

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

Form C-141
Revised August 8, 2011

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 Burlington Resources Oil & Gas Company	Contact Lindsay Dumas
Address 3401 East 30th St, Farmington, NM	Telephone No. (505) 599-4089
Facility Name: San Juan 28-6 167M	Facility Type: Gas

Surface Owner BLM	Mineral Owner BLM (SF-079049B)	API No. 30-039-25741
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LOCATION OF RELEASE

Unit Letter O	Section 4	Township 027N	Range 006W	Feet from the 890'	North/South Line FSL	Feet from the 1820'	East/West Line FEL	County Rio Arriba
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Latitude **36.59816** Longitude **-107.46875**

NATURE OF RELEASE

Type of Release Historic Contamination	Volume of Release N/A	Volume Recovered 904 c/yds
Source of Release Historic contamination found under tank during facility reset	Date and Hour of Occurrence N/A	Date and Hour of Discovery 9/12/13 1:30 PM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input 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.*

**RCVD DEC 27 '13
OIL CONS. DIV.
DIST. 3**

Describe Cause of Problem and Remedial Action Taken.*

Historic contamination was discovered during a facility reset on location.

Describe Area Affected and Cleanup Action Taken.*

Excavation was 35' x 40' x 16' Deep. 904 c/yds of soil was transported to IEI Land Farm and 1044 c/yds of clean soil was transported from Aztec Machine Co., and placed in the excavation site. Analytical results were below the regulatory standards – no further action required. The soil sampling report is attached for review.

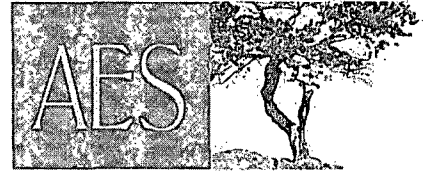
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger 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: <i>Lindsay Dumas</i>	OIL CONSERVATION DIVISION	
Printed Name: Lindsay Dumas	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Field Environmental Specialist	Approval Date: 9/4/14	Expiration Date:
E-mail Address: Lindsay.Dumas@conocophillips.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: Phone: (505) 599-4089		

* Attach Additional Sheets If Necessary

#NCS 14124732145

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Animas Environmental Services, LLC

www.animasenvironmental.com

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

Durango, Colorado
970-403-3084

December 9, 2013

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

**RE: Initial Release Assessment and Final Excavation Report
San Juan 28-6 Unit #167M
Rio Arriba County, New Mexico**

Dear Ms. Dumas:

On September 12 and 26, 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 #167M, located in Rio Arriba County, New Mexico. The historical contamination was discovered during a facility reset at the location. The initial release assessment was completed by AES on September 12, 2013. The final excavation was completed by CoP contractors while AES was on location on September 26, 2013.

1.0 Site Information

1.1 Location

Location – SW¼ SE¼, Section 4, T27N, R6W, Rio Arriba County, New Mexico
Well Head Latitude/Longitude – N36.59837 and W107.46928, respectively
Release Location Latitude/Longitude – N36.59815 and W107.46915, respectively
Land Jurisdiction – Bureau of Land Management
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, September 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 release location was given a ranking score of 30 based on the following factors:

- **Depth to Groundwater:** A cathodic protection form dated March 1999 reported depth to groundwater at 60 feet below ground surface (bgs). (10 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** An unnamed wash which discharges to the wash in Carrizo Canyon is located approximately 190 feet southeast of the location. The wash in Carrizo Canyon is located approximately 560 feet south of the location. (20 points)

1.3 Assessment

AES was initially contacted by Crystal Tafoya of CoP on September 9, 2013, and on September 12, 2013, Heather Woods and Stephanie Lynn of AES completed the release assessment field work. The assessment included collection and field screening of 33 soil samples from 10 assessment trenches (TH-1 through TH-10) in and around the release area. Based on the field screening results, AES recommended further excavation of the release area. Sample locations are shown on Figure 3.

On September 26, 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 35 feet by 42 feet by 17 feet in depth. Sample locations and final excavation extents are presented on Figure 4.

2.0 Soil Sampling

A total of 33 soil samples from 10 assessment trenches (TH-1 through TH-10) as well as 5 composite samples (SC-1 through SC-5) were collected during the assessments. All soil samples were field screened for volatile organic compounds (VOCs), and selected samples were also analyzed for total petroleum hydrocarbons (TPH). Three samples (TH-1, TH-3, and TH-9) collected during the initial assessment 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. Soil samples were laboratory analyzed for:

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

In addition, soil sample TH-1 was also laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021B.

2.3 Field Screening and Laboratory Analytical Results

On September 12, 2013, initial assessment field screening results for VOCs via OVM showed concentrations ranging from 0.7 ppm in TH-10 up to 7,301 ppm in TH-2. Field TPH concentrations ranged from 100 mg/kg in TH-10 to greater than 2,500 mg/kg in TH-1.

On September 26, 2013, final excavation field screening results for VOCs via OVM were each measured at 0.0 ppm. Field TPH ranged from 40.7 mg/kg in SC-2 up to 76.3 mg/kg in SC-3. 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 #167M Initial Release Assessment and Final Excavation
September 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>			100	100
TH-1	9/12/13	4	4,601	NA

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
		NMOCD Action Level*	100	100
		7	4,553	NA
		9	929	NA
		12	4,250	NA
		14	4,250	>2,500
		2	184	NA
		7.5	7,301	NA
TH-2	9/12/13	10	5,069	NA
		12	49.2	NA
		14	2,049	1,440
		3.5	9.1	NA
TH-3	9/12/13	9.5	10.1	113
		12	6.2	NA
		5	31.5	135
TH-4	9/12/13	8	9.4	NA
		11	3.6	NA
		13	4.7	NA
		4	180	NA
TH-5	9/12/13	9.5	11.3	NA
		13	5.3	NA
		6	0.9	NA
TH-6	9/12/13	9	0.8	NA
		12	1.4	123
		3	1.2	NA
TH-7	9/12/13	8	1.1	NA
		12	1.0	103
TH-8	9/12/13	3	4,791	NA
		5	7.3	NA
TH-9	9/12/13	9	22.5	NA
		13.5	40.5	149
TH-10	9/12/13	6	5.0	NA

<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>			100	100
		9	1.2	NA
		13	0.7	100
SC-1	9/26/13	1 to 17	0.0	51.3
SC-2	9/26/13	1 to 17	0.0	40.7
SC-3	9/26/13	1 to 17	0.0	76.3
SC-4	9/26/13	1 to 17	0.0	52.6
SC-5	9/26/13	17	0.0	46.0

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 TH-1, TH-3, and TH-9 were used to confirm field screening results of the initial release assessment. In sample TH-1, benzene concentrations were reported below laboratory detection limits, and total BTEX concentrations were reported at 132 mg/kg. The TPH concentration as GRO/DRO in TH-1 was reported at 3,600 mg/kg. In samples TH-3 and TH-9, TPH concentrations as GRO/DRO were reported below laboratory detection limits. Results are presented in Table 2 and on Figure 3. The laboratory analytical report is attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, and TPH
San Juan 28-6 Unit #167M Final Excavation, September 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>
<i>NMOCD Action Level*</i>			10	50	100	
TH-1	9/12/13	14	<1.2	132	1,400	2,200
TH-3	9/12/13	9.5	NA	NA	<4.7	<10
TH-9	9/12/13	13.5	NA	NA	<4.6	<10

NA = Not Analyzed; *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 September 12, 2013, AES conducted an initial assessment of petroleum contaminated soils associated with a historical release at the San Juan 28-6 Unit #167M. 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 30. Initial assessment field screening results above the NMOCD action level of 100 ppm VOCs were reported in TH-1, TH-2, TH-5, and TH-8, with the highest VOC concentration reported in TH-2 with 7,301 ppm. Field screening results also showed TPH concentrations above the NMOCD action level of 100 mg/kg in seven samples, with the highest TPH reported in TH-1 with greater than 2,500 mg/kg.

Laboratory analyses for TH-1, TH-3, and TH-9 were used to confirm field screening results. In sample TH-1, benzene concentrations were reported below the NMOCD action level of 10 mg/kg, but total BTEX concentrations were reported above the NMOCD action level of 50 mg/kg with 132 mg/kg. TPH concentrations as GRO/DRO in TH-1 also exceeded the NMOCD action level of 100 mg/kg with 3,600 mg/kg. Laboratory analytical results for TH-3 and TH-9 had reported TPH concentrations below the NMOCD action level.

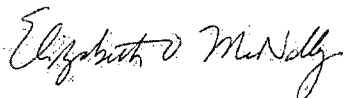
On September 26, 2013, final clearance of the excavation area was completed. Field screening results of the excavation extents showed that VOC and TPH concentrations were below applicable NMOCD action levels for all four sidewalls and base of the excavation. Based on the final field screening results, no further work is recommended at the San Juan 28-6 Unit #167M.

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 J. Reese
Environmental Scientist

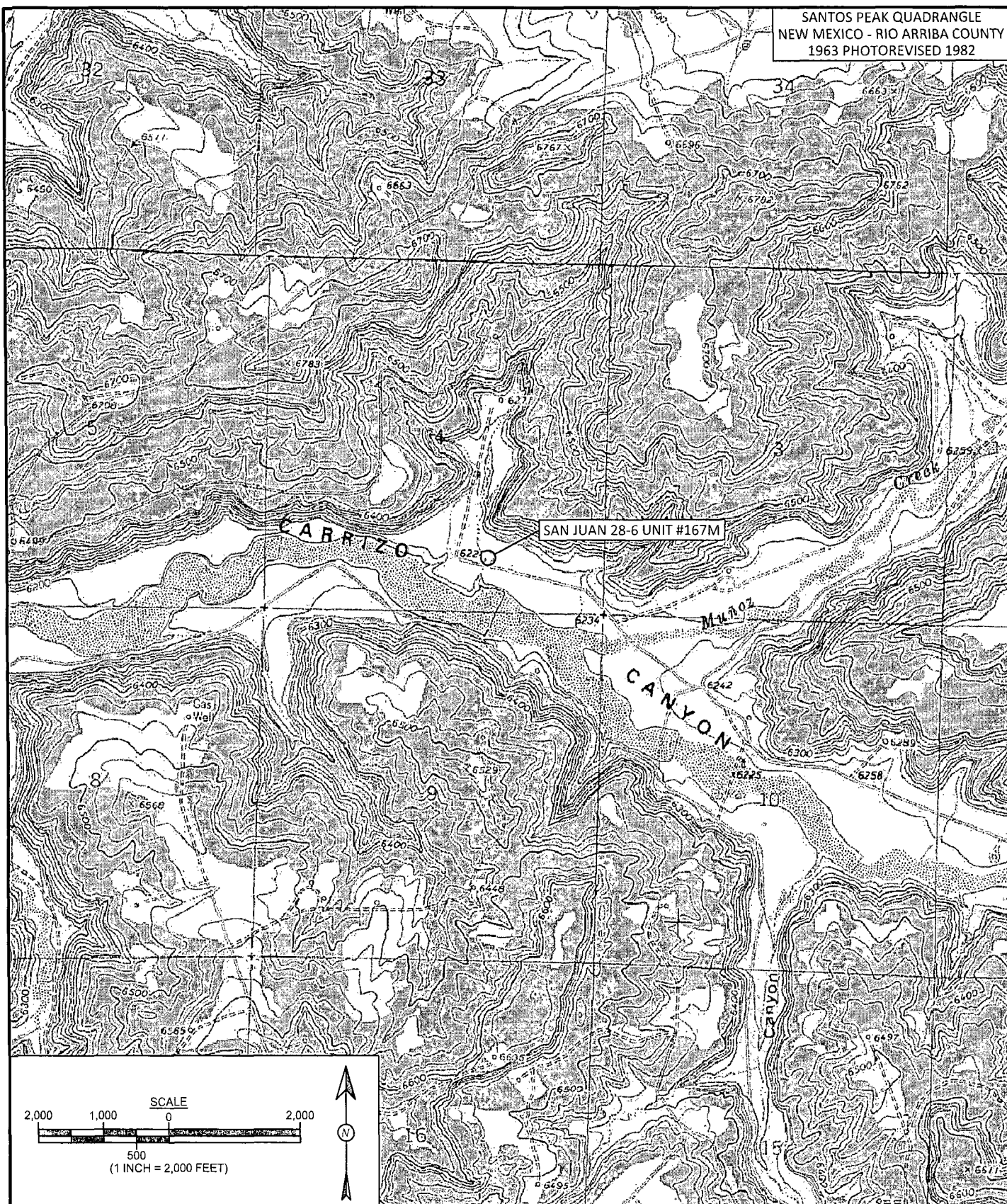


Elizabeth McNally, PE

Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, September 2013
Figure 3. Initial Assessment Sample Locations and Results, September 2013
Figure 4. Final Excavation Sample Locations and Results, September 2013
AES Field Screening Report 091213
AES Field Screening Report 092613
Hall Laboratory Analytical Report 1309529

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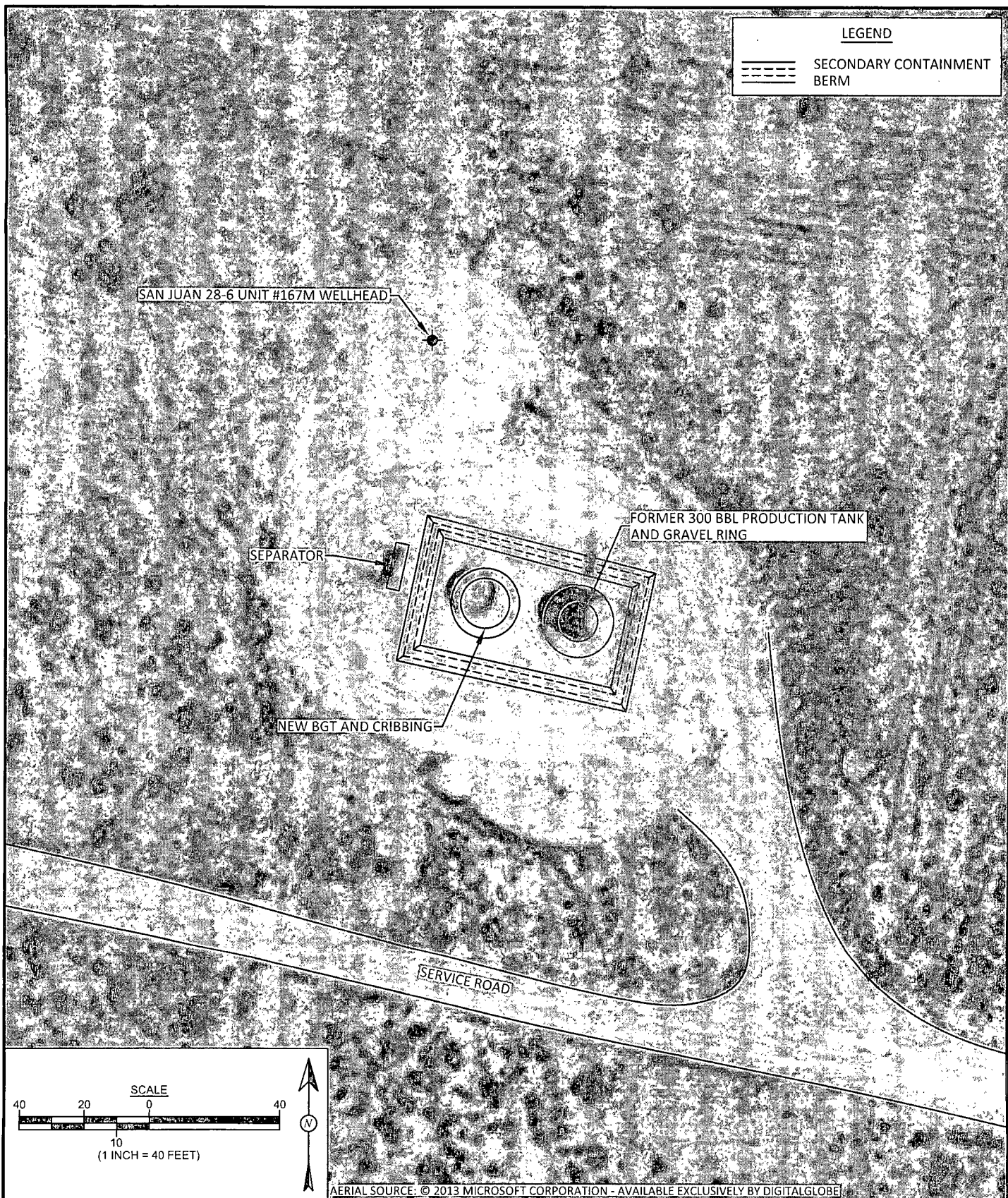
Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: September 13, 2013
REVISIONS BY: C. Lameman	DATE REVISED: September 13, 2013
CHECKED BY: D. Watson	DATE CHECKED: September 13, 2013
APPROVED BY: E. McNally	DATE APPROVED: September 13, 2013

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP

ConocoPhillips
SAN JUAN 28-6 UNIT #167M
SW¼ SE¼, SECTION 4, T27N, R6W
RIO ARriba COUNTY, NEW MEXICO
N36.59837, W107.46928



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CHECKED BY: D. Watson	DATE CHECKED: September 13, 2013
APPROVED BY: E. McNally	DATE APPROVED: September 13, 2013

FIGURE 2

**AERIAL SITE MAP
SEPTEMBER 2013**

ConocoPhillips
SAN JUAN 28-6 UNIT #167M
SW¼, SE¼, SECTION 4, T27N, R6W
RIO ARriba COUNTY, NEW MEXICO
N36.59837, W107.46928

SAN JUAN 28-6 UNIT #167M WELLHEAD

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	100	
TH-1	9/12/13	14	<1.2	132	1,400	2,200
TH-3	9/12/13	9.5	NA	NA	<4.7	<10
TH-9	9/12/13	13.5	NA	NA	<4.6	<10

SAMPLES WERE ANALYZED PER EPA METHOD 80150. TH-1 WAS ALSO ANALYZED PER EPA METHOD 8021B.

Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	100
TH-1	9/12/13	4	4,601	NA
		7	4,553	NA
		9	929	NA
		12	4,250	NA
		14	4,250	>2,500
TH-2	9/12/13	2	184	NA
		7.5	7,301	NA
		10	5,069	NA
		12	49.2	NA
		14	2,049	1,440
TH-3	9/12/13	3.5	9.1	NA
		9.5	10.1	113
		12	6.2	NA
TH-4	9/12/13	5	31.5	135
		8	9.4	NA
		11	3.6	NA
		13	4.7	NA
TH-5	9/12/13	4	180	NA
		9.5	11.3	NA
		13	5.3	NA
TH-6	9/12/13	6	0.9	NA
		9	0.8	NA
		12	1.4	123
TH-7	9/12/13	3	1.2	NA
		8	1.1	NA
		12	1.0	103
TH-8	9/12/13	3	4,791	NA
		5	7.3	NA
		9	22.5	NA
TH-9	9/12/13	13.5	40.5	149
		6	5.0	NA
TH-10	9/12/13	9	1.2	NA
		13	0.7	100

NA - NOT ANALYZED

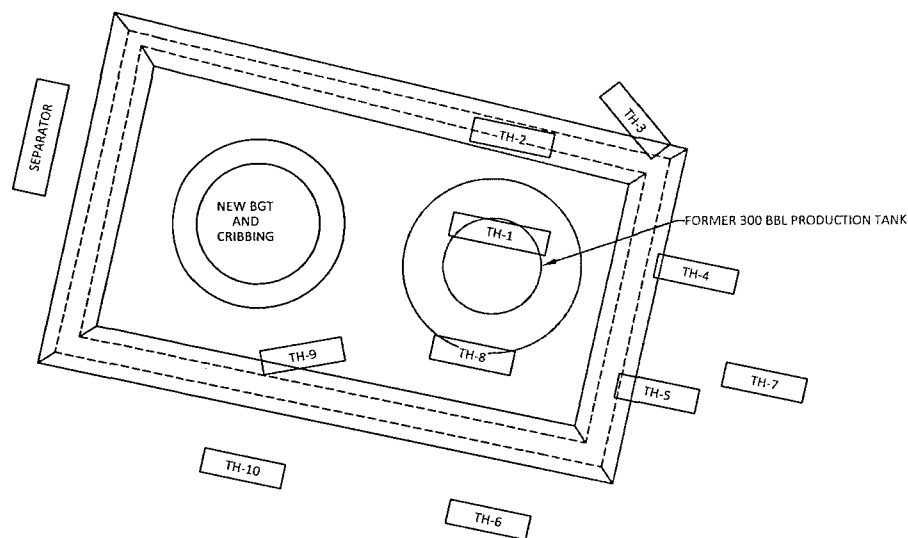


FIGURE 3

INITIAL ASSESSMENT SAMPLE
LOCATIONS AND RESULTS
SEPTEMBER 2013
ConocoPhillips
SAN JUAN 28-6 UNIT #167M
SW¼, SE¼, SECTION 4, T27N, R6W
RIO ARriba COUNTY, NEW MEXICO
N36.59837, W107.46928

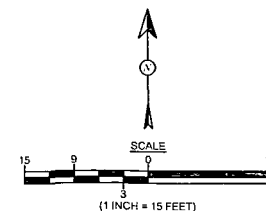


Animas Environmental Services, LLC

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CHECKED BY: D. Watson	DATE CHECKED: October 8, 2013
APPROVED BY: E. McNally	DATE APPROVED: October 8, 2013

LEGEND

=====	SECONDARY CONTAINMENT BERM
TH	TEST HOLE



SAN JUAN 28-6 UNIT #167M WELLHEAD

Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOC ACTION LEVEL			100	100
SC-1	9/26/13	1 to 17	0.0	51.3
SC-2	9/26/13	1 to 17	0.0	40.7
SC-3	9/26/13	1 to 17	0.0	76.3
SC-4	9/26/13	1 to 17	0.0	52.6
SC-5	9/26/13	17	0.0	46.0
ALL SAMPLES WERE COMPOSITE SAMPLES.				

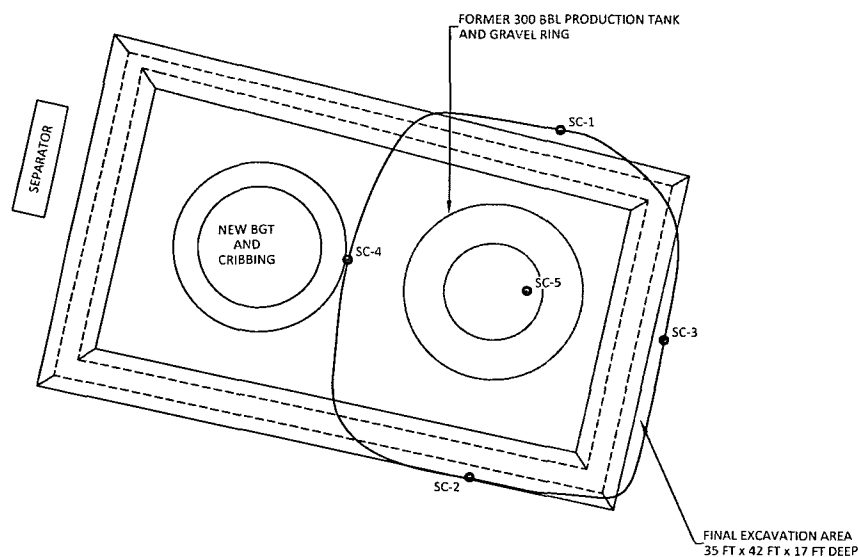


FIGURE 4

FINAL EXCAVATION SAMPLE
LOCATIONS AND RESULTS
SEPTEMBER 2013
ConocoPhillips
SAN JUAN 28-6 UNIT #167M
SW¼ SE¼, SECTION 4, T27N, R6W
RIO ARriba COUNTY, NEW MEXICO
N36.59837, W107.46928

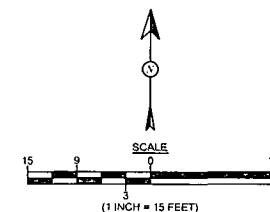


Animas Environmental Services, LLC

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CHECKED BY: D. Watson	DATE CHECKED: October 8, 2013
APPROVED BY: E. McNally	DATE APPROVED: October 8, 2013

LEGEND

- SAMPLE LOCATIONS
- ══ SECONDARY CONTAINMENT BERM



AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

Client: ConocoPhillips

Project Location: San Juan 28-6 Unit #167M

Date: 9/12/2013

Matrix: Soil

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

Durango, Colorado
970-403-3084

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
TH-1 @ 4'	9/12/2013	10:30	4,601	Not Analyzed for TPH				
TH-1 @ 7'	9/12/2013	10:32	4,553	Not Analyzed for TPH				
TH-1 @ 9'	9/12/2013	10:34	929	Not Analyzed for TPH				
TH-1 @ 12'	9/12/2013	10:40	4,250	Not Analyzed for TPH				
TH-1 @ 14'	9/12/2013	10:46	4,250	>2,500	11:40	20.0	1	HMW
TH-2 @ 2'	9/12/2013	10:59	184	Not Analyzed for TPH				
TH-2 @ 7.5'	9/12/2013	11:01	7,301	Not Analyzed for TPH				
TH-2 @ 10'	9/12/2013	11:04	5,069	Not Analyzed for TPH				
TH-2 @ 12'	9/12/2013	11:08	49.2	Not Analyzed for TPH				
TH-2 @ 14'	9/12/2013	11:12	2,049	1,440	12:49	40.0	1	HMW
TH-3 @ 3.5'	9/12/2013	11:20	9.1	Not Analyzed for TPH				
TH-3 @ 9.5'	9/12/2013	11:24	10.1	113	12:53	20.0	1	HMW
TH-3 @ 12'	9/12/2013	11:28	6.2	Not Analyzed for TPH				
TH-4 @ 5'	9/12/2013	11:37	31.5	135	12:57	20.0	1	HMW
TH-4 @ 8'	9/12/2013	11:40	9.4	Not Analyzed for TPH				
TH-4 @ 11'	9/12/2013	11:43	3.6	Not Analyzed for TPH				
TH-4 @ 13'	9/12/2013	11:47	4.7	Not Analyzed for TPH				
TH-5 @ 4'	9/12/2013	11:54	180	Not Analyzed for TPH				
TH-5 @ 9.5'	9/12/2013	11:57	11.3	Not Analyzed for TPH				
TH-5 @ 13'	9/12/2013	12:00	5.3	Not Analyzed for TPH				
TH-6 @ 6'	9/12/2013	12:17	0.9	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
TH-6 @ 9'	9/12/2013	12:20	0.8	Not Analyzed for TPH				
TH-6 @ 12'	9/12/2013	12:23	1.4	123	13:35	20.0	1	HMW
TH-7 @ 3'	9/12/2013	12:32	1.2	Not Analyzed for TPH				
TH-7 @ 8'	9/12/2013	12:36	1.1	Not Analyzed for TPH				
TH-7 @ 12'	9/12/2013	12:40	1.0	103	13:39	20.0	1	HMW
TH-8 @ 3'	9/12/2013	12:50	4,791	Not Analyzed for TPH				
TH-9 @ 5'	9/12/2013	12:54	7.3	Not Analyzed for TPH				
TH-9 @ 9'	9/12/2013	12:58	22.5	Not Analyzed for TPH				
TH-9 @ 13.5'	9/12/2013	13:02	40.5	149	13:57	20.0	1	HMW
TH-10 @ 6'	9/12/2013	13:12	5.0	Not Analyzed for TPH				
TH-10 @ 9'	9/12/2013	13:29	1.2	Not Analyzed for TPH				
TH-10 @ 13'	9/12/2013	13:32	0.7	100	14:01	20.0	1	HMW

DF Dilution Factor

NA Not Analyzed

ND Not Detected at the Reporting Limit

PQL Practical Quantitation Limit

*Field TPH concentrations recorded may be below PQL.

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 #167M

Date: 9/26/2013

Matrix: Soil

Sample ID	Collection Date	Collection Time	Sample Location	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	9/26/2013	9:30	North Wall	0.0	51.3	10:03	20.0	1	DAW
SC-2	9/26/2013	9:18	South Wall	0.0	40.7	10:05	20.0	1	DAW
SC-3	9/26/2013	9:15	East Wall	0.0	76.3	10:07	20.0	1	DAW
SC-4	9/26/2013	9:25	West Wall	0.0	52.6	10:10	20.0	1	DAW
SC-5	9/26/2013	9:20	Base	0.0	46.0	10:13	20.0	1	DAW

DF Dilution Factor

NA Not Analyzed

ND Not Detected at the Reporting Limit

PQL Practical Quantitation Limit

*Field TPH concentrations recorded may be below PQL.

Analyst:

Debrah Water



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

October 21, 2013

Debbie Watson

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

RE: CoP San Juan 28-6 #167M

OrderNo.: 1309529

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 9/13/2013 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued September 20, 2013.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

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

Sincerely,

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 1309529

Date Reported: 10/21/2013

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Animas Environmental**Client Sample ID:** TH-1 @ 14'**Project:** CoP San Juan 28-6 #167M**Collection Date:** 9/12/2013 10:46:00 AM**Lab ID:** 1309529-001**Matrix:** SOIL**Received Date:** 9/13/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	2200	100		mg/Kg	10	9/18/2013 3:13:56 PM	9347
Surr: DNOP	0	63-147	S	%REC	10	9/18/2013 3:13:56 PM	9347
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	1400	230		mg/Kg	50	9/17/2013 1:43:58 PM	9338
Surr: BFB	190	80-120	S	%REC	50	9/17/2013 1:43:58 PM	9338
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	1.2		mg/Kg	50	9/17/2013 1:43:58 PM	9338
Toluene	15	2.3		mg/Kg	50	9/17/2013 1:43:58 PM	9338
Ethylbenzene	7.3	2.3		mg/Kg	50	9/17/2013 1:43:58 PM	9338
Xylenes, Total	110	4.6		mg/Kg	50	9/17/2013 1:43:58 PM	9338
Surr: 4-Bromofluorobenzene	118	80-120		%REC	50	9/17/2013 1:43:58 PM	9338

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 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Analytical Report

Lab Order 1309529

Date Reported: 10/21/2013

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Animas Environmental**Client Sample ID:** TH-3 @ 9.5'**Project:** CoP San Juan 28-6 #167M**Collection Date:** 9/12/2013 11:24:00 AM**Lab ID:** 1309529-002**Matrix:** SOIL**Received Date:** 9/13/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/18/2013 3:37:31 PM	9347
Surr: DNOP	100	63-147		%REC	1	9/18/2013 3:37:31 PM	9347
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/17/2013 3:10:01 PM	9338
Surr: BFB	99.9	80-120		%REC	1	9/17/2013 3:10:01 PM	9338

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 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Analytical Report

Lab Order 1309529

Date Reported: 10/21/2013

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Animas Environmental**Client Sample ID:** TH-9 @ 13.5'**Project:** CoP San Juan 28-6 #167M**Collection Date:** 9/12/2013 12:58:00 PM**Lab ID:** 1309529-003**Matrix:** SOIL**Received Date:** 9/13/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/18/2013 3:59:53 PM	9347
Surr: DNOP	88.9	63-147		%REC	1	9/18/2013 3:59:53 PM	9347
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/17/2013 3:38:41 PM	9338
Surr: BFB	98.0	80-120		%REC	1	9/17/2013 3:38:41 PM	9338

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 for VOA and TOC only.
	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#: 1309529

21-Oct-13

Client: Animas Environmental
Project: CoP San Juan 28-6 #167M

Sample ID	MB-9347	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	9347	RunNo:	13442					
Prep Date:	9/17/2013	Analysis Date:	9/18/2013	SeqNo:	382709	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	8.7		10.00		87.3	63	147			

Sample ID	LCS-9347	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	9347	RunNo:	13442					
Prep Date:	9/17/2013	Analysis Date:	9/18/2013	SeqNo:	382710	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	101	77.1	128			
Surr: DNOP	4.8		5.000		95.2	63	147			

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 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1309529

21-Oct-13

Client: Animas Environmental
Project: CoP San Juan 28-6 #167M

Sample ID	MB-9338	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	9338	RunNo:	13420					
Prep Date:	9/16/2013	Analysis Date:	9/17/2013	SeqNo:	382283	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		92.0	80	120			

Sample ID	LCS-9338	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	9338	RunNo:	13420					
Prep Date:	9/16/2013	Analysis Date:	9/17/2013	SeqNo:	382284	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.4	74.5	126			
Surr: BFB	990		1000		99.0	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 for VOA and TOC only. |
| 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#: 1309529

21-Oct-13

Client: Animas Environmental
Project: CoP San Juan 28-6 #167M

Sample ID	MB-9338	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	9338	RunNo:	13420					
Prep Date:	9/16/2013	Analysis Date:	9/17/2013	SeqNo:	382301	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	1.0		1.000		101	80	120			

Sample ID	LCS-9338	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	9338	RunNo:	13420					
Prep Date:	9/16/2013	Analysis Date:	9/17/2013	SeqNo:	382302	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.050	1.000	0	98.1	80	120			
Toluene	0.97	0.050	1.000	0	96.6	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.5	80	120			
Xylenes, Total	2.9	0.10	3.000	0	98.1	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	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 for VOA and TOC only.
RL Reporting Detection Limit



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

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1309529

RcptNo: 1

Received by/date:

RG

09/13/13

Logged By: Michelle Garcia

9/13/2013 10:00:00 AM

Michelle Garcia

Completed By: Michelle Garcia

9/13/2013 4:42:11 PM

Michelle Garcia

Reviewed By:

[Signature]

09/13/13

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 $>0^{\circ}\text{C}$ 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 ☐ # of preserved bottles checked for pH: (≤2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted?
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 ☐ 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	Not Present			

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) _____


1309529

[illegible]

Date:	Time:	Relinquished by:
9/12/13	1647	Leathan A. Woods

Date: 1/27	Time:	Relinquished by: Christ Wacker
------------	-------	--------------------------------

Received by:	Date	Time
<i>Christine Walter</i>	9/12/13	1647

Received by:  Date: 09/13/13 Time: 1000



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

X	BTEX + MTBE + TPH (Gas only)
	BTEX + MTBE + TPH (Gas only)
X	TPH 8015B (GRO / DRO / VOCs)
	TPH (Method 418.1)
	EDB (Method 504.1)
	PAH's (8310 or 8270 SIMS)
	RCRA 8 Metals
	Anions (F^- , Cl^- , NO_3^- , PO_4^{3-} , SO_4^{2-})
	8081 Pesticides / 8082 PCB's
	8260B (VOA)
	8270 (Semi-VOA)
	Air Bubbles (Y_e or N)

Remarks:
Bill to ConocoPhillips ordered by: Crystal Taboya
WO: 10350629
User: BENALE *Cancelled per
Super: Carlos Ruiz Debbie Watson

Essary, 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.