

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

Form C-141  
Revised August 8, 2011

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

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 <b>Lindsay Dumas</b>
Address 3401 East 30 <sup>th</sup> St, Farmington, NM	Telephone No. (505) 599-4089
Facility Name: San Juan 28-6 152M	Facility Type: Gas

Surface Owner: BLM	Mineral Owner: BLM (NM-013657)	API No. 30-039-29349
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<b>O</b>	<b>24</b>	<b>28N</b>	<b>06W</b>	<b>240'</b>	<b>FSL</b>	<b>2335'</b>	<b>FEL</b>	<b>Rio Arriba</b>

Latitude **36.64037** Longitude **-107.41772**

**NATURE OF RELEASE**

Type of Release Produced Water	Volume of Release 20 bbls	Volume Recovered 20 bbls
Source of Release Overflow of pit	Date and Hour of Occurrence <b>6/11/2015</b>	Date and Hour of Discovery <b>6/11/2015</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	

**OIL CONS. DIV DIST. 3**  
**NOV 16 2015**

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
A pit overflowed causing 20 bbls of produced water to flow into the cribbing of the pit. There was no loss of pit integrity.

Describe Area Affected and Cleanup Action Taken.\*  
Based on final field sampling and laboratory analytical results of the release assessment at the San Juan 28-6 152M, benzene total BTEX, TPH, and chloride concentrations were below applicable NMOCD action levels. No further work is recommended.

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: <b>Lindsay Dumas</b>	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: <b>Field Environmental Specialist</b>	Approval Date: <b>12/24/2015</b>	Expiration Date:
E-mail Address: <b>Lindsay.Dumas@conocophillips.com</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 11/9/2015	Phone: (505) 599-4089	

**NCS1518954239**

\* Attach Additional Sheets If Necessary



August 24, 2015

Lindsay Dumas  
ConocoPhillips  
San Juan Business Unit  
(505) 599-4089

OIL CONS. DIV DIST. 3  
NOV 16 2015

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

**RE: Release Assessment Report  
San Juan 28-6 #152M  
Rio Arriba County, New Mexico**

Dear Ms. Dumas:

On June 24, 2015, Animas Environmental Services, LLC (AES) completed a release assessment at the ConocoPhillips (COPC) San Juan 28-6 #152M, located in Rio Arriba County, New Mexico. The release consisted of approximately 20 barrels (bbls) of produced water due to an overflow of the below grade tank (BGT) on location.

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## 1.0 Site Information

### 1.1 Location

Site Name – San Juan 28-6 #152M

Location – SW¼ SE¼, Section 24, T28N, R6W, Rio Arriba County, New Mexico

Well Head Latitude/Longitude – N36.64017 and W107.41752, respectively

Release Location Latitude/Longitude – N36.64037 and W107.41772, respectively

Land Jurisdiction – Bureau of Land Management (BLM)

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, June 2015

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

1911 Main, Ste 280  
Durango, CO 81301  
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 10 based on the following factors:

- **Depth to Groundwater:** A C-144 form dated July 2005 for the location reported the depth to groundwater at 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:** An unnamed wash approximately 400 feet east of the BGT flows into Fourmile Canyon. (10 points)

## 1.3 Assessment

AES was initially contacted by Lindsay Dumas of COPC on June 16, 2015, and on June 24, 2015, Dylan Davis and Emilee Skyles of AES completed the release assessment field work. The assessment included collection and field sampling of a total of four soil samples from two discrete surface locations and two soil borings in and around the release area. Soil borings samples were collected at 5.5 feet bgs. Sample locations are presented on Figure 3.

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## 2.0 Soil Sampling

Two soil samples from two soil borings (SB-1 and SB-2) and two surface samples (S-1 and S-2) were collected during the assessment. All soil samples were field screened for chloride concentrations and total petroleum hydrocarbons (TPH).

### 2.1 Field Sampling

#### 2.1.1 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*.

### 2.1.2 Chlorides

All soil samples were field screened for chlorides using Chloride Drop Count Titration with silver nitrate. Sampling and analysis methods followed procedures provided by Hach Company.

## 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 boring samples SB-1 and SB-2 were laboratory analyzed for the following:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021B;
- TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015D; and
- Chloride per USEPA Method 300.0.

## 2.3 Field and Laboratory Analytical Results

On June 24, 2015, release assessment field screening results for field TPH concentrations ranged from less than 20.0 mg/kg in SB-1 and S-1 up to 30.1 mg/kg in S-2. Chloride concentrations ranged from 100 mg/kg in S-1 and S-2 up to 120 mg/kg in SB-1 and SB-2. Results are included below in Table 1 and on Figure 3. The AES Field Sampling Report is attached.

Table 1. Soil Field TPH Results  
 San Juan 28-6 #152M Release Assessment, June 2015

Sample ID	Date Sampled	Sample Depth (ft bgs)	TPH 418.1 (mg/kg)	Chlorides (mg/kg)
<i>NMOCD Action Level*</i>			1,000	NE
SB-1	6/24/15	5.5	<20.0	100
SB-2	6/24/15	5.5	24.0	100
S-1	6/24/15	Surface	<20.0	120
S-2	6/24/15	Surface	30.1	120

NE – not established

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

Laboratory analyses for SB-1 and SB-2 were used to confirm field sampling results of the release assessment. Benzene, total BTEX concentrations, and TPH concentrations as GRO/DRO were reported below laboratory detection limits in each sample. Chloride concentrations ranged from 40 mg/kg in SB-2 up to 51 mg/kg in SB-1. 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 #152M Release Assessment, June 2015

<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>Chloride (mg/kg)</i>
<i>NMOCD Action Level*</i>			10	50	1,000		NE
SB-1	6/24/15	5.5	<0.50	<0.249	<5.0	<9.6	51
SB-2	6/24/15	5.5	<0.47	<0.236	<4.7	<9.9	40

NE - not established

\*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 June 24, 2015, AES conducted a release assessment of petroleum contaminated soils associated with a release of produced water at the San Juan 28-6 #152M. 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.

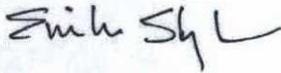
Release assessment field sampling results below the NMOCD action level of 100 mg/kg TPH were reported in all samples collected. The highest field TPH concentration was reported in S-2 with 30.1 mg/kg.

Laboratory analyses for SB-1 and SB-2 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, in each sample. TPH concentrations as GRO/DRO were below the NMOCD action level of 100 mg/kg.

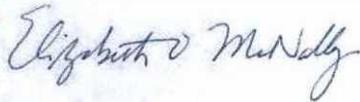
Based on final field sampling and laboratory analytical results of the release assessment at the San Juan 28-6 #152M, benzene, total BTEX, TPH, and chloride concentrations were below applicable NMOCD action levels. No further work is recommended.

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

Sincerely,



Emilee Skyles  
Staff Geologist

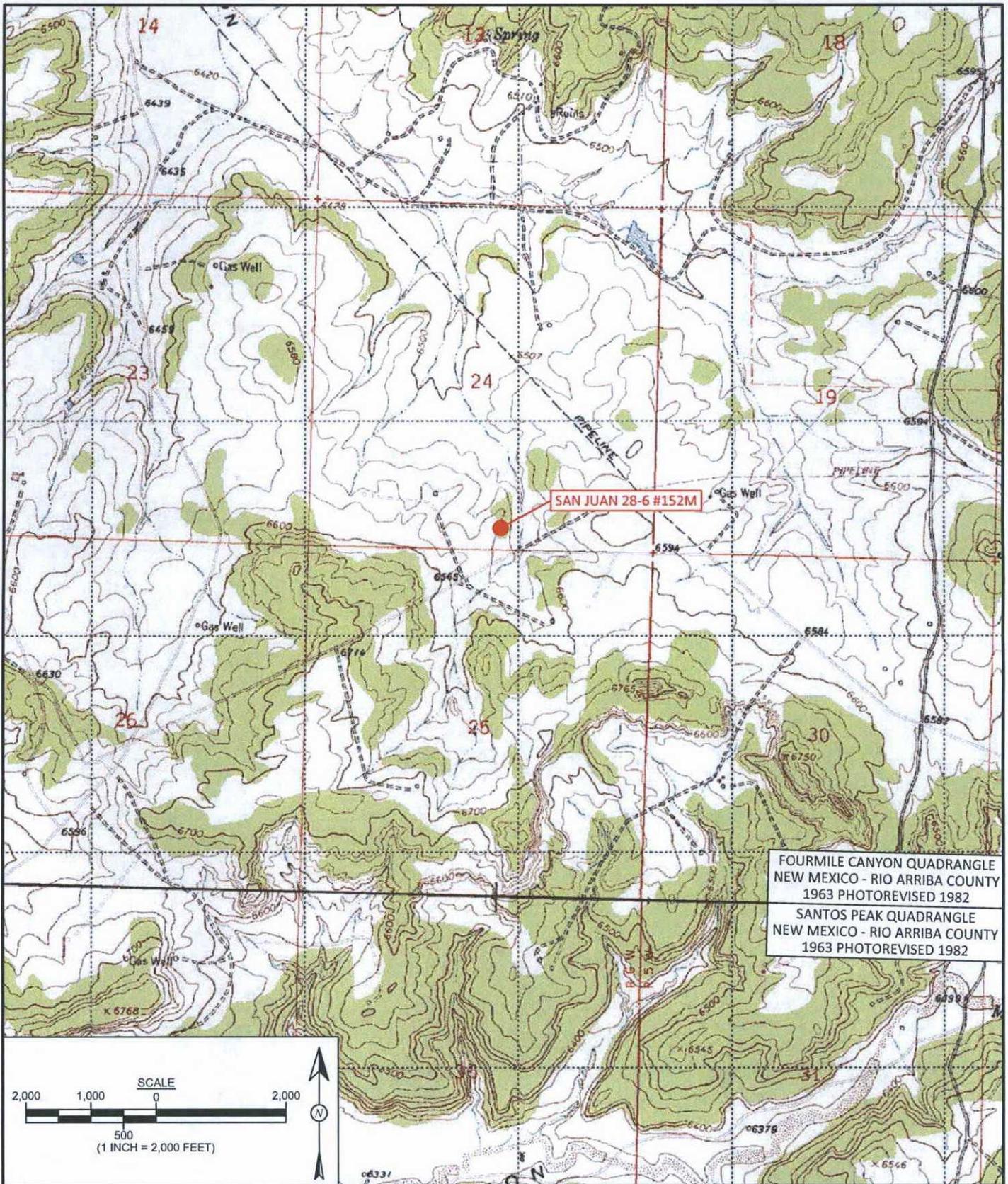


Elizabeth McNally, PE

Attachments:

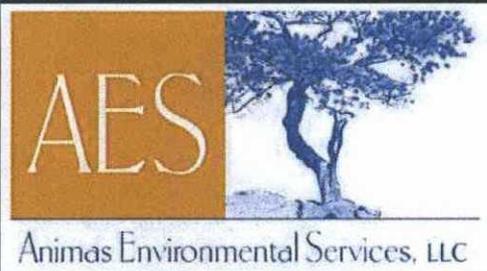
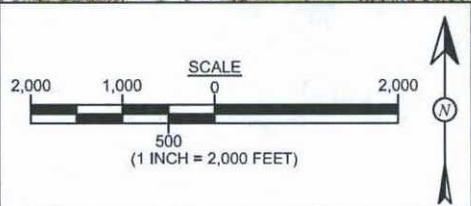
- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, June 2015
- Figure 3. Release Assessment Sample Locations and Results, June 2015
- AES Field Sampling Report 062415
- Hall Laboratory Analytical Report 1506C93

R:\Animas 2000\Dropbox\0000 Animas Server Dropbox EM\2015 Projects\ConocoPhillips\SJ 28-6 152M\COPC  
San Juan 28-6 #152M Release Assessment Report 082415 EM.docx



FOURMILE CANYON QUADRANGLE  
 NEW MEXICO - RIO ARRIBA COUNTY  
 1963 PHOTOREVISED 1982

SANTOS PEAK QUADRANGLE  
 NEW MEXICO - RIO ARRIBA COUNTY  
 1963 PHOTOREVISED 1982



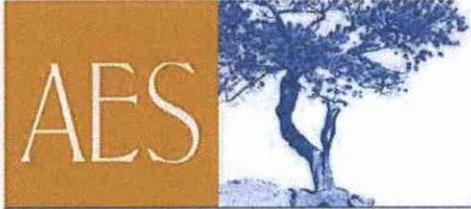
<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> July 9, 2015
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> July 9, 2015
<b>CHECKED BY:</b> E. Skyles	<b>DATE CHECKED:</b> July 9, 2015
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> July 9, 2015

**FIGURE 1**

**TOPOGRAPHIC SITE LOCATION MAP**  
 ConocoPhillips  
 SAN JUAN 28-6 #152M  
 SW¼ SE¼, SECTION 24, T28N, R6W  
 RIO ARRIBA COUNTY, NEW MEXICO  
 N36.64017, W107.41752

LEGEND	
	SECONDARY CONTAINMENT BERM
	FENCE



 <b>AES</b> Animas Environmental Services, LLC	<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> July 9, 2015	<b>FIGURE 2</b>  <b>AERIAL SITE MAP</b> ConocoPhillips SAN JUAN 28-6 #152M SW¼ SE¼, SECTION 24, T28N, R6W RIO ARRIBA COUNTY, NEW MEXICO N36.64017, W107.41752
	<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> July 9, 2015	
	<b>CHECKED BY:</b> E. Skyles	<b>DATE CHECKED:</b> July 9, 2015	
	<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> July 9, 2015	

**FIGURE 3**

**RELEASE ASSESSMENT SAMPLE LOCATIONS AND RESULTS JUNE 2015**  
 ConocoPhillips  
 SAN JUAN 28-6 #152M  
 SW 1/4 SE4, SECTION 24, T28N, R6W  
 RIO ARriba COUNTY, NEW MEXICO  
 N36.64017, W107.41752

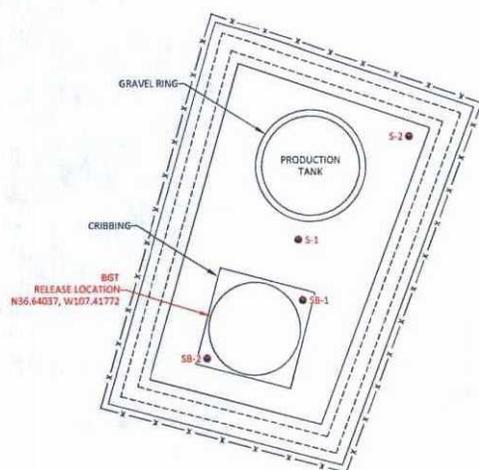


Avitas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lammeman	<b>DATE DRAWN:</b> July 9, 2015
<b>REVISIONS BY:</b> C. Lammeman	<b>DATE REVISED:</b> July 9, 2015
<b>CHECKED BY:</b> E. Skyles	<b>DATE CHECKED:</b> July 9, 2015
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> July 9, 2015

**LEGEND**

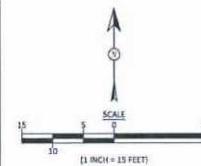
- SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM
- x- FENCE



Field Sampling Results					
Sample ID	Date	Depth (ft)	DIV/PIB (ppm)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD ACTION LEVEL			100	1,000	250
S-1	6/24/15	0.5	NA	<20.0	120
S-2	6/24/15	0.5	NA	30.1	120
SB-1	6/24/15	5.5	NA	<20.0	100
SB-2	6/24/15	5.5	NA	24.0	100
NA - NOT ANALYZED					

Laboratory Analytical Results							
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	Chloride (mg/kg)
NMOCD ACTION LEVEL			10	50	1,000	NE	
SB-1	6/24/15	5.5	<0.050	<0.349	<5.0	<9.6	51
SB-2	6/24/15	5.5	<0.047	<0.236	<4.7	<9.9	40
ALL SAMPLES WERE ANALYZED PER USEPA METHOD 8021B, 8015D, AND 300.0.							

SAN JUAN 28-6 #152M WELL HEAD



# AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: San Juan 28-6 #152M

Date: 6/24/2015

Matrix: Soil

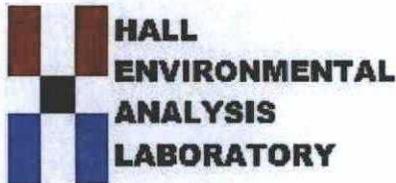
Sample ID	Collection Date	Collection Time	OVM (ppm)	Field Chloride (mg/kg)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
S-1	6/24/2015	9:10	NA	120	13.3	10:00	20.0	0	EMS
S-2	6/24/2015	9:11	NA	120	30.1	10:04	20.0	0	EMS
SB-1	6/24/2015	10:27	NA	100	16.1	16:20	20.0	0	EMS
SB-2	6/24/2015	11:04	NA	100	24.0	16:24	20.0	0	EMS

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)

July 06, 2015

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

RE: CoP San Juan 28-6 152M

OrderNo.: 1506C93

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/26/2015 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 white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Animas Environmental

Client Sample ID: SB-1 @ 5.5'

Project: CoP San Juan 28-6 152M

Collection Date: 6/24/2015 10:27:00 AM

Lab ID: 1506C93-001

Matrix: SOIL

Received Date: 6/26/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	51	30		mg/Kg	20	7/2/2015 2:30:09 AM	20066
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/1/2015 6:06:39 PM	19977
Surr: DNOP	101	57.9-140		%REC	1	7/1/2015 6:06:39 PM	19977
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/30/2015 1:31:59 PM	20005
Surr: BFB	88.5	75.4-113		%REC	1	6/30/2015 1:31:59 PM	20005
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	1	6/30/2015 1:31:59 PM	20005
Toluene	ND	0.050		mg/Kg	1	6/30/2015 1:31:59 PM	20005
Ethylbenzene	ND	0.050		mg/Kg	1	6/30/2015 1:31:59 PM	20005
Xylenes, Total	ND	0.099		mg/Kg	1	6/30/2015 1:31:59 PM	20005
Surr: 4-Bromofluorobenzene	93.7	80-120		%REC	1	6/30/2015 1:31:59 PM	20005

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 Not In Range
	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: SB-2 @ 5.5'

Project: CoP San Juan 28-6 152M

Collection Date: 6/24/2015 11:04:00 AM

Lab ID: 1506C93-002

Matrix: SOIL

Received Date: 6/26/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	40	30		mg/Kg	20	7/2/2015 2:42:34 AM	20066
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/1/2015 4:15:27 AM	19977
Surr: DNOP	93.5	57.9-140		%REC	1	7/1/2015 4:15:27 AM	19977
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/30/2015 2:00:45 PM	20005
Surr: BFB	86.7	75.4-113		%REC	1	6/30/2015 2:00:45 PM	20005
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	6/30/2015 2:00:45 PM	20005
Toluene	ND	0.047		mg/Kg	1	6/30/2015 2:00:45 PM	20005
Ethylbenzene	ND	0.047		mg/Kg	1	6/30/2015 2:00:45 PM	20005
Xylenes, Total	ND	0.095		mg/Kg	1	6/30/2015 2:00:45 PM	20005
Surr: 4-Bromofluorobenzene	90.8	80-120		%REC	1	6/30/2015 2:00:45 PM	20005

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 Not In Range
	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#: 1506C93  
 06-Jul-15

**Client:** Animas Environmental  
**Project:** CoP San Juan 28-6 152M

Sample ID	<b>MB-20066</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>20066</b>	RunNo:	<b>27235</b>					
Prep Date:	<b>7/1/2015</b>	Analysis Date:	<b>7/2/2015</b>	SeqNo:	<b>815857</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-20066</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>20066</b>	RunNo:	<b>27235</b>					
Prep Date:	<b>7/1/2015</b>	Analysis Date:	<b>7/2/2015</b>	SeqNo:	<b>815858</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.6	90	110			

**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 Not In Range                             |
| 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#: 1506C93

06-Jul-15

**Client:** Animas Environmental  
**Project:** CoP San Juan 28-6 152M

Sample ID	<b>MB-19977</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>19977</b>	RunNo:	<b>27182</b>					
Prep Date:	<b>6/26/2015</b>	Analysis Date:	<b>6/30/2015</b>	SeqNo:	<b>815290</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.2		10.00		92.0	57.9	140			

Sample ID	<b>LCS-19977</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>19977</b>	RunNo:	<b>27182</b>					
Prep Date:	<b>6/26/2015</b>	Analysis Date:	<b>6/30/2015</b>	SeqNo:	<b>815306</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	50.00	0	80.2	57.4	139			
Surr: DNOP	4.5		5.000		89.1	57.9	140			

Sample ID	<b>MB-19990</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>19990</b>	RunNo:	<b>27182</b>					
Prep Date:	<b>6/29/2015</b>	Analysis Date:	<b>7/1/2015</b>	SeqNo:	<b>815505</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.7		10.00		87.1	57.9	140			

Sample ID	<b>MB-20028</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>20028</b>	RunNo:	<b>27182</b>					
Prep Date:	<b>6/30/2015</b>	Analysis Date:	<b>7/2/2015</b>	SeqNo:	<b>816327</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		101	57.9	140			

Sample ID	<b>LCS-20028</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>20028</b>	RunNo:	<b>27182</b>					
Prep Date:	<b>6/30/2015</b>	Analysis Date:	<b>7/2/2015</b>	SeqNo:	<b>816328</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	6.1		5.000		121	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 Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506C93

06-Jul-15

**Client:** Animas Environmental  
**Project:** CoP San Juan 28-6 152M

Sample ID <b>MB-20005</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>20005</b>	RunNo: <b>27195</b>								
Prep Date: <b>6/29/2015</b>	Analysis Date: <b>6/30/2015</b>	SeqNo: <b>814609</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	870		1000		87.1	75.4	113			

Sample ID <b>LCS-20005</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>20005</b>	RunNo: <b>27195</b>								
Prep Date: <b>6/29/2015</b>	Analysis Date: <b>6/30/2015</b>	SeqNo: <b>814610</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	64	130			
Surr: BFB	920		1000		91.5	75.4	113			

**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 Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506C93

06-Jul-15

**Client:** Animas Environmental  
**Project:** CoP San Juan 28-6 152M

Sample ID	<b>MB-20005</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>20005</b>	RunNo:	<b>27195</b>					
Prep Date:	<b>6/29/2015</b>	Analysis Date:	<b>6/30/2015</b>	SeqNo:	<b>814628</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.91		1.000		91.0	80	120			

Sample ID	<b>LCS-20005</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>20005</b>	RunNo:	<b>27195</b>					
Prep Date:	<b>6/29/2015</b>	Analysis Date:	<b>6/30/2015</b>	SeqNo:	<b>814629</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.050	1.000	0	99.3	76.6	128			
Toluene	0.98	0.050	1.000	0	98.1	75	124			
Ethylbenzene	1.0	0.050	1.000	0	102	79.5	126			
Xylenes, Total	3.0	0.10	3.000	0	101	78.8	124			
Surr: 4-Bromofluorobenzene	0.95		1.000		95.2	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 Not In Range                             |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

**Sample Log-In Check List**

Client Name: Animas Environmental

Work Order Number: 1506C93

RcptNo: 1

Received by/date: LM 06/26/15

Logged By: Anne Thorne 6/26/2015 7:00:00 AM *Anne Thorne*

Completed By: Anne Thorne 6/26/2015 *Anne Thorne*

Reviewed By: *JA* 06/29/15

**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	2.5	Good	Yes			

