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 27-5 45**	Facility Type: **Gas**

G

Surface Owner **BLM**	Mineral Owner **SF-079393**	API No.**30-039-07176**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	**06**	**27N**	**05W**	**1550'**	**FSL**	**1750'**	**FWL**	**Rio Arriba**

Latitude 36.600547 Longitude -107.40340

NATURE OF RELEASE

Type of Release **Historic Contamination**	Volume of Release **Unknown**	Volume Recovered **0**
Source of Release **Production Tank**	Date and Hour of Occurrence **Unknown**	Date and Hour of Discovery **5/13/2014**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☐ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Historic contamination was discovered during facility re-set activities.

Describe Area Affected and Cleanup Action Taken.*
Excavation was 25' x 32' x 13' Deep. 348 c/yds of soil was transported to IEI Land Farm and 402 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: Lindsay Dumas	OIL CONSERVATION DIVISION
Printed Name: **Lindsay Dumas**	Approved by Environmental Specialist:
Title: **Field Environmental Specialist**	Approval Date: 7/24/15 Expiration Date:
E-mail Address: **Lindsay.Dumas**@conocophillips.com	Conditions of Approval: Attached ☐
Date: 6/18/2015 Phone: (505) 599-4089	

* Attach Additional Sheets If Necessary

#NCS 1520539684

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3084

August 29, 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

RE: Initial Release Assessment and Final Excavation Report
San Juan 27-5 #45
Rio Arriba County, New Mexico

Dear Ms. Dumas:

On May 9 and July 1, 2014, Animas Environmental Services, LLC (AES) completed an initial release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) San Juan 27-5 #45, located in Rio Arriba County, New Mexico. The historic release was discovered during site facility reset activities. The initial release assessment was completed by AES on May 9, 2014, and the final excavation was completed by CoP contractors prior to AES' arrival at the location on July 1, 2014.

1.0 Site Information

1.1 Location

Site Name – San Juan 27-5 #45
Location – NE¼ SW¼, Section 6, T27N, R5W, Rio Arriba County, New Mexico
Well Head Latitude/Longitude – N36.60029 and W107.40352, respectively
Release Location Latitude/Longitude – N36.60055 and W107.40340, respectively
Land Jurisdiction – Bureau of Land Management (BLM)
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, May 2014

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 10 based on the following factors:

- **Depth to Groundwater:** A cathodic protection report form dated May 1991 for the location reported the depth to groundwater at 110 to 120 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:** An unnamed wash, which is a tributary to the wash in Carrizo Canyon, is located approximately 930 feet to the west-southwest. (10 points)

1.3 Assessment

AES was initially contacted by Jess Henson, CoP representative, on May 8, 2014, and on May 9, 2014, Stephanie Lynn and Emilee Skyles of AES completed the release assessment field work. The assessment included collection and field sampling of 36 soil samples from 9 borings in and around the release area. Soil borings were terminated between 4 and 9 feet. Based on the field sampling results, AES recommended further excavation of the release area. Sample locations are shown on Figure 3.

On July 1, 2014, AES returned to the location to collect confirmation soil samples of the excavation. The field sampling activities included collection of five confirmation soil samples from the walls and base of the excavation. The area of the final excavation measured approximately 32 feet by 19 feet by 6 to 13 feet in depth. The base of the excavation was terminated on a confining sandstone layer. Sample locations and final excavation extents are presented on Figure 4.

2.0 Soil Sampling

A total of 36 soil samples from 9 borings (SB-1 through SB-9) and 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). All composite samples (SC-1 through SC-5) 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:

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

In addition, soil sample SC-5 was laboratory analyzed for:

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

2.3 Field and Laboratory Analytical Results

On May 9, 2014, initial assessment field screening results for VOCs via OVM showed concentrations ranging from 0.0 ppm in SB-4, SB-8, and SB-9 up to 1,509 ppm in SB-2. Field TPH concentrations ranged from 26.8 mg/kg in SB-2 up to 1,980 mg/kg in SB-2.

On July 1, 2014, final excavation clearance field screening results for VOCs via OVM ranged from 16.2 ppm in SC-2 and SC-4 up to 1,596 ppm in SC-5. Field TPH concentrations ranged from 29.0 mg/kg in SC-1 up to 438 mg/kg in SC-5. 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
San Juan 27-5 #45 Initial Release Assessment and Final Excavation
May and July 2014

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	TPH 418.1 (mg/kg)
*NMOCD Action Level**			*100*	*1,000*
SB-1	5/9/14	Surface	3.6	NA
		1	0.9	NA
		2	0.9	NA
		4	0.9	NA
SB-2	5/9/14	Surface	**1,509**	**1,980**
		1	**385**	NA
		2	38.1	**1,900**
		3	30.0	NA
		4	87.7	NA
		5	43.5	NA
		6	**352**	33.3
		7	36.7	NA
		8	81.8	NA
		9	35.1	26.8
SB-3	5/9/14	Surface	75.5	32.0
		2	3.5	NA
		4	1.7	34.6
SB-4	5/9/14	Surface	0.3	NA
		1	0.2	NA
		2	0.0	NA
		4	0.2	NA
SB-5	5/9/14	Surface	**265**	159
		2	12.1	NA
		4	34.4	35.9
SB-6	5/9/14	Surface	0.4	NA

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	TPH 418.1 (mg/kg)
*NMOCD Action Level**			*100*	*1,000*
		2	0.3	NA
		4	0.2	NA
		Surface	0.3	NA
SB-7	5/9/14	2	0.1	NA
		4	0.1	NA
		Surface	0.4	NA
SB-8	5/9/14	2	0.0	NA
		4	0.3	NA
		Surface	13.9	37.2
SB-9	5/9/14	2	0.6	NA
		4	0.0	NA
SC-1	7/1/14	1 to 13	18.1	29.0
SC-2	7/1/14	1 to 13	16.2	35.7
SC-3	7/1/14	1 to 13	63.8	54.6
SC-4	7/1/14	1 to 13	16.2	33.0
SC-5	7/1/14	13	**1,596**	438

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 SC-1 through SC-5 were used to confirm field sampling results from the final excavation limits. Benzene and total BTEX concentrations in SC-5 were reported at 1.9 mg/kg and 40.7 mg/kg, respectively. TPH concentrations as GRO/DRO in above detection limits were reported in SC-3 with 11 mg/kg and SC-5 with 780 mg/kg. 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
San Juan 27-5 #45 Final Excavation Limits
July 2014

Sample ID	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)
*NMOCD Action Level**			*10*	*50*	*1,000*	
SC-1	7/1/14	1 to 13	NA	NA	<4.9	<10
SC-2	7/1/14	1 to 13	NA	NA	<4.6	<10
SC-3	7/1/14	1 to 13	NA	NA	<4.9	11
SC-4	7/1/14	1 to 13	NA	NA	<4.7	<10
SC-5	7/1/14	13	1.9	40.7	580	200

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 May 9, 2014, AES conducted an initial assessment of petroleum contaminated soils associated with a historic release at the San Juan 27-5 #45. 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 10.

Initial assessment field sampling results above the NMOCD action level of 100 ppm VOCs and 1,000 mg/kg TPH were reported in SB-2 and SB-5. The highest VOC concentration was reported in SB-2 with 1,509 ppm, and the highest TPH concentration was also reported in SB-2 with 1,980 mg/kg.

On July 1, 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 of the excavation but above applicable NMOCD action levels for the base of the excavation, which had a VOC concentration of 1,596 ppm. 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-5 below NMOCD action levels, and TPH concentrations as GRO/DRO were reported below the applicable NMOCD action levels in SC-1 through SC-5.

Based on final field sampling and laboratory analytical results of the excavation of petroleum contaminated soils at the San Juan 27-5 #45, 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, May 2014
- Figure 3. Initial Assessment Sample Locations and Results, May 2014
- Figure 4. Final Excavation Sample Locations and Results, July 2014
- AES Field Sampling Report 050914
- AES Field Sampling Report 070114
- Hall Laboratory Analytical Report 1407068
- Hall Laboratory Analytical Report 1407069

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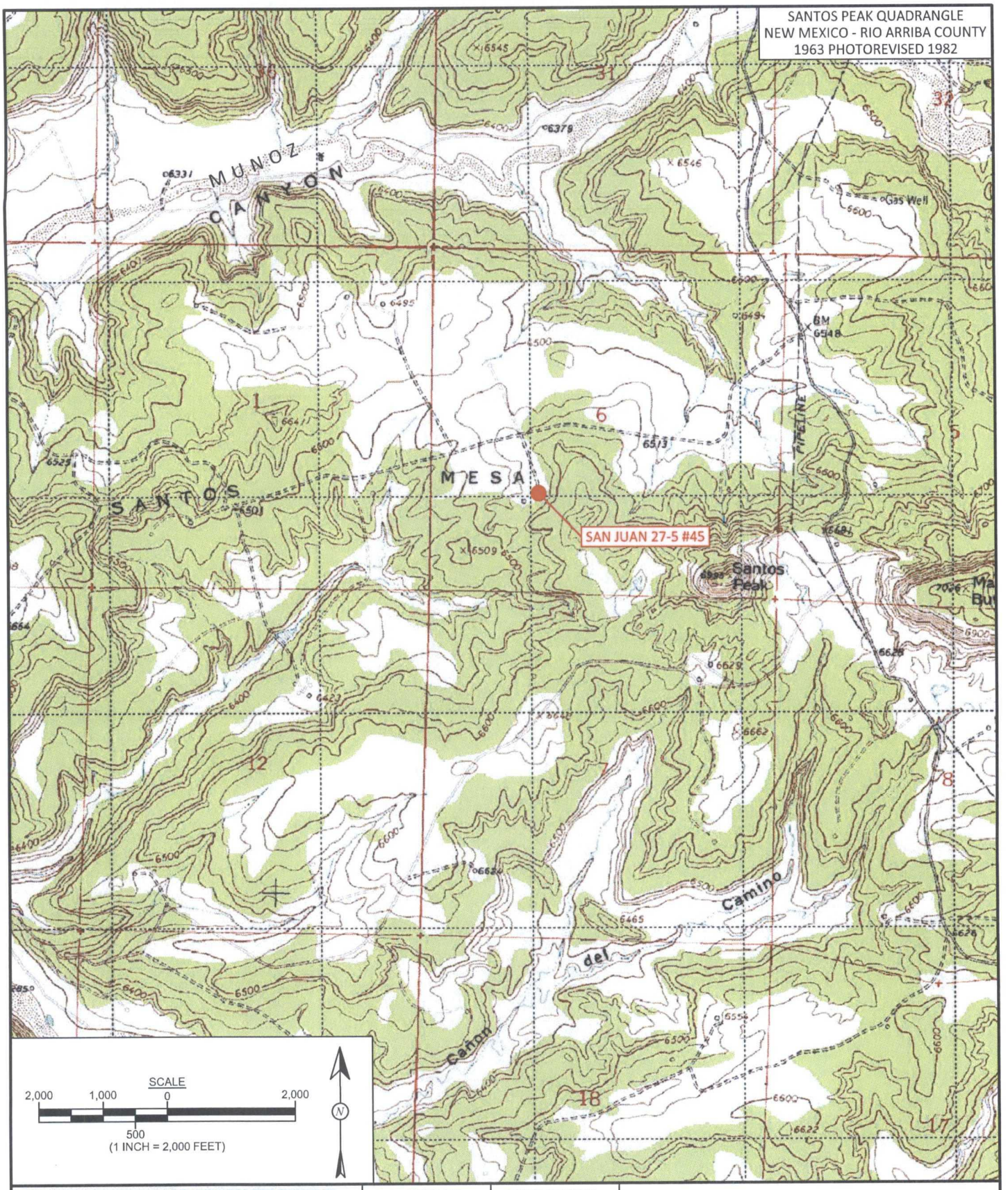


DRAWN BY: C. Lameman	**DATE DRAWN:** July 10, 2014
REVISIONS BY: C. Lameman	**DATE REVISED:** August 6, 2014
CHECKED BY: D. Watson	**DATE CHECKED:** August 6, 2014
APPROVED BY: E. McNally	**DATE APPROVED:** August 6, 2014

Animas Environmental Services, LLC

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP
ConocoPhillips
SAN JUAN 27-5 #45
NE¼ SW¼, SECTION 6, T27N, R5W
RIO ARRIBA COUNTY, NEW MEXICO
N36.60029, W107.40352

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** July 10, 2014	**FIGURE 2**
REVISIONS BY: C. Lameman	**DATE REVISED:** August 6, 2014	**AERIAL SITE MAP MAY 2014**
CHECKED BY: D. Watson	**DATE CHECKED:** August 6, 2014	ConocoPhillips SAN JUAN 27-5 #45 NE¼ SW¼, SECTION 6, T27N, R5W RIO ARRIBA COUNTY, NEW MEXICO N36.60029, W107.40352
APPROVED BY: E. McNally	**DATE APPROVED:** August 6, 2014	

Field Sampling Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	1,000
SB-1	5/9/14	Surface	3.6	NA
		1	0.9	NA
		2	0.9	NA
		4	0.9	NA
SB-2	5/9/14	Surface	**1,509**	**1,980**
		1	**385**	NA
		2	38.1	**1,900**
		3	30.0	NA
		4	87.7	NA
		5	43.5	NA
		6	**352**	33.3
		7	36.7	NA
		8	81.8	NA
		9	35.1	26.8
SB-3	5/9/14	Surface	75.5	32.0
		2	3.5	NA
		4	1.7	34.6
SB-4	5/9/14	Surface	0.3	NA
		1	0.2	NA
		2	0.0	NA
		4	0.2	NA
SB-5	5/9/14	Surface	**265**	159
		2	12.1	NA
		4	34.4	35.9
SB-6	5/9/14	Surface	0.4	NA
		2	0.3	NA
		4	0.2	NA
SB-7	5/9/14	Surface	0.3	NA
		2	0.1	NA
		4	0.1	NA
SB-8	5/9/14	Surface	0.4	NA
		2	0.0	NA
		4	0.3	NA
SB-9	5/9/14	Surface	13.9	37.2
		2	0.6	NA
		4	0.0	NA

NA - NOT ANALYZED

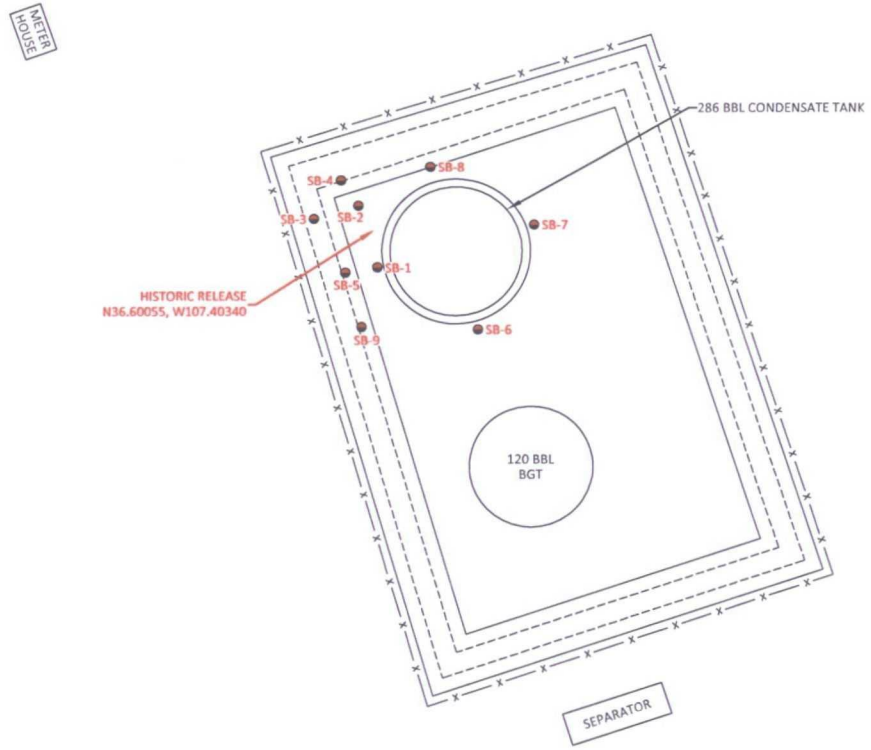


FIGURE 3

INITIAL ASSESSMENT SAMPLE LOCATIONS AND RESULTS MAY 2014

ConocoPhillips
SAN JUAN 27-5 #45
NE¼ SW¼, SECTION 6, T27N, R5W
RIO ARRIBA COUNTY, NEW MEXICO
N36.60029, W107.40352

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** May 12, 2014
REVISIONS BY: C. Lameman	**DATE REVISED:** August 6, 2014
CHECKED BY: D. Watson	**DATE CHECKED:** August 6, 2014
APPROVED BY: E. McNally	**DATE APPROVED:** August 6, 2014

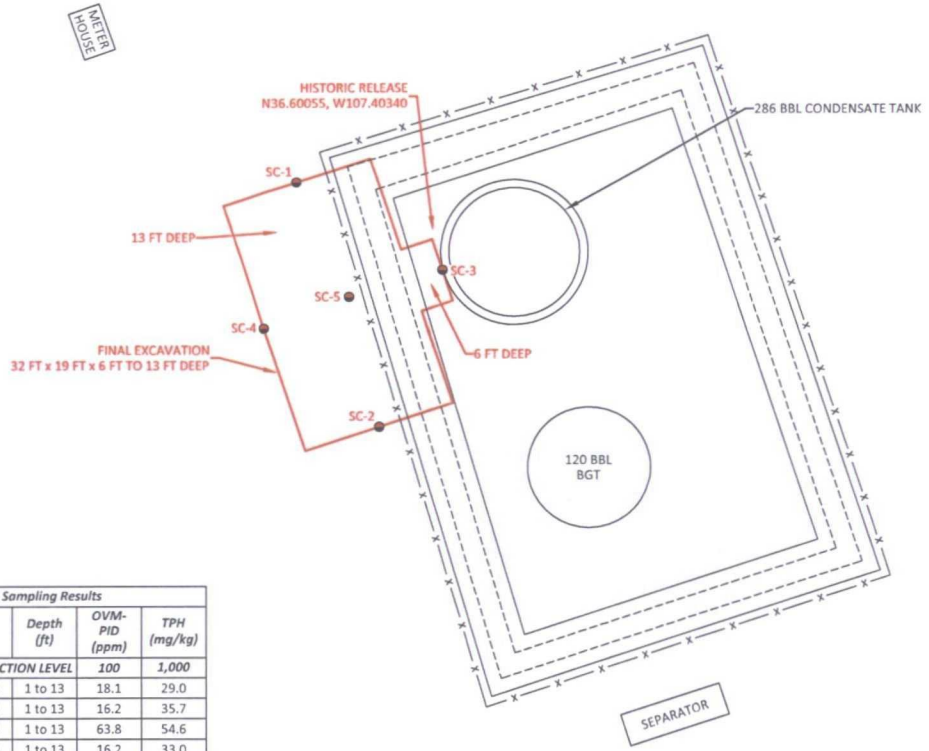
LEGEND

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

SCALE
15 10 5 0 15
(1 INCH = 15 FEET)

FIGURE 4

FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS
JULY 2014
ConocoPhillips
SAN JUAN 27-5 #45
NE¼ SW¼, SECTION 6, T27N, R5W
RIO ARRIBA COUNTY, NEW MEXICO
N36.60029, W107.40352



Field Sampling Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	1,000
SC-1	7/1/14	1 to 13	18.1	29.0
SC-2	7/1/14	1 to 13	16.2	35.7
SC-3	7/1/14	1 to 13	63.8	54.6
SC-4	7/1/14	1 to 13	16.2	33.0
SC-5	7/1/14	13	1,596	438
ALL SAMPLES WERE COMPOSITE SAMPLES.				

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	
SC-1	7/1/14	1 to 13	NA	NA	<4.9	<10
SC-2	7/1/14	1 to 13	NA	NA	<4.6	<10
SC-3	7/1/14	1 to 13	NA	NA	<4.9	11
SC-4	7/1/14	1 to 13	NA	NA	<4.7	<10
SC-5	7/1/14	13	1.9	40.7	580	200
ALL SAMPLES WERE ANALYZED PER EPA METHOD 8021B AND/OR 8015D.						

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: July 10, 2014
REVISIONS BY: C. Lameman	DATE REVISED: August 6, 2014
CHECKED BY: D. Watson	DATE CHECKED: August 6, 2014
APPROVED BY: E. McNally	DATE APPROVED: August 6, 2014

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

SCALE
15 10 5 0 15
(1 INCH = 15 FEET)

AES Field Sampling Report

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 8740
505-564-228
Durango, Colorad
970-403-308

Client: ConocoPhillips
Project Location: San Juan 27-5 #45
Date: 5/9/2014
Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ Surface	5/9/2014	9:37	3.6	*Not Analyzed for TPH*				
SB-1 @ 1'	5/9/2014	9:39	0.9	*Not Analyzed for TPH*				
SB-1 @ 2'	5/9/2014	9:42	0.9	*Not Analyzed for TPH*				
SB-1 @ 4'	5/9/2014	11:35	0.9	*Not Analyzed for TPH*				
SB-2 @ Surface	5/9/2014	9:43	1,509	1,980	14:52	200	10	SAL
SB-2 @ 1'	5/9/2014	9:45	385	*Not Analyzed for TPH*				
SB-2 @ 2'	5/9/2014	9:47	38.1	1,902	13:21	20.0	1	SAL
SB-2 @ 3'	5/9/2014	9:49	30.0	*Not Analyzed for TPH*				
SB-2 @ 4'	5/9/2014	9:50	87.7	*Not Analyzed for TPH*				
SB-2 @ 5'	5/9/2014	9:51	43.5	*Not Analyzed for TPH*				
SB-2 @ 6'	5/9/2014	9:52	352	33.3	13:24	20.0	1	SAL
SB-2 @ 7'	5/9/2014	9:54	36.7	*Not Analyzed for TPH*				
SB-2 @ 8'	5/9/2014	9:56	81.8	*Not Analyzed for TPH*				
SB-2 @ 9'	5/9/2014	9:58	35.1	27.8	13:32	20.0	1	SAL
SB-3 @ Surface	5/9/2014	10:05	75.5	32.0	15:36	20.0	1	SAL
SB-3 @ 2'	5/9/2014	12:02	3.5	*Not Analyzed for TPH*				
SB-3 @ 4'	5/9/2014	12:05	1.7	34.6	15:28	20.0	1	SAL
SB-4 @ Surface	5/9/2014	10:20	0.3	*Not Analyzed for TPH*				
SB-4 @ 1'	5/9/2014	10:21	0.2	*Not Analyzed for TPH*				
SB-4 @ 2'	5/9/2014	10:22	0.0	*Not Analyzed for TPH*				
SB-4 @ 4'	5/9/2014	11:46	0.2	*Not Analyzed for TPH*				
SB-5 @ Surface	5/9/2014	11:50	265	159	15:25	20.0	1	SAL
SB-5 @ 2'	5/9/2014	11:54	12.1	*Not Analyzed for TPH*				
SB-5 @ 4'	5/9/2014	11:58	34.4	35.9	15:31	20.0	1	SAL
SB-6 @ Surface	5/9/2014	14:05	0.4	*Not Analyzed for TPH*				
SB-6 @ 2'	5/9/2014	14:06	0.3	*Not Analyzed for TPH*				

Report Finalized: 05/09/14

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-6 @ 4'	5/9/2014	14:08	0.2	*Not Analyzed for TPH*				
SB-7 @ Surface	5/9/2014	14:12	0.3	*Not Analyzed for TPH*				
SB-7 @ 2'	5/9/2014	14:13	0.1	*Not Analyzed for TPH*				
SB-7 @ 4'	5/9/2014	14:14	0.1	*Not Analyzed for TPH*				
SB-8 @ Surface	5/9/2014	14:17	0.4	*Not Analyzed for TPH*				
SB-8 @ 2'	5/9/2014	14:18	0.0	*Not Analyzed for TPH*				
SB-8 @ 4'	5/9/2014	14:20	0.3	*Not Analyzed for TPH*				
SB-9 @ Surface	5/9/2014	14:30	13.9	37.2	15:54	20.0	1	SAL
SB-9 @ 2'	5/9/2014	14:31	0.6	*Not Analyzed for TPH*				
SB-9 @ 4'	5/9/2014	14:33	0.0	*Not Analyzed for TPH*				

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

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: Stephanie Glynn

** TPH concentrations recorded may be below PQL.*

AES Field Sampling 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 27-5 #45

Date: 7/1/2014

Matrix: Soil

Sample ID	Collection Date	Collection Time	Sample Location	OVM (ppm)	Field TPH* (mg/kg)	TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	7/1/2014	9:00	North Wall	18.1	29.0	9:55	20.0	1	SAL
SC-2	7/1/2014	10:10	South Wall	16.2	35.7	10:28	20.0	1	SAL
SC-3	7/1/2014	9:10	East Wall	63.8	54.6	10:05	20.0	1	SAL
SC-4	7/1/2014	9:15	West Wall	16.2	33.0	10:08	20.0	1	SAL
SC-5	7/1/2014	9:20	Base	1,596	438	10:11	20.0	1	SAL

DF Dilution Factor
NA Not Analyzed
ND Not Detected at the Reporting Limit
PQL Practical Quantitation Limit
**TPH concentrations recorded may be below PQL.*

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: Stephanie Alyn

Report Finalized: 7/1/14

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 07, 2014

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

RE: CoP San Juan 27-5 #45 OrderNo.: 1407068

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 7/1/2014 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 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 qualifers 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1407068**
Date Reported: **7/7/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Project: CoP San Juan 27-5 #45
Lab ID: 1407068-001
Matrix: MEOH (SOIL)
Client Sample ID: SC-5
Collection Date: 7/1/2014 9:20:00 AM
Received Date: 7/1/2014 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	200	9.9		mg/Kg	1	7/2/2014 11:12:46 AM	14014
Surr: DNOP	83.3	57.9-140		%REC	1	7/2/2014 11:12:46 AM	14014
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	580	170		mg/Kg	50	7/2/2014 11:08:44 AM	R19633
Surr: BFB	107	80-120		%REC	50	7/2/2014 11:08:44 AM	R19633
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	1.9	1.7		mg/Kg	50	7/2/2014 11:08:44 AM	R19633
Toluene	17	1.7		mg/Kg	50	7/2/2014 11:08:44 AM	R19633
Ethylbenzene	1.8	1.7		mg/Kg	50	7/2/2014 11:08:44 AM	R19633
Xylenes, Total	20	3.3		mg/Kg	50	7/2/2014 11:08:44 AM	R19633
Surr: 4-Bromofluorobenzene	110	80-120		%REC	50	7/2/2014 11:08:44 AM	R19633

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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407068**

07-Jul-14

Client: Animas Environmental

Project: CoP San Juan 27-5 #45

Sample ID **MB-14014**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **14014**	RunNo: **19624**
Prep Date: **7/2/2014**	Analysis Date: **7/2/2014**	SeqNo: **569693** 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	7.9		10.00		79.4	57.9	140			

Sample ID **LCS-14014**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **14014**	RunNo: **19624**
Prep Date: **7/2/2014**	Analysis Date: **7/2/2014**	SeqNo: **569694** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.2	68.6	130			
Surr: DNOP	3.6		5.000		72.0	57.9	140			

Sample ID **1407069-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **14014**	RunNo: **19653**
Prep Date: **7/2/2014**	Analysis Date: **7/3/2014**	SeqNo: **571952** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.35	0	99.2	40.1	152			
Surr: DNOP	4.7		5.035		94.0	57.9	140			

Sample ID **1407069-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **14014**	RunNo: **19653**
Prep Date: **7/2/2014**	Analysis Date: **7/3/2014**	SeqNo: **571960** 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	100	40.1	152	0.124	32.1	
Surr: DNOP	4.7		5.000		95.0	57.9	140	0	0	

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#: **1407068**

07-Jul-14

Client: Animas Environmental

Project: CoP San Juan 27-5 #45

Sample ID **MB-14005 MK**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R19633**	RunNo: **19633**
Prep Date:	Analysis Date: **7/2/2014**	SeqNo: **570341** 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	960		1000		96.1	80	120			

Sample ID **LCS-14005 MK**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R19633**	RunNo: **19633**
Prep Date:	Analysis Date: **7/2/2014**	SeqNo: **570342** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	115	71.7	134			
Surr: BFB	1000		1000		104	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#: **1407068**

07-Jul-14

Client: Animas Environmental

Project: CoP San Juan 27-5 #45

Sample ID **MB-14005 MK**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R19633**	RunNo: **19633**
Prep Date:	Analysis Date: **7/2/2014**	SeqNo: **570363** 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	1.1		1.000		107	80	120			

Sample ID **LCS-14005 MK**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R19633**	RunNo: **19633**
Prep Date:	Analysis Date: **7/2/2014**	SeqNo: **570364** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	110	80	120			
Toluene	1.1	0.050	1.000	0	108	80	120			
Ethylbenzene	1.1	0.050	1.000	0	110	80	120			
Xylenes, Total	3.3	0.10	3.000	0	110	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		114	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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1407068 RcptNo: 1

Received by/date: 07/01/14

Logged By: Ashley Gallegos 7/1/2014 4:20:00 PM

Completed By: Ashley Gallegos 7/1/2014 4:30:31 PM

Reviewed By: IO 07/01/2014

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 LLC

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 27-5 #45

Project #:

Project Manager: D. Watson

Sampler: S. Lynn

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

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 / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
7-1-14	0920	Soil	SC-5	MeOH kit / 1-40z	MeOH / cold	1407028 -001	X		X													

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/1/14	12:40	Stephanie Hagen		07/01/14	1620
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: Bill to ConocoPhillips
WO: 10361642
act-code: D150
Area: 24
Supervisor: Mike Smith
User: KGARCIA
ordered by: Eric Smith

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 09, 2014

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

RE: CoP San Juan 27-5 #45 OrderNo.: 1407069

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 7/1/2014 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 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 qualifers 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1407069**
Date Reported: **7/9/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Project: CoP San Juan 27-5 #45
Lab ID: 1407069-001 **Matrix:** SOIL

Client Sample ID: SC-1
Collection Date: 7/1/2014 9:00:00 AM
Received Date: 7/1/2014 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/3/2014 12:28:35 PM	14014
Surr: DNOP	82.0	57.9-140		%REC	1	7/3/2014 12:28:35 PM	14014
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/3/2014 1:31:27 PM	14038
Surr: BFB	95.4	80-120		%REC	1	7/3/2014 1:31:27 PM	14038

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
Project: CoP San Juan 27-5 #45
Lab ID: 1407069-002 **Matrix:** SOIL

Client Sample ID: SC-2
Collection Date: 7/1/2014 10:10:00 AM
Received Date: 7/1/2014 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/3/2014 1:34:01 PM	14014
Surr: DNOP	88.6	57.9-140		%REC	1	7/3/2014 1:34:01 PM	14014
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/3/2014 2:57:26 PM	14038
Surr: BFB	101	80-120		%REC	1	7/3/2014 2:57:26 PM	14038

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
Project: CoP San Juan 27-5 #45
Lab ID: 1407069-003 **Matrix:** SOIL

Client Sample ID: SC-3
Collection Date: 7/1/2014 9:10:00 AM
Received Date: 7/1/2014 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	11	10		mg/Kg	1	7/3/2014 1:55:46 PM	14014
Surr: DNOP	95.5	57.9-140		%REC	1	7/3/2014 1:55:46 PM	14014
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/3/2014 3:26:05 PM	14038
Surr: BFB	111	80-120		%REC	1	7/3/2014 3:26:05 PM	14038

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
Project: CoP San Juan 27-5 #45
Lab ID: 1407069-004 **Matrix:** SOIL

Client Sample ID: SC-4
Collection Date: 7/1/2014 9:15:00 AM
Received Date: 7/1/2014 4:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/3/2014 2:17:38 PM	14014
Surr: DNOP	101	57.9-140		%REC	1	7/3/2014 2:17:38 PM	14014
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/3/2014 3:54:41 PM	14038
Surr: BFB	96.7	80-120		%REC	1	7/3/2014 3:54:41 PM	14038

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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407069**

09-Jul-14

Client: Animas Environmental
Project: CoP San Juan 27-5 #45

Sample ID **MB-14014**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **14014**	RunNo: **19624**
Prep Date: **7/2/2014**	Analysis Date: **7/2/2014**	SeqNo: **569693** 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	7.9		10.00		79.4	57.9	140			

Sample ID **LCS-14014**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **14014**	RunNo: **19624**
Prep Date: **7/2/2014**	Analysis Date: **7/2/2014**	SeqNo: **569694** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.2	68.6	130			
Surr: DNOP	3.6		5.000		72.0	57.9	140			

Sample ID **1407069-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **SC-1**	Batch ID: **14014**	RunNo: **19653**
Prep Date: **7/2/2014**	Analysis Date: **7/3/2014**	SeqNo: **571952** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.35	0	99.2	40.1	152			
Surr: DNOP	4.7		5.035		94.0	57.9	140			

Sample ID **1407069-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **SC-1**	Batch ID: **14014**	RunNo: **19653**
Prep Date: **7/2/2014**	Analysis Date: **7/3/2014**	SeqNo: **571960** 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	100	40.1	152	0.124	32.1	
Surr: DNOP	4.7		5.000		95.0	57.9	140	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
- 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#: **1407069**

09-Jul-14

Client: Animas Environmental

Project: CoP San Juan 27-5 #45

Sample ID **MB-14038**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **14038**	RunNo: **19690**
Prep Date: **7/2/2014**	Analysis Date: **7/3/2014**	SeqNo: **571821** 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	950		1000		95.3	80	120			

Sample ID **LCS-14038**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **14038**	RunNo: **19690**
Prep Date: **7/2/2014**	Analysis Date: **7/3/2014**	SeqNo: **571822** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	5.0	25.00	0	121	71.7	134			
Surr: BFB	1100		1000		112	80	120			

Sample ID **1407069-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SC-1**	Batch ID: **14038**	RunNo: **19690**
Prep Date: **7/2/2014**	Analysis Date: **7/3/2014**	SeqNo: **571828** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	4.9	24.51	0	129	71.8	132			
Surr: BFB	1000		980.4		105	80	120			

Sample ID **1407069-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SC-1**	Batch ID: **14038**	RunNo: **19690**
Prep Date: **7/2/2014**	Analysis Date: **7/3/2014**	SeqNo: **571829** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	4.9	24.51	0	133	71.8	132	3.54	20	S
Surr: BFB	1000		980.4		106	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
- 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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Animas Environmental | Work Order Number: 1407069 | RcptNo: 1

Received by/date: YMG 07/01/14

Logged By: Ashley Gallegos 7/1/2014 4:20:00 PM

Completed By: Ashley Gallegos 7/1/2014 4:43:52 PM

Reviewed By: 07/02/14

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? (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 LLC

Mailing Address: 624 E Comanche Farmington NM 87401

Phone #: 505 5642281

email or Fax#:

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

Accreditation ☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: CoP San Juan 27-5 #45

Project #:

Project Manager: D. Watson

Sampler: S. Lynn

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

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. 1407069	BTEX + MTBE + TMB's (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 ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
7-1-14	900	Soil	SC-1	1-4oz	cold	-001			X													
7-1-14	1010	Soil	SC-2	1-4oz	cold	-002			X													
7-1-14	910	soil	SC-3	1-4oz	cold	-003			X													
7-1-14	915	Soil	SC-4	1-4oz	cold	-004			X													

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/1/14	12:40	Stephanie Flynn			
Date:	Time:	Relinquished by:	Received by:	07/01/14	1620

Remarks: Bill to ConocoPhillips
WO: 10361642 Supervisor: Mike Smith
act code: D150 User: KGARCIA
Area: 24 ordered by: Eric Smith