

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

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

OIL CONS. DIV DIST. 3

Form C-141  
Revised August 8, 2011

DEC 12 2014  
Submit 1 Copy to appropriate District Office to  
accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company <b>Burlington Resources Oil &amp; Gas Company</b>	Contact
Address <b>3401 East 30<sup>th</sup> St, Farmington, NM</b>	Telephone No. <b>(505) 599-4089</b>
Facility Name: <b>Angel Peak B 24E</b>	Facility Type: <b>Gas Well</b>
Surface Owner <b>SF-047017 B</b>	Mineral Owner <b>BLM</b>
API No. <b>3004525531</b>	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<b>I</b>	<b>13</b>	<b>28N</b>	<b>11W</b>	<b>1680'</b>	<b>South Line</b>	<b>850'</b>	<b>East Line</b>	<b>San Juan</b>

Latitude 36.6311 Longitude -107.94681

**NATURE OF RELEASE**

Type of Release <b>Hydrocarbon/Produced Water</b>	Volume of Release <b>0.4 bbl/0.1 bbl</b>	Volume Recovered <b>2 gal/1.5 gal</b>
Source of Release <b>dumpline to production tank</b>	Date and Hour of Occurrence <b>Unknown</b>	Date and Hour of Discovery <b>7/23/2014 8:27 AM</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* <b>MSO discovered spill on location, well was shut in and spec truck pulled standing liquid, the split line was replaced. Hydrovac truck was contacted to pick up contaminated soil. This process lead COP to discover a much larger historic spill.</b>		
Describe Area Affected and Cleanup Action Taken.* <b>Historical hydrocarbon impacted soil was found during the remediation efforts on this location. The excavation was 13'x 4' x 5' and 18 c/yds of soil was transported to Envirotech landfarm. All final samples were below regulatory standards; no further remediation necessary. The soil sampling report is attached for review.</b>		

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: <i>Lindsay Dumas</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Lindsay Dumas	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: <b>Field Environmental Specialist</b>	Approval Date: <i>11/13/15</i>	Expiration Date:
E-mail Address: Lindsay.Dumas@cop.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 11/25/2014 Phone: 505-599-4089		

\* Attach Additional Sheets If Necessary

# NCS 1501342219

(32)



November 21, 2014

Lindsay Dumas  
ConocoPhillips  
San Juan Business Unit  
Office 214-07  
5525 Hwy 64  
Farmington, New Mexico 87401

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

**RE: Release Assessment and Final Excavation Report  
Angel Peak B24E  
San Juan County, New Mexico**

Dear Ms. Dumas:

On October 13 and 22, 2014, Animas Environmental Services, LLC (AES) completed an initial release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) Angel Peak B24E, located in San Juan County, New Mexico. Historic contamination was discovered during the cleanup of a release (below reportable limits) at the location. The initial release assessment was completed by AES on October 13, 2014, and the final excavation was completed by CoP contractors while AES was at the location on October 22, 2014.

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## 1.0 Site Information

### 1.1 Location

Site Name – Angel Peak B24E  
Location – NE¼ SE¼, Section 13, T28N, R11W, San Juan County, New Mexico  
Well Head Latitude/Longitude – N36.65969 and W107.94906, respectively  
Release Location Latitude/Longitude – N36.65966 and W107.94888, respectively  
Land Jurisdiction – Bureau of Land Management (BLM)  
Figure 1. Topographic Site Location Map  
Figure 2. Aerial Site Map, October 2014

604 W. Piñon St.  
Farmington, NM 87401  
505-564-2281

1911 Main, Ste 280  
Durango, CO  
970-403-3084

## 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 release was given a ranking score of 0 based on the following factors:

- **Depth to Groundwater:** Based on elevation, topographic interpretation, and visual reconnaissance, depth to groundwater is interpreted to be greater than 100 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:** A livestock pond is located approximately 1,500 feet to the south-southwest. (0 points)

## 1.3 Assessment

AES was initially contacted by Lindsay Dumas of CoP on October 8, 2014, and on October 13, 2014, Emilee Skyles and Dylan Davis of AES completed the release assessment field work. The assessment included collection and field sampling of 33 soil samples from 13 borings in and around the release area. Soil borings were terminated between two and seven feet. Based on the field sampling results, AES recommended excavation of the release area. Sample locations are shown on Figure 3.

On October 22, 2014, AES returned to the location to collect confirmation soil samples of the excavation. The field sampling activities included collection of four confirmation soil samples from the walls and base of the excavation. The area of the final excavation (by hydrovac) measured approximately 13 feet by 4 feet by 5 feet in depth. Sample locations and final excavation extents are presented on Figure 4.

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## 2.0 Soil Sampling

A total of 33 soil samples from 13 borings (SB-1 through SB-13) and four composite samples (SC-1 through SC-4) were collected during the assessments. All soil samples (except SC-1) were field screened for volatile organic compounds (VOCs), and selected samples were also analyzed for total petroleum hydrocarbons (TPH). One sample (SB-3) collected during the initial assessment and four composite samples (SC-1 through SC-4) collected during the excavation clearance were submitted for confirmation laboratory analysis.

## 2.1 Field Sampling

### 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 U.S. Environmental Protection Agency (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 USEPA Method 8021B; and
- TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015D.

## 2.3 Field and Laboratory Analytical Results

On October 13, 2014, initial assessment field screening results for VOCs via OVM showed concentrations ranging from 0.6 ppm in SB-13 up to 1,967 ppm in SB-3. Field TPH concentrations ranged from 21.7 mg/kg in SB-8 up to greater than 25,000 mg/kg in SB-9.

On October 22, 2014, final excavation field screening results for VOCs via OVM ranged from 0.2 ppm in SC-2 up to 0.4 ppm in SC-3. Field TPH concentrations ranged from 21.4 mg/kg in SC-3 up to 31.4 mg/kg in SC-1. Results are included below in Table 1 and on Figures 3 and 4. The AES Field Sampling Reports are attached.

Table 1. Field Sampling VOCs and TPH Results  
 Angel Peak B24E Initial Release Assessment and Final Excavation, October 2014

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>	<i>TPH 418.1 (mg/kg)</i>
<i>NMOC Action Level*</i>			100	5,000
SB-1	10/13/14	1	2.0	35.8
		2	1.9	NA
		4	1.8	82.5
		6	2.2	NA
SB-2	10/13/14	Surface	1.5	NA
		2	1.6	NA
		4	1.9	42.9
SB-3	10/13/14	Surface	1.2	NA
		2	<b>1,967</b>	<b>5,730</b>
		4	<b>106</b>	183
		6	8.6	NA
SB-4	10/13/14	3	1.4	NA
		5	1.6	47.1
		7	1.2	NA
SB-5	10/13/14	Surface	1.4	NA
		2	0.8	31.5
		4	0.9	NA
SB-6	10/13/14	Surface	1.1	NA
		2	1.5	28.7
SB-7	10/13/14	4	1.5	NA
		2	2.0	61.3
SB-8	10/13/14	2	0.8	21.7
		4	0.7	NA
SB-9	10/13/14	1	<b>260</b>	<b>15,800</b>
		4	<b>1,955</b>	<b>&gt;25,000</b>
		6	4.6	35.8
SB-10	10/13/14	1	1.1	194

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>	<i>TPH 418.1 (mg/kg)</i>
<i>NMOCD Action Level*</i>			100	5,000
		2	1.0	NA
		4	1.1	30.1
SB-11	10/13/14	2	0.8	NA
SB-12	10/13/14	2	1.0	NA
SB-13	10/13/14	2	0.6	NA
SC-1	10/22/14	0 to 5	NA	31.4
SC-2	10/22/14	0 to 5	0.2	24.2
SC-3	10/22/14	0 to 5	0.4	21.4
SC-4	10/22/14	5	0.3	28.5

NA - not analyzed

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

Laboratory analyses for SB-3 were used to confirm field sampling results of the initial release assessment. Benzene concentrations were reported below laboratory detection limits, and total BTEX concentrations were reported as 3.3 mg/kg. TPH concentrations as GRO/DRO were reported at 1,660 mg/kg.

Laboratory analyses for SC-1 through SC-4 were used to confirm field sampling results from the final excavation. Benzene and total BTEX concentrations in SC-1 through SC-4 were reported below laboratory detection limits in all samples. TPH concentrations as GRO/DRO were reported at 11 mg/kg in SC-1 and below laboratory detection limits in SC-2 through SC-4. Results are presented in Table 2 and on Figure 4. The laboratory analytical reports are attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, and TPH  
 Angel Peak B24E Initial Release Assessment and Final Excavation, October 2014

<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>GRO (mg/kg)</i>	<i>DRO (mg/kg)</i>
<i>NMOCD Action Level*</i>			10	50	5,000	
SB-3	10/13/14	2	<0.049	3.3	160	1,500
SC-1	10/22/14	0 to 5	<0.049	<0.245	<4.9	11
SC-2	10/22/14	0 to 5	<0.046	<0.230	<4.6	<10

<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>GRO (mg/kg)</i>	<i>DRO (mg/kg)</i>
SC-3	10/22/14	0 to 5	<0.048	<0.240	<4.8	<9.8
SC-4	10/22/14	5	<0.050	<0.249	<5.0	<9.9

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

### 3.0 Conclusions and Recommendations

On October 13, 2014, AES conducted an initial assessment of petroleum contaminated soils associated with historic contamination at the Angel Peak B24E. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the site was assigned a rank of 0.

Initial assessment field sampling results above the NMOCD action level of 100 ppm VOCs and 5,000 mg/kg TPH were reported in SB-3 and SB-9. The highest VOC concentration was reported in SB-3 with 1,967 ppm, and the highest TPH concentration was reported in SB-9 with greater than 25,000 mg/kg.

Laboratory analyses for SB-3 were used to confirm field sampling results. Benzene and total BTEX concentrations were reported below the NMOCD action levels of 10 mg/kg and 50 mg/kg, respectively. TPH concentrations as GRO/DRO were reported at 1,660 mg/kg, below the NMOCD action level of 5,000 mg/kg.

On October 22, 2014, final clearance of the excavation area was completed. Field sampling results of the excavation extents showed that VOC concentrations were below applicable NMOCD action levels for the final walls and base of the excavation. Field TPH concentrations were below the applicable NMOCD action level of 5,000 mg/kg. Laboratory analytical results reported benzene, total BTEX, and TPH concentrations (as GRO/DRO) in SC-1 through SC-4 also below NMOCD action levels.

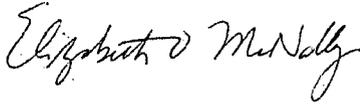
Based on final field sampling and laboratory analytical results of the excavation of petroleum contaminated soils at the Angel Peak B24E, VOC, benzene, total BTEX, and TPH concentrations were below applicable NMOCD action levels for each of the sidewalls and base of the excavation. No further work is recommended.

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

Sincerely,



David J. Reese  
Environmental Scientist

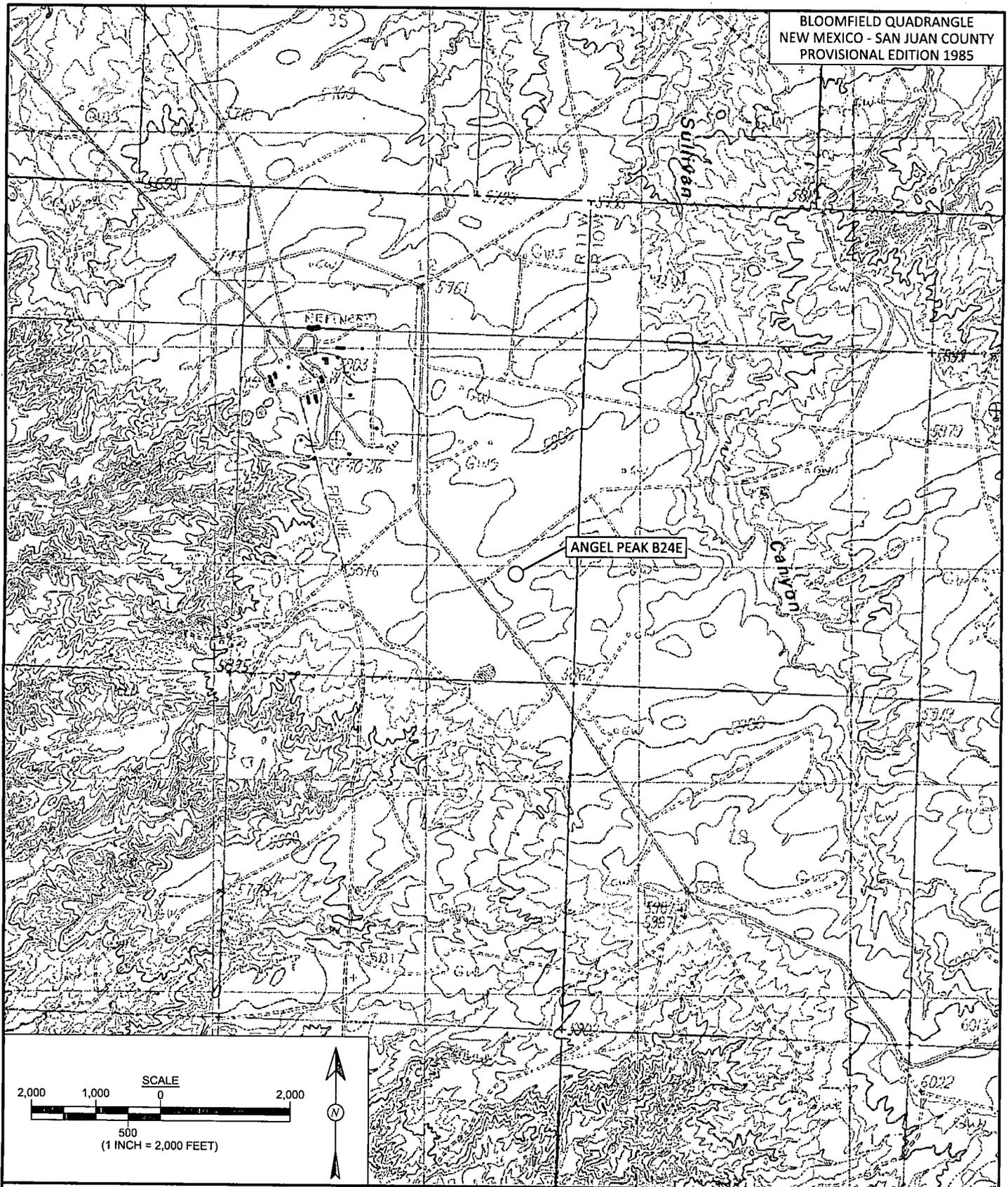


Elizabeth McNally, PE

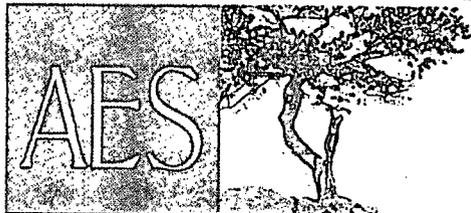
Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, October 2014
- Figure 3. Initial Assessment Sample Locations and Results, October 2014
- Figure 4. Final Excavation Sample Locations and Results, October 2014
- AES Field Sampling Report 101314
- AES Field Sampling Report 102214
- Hall Laboratory Analytical Report 1410600
- Hall Laboratory Analytical Report 1410B10

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Projects\ConocoPhillips\Angel Peak B24E\Angel Peak B24E Release and Final Excavation Report 112114.docx



SCALE  
 2,000 1,000 0 2,000  
 500  
 (1 INCH = 2,000 FEET)



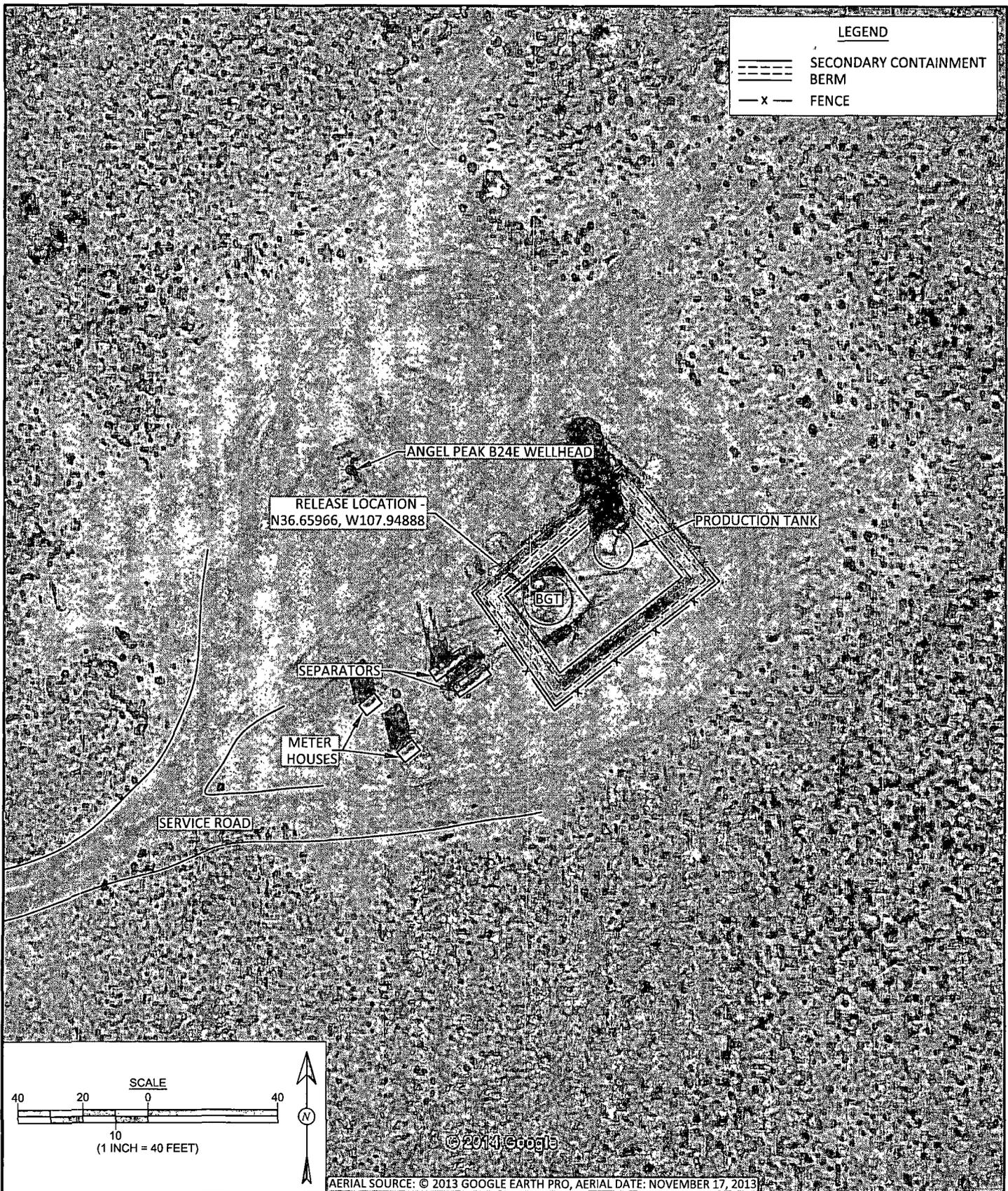
Animas Environmental Services, LLC

<b>DRAWN BY:</b> S. Glasses	<b>DATE DRAWN:</b> October 20, 2014
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> October 20, 2014
<b>CHECKED BY:</b> E. Skyles	<b>DATE CHECKED:</b> October 20, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> October 20, 2014

### FIGURE 1

#### TOPOGRAPHIC SITE LOCATION MAP

CoñocoPhillips  
 ANGEL PEAK B24E  
 NE¼ SE¼, SECTION 13, T28N, R11W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.65969, W107.94906

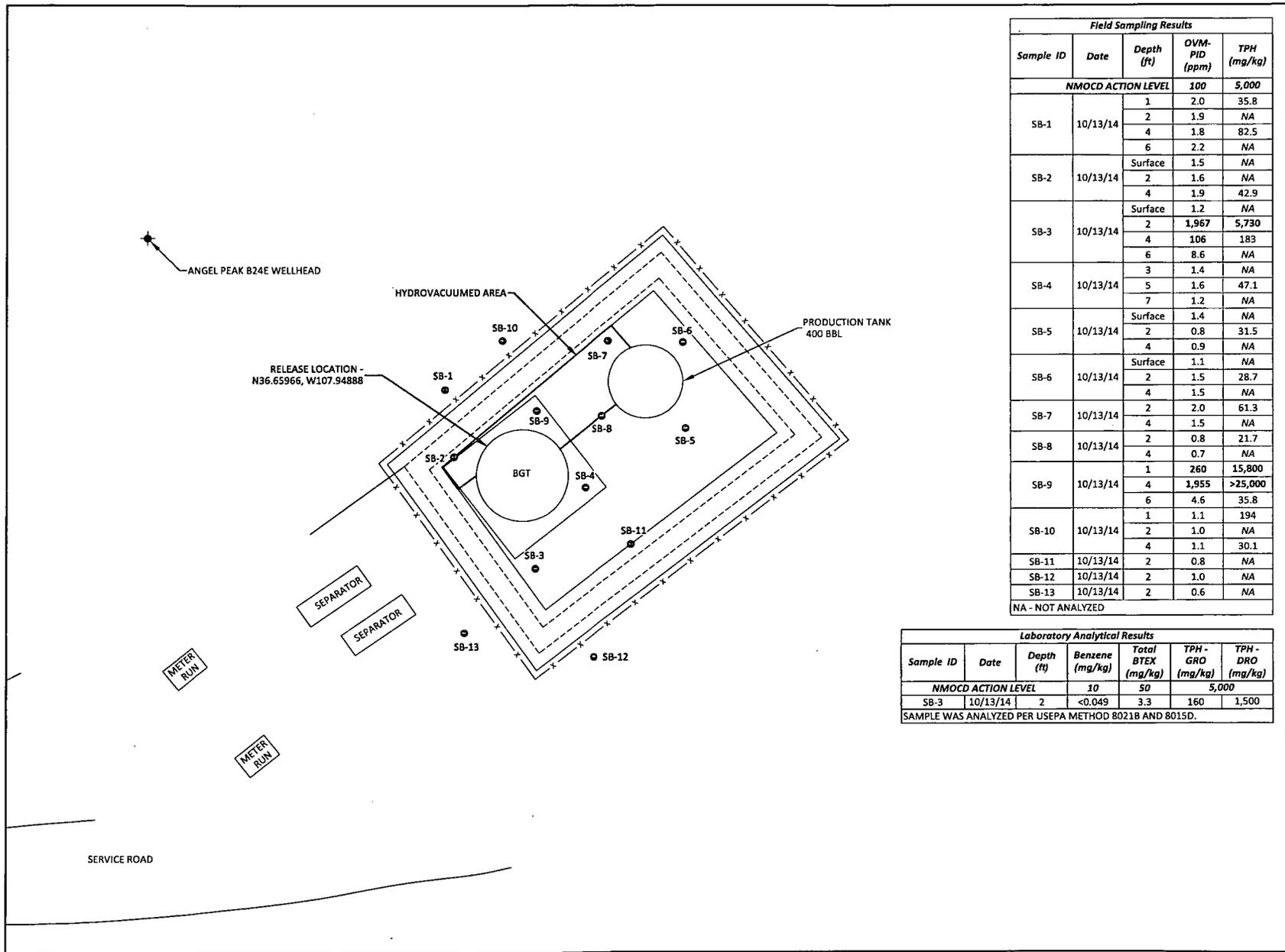


<b>DRAWN BY:</b> S. Glasses	<b>DATE DRAWN:</b> October 20, 2014
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> October 20, 2014
<b>CHECKED BY:</b> E. Skyles	<b>DATE CHECKED:</b> October 20, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> October 20, 2014

**FIGURE 2**

**AERIAL SITE MAP  
OCTOBER 2014**

ConocoPhillips  
ANGEL PEAK B24E  
NE¼ SE¼, SECTION 13, T28N, R11W  
SAN JUAN COUNTY, NEW MEXICO  
N36.65969, W107.94906



Field Sampling Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
<b>NMOC ACTION LEVEL</b>				
SB-1	10/13/14	1	2.0	35.8
		2	1.9	NA
		4	1.8	82.5
		6	2.2	NA
SB-2	10/13/14	Surface	1.5	NA
		2	1.6	NA
		4	1.9	42.9
SB-3	10/13/14	Surface	1.2	NA
		2	1,967	5,730
		4	106	183
		6	8.6	NA
SB-4	10/13/14	3	1.4	NA
		5	1.6	47.1
		7	1.2	NA
SB-5	10/13/14	Surface	1.4	NA
		2	0.8	31.5
		4	0.9	NA
SB-6	10/13/14	Surface	1.1	NA
		2	1.5	28.7
SB-7	10/13/14	4	1.5	NA
		2	2.0	61.3
SB-8	10/13/14	4	1.5	NA
		2	0.8	21.7
SB-9	10/13/14	4	0.7	NA
		1	260	15,800
		4	1,955	>25,000
SB-10	10/13/14	6	4.6	35.8
		1	1.1	194
		2	1.0	NA
SB-11	10/13/14	4	1.1	30.1
		2	0.8	NA
SB-12	10/13/14	2	1.0	NA
SB-13	10/13/14	2	0.6	NA

Laboratory Analytical Results						
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)
<b>NMOC ACTION LEVEL</b>			10	50	5,000	
SB-3	10/13/14	2	<0.049	3.3	160	1,500

SAMPLE WAS ANALYZED PER USEPA METHOD 80218 AND 8015D.

**FIGURE 3**

**INITIAL ASSESSMENT SAMPLE LOCATIONS AND RESULTS**  
**OCTOBER 2014**  
 ConocoPhillips  
 ANGEL PEAK B24E  
 NE ¼, SE ¼, SECTION 13, T28N, R11W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.65969, W107.94906

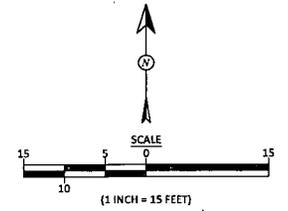


Animas Environmental Services, LLC

<b>DRAWN BY:</b> S. Glasses	<b>DATE DRAWN:</b> October 14, 2014
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> October 14, 2014
<b>CHECKED BY:</b> E. Skyles	<b>DATE CHECKED:</b> October 14, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> October 14, 2014

**LEGEND**

- SOIL BORING LOCATIONS
- ===== SECONDARY CONTAINMENT BERM
- x - FENCE



**FIGURE 4**

**FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS OCTOBER 2014**  
 ConocoPhillips  
 ANGEL PEAK B24E  
 NE ¼ SE ¼, SECTION 13, T28N, R11W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.65969, W107.94906

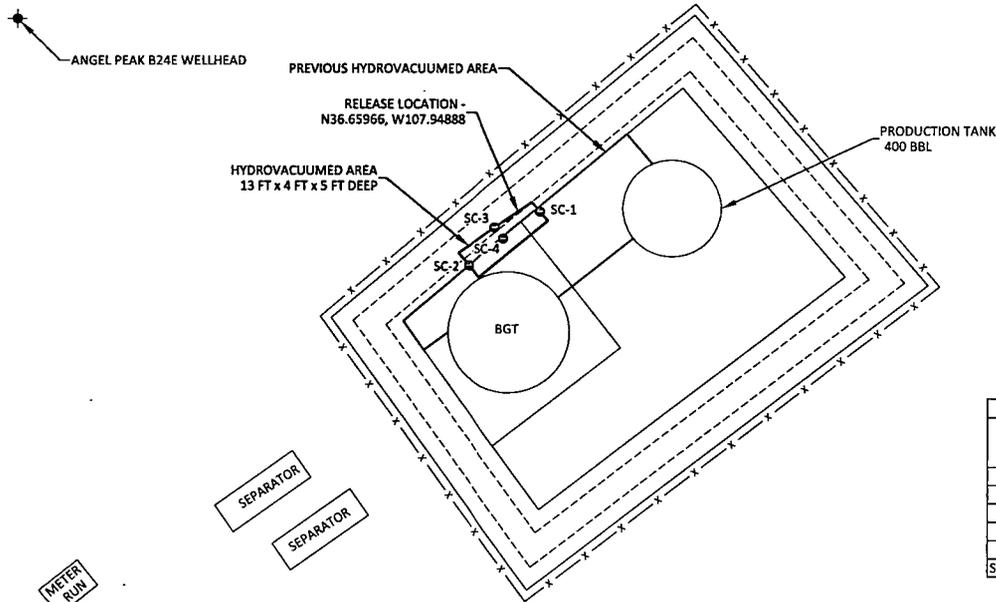


Animas Environmental Services, LLC

<b>DRAWN BY:</b> S. Glasses	<b>DATE DRAWN:</b> October 14, 2014
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> October 14, 2014
<b>CHECKED BY:</b> E. Skyles	<b>DATE CHECKED:</b> October 14, 2014
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> October 14, 2014

**LEGEND**

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

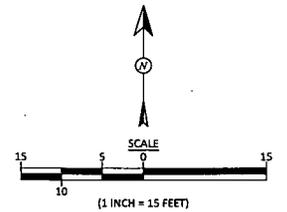


Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
<b>NMOCD ACTION LEVEL</b>			<b>100</b>	<b>5,000</b>
SC-1	10/22/14	0 to 5	NA	31.4
SC-2	10/22/14	0 to 5	0.2	24.2
SC-3	10/22/14	0 to 5	0.4	21.4
SC-4	10/22/14	5	0.3	28.5

ALL SAMPLES WERE COMPOSITE SAMPLES.  
 NA - NOT ANALYZED

Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)
<b>NMOCD ACTION LEVEL</b>			<b>10</b>	<b>50</b>	<b>5,000</b>	
SC-1	10/22/14	0 to 5	<0.049	<0.245	<4.9	11
SC-2	10/22/14	0 to 5	<0.046	<0.230	<4.6	<10
SC-3	10/22/14	0 to 5	<0.048	<0.240	<4.8	<9.8
SC-4	10/22/14	5	<0.050	<0.249	<5.0	<9.9

SAMPLES WERE ANALYZED PER USEPA METHOD 8021B AND 8015D.



# AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: Angel Peak B24E

Date: 10/13/2014

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ 1'	10/13/2014	10:30	2.0	35.8	11:47	20.0	1	ES
SB-1 @ 2'	10/13/2014	10:31	1.9	Not Analyzed for TPH				
SB-1 @ 4'	10/13/2014	10:34	1.8	82.5	12:16	20.0	1	ES
SB-1 @ 6'	10/13/2014	10:39	2.2	Not Analyzed for TPH				
SB-2 @ Surface	10/13/2014	11:10	1.5	Not Analyzed for TPH				
SB-2 @ 2'	10/13/2014	11:13	1.6	Not Analyzed for TPH				
SB-2 @ 4'	10/13/2014	11:16	1.9	42.9	12:59	20.0	1	ES
SB-3 @ Surface	10/13/2014	12:55	1.2	Not Analyzed for TPH				
SB-3 @ 2'	10/13/2014	13:00	1,967	5,730	13:27	200	10	ES
SB-3 @ 4'	10/13/2014	13:03	106	183	13:32	20.0	1	ES
SB-3 @ 6'	10/13/2014	13:08	8.6	Not Analyzed for TPH				
SB-4 @ 3'	10/13/2014	13:12	1.4	Not Analyzed for TPH				
SB-4 @ 5'	10/13/2014	13:16	1.6	47.1	13:36	20.0	1	ES
SB-4 @ 7'	10/13/2014	13:18	1.2	Not Analyzed for TPH				

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-5 @ Surface	10/13/2014	13:24	1.4	Not Analyzed for TPH				
SB-5 @ 2'	10/13/2014	13:26	0.8	31.5	14:24	20.0	1	ES
SB-5 @ 4'	10/13/2014	13:28	0.9	Not Analyzed for TPH				
SB-6 @ Surface	10/13/2014	13:40	1.1	Not Analyzed for TPH				
SB-6 @ 2'	10/13/2014	13:45	1.5	28.7	14:27	20.0	1	ES
SB-6 @ 4'	10/13/2014	13:48	1.5	Not Analyzed for TPH				
SB-7 @ 2'	10/13/2014	13:53	2.0	61.3	14:30	20.0	1	ES
SB-7 @ 4'	10/13/2014	13:55	1.5	Not Analyzed for TPH				
SB-8 @ 2'	10/13/2014	14:01	0.8	21.7	14:33	20.0	1	ES
SB-8 @ 4'	10/13/2014	14:06	0.7	Not Analyzed for TPH				
SB-9 @ 1'	10/13/2014	10:43	260	15,800	12:00	200	10	ES
SB-9 @ 4'	10/13/2014	10:55	1,955	>25,000	12:13	200	10	ES
SB-9 @ 6'	10/13/2014	14:19	4.6	35.8	14:59	20.0	1	ES
SB-10 @ 1'	10/13/2014	14:22	1.1	194	15:18	20.0	1	ES
SB-10 @ 2'	10/13/2014	14:25	1.0	Not Analyzed for TPH				
SB-10 @ 4'	10/13/2014	14:30	1.1	30.1	15:21	20.0	1	ES
SB-11 @ 2'	10/13/2014	14:40	0.8	Not Analyzed for TPH				
SB-12 @ 2'	10/13/2014	14:48	1.0	Not Analyzed for TPH				
SB-13 @ 2'	10/13/2014	14:53	0.6	Not Analyzed for TPH				

DF Dilution Factor  
NA Not Analyzed  
PQL Practical Quantitation Limit  
\*Field TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: *Erin Skelton*

# AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: Angel Peak B24E

Date: 10/22/2014

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	10/22/2014	12:55	NA	31.4	15:38	20.0	1	ES
SC-2	10/22/2014	11:20	0.2	24.2	12:35	20.0	1	ES
SC-3	10/22/2014	11:35	0.4	21.4	12:31	20.0	1	ES
SC-4	10/22/2014	11:28	0.3	28.5	12:37	20.0	1	ES

DF Dilution Factor

NA Not Analyzed

PQL Practical Quantitation Limit

\*Field TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: *Eric Skelton*



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)

October 17, 2014

Emilee Skyles

Animas Environmental  
604 Pinon Street  
Farmington, NM 87401  
TEL: (505) 564-2281  
FAX

RE: CoP Angel Peak B 24E

OrderNo.: 1410600

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/14/2014 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1410600

17-Oct-14

Client: Animas Environmental

Project: CoP Angel Peak B 24E

Sample ID	MB-15880	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	15880	RunNo:	21866					
Prep Date:	10/14/2014	Analysis Date:	10/14/2014	SeqNo:	643143	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.6		10.00		96.2	57.9	140			

Sample ID	LCS-15880	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	15880	RunNo:	21866					
Prep Date:	10/14/2014	Analysis Date:	10/14/2014	SeqNo:	643147	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.2	68.6	130			
Surr: DNOP	4.8		5.000		95.3	57.9	140			

## 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
- 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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1410600

17-Oct-14

Client: Animas Environmental

Project: CoP Angel Peak B 24E

Sample ID	<b>MB-15883</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>15883</b>	RunNo:	<b>21927</b>					
Prep Date:	<b>10/14/2014</b>	Analysis Date:	<b>10/15/2014</b>	SeqNo:	<b>644456</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	900		1000		90.2	80	120			

Sample ID	<b>LCS-15883</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>15883</b>	RunNo:	<b>21927</b>					
Prep Date:	<b>10/14/2014</b>	Analysis Date:	<b>10/15/2014</b>	SeqNo:	<b>644457</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	65.8	139			
Surr: BFB	970		1000		96.6	80	120			

## Qualifiers:

- |   |  |
|---|--|
| * 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.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1410600

17-Oct-14

Client: Animas Environmental  
 Project: CoP Angel Peak B 24E

Sample ID	MB-15883	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	15883	RunNo:	21927					
Prep Date:	10/14/2014	Analysis Date:	10/15/2014	SeqNo:	644540	Units:	mg/Kg			
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	0.94		1.000		93.6	80	120			

Sample ID	LCS-15883	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	15883	RunNo:	21927					
Prep Date:	10/14/2014	Analysis Date:	10/15/2014	SeqNo:	644541	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.050	1.000	0	96.2	80	120			
Toluene	0.95	0.050	1.000	0	95.5	80	120			
Ethylbenzene	0.99	0.050	1.000	0	98.6	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.6	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	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
- 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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

**Sample Log-In Check List**

Client Name: Animas Environmental

Work Order Number: 1410600

RcptNo: 1

Received by/date: LM 10/14/14

Logged By: Michelle Garcia 10/14/2014 7:00:00 AM *Michelle Garcia*

Completed By: Michelle Garcia 10/14/2014 8:46:22 AM *Michelle Garcia*

Reviewed By: CS 10/14/14

**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	1.4	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)

October 28, 2014

Emilee Skyles  
Animas Environmental  
604 Pinon Street  
Farmington, NM 87401  
TEL: (505) 564-2281  
FAX

RE: COP Angel Peak B 24E

OrderNo.: 1410B10

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 4 sample(s) on 10/23/2014 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

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental  
**Project:** COP Angel Peak B 24E  
**Lab ID:** 1410B10-001

**Matrix:** SOIL

**Client Sample ID:** SC-1  
**Collection Date:** 10/22/2014 12:55:00 PM  
**Received Date:** 10/23/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	11	9.9		mg/Kg	1	10/24/2014 4:22:45 PM	16062
Surr: DNOP	94.7	63.5-128		%REC	1	10/24/2014 4:22:45 PM	16062
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/24/2014 5:46:53 PM	16059
Surr: BFB	92.2	80-120		%REC	1	10/24/2014 5:46:53 PM	16059
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	10/24/2014 5:46:53 PM	16059
Toluene	ND	0.049		mg/Kg	1	10/24/2014 5:46:53 PM	16059
Ethylbenzene	ND	0.049		mg/Kg	1	10/24/2014 5:46:53 PM	16059
Xylenes, Total	ND	0.098		mg/Kg	1	10/24/2014 5:46:53 PM	16059
Surr: 4-Bromofluorobenzene	95.3	80-120		%REC	1	10/24/2014 5:46:53 PM	16059

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.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Animas Environmental

Client Sample ID: SC-2

Project: COP Angel Peak B 24E

Collection Date: 10/22/2014 11:20:00 AM

Lab ID: 1410B10-002

Matrix: SOIL

Received Date: 10/23/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/24/2014 4:45:03 PM	16062
Surr: DNOP	89.3	63.5-128		%REC	1	10/24/2014 4:45:03 PM	16062
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/24/2014 6:15:25 PM	16059
Surr: BFB	93.0	80-120		%REC	1	10/24/2014 6:15:25 PM	16059
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.046		mg/Kg	1	10/24/2014 6:15:25 PM	16059
Toluene	ND	0.046		mg/Kg	1	10/24/2014 6:15:25 PM	16059
Ethylbenzene	ND	0.046		mg/Kg	1	10/24/2014 6:15:25 PM	16059
Xylenes, Total	ND	0.092		mg/Kg	1	10/24/2014 6:15:25 PM	16059
Surr: 4-Bromofluorobenzene	95.9	80-120		%REC	1	10/24/2014 6:15:25 PM	16059

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.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Animas Environmental  
 Project: COP Angel Peak B 24E  
 Lab ID: 1410B10-003

Matrix: SOIL

Client Sample ID: SC-3  
 Collection Date: 10/22/2014 11:35:00 AM  
 Received Date: 10/23/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/24/2014 5:07:14 PM	16062
Surr: DNOP	95.9	63.5-128		%REC	1	10/24/2014 5:07:14 PM	16062
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/24/2014 6:44:00 PM	16059
Surr: BFB	92.9	80-120		%REC	1	10/24/2014 6:44:00 PM	16059
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	10/24/2014 6:44:00 PM	16059
Toluene	ND	0.048		mg/Kg	1	10/24/2014 6:44:00 PM	16059
Ethylbenzene	ND	0.048		mg/Kg	1	10/24/2014 6:44:00 PM	16059
Xylenes, Total	ND	0.096		mg/Kg	1	10/24/2014 6:44:00 PM	16059
Surr: 4-Bromofluorobenzene	95.1	80-120		%REC	1	10/24/2014 6:44:00 PM	16059

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

Qualifiers:			
*	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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental **Client Sample ID:** SC-4  
**Project:** COP Angel Peak B 24E **Collection Date:** 10/22/2014 11:28:00 AM  
**Lab ID:** 1410B10-004 **Matrix:** SOIL **Received Date:** 10/23/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BCN</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/24/2014 5:29:28 PM	16062
Surr: DNOP	97.0	63.5-128		%REC	1	10/24/2014 5:29:28 PM	16062
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/24/2014 7:12:36 PM	16059
Surr: BFB	91.5	80-120		%REC	1	10/24/2014 7:12:36 PM	16059
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	1	10/24/2014 7:12:36 PM	16059
Toluene	ND	0.050		mg/Kg	1	10/24/2014 7:12:36 PM	16059
Ethylbenzene	ND	0.050		mg/Kg	1	10/24/2014 7:12:36 PM	16059
Xylenes, Total	ND	0.099		mg/Kg	1	10/24/2014 7:12:36 PM	16059
Surr: 4-Bromofluorobenzene	93.3	80-120		%REC	1	10/24/2014 7:12:36 PM	16059

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.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1410B10

28-Oct-14

Client: Animas Environmental

Project: COP Angel Peak B 24E

Sample ID	MB-16062	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	16062	RunNo:	22124					
Prep Date:	10/23/2014	Analysis Date:	10/24/2014	SeqNo:	652213	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.6		10.00		86.3	63.5	128			

Sample ID	LCS-16062	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	16062	RunNo:	22124					
Prep Date:	10/23/2014	Analysis Date:	10/24/2014	SeqNo:	652214	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	113	68.6	130			
Surr: DNOP	4.5		5.000		89.6	63.5	128			

## 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
- 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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1410B10

28-Oct-14

Client: Animas Environmental

Project: COP Angel Peak B 24E

Sample ID	MB-16059	SampType	MBLK	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	PBS	Batch ID	16059	RunNo	22129					
Prep Date	10/23/2014	Analysis Date	10/24/2014	SeqNo	651513	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		92.3	80	120			

Sample ID	LCS-16059	SampType	LCS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	LCSS	Batch ID	16059	RunNo	22129					
Prep Date	10/23/2014	Analysis Date	10/24/2014	SeqNo	651514	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	108	65.8	139			
Surr: BFB	1000		1000		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
- 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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1410B10

28-Oct-14

Client: Animas Environmental  
Project: COP Angel Peak B 24E

Sample ID	MB-16059	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	16059	RunNo:	22129					
Prep Date:	10/23/2014	Analysis Date:	10/24/2014	SeqNo:	651544	Units:	mg/Kg			
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	0.92		1.000		92.1	80	120			

Sample ID	LCS-16059	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	16059	RunNo:	22129					
Prep Date:	10/23/2014	Analysis Date:	10/24/2014	SeqNo:	651545	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.050	1.000	0	92.3	80	120			
Toluene	0.92	0.050	1.000	0	91.5	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.1	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.0	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
- 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
- P Sample pH greater than 2.
- RL Reporting Detection Limit

**Sample Log-In Check List**

Client Name: Animas Environmental

Work Order Number: 1410B10

RcptNo: 1

Received by/date: AT 10/23/14

Logged By: **Anne Thorne** 10/23/2014 7:30:00 AM *Anne Thorne*

Completed By: **Anne Thorne** 10/23/2014 *Anne Thorne*

Reviewed By: AS 10/23/14

**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	2.0	Good	Yes			

# Chain-of-Custody Record

Client: Animas Environmental Services, LLC

Mailing Address: 604 PINON  
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

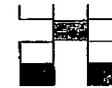
Project Name: CoP Angel Peak B 24E

Project #: \_\_\_\_\_

Project Manager: E. Skyles

Sampler: E. Skyles  
 Yes  No

Sample Temperature: 20



## 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 + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO/DRO/MBA)	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)	Air Bubbles (Y or N)	
10/22/14	12:55	Soil	SC-1	1-4oz.	cool	-001	X		X										
10/22/14	11:20	Soil	SC-2	1-4oz.	cool	-002	X		X										
10/22/14	11:35	Soil	SC-3	1-4oz.	cool	-003	X		X										
10/22/14	11:28	Soil	SC-4	1-4oz.	cool	-004	X		X										

Date: 10/22/14 Time: 1857 Relinquished by: [Signature]

Received by: [Signature] Date: 10/22/14 Time: 1857

Remarks: Soil to Conoco Phillips  
WO # 20415638  
AREA: 22  
SUPER: Ervin Wyckoff  
USER: KGARCIA  
ordered by: Lindsay Dumas

Date: 10/22/14 Time: 1925 Relinquished by: [Signature]

Received by: [Signature] Date: 10/23/14 Time: 0730

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.