
Date Completed	: 11/29/11	Easting	: 2576248.108
Hole Diameter	: 2.25	Survey By	: Arrow Engineering
Drilling Method	: GeoProbe	Logged By	: Tami Ross
Sampling Method	: None		

Depth in Feet	Surf. Elev. 0	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0	0	SP		Sand, Coarse, Brown, Dry, No Odor.		0.0
4	-4	SP		Sand, Coarse, Brown, Saturated at 7.5 feet, No Odor.		0.0
8	-8	SP		Sand, Coarse, Brown, Saturated, No Odor		
12	-12	SP		Sandy Clay, Brown, Saturated, No Odor.		
14	-14	CL		Clay, Brown, Saturated, No Odor.		
15						



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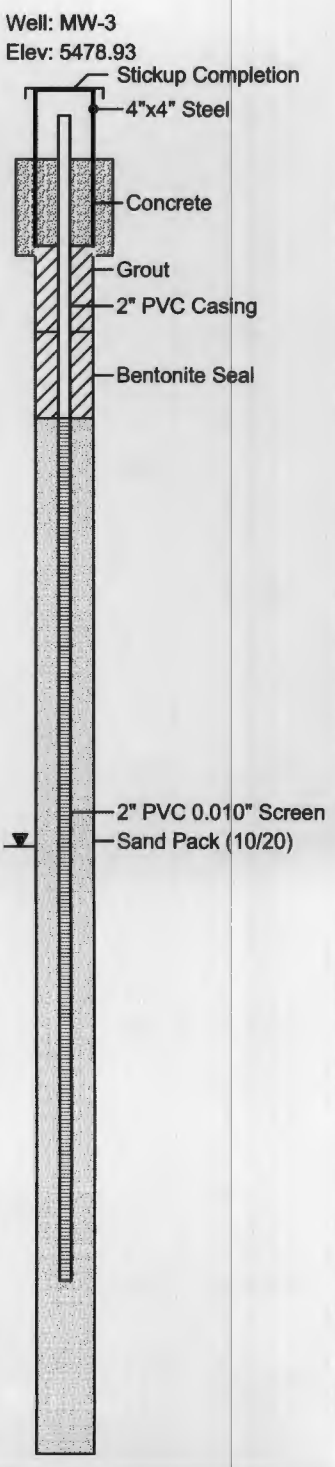
AES
Animas Environmental Services, LLC.
624 East Comanche St.
Farmington, NM 87401

SB-3 / MW-3

ENTERPRISE PRODUCTS COMPANY
OLMER #4 LATERAL 2D-1LP PIPELINE
SAN JUAN COUNTY, NEW MEXICO
SW1/4, NE1/4, SEC. 26, T28N, R10W

Date Started	: 11/29/11	Northing	: 1945885.804
Date Completed	: 11/29/11	Easting	: 2576239.453
Hole Diameter	: 2.25	Survey By	: Arrow Engineering
Drilling Method	: GeoProbe	Logged By	: Tami Ross
Sampling Method	: None		

Depth in Feet	Surf. Elev. 0	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0	0	SP		Sand, Coarse, Brown, Moist, Black Organic Matter, Slight Odor at 4 feet.		37.1
4	-4	SC		Sandy Clay, Multi-Colored, Moist, No Odor.		59.4
8	-8	SC		Sandy Clay, Multi-Colored, Saturated, No Odor.		
11	-11	CL		Clay, Gray, Saturated.		
12	-12	SP		Sand, Coarse, Brown, No Odor.		
15						



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Animas Environmental Services, LLC.
624 East Comanche St.
Farmington, NM 87401

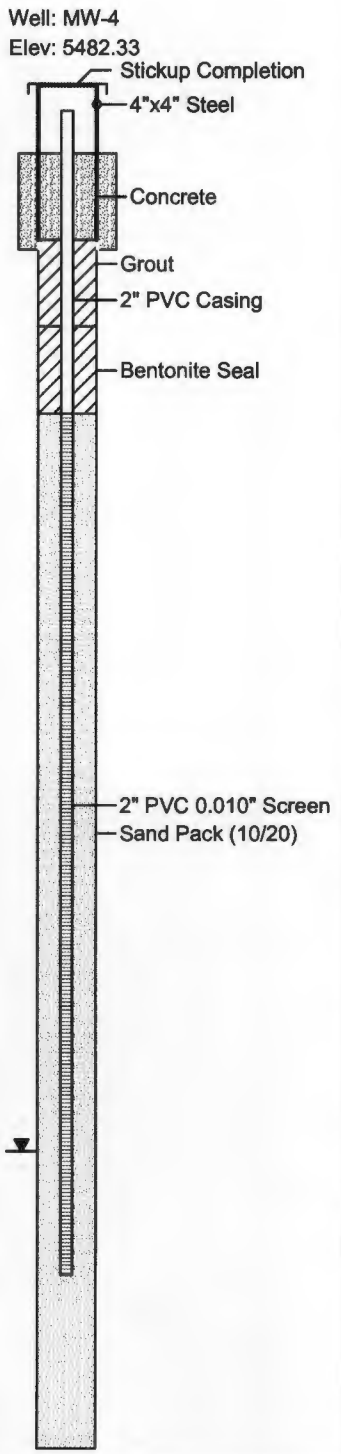
SB-4 / MW-4

ENTERPRISE PRODUCTS COMPANY
OLMER #4 LATERAL 2D-1LP PIPELINE
SAN JUAN COUNTY, NEW MEXICO
SW1/4, NE1/4, SEC. 26, T28N, R10W

Date Started	: 11/29/11	Northing	: 1945882.579
Date Completed	: 11/29/11	Easting	: 2576296.486
Hole Diameter	: 2.25	Survey By	: Arrow Engineering
Drilling Method	: GeoProbe	Logged By	: Tami Ross
Sampling Method	: None		

Depth in Feet	Surf. Elev. 0	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0	0	SP		Backfill (Fine Sand), Brown, Dry, No Odor.		
7	-7	SC		Sandy Clay, Brown, Moist, No Odor.		
8	-8	SP		Sand, Coarse, Brown, Saturated, No Odor.		
12	-12	SC		Sandy Clay, Brown, Saturated, No Odor.		
14	-14	CL		Clay, Brown, Saturated, No Odor.		
15						

PID (ppm): 0.0 at 2; 0.0 at 6



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MONITORING WELL SAMPLING RECORD

Monitor Well No: MW-1 (SB-1)

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Enterprise Olmer #4 (Lateral 2D-1LP)
Location: 36.62766°N, 107.85458°W
Project: Groundwater Sampling
Sampling Technician: Nathan Willis
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): ____ **Time:** ____ *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 9.92 **Time:** 1503 *(taken prior to purging well)*
Final D.T.W. (ft): ____ **Time:** ____ *(taken after sample collection)*
If NAPL Present: **D.T.P.:** ____ **D.T.W.:** ____ **Thickness:** ____ **Time:** ____

Project No.: AES 110802
Date: 12-29-11
Arrival Time: 1504
Air Temp: 48°F
T.O.C. Elev. (ft): ____
Total Well Depth (ft): 15.33

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1514	12.04	4.640	2.55	7.13	378.0	0.25 gal	Clear
1516	12.64	4.564	1.96	7.13	380.0	0.5	very light milky Brown
1518	12.62	4.532	1.57	7.13	381.0	0.5	" "
1520	12.68	4.516	1.77	7.13	381.4	0.5	" "
1522	12.59	4.515	1.43	7.14	381.8	0.5	" "
1524	12.47	4.530	1.48	7.14	382.3	0.5	" "
1529	—	—	—	—	—	—	Samples Collected

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX by EPA Method 8021 (5 - 40 mL glass preserved w/ HCl)

TPH (C6 - C36) by EPA Method 8015 (1 - 40 mL glass non-preserved)

Disposal of Purged Water: ____
Collected Samples Stored on Ice in Cooler: Yes
Chain of Custody Record Complete: Yes
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

revised: 12/29/11

MONITORING WELL SAMPLING RECORD

Monitor Well No: MW-2 (SB-2)

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Enterprise Olmer #4 (Lateral 2D-1LP) **Project No.:** AES 110802
Location: 36.62766°N, 107.85458°W **Date:** 12-29-11
Project: Groundwater Sampling **Arrival Time:** 1535
Sampling Technician: Nathan Willis **Air Temp:** 48°F
Purge / No Purge: Purge **T.O.C. Elev. (ft):**
Well Diameter (in): 2 **Total Well Depth (ft):** 14.18
Initial D.T.W. (ft): **Time:** *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 9.10 **Time:** 1539 *(taken prior to purging well)*
Final D.T.W. (ft): **Time:** *(taken after sample collection)*
If NAPL Present: **D.T.P.:** **D.T.W.:** **Thickness:** **Time:**

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1543	12.22	4.598	1.48	7.17	382.9	0.25 gal.	Clear
1545	12.11	4.626	1.38	7.16	382.5	0.5	Very light milky brown
1547	12.17	4.625	1.45	7.15	382.4	0.5	" "
1549	12.09	4.628	1.55	7.15	383.0	0.5	" "
1551	11.94	4.626	1.50	7.14	381.8	0.5	" "
1553	12.06	4.624	1.28	7.13	382.1	0.5	
1558	—					—	Samples Collected

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX by EPA Method 8021 (5 - 40 mL glass preserved w/ HCl)

TPH (C6 - C36) by EPA Method 8015 (1 - 40 mL glass non-preserved)

Disposal of Purged Water:

Collected Samples Stored on Ice in Cooler:

Chain of Custody Record Complete:

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

Revised: 12/29/11

MONITORING WELL SAMPLING RECORD

Monitor Well No: MW-3 (SB-3)

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Enterprise Olmer #4 (Lateral 2D-1LP)
Location: 36.62766°N, 107.85458°W
Project: Groundwater Sampling
Sampling Technician: Nathan Willis
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): ____ **Time:** ____
Confirm D.T.W. (ft): 7.94 **Time:** 1603
Final D.T.W. (ft): ____ **Time:** ____
If NAPL Present: D.T.P.:____ D.T.W.:____ Thickness:____ Time:____

Project No.: AES 110802
Date: 12-29-11
Arrival Time: 1601
Air Temp: 48°F
T.O.C. Elev. (ft): ____
Total Well Depth (ft): 13.68
(taken at initial gauging of all wells)
(taken prior to purging well)
(taken after sample collection)

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1608	10.04	9.048	2.47	6.59	366.8	0.25 gal	Amber brown
1610	10.33	8.989	2.91	6.61	334.1	0.5	Fizzy like soda
1612	10.44	8.440	2.29	6.67	295.1	0.25	Very low Yield
							↓
1617							Samples Collected

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX by EPA Method 8021 (5 - 40 mL glass preserved w/ HCl)
TPH (C6 - C36) by EPA Method 8015 (1 - 40 mL glass non-preserved)

Disposal of Purged Water: ____
Collected Samples Stored on Ice in Cooler: ____
Chain of Custody Record Complete: ____
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

revised: 12/29/11

MONITORING WELL SAMPLING RECORD

Monitor Well No: MW-4 (SB-4)

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Enterprise Olmer #4 (Lateral 2D-1LP)
Location: 36.62766°N, 107.85458°W
Project: Groundwater Sampling
Sampling Technician: Nathan Willis
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): _____ **Time:** _____
Confirm D.T.W. (ft): 16.51 **Time:** 1444
Final D.T.W. (ft): _____ **Time:** _____
If NAPL Present: D.T.P.: _____ **D.T.W.:** _____ **Thickness:** _____ **Time:** _____

Project No.: AES 110802
Date: 12-29-11
Arrival Time: 1440
Air Temp: 48°F
T.O.C. Elev. (ft): _____
Total Well Depth (ft): 16.37
(taken at initial gauging of all wells)
(taken prior to purging well)
(taken after sample collection)

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1448	13.54	5.039	3.28	7.38	362.2	0.25 gal.	Milky looking
1451	13.02	4.919	2.97	5.85	372.2	0.5	Brown (a lot of sediment)
1454	13.15	4.712	3.19	6.42	374.7	0.5	a lot of sediment
							low Yield
							↓
1459	—	—	—	—	—	—	Samples Collected

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX by EPA Method 8021 (5 - 40 mL glass preserved w/ HCl)

TPH (C6 - C36) by EPA Method 8015 (1 - 40 mL glass non-preserved)

Disposal of Purged Water: _____
Collected Samples Stored on Ice in Cooler: Yes
Chain of Custody Record Complete: Yes
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

GROUNDWATER MONITORING WELL DEVELOPMENT FORM

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Project: Monitor Well Development
Site: Olner #4
Location: N36° 38.083' W107° 51.932'
Tech: N. Willis

Project No.: AES 110802
Date: 12-16-11
Time: 1320 to 1530
Form: 1 of 1

Well ID	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
				start @ 1330 finish @ 1340
NW Well	—	—	21 gal.	Development pump / water at first was dirty (filled with sediment) then ~~it~~ ran clear / fast recharge
Well ID	**Depth to NAPL (ft.)**	**Depth to Water (ft.)**	**Purged Volume (gal.)**	**Method / Notes / Observations**
Southwest Well	—	—		Development pump / water - alot of sediment @ first / slow recharge / 1 gal @ 1355 / 5 g. @ 1458 / 0.75 g. @ 1521 start @ 1345 finish @ 1521
Well ID	**Depth to NAPL (ft.)**	**Depth to Water (ft.)**	**Purged Volume (gal.)**	**Method / Notes / Observations**
Southeast Well	—	—	1 gal.	Development pump / water - sediment @ first / ~~slow recharge~~ ½ gal @ 1404 / ½ gal @ 1441 / very slow recharge start @ 1358 finish @ 1441
Well ID	**Depth to NAPL (ft.)**	**Depth to Water (ft.)**	**Purged Volume (gal.)**	**Method / Notes / Observations**
Northeast Well	—	—	21 gal	Development pump / water - filled with sediment @ first little sediment @ finish start @ 1408 finish @ 1431
Well ID	**Depth to NAPL (ft.)**	**Depth to Water (ft.)**	**Purged Volume (gal.)**	**Method / Notes / Observations**
Well ID	**Depth to NAPL (ft.)**	**Depth to Water (ft.)**	**Purged Volume (gal.)**	**Method / Notes / Observations**
Well ID	**Depth to NAPL (ft.)**	**Depth to Water (ft.)**	**Purged Volume (gal.)**	**Method / Notes / Observations**

Puged Water Storage, Transport, and Disposal Information:

MONITORING WELL SAMPLING RECORD

Monitor Well No: Wastewater

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Enterprise Olmer #4 (Lateral 2D-1LP)
Location: 36.62766°N, 107.85458°W
Project: Groundwater Sampling
Sampling Technician: Nathan Willis
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): _____ **Time:** _____ *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): _____ **Time:** _____ *(taken prior to purging well)*
Final D.T.W. (ft): _____ **Time:** _____ *(taken after sample collection)*
If NAPL Present: **D.T.P.:** _____ **D.T.W.:** _____ **Thickness:** _____ **Time:** _____

Project No.: AES 110802
Date: 12-29-11
Arrival Time: 12 19
Air Temp: 43°F
T.O.C. Elev. (ft): _____
Total Well Depth (ft): _____

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
	No Water Quality Taken						
1224							Sample Collected

Analytical Parameters (include analysis method and number and type of sample containers)

Chlorides by EPA Method 300.0 (1 - 500 mL plastic non-preserved)

Disposal of Purged Water: NA
Collected Samples Stored on Ice in Cooler: YES
Chain of Custody Record Complete: YES
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments: Sample Collected out of a 55 gal. metal drum used for Olmer #4 monitor well development wastewater.

DEPTH TO GROUNDWATER MEASUREMENT FORM

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Project: Groundwater Sampling
Site: Enterprise Olmer #4 (Lateral 2D-1LP)
Location: 36.62766°N, 107.85458°W
Tech: Nathan Willis

Project No.: AES 110802
Date: 12-29-11
Time: 1440
Form: 1 of 1

Well I.D.	Time	Depth to NAPL (ft.)	Depth to Water (ft.)	NAPL Thickness (ft.)	Notes / Observations
MW-1	1508		9.92		SB-1
MW-2	1539		9.10		SB-2
MW-3	1603		7.94		SB-3
MW-4	1444		11.51		SB-4

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Friday, February 10, 2012

Tami Ross
Animas Environmental Services
624 East Comanche
Farmington, NM 87401

TEL: (505) 564-2281
FAX (505) 324-2022

RE: Olmer #4

Order No.: 1111A67

Dear Tami Ross:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 11/29/2011 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued December 07, 2011

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com 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.

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

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Feb-12*

Analytical Report

CLIENT:	Animas Environmental Services	**Client Sample ID:**	SB-1
Lab Order:	1111A67	**Collection Date:**	11/29/2011 10:13:00 AM
Project:	Olmer #4	**Date Received:**	11/29/2011
Lab ID:	1111A67-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/2/2011 6:30:55 PM
Surr: DNOP	91.7	77.4-131		%REC	1	12/2/2011 6:30:55 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/3/2011 2:26:05 AM
Surr: BFB	102	75.2-136		%REC	1	12/3/2011 2:26:05 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.049		mg/Kg	1	12/3/2011 2:26:05 AM
Toluene	ND	0.049		mg/Kg	1	12/3/2011 2:26:05 AM
Ethylbenzene	ND	0.049		mg/Kg	1	12/3/2011 2:26:05 AM
Xylenes, Total	ND	0.097		mg/Kg	1	12/3/2011 2:26:05 AM
Surr: 4-Bromofluorobenzene	114	80-120		%REC	1	12/3/2011 2:26:05 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Feb-12*
Analytical Report

CLIENT:	Animas Environmental Services	**Client Sample ID:**	SB-2
Lab Order:	1111A67	**Collection Date:**	11/29/2011 10:43:00 AM
Project:	Olmer #4	**Date Received:**	11/29/2011
Lab ID:	1111A67-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/2/2011 7:05:02 PM
Surr: DNOP	93.0	77.4-131		%REC	1	12/2/2011 7:05:02 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/3/2011 2:54:50 AM
Surr: BFB	100	75.2-136		%REC	1	12/3/2011 2:54:50 AM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.049		mg/Kg	1	12/3/2011 2:54:50 AM
Toluene	ND	0.049		mg/Kg	1	12/3/2011 2:54:50 AM
Ethylbenzene	ND	0.049		mg/Kg	1	12/3/2011 2:54:50 AM
Xylenes, Total	ND	0.098		mg/Kg	1	12/3/2011 2:54:50 AM
Surr: 4-Bromofluorobenzene	113	80-120		%REC	1	12/3/2011 2:54:50 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Feb-12*

Analytical Report

CLIENT:	Animas Environmental Services	**Client Sample ID:**	SB-3
Lab Order:	1111A67	**Collection Date:**	11/29/2011 11:11:00 AM
Project:	Olmer #4	**Date Received:**	11/29/2011
Lab ID:	1111A67-03	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/2/2011 8:13:16 PM
Surr: DNOP	97.0	77.4-131		%REC	1	12/2/2011 8:13:16 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/3/2011 3:23:34 AM
Surr: BFB	104	75.2-136		%REC	1	12/3/2011 3:23:34 AM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	0.063	0.050		mg/Kg	1	12/3/2011 3:23:34 AM
Toluene	0.068	0.050		mg/Kg	1	12/3/2011 3:23:34 AM
Ethylbenzene	0.057	0.050		mg/Kg	1	12/3/2011 3:23:34 AM
Xylenes, Total	ND	0.10		mg/Kg	1	12/3/2011 3:23:34 AM
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	12/3/2011 3:23:34 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Feb-12*

Analytical Report

CLIENT:	Animas Environmental Services	**Client Sample ID:**	SB-4
Lab Order:	1111A67	**Collection Date:**	11/29/2011 11:51:00 AM
Project:	Olmer #4	**Date Received:**	11/29/2011
Lab ID:	1111A67-04	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/2/2011 8:47:13 PM
Surr: DNOP	94.6	77.4-131		%REC	1	12/2/2011 8:47:13 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/3/2011 3:52:25 AM
Surr: BFB	101	75.2-136		%REC	1	12/3/2011 3:52:25 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.050		mg/Kg	1	12/3/2011 3:52:25 AM
Toluene	ND	0.050		mg/Kg	1	12/3/2011 3:52:25 AM
Ethylbenzene	ND	0.050		mg/Kg	1	12/3/2011 3:52:25 AM
Xylenes, Total	ND	0.099		mg/Kg	1	12/3/2011 3:52:25 AM
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	12/3/2011 3:52:25 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Estimated value
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Animas Environmental Services
Project: Olmer #4 **Work Order:** 1111A67

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: MB-29577		*MBLK*				Batch ID:	**29577**	Analysis Date:		12/2/2011 9:18:47 AM	
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Sample ID: LCS-29577		*LCS*				Batch ID:	**29577**	Analysis Date:		12/2/2011 9:52:54 AM	
Diesel Range Organics (DRO)	46.91	mg/Kg	10	50	6.047	81.7	62.7	139			
Method: EPA Method 8015B: Gasoline Range											
Sample ID: MB-29569		*MBLK*				Batch ID:	**29569**	Analysis Date:		12/2/2011 1:07:52 PM	
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-29569		*LCS*				Batch ID:	**29569**	Analysis Date:		12/2/2011 12:10:13 PM	
Gasoline Range Organics (GRO)	27.86	mg/Kg	5.0	25	0	111	86.4	132			
Method: EPA Method 8021B: Volatiles											
Sample ID: MB-29569		*MBLK*				Batch ID:	**29569**	Analysis Date:		12/2/2011 1:07:52 PM	
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: LCS-29569		*LCS*				Batch ID:	**29569**	Analysis Date:		12/2/2011 12:39:03 PM	
Benzene	1.030	mg/Kg	0.050	1	0.0214	101	80	120			
Toluene	1.053	mg/Kg	0.050	1	0.0216	103	80	120			
Ethylbenzene	1.069	mg/Kg	0.050	1	0.0233	105	80	120			
Xylenes, Total	3.224	mg/Kg	0.10	3	0.0722	105	80	120			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Chain-of-Custody Record

Client: Animas Environmental Services

Mailing Address: 624 E Comanche
Farmington, NM 87401

Phone #: 505 793 2072

email or Fax#: tross@animasenvironmental.com

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name:
Olmer #4

Project #:

Project Manager:
Tami Ross

Sampler: Tami Ross

[redacted]

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	[redacted]	BTEX + [redacted]'s (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
11/29/11	1013	Soil	SB-1	4oz	-	-1	✓		✓													
11/29/11	1043	Soil	SB-2	4oz	-	-2	✓		✓													
11/29/11	1111	Soil	SB-3	4oz	-	-3	✓		✓													
11/29/11	1151	Soil	SB-4	4oz	-	-4	✓		✓													

Date:	Time:	Relinquished by:	Received by:	Date	Time
11/29/11	1528	Tami Ross	Christine Walters	11/29/11	1528
11/29/11	1640	Christine Walters	[redacted]	11/30/11	0820

Remarks: Bill to Enterprise Products Company

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

February 09, 2012

Tami Ross

Animas Environmental Services
624 East Comanche
Farmington, NM 87401
TEL: (505) 564-2281
FAX (505) 324-2022

RE: Enterprise Products Olmer #4 OrderNo.: 1201047

Dear Tami Ross:

Hall Environmental Analysis Laboratory received 6 sample(s) on 1/3/2012 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued January 09, 2012

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com 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.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1201047**
Date Reported: **2/9/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: TRIP BLANK
Project: Enterprise Products Olmer #4
Collection Date:
Lab ID: 1201047-001
Matrix: TRIP BLANK
Received Date: 1/3/2012 2:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	1/4/2012 2:44:45 PM
Toluene	ND	1.0		µg/L	1	1/4/2012 2:44:45 PM
Ethylbenzene	ND	1.0		µg/L	1	1/4/2012 2:44:45 PM
Xylenes, Total	ND	2.0		µg/L	1	1/4/2012 2:44:45 PM
Surr: 4-Bromofluorobenzene	96.4	76.5-115		%REC	1	1/4/2012 2:44:45 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: MW-1
Project: Enterprise Products Olmer #4
Collection Date: 12/29/2011 3:29:00 PM
Lab ID: 1201047-002 **Matrix:**
Received Date: 1/3/2012 2:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	1/4/2012 7:02:10 PM
Surr: DNOP	98.4	81.1-147		%REC	1	1/4/2012 7:02:10 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	1/4/2012 3:13:38 PM
Surr: BFB	92.1	69.3-120		%REC	1	1/4/2012 3:13:38 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	1/4/2012 3:13:38 PM
Toluene	ND	1.0		µg/L	1	1/4/2012 3:13:38 PM
Ethylbenzene	ND	1.0		µg/L	1	1/4/2012 3:13:38 PM
Xylenes, Total	ND	2.0		µg/L	1	1/4/2012 3:13:38 PM
Surr: 4-Bromofluorobenzene	97.9	76.5-115		%REC	1	1/4/2012 3:13:38 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: MW-2
Project: Enterprise Products Olmer #4
Collection Date: 12/29/2011 3:58:00 PM
Lab ID: 1201047-003 **Matrix:**
Received Date: 1/3/2012 2:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	1/4/2012 7:36:03 PM
Surr: DNOP	97.9	81.1-147		%REC	1	1/4/2012 7:36:03 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	1/4/2012 5:08:51 PM
Surr: BFB	92.2	69.3-120		%REC	1	1/4/2012 5:08:51 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	1/4/2012 5:08:51 PM
Toluene	ND	1.0		µg/L	1	1/4/2012 5:08:51 PM
Ethylbenzene	ND	1.0		µg/L	1	1/4/2012 5:08:51 PM
Xylenes, Total	ND	2.0		µg/L	1	1/4/2012 5:08:51 PM
Surr: 4-Bromofluorobenzene	98.7	76.5-115		%REC	1	1/4/2012 5:08:51 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: MW-3
Project: Enterprise Products Olmer #4
Collection Date: 12/29/2011 4:17:00 PM
Lab ID: 1201047-004 **Matrix:**
Received Date: 1/3/2012 2:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	1/4/2012 8:10:13 PM
Surr: DNOP	152	81.1-147	S	%REC	1	1/4/2012 8:10:13 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.10		mg/L	2	1/4/2012 7:04:06 PM
Surr: BFB	93.6	69.3-120		%REC	2	1/4/2012 7:04:06 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	2.0		µg/L	2	1/4/2012 7:04:06 PM
Toluene	ND	2.0		µg/L	2	1/4/2012 7:04:06 PM
Ethylbenzene	2.4	2.0		µg/L	2	1/4/2012 7:04:06 PM
Xylenes, Total	ND	4.0		µg/L	2	1/4/2012 7:04:06 PM
Surr: 4-Bromofluorobenzene	98.3	76.5-115		%REC	2	1/4/2012 7:04:06 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: MW-4
Project: Enterprise Products Olmer #4
Collection Date: 12/29/2011 2:59:00 PM
Lab ID: 1201047-005 **Matrix:**
Received Date: 1/3/2012 2:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	1/4/2012 8:44:35 PM
Surr: DNOP	106	81.1-147		%REC	1	1/4/2012 8:44:35 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.10		mg/L	2	1/4/2012 8:01:51 PM
Surr: BFB	92.5	69.3-120		%REC	2	1/4/2012 8:01:51 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	2.0		µg/L	2	1/4/2012 8:01:51 PM
Toluene	ND	2.0		µg/L	2	1/4/2012 8:01:51 PM
Ethylbenzene	ND	2.0		µg/L	2	1/4/2012 8:01:51 PM
Xylenes, Total	ND	4.0		µg/L	2	1/4/2012 8:01:51 PM
Surr: 4-Bromofluorobenzene	99.0	76.5-115		%REC	2	1/4/2012 8:01:51 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: Waste Water
Project: Enterprise Products Olmer #4
Collection Date: 12/29/2011 12:24:00 PM
Lab ID: 1201047-006
Matrix: AQUEOUS
Received Date: 1/3/2012 2:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	58	10		mg/L	20	1/4/2012 8:12:51 PM

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1201047**

09-Feb-12

Client: Animas Environmental Services

Project: Enterprise Products Olmer #4

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R220**	RunNo: **220**
Prep Date:	Analysis Date: **1/4/2012**	SeqNo: **6832** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R220**	RunNo: **220**
Prep Date:	Analysis Date: **1/4/2012**	SeqNo: **6833** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.5	90	110			

Sample ID **1201057-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R220**	RunNo: **220**
Prep Date:	Analysis Date: **1/4/2012**	SeqNo: **6847** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	20	0.50	5.000	15.35	90.0	78	107			

Sample ID **1201057-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R220**	RunNo: **220**
Prep Date:	Analysis Date: **1/4/2012**	SeqNo: **6848** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	20	0.50	5.000	15.35	88.0	78	107	0.518	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201047

09-Feb-12

Client: Animas Environmental Services

Project: Enterprise Products Olmer #4

Sample ID MB-132	SampType: MBLK	TestCode: EPA Method 8015B: Diesel Range
Client ID: PBW	Batch ID: 132	RunNo: 216
Prep Date: 1/4/2012	Analysis Date: 1/4/2012	SeqNo: 6769 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Surr: DNOP	1.4		1.000		137	81.1	147			

Sample ID LCS-132	SampType: LCS	TestCode: EPA Method 8015B: Diesel Range
Client ID: LCSW	Batch ID: 132	RunNo: 216
Prep Date: 1/4/2012	Analysis Date: 1/4/2012	SeqNo: 6770 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	3.8	1.0	5.000	0	76.3	74	157			
Surr: DNOP	0.51		0.5000		102	81.1	147			

Sample ID LCSD-132	SampType: LCSD	TestCode: EPA Method 8015B: Diesel Range
Client ID: LCSS02	Batch ID: 132	RunNo: 216
Prep Date: 1/4/2012	Analysis Date: 1/4/2012	SeqNo: 6771 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.0	1.0	5.000	0	80.7	74	157	5.62	23	
Surr: DNOP	0.53		0.5000		107	81.1	147	0	0	

Qualifiers:

- */X 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 Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1201047**

09-Feb-12

Client: Animas Environmental Services

Project: Enterprise Products Olmer #4

Sample ID **5ML-RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R221**	RunNo: **221**
Prep Date:	Analysis Date: **1/4/2012**	SeqNo: **6873** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		90.4	69.3	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R221**	RunNo: **221**
Prep Date:	Analysis Date: **1/4/2012**	SeqNo: **6876** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.53	0.050	0.5000	0	105	81.8	120			
Surr: BFB	20		20.00		97.7	69.3	120			

Sample ID **5ML-RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R221**	RunNo: **221**
Prep Date:	Analysis Date: **1/4/2012**	SeqNo: **11161** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		90.6	69.3	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R221**	RunNo: **221**
Prep Date:	Analysis Date: **1/4/2012**	SeqNo: **11164** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.55	0.050	0.5000	0	110	81.8	120			
Surr: BFB	20		20.00		97.8	69.3	120			

Sample ID **1201047-002A MS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **MW-1**	Batch ID: **R221**	RunNo: **221**
Prep Date:	Analysis Date: **1/4/2012**	SeqNo: **11165** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.54	0.050	0.5000	0	108	75.4	121			
Surr: BFB	20		20.00		98.2	69.3	120			

Sample ID **1201047-002A MSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **MW-1**	Batch ID: **R221**	RunNo: **221**
Prep Date:	Analysis Date: **1/4/2012**	SeqNo: **11166** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.53	0.050	0.5000	0	107	75.4	121	1.01	10.5	
Surr: BFB	20		20.00		98.0	69.3	120	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201047

09-Feb-12

Client: Animas Environmental Services

Project: Enterprise Products Olmer #4

Sample ID 5ML-RB	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles
Client ID: PBW	Batch ID: R221	RunNo: 221
Prep Date:	Analysis Date: 1/4/2012	SeqNo: 6889 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		96.1	76.5	115			

Sample ID 100NG BTEX LCS	SampType: LCS	TestCode: EPA Method 8021B: Volatiles
Client ID: LCSW	Batch ID: R221	RunNo: 221
Prep Date:	Analysis Date: 1/4/2012	SeqNo: 6892 Units: µg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.9	80	120			
Toluene	19	1.0	20.00	0	95.7	80	120			
Ethylbenzene	19	1.0	20.00	0	95.0	80	120			
Xylenes, Total	57	2.0	60.00	0	95.5	78.6	121			
Surr: 4-Bromofluorobenzene	20		20.00		98.6	76.5	115			

Sample ID 1201047-003A MS	SampType: MS	TestCode: EPA Method 8021B: Volatiles
Client ID: MW-2	Batch ID: R221	RunNo: 221
Prep Date:	Analysis Date: 1/4/2012	SeqNo: 6893 Units: µg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0.6476	83.4	76.6	119			
Toluene	17	1.0	20.00	0	83.9	77.3	118			
Ethylbenzene	17	1.0	20.00	0	82.5	76.6	114			
Xylenes, Total	50	2.0	60.00	0	83.7	82	113			
Surr: 4-Bromofluorobenzene	20		20.00		101	76.5	115			

Sample ID 1201047-003A MSD	SampType: MSD	TestCode: EPA Method 8021B: Volatiles
Client ID: MW-2	Batch ID: R221	RunNo: 221
Prep Date:	Analysis Date: 1/4/2012	SeqNo: 6894 Units: µg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0.6476	81.1	76.6	119	2.72	16.4	
Toluene	16	1.0	20.00	0	82.3	77.3	118	1.94	13.9	
Ethylbenzene	16	1.0	20.00	0	81.8	76.6	114	0.887	13.5	
Xylenes, Total	50	2.0	60.00	0	83.3	82	113	0.484	12.9	
Surr: 4-Bromofluorobenzene	20		20.00		100	76.5	115	0	0	

Qualifiers:

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

Chain-of-Custody Record

Client: Animas Environmental Services, LLC.

Mailing Address: 624 E Comanche Farmington NM 87401

Phone #: 505-564-2281

email or Fax#: 505-324-2022

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Enterprise Products Olmer #4

Project #: AES 110802

Project Manager: Tami Ross

Sampler: Nathan Willis

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		BTEX 8021	TPH (C6 - C36) 8015	Chlorides 300.0	Air Bubbles (Y or N)
		H_2O	Trip Blank	2 - 40 mL glass	HCl	1	X			
12-29-11	1529	H_2O	MW - 1	6 - 40 mL glass	5 - HCl 1 - Non	2	X	X		
	1558	H_2O	MW - 2	6 - 40 mL glass	5 - HCl 1 - Non	3	X	X		
	1617	H_2O	MW - 3	6 - 40 mL glass	5 - HCl 1 - Non	4	X	X		
	1459	H_2O	MW - 4	6 - 40 mL glass	5 - HCl 1 - Non	5	X	X		
12-29-11	1224	H_2O	Waste Water	1 - 500 mL plastic	Non	6			X	
		~~AQ~~	~~TRIP BLANK~~	~~VOA HCl x2~~		7	X			

1/4/12

Date:	Time:	Relinquished by:	Received by:	Date	Time
12-29-11	1738	Nathan Willis	Christine Walters	12/30/11	0735
1/3/11	1650	Christine Walters		1/3/11	14:00

Remarks: Bill to Enterprise Products

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.