

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office to
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company: Burlington Resources	Contact Lindsay Dumas
Address 3401 East 30 th St, Farmington, NM	Telephone No.(505) 599-4089
Facility Name: San Juan 28-5 Unit 89N	Facility Type: Gas Well
Surface Owner BLM	Mineral Owner BLM (NMSF079250)
API No. 30-039-27696	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	10	28N	05W	1105	FSL	2405	FWL	Rio Arriba

Latitude 36.67149 Longitude -107.34678

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 5 BBL	Volume Recovered 4.5 BBL
Source of Release Pit	Date and Hour of Occurrence 12/4/13	Date and Hour of Discovery 12/5/13 2:00 PM
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.	

If a Watercourse was Impacted, Describe Fully.*
OIL CONS. DIV DIST. 3

Describe Cause of Problem and Remedial Action Taken.*
Pit overflowed, well was shut in immediately.
MAY 20 2014

Describe Area Affected and Cleanup Action Taken.*
Excavation was 30' x 30' x 12' Deep. 290 c/yds of soil was transported to IEI Land Farm and 290 c/yds of clean soil was transported from Aztec Machine, 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: <i>Lindsay Dumas</i>	OIL CONSERVATION DIVISION	
Printed Name: Lindsay Dumas	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Field Environmental Specialist	Approval Date: 6/2/14	Expiration Date:
E-mail Address: Lindsay.Dumas@conocophillips.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 5/16/14	Phone: (505) 599-4089	

* Attach Additional Sheets If Necessary

#NCS 1415329057



Animas Environmental Services, LLC

www.animasenvironmental.com

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

Durango, Colorado
970-403-3084

April 28, 2014

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

OIL CONS. DIV DIST. 3

MAY 20 2014

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

**RE: Initial Release Assessment and Final Excavation Report
San Juan 28-5 #89N
Rio Arriba County, New Mexico**

Dear Ms. Dumas:

On December 16, 2013, and February 13 and 20, 2014, Animas Environmental Services, LLC (AES) completed an initial release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) San Juan 28-5 #89N, located in Rio Arriba County, New Mexico. The release consisted of approximately 5 barrels (bbls) of produced water and condensate from the onsite below grade tank (BGT). The initial release assessment was completed by AES on December 16, 2013, and the final excavation was completed by CoP contractors while AES' personnel were at the location on February 13 and 20, 2014.

1.0 Site Information

1.1 Location

Location – SE¼ SW¼, Section 10, T28N, R5W, Rio Arriba County, New Mexico
Well Head Latitude/Longitude – N36.67150 and W107.34740, respectively
Release Location Latitude/Longitude – N36.67139 and W107.34718, respectively
Land Jurisdiction – Bureau of Land Management (BLM)
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, December 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 10 based on the following factors:

- **Depth to Groundwater:** A cathodic report dated May 1991 for the San Juan 28-5 Unit #19, located approximately 1,620 feet west of the location and 30 feet lower in elevation, reported the depth to groundwater at 80 feet below ground surface (bgs). (0 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** An unnamed wash which drains to the wash in Gobernador Canyon is located approximately 780 feet to the west. (10 points)

1.3 Assessment

AES was initially contacted by Lindsay Dumas of CoP on December 10, 2013, and on December 16, 2013, Debbie Watson and Jesse Christopherson of AES completed the release assessment field work. The assessment included collection and field sampling of nine soil samples and one composite sample from five soil borings in and around the release area. All soil borings were terminated at the surface due to frozen soil conditions, except SB-1 which was terminated at 5 feet bgs. Based on the field sampling results, AES recommended further excavation of the release area. Sample locations are shown on Figure 3.

On February 13, 2014, AES personnel returned to the location to collect confirmation soil samples of the excavation. The field sampling activities included collection of five confirmation soil samples (SC-2 through SC-6) from the walls and base of the excavation. The area of the final excavation measured approximately 31 feet by 25.5 feet by 12 to 14 feet in depth. The vertical extent of the excavation was limited due to a confining sandstone layer between 12 and 14 feet bgs. A final confirmation soil sample (SC-7) from the base was collected on February 20, 2014, following application of potassium permanganate. Sample locations and final excavation extents are presented on Figure 4.

2.0 Soil Sampling

A total of nine soil samples from five borings (SB-1 through SB-5) and seven composite samples (SC-1 through SC-7) 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 composite samples (SC-1 and SC-6) collected during the assessments were submitted for confirmation laboratory analysis.

2.1 Field Sampling

2.1.1 Volatile Organic Compounds

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

2.1.2 Total Petroleum Hydrocarbons

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

2.2 Laboratory Analyses

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

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

Sample SC-1 was also laboratory analyzed for:

- Chloride per USEPA Method 300.0.

Soil sample SC-6 was also laboratory analyzed for:

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

2.3 Field and Laboratory Analytical Results

On December 16, 2013, initial assessment field screening results for VOCs via OVM showed concentrations ranging from 38.5 ppm in SB-3 up to 1,828 ppm in SB-1. Field TPH concentrations ranged from 55.6 mg/kg in SB-3 to greater than 2,700 mg/kg in SB-1.

On February 13 and 20, 2014, excavation field screening results for VOCs via OVM ranged from 0.9 ppm in SC-4 up to 3,264 ppm in SC-6. Field TPH concentrations ranged

from less than 20.0 mg/kg in SC-4 up to 2,590 mg/kg in SC-6. Results are included below in Table 1 and on Figures 3 and 4. The AES Field Sampling Reports are attached.

Table 1. Soil Field Sampling VOCs and TPH Results
 San Juan 28-5 #89N Initial Release Assessment and Final Excavation
 December 2013 and February 2014

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>	<i>TPH 418.1 (mg/kg)</i>
NMOCD Action Level*			100	1,000
SB-1	12/16/13	Surface	1,749	NA
		1	1,735	NA
		2	1,742	2,540
		4	1,514	NA
		5	1,828	>2,700
SB-2	12/16/13	Surface	1,376	NA
SB-3	12/16/13	Surface	38.5	55.6
SB-4	12/16/13	Surface	99.6	NA
SB-5	12/16/13	Surface	1,386	NA
SC-1	12/16/13	Surface	NA	NA
SC-2	02/13/14	1 to 12	5.6	23.0
SC-3	02/13/14	1 to 14	65.7	45.8
SC-4	02/13/14	1 to 14	0.9	<20.0
SC-5	02/13/14	1 to 12	20.1	20.3
SC-6	02/13/14	12 to 14	3,264	2,590
SC-7	02/20/14	12 to 14	38.5	103

NA – not analyzed

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

Laboratory analyses for SC-1 were used to confirm field sampling results of the initial release assessment. The benzene concentration was reported at 0.28 mg/kg, and the total BTEX concentration was reported at 46.7 mg/kg. The laboratory chloride concentration was reported at 260 mg/kg.

Laboratory analyses for SC-6 were used to confirm field sampling results from the final excavation. Benzene concentration was reported as less than 0.33 mg/kg, and the total

BTEX concentration was reported at 55.0 mg/kg. TPH concentrations as GRO/DRO in SC-6 were reported at 2,180 mg/kg. Results are presented in Table 2 and on Figures 3 and 4. The laboratory analytical reports are attached.

Table 2. Soil Laboratory Analytical Results – Benzene, Total BTEX, TPH, and Chlorides
 San Juan 28-5 #89N Initial Release Assessment and Final Excavation
 December 2013 and February 2014

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>Benzene (mg/kg)</i>	<i>Total BTEX (mg/kg)</i>	<i>GRO (mg/kg)</i>	<i>DRO (mg/kg)</i>	<i>Chloride (mg/kg)</i>
NMOCD Action Level*			10	50	1,000		NE
SC-1	12/16/13	0.5	0.28	46.7	NA	NA	260
SC-6	2/13/14	12 to 14	<0.33	55.0	1,200	980	NA

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 December 16, 2013, AES conducted an initial assessment of petroleum contaminated soils associated with a release of approximately 5 bbls of produced water and condensate from a BGT at the San Juan 28-5 #89N. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the site was assigned a rank of 10.

Initial assessment field sampling results above the NMOCD action level of 100 ppm VOCs and 1,000 mg/kg TPH were reported in SB-1, SB-2, and SB-5. The highest VOC concentration was reported in SB-1 with 1,828 ppm, and the highest TPH concentration was also reported in SB-1 with greater than 2,700 mg/kg. Laboratory analytical results for SC-1 were used to confirm field sampling results. Benzene and total BTEX concentrations were reported below the NMOCD action levels of 10 mg/kg and 50 mg/kg, respectively. The chloride concentration was reported at 260 mg/kg. Based on the field sampling results from the initial assessment, a release was confirmed and excavation of the release area was recommended.

On February 13, 2014, final excavation of the impacted area was completed. Field screening results of the excavation extents showed that VOC concentrations were below applicable NMOCD action levels for the final sidewalls of the excavation; however, the base remained above applicable NMOCD action levels with a VOC concentration of 3,264 ppm. 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 for TPH with 2,590 mg/kg. Laboratory analytical results from February 13, 2014, reported benzene concentrations in SC-6 below NMOCD action levels, while total BTEX and TPH concentrations as GRO/DRO remained above the applicable NMOCD action level. Potassium permanganate was applied to the base of the excavation, and an additional confirmation sample (SC-7) was collected by AES on February 20, 2014. Field sampling results for SC-7 reported VOC and TPH concentrations below applicable NMOCD action levels for the base of the excavation.

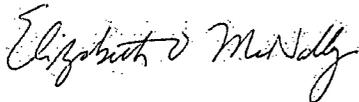
Based on final field sampling and laboratory analytical results of the excavation of petroleum contaminated soils at the San Juan 28-5 #89N, VOC, benzene, total BTEX, and TPH concentrations were below applicable NMOCD action levels for all of the final sidewalls and base of the excavation. No further 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,



Emilee Skyles
Staff Geologist

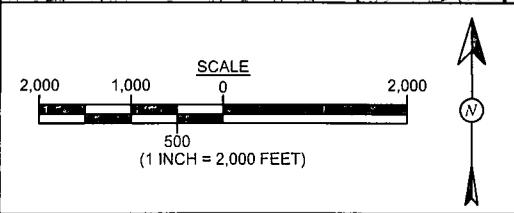
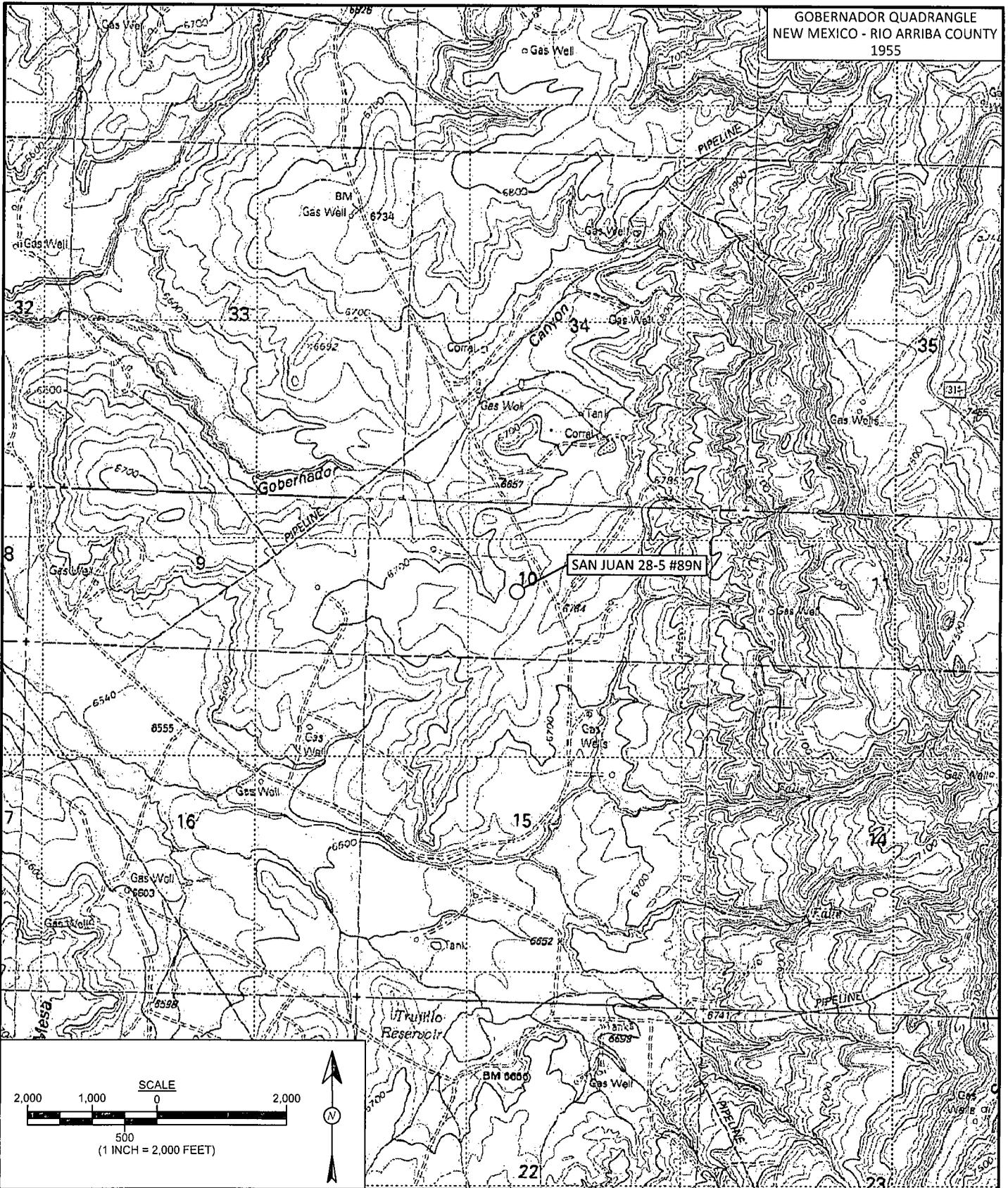


Elizabeth McNally, PE

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, December 2013
- Figure 3. Initial Assessment Sample Locations and Results, December 2013
- Figure 4. Final Excavation Sample Locations and Results, February 2014
- AES Field Sampling Report 121613
- AES Field Sampling Report 021314
- AES Field Sampling Report 022014
- Hall Laboratory Analytical Report 1312A05
- Hall Laboratory Analytical Report 1402550

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EM\2014 Projects\ConocoPhillips\SJ 28-5 #89N\San Juan 28-5 #89N Release and Final Excavation Report
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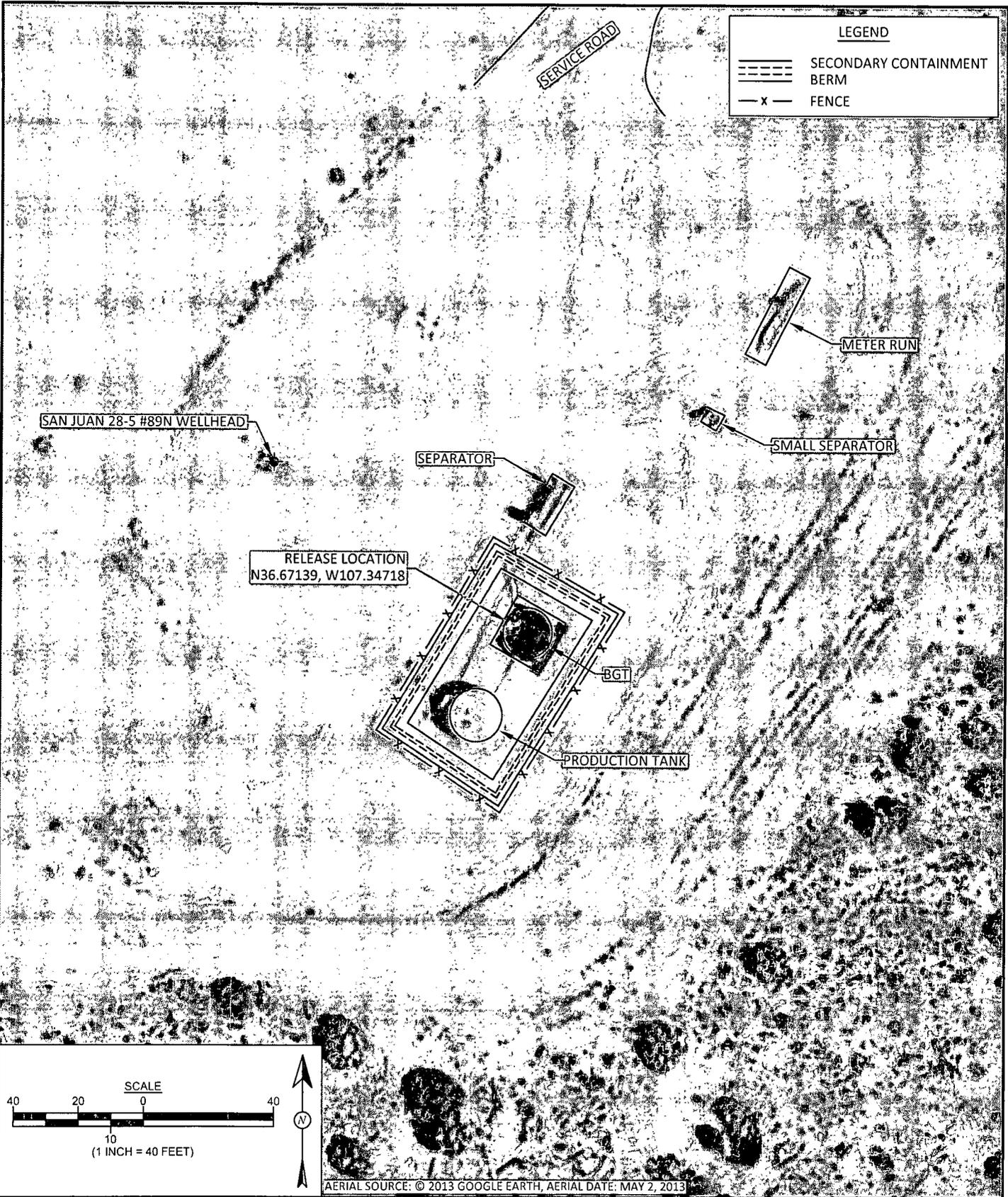
DRAWN BY: S. Glasses	DATE DRAWN: December 17, 2013
REVISIONS BY: C. Lameman	DATE REVISED: February 18, 2014
CHECKED BY: D. Watson	DATE CHECKED: February 18, 2014
APPROVED BY: E. McNally	DATE APPROVED: February 18, 2014

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP
 ConocoPhillips
 SAN JUAN 28-5 #89N
 SE¼ SW¼, SECTION 10, T28N, R5W
 RIO ARriba COUNTY, NEW MEXICO
 N36.67150, W107.34740

LEGEND

-  SECONDARY CONTAINMENT BERM
-  FENCE




Animas Environmental Services: LLC

DRAWN BY: S. Glasses	DATE DRAWN: December 17, 2013
REVISIONS BY: C. Lameman	DATE REVISED: February 18, 2014
CHECKED BY: D. Watson	DATE CHECKED: February 18, 2014
APPROVED BY: E. McNally	DATE APPROVED: February 18, 2014

FIGURE 2

**AERIAL SITE MAP
DECEMBER 2013**

ConocoPhillips
SAN JUAN 28-5 #89N
SE¼ SW¼, SECTION 10, T28N, R5W
RIO ARriba COUNTY, NEW MEXICO
N36.67150, W107.34740

FIGURE 4

FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS
FEBRUARY 2014
 ConocoPhillips
 SAN JUAN 28-5 #89N
 SE¼ SW¼, SECTION 10, T28N, R5W
 RIO ARriba COUNTY, NEW MEXICO
 N36.67150, W107.34740

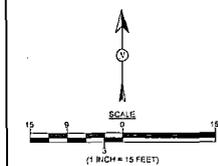


Animas Environmental Services, LLC

DRAWN BY: C. Llameman	DATE DRAWN: February 18, 2014
REVISIONS BY: C. Llameman	DATE REVISED: February 18, 2014
CHECKED BY: D. Watson	DATE CHECKED: February 18, 2014
APPROVED BY: E. McNally	DATE APPROVED: February 18, 2014

LEGEND

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



Sample ID	Date	Depth (ft)	OVN- PID (ppm)	TPH (mg/kg)
NMOC ACTION LEVEL				
			100	1,000
SC-2	2/13/14	1 to 12	5.6	23.0
SC-3	2/13/14	1 to 14	65.7	45.8
SC-4	2/13/14	1 to 14	0.9	<20.0
SC-5	2/13/14	1 to 12	20.1	20.3
SC-6	2/13/14	12 to 14	3,264	2,590
SC-7	2/20/14	12 to 14	38.5	103

SAMPLES SC-2 THROUGH SC-7 WERE COMPOSITE SAMPLES.

Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRD (mg/kg)	TPH - GRD (mg/kg)
NMOC ACTION LEVEL						
			10	50	1,200	980
SC-6	2/13/14	12 to 14	<0.33	55.0	1,200	980

SAMPLE WAS ANALYZED PER EPA METHOD 8021B AND 8015D.

SAN JUAN 28-5 #89N WELLHEAD

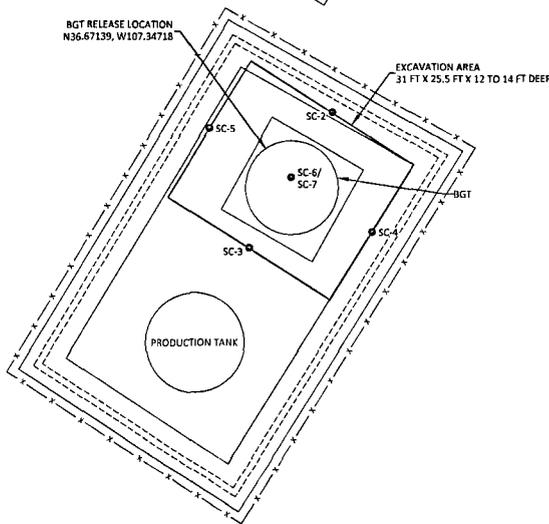
SMALL SEPARATOR

SEPARATOR

BGT RELEASE LOCATION
 N36.67139, W107.34718

EXCAVATION AREA
 31 FT X 25.5 FT X 12 TO 14 FT DEEP

STAINING



AES Field Sampling Report



Animas Environmental Services, LLC

www.animasenvironmental.com

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

Durango, Colorado
970-403-3084

Client: ConocoPhillips

Project Location: San Juan 28-5 #89N

Date: 12/16/2013

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	TPH* (mg/kg)	TPH Analysis Time**	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ surface	12/16/2013	12:55	1,749	Not Analyzed for TPH				
SB-1 @ 1'	12/16/2013	13:00	1,735	Not Analyzed for TPH				
SB-1 @ 2'	12/16/2013	13:05	1,742	2,540	8:39	20.0	1	DAW
SB-1 @ 4'	12/16/2013	13:08	1,514	Not Analyzed for TPH				
SB-1 @ 5'	12/16/2013	13:31	1,828	>2,700	14:05	20.0	1	DAW
SB-2 @ surface	12/16/2013	13:19	1,376	Not Analyzed for TPH				
SB-3 @ surface	12/16/2013	13:15	38.5	55.6	8:36	20.0	1	DAW
SB-4 @ surface	12/16/2013	13:22	99.6	Not Analyzed for TPH				
SB-5 @ surface	12/16/2013	13:40	1,386	Not Analyzed for TPH				
SC-1	12/16/2013	14:25	NA	Not Analyzed for TPH				

DF Dilution Factor

Total Petroleum Hydrocarbons - USEPA 418.1

NA Not Analyzed

ND Not Detected at the Reporting Limit

Analyst:

PQL Practical Quantitation Limit

*TPH concentrations recorded may be below PQL.

** Samples SB-1@2' and SB-3@surface were analyzed on 12/17/13.

AES Field Sampling Report



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche
Farmington, NM, 87401
505-864-2281

Durango, Colorado
970-408-3084

Client: ConocoPhillips

Project Location: San Juan 28-5 #89N

Date: 2/13/2014

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-2	2/13/2014	8:53	North Wall	5.6	9:56	23.0	20.0	1	EMS
SC-3	2/13/2014	8:55	South Wall	65.7	10:02	45.8	20.0	1	EMS
SC-4	2/13/2014	8:57	East Wall	0.9	10:05	19.0	20.0	1	EMS
SC-5	2/13/2014	8:59	West Wall	20.1	10:09	20.3	20.0	1	EMS
SC-6	2/13/2014	10:50	Base	3,264	11:12	2,590	20.0	1	EMS

DF Dilution Factor

NA Not Analyzed

ND Not Detected at the Reporting Limit

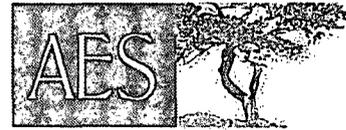
PQL Practical Quantitation Limit

*TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: *Emil Syl*

AES Field Sampling Report



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche
Farmington, NM 87401
505-864-2281

Durango, Colorado
970-403-3084

Client: ConocoPhillips

Project Location: San Juan 28-5 #89N

Date: 2/20/2014

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	TPH Analysis Time	TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-7	2/20/2014	10:15	Base	38.5	11:08	103	20.0	1	EMS

DF Dilution Factor

NA Not Analyzed

ND Not Detected at the Reporting Limit

PQL Practical Quantitation Limit

*TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: *Emil SkL*



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

January 02, 2014

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

RE: COP San Juan 28-5 #89N

OrderNo.: 1312A05

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/18/2013 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
Project: COP San Juan 28-5 #89N
Lab ID: 1312A05-001

Client Sample ID: SC-1
Collection Date: 12/16/2013 2:25:00 PM
Received Date: 12/18/2013 10:00:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.28	0.050		mg/Kg	1	12/24/2013 1:38:00 PM	10957
Toluene	4.8	0.050		mg/Kg	1	12/24/2013 1:38:00 PM	10957
Ethylbenzene	2.6	0.050		mg/Kg	1	12/24/2013 1:38:00 PM	10957
Xylenes, Total	39	0.99		mg/Kg	10	12/26/2013 1:55:35 PM	10957
Surr: 4-Bromofluorobenzene	115	80-120		%REC	10	12/26/2013 1:55:35 PM	10957
EPA METHOD 300.0: ANIONS							Analyst: SRM
Chloride	260	30		mg/Kg	20	12/23/2013 12:09:22 PM	10954

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#: 1312A05

02-Jan-14

Client: Animas Environmental
Project: COP San Juan 28-5 #89N

Sample ID	MB-10954	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	10954	RunNo:	15706					
Prep Date:	12/23/2013	Analysis Date:	12/23/2013	SeqNo:	452924	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-10954	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	10954	RunNo:	15706					
Prep Date:	12/23/2013	Analysis Date:	12/23/2013	SeqNo:	452925	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.3	90	110			

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#: 1312A05
 02-Jan-14

Client: Animas Environmental
Project: COP San Juan 28-5 #89N

Sample ID	MB-10957	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	10957	RunNo:	15727					
Prep Date:	12/23/2013	Analysis Date:	12/24/2013	SeqNo:	453911	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	0.99		1.000		99.4	80	120			

Sample ID	LCS-10957	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	10957	RunNo:	15727					
Prep Date:	12/23/2013	Analysis Date:	12/24/2013	SeqNo:	453912	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	108	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.1	0.050	1.000	0	106	80	120			
Xylenes, Total	3.1	0.10	3.000	0	105	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Qualifiers:

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

Client Name: Animas Environmental

Work Order Number: 1312A05

RcptNo: 1

Received by/date: MG 12/18/13

Logged By: Anne Thome 12/18/2013 10:00:00 AM *Anne Thome*

Completed By: Anne Thome 12/20/2013 *Anne Thome*

Reviewed By: *[Signature]* 12/23/13

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? 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? Yes No
(Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? Yes No
(If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

By Whom: _____ Via: eMail Phone Fax In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

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



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

February 17, 2014

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

RE: COP San Juan 2B-5 #89N

OrderNo.: 1402550

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/14/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data 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-6

Project: COP San Juan 2B-5 #89N

Collection Date: 2/13/2014 10:50:00 AM

Lab ID: 1402550-001

Matrix: MEOH (SOIL)

Received Date: 2/14/2014 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	980	99		mg/Kg	10	2/14/2014 11:19:46 PM	11729
Surr: DNOP	0	66-131	S	%REC	10	2/14/2014 11:19:46 PM	11729
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JMP
Gasoline Range Organics (GRO)	1200	65		mg/Kg	20	2/14/2014 12:10:49 PM	R16757
Surr: BFB	427	74.5-129	S	%REC	20	2/14/2014 12:10:49 PM	R16757
EPA METHOD 8021B: VOLATILES							Analyst: JMP
Benzene	ND	0.33		mg/Kg	20	2/14/2014 12:10:49 PM	R16757
Toluene	7.8	0.65		mg/Kg	20	2/14/2014 12:10:49 PM	R16757
Ethylbenzene	4.2	0.65		mg/Kg	20	2/14/2014 12:10:49 PM	R16757
Xylenes, Total	43	1.3		mg/Kg	20	2/14/2014 12:10:49 PM	R16757
Surr: 4-Bromofluorobenzene	110	80-120		%REC	20	2/14/2014 12:10:49 PM	R16757

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1402550

17-Feb-14

Client: Animas Environmental
Project: COP San Juan 2B-5 #89N

Sample ID	MB-11729	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	11729	RunNo:	16747					
Prep Date:	2/14/2014	Analysis Date:	2/14/2014	SeqNo:	482257	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	7.5		10.00		74.9	66	131			

Sample ID	LCS-11729	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	11729	RunNo:	16747					
Prep Date:	2/14/2014	Analysis Date:	2/14/2014	SeqNo:	482258	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.7	60.8	145			
Surr: DNOP	4.0		5.000		79.1	66	131			

Sample ID	MB-11713	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	11713	RunNo:	16747					
Prep Date:	2/13/2014	Analysis Date:	2/14/2014	SeqNo:	482259	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.8		10.00		77.8	66	131			

Sample ID	LCS-11713	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	11713	RunNo:	16747					
Prep Date:	2/13/2014	Analysis Date:	2/14/2014	SeqNo:	482263	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		88.9	66	131			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1402550

17-Feb-14

Client: Animas Environmental
Project: COP San Juan 2B-5 #89N

Sample ID	MB-11715 MK	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R16757	RunNo:	16757					
Prep Date:		Analysis Date:	2/14/2014	SeqNo:	482913	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	800		1000		80.4	74.5	129			

Sample ID	LCS-11715 MK	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R16757	RunNo:	16757					
Prep Date:		Analysis Date:	2/14/2014	SeqNo:	482914	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	71.7	134			
Surr: BFB	890		1000		88.7	74.5	129			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1402550

17-Feb-14

Client: Animas Environmental
Project: COP San Juan 2B-5 #89N

Sample ID	MB-11715 MK	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R16757	RunNo:	16757					
Prep Date:	2/13/2014	Analysis Date:	2/14/2014	SeqNo:	482936	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	0.88		1.000		87.7	80	120			

Sample ID	LCS-11715 MK	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R16757	RunNo:	16757					
Prep Date:	2/13/2014	Analysis Date:	2/14/2014	SeqNo:	482937	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	99.8	80	120			
Toluene	1.1	0.050	1.000	0	105	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	0.93		1.000		93.4	80	120			

Qualifiers:

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

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

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1402550

RcptNo: 1

Received by/date: AG 02/14/14

Logged By: Lindsay Mangin 2/14/2014 10:30:00 AM *Lindsay Mangin*

Completed By: Lindsay Mangin 2/14/2014 10:39:28 AM *Lindsay Mangin*

Reviewed By: *[Signature]* 02/14/14

Chain of Custody

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

Log In

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

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

By Whom: _____ Via: eMail Phone Fax In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No.	Temp. °C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	3.0	Good	Yes			

