

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 Lindsay Dumas
Address 3401 East 30th St, Farmington, NM	Telephone No. (505) 599-4089
Facility Name: San Juan 28-6 170M	Facility Type: Gas

Surface Owner BLM	Mineral Owner BLM (SF-079049B)	API No. 3003925772
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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
I	05	27N	06W	1915'	FSL	1150'	FEL	Rio Arriba

Latitude 36.60095 Longitude -107.48419

NATURE OF RELEASE

Type of Release Hydrocarbon	Volume of Release unknown	Volume Recovered 0
Source of Release Production tank	Date and Hour of Occurrence unknown	Date and Hour of Discovery 8/7/13
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 JAN 29 '14
OIL CONS. DIV.
DIST. 3

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Contaminated soil was associated with a historical release that was discovered during an equipment reset, on August 7, 2013. Third party environmental was contracted for an assessment.

Describe Area Affected and Cleanup Action Taken.*
The historical release was discovered during equipment reset on location. Excavation was 40' X 45' X 6' deep. 374 c/yds of soil was transported to IEI land farm and 374 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 remedial action needed. The soil sampling report is attached for review.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>Lindsay Dumas</i>	OIL CONSERVATION DIVISION	
Printed Name: Lindsay Dumas	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Field Environmental Specialist	Approval Date: 9/4/14	Expiration Date:
E-mail Address: Lindsay.Dumas@conocophillips.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 1/28/14 Phone: (505) 599-4089		

* Attach Additional Sheets If Necessary

NCS 142 4735411

34



Animas Environmental Services, LLC

www.animasenvironmental.com

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

Durango, Colorado
970-403-3084

January 17, 2014

Lindsay Dumas
ConocoPhillips
San Juan Business Unit
Office 214-07
5525 Hwy 64
Farmington, New Mexico 87401

Via electronic mail to:
SJBUE-Team@ConocoPhillips.com

**RE: Initial Release Assessment and Final Excavation Report
San Juan 28-6 #170M
Rio Arriba County, New Mexico**

**RCVD JAN 29 '14
OIL CONS. DIV.
DIST. 3**

Dear Ms. Dumas:

On August 6, August 28, and September 4, 2013, Animas Environmental Services, LLC (AES) completed an initial release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) San Juan 28-6 #170M, located in Rio Arriba County, New Mexico. The historic contamination was discovered during a facility reset at the location. The initial release assessment was completed by AES on August 6, 2013, and the final excavation was completed by CoP contractors while AES was on location on September 4, 2013.

1.0 Site Information

1.1 Location

Site Name – San Juan 28-6 #170M

Location – NE¼ SE¼, Section 5, T27N, R6W, Rio Arriba County, New Mexico

Well Head Latitude/Longitude – N36.60104 and W107.48479, respectively

Release Location Latitude/Longitude – N36.60123 and W107.48479, respectively

Land Jurisdiction – Bureau of Land Management

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, August 2013

1.2 NMOCD Ranking

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to site work. The release location was given a ranking score of 10 based on the following factors:

- **Depth to Groundwater:** A cathodic report dated April 1998 reported the depth to groundwater at 100 feet below ground surface (bgs). (10 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** The wash in Carrizo Canyon is located approximately 1,250 feet south-southeast of the release location. (0 points)

1.3 Assessment

AES was initially contacted by Dan Rudder of CoP on August 6, 2013, and on the same day, Heather Woods and Jesse Christopherson of AES completed the release assessment field work. The assessment included collection and field screening of 15 soil samples from eight assessment trenches (TH-1 through TH-8) in and around the release area. Based on the field screening results, AES recommended further excavation of the release area. Sample locations are shown on Figure 3.

On August 28, 2013, AES returned to the location to collect confirmation soil samples of the excavation. The field screening activities included collection of five confirmation soil samples (SC-1 through SC-5) from the walls and base of the excavation. The area of the final excavation was approximately 36 feet by 35 feet by 3 to 6 feet in depth. The depth of the excavation was limited due to a confining shale unit around 3 to 6 feet bgs. A final confirmation soil sample (SC-6) from the base was collected on September 4, 2013, following application of potassium permanganate. The area of the final excavation was approximately 36 feet by 35 feet by 3 to 6 feet in depth. Sample locations and final excavation extents are presented on Figure 4.

2.0 Soil Sampling

A total of 15 soil samples from 8 assessment trenches (TH-1 through TH-8) as well as 6 composite samples (SC-1 through SC-6) were collected during the assessments. All soil samples were field screened for volatile organic compounds (VOCs), and selected samples were also analyzed for total petroleum hydrocarbons (TPH). Two samples (TH-2 and TH-3) collected during the initial assessment and three samples (SC-3 to SC-5) collected during the final excavation were submitted for confirmation laboratory analysis.

2.1 Field Screening

2.1.1 Volatile Organic Compounds

Field screening for VOC vapors was conducted with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas.

2.1.2 Total Petroleum Hydrocarbons

Field TPH samples were analyzed per USEPA Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES's *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

2.2 Laboratory Analyses

The soil samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. Soil samples TH-2, TH-3, and SC-3 to SC-5 were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per U.S. Environmental Protection Agency (USEPA) Method 8021B/8260B.

Samples TH-2, TH-3, and SC-5 were also 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 August 6, 2013, initial assessment field screening results for VOCs via OVM showed concentrations ranging from 2.3 ppm in TH-7 up to 1,684 ppm in TH-2. Field TPH concentrations ranged from 75.6 mg/kg in TH-5 to 2,740 mg/kg in TH-4.

On August 28 and September 4, 2013, final excavation field screening results for VOCs via OVM ranged from 0.0 ppm in SC-2 up to 1,935 ppm in SC-5. Field TPH ranged from 127 mg/kg in SC-4 up to 2,080 mg/kg in SC-5. Results are included below in Table 1 and on Figures 3 and 4. The AES Field Screening Reports are attached.

Table 1. Field Screening VOCs and TPH Results
 San Juan 28-6 #170M Initial Release Assessment and Final Excavation
 August and September 2013

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>	<i>Field TPH (mg/kg)</i>
			100	1,000
		<i>NMOCD Action Level*</i>		
TH-1	8/6/13	2	1,429	NA
		5	1,554	2,620
TH-2	8/6/13	2	1,073	NA
		5	1,684	1,230
TH-3	8/6/13	1 to 4	45.6	84.8
		5	1,619	928
TH-4	8/6/13	2	1,336	NA
		5	1,578	2,740
TH-5	8/6/13	2	92.1	75.6
		5	9.5	NA
TH-6	8/6/13	2	4.2	NA
		4	4.9	93.5
TH-7	8/6/13	4.5	2.3	79.7
TH-8	8/6/13	2	3.3	NA
		5	5.4	81.1
SC-1	8/28/13	1 to 3	34.5	152
SC-2	8/28/13	1 to 5	0.0	542
SC-3	8/28/13	1 to 6	546	708
SC-4	8/28/13	1 to 6	208	127
SC-5	8/28/13	3 to 6	1,935	2,080
SC-6	9/4/13	3 to 6	65.5	157

NA – Not Analyzed

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

Laboratory analyses for TH-2 and TH-3 were used to confirm field screening results of the initial release assessment. In samples TH-2 and TH-3, benzene concentrations were reported at 3.0 mg/kg and 1.4 mg/kg, respectively. Total BTEX concentrations were reported at 64 mg/kg and 74 mg/kg, respectively. TPH concentrations as DRO/GRO were reported at 1,450 mg/kg (TH-2) and 2,090 mg/kg (TH-3).

Laboratory analyses for SC-3 to SC-5 were used to confirm field screening results from the final excavation. Benzene concentrations were reported at 0.056 mg/kg (SC-3), 0.15 mg/kg (SC-4), and 3.9 mg/kg (SC-5). Total BTEX concentrations were reported at 2.9 mg/kg (SC-3), 4.5 mg/kg (SC-4), and 139 mg/kg (SC-5). TPH concentrations as GRO/DRO in SC-5 were reported at 3,980 mg/kg. Results are presented in Table 2 and on Figures 3 and 4. The laboratory analytical reports are attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, and TPH
 San Juan 28-6 #170M Initial Release Assessment and Final Excavation, August 2013

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>Benzene (mg/kg)</i>	<i>Total BTEX (mg/kg)</i>	<i>TPH-GRO (mg/kg)</i>	<i>TPH-DRO (mg/kg)</i>
NMOCD Action Level*			10	50	1,000	
TH-2	8/6/13	5	3.0	64	1,000	450
TH-3	8/6/13	5	1.4	74	1,500	590
SC-3	8/28/13	1 to 6	0.056	2.9	NA	NA
SC-4	8/28/13	1 to 6	0.15	4.5	NA	NA
SC-5	8/28/13	3 to 6	3.9	139	3,100	880

NA – Not Analyzed; *Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993)*

3.0 Conclusions and Recommendations

On August 6, 2013, AES conducted an initial assessment of petroleum contaminated soils associated with a historical release at the San Juan 28-6 #170M. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993)*, and the site was assigned a rank of 10. Initial assessment field screening results above the NMOCD action level of 100 ppm VOCs were reported in TH-1 to TH-4, with the highest VOC concentration reported in TH-2 with 1,684 ppm. Field screening results also showed TPH concentrations above the NMOCD action level of 1,000 mg/kg in three samples (TH-1, TH-2, and TH-4), with the highest TPH concentration reported in TH-4 with 2,740 mg/kg.

Laboratory analyses for TH-2 and TH-3 were used to confirm field screening results. In both samples, benzene concentrations were reported below the NMOCD action level of 10 mg/kg, but total BTEX concentrations were reported above the NMOCD action level of 50 mg/kg with 64 mg/kg and 74 mg/kg, respectively. TPH concentrations as

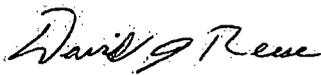
GRO/DRO exceeded the NMOCD action level of 1,000 mg/kg for TH-2 and TH-3, with 1,450 mg/kg and 2,090 mg/kg, respectively.

On August 28, 2013, final clearance of the excavation area was completed. Field screening results of the excavation extents showed that VOC concentrations were below applicable NMOCD action level of 100 ppm for the west (SC-1) and north (SC-2) walls. The remaining sidewalls (SC-3 and SC-4) and base (SC-5) exceeded the NMOCD action level of 100 ppm VOCs. Field TPH concentrations were reported below the NMOCD action level of 1,000 mg/kg in all final sidewalls; however, the base exceeded the NMOCD action level with 2,080 mg/kg. Laboratory analytical results from August 30, 2013, reported benzene and total BTEX concentrations in SC-3 and SC-4 below NMOCD action levels. However, total BTEX and TPH concentrations as GRO/DRO were reported above applicable NMOCD action levels in SC-5 (base). Potassium permanganate was applied to the base of the excavation, and an additional confirmation sample (SC-6) was collected on September 4, 2013. Field screening results for SC-6 reported VOC and TPH concentrations below applicable NMOCD action levels for the base of the excavation.

Based on the final field screening and laboratory analytical results of the excavation of petroleum contaminated soils at the San Juan 28-6 #170M, benzene, total BTEX, VOC, and TPH concentrations were below applicable NMOCD action levels for each of the sidewalls and base of the excavation. No further work is recommended.

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

Sincerely,



David J. Reese
Environmental Scientist



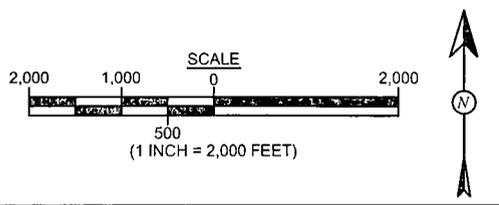
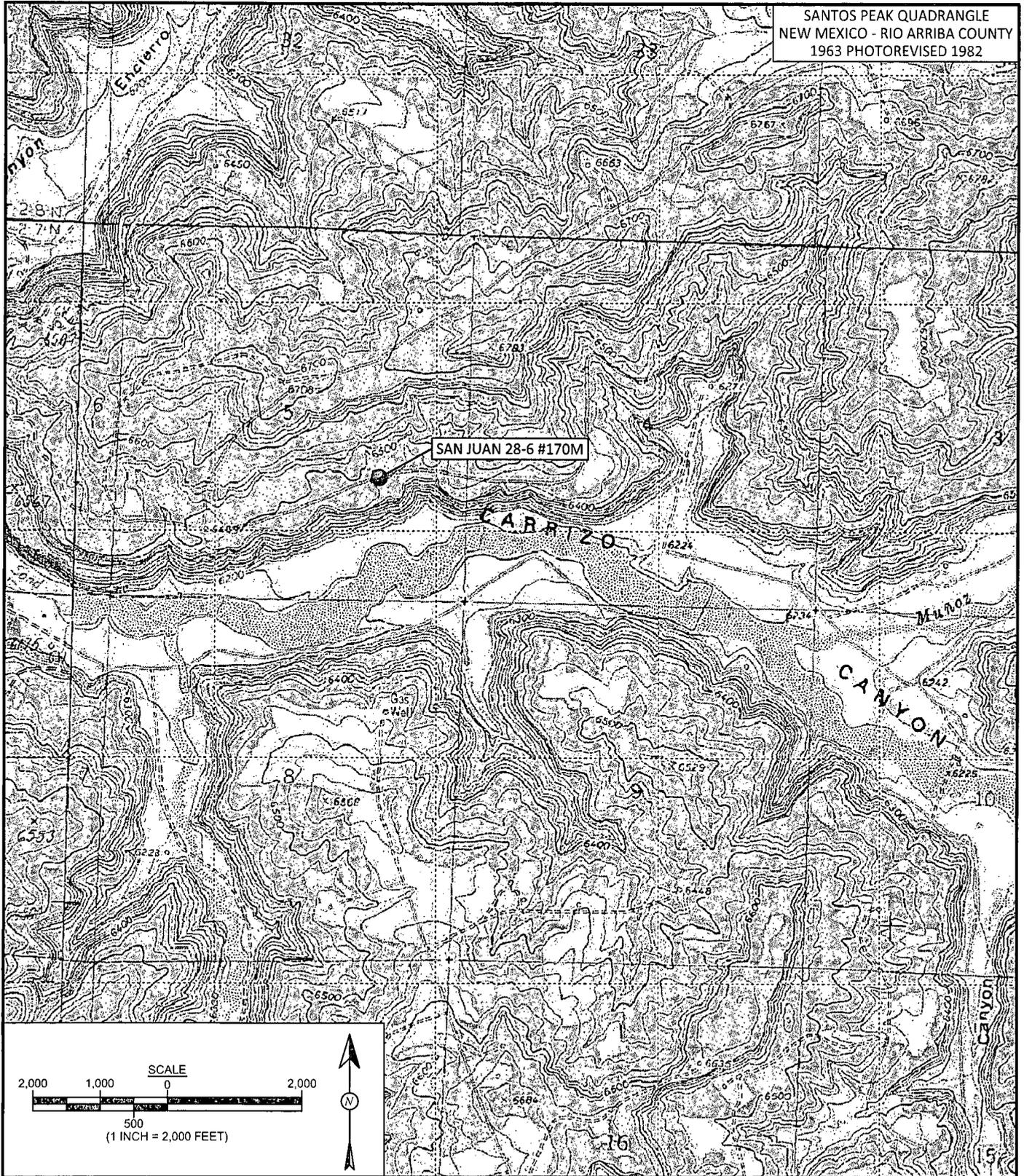
Elizabeth McNally, PE

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, August 2013
- Figure 3. Initial Assessment Sample Locations and Results, August 2013
- Figure 4. Final Excavation Sample Locations and Results, August and September 2013
- AES Field Screening Report 080613
- AES Field Screening Report 082813 090413
- Hall Laboratory Analytical Report 1308353
- Hall Laboratory Analytical Report 1308C82

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



Animas Environmental Services, LLC

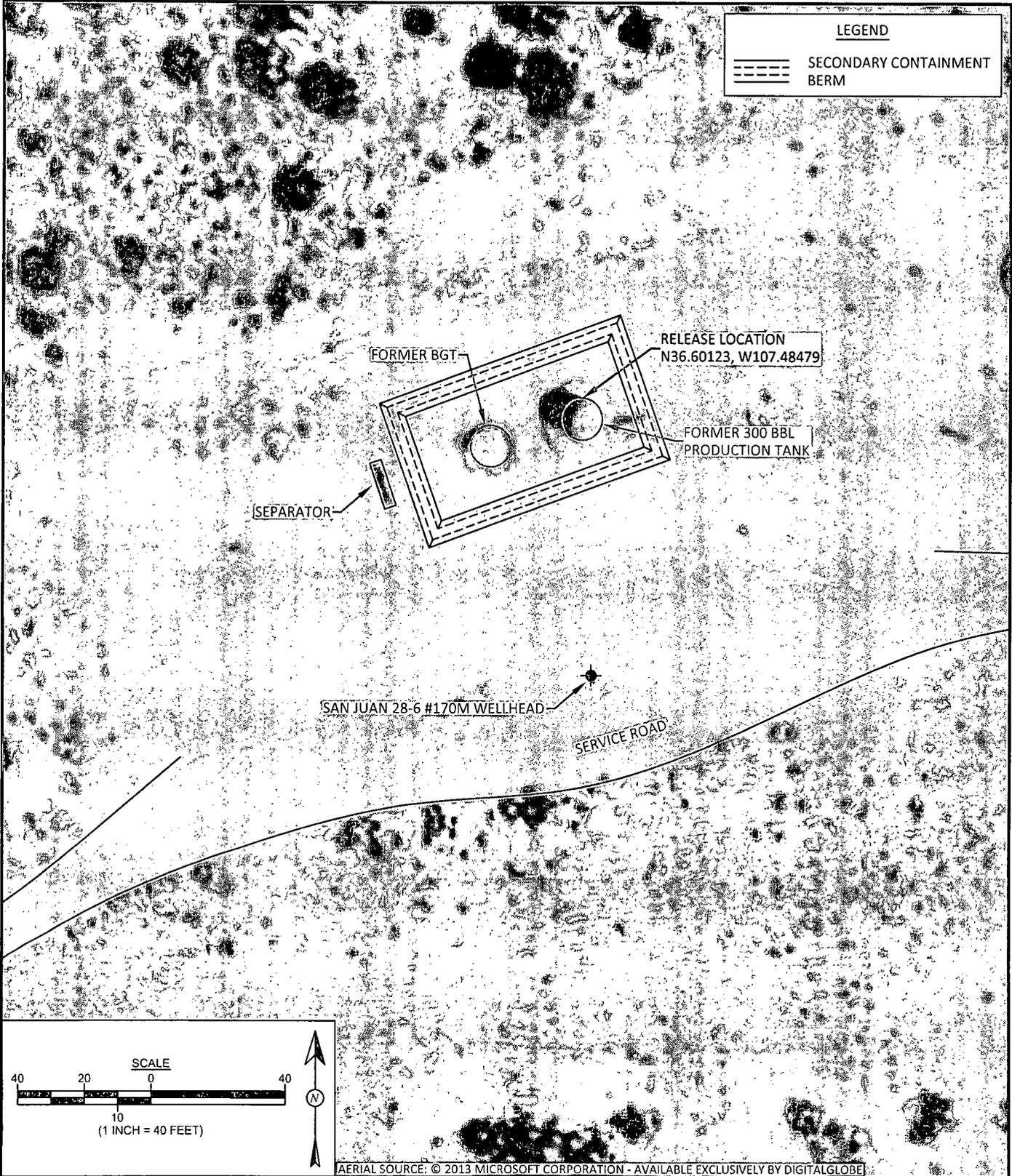
DRAWN BY: C. Lameman	DATE DRAWN: August 7, 2013
REVISIONS BY: C. Lameman	DATE REVISED: August 7, 2013
CHECKED BY: D. Watson	DATE CHECKED: August 7, 2013
APPROVED BY: E. McNally	DATE APPROVED: August 7, 2013

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP
 ConocoPhillips
 SAN JUAN 28-6 #170M
 NE¼ SE¼, SECTION 5, T27N, R6W
 RIO ARRIBA COUNTY, NEW MEXICO
 N36.60104, W107.48479

LEGEND

===== SECONDARY CONTAINMENT
 ===== BERM



DRAWN BY: C. Lameman	DATE DRAWN: August 7, 2013
REVISIONS BY: C. Lameman	DATE REVISED: August 7, 2013
CHECKED BY: D. Watson	DATE CHECKED: August 7, 2013
APPROVED BY: E. McNally	DATE APPROVED: August 7, 2013

FIGURE 2

**AERIAL SITE MAP
AUGUST 2013**

ConocoPhillips
 SAN JUAN 28-6 #170M
 NE¼, SE¼, SECTION 5, T27N, R6W
 RIO ARRIBA COUNTY, NEW MEXICO
 N36.60104, W107.48479

FIGURE 3

INITIAL ASSESSMENT SAMPLE LOCATIONS AND RESULTS AUGUST 2013
 ConocoPhillips
 SAN JUAN 28-6 #170M
 NE¼, SE¼, SECTION 5, T27N, R6W
 RIO ARriba COUNTY, NEW MEXICO
 N36.60104, W107.48479

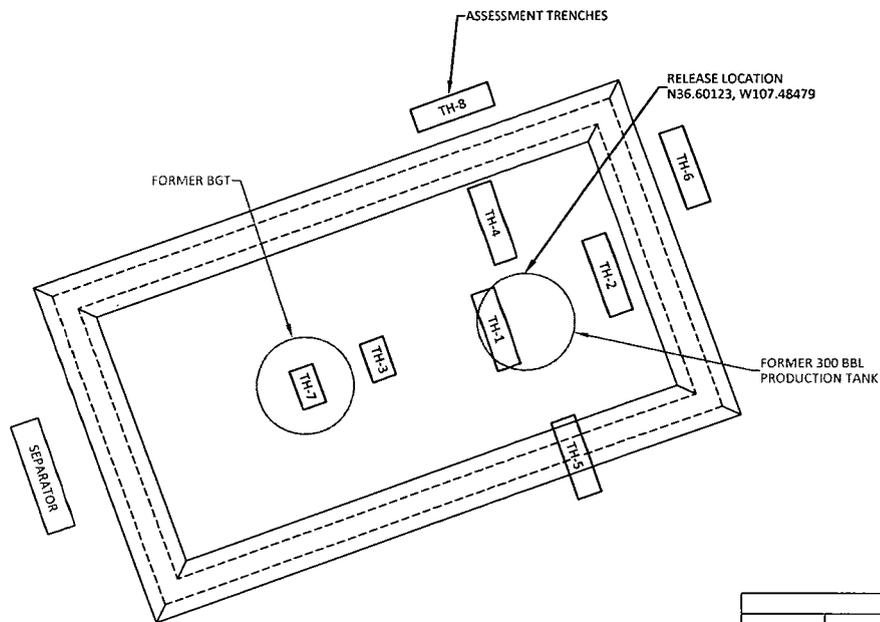


Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: August 7, 2013
REVISIONS BY: C. Lameman	DATE REVISED: January 15, 2014
CHECKED BY: D. Watson	DATE CHECKED: January 15, 2014
APPROVED BY: E. McNally	DATE APPROVED: January 15, 2014

LEGEND

=====
 =====
 SECONDARY CONTAINMENT BERM



Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOC ACTION LEVEL			100	1,000
TH-1	8/6/13	2	1,429	NA
		5	1,554	2,620
TH-2	8/6/13	2	1,073	NA
		5	1,684	1,230
TH-3	8/6/13	1 to 4	45.6	84.8
		5	1,619	928
TH-4	8/6/13	2	1,336	NA
		5	1,578	2,740
TH-5	8/6/13	2	92.1	75.6
		5	9.5	NA
TH-6	8/6/13	2	4.2	NA
		4	4.9	93.5
TH-7	8/6/13	4.5	2.3	79.7
		2	3.3	NA
TH-8	8/6/13	2	3.3	NA
		5	5.4	81.1

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)
NMOC ACTION LEVEL			10	50	1,000	
TH-2	8/6/13	5	3.0	64	1,000	450
TH-3	8/6/13	5	1.4	74	1,500	590

ALL SAMPLES WERE ANALYZED PER EPA METHOD 8021B AND 8015D.

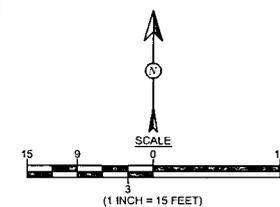
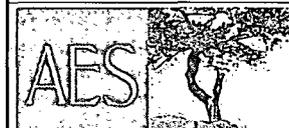


FIGURE 4

FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS AUGUST AND SEPTEMBER 2013

ConocoPhillips
 SAN JUAN 28-6 #170M
 NE¼ SE¼, SECTION 5, T27N, RW
 RIO ARriba COUNTY, NEW MEXICO
 N36.60104, W107.48479



Animes Environmental Services, LLC

DRAWN BY:
C. Lameman

DATE DRAWN:
December 6, 2013

REVISIONS BY:
C. Lameman

DATE REVISED:
December 6, 2013

CHECKED BY:
D. Watson

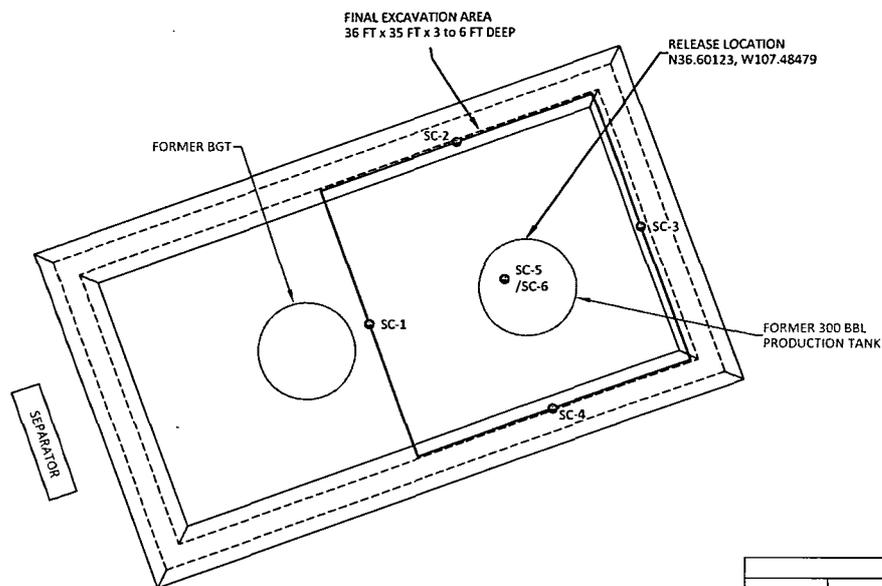
DATE CHECKED:
December 6, 2013

APPROVED BY:
E. McNally

DATE APPROVED:
December 6, 2013

LEGEND

- SAMPLE LOCATIONS
- ==== SECONDARY CONTAINMENT BERM



Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	1,000
SC-1	8/28/13	1 to 3	34.5	152
SC-2	8/28/13	1 to 5	0.0	542
SC-3	8/28/13	1 to 6	546	708
SC-4	8/28/13	1 to 6	208	127
SC-5	8/28/13	3 to 6	1,935	2,080
SC-6	9/4/13	3 to 6	65.5	157

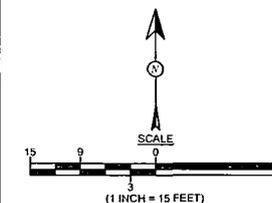
ALL SAMPLES WERE COMPOSITE SAMPLES.

Laboratory Analytical Results						
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)
NMOCD ACTION LEVEL			10	50	1,000	
SC-3	8/28/13	1 to 6	0.056	2.9	NA	NA
SC-4	8/28/13	1 to 6	0.15	4.5	NA	NA
SC-5	8/28/13	3 to 6	3.9	139	3,100	880

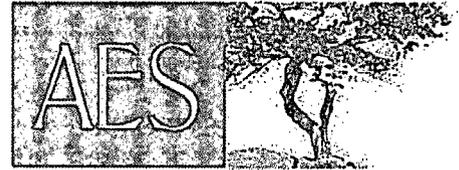
ALL SAMPLES WERE ANALYZED PER EPA METHOD 8021B/8260B AND SC-5 WAS ALSO ANALYZED PER EPA METHOD 8015D.
 NA - NOT ANALYZED

SAN JUAN 28-6 #170M WELLHEAD

SERVICE ROAD



AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

Client: ConocoPhillips

Project Location: San Juan 28-6 #170M

Date: 8/6/2013

Matrix: Soil

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

Durango, Colorado
970-403-3084

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
TH-1 @ 2'	8/6/2013	14:38	1,429	Not Analyzed for TPH				
TH-1 @ 5'	8/6/2013	14:41	1,554	2,620	15:13	20.0	1	HMW
TH-2 @ 2'	8/6/2013	14:47	1,073	Not Analyzed for TPH				
TH-2 @ 5'	8/6/2013	14:52	1,684	1,230	15:38	20.0	1	HMW
TH-3 @ 1-4'	8/6/2013	14:58	45.6	84.8	15:17	20.0	1	HMW
TH-3 @ 5'	8/6/2013	15:01	1,619	928	15:50	20.0	1	HMW
TH-4 @ 2'	8/6/2013	15:31	1,336	Not Analyzed for TPH				
TH-4 @ 5'	8/6/2013	15:34	1,578	2,740	16:10	20.0	1	HMW
TH-5 @ 2'	8/6/2013	15:37	92.1	75.6	16:12	20.0	1	HMW
TH-5 @ 5'	8/6/2013	15:40	9.5	Not Analyzed for TPH				
TH-6 @ 2'	8/6/2013	15:46	4.2	Not Analyzed for TPH				
TH-6 @ 4'	8/6/2013	15:52	4.9	93.5	16:41	20.0	1	HMW
TH-7 @ 4.5'	8/6/2013	15:56	2.3	79.7	16:43	20.0	1	HMW
TH-8 @ 2'	8/6/2013	15:58	3.3	Not Analyzed for TPH				
TH-8 @ 5'	8/6/2013	16:01	5.4	81.1	16:44	20.0	1	HMW

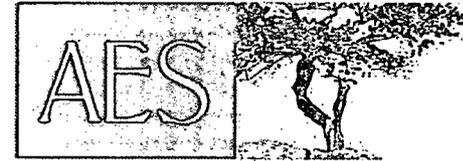
DF Dilution Factor
 NA Not Analyzed
 ND Not Detected at the Reporting Limit
 PQL Practical Quantitation Limit

*Field TPH concentrations recorded may be below PQL.

Analyst:

Leathur M. Woods

AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

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

Durango, Colorado
970-403-3084

Client: ConocoPhillips

Project Location: San Juan 28-6 #170M

Date: 8/28/2013 and 9/4/2013

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	8/28/2013	11:02	West Wall	34.5	11:50	152	20.0	1	HMW
SC-2	8/28/2013	12:41	North Wall	0.0	11:52	542	20.0	1	HMW
SC-3	8/28/2013	12:43	East Wall	546	11:54	708	20.0	1	HMW
SC-4	8/28/2013	11:08	South Wall	208	11:57	127	20.0	1	HMW
SC-5	8/28/2013	11:10	Base	1,935	12:00	2,080	20.0	1	HMW
SC-6	9/4/2013	12:35	Base	65.5	12:48	157	20.0	1	HMW

DF Dilution Factor

NA Not Analyzed

ND Not Detected at the Reporting Limit

PQL Practical Quantitation Limit

*Field TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:

Leather M. Woods



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

August 15, 2013

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

RE: COP San Juan 28-6 #170M

OrderNo.: 1308353

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/8/2013 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 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: TH-2@5'

Project: COP San Juan 28-6 #170M

Collection Date: 8/6/2013 2:52:00 PM

Lab ID: 1308353-001

Matrix: SOIL

Received Date: 8/8/2013 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	450	9.9		mg/Kg	1	8/13/2013 12:35:31 AM	8796
Surr: DNOP	104	63-147		%REC	1	8/13/2013 12:35:31 AM	8796
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	1000	94		mg/Kg	20	8/12/2013 6:31:50 PM	8800
Surr: BFB	164	80-120	S	%REC	20	8/12/2013 6:31:50 PM	8800
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	3.0	0.94		mg/Kg	20	8/12/2013 6:31:50 PM	8800
Toluene	14	0.94		mg/Kg	20	8/12/2013 6:31:50 PM	8800
Ethylbenzene	3.9	0.94		mg/Kg	20	8/12/2013 6:31:50 PM	8800
Xylenes, Total	43	1.9		mg/Kg	20	8/12/2013 6:31:50 PM	8800
Surr: 4-Bromofluorobenzene	111	80-120		%REC	20	8/12/2013 6:31:50 PM	8800

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1308353

15-Aug-13

Client: Animas Environmental
Project: COP San Juan 28-6 #170M

Sample ID	MB-8796	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	8796	RunNo:	12540					
Prep Date:	8/9/2013	Analysis Date:	8/12/2013	SeqNo:	357283	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.7		10.00		97.2	63	147			

Sample ID	LCS-8796	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	8796	RunNo:	12540					
Prep Date:	8/9/2013	Analysis Date:	8/12/2013	SeqNo:	357284	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	50.00	0	79.9	77.1	128			
Surr: DNOP	3.8		5.000		76.5	63	147			

Sample ID	MB-8810	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	8810	RunNo:	12540					
Prep Date:	8/12/2013	Analysis Date:	8/12/2013	SeqNo:	357705	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.9		10.00		99.3	63	147			

Sample ID	LCS-8810	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	8810	RunNo:	12540					
Prep Date:	8/12/2013	Analysis Date:	8/12/2013	SeqNo:	357950	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1		5.000		81.3	63	147			

Sample ID	1308352-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	8796	RunNo:	12540					
Prep Date:	8/9/2013	Analysis Date:	8/12/2013	SeqNo:	357951	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.30	17.04	51.5	61.3	138			S
Surr: DNOP	4.4		5.030		87.0	63	147			

Sample ID	1308352-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	8796	RunNo:	12540					
Prep Date:	8/9/2013	Analysis Date:	8/12/2013	SeqNo:	357952	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.9	49.70	17.04	64.0	61.3	138	12.9	20	
Surr: DNOP	4.2		4.970		83.8	63	147	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1308353

15-Aug-13

Client: Animas Environmental
Project: COP San Juan 28-6 #170M

Sample ID	1308420-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	8810	RunNo:	12540					
Prep Date:	8/12/2013	Analysis Date:	8/12/2013	SeqNo:	357965	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.0		4.995		81.0	63	147			

Sample ID	1308420-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	8810	RunNo:	12540					
Prep Date:	8/12/2013	Analysis Date:	8/12/2013	SeqNo:	357966	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		4.931		88.9	63	147	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1308353

15-Aug-13

Client: Animas Environmental
Project: COP San Juan 28-6 #170M

Sample ID	MB-8800	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R12570	RunNo:	12570					
Prep Date:	8/9/2013	Analysis Date:	8/12/2013	SeqNo:	358060	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	870		1000		86.9	80	120			

Sample ID	LCS-8800	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R12570	RunNo:	12570					
Prep Date:	8/9/2013	Analysis Date:	8/12/2013	SeqNo:	358068	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	940		1000		93.7	80	120			

Sample ID	MB-8800	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	8800	RunNo:	12570					
Prep Date:	8/9/2013	Analysis Date:	8/12/2013	SeqNo:	358118	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	870		1000		86.9	80	120			

Sample ID	LCS-8800	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	8800	RunNo:	12570					
Prep Date:	8/9/2013	Analysis Date:	8/12/2013	SeqNo:	358119	Units:	mg/Kg			
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	62.6	136			
Surr: BFB	940		1000		93.7	80	120			

Sample ID	1308352-002AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC	Batch ID:	8800	RunNo:	12570					
Prep Date:	8/9/2013	Analysis Date:	8/12/2013	SeqNo:	358122	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.8	24.18	0	92.0	76	156			
Surr: BFB	930		967.1		96.2	80	120			

Sample ID	1308352-002AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC	Batch ID:	8800	RunNo:	12570					
Prep Date:	8/9/2013	Analysis Date:	8/12/2013	SeqNo:	358123	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.8	24.20	0	95.4	76	156	3.73	17.7	
Surr: BFB	930		968.1		96.2	80	120	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1308353

15-Aug-13

Client: Animas Environmental
Project: COP San Juan 28-6 #170M

Sample ID	MB-8800	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R12570	RunNo:	12570					
Prep Date:	8/9/2013	Analysis Date:	8/12/2013	SeqNo:	358141	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	LCS-8800	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R12570	RunNo:	12570					
Prep Date:	8/9/2013	Analysis Date:	8/12/2013	SeqNo:	358142	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

Sample ID	MB-8800	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	8800	RunNo:	12570					
Prep Date:	8/9/2013	Analysis Date:	8/12/2013	SeqNo:	358149	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	LCS-8800	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	8800	RunNo:	12570					
Prep Date:	8/9/2013	Analysis Date:	8/12/2013	SeqNo:	358150	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	102	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

Sample ID	1308352-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BatchQC	Batch ID:	8800	RunNo:	12570					
Prep Date:	8/9/2013	Analysis Date:	8/12/2013	SeqNo:	358152	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.047	0.9443	0	98.6	67.3	145			
Toluene	0.91	0.047	0.9443	0	96.1	66.8	144			
Ethylbenzene	0.94	0.047	0.9443	0	99.1	61.9	153			
Xylenes, Total	2.8	0.094	2.833	0	100	65.8	149			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1308353

15-Aug-13

Client: Animas Environmental
Project: COP San Juan 28-6 #170M

Sample ID	1308352-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BatchQC	Batch ID:	8800	RunNo:	12570					
Prep Date:	8/9/2013	Analysis Date:	8/12/2013	SeqNo:	358152	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		0.9443		107	80	120			

Sample ID	1308352-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BatchQC	Batch ID:	8800	RunNo:	12570					
Prep Date:	8/9/2013	Analysis Date:	8/12/2013	SeqNo:	358154	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.047	0.9443	0	93.8	67.3	145	4.98	20	
Toluene	0.86	0.047	0.9443	0	91.5	66.8	144	4.93	20	
Ethylbenzene	0.88	0.047	0.9443	0	93.5	61.9	153	5.83	20	
Xylenes, Total	2.7	0.094	2.833	0	94.5	65.8	149	6.13	20	
Surr: 4-Bromofluorobenzene	1.0		0.9443		106	80	120	0	0	

Qualifiers:

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



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: 1308353

RcptNo: 1

Received by/date: *jm* 08/08/13
 Logged By: Ashley Gallegos 8/8/2013 9:55:00 AM
 Completed By: Ashley Gallegos 8/8/2013 12:49:44 PM
 Reviewed By: *TO* 08/08/13

AG
AG

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 # of preserved bottles checked for pH: (<2 or >12 unless noted)
- 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted?
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes No Checked by:

Special Handling (if applicable)

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

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good	Yes			



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

August 30, 2013

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

RE: CoP SJ 28-6 #170M

OrderNo.: 1308C82

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 8/29/2013 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 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: SC-3

Project: CoP SJ 28-6 #170M

Collection Date: 8/28/2013 12:43:00 PM

Lab ID: 1308C82-001

Matrix: MEOH (SOIL)

Received Date: 8/29/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	0.056	0.050		mg/Kg	1	8/29/2013 12:24:54 PM	R12977
Toluene	0.46	0.050		mg/Kg	1	8/29/2013 12:24:54 PM	R12977
Ethylbenzene	0.17	0.050		mg/Kg	1	8/29/2013 12:24:54 PM	R12977
Xylenes, Total	2.2	0.10		mg/Kg	1	8/29/2013 12:24:54 PM	R12977
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	8/29/2013 12:24:54 PM	R12977
Surr: 4-Bromofluorobenzene	83.7	70-130		%REC	1	8/29/2013 12:24:54 PM	R12977
Surr: Dibromofluoromethane	104	70-130		%REC	1	8/29/2013 12:24:54 PM	R12977
Surr: Toluene-d8	87.1	70-130		%REC	1	8/29/2013 12:24:54 PM	R12977

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-4

Project: CoP SJ 28-6 #170M

Collection Date: 8/28/2013 11:08:00 AM

Lab ID: 1308C82-002

Matrix: MEOH (SOIL)

Received Date: 8/29/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	0.15	0.050		mg/Kg	1	8/29/2013 12:53:47 PM	R12977
Toluene	0.15	0.050		mg/Kg	1	8/29/2013 12:53:47 PM	R12977
Ethylbenzene	0.36	0.050		mg/Kg	1	8/29/2013 12:53:47 PM	R12977
Xylenes, Total	3.8	0.10		mg/Kg	1	8/29/2013 12:53:47 PM	R12977
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	8/29/2013 12:53:47 PM	R12977
Surr: 4-Bromofluorobenzene	87.5	70-130		%REC	1	8/29/2013 12:53:47 PM	R12977
Surr: Dibromofluoromethane	107	70-130		%REC	1	8/29/2013 12:53:47 PM	R12977
Surr: Toluene-d8	74.8	70-130		%REC	1	8/29/2013 12:53:47 PM	R12977

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-5

Project: CoP SJ 28-6 #170M

Collection Date: 8/28/2013 11:10:00 AM

Lab ID: 1308C82-003

Matrix: MEOH (SOIL)

Received Date: 8/29/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	880	10		mg/Kg	1	8/29/2013 11:42:57 AM	9101
Surr: DNOP	98.5	63-147		%REC	1	8/29/2013 11:42:57 AM	9101
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	3.9	0.25		mg/Kg	5	8/29/2013 1:51:33 PM	R12977
Toluene	37	2.5		mg/Kg	50	8/29/2013 3:47:20 PM	R12977
Ethylbenzene	6.9	0.25		mg/Kg	5	8/29/2013 1:51:33 PM	R12977
Xylenes, Total	91	5.0		mg/Kg	50	8/29/2013 3:47:20 PM	R12977
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%REC	5	8/29/2013 1:51:33 PM	R12977
Surr: 4-Bromofluorobenzene	80.9	70-130		%REC	5	8/29/2013 1:51:33 PM	R12977
Surr: Dibromofluoromethane	107	70-130		%REC	5	8/29/2013 1:51:33 PM	R12977
Surr: Toluene-d8	94.7	70-130		%REC	5	8/29/2013 1:51:33 PM	R12977
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	3100	250		mg/Kg	50	8/29/2013 3:47:20 PM	R12977
Surr: BFB	82.7	70-130		%REC	50	8/29/2013 3:47:20 PM	R12977

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1308C82

30-Aug-13

Client: Animas Environmental
Project: CoP SJ 28-6 #170M

Sample ID: MB-9101	SampType: MBLK	TestCode: EPA Method 8015D: Diesel Range Organics								
Client ID: PBS	Batch ID: 9101	RunNo: 12963								
Prep Date: 8/29/2013	Analysis Date: 8/29/2013	SeqNo: 370092	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.9		10.00		78.5	63	147			

Sample ID: LCS-9101	SampType: LCS	TestCode: EPA Method 8015D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 9101	RunNo: 12963								
Prep Date: 8/29/2013	Analysis Date: 8/29/2013	SeqNo: 370093	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	59	10	50.00	0	119	77.1	128			
Surr: DNOP	4.1		5.000		82.1	63	147			

Sample ID: LCS-9079	SampType: LCS	TestCode: EPA Method 8015D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 9079	RunNo: 12963								
Prep Date: 8/28/2013	Analysis Date: 8/29/2013	SeqNo: 370124	Units: %REC							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.0	63	147			

Sample ID: MB-9079	SampType: MBLK	TestCode: EPA Method 8015D: Diesel Range Organics								
Client ID: PBS	Batch ID: 9079	RunNo: 12963								
Prep Date: 8/28/2013	Analysis Date: 8/29/2013	SeqNo: 370125	Units: %REC							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.7		10.00		76.8	63	147			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1308C82

30-Aug-13

Client: Animas Environmental
Project: CoP SJ 28-6 #170M

Sample ID: 5ml rb	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: R12977	RunNo: 12977								
Prep Date:	Analysis Date: 8/29/2013	SeqNo: 370249	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: 1,2-Dichloroethane-d4	0.50		0.5000		99.7	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.56		0.5000		113	70	130			
Surr: Toluene-d8	0.49		0.5000		98.4	70	130			

Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: LCSS	Batch ID: R12977	RunNo: 12977								
Prep Date:	Analysis Date: 8/29/2013	SeqNo: 370251	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	104	70	130			
Toluene	0.99	0.050	1.000	0	98.6	69.9	139			
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		98.5	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		109	70	130			
Surr: Toluene-d8	0.51		0.5000		101	70	130			

Sample ID: 1308c82-001a ms	SampType: MS	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: SC-3	Batch ID: R12977	RunNo: 12977								
Prep Date:	Analysis Date: 8/29/2013	SeqNo: 370980	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.63	0.050	0.6061	0.05622	94.3	65.1	127			
Toluene	1.0	0.050	0.6061	0.4601	93.6	54.2	148			
Surr: 1,2-Dichloroethane-d4	0.30		0.3030		99.7	70	130			
Surr: 4-Bromofluorobenzene	0.25		0.3030		82.6	70	130			
Surr: Dibromofluoromethane	0.30		0.3030		97.6	70	130			
Surr: Toluene-d8	0.25		0.3030		81.9	70	130			

Sample ID: 1308c82-001a msd	SampType: MSD	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: SC-3	Batch ID: R12977	RunNo: 12977								
Prep Date:	Analysis Date: 8/29/2013	SeqNo: 370981	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.61	0.050	0.6061	0.05622	91.5	65.1	127	2.82	20	
Toluene	0.94	0.050	0.6061	0.4601	79.4	54.2	148	8.79	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1308C82

30-Aug-13

Client: Animas Environmental

Project: CoP SJ 28-6 #170M

Sample ID: 1308c82-001a msd	SampType: MSD	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: SC-3	Batch ID: R12977	RunNo: 12977								
Prep Date:	Analysis Date: 8/29/2013	SeqNo: 370981 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.30		0.3030		98.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.26		0.3030		84.7	70	130	0	0	
Surr: Dibromofluoromethane	0.30		0.3030		100	70	130	0	0	
Surr: Toluene-d8	0.25		0.3030		81.8	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1308C82

30-Aug-13

Client: Animas Environmental

Project: CoP SJ 28-6 #170M

Sample ID: 5ml rb	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: R12977	RunNo: 12977								
Prep Date:	Analysis Date: 8/29/2013	SeqNo: 370255			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	520		500.0		103	70	130			

Sample ID: 2.5ug gro lcs	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: R12977	RunNo: 12977								
Prep Date:	Analysis Date: 8/29/2013	SeqNo: 370257			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	80	120			
Surr: BFB	470		500.0		94.9	70	130			

Sample ID: 1308c82-003a ms	SampType: MS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: SC-5	Batch ID: R12977	RunNo: 12977								
Prep Date:	Analysis Date: 8/29/2013	SeqNo: 370982			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4000	250	823.5	3050	117	58	134			
Surr: BFB	13000		16470		81.7	70	130			

Sample ID: 1308c82-003a msd	SampType: MSD	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: SC-5	Batch ID: R12977	RunNo: 12977								
Prep Date:	Analysis Date: 8/29/2013	SeqNo: 370983			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	3700	250	823.5	3050	74.9	58	134	9.06	20	
Surr: BFB	13000		16470		81.7	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
 4901 Hawkins NE
 Albuquerque, NM 87105
 TEL: 505-345-3975 FAX: 505-345-4107
 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1308C82

RcptNo: 1

Received by/date: [Signature] 08/29/13

Logged By: Lindsay Mangin 8/29/2013 10:00:00 AM [Signature]

Completed By: Lindsay Mangin 8/29/2013 10:19:07 AM [Signature]

Reviewed By: JD 08/29/13

Chain of Custody

- Custody seals intact on sample bottles? Yes No Not Present
- Is Chain of Custody complete? Yes No Not Present
- How was the sample delivered? Courier

Log In

- Was an attempt made to cool the samples? Yes No NA
- Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- Sample(s) in proper container(s)? Yes No
- Sufficient sample volume for Indicated test(s)? Yes No
- Are samples (except VOA and ONG) properly preserved? Yes No
- Was preservative added to bottles? Yes No NA
- VOA vials have zero headspace? Yes No No VOA Vials
- Were any sample containers received broken? Yes No
- Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes No
- Are matrices correctly identified on Chain of Custody? Yes No
- Is it clear what analyses were requested? Yes No
- 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)

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

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

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

Chain-of-Custody Record

Turn-Around Time:

Standard Rush Same Day



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: Animas Environmental Services

Project Name:

Mailing Address: 624 E. Comanche

Col SJ 28-6#170M

Farmington, NM 87401

Project #:

Phone #: 505-564-2281

Project Manager:

email or Fax#:

QA/QC Package:

D. Watson

Standard Level 4 (Full Validation)

Accreditation

Sampler: H. Woods

NELAP Other _____

On Ice: Yes No

EDD (Type) _____

Sample Temperature: 1.0

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No	BTEX + MEQEs + PAHs (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MDD)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
8/28/13	1243	Soil	SC-3	MeOH Kit / 4-oz	MeOH / -	001	X											
8/28/13	1100	Soil	SC-4	MeOH Kit / 4-oz	MeOH / -	002	X											
8/28/13	1110	Soil	SC-5	MeOH Kit / 4oz	MeOH / -	003	X	X										

Date: 8/28/13 Time: 1650 Relinquished by: Heather M. Wood

Received by: Christina Walters Date: 8/28/13 Time: 1650

Remarks: Bill to Conocophillia

Date: 8/28/13 Time: 1710 Relinquished by: Christina Walters

Received by: [Signature] Date: 08/29/13 Time: 1000

WO: 9706301 ordered by: Eric Smith

Activity: DISO
 Supervisor: Mike Smith
 User: K GARCIA

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