

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 <b>ConocoPhillips Company</b>	Contact <b>Lindsay Dumas</b>
Address <b>3401 East 30<sup>th</sup> St, Farmington, NM</b>	Telephone No. <b>(505) 599-4089</b>
Facility Name: <b>San Juan 29-5 Unit 104</b>	Facility Type: <b>Gas Well</b>
Surface Owner <b>BLM</b>	Mineral Owner <b>SF-078642</b>
API No. <b>30-039-22469</b>	

**LOCATION OF RELEASE**

Unit Letter <b>B</b>	Section <b>10</b>	Township <b>29N</b>	Range <b>05W</b>	Feet from the <b>950'</b>	North/South Line <b>FNL</b>	Feet from the <b>1720'</b>	East/West Line <b>FEL</b>	County <b>Rio Arriba</b>
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Latitude 36.7446404 Longitude -107.34110

**NATURE OF RELEASE**

Type of Release <b>Hydrocarbon</b>	Volume of Release <b>0.514 BBL</b>	Volume Recovered <b>N/A</b>
Source of Release <b>Pit tank overflow</b>	Date and Hour of Occurrence <b>6/13/13 11:30 AM</b>	Date and Hour of Discovery <b>6/13/13 11:45 AM</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

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

If a Watercourse was Impacted, Describe Fully.\*

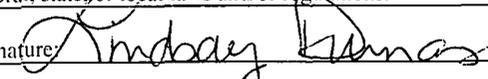
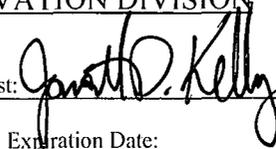
Describe Cause of Problem and Remedial Action Taken.\*

**A non-reportable volume of hydrocarbons were released from the BGT at the location. Excavation and soil assessment were completed.**

Describe Area Affected and Cleanup Action Taken.\*

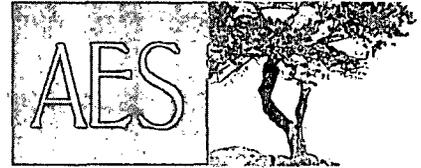
**Excavation was 14' x 14' x 6' Deep. 50 c/yds of soil was transported to IEI Land Farm and 90 c/yds of clean soil was transported from Aztec Machine Co. and placed in the excavation site. Analytical results were below the regulatory standards – no further action required. The soil sampling report is 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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Lindsay Dumas</b>	Approved by Environmental Specialist: 	
Title: <b>Field Environmental Specialist</b>	Approval Date: <b>6/18/2014</b>	Expiration Date:
E-mail Address: <b>Lindsay.Dumas@conocophillips.com</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>12/23/13</b>	Phone: <b>(505) 599-4089</b>	

\* Attach Additional Sheets If Necessary

**nJK14169 35561**



Animas Environmental Services, LLC

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

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

Durango, Colorado  
970-403-3084

November 25, 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](mailto:SJBUE-Team@ConocoPhillips.com)

**RE: Initial Release Assessment and Final Excavation Report  
San Juan 29-5 #104  
Rio Arriba County, New Mexico**

Dear Ms. Dumas:

On July 18 and August 13, 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 29-5 #104, located in Rio Arriba County, New Mexico. A non-reportable volume of hydrocarbons were released from the below grade tank (BGT) at the location. The initial release assessment was completed by AES on July 18, 2013, and the final excavation was completed by CoP contractors while AES was on location on August 13, 2013.

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## 1.0 Site Information

### 1.1 Location

Location – NW¼ NE¼, Section 10, T29N, R5W, Rio Arriba County, New Mexico  
Well Head Latitude/Longitude – N36.74464 and W107.34171, respectively  
Release Location Latitude/Longitude – N36.74483 and W107.34182, respectively  
Land Jurisdiction – Private  
Figure 1. Topographic Site Location Map  
Figure 2. Aerial Site Map, July 2013

### 1.2 NMOCD Ranking

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

and Releases (August 1993) prior to site work. The location was given a ranking score of 20 based on the following factors:

- **Depth to Groundwater:** A Cathodic Report for the San Juan 29-5 #104, dated May 1999, reported the depth to groundwater as between 50 and 99 feet below ground surface (bgs). (10 points)
- **Wellhead Protection Area:** The location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** The wash in La Jara Canyon is located approximately 450 feet to the west. (10 points)

### *1.3 Assessment*

AES was initially contacted by Lisa Hunter of CoP on July 9, 2013, and on July 18, 2013, Heather Woods and Jessie Christopherson of AES completed the release assessment field work. The assessment included collection and field screening of 20 soil samples from eight soil borings in and around the release area. Based on the field screening results, AES recommended further excavation of the release area. Sample locations are presented on Figure 3.

On August 13, 2013, AES returned to the location to collect confirmation soil samples of the excavation. The field screening activities included collection of one composite soil sample (SC-1) from the sidewalls and base of the excavation. The area of the final excavation was approximately 22 feet by 19 feet by 6.5 feet in depth. Sample locations and final excavation extents are shown on Figure 4.

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## **2.0 Soil Sampling**

A total of 20 soil samples were collected from soil borings SB-1 through SB-8, and one composite sample (SC-1) was collected during the assessment and final clearance. All soil samples were field screened for volatile organic compounds (VOCs), and selected samples were also analyzed for total petroleum hydrocarbons (TPH). Three soil samples (SB-2, SB-3, and SB-8) 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. All soil samples were laboratory analyzed for:

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

**2.3 Field Screening and Laboratory Analytical Results**

On July 18, 2013, initial assessment field screening results for VOCs via OVM showed concentrations ranging from 0.0 ppm in several samples up to 0.2 ppm in SB-4. Field TPH concentrations ranged from 83.6 mg/kg in SB-5 up to greater than 2,500 mg/kg in SB-3.

On August 8, 2013, the final excavation field screening results for VOCs via OVM and field TPH concentrations in SC-1 were 0.0 ppm and 87.9 mg/kg, respectively. 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 29-5 #104 Initial Release Assessment and Final Excavation  
 July and August 2013

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>	<i>Field TPH (mg/kg)</i>
			<i>NMOCD Action Level*</i>	<i>100</i>
		2.5	0.0	<b>488</b>
SB-1	7/18/13	4.5	0.0	<b>133</b>
		6.5	0.0	95.0

<b>Sample ID</b>	<b>Date Sampled</b>	<b>Sample Depth (ft bgs)</b>	<b>VOCs via OVM (ppm)</b>	<b>Field TPH (mg/kg)</b>
		<i>NMOCD Action Level*</i>	100	100
SB-2	7/18/13	2.5	0.0	<b>103</b>
		4.5	0.0	<b>133</b>
		6.5	0.0	<b>127</b>
SB-3	7/18/13	2.5	0.0	<b>304</b>
		4.5	0.0	<b>&gt;2,500</b>
		6.5	0.0	<b>156</b>
SB-4	7/18/13	2.5	0.2	<b>110</b>
		4.5	0.2	98.8
		6.5	0.0	NA
SB-5	7/18/13	Surface	0.1	NA
		2.5	0.1	83.6
SB-6	7/18/13	Surface	0.0	NA
		2.5	0.1	98.8
SB-7	7/18/13	Surface	0.0	NA
		2.5	0.1	91.2
SB-8	7/18/13	Surface	0.0	NA
		2.5	0.0	<b>111</b>
SC-1	8/13/13	1 to 6.5	0.0	87.9

NA – not analyzed

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

Laboratory analyses for SB-2, SB-3, and SB-8 were used to confirm field screening results of the initial release assessment. TPH concentrations as GRO/DRO were reported in SB-2 (18 mg/kg) and SB-3 (46 mg/kg). TPH concentrations as GRO and DRO in SB-8 were reported below laboratory detection limits with less than 4.6 mg/kg and 9.9 mg/kg, respectively. Results are presented in Table 2 and on Figure 3. The laboratory analytical report is attached.

Table 2. Laboratory Analytical Results –TPH  
 San Juan 29-5 #104 Initial Release Assessment, July 2013

<i>Sample ID</i>	<i>Date</i>	<i>Depth (ft)</i>	<i>TPH- GRO (mg/kg)</i>	<i>TPH- DRO (mg/kg)</i>
<i>NMOCD Action Level*</i>			<i>100</i>	
SB-2	7/18/13	4	<4.9	18
SB-3	7/18/13	4	<4.7	46
SB-8	7/18/13	2.5	<4.6	<9.9

NA – not analyzed

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

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### 3.0 Conclusions and Recommendations

On July 18, 2013, AES conducted an initial assessment of petroleum contaminated soils associated with a release from the below grade tank at the San Juan 29-5 #104. 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 20. All samples had field screening VOC results below the NMOCD action level of 100 ppm; however, field screening results for TPH showed concentrations above the NMOCD action level of 100 mg/kg in nine samples collected from SB-1 through SB-4, with the highest TPH concentration reported in SB-3 at 4.5 feet (>2,500 mg/kg). Laboratory analyses for SB-2, SB-3, and SB-8 were used to confirm field screening results, and TPH concentrations as GRO/DRO were reported below the NMOCD action level of 100 mg/kg in all three samples.

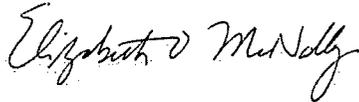
On August 13, 2013, final assessment of the excavation area was completed. Field screening results of the excavation extents showed that VOC concentrations and TPH concentrations were reported below applicable NMOCD action levels of 100 ppm VOCs and 100 mg/kg TPH. Based on final field screening results of the final excavation at the San Juan 29-5 #104, VOC and TPH concentrations were below applicable NMOCD action levels for the final composite sample collected from 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 Deborah Watson at (505) 564-2281.

Sincerely,



Kelsey Christiansen  
Environmental Scientist

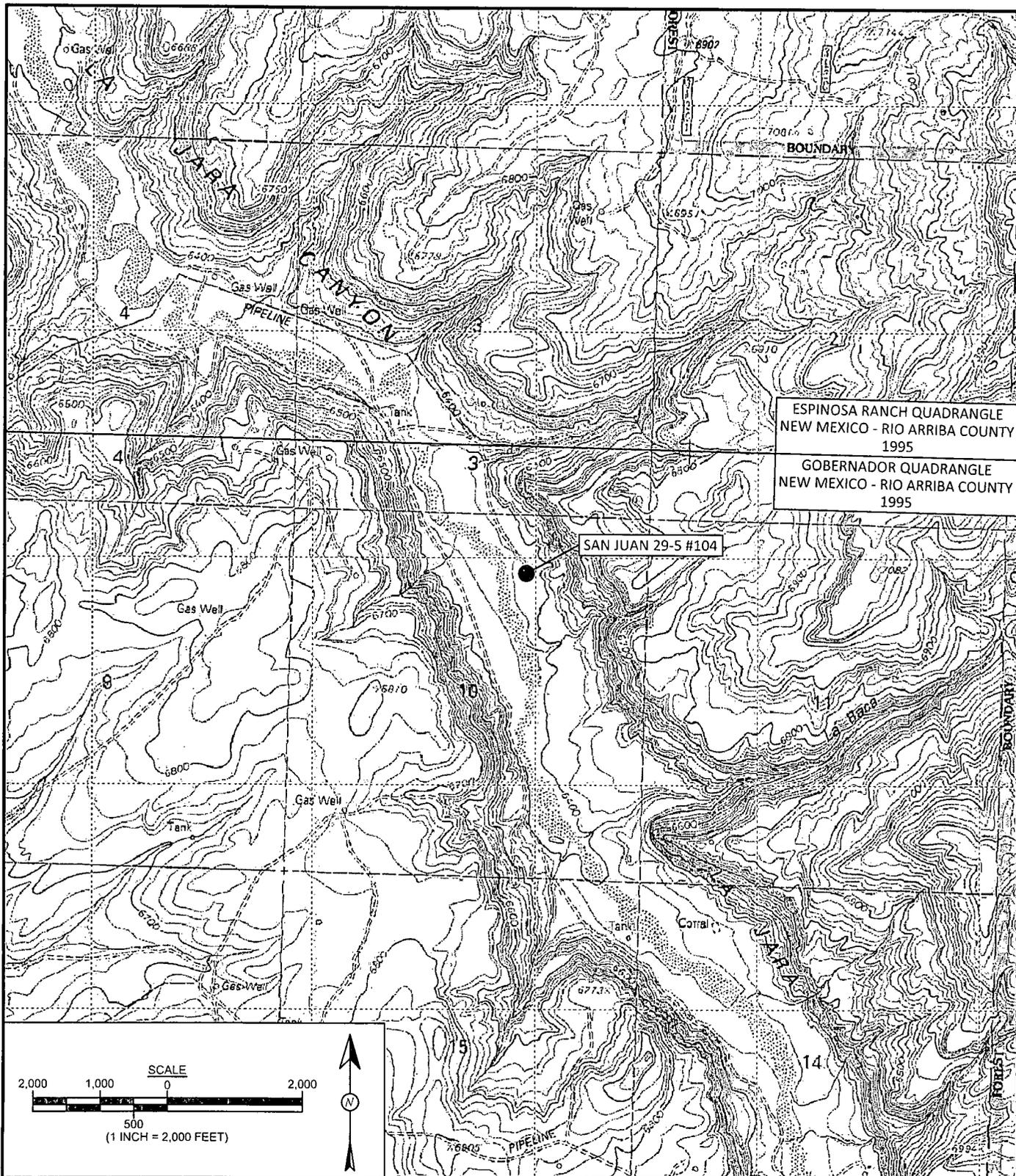


Elizabeth McNally, PE

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, July 2013
- Figure 3. Initial Assessment Sample Locations and Results, July 2013
- Figure 4. Final Excavation Sample Locations and Results, August 2013
- AES Field Screening Report 071813
- AES Field Screening Report 081313
- Hall Laboratory Analytical Report 1307907

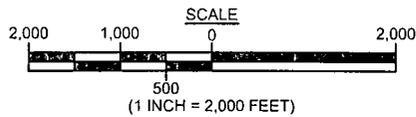
R:\Animas 2000\Dropbox\2013 Projects\ConocoPhillips\SJ 29-5 #104\CoP San Juan 29-5 #104 Initial Release Assessment and Final Excavation Report 112513.docx



ESPINOSA RANCH QUADRANGLE  
 NEW MEXICO - RIO ARRIBA COUNTY  
 1995

GOBERNADOR QUADRANGLE  
 NEW MEXICO - RIO ARRIBA COUNTY  
 1995

SAN JUAN 29-5 #104

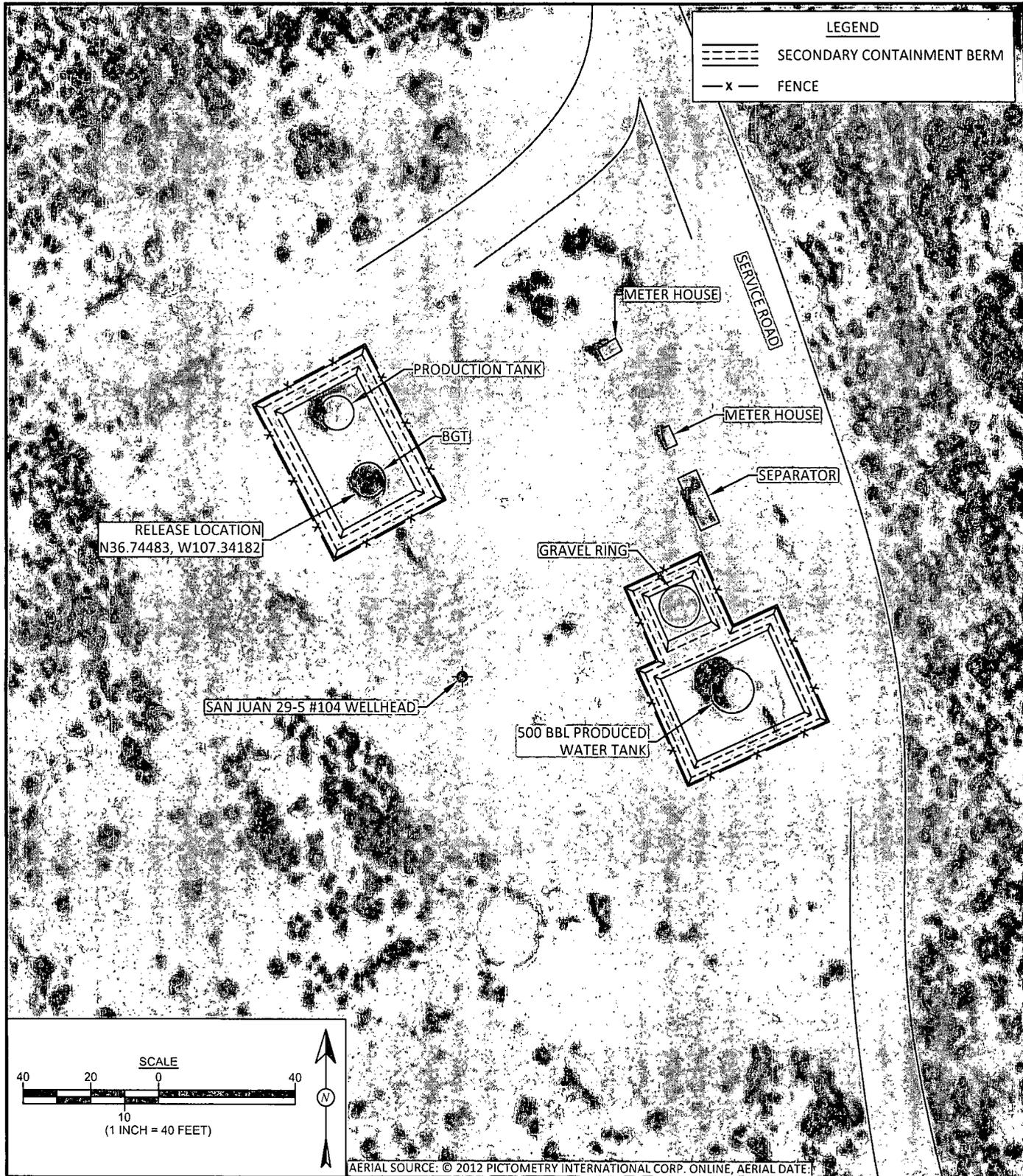


Animas Environmental Services, LLC

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

**FIGURE 1**

**TOPOGRAPHIC SITE LOCATION MAP**  
 ConocoPhillips  
 SAN JUAN 29-5 #104  
 NW¼ NE¼, SECTION 10, T29N, R5W  
 RIO ARRIBA COUNTY, NEW MEXICO  
 N36.74464, W107.34171



**FIGURE 2**

**AERIAL SITE MAP  
JULY 2013**

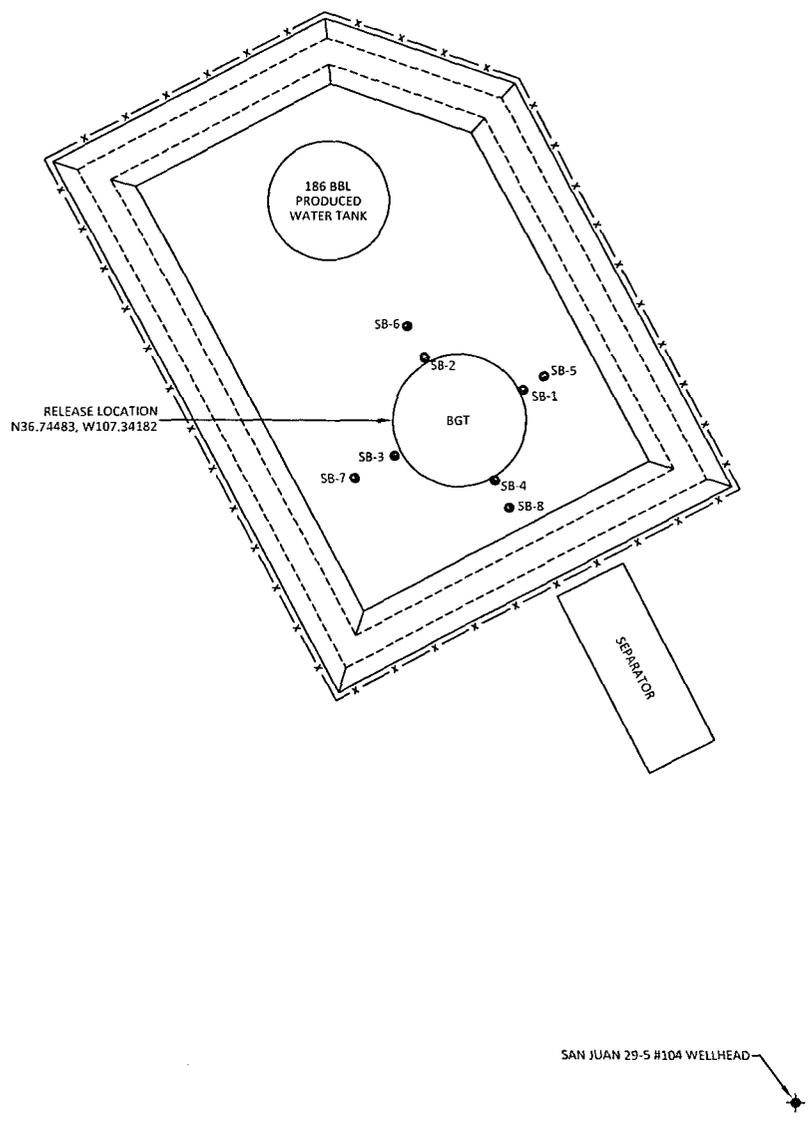
ConocoPhillips  
 SAN JUAN 29-5 #104  
 NW¼ NE¼, SECTION 10, T29N, R5W  
 RIO ARRIBA COUNTY, NEW MEXICO  
 N36.74464, W107.34171



Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> July 19, 2013
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> July 19, 2013
<b>CHECKED BY:</b> H. Woods	<b>DATE CHECKED:</b> July 19, 2013
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> July 19, 2013

METER HOUSE



Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	100
SB-1	7/18/13	2.5	0.0	488
		4.5	0.0	133
		6.5	0.0	95.0
SB-2	7/18/13	2.5	0.0	103
		4.5	0.0	133
		6.5	0.0	127
SB-3	7/18/13	2.5	0.0	304
		4.5	0.0	>2,500
		6.5	0.0	156
SB-4	7/18/13	2.5	0.2	110
		4.5	0.2	98.8
		6.5	0.0	NA
SB-5	7/18/13	Surface	0.1	NA
		2.5	0.1	83.6
SB-6	7/18/13	Surface	0.0	NA
		2.5	0.1	98.8
SB-7	7/18/13	Surface	0.0	NA
		2.5	0.1	91.2
SB-8	7/18/13	Surface	0.0	NA
		2.5	0.0	111

NA - NOT ANALYZED

FIGURE 3

INITIAL ASSESSMENT SAMPLE LOCATIONS AND RESULTS  
 JULY 2013  
 ConocoPhillips  
 SAN JUAN 29-5 #104  
 NW¼, NE¼, SECTION 10, T29N, R5W  
 RIO ARRIBA COUNTY, NEW MEXICO  
 N36.74464, W107.34171

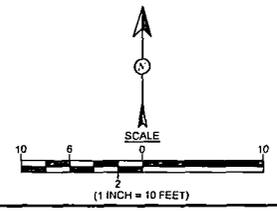


Animas Environmental Services, LLC

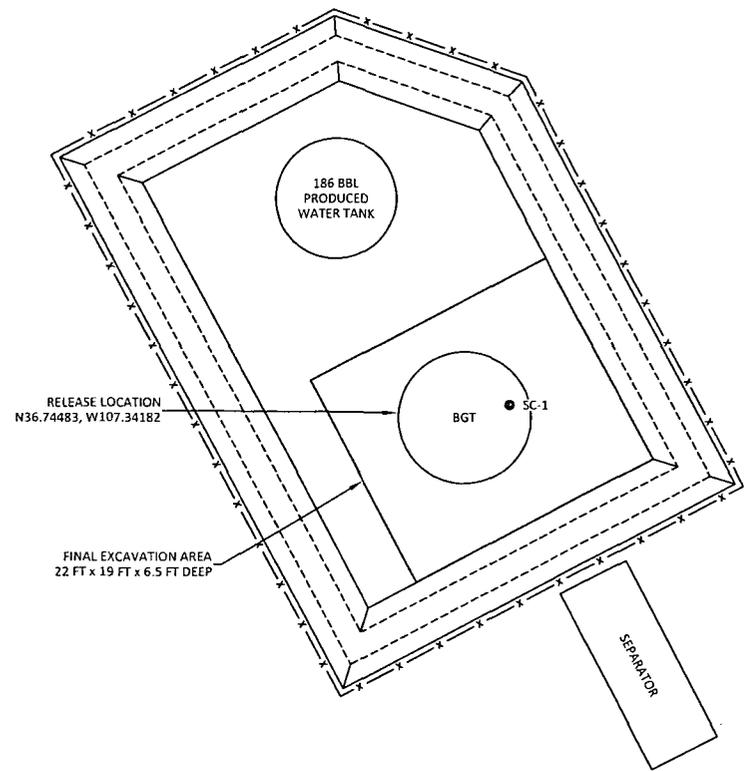
<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> July 19, 2013
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> July 19, 2013
<b>CHECKED BY:</b> H. Woods	<b>DATE CHECKED:</b> July 19, 2013
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> July 19, 2013

LEGEND

- SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM
- x - FENCE



METER HOUSE



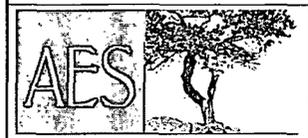
**Field Screening Results**

Sample ID	Date	Depth (ft)	OVM-PIQ (ppm)	TPH (mg/kg)
<b>NMOC ACTION LEVEL</b>			<b>100</b>	<b>100</b>
SC-1	8/13/13	1 to 6.5	0.0	87.9

SC-1 IS A 5-POINT COMPOSITE SAMPLE OF EXCAVATION SIDE WALLS AND BASE. NA - NOT ANALYZED

**FIGURE 4**

**FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS AUGUST 2013**  
 ConocoPhillips  
 SAN JUAN 29-5 #104  
 NW¼ NE¼, SECTION 10, T29N, R5W  
 RIO ARRIBA COUNTY, NEW MEXICO  
 N36.74464, W107.34171

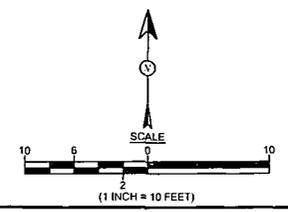


Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> August 14, 2013
<b>REVISIONS BY:</b> S. Glasses	<b>DATE REVISED:</b> August 14, 2013
<b>CHECKED BY:</b> H. Woods	<b>DATE CHECKED:</b> August 14, 2013
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> August 14, 2013

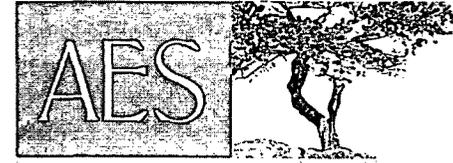
**LEGEND**

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



SAN JUAN 29-5 #104 WELLHEAD

# 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 29-5 #104

Date: 7/18/2013

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	OVM (ppm)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ 2.5'	7/18/2013	11:13	0.0	12:26	488	20.0	1	HW
SB-1 @ 4.5'	7/18/2013	11:17	0.0	13:07	133	20.0	1	HW
SB-1 @ 6.5'	7/18/2013	11:25	0.0	14:02	95.0	20.0	1	HW
SB-2 @ 2'	7/18/2013	11:27	0.0	12:29	103	20.0	1	HW
SB-2 @ 4.5'	7/18/2013	11:31	0.0	13:10	133	20.0	1	HW
SB-2 @ 6.5'	7/18/2013	11:39	0.0	14:05	127	20.0	1	HW
SB-3 @ 2.5'	7/18/2013	11:42	0.0	12:31	304	20.0	1	HW
SB-3 @ 4.5'	7/18/2013	11:49	0.0	13:13	>2,500	20.0	1	HW
SB-3 @ 6.5'	7/18/2013	11:54	0.0	14:08	156	20.0	1	HW
SB-4 @ 2.5'	7/18/2013	11:57	0.2	12:33	110	20.0	1	HW
SB-4 @ 4.5'	7/18/2013	12:04	0.2	13:15	98.8	20.0	1	HW
SB-4 @ 6.5'	7/18/2013	12:14	0.0	<i>Not analyzed for TPH.</i>				
SB-5 @ surface	7/18/2013	12:30	0.1	<i>Not analyzed for TPH.</i>				
SB-5 @ 2.5'	7/18/2013	12:35	0.1	13:18	83.6	20.0	1	HW

San Juan 29-5 #104

Page 1

Report Finalized: 07/18/13

Sample ID	Collection Date	Time of Sample Collection	OVM (ppm)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-6 @ surface	7/18/2013	12:38	0.0	Not analyzed for TPH.				
SB-6 @ 2.5'	7/18/2013	12:42	0.1	13:56	98.8	20.0	1	HW
SB-7 @ surface	7/18/2013	12:46	0.0	Not analyzed for TPH.				
SB-7 @ 2.5'	7/18/2013	12:50	0.1	13:59	91.2	20.0	1	HW
SB-8@ surface	7/18/2013	12:55	0.0	Not analyzed for TPH.				
SB-8 @ 2.5'	7/18/2013	12:59	0.0	14:13	111	20.0	1	HW

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.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:

*Leather 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 29-5 #104

Date: 8/13/2013

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	8/13/2013	10:10	Composite of Sidewalls and Base	0.0	10:35	87.9	20.0	1	DW

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.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:



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 29, 2013

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

RE: CoP San Juan 29-5 #104

OrderNo.: 1307907

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 7/19/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental

**Client Sample ID:** SB-2 @ 4'

**Project:** CoP San Juan 29-5 #104

**Collection Date:** 7/18/2013 11:39:00 AM

**Lab ID:** 1307907-001

**Matrix:** SOIL

**Received Date:** 7/19/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	18	9.9		mg/Kg	1	7/25/2013 10:13:31 AM	8492
Surr: DNOP	138	63-147		%REC	1	7/25/2013 10:13:31 AM	8492
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>DAM</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/25/2013 12:28:06 PM	8541
Surr: BFB	96.5	80-120		%REC	1	7/25/2013 12:28:06 PM	8541

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Animas Environmental

Client Sample ID: SB-3 @ 4'

Project: CoP San Juan 29-5 #104

Collection Date: 7/18/2013 11:54:00 AM

Lab ID: 1307907-002

Matrix: SOIL

Received Date: 7/19/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	46	10		mg/Kg	1	7/26/2013 11:41:32 AM	8492
Surr: DNOP	133	63-147		%REC	1	7/26/2013 11:41:32 AM	8492
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: DAM
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/25/2013 12:56:37 PM	8541
Surr: BFB	92.0	80-120		%REC	1	7/25/2013 12:56:37 PM	8541

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

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental  
**Project:** CoP San Juan 29-5 #104  
**Lab ID:** 1307907-003

**Matrix:** SOIL

**Client Sample ID:** SB-8 @ 2.5'  
**Collection Date:** 7/18/2013 12:59:00 PM  
**Received Date:** 7/19/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/26/2013 12:03:08 PM	8492
Surr: DNOP	104	63-147		%REC	1	7/26/2013 12:03:08 PM	8492
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>DAM</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/25/2013 1:25:16 PM	8541
Surr: BFB	92.0	80-120		%REC	1	7/25/2013 1:25:16 PM	8541

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1307907

29-Jul-13

**Client:** Animas Environmental  
**Project:** CoP San Juan 29-5 #104

Sample ID <b>MB-8492</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>8492</b>	RunNo: <b>12141</b>								
Prep Date: <b>7/22/2013</b>	Analysis Date: <b>7/24/2013</b>	SeqNo: <b>345745</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	13		10.00		127	63	147			

Sample ID <b>LCS-8492</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>8492</b>	RunNo: <b>12141</b>								
Prep Date: <b>7/22/2013</b>	Analysis Date: <b>7/24/2013</b>	SeqNo: <b>345791</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	77.1	128			
Surr: DNOP	5.6		5.000		112	63	147			

Sample ID <b>MB-8563</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>8563</b>	RunNo: <b>12178</b>								
Prep Date: <b>7/25/2013</b>	Analysis Date: <b>7/25/2013</b>	SeqNo: <b>346476</b>			Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		122	63	147			

Sample ID <b>LCS-8563</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>8563</b>	RunNo: <b>12178</b>								
Prep Date: <b>7/25/2013</b>	Analysis Date: <b>7/25/2013</b>	SeqNo: <b>346525</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	63	147			

Sample ID <b>1307901-002AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>8492</b>	RunNo: <b>12209</b>								
Prep Date: <b>7/22/2013</b>	Analysis Date: <b>7/26/2013</b>	SeqNo: <b>347406</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	49.95	0	97.9	61.3	138			
Surr: DNOP	4.5		4.995		89.5	63	147			

Sample ID <b>1307901-002AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>8492</b>	RunNo: <b>12209</b>								
Prep Date: <b>7/22/2013</b>	Analysis Date: <b>7/26/2013</b>	SeqNo: <b>347408</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	9.9	49.46	0	107	61.3	138	9.18	20	
Surr: DNOP	5.0		4.946		101	63	147	0	0	

### Qualifiers:

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- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1307907

29-Jul-13

Client: Animas Environmental

Project: CoP San Juan 29-5 #104

Sample ID	MB-8541	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	8541	RunNo:	12184					
Prep Date:	7/24/2013	Analysis Date:	7/25/2013	SeqNo:	347415	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	930		1000		92.7	80	120			

Sample ID	LCS-8541	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	8541	RunNo:	12184					
Prep Date:	7/24/2013	Analysis Date:	7/25/2013	SeqNo:	347417	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	62.6	136			
Surr: BFB	1000		1000		99.7	80	120			

Sample ID	1307907-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SB-2 @ 4'	Batch ID:	8541	RunNo:	12184					
Prep Date:	7/24/2013	Analysis Date:	7/25/2013	SeqNo:	347441	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.7	23.28	0	126	76	156			
Surr: BFB	960		931.1		103	80	120			

Sample ID	1307907-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SB-2 @ 4'	Batch ID:	8541	RunNo:	12184					
Prep Date:	7/24/2013	Analysis Date:	7/25/2013	SeqNo:	347442	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.7	23.28	0	87.2	76	156	36.6	17.7	R
Surr: BFB	930		931.1		99.6	80	120	0	0	

## Qualifiers:

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- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit



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: 1307907

RcptNo: 1

Received by/date:

*AG*

*07/19/13*

Logged By: Michelle Garcia

7/19/2013 10:00:00 AM

*Michelle Garcia*

Completed By: Michelle Garcia

7/19/2013 1:41:11 PM

*Michelle Garcia*

Reviewed By:

*[Signature]*

*07/22/13*

**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?

**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  # 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**

