

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

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company <b>Burlington Resources, a Wholly Owned Subsidiary of ConocoPhillips Company</b>	Contact <b>Lisa Hunter</b>
Address <b>3401 E. 30<sup>th</sup> St., Farmington, NM 87402</b>	Telephone No. <b>505-326-9786</b>
Facility Name <b>San Juan 28-6 186N</b>	Facility Type <b>Gas Well</b>

Surface Owner <b>BLM</b>	Mineral Owner <b>BLM</b>	API No. <b>3003929329</b>
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**LOCATION OF RELEASE**

Unit Letter <b>A</b>	Section <b>06</b>	Township <b>T27N</b>	Range <b>R6W</b>	Feet from the <b>190'</b>	North/South Line <b>North</b>	Feet from the <b>585'</b>	East/West Line <b>East</b>	County <b>Rio Arriba</b>
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Latitude 36.60982 Longitude -107.4999

**RCVD OCT 10 '13  
OIL CONS. DIV.  
DIST. 3**

**NATURE OF RELEASE**

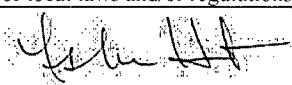
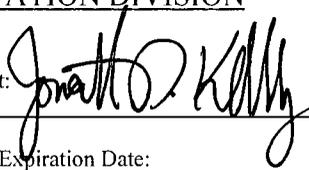
Type of Release <b>Produced Water and Condensate</b>	Volume of Release <b>36.25 BBL Produced Water 15 BBL Condensate</b>	Volume Recovered <b>0 BBL 0 BBL</b>
Source of Release <b>Tank leak (corrosion)</b>	Date and Hour of Occurrence <b>Unknown</b>	Date and Hour of Discovery <b>06/25/13 @ 10:00 a.m.</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>Brandon Powell, NMOCD Mark Kelly, BLM</b>	
By Whom? <b>Lisa Hunter</b>	Date and Hour <b>Brandon Powell, NMOCD 6/25/13 @ 1:45 pm Mark Kelly, BLM 06/25/13 @ 1:46 pm</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>N/A</b>	

If a Watercourse was Impacted, Describe Fully.\*  
N/A

Describe Cause of Problem and Remedial Action Taken.\*  
During tank gauging found leak in tank. Drained remaining fluid to prevent liquids from going to the ground. Collected soil sample.

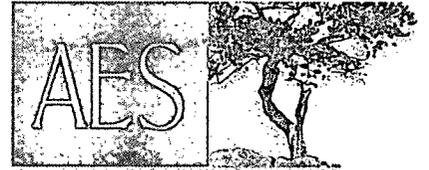
Describe Area Affected and Cleanup Action Taken.\*  
ConocoPhillips will replace tank, and will assess the soils to determine further action, if needed. **Excavation was 35' x 40' x 13' Deep. 752 c/yds of soil was transported to IEL Land Farm and 752 c/yds of clean soil was transported from Aztec Machine Company, and placed in the excavation site. Sandstone was encountered at the base of this excavation. COP received approval to backfill the excavation from Mark Kelly of the BLM and Brandon Powell from NMOCD on 7/18/2013. The soil sampling report is attached for review.**

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Lisa M. Hunter</b>	Approved by Environmental Specialist: 	
Title: <b>Field Environmental Specialist</b>	Approval Date: <b>10/17/2013</b>	Expiration Date:
E-mail Address: <b>Lisa.Hunter@cop.com</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>10/8/2013</b>	Phone: <b>505-326-9786</b>	

\* Attach Additional Sheets If Necessary

**NSR 1329035963**



Animas Environmental Services, LLC

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

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

Durango, Colorado  
970-403-3084

October 3, 2013

Lisa Hunter  
ConocoPhillips  
San Juan Business Unit  
Office 214-04  
5525 Hwy 64  
Farmington, New Mexico 87401

*Via electronic mail to:*  
[SJBUE-Team@ConocoPhillips.com](mailto:SJBUE-Team@ConocoPhillips.com)

**RE: Initial Release Assessment and Final Excavation Report  
San Juan 28-6 Unit #186N  
Rio Arriba County, New Mexico**

Dear Ms. Hunter:

On July 2 and 16, 2013, Animas Environmental Services, LLC (AES) completed an initial release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) San Juan 28-6 Unit #186N, located in Rio Arriba County, New Mexico. The release consisted of approximately 36 barrels (bbls) of produced water and 15 bbls of petroleum hydrocarbons. The initial release assessment was completed by AES on July 2, 2013. The final excavation was completed by CoP contractors while AES was on location on July 16, 2013.

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## 1.0 Site Information

### 1.1 Location

Location – NE¼ NE¼, Section 6, T27N, R6W, Rio Arriba County, New Mexico  
Well Head Latitude/Longitude – N36.60987 and W107.50052, respectively  
Release Location Latitude/Longitude – N36.61013 and W107.50059, respectively  
Land Jurisdiction – Bureau of Land Management  
Figure 1. Topographic Site Location Map  
Figure 2. Aerial Site Map, July 2013

### 1.2 NMOCD Ranking

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills,*

and Releases (August 1993) prior to site work. The location was given a ranking score of 10 based on the following factors:

- **Depth to Groundwater:** A cathodic protection report form dated May 1991 for the San Juan 28-6 #36, located approximately 1,260 feet southwest of the location and at a similar elevation, reported the depth to groundwater at 190 feet below ground surface (bgs). (0 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** Approximately 220 feet to the southeast is an unnamed wash. At 320 feet to the northwest is another unnamed wash. Both are tributaries to Encierro Canyon wash. (10 points)

### *1.3 Assessment*

AES was initially contacted by Lisa Hunter of CoP on June 27, 2013, and on July 2, 2013, Heather Woods and Jesse Christopherson of AES completed the release assessment field work. The assessment included collection and field screening of soil samples (SB-1 through SB-9) in and around the release area. Based on the field screening results, AES recommended further excavation of the release area. Sample locations are presented on Figure 3.

On July 16, 2013, AES returned to the location to collect confirmation soil samples of the excavation. The field screening activities included collection of five confirmation soil samples (SC-1 through SC-5) of the walls and base of the excavation. The area of the final excavation was approximately 44 feet by 36 feet by 15 feet in depth. Sample locations and final excavation extents are shown on Figure 4.

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## **2.0 Soil Sampling**

A total of 43 soil samples from locations SB-1 through SB-9, and 5 composite samples (SC-1 through SC-5) were collected during the assessment and final clearance of the excavation. All soil samples were field screened for volatile organic compounds (VOCs), and selected samples were also analyzed for total petroleum hydrocarbons (TPH). Three soil samples (from SB-1, SB-3, and SB-4) collected during the release assessment, in addition to three composite samples (SC-2 through SC-4) collected during the excavation clearance, were submitted for confirmation laboratory analysis.

## 2.1 Field Screening

### 2.1.1 Volatile Organic Compounds

Field screening for VOC vapors was conducted with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas.

### 2.1.2 Total Petroleum Hydrocarbons

Field TPH samples were analyzed per USEPA Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES's *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

## 2.2 Laboratory Analyses

The soil samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. All soil samples were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per U.S. Environmental Protection Agency (USEPA) Method 8021B.

In addition, soil samples SB-1, SB-3, and SB-4 were laboratory analyzed for:

- TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015D.

## 2.3 Field Screening and Laboratory Analytical Results

On July 2, 2013, initial assessment field screening results for VOCs via OVM showed concentrations ranging from 2.0 ppm in SB-9 up to 3,292 ppm in SB-4. Field TPH concentrations ranged from 49.7 mg/kg in SB-7 to greater than 2,500 mg/kg in SB-2 and SB-4.

On July 16, 2013, final excavation field screening results for VOCs via OVM ranged from 26.8 ppm in SC-5 (east wall) up to 3,103 ppm in SC-2 (base). Field TPH concentrations ranged from 54.6 mg/kg in SC-1 (west wall) up to 729 mg/kg in SC-4 (south wall). Results are included below in Table 1 and on Figures 3 and 4. The AES Field Screening Reports are attached.

Table 1. Field Screening VOCs and TPH Results  
 San Juan 28-6 Unit #186N Initial Release Assessment and Final Excavation  
 July 2013

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>	<i>Field TPH (mg/kg)</i>
		<i>NMOCD Action Level*</i>	<i>100</i>	<i>1,000</i>
SB-1	7/2/13	0	<b>2,879</b>	NA
	7/2/13	2	<b>1,266</b>	NA
	7/2/13	4	<b>1,288</b>	NA
	7/2/13	6	<b>1,156</b>	NA
	7/2/13	8	<b>1,133</b>	NA
	7/2/13	10	<b>2,057</b>	NA
	7/2/13	12	<b>2,244</b>	<b>1,710</b>
SB-2	7/2/13	0	<b>1,869</b>	<b>&gt;2,500</b>
	7/2/13	2	<b>1,424</b>	NA
	7/2/13	4	<b>1,257</b>	NA
SB-3	7/2/13	0	<b>2,871</b>	891
	7/2/13	2	28.4	NA
	7/2/13	4	53.1	NA
	7/2/13	6	7.4	NA
	7/2/13	8	31.2	NA
	7/2/13	10	7.7	NA
	7/2/13	12	12.4	NA
SB-4	7/2/13	0	<b>3,292</b>	<b>&gt;2,500</b>
	7/2/13	2	<b>1,873</b>	NA
	7/2/13	4	<b>2,005</b>	NA
	7/2/13	6	<b>1,670</b>	NA
	7/2/13	8	<b>2,952</b>	NA
	7/2/13	10	<b>2,304</b>	NA
	7/2/13	12	<b>2,262</b>	567
SB-5	7/2/13	0	6.2	NA
	7/2/13	2	15.0	62.4
	7/2/13	4	9.9	NA

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
	NMOCD Action Level*		100	1,000
SB-6	7/2/13	0	2.5	NA
	7/2/13	2	3.2	NA
	7/2/13	4	5.3	NA
	7/2/13	6	6.5	NA
	7/2/13	8	9.0	58.1
SB-7	7/2/13	0	3.3	NA
	7/2/13	2	3.0	NA
	7/2/13	4	3.1	NA
	7/2/13	6	26.0	49.7
	7/2/13	8	3.0	NA
SB-8	7/2/13	0	3.2	NA
	7/2/13	2	7.5	NA
	7/2/13	4	7.0	NA
SB-9	7/2/13	0	2.9	NA
	7/2/13	2	2.0	NA
	7/2/13	4	2.1	NA
SC-1	7/16/13	1 to 15	53.5	54.6
SC-2	7/16/13	15	<b>3,103</b>	300
SC-3	7/16/13	1 to 15	<b>2,889</b>	420
SC-4	7/16/13	1 to 15	<b>3,028</b>	729
SC-5	7/16/13	1 to 15	26.8	97.0

NA=Not Analyzed

\*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993)

Laboratory analyses for SB-1, SB-3, and SB-4 were used to confirm field screening results of the initial release assessment. Benzene concentrations were reported below laboratory detection limits in each sample. Total BTEX concentrations were reported at 28 mg/kg (SB-1), 5.3 mg/kg (SB-3), and 1.8 mg/kg (SB-4). TPH concentrations as GRO/DRO were reported at 990 mg/kg (SB-1), 500 mg/kg (SB-3), and 220 mg/kg (SB-4). Results are presented in Table 2 and on Figure 3. The laboratory analytical report is attached.

Laboratory analyses for SC-2 through SC-4 were used to confirm field screening results during excavation activities. Benzene concentrations were reported below laboratory detection limits in each sample. Total BTEX concentrations were reported at 29 mg/kg (SC-2), 2.4 mg/kg (SC-3), and 55 mg/kg (SC-4). Results are presented in Table 2 and on Figure 4. The laboratory analytical report is attached.

Table 2. Laboratory Analytical Results – Benzene and Total BTEX  
 San Juan 28-6 Unit #186N Final Excavation, July 2013

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>Benzene (mg/kg)</i>	<i>Total BTEX (mg/kg)</i>	<i>TPH-GRO (mg/kg)</i>	<i>TPH-DRO (mg/kg)</i>
<b>NMOCD Action Level*</b>			<b>10</b>	<b>50</b>	<b>1,000</b>	
SB-1	7/2/13	12	<0.93	28	730	260
SB-3	7/2/13	0	<0.24	5.3	240	260
SB-4	7/2/13	12	<0.12	1.8	110	110
SC-2	7/16/13	15	<0.12	29	NA	NA
SC-3	7/16/13	1 to 15	<0.10	2.4	NA	NA
SC-4	7/16/13	1 to 15	<0.20	<b>55</b>	NA	NA

NA = Not Analyzed.

\*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993)

### 3.0 Conclusions and Recommendations

On July 2, 2013, AES conducted an initial assessment of petroleum contaminated soils associated with a historical release at the San Juan 28-6 Unit #186N. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993), and the site was assigned a rank of 10.

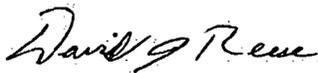
Initial assessment field screening results above the NMOCD action level of 100 ppm VOCs were reported in SB-1 through SB-4, with the highest VOC concentration reported in SB-4 with 3,292 ppm. Field screening results also showed TPH concentrations above the NMOCD action level of 1,000 mg/kg in SB-1 (1,710 mg/kg), SB-2 (>2,500 mg/kg), and SB-4 (>2,500 mg/kg). Laboratory analytical results for SB-1, SB-3, and SB-4 were used to confirm field screening results, and benzene concentrations were reported below the NMOCD action level for each sample. Total BTEX concentrations were reported below the NMOCD action level of 50 mg/kg, and TPH concentrations (as GRO/DRO) were reported below the NMOCD action level of 1,000 mg/kg in each sample.

On July 16, 2013, final assessment of the excavation area was completed. Field screening results of the excavation extents showed that VOC concentrations were below applicable NMOCD action levels for the final west and east walls of the excavation. However, the base (SC-2), north wall (SC-3), and south wall (SC-4) exceeded the NMOCD action level of 100 ppm for VOCs with 3,103 ppm, 2,889 ppm, and 3,028 ppm, respectively. Field TPH concentrations were below the applicable NMOCD action level of 1,000 mg/kg for the final walls and base of the excavation. Laboratory analytical results reported benzene and total BTEX concentrations in SC-2 and SC-3 below NMOCD action levels. However, the total BTEX concentration in SC-4 was above the NMOCD action level of 50 mg/kg with 55 mg/kg.

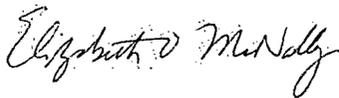
Based on the final field screening and laboratory analytical results of the excavation of petroleum contaminated soils at the San Juan 28-6 Unit #186N, benzene, total BTEX, and TPH concentrations were below the applicable NMOCD action levels for three of the final sidewalls and the base of the excavation. However, the south wall of the excavation exceeded applicable NMOCD action levels for total BTEX with 55 mg/kg. On July 18, 2013, CoP received approval to backfill the excavation from Mark Kelly of the BLM and Brandon Powell of the NMOCD. No further work is recommended at the San Juan 28-6 Unit #186N.

If you have any questions about this report or site conditions, please do not hesitate to contact Deborah Watson at (505) 564-2281.

Sincerely,



David Reese  
Environmental Scientist

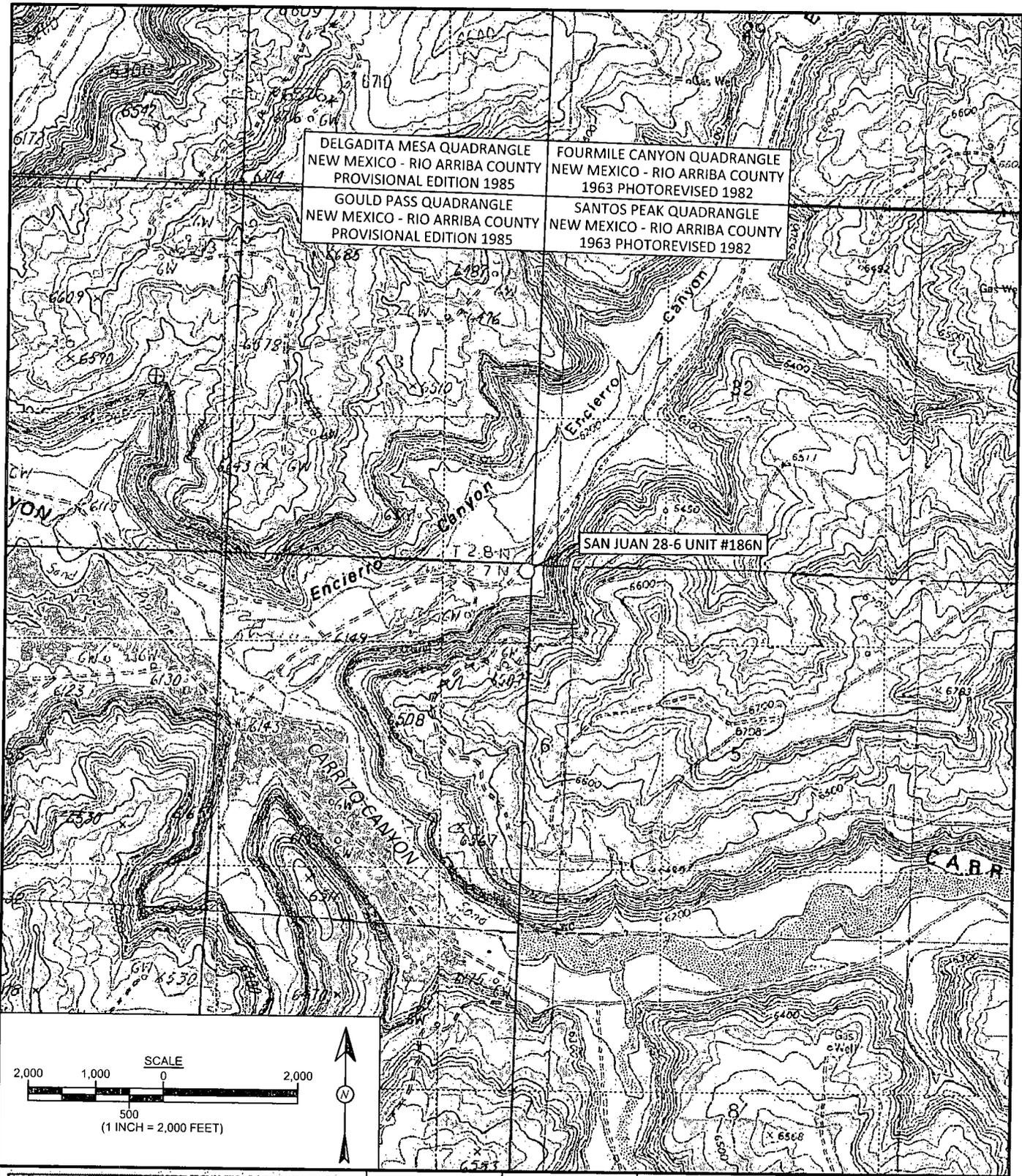


Elizabeth McNally, PE

**Attachments:**

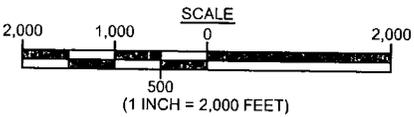
- Figure 1. Topographic Site Location Map**
- Figure 2. Aerial Site Map, July 2013**
- Figure 3. Initial Assessment Sample Locations and Results, July 2013**
- Figure 4. Final Excavation Sample Locations and Results, July 2013**
- AES Field Screening Report 070213**
- AES Field Screening Report 071613**
- Hall Laboratory Analytical Report 1307187**
- Hall Laboratory Analytical Report 1307750**

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DELGADITA MESA QUADRANGLE NEW MEXICO - RIO ARRIBA COUNTY PROVISIONAL EDITION 1985	FOURMILE CANYON QUADRANGLE NEW MEXICO - RIO ARRIBA COUNTY 1963 PHOTOREVISED 1982
GOULD PASS QUADRANGLE NEW MEXICO - RIO ARRIBA COUNTY PROVISIONAL EDITION 1985	SANTOS PEAK QUADRANGLE NEW MEXICO - RIO ARRIBA COUNTY 1963 PHOTOREVISED 1982

SAN JUAN 28-6 UNIT #186N



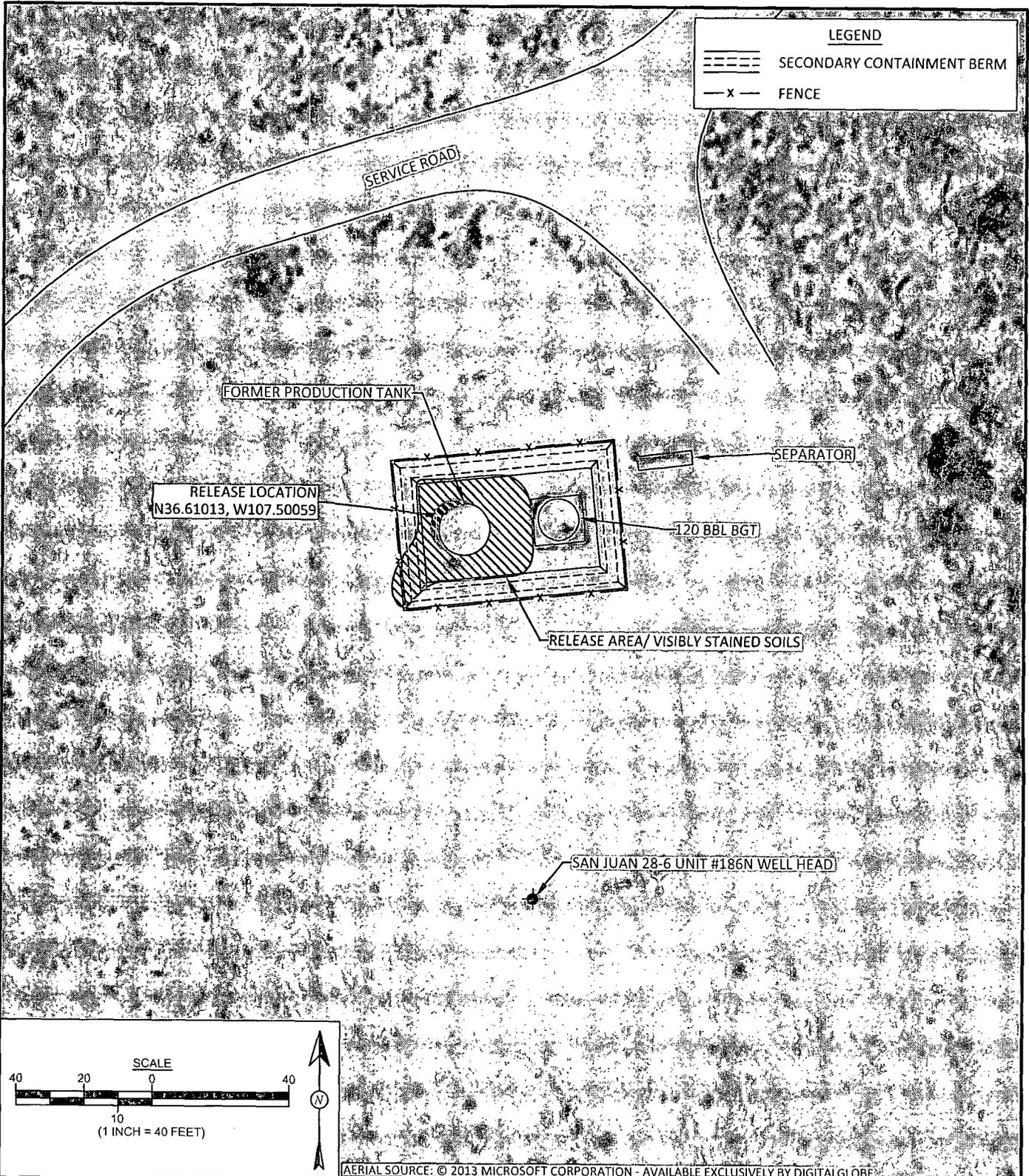
Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> July 2, 2013
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> July 2, 2013
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> July 2, 2013
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> July 2, 2013

**FIGURE 1**

**TOPOGRAPHIC SITE LOCATION MAP**

ConocoPhillips  
 SAN JUAN 28-6 UNIT #186N  
 NE¼ NE¼, SECTION 6, T27N, R6W  
 RIO ARRIBA COUNTY, NEW MEXICO  
 N36.60987, W107.50052

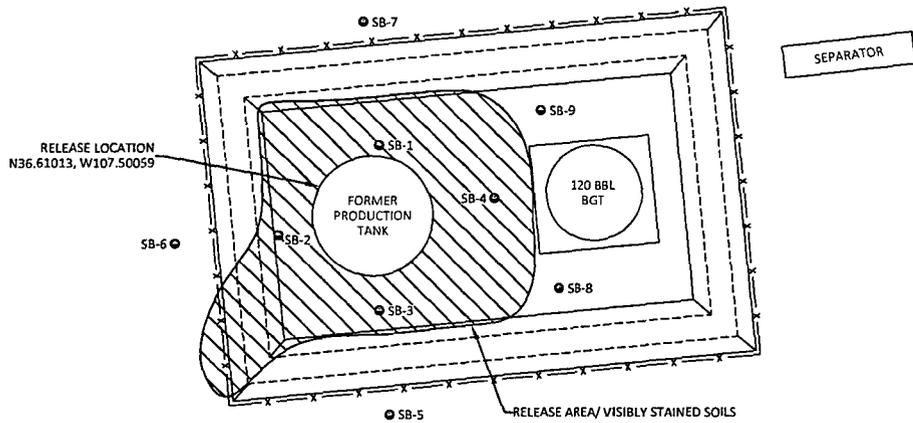


<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> July 2, 2013
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> July 2, 2013
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> July 2, 2013
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> July 2, 2013

**FIGURE 2**

**AERIAL SITE MAP  
JULY 2013**

ConocoPhillips  
SAN JUAN 28-6 UNIT #186N  
NE¼ NE¼, SECTION 6, T27N, R6W  
RIO ARRIBA COUNTY, NEW MEXICO  
N36.60987, W107.50052



Laboratory Analytical Results						
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)
NMOCD ACTION LEVEL			10	50	1,000	
SB-1	7/2/13	12	<0.93	29	730	260
SB-3	7/2/13	Surface	<0.24	5.3	240	260
SB-4	7/2/13	12	<0.12	1.8	110	110

ALL SAMPLES WERE ANALYZED PER EPA METHOD 8021B AND 8015D.

Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	1,000
SB-1	7/2/13	Surface	2,879	NA
		2	1,266	NA
		4	1,288	NA
		6	1,156	NA
		8	1,133	NA
		10	2,057	NA
SB-2	7/2/13	12	2,244	1,710
		Surface	1,869	>2,500
		2	1,424	NA
		4	1,257	NA
		6	2,871	891
		8	28.4	NA
SB-3	7/2/13	4	53.1	NA
		6	7.4	NA
		8	31.2	NA
		10	7.7	NA
		12	12.4	NA
		Surface	3,292	>2,500
SB-4	7/2/13	2	1,873	NA
		4	2,005	NA
		6	1,670	NA
		8	2,952	NA
		10	2,304	NA
		12	2,262	567
SB-5	7/2/13	Surface	6.2	NA
		2	15.0	62.4
		4	9.9	NA
SB-6	7/2/13	Surface	2.5	NA
		2	3.2	NA
		4	5.3	NA
		6	6.5	NA
		8	9.0	58.1
SB-7	7/2/13	Surface	3.3	NA
		2	3.0	NA
		4	3.1	NA
		6	26.0	49.7
		8	3.0	NA
SB-8	7/2/13	Surface	3.2	NA
		2	7.5	NA
		4	7.0	NA
SB-9	7/2/13	Surface	2.9	NA
		2	2.0	NA
		4	2.1	NA

NA - NOT ANALYZED

**FIGURE 3**

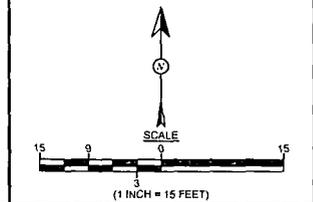
**INITIAL ASSESSMENT SAMPLE LOCATIONS AND RESULTS JULY 2013**  
 ConocoPhillips  
 SAN JUAN 28-6 UNIT #186N  
 NE¼, NE¼, SECTION 6, T27N, RW¼  
 RIO ARRIBA COUNTY, NEW MEXICO  
 N36.60987, W107.50052



Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> July 2, 2013
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> July 2, 2013
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> July 2, 2013
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> July 2, 2013

LEGEND	
●	SAMPLE LOCATIONS
====	SECONDARY CONTAINMENT BERM
-x-	FENCE



**FIGURE 4**

**FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS**  
**JULY 2013**  
 ConocoPhillips  
 SAN JUAN 28-6 UNIT #186N  
 NE¼, NE¼, SECTION 6, T27N, R6W  
 RIO ARRIBA COUNTY, NEW MEXICO  
 N36.60987, W107.50052

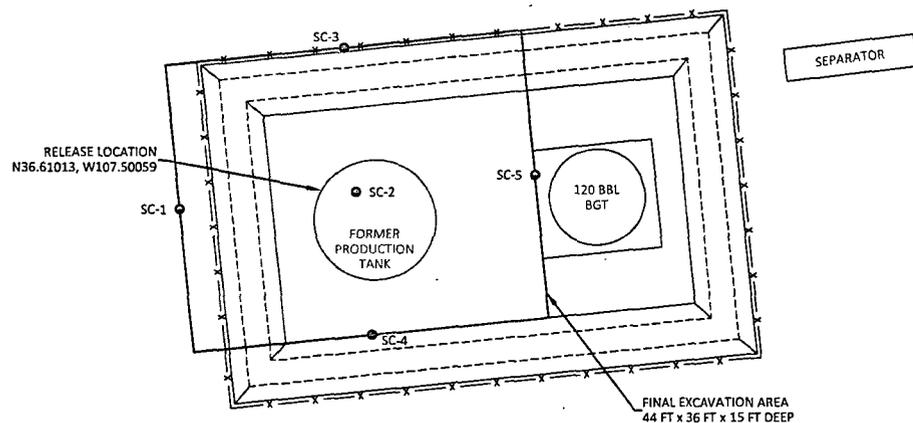


Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> July 17, 2013
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> July 17, 2013
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> July 17, 2013
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> July 17, 2013

**LEGEND**

- SAMPLE LOCATIONS
- ≡≡≡ SECONDARY CONTAINMENT BERM
- x— FENCE

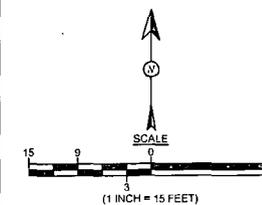


Field Screening Results				
Sample ID	Date	Depth (ft)	DVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	1,000
SC-1	7/16/13	1 to 15	53.5	54.6
SC-2	7/16/13	15	3,103	300
SC-3	7/16/13	1 to 15	2,889	420
SC-4	7/16/13	1 to 15	3,028	729
SC-5	7/16/13	1 to 15	26.8	97.0

Laboratory Analytical Results				
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)
NMOCD ACTION LEVEL			10	50
SC-2	7/16/13	15	<0.12	29
SC-3	7/16/13	1 to 15	<0.10	2.4
SC-4	7/16/13	1 to 15	<0.20	55

ALL SAMPLES WERE ANALYZED PER EPA METHOD 8021B.

SAN JUAN 28-6 UNIT #186N WELL HEAD



# AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

Client: ConocoPhillips

Project Location: SJ 28-6 Unit #186N

Date: 7/2/2013

Matrix: Soil

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

Durango, Colorado  
970-403-3084

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ 0'	7/2/2013	8:39	2,879	Not analyzed for TPH				
SB-1 @ 2'	7/2/2013	8:44	1,266	Not analyzed for TPH				
SB-1 @ 4'	7/2/2013	8:50	1,288	Not analyzed for TPH				
SB-1 @ 6'	7/2/2013	8:55	1,156	Not analyzed for TPH				
SB-1 @ 8'	7/2/2013	9:05	1,133	Not analyzed for TPH				
SB-1 @ 10'	7/2/2013	9:10	2,057	Not analyzed for TPH				
SB-1 @ 12'	7/2/2013	9:19	2,244	9:58	1,710	20.0	1	HMW
SB-2 @ 0'	7/2/2013	9:27	1,869	10:14	>2,500	20.0	1	HMW
SB-2 @ 2'	7/2/2013	9:31	1,424	Not analyzed for TPH				
SB-2 @ 4'	7/2/2013	9:36	1,257	Not analyzed for TPH				
SB-3 @ 0'	7/2/2013	9:40	2,871	10:17	891	20.0	1	HMW
SB-3 @ 2'	7/2/2013	9:42	28.4	Not analyzed for TPH				
SB-3 @ 4'	7/2/2013	9:47	53.1	Not analyzed for TPH				
SB-3 @ 6'	7/2/2013	9:55	7.4	Not analyzed for TPH				
SB-3 @ 8'	7/2/2013	10:07	31.2	Not analyzed for TPH				
SB-3 @ 10'	7/2/2013	10:55	7.7	Not analyzed for TPH				
SB-3 @ 12'	7/2/2013	10:59	12.4	Not analyzed for TPH				
SB-4 @ 0'	7/2/2013	10:12	3,292	12:46	>2,500	20.0	1	HMW
SB-4 @ 2'	7/2/2013	10:15	1,873	Not analyzed for TPH				
SB-4 @ 4'	7/2/2013	10:20	2,005	Not analyzed for TPH				
SB-4 @ 6'	7/2/2013	10:25	1,670	Not analyzed for TPH				
SB-4 @ 8'	7/2/2013	10:37	2,952	Not analyzed for TPH				

San Juan 28-6 Unit #186N

Page 1

Report Finalized: 07/02/13

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-4 @ 10'	7/2/2013	10:44	2,304	Not analyzed for TPH				
SB-4 @ 12'	7/2/2013	10:49	2,262	11:18	567	20.0	1	HMW
SB-5 @ 0'	7/2/2013	11:06	6.2	Not analyzed for TPH				
SB-5 @ 2'	7/2/2013	11:12	15.0	12:48	62.4	20.0	1	HMW
SB-5 @ 4'	7/2/2013	11:18	9.9	Not analyzed for TPH				
SB-6 @ 0'	7/2/2013	11:28	2.5	Not analyzed for TPH				
SB-6 @ 2'	7/2/2013	11:31	3.2	Not analyzed for TPH				
SB-6 @ 4'	7/2/2013	11:36	5.3	Not analyzed for TPH				
SB-6 @ 6'	7/2/2013	11:43	6.5	Not analyzed for TPH				
SB-6 @ 8'	7/2/2013	11:49	9.0	12:54	58.1	20.0	1	HMW
SB-7 @ 0'	7/2/2013	11:53	3.3	Not analyzed for TPH				
SB-7 @ 2'	7/2/2013	11:55	3.0	Not analyzed for TPH				
SB-7 @ 4'	7/2/2013	11:57	3.1	Not analyzed for TPH				
SB-7 @ 6'	7/2/2013	12:00	26.0	12:56	49.7	20.0	1	HMW
SB-7 @ 8'	7/2/2013	12:06	3.0	Not analyzed for TPH				
SB-8 @ 0'	7/2/2013	12:10	3.2	Not analyzed for TPH				
SB-8 @ 2'	7/2/2013	12:15	7.5	Not analyzed for TPH				
SB-8 @ 4'	7/2/2013	12:19	7.0	Not analyzed for TPH				
SB-9 @ 0'	7/2/2013	12:21	2.9	Not analyzed for TPH				
SB-9 @ 2'	7/2/2013	12:28	2.0	Not analyzed for TPH				
SB-9 @ 4'	7/2/2013	12:32	2.1	Not analyzed for TPH				

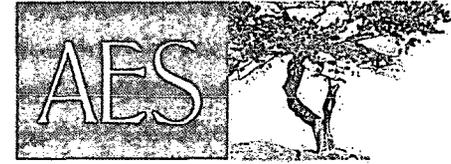
Total Petroleum Hydrocarbons - USEPA 418.1

PQL Practical Quantitation Limit  
 ND Not Detected at the Reporting Limit  
 DF Dilution Factor  
 NA Not Analyzed

Analyst:

*Heather M. Woods*

# AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

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

Durango, Colorado  
970-403-3084

Client: ConocoPhillips

Project Location: San Juan 28-6 Unit #186N

Date: 7/16/2013

Matrix: Soil

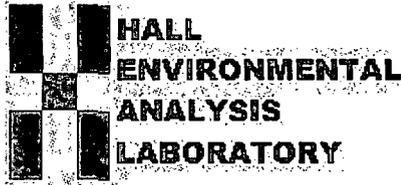
Sample ID	Collection Date	Collection Time	Sample Location	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	7/16/2013	9:22	West Wall	53.5	10:04	54.6	20.0	1	HMW
SC-2	7/16/2013	9:24	Base	3,103	10:07	300	20.0	1	HMW
SC-3	7/16/2013	10:12	North Wall	2,889	10:29	420	20.0	1	HMW
SC-4	7/16/2013	10:33	South Wall	3,028	10:58	729	20.0	1	HMW
SC-5	7/16/2013	10:44	East Wall	26.8	10:54	97.0	20.0	1	HMW

Total Petroleum Hydrocarbons - USEPA 418.1

- PQL Practical Quantitation Limit
- ND Not Detected at the Reporting Limit
- DF Dilution Factor
- NA Not Analyzed

Analyst:

*Leather M. Woods*



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, 2013

Debbie Watson

Animas Environmental  
624 East Comanche  
Farmington, NM 87401  
TEL: (505) 486-4071  
FAX

RE: COP San Juan 28-6 #186N

OrderNo.: 1307187

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 7/3/2013 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. In order to properly interpret your results it is imperative that you review this report in its entirety. 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. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. 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.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Analytical Report

Lab Order 1307187

Date Reported: 7/10/2013

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SB-1 @ 12'

Project: COP San Juan 28-6 #186N

Collection Date: 7/2/2013 9:19:00 AM

Lab ID: 1307187-001

Matrix: SOIL

Received Date: 7/3/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	260	10		mg/Kg	1	7/8/2013 5:20:09 PM	8225
Surr: DNOP	100	63-147		%REC	1	7/8/2013 5:20:09 PM	8225
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	730	93		mg/Kg	20	7/5/2013 7:12:15 PM	8230
Surr: BFB	220	80-120	S	%REC	20	7/5/2013 7:12:15 PM	8230
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.93		mg/Kg	20	7/5/2013 7:12:15 PM	8230
Toluene	1.9	0.93		mg/Kg	20	7/5/2013 7:12:15 PM	8230
Ethylbenzene	3.5	0.93		mg/Kg	20	7/5/2013 7:12:15 PM	8230
Xylenes, Total	23	1.9		mg/Kg	20	7/5/2013 7:12:15 PM	8230
Surr: 4-Bromofluorobenzene	118	80-120		%REC	20	7/5/2013 7:12:15 PM	8230

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* 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
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Animas Environmental

Client Sample ID: SB-3 @ Surface

Project: COP San Juan 28-6 #186N

Collection Date: 7/2/2013 9:40:00 AM

Lab ID: 1307187-002

Matrix: SOIL

Received Date: 7/3/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	260	10		mg/Kg	1	7/8/2013 5:42:03 PM	8225
Surr: DNOP	102	63-147		%REC	1	7/8/2013 5:42:03 PM	8225
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	240	24		mg/Kg	5	7/5/2013 10:13:21 PM	8230
Surr: BFB	337	80-120	S	%REC	5	7/5/2013 10:13:21 PM	8230
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.24		mg/Kg	5	7/5/2013 10:13:21 PM	8230
Toluene	0.30	0.24		mg/Kg	5	7/5/2013 10:13:21 PM	8230
Ethylbenzene	1.1	0.24		mg/Kg	5	7/5/2013 10:13:21 PM	8230
Xylenes, Total	3.9	0.47		mg/Kg	5	7/5/2013 10:13:21 PM	8230
Surr: 4-Bromofluorobenzene	122	80-120	S	%REC	5	7/5/2013 10:13:21 PM	8230

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Animas Environmental**Client Sample ID:** SB-4 @ 12'**Project:** COP San Juan 28-6 #186N**Collection Date:** 7/2/2013 10:49:00 AM**Lab ID:** 1307187-003**Matrix:** SOIL**Received Date:** 7/3/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	110	9.9		mg/Kg	1	7/8/2013 6:03:55 PM	8225
Surr: DNOP	101	63-147		%REC	1	7/8/2013 6:03:55 PM	8225
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	110	24		mg/Kg	5	7/8/2013 12:42:37 PM	8230
Surr: BFB	208	80-120	S	%REC	5	7/8/2013 12:42:37 PM	8230
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.12		mg/Kg	5	7/8/2013 12:42:37 PM	8230
Toluene	ND	0.24		mg/Kg	5	7/8/2013 12:42:37 PM	8230
Ethylbenzene	0.60	0.24		mg/Kg	5	7/8/2013 12:42:37 PM	8230
Xylenes, Total	1.2	0.48		mg/Kg	5	7/8/2013 12:42:37 PM	8230
Surr: 4-Bromofluorobenzene	113	80-120		%REC	5	7/8/2013 12:42:37 PM	8230

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1307187

10-Jul-13

**Client:** Animas Environmental  
**Project:** COP San Juan 28-6 #186N

Sample ID <b>MB-8225</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>8225</b>		RunNo: <b>11753</b>							
Prep Date: <b>7/3/2013</b>	Analysis Date: <b>7/5/2013</b>		SeqNo: <b>333912</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.0		10.00		90.4	63	147			

Sample ID <b>LCS-8225</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>8225</b>		RunNo: <b>11753</b>							
Prep Date: <b>7/3/2013</b>	Analysis Date: <b>7/5/2013</b>		SeqNo: <b>333913</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	102	77.1	128			
Surr: DNOP	4.7		5.000		93.3	63	147			

Sample ID <b>MB-8234</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>8234</b>		RunNo: <b>11775</b>							
Prep Date: <b>7/5/2013</b>	Analysis Date: <b>7/8/2013</b>		SeqNo: <b>334862</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.9		10.00		98.6	63	147			

Sample ID <b>LCS-8234</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>8234</b>		RunNo: <b>11775</b>							
Prep Date: <b>7/5/2013</b>	Analysis Date: <b>7/8/2013</b>		SeqNo: <b>334863</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.000		103	63	147			

Sample ID <b>1307154-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>8225</b>		RunNo: <b>11775</b>							
Prep Date: <b>7/3/2013</b>	Analysis Date: <b>7/8/2013</b>		SeqNo: <b>334866</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.05	0	84.5	61.3	138			
Surr: DNOP	4.6		5.005		92.8	63	147			

Sample ID <b>1307154-001AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>8225</b>		RunNo: <b>11775</b>							
Prep Date: <b>7/3/2013</b>	Analysis Date: <b>7/8/2013</b>		SeqNo: <b>334944</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.9	49.65	0	93.5	61.3	138	9.30	20	
Surr: DNOP	5.3		4.965		106	63	147	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- 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
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1307187

10-Jul-13

**Client:** Animas Environmental  
**Project:** COP San Juan 28-6 #186N

Sample ID	1307197-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	8234	RunNo:	11775					
Prep Date:	7/5/2013	Analysis Date:	7/8/2013	SeqNo:	335013	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		4.990		90.3	63	147			

Sample ID	1307197-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	8234	RunNo:	11775					
Prep Date:	7/5/2013	Analysis Date:	7/9/2013	SeqNo:	335014	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		4.955		94.3	63	147	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- 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
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1307187

10-Jul-13

**Client:** Animas Environmental  
**Project:** COP San Juan 28-6 #186N

Sample ID	<b>MB-8230</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>R11754</b>	RunNo:	<b>11754</b>					
Prep Date:	<b>7/3/2013</b>	Analysis Date:	<b>7/5/2013</b>	SeqNo:	<b>334485</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	910		1000		91.4	80	120			

Sample ID	<b>LCS-8230</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>R11754</b>	RunNo:	<b>11754</b>					
Prep Date:	<b>7/3/2013</b>	Analysis Date:	<b>7/5/2013</b>	SeqNo:	<b>334486</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	980		1000		97.6	80	120			

Sample ID	<b>MB-8230</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>8230</b>	RunNo:	<b>11754</b>					
Prep Date:	<b>7/3/2013</b>	Analysis Date:	<b>7/5/2013</b>	SeqNo:	<b>334494</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.4	80	120			

Sample ID	<b>LCS-8230</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>8230</b>	RunNo:	<b>11754</b>					
Prep Date:	<b>7/3/2013</b>	Analysis Date:	<b>7/5/2013</b>	SeqNo:	<b>334495</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.7	62.6	136			
Surr: BFB	980		1000		97.6	80	120			

Sample ID	<b>1307177-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>8230</b>	RunNo:	<b>11754</b>					
Prep Date:	<b>7/3/2013</b>	Analysis Date:	<b>7/5/2013</b>	SeqNo:	<b>334497</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.8	23.83	3.646	96.7	76	156			
Surr: BFB	970		953.3		101	80	120			

Sample ID	<b>1307177-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>8230</b>	RunNo:	<b>11754</b>					
Prep Date:	<b>7/3/2013</b>	Analysis Date:	<b>7/5/2013</b>	SeqNo:	<b>334498</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.8	23.81	3.646	84.7	76	156	11.4	17.7	
Surr: BFB	960		952.4		101	80	120	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- 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
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1307187

10-Jul-13

Client: Animas Environmental  
Project: COP San Juan 28-6 #186N

Sample ID	<b>MB-8237</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>R11797</b>	RunNo:	<b>11797</b>					
Prep Date:	<b>7/5/2013</b>	Analysis Date:	<b>7/8/2013</b>	SeqNo:	<b>335178</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	920		1000		91.7	80	120			

Sample ID	<b>LCS-8237</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>R11797</b>	RunNo:	<b>11797</b>					
Prep Date:	<b>7/5/2013</b>	Analysis Date:	<b>7/8/2013</b>	SeqNo:	<b>335180</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		99.4	80	120			

Sample ID	<b>MB-8237</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>8237</b>	RunNo:	<b>11797</b>					
Prep Date:	<b>7/5/2013</b>	Analysis Date:	<b>7/8/2013</b>	SeqNo:	<b>335184</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	920		1000		91.7	80	120			

Sample ID	<b>LCS-8237</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>8237</b>	RunNo:	<b>11797</b>					
Prep Date:	<b>7/5/2013</b>	Analysis Date:	<b>7/8/2013</b>	SeqNo:	<b>335185</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		99.4	80	120			

Sample ID	<b>1307210-002AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>8237</b>	RunNo:	<b>11797</b>					
Prep Date:	<b>7/5/2013</b>	Analysis Date:	<b>7/8/2013</b>	SeqNo:	<b>335188</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	950		943.4		101	80	120			

Sample ID	<b>1307210-002AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>8237</b>	RunNo:	<b>11797</b>					
Prep Date:	<b>7/5/2013</b>	Analysis Date:	<b>7/8/2013</b>	SeqNo:	<b>335189</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	940		945.2		99.1	80	120	0	0	

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- 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
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1307187

10-Jul-13

**Client:** Animas Environmental  
**Project:** COP San Juan 28-6 #186N

Sample ID <b>MB-8230</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>R11754</b>	RunNo: <b>11754</b>								
Prep Date: <b>7/3/2013</b>	Analysis Date: <b>7/5/2013</b>	SeqNo: <b>334513</b>	Units: <b>%REC</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		105	80	120			

Sample ID <b>LCS-8230</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>R11754</b>	RunNo: <b>11754</b>								
Prep Date: <b>7/3/2013</b>	Analysis Date: <b>7/5/2013</b>	SeqNo: <b>334514</b>	Units: <b>%REC</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID <b>MB-8230</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>8230</b>	RunNo: <b>11754</b>								
Prep Date: <b>7/3/2013</b>	Analysis Date: <b>7/5/2013</b>	SeqNo: <b>334522</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		105	80	120			

Sample ID <b>LCS-8230</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>8230</b>	RunNo: <b>11754</b>								
Prep Date: <b>7/3/2013</b>	Analysis Date: <b>7/5/2013</b>	SeqNo: <b>334523</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.050	1.000	0	92.0	80	120			
Toluene	0.90	0.050	1.000	0	89.6	80	120			
Ethylbenzene	0.91	0.050	1.000	0	91.2	80	120			
Xylenes, Total	2.8	0.10	3.000	0	93.1	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID <b>1307185-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>8230</b>	RunNo: <b>11754</b>								
Prep Date: <b>7/3/2013</b>	Analysis Date: <b>7/5/2013</b>	SeqNo: <b>334527</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.046	0.9276	0	96.5	67.3	145			
Toluene	0.89	0.046	0.9276	0.01846	93.6	66.8	144			
Ethylbenzene	0.91	0.046	0.9276	0	98.4	61.9	153			
Xylenes, Total	2.8	0.093	2.783	0.04212	98.0	65.8	149			
Surr: 4-Bromofluorobenzene	1.0		0.9276		111	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- 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
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1307187

10-Jul-13

Client: Animas Environmental  
Project: COP San Juan 28-6 #186N

Sample ID	1307185-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BatchQC	Batch ID:	8230	RunNo:	11754					
Prep Date:	7/3/2013	Analysis Date:	7/5/2013	SeqNo:	334528	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.046	0.9285	0	94.6	67.3	145	1.85	20	
Toluene	0.86	0.046	0.9285	0.01846	91.0	66.8	144	2.75	20	
Ethylbenzene	0.90	0.046	0.9285	0	97.0	61.9	153	1.27	20	
Xylenes, Total	2.7	0.093	2.786	0.04212	97.0	65.8	149	0.863	20	
Surr: 4-Bromofluorobenzene	1.0		0.9285		107	80	120	0	0	

Sample ID	MB-8237	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R11797	RunNo:	11797					
Prep Date:	7/5/2013	Analysis Date:	7/8/2013	SeqNo:	335206	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID	LCS-8237	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R11797	RunNo:	11797					
Prep Date:	7/5/2013	Analysis Date:	7/8/2013	SeqNo:	335207	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID	MB-8237	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	8237	RunNo:	11797					
Prep Date:	7/5/2013	Analysis Date:	7/8/2013	SeqNo:	335218	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID	LCS-8237	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	8237	RunNo:	11797					
Prep Date:	7/5/2013	Analysis Date:	7/8/2013	SeqNo:	335219	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID	1307210-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BatchQC	Batch ID:	8237	RunNo:	11797					
Prep Date:	7/5/2013	Analysis Date:	7/8/2013	SeqNo:	335225	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		0.9615		106	80	120			

### Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- 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
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1307187

10-Jul-13

**Client:** Animas Environmental  
**Project:** COP San Juan 28-6 #186N

Sample ID	1307210-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BatchQC	Batch ID:	8237	RunNo:	11797					
Prep Date:	7/5/2013	Analysis Date:	7/8/2013	SeqNo:	335227	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref.Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		0.9606		108	80	120	0	0	

## Qualifiers:

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- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- 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
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

**Sample Log-In Check List**

Client Name: Animas Environmental

Work Order Number: 1307187

RcptNo: 1

Received by/date: MG 07/03/13

Logged By: Anne Thorne 7/3/2013 10:00:00 AM

*Anne Thorne*

Completed By: Anne Thorne 7/3/2013

*Anne Thorne*

Reviewed By: IO 07/03/13

**Chain of Custody**

- 1. Custody seals intact on sample bottles? Yes  No  Not Present
- 2. Is Chain of Custody complete? Yes  No  Not Present
- 3. How was the sample delivered? Courier

**Log In**

- 4. Was an attempt made to cool the samples? Yes  No  NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No
- 9. Was preservative added to bottles? Yes  No  NA
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No
- 12. Does paperwork match bottle labels? Yes  No   
(Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met? Yes  No   
(If no, notify customer for authorization.)

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

**Special Handling (if applicable)**

- 16. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

17. Additional remarks:

**18. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			





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 18, 2013

Debbie Watson  
Animas Environmental  
624 East Comanche  
Farmington, NM 87401  
TEL: (505) 486-4071  
FAX

RE: CoP San Juan 28-6 #186N

OrderNo.: 1307750

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 7/17/2013 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. In order to properly interpret your results it is imperative that you review this report in its entirety. 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. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. 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.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Analytical Report

Lab Order 1307750

Date Reported: 7/18/2013

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-2

Project: CoP San Juan 28-6 #186N

Collection Date: 7/16/2013 9:24:00 AM

Lab ID: 1307750-001

Matrix: SOIL

Received Date: 7/17/2013 9:51:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	7/17/2013 2:42:39 PM	R11998
Toluene	4.0	0.25		mg/Kg	5	7/17/2013 2:42:39 PM	R11998
Ethylbenzene	2.2	0.25		mg/Kg	5	7/17/2013 2:42:39 PM	R11998
Xylenes, Total	23	0.50		mg/Kg	5	7/17/2013 2:42:39 PM	R11998
Surr: 4-Bromofluorobenzene	91.6	80-120		%REC	5	7/17/2013 2:42:39 PM	R11998

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Animas Environmental

Client Sample ID: SC-3

Project: CoP San Juan 28-6 #186N

Collection Date: 7/16/2013 10:12:00 AM

Lab ID: 1307750-002

Matrix: SOIL

Received Date: 7/17/2013 9:51:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.10		mg/Kg	4	7/17/2013 1:45:12 PM	R11998
Toluene	0.42	0.20		mg/Kg	4	7/17/2013 1:45:12 PM	R11998
Ethylbenzene	ND	0.20		mg/Kg	4	7/17/2013 1:45:12 PM	R11998
Xylenes, Total	2.0	0.40		mg/Kg	4	7/17/2013 1:45:12 PM	R11998
Surr: 4-Bromofluorobenzene	108	80-120		%REC	4	7/17/2013 1:45:12 PM	R11998

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	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
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Animas Environmental  
 Project: CoP San Juan 28-6 #186N  
 Lab ID: 1307750-003

Client Sample ID: SC-4  
 Collection Date: 7/16/2013 10:33:00 AM  
 Matrix: SOIL  
 Received Date: 7/17/2013 9:51:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.20		mg/Kg	10	7/17/2013 2:13:55 PM	R11998
Toluene	7.0	0.50		mg/Kg	10	7/17/2013 2:13:55 PM	R11998
Ethylbenzene	4.2	0.50		mg/Kg	10	7/17/2013 2:13:55 PM	R11998
Xylenes, Total	44	1.0		mg/Kg	10	7/17/2013 2:13:55 PM	R11998
Surr: 4-Bromofluorobenzene	105	80-120		%REC	10	7/17/2013 2:13:55 PM	R11998

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* 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
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1307750

18-Jul-13

Client: Animas Environmental  
Project: CoP San Juan 28-6 #186N

Sample ID	<b>MB-8404</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>R11998</b>	RunNo:	<b>11998</b>					
Prep Date:	<b>7/16/2013</b>	Analysis Date:	<b>7/17/2013</b>	SeqNo:	<b>341937</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID	<b>LCS-8404</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>R11998</b>	RunNo:	<b>11998</b>					
Prep Date:	<b>7/16/2013</b>	Analysis Date:	<b>7/17/2013</b>	SeqNo:	<b>341938</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	104	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- 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
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

**Sample Log-In Check List**

Client Name: Animas Environmental

Work Order Number: 1307750

RcptNo: 1

Received by/date: [Signature] 07/17/13

Logged By: Anne Thorne 7/17/2013 9:51:00 AM [Signature]

Completed By: Anne Thorne 7/17/2013 [Signature]

Reviewed By: [Signature] 07/17/13

**Chain of Custody**

- 1. Custody seals intact on sample bottles? Yes  No  Not Present
- 2. Is Chain of Custody complete? Yes  No  Not Present
- 3. How was the sample delivered? Courier

**Log In**

- 4. Was an attempt made to cool the samples? Yes  No  NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No
- 9. Was preservative added to bottles? Yes  No  NA
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No
- 12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes  No
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. 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)**

- 16. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
Regarding: \_\_\_\_\_  
Client Instructions: \_\_\_\_\_

17. Additional remarks:

**18. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

# Chain-of-Custody Record

Client: Animas Environmental Services

Mailing Address: 624 E. Comanche  
Farmington, NM 87401

Phone #: 505-564-2281

email or Fax#:

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

Accreditation  
 NELAP       Other \_\_\_\_\_

EDD (Type) \_\_\_\_\_

Turn-Around Time:  
 Standard       Rush Same Day

Project Name: COP San Juan 28-6 #186N

Project #:

Project Manager: D. Watson

Sampler: H. Woods / J. Christopherson

On Ice:  Yes       No

Sample Temperature: 10



## 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	HEAL No	BTEX + MTBE + TPH (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)
7/16/13	924	Soil	SC-2	MeOH Kit / 1-Vol	MeOH / Non	1307750	X										
7/16/13	1012	Soil	SC-3	MeOH Kit / 1-Vol	MeOH / Non	1307750	X										
7/16/13	1033	Soil	SC-4	MeOH Kit / 1-Vol	MeOH / Non	1307750	X										

Date: 7/16/13 Time: 1710 Relinquished by: Heather M. Woods

Date: 7/16/13 Time: 1740 Relinquished by: Christina Woelen

Received by: Christina Woelen Date: 7/16/13 Time: 1710

Received by: [Signature] Date: 07/17/13 Time: 0951

Remarks: Bill to ConocoPhillips

WO: 91664228      Ordered by: Eric Smith

Supervisor: Mike Smith      Area: 23

Activity: DISO

User: KGARCIA

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 noted on the analytical report.