

**3R – 454**

**Q2 2012**  
**GWMR**

**08 / 27 / 2012**

LAT 2D-1LP/2011

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Animas Environmental Services, LLC

www.animasenvironmental.com

August 27, 2012

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

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3274

**RE: 2nd Quarter 2012 Groundwater Monitoring Report  
Enterprise Products Company  
Lateral 2D-1LP (Olmer #4) August 2011 Pipeline Release  
San Juan County, New Mexico**

Dear Mr. von Gonten:

Animas Environmental Services, LLC (AES), on behalf of Enterprise Products Company, has prepared this *2<sup>nd</sup> Quarter 2012 Groundwater Monitoring Report* for the Lateral 2D-1LP (Olmer 34) August 2011 Pipeline Release in accordance with New Mexico Oil Conservation Division (NMOCD) and New Mexico Environment Department (NMED) Ground Water Quality Bureau (GWQB) regulations. This is the third quarterly monitoring and sampling event for the subject release location.

A quarterly groundwater monitoring and sampling event was completed June 28, 2012, in accordance with a workplan previously prepared by AES and dated September 28, 2011. The workplan was submitted to the NMOCD for review prior to implementing the proposed scope of work.

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## 1.0 Site Information

### 1.1 Site Location

The release is located along the Enterprise Lateral 2D-1LP leading from the Olmer #4 well tie within the SW¼ NE¼, Section 26, T28N, R10W, San Juan County, New Mexico. Latitude and longitude of the release were recorded as N36.63388 by W107.86387, respectively. A topographic site location map is included as Figure 1.

The location of the release is within a floodplain associated with Armenta Wash. Surface runoff drains north to an unnamed arroyo which discharges into the Armenta Wash, and depth of groundwater is approximately 8 feet below ground surface (bgs).

## *1.2 Release History*

A release was reported at the location on August 2, 2011, by Shane Cooley of Enterprise. The cause of the release was attributed to a line leak due to corrosion. Remedial excavation activities were conducted on August 8, 2011, and AES collected soil samples from the base and mid-walls of the excavation, which measured approximately 20 feet by 20 feet by 8 feet deep. Benzene, toluene, ethylbenzene, and xylene (BTEX) and total petroleum hydrocarbon (TPH) concentrations for all three soil samples collected were either below laboratory detection limits or below applicable NMOCD action levels. 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.

On August 23, 2011, the excavation was extended to approximately 4 feet below the pipeline, for a total depth of 12 feet bgs. The excavation was extended horizontally resulting in an excavation area approximately 30 feet by 20 feet. 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.

## *1.3 Groundwater Investigation – November 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).

Soil analytical results confirmed 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. Groundwater analytical results for samples collected from MW-1 through MW-4 showed that concentrations for BTEX were below applicable WQCC standards, and TPH concentrations were below laboratory detection limits.

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

#### **1.4 Groundwater Monitoring – March 2012**

AES conducted groundwater monitoring and sampling on March 9, 2012. Groundwater analytical results showed that BTEX and TPH concentrations were either below laboratory detection limits or well below applicable WQCC standards.

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### **2.0 Groundwater Monitoring and Sampling June - 2012**

On June 28, 2012, groundwater monitoring and sampling were conducted by AES in MW-1 through MW-4. Work was completed in accordance with the workplan prepared by AES and dated September 28, 2011, and also 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.

#### **2.1 Groundwater Measurements and Water Quality**

Prior to sample collection, depth to groundwater in each well was measured with a Keck Water Level Indicator, and water quality data was measured with a YSI Water Quality Meter. Water quality measurements were recorded and included pH, temperature, conductivity, dissolved oxygen (DO), and oxidation reduction potential (ORP). Depth to groundwater measurements and water quality data were recorded onto Water Sample Collection forms. Depths to groundwater varied across the site and were observed to range from 8.34 feet below top of casing (TOC) in MW-3 to 11.93 feet below TOC in MW-4. Groundwater elevations are presented on Figure 2.

Following depth to water measurement, each well was purged with a disposable bailer until recorded temperature, pH, conductivity, and DO measurements were stabilized. All data was recorded onto Water Sample Collection Forms. Groundwater temperature ranged from 15.94°C in MW-1 to 19.17°C in MW-3, and conductivity ranged from 4.642 mS in MW-1 to 9.630 mS in MW-3. DO concentrations were between 1.56 mg/L in MW-1 and 2.83 mg/L in MW-4, and pH ranged from 6.59 in MW-3 to 7.44 in MW-4. Although DO was recorded during field activities, it should be noted that due to the use of bailers, the accuracy of dissolved oxygen measurements is limited. Depth to groundwater measurements and water quality data are summarized in Table 1. Water Sample Collection forms are presented in Appendix A.

#### **2.2 Groundwater Laboratory Analyses**

Groundwater samples were collected with new disposable bailers from a total of four monitor wells and transferred into appropriate sample containers, labeled accordingly, and documented on Water Sample Collection Forms. Samples were shipped in insulated coolers containing ice at less than 6°C to Hall Environmental Analytical Laboratory (Hall) in Albuquerque, New Mexico. All groundwater analytical samples were analyzed for BTEX

per USEPA Method 8260 and TPH as gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015B.

### 2.2.1 Groundwater Analytical Results

Analytical results from groundwater samples collected during the June 2012 sampling event showed that BTEX concentrations were reported below the laboratory detection limits in MW-1, MW-2, and MW-4. Dissolved phase benzene concentrations were reported at 1.5 µg/L in MW-3. TPH as GRO/DRO concentrations were reported below the laboratory detection limits for monitor wells MW-1, MW-2, and MW-4. MW-3 had GRO concentrations of 0.11 mg/L. Groundwater analytical results are included in Table 2 and on Figure 3. Groundwater analytical laboratory reports are presented in Appendix A.

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## 3.0 Conclusion and Recommendations

On June 28, 2012, AES personnel conducted groundwater monitoring and sampling at the Lateral 2D-1LP (Olmer #4) August 2011 pipeline release location. Groundwater analytical results showed that contaminants of concern (BTEX) were below applicable WQCC standards for the third consecutive quarter for all the monitor wells (MW-1 through MW-4). TPH concentrations were below laboratory detection limits, except in MW-3 with 0.11 mg/kg.

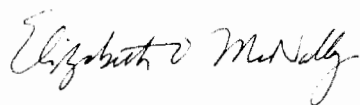
Based on current site data and in accordance with the project workplan, AES will conduct one additional quarterly sampling event to ensure four consecutive quarters of groundwater contaminant concentrations below WQCC standards. The next sampling event is tentatively scheduled for September 2012.

If you have any questions regarding site conditions or this report, please do not hesitate to contact Tami Ross or Ross Kennemer at (505) 564-2281.

Sincerely,



Landrea Cupps  
Environmental Scientist



Elizabeth McNally, P.E.  
New Mexico Registration #15799

Attachments:

Tables

- Table 1. Summary of Groundwater Measurement and Water Quality Data  
Table 2. Summary of Groundwater Analytical Results

Figures

- Figure 1. Topographic Site Location Map  
Figure 2. General Site Map and Groundwater Elevations, June 2012  
Figure 3. Groundwater Contaminant Concentrations, June 2012

Appendix A

Water Sample Collection Forms

Groundwater Analytical Laboratory Reports (Hall 1206C51)

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

Aaron Dailey  
Enterprise Products Company  
614 Reilly Avenue  
Farmington, New Mexico 87401

S:\Animas 2000\2012 Projects\Enterprise\Olmer #4\Reports\Olmer#4 2nd Qtr Monitoring Report  
082712.docx

TABLE 1

## SUMMARY OF GROUNDWATER MEASUREMENTS AND WATER QUALITY DATA

Enterprise Products Company Olmer #4 (Lateral 2D-1LP) Pipeline Release

San Juan County, New Mexico

<b>Well ID</b>	<b>Date</b>	<b>Depth to Water (ft)</b>	<b>Surveyed TOC (ft)</b>	<b>GW Elev. (ft)</b>	<b>pH</b>	<b>Conductivity (mS)</b>	<b>Dissolved Oxygen (mg/L)</b>	<b>Temp. (°C)</b>	<b>ORP (mV)</b>
<b>MW-1</b>	29-Dec-11	9.92	5467.98	5458.06	7.14	4.530	1.48	12.47	382.3
<b>MW-1</b>	09-Mar-12	9.74	5467.98	5458.24	7.46	4.648	1.46	10.97	78.3
<b>MW-1</b>	28-Jun-12	10.36	5467.98	5457.62	7.03	4.642	1.56	15.94	31.4
<b>MW-2</b>	29-Dec-11	9.10	5468.10	5459.00	7.13	4.624	1.28	12.06	382.1
<b>MW-2</b>	09-Mar-12	8.92	5468.10	5459.18	7.25	4.691	1.18	11.22	57.3
<b>MW-2</b>	28-Jun-12	9.53	5468.10	5458.57	7.16	4.700	1.68	16.42	20.3
<b>MW-3</b>	29-Dec-11	7.94	5468.56	5460.62	6.67	8.440	2.29	10.44	295.1
<b>MW-3</b>	09-Mar-12	7.75	5468.56	5460.81	6.70	9.782	2.20	9.51	-100.7
<b>MW-3</b>	28-Jun-12	8.34	5468.56	5460.22	6.59	9.630	2.51	19.17	-78.2
<b>MW-4</b>	29-Dec-11	11.51	5467.99	5456.48	6.42	4.712	3.19	13.15	374.7
<b>MW-4</b>	09-Mar-12	11.33	5467.99	5456.66	7.30	5.345	4.30	10.77	99.9
<b>MW-4</b>	28-Jun-12	11.93	5467.99	5456.06	7.44	5.289	2.83	17.05	18.9

TABLE 2  
SUMMARY OF GROUNDWATER ANALYTICALS RESULTS  
Enterprise Products Company Olmer #4 (Lateral 2D-1LP) Pipeline Release  
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 8021/8260				EPA Method 8015B	
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-1	09-Mar-12	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-1	28-Jun-12	<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-2	09-Mar-12	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-2	28-Jun-12	<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-3	09-Mar-12	2.2	<1.0	5.1	<2.0	0.10	<1.0
MW-3	28-Jun-12	1.5	<1.0	<1.0	<2.0	0.11	<1.0
MW-4	29-Dec-11	<2.0	<2.0	<2.0	<4.0	<0.10	<1.0
MW-4	09-Mar-12	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0
MW-4	28-Jun-12	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0

**Notes:**

< Analyte not detected above listed method limit

NA Not analyzed

NE Not established

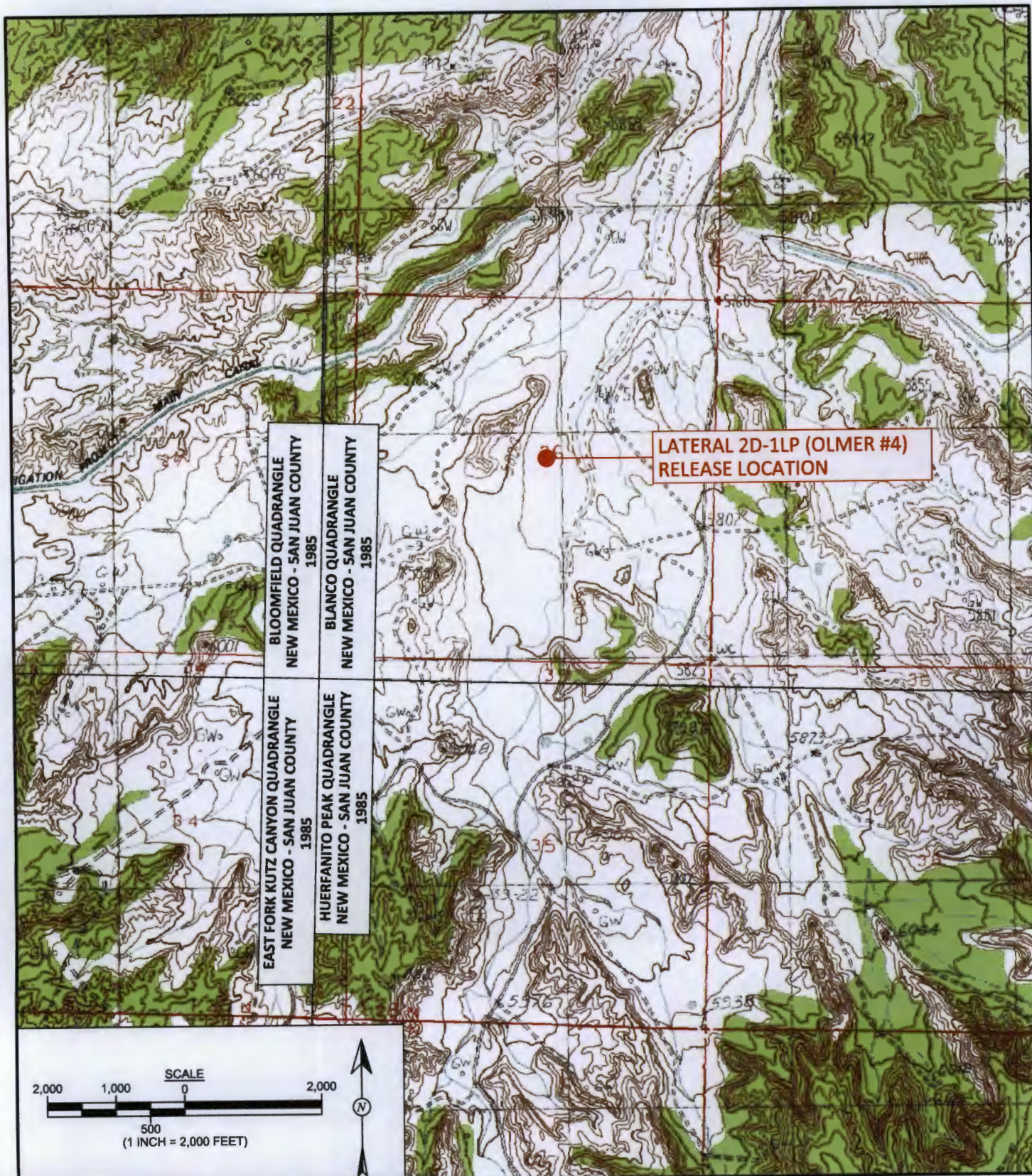
µg/L Micrograms per liter (ppb)

mg/L Milligrams per liter (ppm)

GRO Gasoline range organics

DRO Diesel range organics





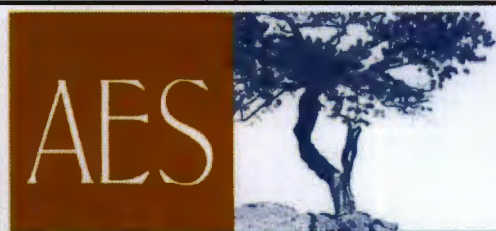
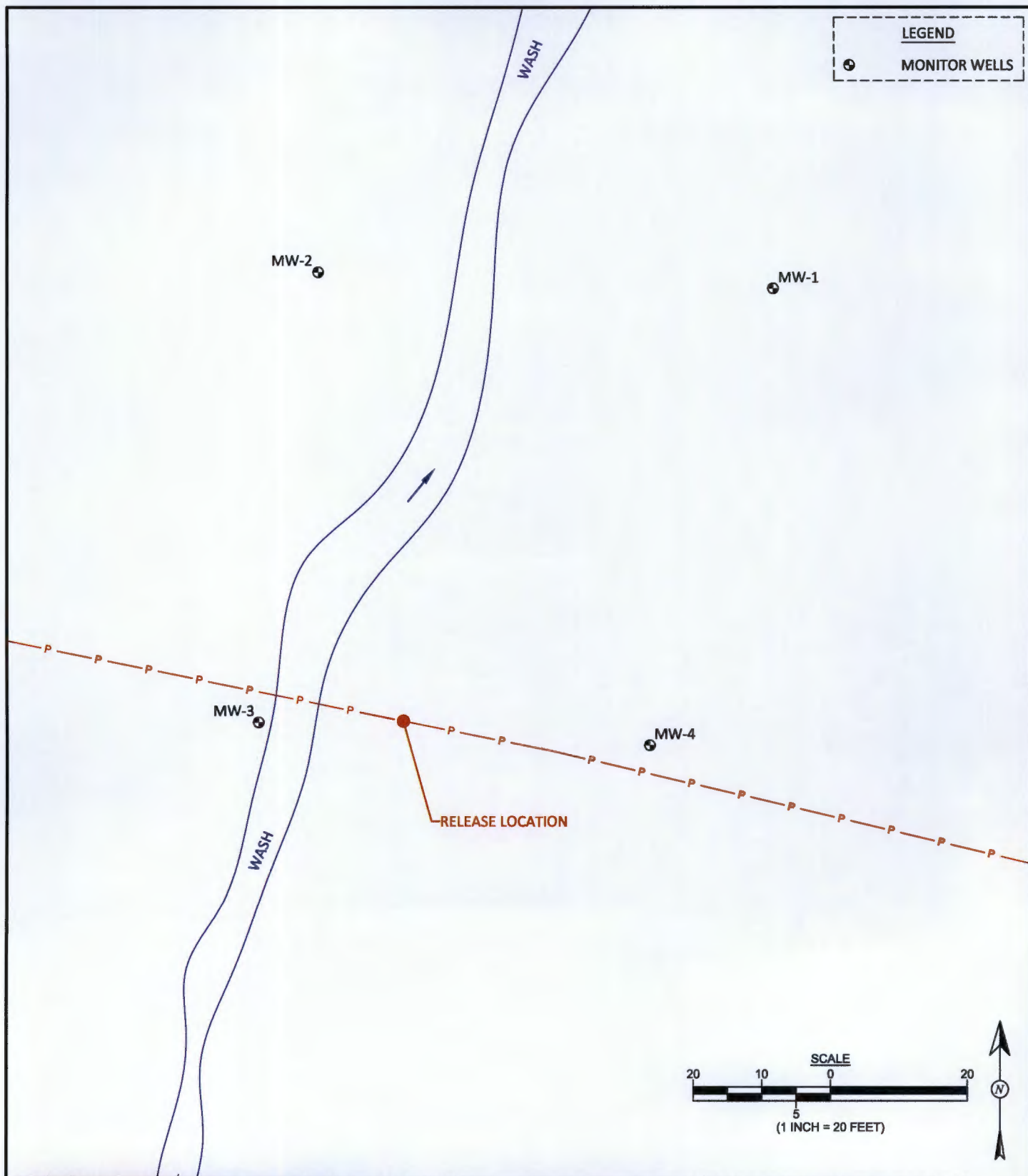
Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> January 19, 2012
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> July 17, 2012
<b>CHECKED BY:</b> T. Ross	<b>DATE CHECKED:</b> August 14, 2012
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> August 27, 2012

## FIGURE 1

**TOPOGRAPHIC SITE LOCATION MAP**  
ENTERPRISE PRODUCTS COMPANY  
LATERAL 2D-1LP (OLMER #4)  
2011 PIPELINE RELEASE  
SAN JUAN COUNTY, NEW MEXICO  
SW¼ NE¼, SEC. 26, T28N, R10W  
N 36.63388, W 107.86387





Animas Environmental Services, LLC

**DRAWN BY:**  
C. Lameman

**DATE DRAWN:**  
January 19, 2012

**REVISIONS BY:**  
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**DATE REVISED:**  
July 17, 2012

**CHECKED BY:**  
T. Ross

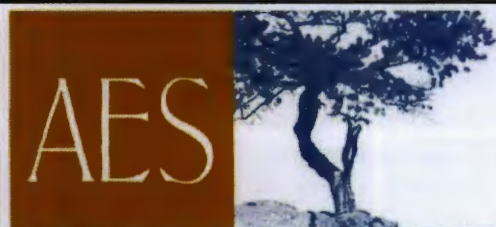
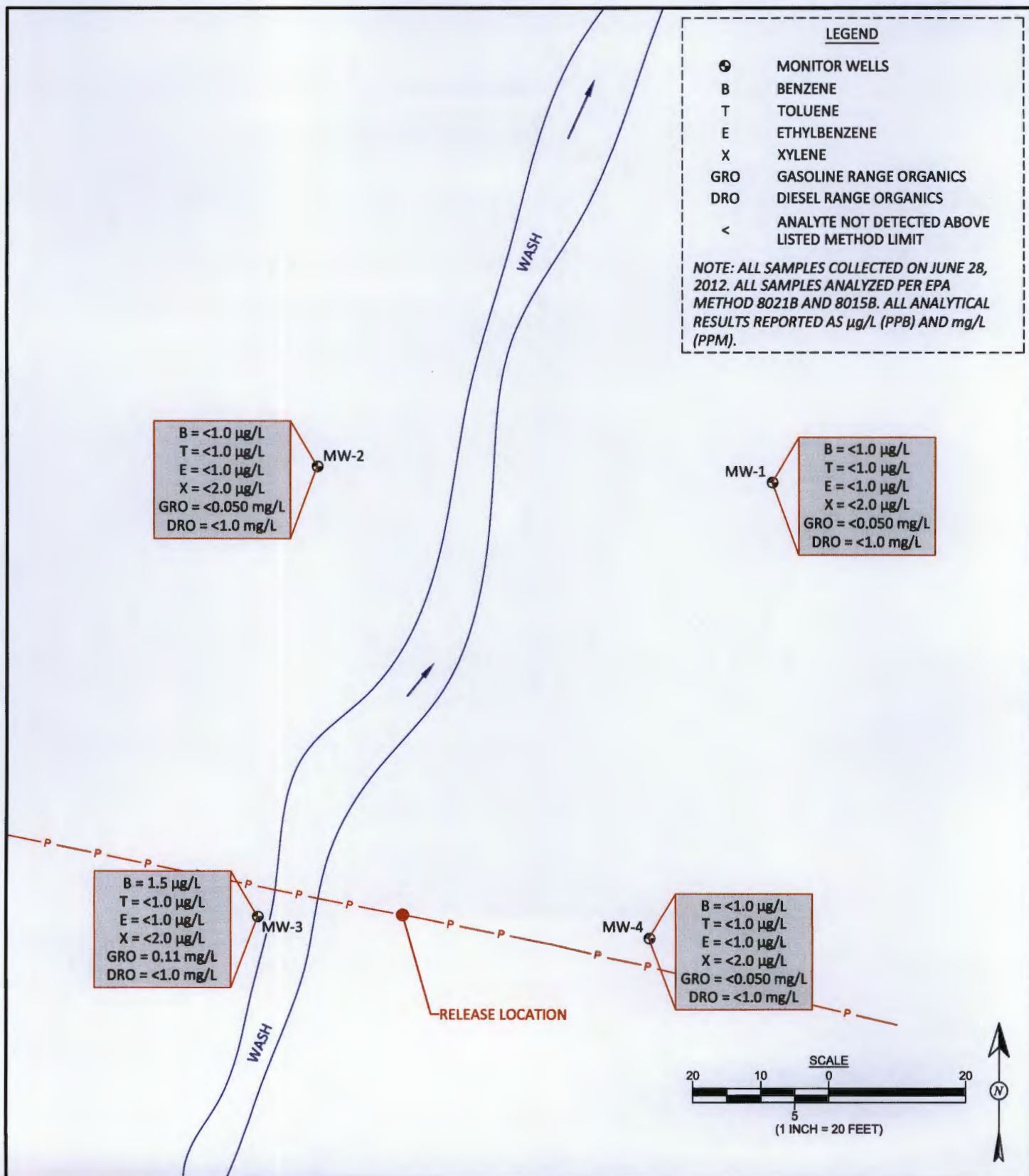
**DATE CHECKED:**  
August 14, 2012

**APPROVED BY:**  
E. McNally

**DATE APPROVED:**  
August 27, 2012

## FIGURE 2

**GENERAL SITE MAP**  
ENTERPRISE PRODUCTS COMPANY  
LATERAL 2D-1LP (OLMER #4)  
2011 PIPELINE RELEASE  
SAN JUAN COUNTY, NEW MEXICO  
SW¼ NE¼, SEC. 26, T28N, R10W  
N 36.63388, W 107.86387



Animas Environmental Services, LLC

**DRAWN BY:**

C. Lameman

**DATE DRAWN:**

February 7, 2012

**REVISIONS BY:**

C. Lameman

**DATE REVISED:**

July 17, 2012

**CHECKED BY:**

T. Ross

**DATE CHECKED:**

August 14, 2012

**APPROVED BY:**

E. McNally

**DATE APPROVED:**

August 27, 2012

## FIGURE 3

**GROUNDWATER CONTAMINANT  
CONCENTRATIONS, JUNE 2012**  
ENTERPRISE PRODUCTS COMPANY  
LATERAL 2D-1LP (OLMER #4)  
2011 PIPELINE RELEASE  
SAN JUAN COUNTY, NEW MEXICO  
SW¼ NE¼, SEC. 26, T28N, R10W  
N 36.63388, W 107.86387

## 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:	N. Willis

Project No.: AES 110802  
Date: 6/28/12  
Time: 1001  
Form: 1 of 1

[illegible]

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

# MONITORING WELL SAMPLING RECORD

Animas Environmental Services

Monitor Well No: MW-1

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: 6/28/12  
Project: Groundwater Sampling Arrival Time: 1001  
Sampling Technician: N. Willis Air Temp: 93°F  
Purge / No Purge: Purge T.O.C. Elev. (ft): 5467.98  
Well Diameter (in): 2 Total Well Depth (ft): 15.31  
Initial D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_ (taken at initial gauging of all wells)  
Confirm D.T.W. (ft): 10.36 Time: 1019 (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
1028	19.23	4.549	2.10	6.78	41.0	0.25 gal.	
1034	16.83	4.672	2.25	6.96	36.0	0.5	
1036	16.18	4.619	1.74	6.97	34.8	0.5	
1038	16.00	4.637	1.68	6.99	33.4	0.5	
1040	15.84	4.446	1.72	7.01	32.4	0.5	
1042	15.94	4.642	1.56	7.03	31.4	0.5	
1047							Samples Collected

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

BTEX by EPA Method 8021 (3 - 40 mL glass preserved w/ HCl)

TPH ( GRO/DRO ) by EPA Method 8015 (3 - 40 mL glass, 2 - preserved w/ HCl, 1 - 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:

## Animas Environmental Services

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

Project No.: AES 110802  
Date: 6/28/12  
Arrival Time: 1051  
Air Temp: 93°F  
O.C. Elev. (ft): 5468.1  
Well Depth (ft): 14.18  
(taken at initial gauging of all wells)  
(taken prior to purging well)  
(taken after sample collection)  
Thickness: Time:

[illegible]

BTEX by EPA Method 8021 (3 - 40 mL glass preserved w/ HCl)

TPH ( GRO/DRO ) by EPA Method 8015 (3 - 40 mL glass, 2 - preserved w/ HCl, 1 - 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

[illegible]



# MONITORING WELL SAMPLING RECORD

Animas Environmental Services

Monitor Well No: MW-3

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: 6/28/12  
Project: Groundwater Sampling Arrival Time: 1118  
Sampling Technician: N. Willis Air Temp: 95°F  
Purge / No Purge: Purge T.O.C. Elev. (ft): 5468.56  
Well Diameter (in): 2 Total Well Depth (ft): 13.7  
Initial D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_ (taken at initial gauging of all wells)  
Confirm D.T.W. (ft): 8.34 Time: 1120 (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
1124	18.97	9.464	2.27	6.56	-87.5	0.25 gal.	
1126	19.41	9.625	3.03	6.57	-82.4	0.5	
1128	19.17	9.630	2.51	6.59	-78.2	0.125	Low Yield
							↓
1133							Samples Collected

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

BTEX by EPA Method 8021 (3 - 40 mL glass preserved w/ HCl)

TPH ( GRO/DRO ) by EPA Method 8015 (3 - 40 mL glass, 2 - preserved w/ HCl, 1 - 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:

## 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: 6/28/12	
Project: Groundwater Sampling		Arrival Time: 1140	
Sampling Technician: N. Willis		Air Temp: 95°F	
Purge / No Purge:	Purge	T.O.C. Elev. (ft): 5467.99	
Well Diameter (in):	2	Total Well Depth (ft): 16.42	
Initial D.T.W. (ft):		Time: (taken at initial gauging of all wells)	
Confirm D.T.W. (ft): 11.93		Time: 1142 (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

[illegible]

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

BTEX by EPA Method 8021 (3 - 40 mL glass preserved w/ HCl)

TPH ( GRO/DRO ) by EPA Method 8015 (3 - 40 mL glass, 2 - preserved w/ HCl, 1 - 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:**





*Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)*

July 10, 2012

Tami Ross

Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401  
TEL: (505) 793-2072  
FAX (505) 324-2022

RE: Enterprise Products Olmer #4

OrderNo.: 1206C51

Dear Tami Ross:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/29/2012 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 [www.hallenvironmental.com](http://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. 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,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1206C51**

Date Reported: 7/10/2012

**CLIENT:** Animas Environmental Services

**Client Sample ID:** TRIP BLANK

**Project:** Enterprise Products Olmer #4

**Collection Date:**

**Lab ID:** 1206C51-001

**Matrix:** TRIP BLANK

**Received Date:** 6/29/2012 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	1.0		µg/L	1	7/2/2012 6:26:21 PM
Toluene	ND	1.0		µg/L	1	7/2/2012 6:26:21 PM
Ethylbenzene	ND	1.0		µg/L	1	7/2/2012 6:26:21 PM
Xylenes, Total	ND	2.0		µg/L	1	7/2/2012 6:26:21 PM
Surr: 1,2-Dichloroethane-d4	93.7	70-130		%REC	1	7/2/2012 6:26:21 PM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	1	7/2/2012 6:26:21 PM
Surr: Dibromofluoromethane	102	69.8-130		%REC	1	7/2/2012 6:26:21 PM
Surr: Toluene-d8	93.3	70-130		%REC	1	7/2/2012 6:26:21 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
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C51

Date Reported: 7/10/2012

CLIENT: Animas Environmental Services

Client Sample ID: MW-1

Project: Enterprise Products Olmer #4

Collection Date: 6/28/2012 10:47:00 AM

Lab ID: 1206C51-002

Matrix: AQUEOUS

Received Date: 6/29/2012 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: <b>JMP</b>
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/2/2012 3:49:14 PM
Surr: DNOP	125	61.3-164		%REC	1	7/2/2012 3:49:14 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	1.0		µg/L	1	7/2/2012 6:54:52 PM
Toluene	ND	1.0		µg/L	1	7/2/2012 6:54:52 PM
Ethylbenzene	ND	1.0		µg/L	1	7/2/2012 6:54:52 PM
Xylenes, Total	ND	2.0		µg/L	1	7/2/2012 6:54:52 PM
Surr: 1,2-Dichloroethane-d4	94.4	70-130		%REC	1	7/2/2012 6:54:52 PM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	1	7/2/2012 6:54:52 PM
Surr: Dibromofluoromethane	102	69.8-130		%REC	1	7/2/2012 6:54:52 PM
Surr: Toluene-d8	93.4	70-130		%REC	1	7/2/2012 6:54:52 PM
<b>MODIFIED EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/2/2012 6:54:52 PM
Surr: BFB	115	70-130		%REC	1	7/2/2012 6:54:52 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  
U   Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C51

Date Reported: 7/10/2012

CLIENT: Animas Environmental Services

Client Sample ID: MW-2

Project: Enterprise Products Olmer #4

Collection Date: 6/28/2012 11:14:00 AM

Lab ID: 1206C51-003

Matrix: AQUEOUS

Received Date: 6/29/2012 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: JMP
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/2/2012 4:11:32 PM
Surr: DNOP	124	61.3-164		%REC	1	7/2/2012 4:11:32 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: RAA
Benzene	ND	1.0		µg/L	1	7/2/2012 7:23:21 PM
Toluene	ND	1.0		µg/L	1	7/2/2012 7:23:21 PM
Ethylbenzene	ND	1.0		µg/L	1	7/2/2012 7:23:21 PM
Xylenes, Total	ND	2.0		µg/L	1	7/2/2012 7:23:21 PM
Surr: 1,2-Dichloroethane-d4	92.0	70-130		%REC	1	7/2/2012 7:23:21 PM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	1	7/2/2012 7:23:21 PM
Surr: Dibromofluoromethane	102	69.8-130		%REC	1	7/2/2012 7:23:21 PM
Surr: Toluene-d8	91.7	70-130		%REC	1	7/2/2012 7:23:21 PM
<b>MODIFIED EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/2/2012 7:23:21 PM
Surr: BFB	117	70-130		%REC	1	7/2/2012 7:23:21 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  
U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C51

Date Reported: 7/10/2012

CLIENT: Animas Environmental Services

Client Sample ID: MW-3

Project: Enterprise Products Olmer #4

Collection Date: 6/28/2012 11:33:00 AM

Lab ID: 1206C51-004

Matrix: AQUEOUS

Received Date: 6/29/2012 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: <b>JMP</b>
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/2/2012 4:33:56 PM
Surr: DNOP	123	61.3-164		%REC	1	7/2/2012 4:33:56 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	1.5	1.0		µg/L	1	7/2/2012 7:51:47 PM
Toluene	ND	1.0		µg/L	1	7/2/2012 7:51:47 PM
Ethylbenzene	ND	1.0		µg/L	1	7/2/2012 7:51:47 PM
Xylenes, Total	ND	2.0		µg/L	1	7/2/2012 7:51:47 PM
Surr: 1,2-Dichloroethane-d4	93.7	70-130		%REC	1	7/2/2012 7:51:47 PM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	1	7/2/2012 7:51:47 PM
Surr: Dibromofluoromethane	103	69.8-130		%REC	1	7/2/2012 7:51:47 PM
Surr: Toluene-d8	95.3	70-130		%REC	1	7/2/2012 7:51:47 PM
<b>MODIFIED EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	0.11	0.050		mg/L	1	7/2/2012 7:51:47 PM
Surr: BFB	113	70-130		%REC	1	7/2/2012 7:51:47 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  
                  U    Samples with CalcVal < MDL

# Analytical Report

Lab Order 1206C51

Date Reported: 7/10/2012

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

**Client Sample ID:** MW-4

**Project:** Enterprise Products Olmer #4

**Collection Date:** 6/28/2012 11:55:00 AM

**Lab ID:** 1206C51-005

**Matrix:** AQUEOUS

**Received Date:** 6/29/2012 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: <b>JMP</b>
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/2/2012 4:56:13 PM
Surr: DNOP	125	61.3-164		%REC	1	7/2/2012 4:56:13 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	1.0		µg/L	1	7/2/2012 8:20:12 PM
Toluene	ND	1.0		µg/L	1	7/2/2012 8:20:12 PM
Ethylbenzene	ND	1.0		µg/L	1	7/2/2012 8:20:12 PM
Xylenes, Total	ND	2.0		µg/L	1	7/2/2012 8:20:12 PM
Surr: 1,2-Dichloroethane-d4	92.6	70-130		%REC	1	7/2/2012 8:20:12 PM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	1	7/2/2012 8:20:12 PM
Surr: Dibromofluoromethane	99.9	69.8-130		%REC	1	7/2/2012 8:20:12 PM
Surr: Toluene-d8	94.7	70-130		%REC	1	7/2/2012 8:20:12 PM
<b>MODIFIED EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/2/2012 8:20:12 PM
Surr: BFB	116	70-130		%REC	1	7/2/2012 8:20:12 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  
U Samples with CalcVal < MDL

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206C51

10-Jul-12

Client: Animas Environmental Services

Project: Enterprise Products Olmer #4

Sample ID	<b>MB-2676</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8015B: Diesel Range</b>			
Client ID:	<b>PBW</b>		Batch ID:	<b>2676</b>		RunNo:	<b>3805</b>			
Prep Date:	<b>7/2/2012</b>		Analysis Date:	<b>7/2/2012</b>		SeqNo:	<b>108338</b>		Units: <b>mg/L</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Surr: DNOP	1.3		1.000		127	61.3	164			

Sample ID	<b>LCS-2676</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8015B: Diesel Range</b>			
Client ID:	<b>LCSW</b>		Batch ID:	<b>2676</b>		RunNo:	<b>3805</b>			
Prep Date:	<b>7/2/2012</b>		Analysis Date:	<b>7/2/2012</b>		SeqNo:	<b>108339</b>		Units: <b>mg/L</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.5	1.0	5.000	0	89.5	74	157			
Surr: DNOP	0.49		0.5000		97.1	61.3	164			

Sample ID	<b>LCSD-2676</b>		SampType:	<b>LCSD</b>		TestCode:	<b>EPA Method 8015B: Diesel Range</b>			
Client ID:	<b>LCSS02</b>		Batch ID:	<b>2676</b>		RunNo:	<b>3805</b>			
Prep Date:	<b>7/2/2012</b>		Analysis Date:	<b>7/2/2012</b>		SeqNo:	<b>108382</b>		Units: <b>mg/L</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.1	1.0	5.000	0	101	74	157	12.4	23	
Surr: DNOP	0.50		0.5000		99.6	61.3	164	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#: 1206C51

10-Jul-12

**Client:** Animas Environmental Services

**Project:** Enterprise Products Olmer #4

Sample ID <b>5ml-rb</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R3838</b>	RunNo: <b>3838</b>								
Prep Date:	Analysis Date: <b>7/2/2012</b>	SeqNo: <b>108878</b>		Units: <b>µg/L</b>						
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: 1,2-Dichloroethane-d4	9.0		10.00		90.4	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.0	69.8	130			
Surr: Toluene-d8	9.5		10.00		95.4	70	130			

Sample ID <b>100ng lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R3838</b>	RunNo: <b>3838</b>								
Prep Date:	Analysis Date: <b>7/2/2012</b>	SeqNo: <b>108879</b>		Units: <b>µg/L</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	87.6	84.1	126			
Toluene	18	1.0	20.00	0	91.3	80	120			
Surr: 1,2-Dichloroethane-d4	8.9		10.00		89.1	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	10		10.00		99.7	69.8	130			
Surr: Toluene-d8	9.7		10.00		97.3	70	130			

Sample ID <b>1206c17-002a ms</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>R3838</b>	RunNo: <b>3838</b>								
Prep Date:	Analysis Date: <b>7/2/2012</b>	SeqNo: <b>108880</b>		Units: <b>µg/L</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	85.3	71.1	135			
Toluene	18	1.0	20.00	0	91.9	74	121			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	10		10.00		101	69.8	130			
Surr: Toluene-d8	9.4		10.00		94.2	70	130			

Sample ID <b>1206c17-002a msd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>R3838</b>	RunNo: <b>3838</b>								
Prep Date:	Analysis Date: <b>7/2/2012</b>	SeqNo: <b>108881</b>		Units: <b>µg/L</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	87.3	71.1	135	2.32	21.9	
Toluene	18	1.0	20.00	0	92.4	74	121	0.598	18.5	
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130	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#: 1206C51

10-Jul-12

Client: Animas Environmental Services

Project: Enterprise Products Olmer #4

Sample ID	1206c17-002a msd	SampType:	MSD	TestCode:	EPA Method 8260: Volatiles Short List					
Client ID:	BatchQC	Batch ID:	R3838	RunNo:	3838					
Prep Date:		Analysis Date:	7/2/2012	SeqNo:	108881	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	10		10.00		102	69.8	130	0	0	
Surr: Toluene-d8	9.4		10.00		94.2	70	130	0	0	

## Qualifiers:

\* / X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accented 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#: 1206C51

10-Jul-12

Client: Animas Environmental Services

Project: Enterprise Products Olmer #4

Sample ID	5ml-rb	SampType:	MBLK	TestCode:	Modified EPA Method 8015B: Gasoline Range					
Client ID:	PBW	Batch ID:	R3838	RunNo:	3838					
Prep Date:		Analysis Date:	7/2/2012	SeqNo:	108812	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	11		10.00		110	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	Modified EPA Method 8015B: Gasoline Range					
Client ID:	LCSW	Batch ID:	R3838	RunNo:	3838					
Prep Date:		Analysis Date:	7/2/2012	SeqNo:	108833	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.49	0.050	0.5000	0	98.5	85	115			
Surr: BFB	10		10.00		103	70	130			

Sample ID	1206C17-003A MS	SampType:	MS	TestCode:	Modified EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R3838	RunNo:	3838					
Prep Date:		Analysis Date:	7/2/2012	SeqNo:	108837	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	95.8	70	130			
Surr: BFB	11		10.00		105	70	130			

Sample ID	1206C17-003A MSD	SampType:	MSD	TestCode:	Modified EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R3838	RunNo:	3838					
Prep Date:		Analysis Date:	7/2/2012	SeqNo:	108845	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	94.4	70	130	1.51	20	
Surr: BFB	10		10.00		105	70	130	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



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87105  
TEL: 505-345-3975 FAX: 505-345-4101  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1206C51  
Received by/date: LM 06/29/12  
Logged By: Ashley Gallegos 6/29/2012 9:45:00 AM AG  
Completed By: Ashley Gallegos 6/29/2012 12:50:50 PM AG  
Reviewed By: LM 06/29/12

### 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

### Log In

4. 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 ☐  
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
15. Is it clear what analyses were requested? Yes ☒ No ☐  
16. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH: \_\_\_\_\_  
( $<2$  or  $>12$  unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: \_\_\_\_\_

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

18. Additional remarks:

### 19. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			

