

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., 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 in 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>Lisa Hunter</b>
Address <b>3401 E. 30<sup>th</sup> Street, Farmington, NM 87402</b>	Telephone No. <b>505-326-9786</b>
Facility Name <b>San Juan 28-7 Unit 58A – West Tank</b>	Facility Type <b>Gas Well</b>
Surface Owner <b>Federal</b>	Mineral Owner <b>Federal</b>
API No. <b>3003923983</b> <b>SF-078497</b>	

**LOCATION OF RELEASE**

Unit Letter <b>D</b>	Section <b>29</b>	Township <b>28N</b>	Range <b>07W</b>	Feet from the <b>790'</b>	North/South Line <b>North</b>	Feet from the <b>790'</b>	East/West Line <b>West</b>	County <b>Rio Arriba</b>
-------------------------	----------------------	------------------------	---------------------	------------------------------	----------------------------------	------------------------------	-------------------------------	-----------------------------

Latitude 36.637665 Longitude -107.60258

**NATURE OF RELEASE**

Type of Release <b>Unknown</b>	Volume of Release <b>Unknown</b>	Volume Recovered <b>60 cubic yds</b>
Source of Release <b>Below Grade Tank</b>	Date and Hour of Occurrence <b>Unknown</b>	Date and Hour of Discovery <b>March 1, 2013</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	<b>RCVD SEP 5 '13</b>
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>OIL CONS. DIV. DIST. 3</b>	

If a Watercourse was Impacted, Describe Fully.\*

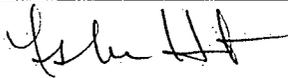
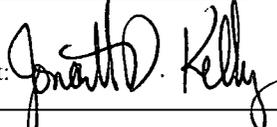
**N/A**

Describe Cause of Problem and Remedial Action Taken.\*

**Below Grade Tank Activities.**

Describe Area Affected and Cleanup Action Taken.\* **Historical hydrocarbon impacted soil was found during the BGT closure for the subject well. The excavation was 18' x 18' x 11' in depth and 60 yds of soil was transported to IEI land farm and 60 yds of clean soil was transported from Pacheco Ranch 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>Lisa M. Hunter</b>	Approved by Environmental Specialist: 	
Title: <b>Field Environmental Specialist</b>	Approval Date: <b>9/1/2013</b>	Expiration Date:
E-mail Address: <b>Lisa.Hunter@cop.com</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>August 27, 2013</b>	Phone: <b>505-326-9786</b>	

\* Attach Additional Sheets If Necessary

**NSK 1325438462**



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

August 19, 2013

Lisa Hunter  
ConocoPhillips  
San Juan Business Unit  
Office 214-4  
5525 Hwy 64  
Farmington, New Mexico 87401

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

**RE: West Below Grade Tank Closure, Release Assessment,  
and Final Excavation Report  
San Juan 28-7 #58A  
Rio Arriba County, New Mexico**

Dear Ms. Hunter:

On March 1, 4, and 5, and June 18, 2013, Animas Environmental Services, LLC (AES) completed below grade tank (BGT) closure sampling, an initial release assessment, and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) San Juan 28-7 #58A west BGT located in Rio Arriba County, New Mexico. The historical release was discovered during BGT closure sampling at the location. An initial release assessment was completed on March 5, 2013. The final excavation was completed by contractors prior to AES' arrival on location on June 18, 2013.

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## 1.0 Site Information

### 1.1 Location

Site Name – San Juan 28-7 #58A West BGT

Legal Description - NW¼ NW¼, Section 29, T28N, R7W, Rio Arriba County, New Mexico

Well Latitude/Longitude – N36.63766 and W107.60315, respectively

BGT/Release Latitude/Longitude - N36.63792 and W107.60345, respectively

Land Jurisdiction - Bureau of Land Management (BLM)

Figure 1 - Topographic Site Location Map

Figure 2 - Aerial Site Map, March 2013

## 1.2 NMOCD Ranking

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to site work. The release was given a ranking score of 30 based on the following factors:

- **Depth to Groundwater:** A Pit Remediation and Closure Report form dated November 2000 reported the depth to groundwater as less than 50 feet below ground surface (bgs). (20 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** Carrizo Creek is located approximately 350 feet south of the location. (10 points)

## 1.3 Assessments

AES was initially contacted by Steve Welch, CoP representative, on February 28, 2013, for BGT closure sampling at the location. On March 1, 2013, Corwin Lameman and Kelsey Christiansen of AES traveled to the location and collected six soil samples from approximately 0.5 feet below the BGT liner. On March 4, 2013, AES returned to the location and collected an additional five point composite sample (SC-2) from approximately 1.5 feet below the BGT liner. Sample locations are included on Figure 2.

On March 5, 2013, AES personnel completed the release assessment field work. The assessment included collection and field screening of 13 soil samples from six test holes (TH-1 through TH-6). Based on field screening results, AES recommended excavation of the release area. Sample locations are shown on Figure 3.

On June 18, 2013, AES personnel returned to the location to collect confirmation soil samples of the excavation. The field screening activities included collection of five confirmation soil samples (SC-3 through SC-7) of the walls and base of the excavation. The final excavation measured 21 feet by 25 feet by 11 feet in depth. Sample locations and final excavation extents are presented on Figure 4.

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## 2.0 Soil Sampling

On March 1, 2013, during BGT closure sampling, AES personnel conducted field screening and collected five soil samples (S-1 through S-5) from below the BGT. Soil samples were collected from approximately 0.5 feet below the former BGT for field screening of volatile organic compounds (VOCs) and total petroleum hydrocarbon (TPH). A five point composite sample (SC-1) was collected for confirmation laboratory analysis.

On March 4, 2013, an additional five point composite sample (SC-2) was collected from approximately 1.5 feet below the former BGT for confirmation laboratory analysis.

A total of 13 soil samples from 6 test holes (TH-1 through TH-6) and 5 composite samples (SC-3 through SC-7) were collected during the release and excavation assessments. All soil samples were field screened for VOCs, and selected samples were analyzed for TPH.

## 2.1 Soil Field Screening

### 2.1.1 Volatile Organic Compounds

A portion of each sample was utilized for field screening of VOC vapors 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

Soil samples were also analyzed in the field for TPH 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 composite soil samples (SC-1 and SC-2) collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto sample chain of custody records. The samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. Soil samples were laboratory analyzed for:

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

## 2.3 Field and Laboratory Analytical Results

On March 1, 2013, BGT closure field screening readings for VOCs via OVM ranged from 0.2 ppm in S-2 up to 1,205 ppm in S-5. Field TPH concentrations ranged from less than 20.0 mg/kg in S-1 to 1,430 mg/kg in S-5.

On March 5, 2013, initial assessment field screening readings for VOCs via OVM ranged from 0.1 ppm in TH-5 up to 55.7 ppm in TH-1. Field TPH concentrations ranged from less than 20.0 mg/kg in TH-4 through TH-6 to 124 mg/kg in TH-1.

On June 18, 2013, final excavation field screening results for VOCs via OVM ranged from 2.1 ppm in SC-3 up to 2.5 ppm in SC-6 and SC-7. Field TPH concentrations ranged from 48.3 mg/kg in SC-6 to 82.7 mg/kg in SC-4. Field screening VOC and TPH results are summarized in Table 1 and on Figures 2 through 4. The AES field screening reports are attached.

Table 1. Soil Field Screening VOCs and TPH Results  
 San Juan 28-7 #58A West BGT Closure, Release Assessment, and Final Excavation Report  
 March and June 2013

Sample ID	Date Sampled	Sample Depth (ft)	VOCs OVM Reading (ppm)	Field TPH (mg/kg)
<i>NMOC</i> D Action Level*			<b>100</b>	<b>100</b>
S-1	3/1/13	0.5	6.1	<20.0
S-2	3/1/13	0.5	0.2	20.5
S-3	3/1/13	0.5	2.1	<b>379</b>
S-4	3/1/13	0.5	1.6	26.1
S-5	3/1/13	0.5	<b>1,205</b>	<b>1,430</b>
TH-1	3/5/13	10	55.7	<b>124</b>
		12	4.6	<20.0
TH-2	3/5/13	5	1.2	28.9
		9	0.6	NA
TH-3	3/5/13	1.5	1.5	NA
		4.5	2.7	NA
		8	1.6	NA
TH-4	3/5/13	4.5	0.5	<20.0
		9	1.2	NA
TH-5	3/5/13	4	0.2	<20.0
		9.5	0.1	NA
TH-6	3/5/13	4	0.5	NA
		9	2.7	<20.0
SC-3	6/18/13	1 to 11	2.1	55.2

<b>Sample ID</b>	<b>Date Sampled</b>	<b>Sample Depth (ft)</b>	<b>VOCs OVM Reading (ppm)</b>	<b>Field TPH (mg/kg)</b>
<b>NMOCD Action Level*</b>			<b>100</b>	<b>100</b>
SC-4	6/18/13	1 to 11	2.2	82.7
SC-5	6/18/13	1 to 11	2.3	74.4
SC-6	6/18/13	1 to 11	2.5	48.3
SC-7	6/18/13	11	2.5	49.7

NA – not analyzed

\*Action levels for BGT closure are determined by NMAC 19.15.17.13E; Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993).

Laboratory analytical results for SC-1 collected on March 1, 2013, showed the benzene concentration was below the laboratory detection limit of 0.25 mg/kg. The total BTEX concentration was 2.2 mg/kg. TPH concentrations (as GRO/DRO) were reported at 236 mg/kg. The chloride concentration was below the laboratory detection limit of 30 mg/kg.

Laboratory analytical results for SC-2 collected on March 4, 2013, from approximately 1.5 feet below the former BGT, had a benzene concentration reported below the laboratory detection limit of 0.12 mg/kg. The total BTEX concentration was 1.5 mg/kg. TPH concentrations (as GRO/DRO) were reported at 144 mg/kg. Laboratory analytical results are summarized in Table 2 and included on Figures 2 and 3. Laboratory analytical reports are attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, TPH, and Chlorides  
 San Juan 28-7 #58A West BGT Closure, Release Assessment, and Final Excavation Report  
 March and June 2013

<b>Sample ID</b>	<b>Date</b>	<b>Depth (ft)</b>	<b>Benzene (mg/kg)</b>	<b>Total BTEX (mg/kg)</b>	<b>TPH-GRO (mg/kg)</b>	<b>TPH-DRO (mg/kg)</b>	<b>Chlorides (mg/kg)</b>
<b>NMOCD Action Level*</b>			<b>0.2/10</b>	<b>50</b>	<b>100</b>	<b>250/NE</b>	
SC-1	3/1/13	0.5	<0.25	2.2	220	16	<30
SC-2	3/4/13	1.5	<0.12	1.5	110	34	<30

NE – not established

\*Action levels for BGT closure are determined by NMAC 19.15.17.13E; Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993).

### 3.0 Conclusions and Recommendations

NMOCD action levels for BGT closures are specified in New Mexico Administrative Code (NMAC) 19.15.17.13E. On March 1, 2013, field TPH concentrations exceeded the NMOCD action level of 100 mg/kg in two samples, S-3 (379 mg/kg) and S-5 (1,430 mg/kg). Laboratory analytical results for TPH (as GRO/DRO) in SC-1 and SC-2 were also reported above the NMOCD action level of 100 mg/kg with 236 mg/kg and 144 mg/kg, respectively. Benzene and total BTEX concentrations in SC-1 and SC-2 were below the NMOCD action levels of 0.2 mg/kg and 50 mg/kg, respectively. Chloride concentrations were reported below the NMOCD action level of 250 mg/kg. Based on field and laboratory analytical results, a release was confirmed at the location.

On March 5, 2013, AES conducted an initial assessment associated with a historical release discovered during BGT closure confirmation sampling. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993), and the site was assigned a ranking of 30. Field screening results for VOCs via OVM were below the NMOCD action level of 100 ppm in each sample, with the highest concentration of 55.7 ppm reported in TH-1. Field TPH concentrations above the NMOCD action level of 100 mg/kg were reported in TH-1 (124 mg/kg).

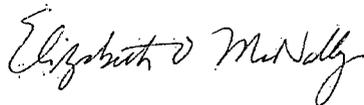
On June 18, 2013, final assessment of the excavation area was completed. Field screening results of the excavation showed that concentrations of VOCs and TPH were below NMOCD action levels for each of the final four walls and base of the excavation. No further work is recommended for the San Juan 28-7 #58A west BGT release area.

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

Sincerely,



Landrea Cupps  
Environmental Scientist

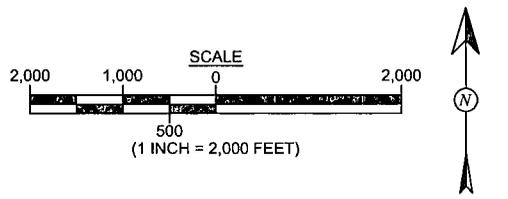
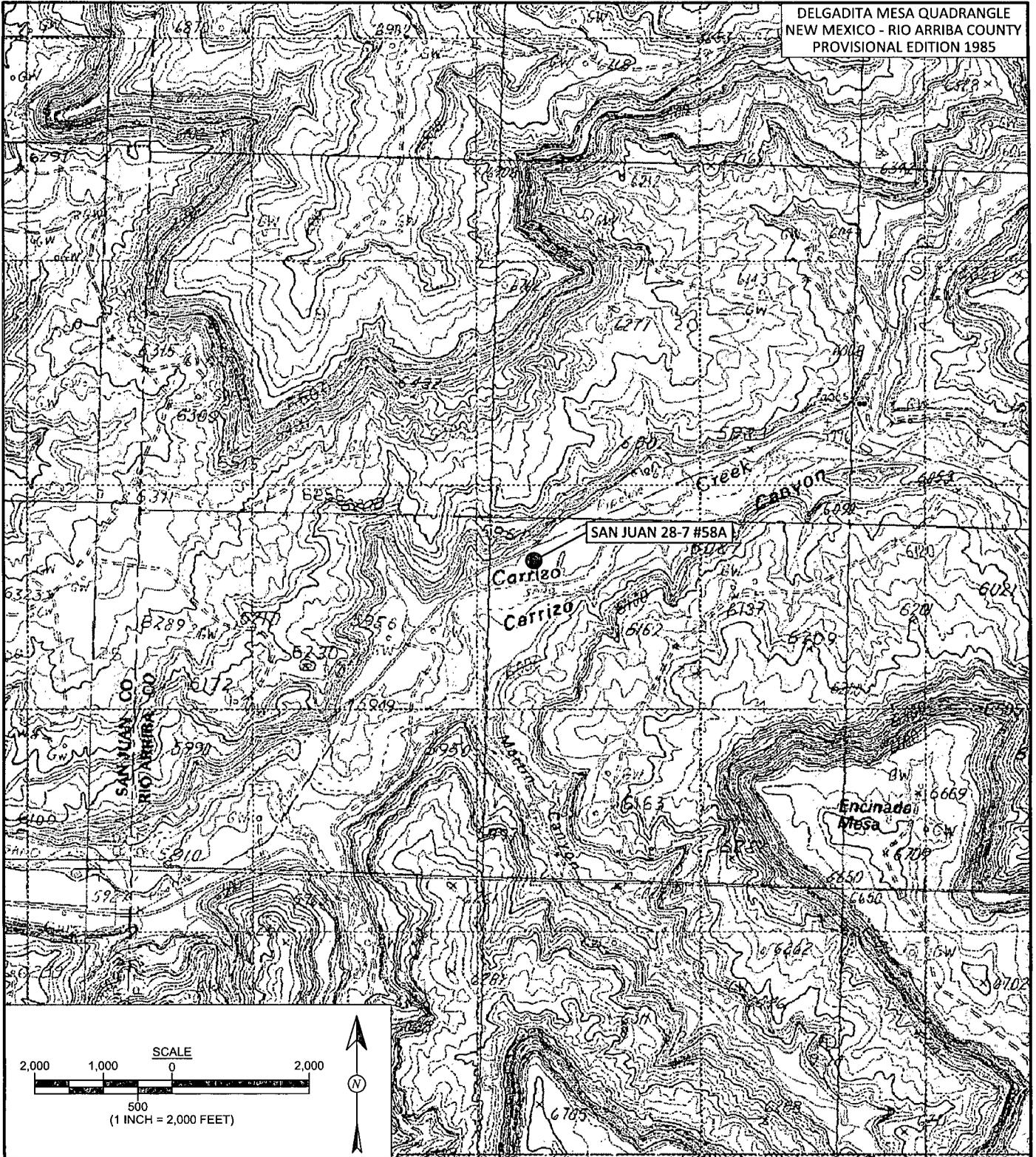


Elizabeth McNally, P.E.

**Attachments:**

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, March 2013
- Figure 3. Initial Assessment Sample Locations and Results, March 2013
- Figure 4. Final Excavation Sample Locations and Results, June 2013
- AES Field Screening Reports (030113, 030513, and 061813)
- Hall Analytical Reports (1303031 and 1303112)

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Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> April 3, 2013	<b>FIGURE 1</b>  <b>TOPOGRAPHIC SITE LOCATION MAP</b> ConocoPhillips SAN JUAN 28-7 #58A NW¼ NW¼, SECTION 29, T28N, R7W RIO ARRIBA COUNTY, NEW MEXICO N36.63766, W107.60315
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> April 3, 2013	
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> April 3, 2013	
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> April 3, 2013	

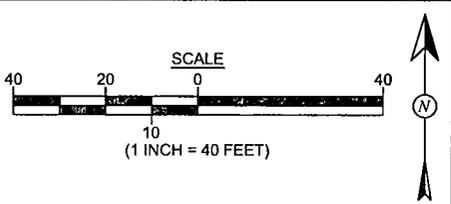
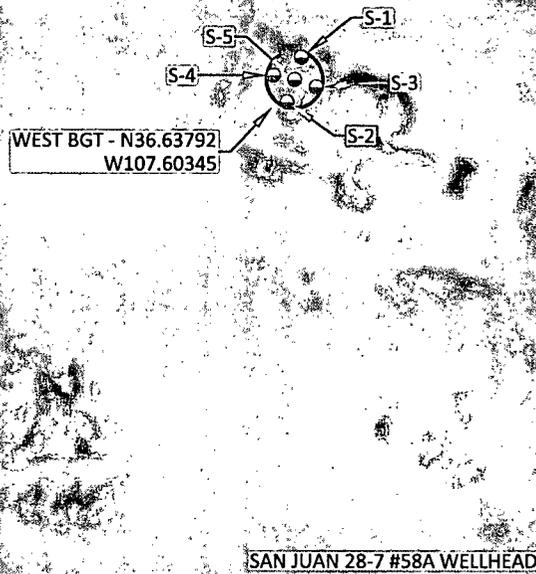
**LEGEND**  
 **SAMPLE LOCATIONS**

Field Screening Results				
Sample ID	Date	OVM-PID (ppm)	TPH (mg/kg)	Chlorides (mg/kg)
<b>NMOC ACTION LEVEL</b>		—	100	250
S-1	3/1/13	6.1	<20.0	NA
S-2	3/1/13	0.2	20.5	NA
S-3	3/1/13	2.1	379	NA
S-4	3/1/13	1.6	26.1	NA
S-5	3/1/13	1,205	1,430	NA
SC-1 WEST TANK	3/1/13	NA	NA	NA

SC-1 IS A 5-POINT COMPOSITE SAMPLE OF S-1 THROUGH S-5. 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)	Chlorides (mg/kg)
<b>NMOC ACTION LEVEL</b>			0.2	50	100		250
SC-1 WEST TANK	3/1/13	0.5	<0.25	2.2	220	16	<30
SC-2	3/4/13	1.5	<0.12	1.5	110	34	<30

SC-2 WAS A 5-POINT COMPOSITE FROM BELOW THE BGT LINER. SAMPLE WAS ANALYZED PER EPA METHOD 8021B, 8015B AND 300.0.



AERIAL SOURCE: © 2012 MICROSOFT CORPORATION - AVAILABLE EXCLUSIVELY BY DIGITALGLOBE



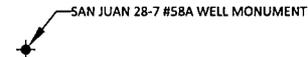
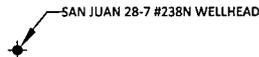
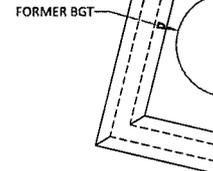
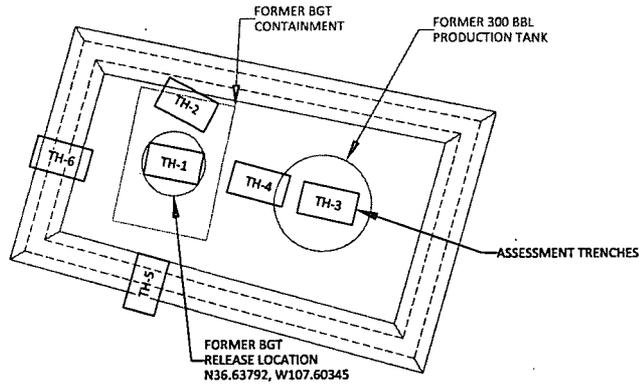
Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> April 3, 2013
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> April 3, 2013
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> April 3, 2013
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> April 3, 2013

**FIGURE 2**  
**AERIAL SITE MAP**  
**WEST BELOW GRADE TANK CLOSURE**  
**MARCH 2013**  
 ConocoPhillips  
 SAN JUAN 28-7 #58A  
 NW¼ NW¼, SECTION 29, T28N, R7W  
 RIO ARriba COUNTY, NEW MEXICO  
 N36.63766, W107.60315

Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
<b>NMOCD ACTION LEVEL</b>		<b>100</b>	<b>100</b>	
TH-1	3/5/13	10	55.7	124
		12	4.6	<20.0
TH-2	3/5/13	5	1.2	28.9
		9	0.6	NA
TH-3	3/5/13	1.5	1.5	NA
		4.5	2.7	NA
		8	1.6	NA
TH-4	3/5/13	4.5	0.5	<20.0
		9	1.2	NA
TH-5	3/5/13	4	0.2	<20.0
		9.5	0.1	NA
TH-6	3/5/13	4	0.5	NA
		9	2.7	<20.0

NA - NOT ANALYZED



METER HOUSE

**FIGURE 3**

**INITIAL ASSESSMENT SAMPLE LOCATIONS AND RESULTS MARCH 2013**  
 ConocoPhillips  
 SAN JUAN 28-7 #58A  
 NW¼ NW¼, SECTION 29, T28N, R7W  
 RIO ARriba COUNTY, NEW MEXICO  
 N36.63769, W107.60322

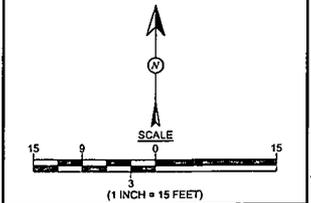


Animas Environmental Services, LLC.

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> March 5, 2013
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> March 5, 2013
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> March 5, 2013
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> March 5, 2013

**LEGEND**

=====  
 SECONDARY CONTAINMENT BERM



**FIGURE 4**

**FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS**  
**JUNE 2013**  
 ConocoPhillips  
 SAN JUAN 28-7 #58A  
 NW¼, NW¼, SECTION 29, T28N, R7W  
 RIO ARRIBA COUNTY, NEW MEXICO  
 N36.63769, W107.60322



Animas Environmental Services, LLC

**DRAWN BY:**  
C. Lameman

**DATE DRAWN:**  
June 19, 2013

**REVISIONS BY:**  
C. Lameman

**DATE REVISED:**  
June 19, 2013

**CHECKED BY:**  
D. Watson

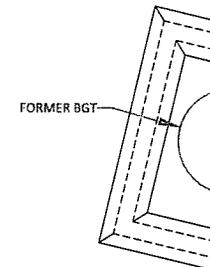
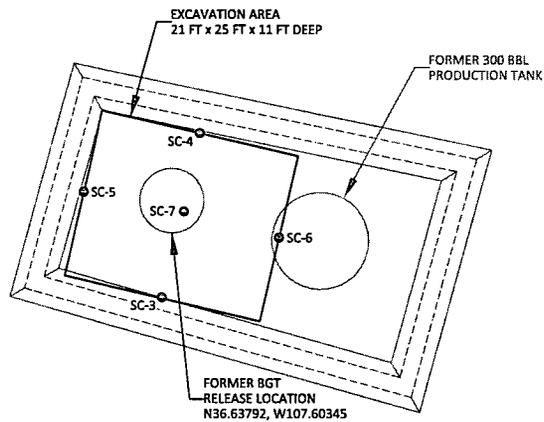
**DATE CHECKED:**  
June 19, 2013

**APPROVED BY:**  
E. McNally

**DATE APPROVED:**  
June 19, 2013

**LEGEND**

- SAMPLE LOCATIONS
- ═══ SECONDARY CONTAINMENT BERM



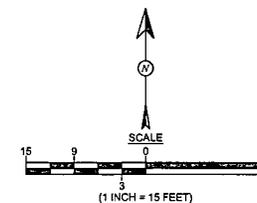
Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOC ACTION LEVEL			100	100
SC-3	6/18/13	1 to 11	2.1	55.2
SC-4	6/18/13	1 to 11	2.2	82.7
SC-5	6/18/13	1 to 11	2.3	74.4
SC-6	6/18/13	1 to 11	2.5	48.3
SC-7	6/18/13	11	2.5	49.7

ALL SAMPLES WERE COMPOSITE SAMPLES.

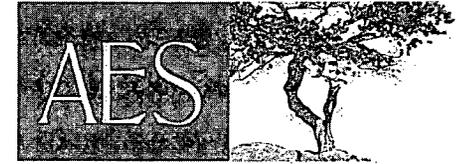
METER HOUSE

SAN JUAN 28-7 #238N WELLHEAD

SAN JUAN 28-7 #58A WELL MONUMENT



# AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

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

Durango, Colorado,  
970-403-3084

Client: ConocoPhillips

Project Location: San Juan 28-7 #58A West Tank

Date: 3/1/2013

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	Field Chloride (mg/kg)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
S-1	3/1/2013	12:45	North	6.1	NA	14:16	<20.0	20.0	1	KC
S-2	3/1/2013	12:48	South	0.2	NA	14:24	20.5	20.0	1	KC
S-3	3/1/2013	12:51	East	2.1	NA	14:27	379	20.0	1	KC
S-4	3/1/2013	12:52	West	1.6	NA	14:30	26.1	20.0	1	KC
S-5	3/1/2013	12:55	Center	1,205	NA	14:34	1,430	20.0	1	KC

PQL Practical Quantitation Limit

ND Not Detected at the Reporting Limit

NA Not Analyzed

DF Dilution Factor

\*Field TPH concentrations recorded may be below PQL.

Field Chloride - Quantab Chloride Titrators or Drop Count Titration with Silver Nitrate

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:

*Kelsey Christian*

# AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

Client: ConocoPhillips

Project Location: San Juan 28-7 #58A West Tank

Date: 3/5/2013

Matrix: Soil

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

Durango, Colorado  
970-403-3084

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
TH-1 @ 10'	3/5/2013	11:18	55.7	12:16	124	20.0	1	HMW
TH-1 @ 12'	3/5/2013	11:21	4.6	12:13	<20.0	20.0	1	HMW
TH-2 @ 5'	3/5/2013	11:25	1.2	12:43	28.9	20.0	1	HMW
TH-2 @ 9'	3/5/2013	11:27	0.6	Not Analyzed for TPH				
TH-3 @ 1.5'	3/5/2013	11:33	1.5	Not Analyzed for TPH				
TH-3 @ 4.5'	3/5/2013	11:35	2.7	Not Analyzed for TPH				
TH-3 @ 8'	3/5/2013	11:40	1.6	Not Analyzed for TPH				
TH-4 @ 4.5'	3/5/2013	11:42	0.5	12:46	<20.0	20.0	1	HMW
TH-4 @ 9'	3/5/2013	11:45	1.2	Not Analyzed for TPH				
TH-5 @ 4'	3/5/2013	11:47	0.2	12:48	<20.0	20.0	1	HMW
TH-5 @ 9.5'	3/5/2013	11:48	0.1	Not Analyzed for TPH				
TH-6 @ 4'	3/5/2013	11:51	0.5	Not Analyzed for TPH				
TH-6 @ 9'	3/5/2013	11:53	2.7	12:50	<20.0	20.0	1	HMW

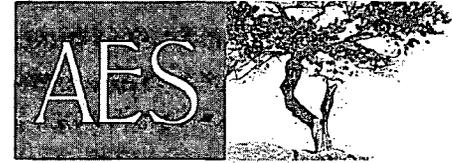
Total Petroleum Hydrocarbons - USEPA 418.1

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

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 28-7 #58A West Tank

Date: 6/18/2013

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-3	6/18/2013	8:37	South Wall	2.1	9:18	55.2	20.0	1	HMW
SC-4	6/18/2013	8:39	North Wall	2.2	9:21	82.7	20.0	1	HMW
SC-5	6/18/2013	8:41	West Wall	2.3	9:23	74.4	20.0	1	HMW
SC-6	6/18/2013	8:43	East Wall	2.5	9:26	48.3	20.0	1	HMW
SC-7	6/18/2013	8:45	Base	2.5	9:29	49.7	20.0	1	HMW

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

Total Petroleum Hydrocarbons - USEPA 418.1

\*Field TPH concentrations recorded may be below PQL.

Analyst:

*Heather M. Woods*



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)

April 12, 2013

Debbie Watson

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

RE: San Juan 28-7 #58A

OrderNo.: 1303031

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/2/2013 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued March 05, 2013.

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. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

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

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Analytical Report

Lab Order 1303031

Date Reported: 4/12/2013

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: ~~SC-2 West Tank~~ SC-1 West Tank -Irc

Project: San Juan 28-7 #58A

Collection Date: 3/1/2013 1:26:00 PM

Lab ID: 1303031-002

Matrix: MEOH (SOIL)

Received Date: 3/2/2013 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>						Analyst: <b>MMD</b>
Diesel Range Organics (DRO)	16	10		mg/Kg	1	3/4/2013 6:27:05 PM
Surr: DNOP	101	72.4-120		%REC	1	3/4/2013 6:27:05 PM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	220	25		mg/Kg	5	3/4/2013 11:48:18 AM
Surr: BFB	301	84-116	S	%REC	5	3/4/2013 11:48:18 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.25		mg/Kg	5	3/4/2013 11:48:18 AM
Toluene	ND	0.25		mg/Kg	5	3/4/2013 11:48:18 AM
Ethylbenzene	ND	0.25		mg/Kg	5	3/4/2013 11:48:18 AM
Xylenes, Total	2.2	0.50		mg/Kg	5	3/4/2013 11:48:18 AM
Surr: 4-Bromofluorobenzene	118	80-120		%REC	5	3/4/2013 11:48:18 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/4/2013 10:52:41 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303031

12-Apr-13

**Client:** Animas Environmental Services  
**Project:** San Juan 28-7 #58A

Sample ID: <b>MB-6301</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>6301</b>	RunNo: <b>8941</b>								
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/4/2013</b>	SeqNo: <b>255320</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-6301</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>6301</b>	RunNo: <b>8941</b>								
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/4/2013</b>	SeqNo: <b>255321</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	102	90	110			

Sample ID: <b>1303031-001BMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>SC-1 East Tank</b>	Batch ID: <b>6301</b>	RunNo: <b>8941</b>								
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/4/2013</b>	SeqNo: <b>255323</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	93	30	15.00	85.25	51.0	64.4	117			S

Sample ID: <b>1303031-001BMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>SC-1 East Tank</b>	Batch ID: <b>6301</b>	RunNo: <b>8941</b>								
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/4/2013</b>	SeqNo: <b>255324</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	100	30	15.00	85.25	113	64.4	117	9.56	20	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303031

12-Apr-13

**Client:** Animas Environmental Services

**Project:** San Juan 28-7 #58A

Sample ID <b>MB-6300</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>6300</b>	RunNo: <b>8953</b>								
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/4/2013</b>	SeqNo: <b>255779</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	9.9		10.00		99.0	72.4	120			

Sample ID <b>LCS-6300</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>6300</b>	RunNo: <b>8953</b>								
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/4/2013</b>	SeqNo: <b>255781</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	10	50.00	0	106	47.4	122			
Surr: DNOP	5.5		5.000		110	72.4	120			

Sample ID <b>1303034-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>6300</b>	RunNo: <b>8961</b>								
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/6/2013</b>	SeqNo: <b>257200</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.7	48.59	0	94.4	12.6	148			
Surr: DNOP	5.2		4.859		108	72.4	120			

Sample ID <b>1303034-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>6300</b>	RunNo: <b>8961</b>								
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/6/2013</b>	SeqNo: <b>257201</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.81	0	88.7	12.6	148	1.82	22.5	
Surr: DNOP	5.5		5.081		108	72.4	120	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303031

12-Apr-13

Client: Animas Environmental Services

Project: San Juan 28-7 #58A

Sample ID	<b>MB-6293</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>R8939</b>	RunNo:	<b>8939</b>					
Prep Date:	<b>3/1/2013</b>	Analysis Date:	<b>3/4/2013</b>	SeqNo:	<b>255803</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	1100		1000		109	84	116			

Sample ID	<b>LCS-6293</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>R8939</b>	RunNo:	<b>8939</b>					
Prep Date:	<b>3/1/2013</b>	Analysis Date:	<b>3/4/2013</b>	SeqNo:	<b>255804</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	5.0	25.00	0	129	62.6	136			
Surr: BFB	1300		1000		133	84	116			S

## 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               |
| 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#: 1303031

12-Apr-13

**Client:** Animas Environmental Services

**Project:** San Juan 28-7 #58A

Sample ID <b>MB-6293</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>R8939</b>	RunNo: <b>8939</b>								
Prep Date: <b>3/1/2013</b>	Analysis Date: <b>3/4/2013</b>	SeqNo: <b>255857</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	1.1		1.000		107	80	120			

Sample ID <b>LCS-6293</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>R8939</b>	RunNo: <b>8939</b>								
Prep Date: <b>3/1/2013</b>	Analysis Date: <b>3/4/2013</b>	SeqNo: <b>255858</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.050	1.000	0	89.2	80	120			
Toluene	0.89	0.050	1.000	0	88.9	80	120			
Ethylbenzene	0.89	0.050	1.000	0	89.0	80	120			
Xylenes, Total	2.7	0.10	3.000	0	88.5	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits



# Sample Log-In Check List

Client Name: **Animas Environmental** Work Order Number: **1303031**  
 Received by/date: AF 03/02/13  
 Logged By: **Lindsay Mangin** 3/2/2013 12:00:00 PM *Lindsay Mangin*  
 Completed By: **Lindsay Mangin** 3/4/2013 8:06:26 AM *Lindsay Mangin*  
 Reviewed By: ES 03/04/2013

### Chain of Custody

1. Were seals intact? Yes  No  Not Present
2. Is Chain of Custody complete? Yes  No  Not Present
3. How was the sample delivered? Courier

### Log In

4. Coolers are present? (see 19. for cooler specific information) Yes  No  NA
5. Was an attempt made to cool the samples? Yes  No  NA
6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
7. Sample(s) in proper container(s)? Yes  No
8. Sufficient sample volume for indicated test(s)? Yes  No
9. Are samples (except VOA and ONG) properly preserved? Yes  No
10. Was preservative added to bottles? Yes  No  NA
11. VOA vials have zero headspace? Yes  No  No VOA Vials
12. Were any sample containers received broken? Yes  No
13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes  No
14. Are matrices correctly identified on Chain of Custody? Yes  No
15. Is it clear what analyses were requested? Yes  No
16. 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)

17. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

18. Additional remarks:

### 19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.9	Good	Yes			





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

March 06, 2013

Debbie Watson

Animas Environmental Services

624 East Comanche

Farmington, NM 87401

TEL: (505) 486-4071

FAX

RE: CoP San Juan 28-7 #58A West Tank

OrderNo.: 1303112

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/5/2013 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. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. 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.

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 Services

Client Sample ID: ~~SC-1~~ SC-2 -lrc

Project: CoP San Juan 28-7 #58A West Tank

Collection Date: 3/4/2013 11:50:00 AM

Lab ID: 1303112-001

Matrix: MEOH (SOIL)

Received Date: 3/5/2013 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: <b>MMD</b>
Diesel Range Organics (DRO)	34	10		mg/Kg	1	3/5/2013 1:12:38 PM
Surr: DNOP	103	72.4-120		%REC	1	3/5/2013 1:12:38 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	110	25		mg/Kg	5	3/5/2013 2:16:58 PM
Surr: BFB	316	84-116	S	%REC	5	3/5/2013 2:16:58 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.12		mg/Kg	5	3/5/2013 2:16:58 PM
Toluene	ND	0.25		mg/Kg	5	3/5/2013 2:16:58 PM
Ethylbenzene	ND	0.25		mg/Kg	5	3/5/2013 2:16:58 PM
Xylenes, Total	1.5	0.50		mg/Kg	5	3/5/2013 2:16:58 PM
Surr: 4-Bromofluorobenzene	117	80-120		%REC	5	3/5/2013 2:16:58 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	3/5/2013 11:32:57 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303112

06-Mar-13

**Client:** Animas Environmental Services  
**Project:** CoP San Juan 28-7 #58A West Tank

Sample ID	<b>MB-6328</b>	SampType:	<b>MLBK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>6328</b>	RunNo:	<b>8986</b>					
Prep Date:	<b>3/5/2013</b>	Analysis Date:	<b>3/5/2013</b>	SeqNo:	<b>256634</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-6328</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>6328</b>	RunNo:	<b>8986</b>					
Prep Date:	<b>3/5/2013</b>	Analysis Date:	<b>3/5/2013</b>	SeqNo:	<b>256635</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	16	1.5	15.00	0	104	90	110			

Sample ID	<b>1303064-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>6328</b>	RunNo:	<b>8986</b>					
Prep Date:	<b>3/5/2013</b>	Analysis Date:	<b>3/5/2013</b>	SeqNo:	<b>256638</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	17	7.5	15.00	4.634	83.5	64.4	117			

Sample ID	<b>1303064-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>6328</b>	RunNo:	<b>8986</b>					
Prep Date:	<b>3/5/2013</b>	Analysis Date:	<b>3/5/2013</b>	SeqNo:	<b>256639</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	18	7.5	15.00	4.634	92.2	64.4	117	7.31	20	

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303112

06-Mar-13

**Client:** Animas Environmental Services  
**Project:** CoP San Juan 28-7 #58A West Tank

Sample ID <b>MB-6302</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015B: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>R8966</b>	RunNo: <b>8966</b>								
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/5/2013</b>	SeqNo: <b>256484</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	1100		1000		108	84	116			

Sample ID <b>LCS-6302</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015B: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>R8966</b>	RunNo: <b>8966</b>								
Prep Date: <b>3/4/2013</b>	Analysis Date: <b>3/5/2013</b>	SeqNo: <b>256485</b>			Units: <b>mg/Kg</b>					
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	1200		1000		120	84	116			S

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303112

06-Mar-13

Client: Animas Environmental Services  
Project: CoP San Juan 28-7 #58A West Tank

Sample ID	MB-6302	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R8966	RunNo:	8966					
Prep Date:	3/4/2013	Analysis Date:	3/5/2013	SeqNo:	256514	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-6302	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R8966	RunNo:	8966					
Prep Date:	3/4/2013	Analysis Date:	3/5/2013	SeqNo:	256515	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	93.3	80	120			
Toluene	0.92	0.050	1.000	0	92.1	80	120			
Ethylbenzene	0.92	0.050	1.000	0	91.5	80	120			
Xylenes, Total	2.7	0.10	3.000	0	91.4	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

**Sample Log-In Check List**

Client Name: **Animas Environmental** Work Order Number: **1303112**  
 Received by/date: AF 03/05/13  
 Logged By: **Michelle Garcia** 3/5/2013 9:55:00 AM *Michelle Garcia*  
 Completed By: **Michelle Garcia** 3/5/2013 10:09:15 AM *Michelle Garcia*  
 Reviewed By: [Signature] 03/05/13

**Chain of Custody**

- 1. Were seals intact? Yes  No  Not Present
- 2. Is Chain of Custody complete? Yes  No  Not Present
- 3. How was the sample delivered? Courier

**Log In**

- 4. Coolers are present? (see 19. for cooler specific information) Yes  No  NA
- 5. Was an attempt made to cool the samples? Yes  No  NA
- 6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 7. Sample(s) in proper container(s)? Yes  No
- 8. Sufficient sample volume for indicated test(s)? Yes  No
- 9. Are samples (except VOA and ONG) properly preserved? Yes  No
- 10. Was preservative added to bottles? Yes  No  NA
- 11. VOA vials have zero headspace? Yes  No  No VOA Vials
- 12. Were any sample containers received broken? Yes  No
- 13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes  No
- 14. Are matrices correctly identified on Chain of Custody? Yes  No
- 15. Is it clear what analyses were requested? Yes  No
- 16. 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)**

- 17. 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: \_\_\_\_\_

18. Additional remarks:

**19. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

