

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, a Wholly Owned Subsidiary of ConocoPhillips Company	Contact Lisa Hunter
Address 3401 East 30th St, Farmington, NM	Telephone No. (505) 326-9786
Facility Name: Riddle 2A	Facility Type: Gas

Surface Owner BLM	Mineral Owner BLM	API No. 3004521990
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LOCATION OF RELEASE

Unit Letter C	Section 03	Township 30N	Range 09W	Feet from the 890'	North/South Line North	Feet from the 1460'	East/West Line West	County San Juan
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Latitude **36.84503** Longitude **-107.77164**

NATURE OF RELEASE

Type of Release Produced Water Hydrocarbon	Volume of Release 6 BBLs Produced Water 7 BBLs Hydrocarbon	Volume Recovered 0 BBLs Produced Water 1.5 BBLs Hydrocarbon
Source of Release Ball Valve (Freeze)	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 12/30/13 @ 11:30 a.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? n/a	
By Whom? n/a	Date and Hour n/a	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse n/a	

OIL CONS. DIV DIST. 3

JUL 18 2014

If a Watercourse was Impacted, Describe Fully.*
n/a

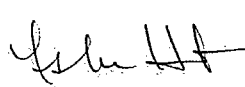
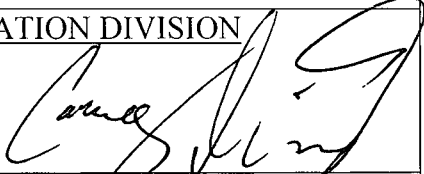
Describe Cause of Problem and Remedial Action Taken.*

Ball valve froze and split down side spraying Produced Water (6 BBLs) and Hydrocarbon (7 BBLs). Release was contained within Berm, and 1.5 BBLs of Hydrocarbon recovered.

Describe Area Affected and Cleanup Action Taken.*

ConocoPhillips will assess the soil to determine a path forward for clean-up if necessary. Excavation was 30' x 35' x 8' Deep. 360 c/yds of soil was transported to IEI Land Farm and 360 c/yds of clean soil was transported from Aztec Machine Co., and placed in the excavation site. Analytical results were below the regulatory standards – no further action required. The soil sampling report is attached for review.

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Lisa Hunter	Approved by Environmental Specialist: 	
Title: Field Environmental Specialist	Approval Date: 9/5/14	Expiration Date:
E-mail Address: Lisa.Hunter@cop.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: July 16, 2014	Phone: (505) 326-9786	

* Attach Additional Sheets If Necessary

#NCS 142 4852 465

(23)



Animas Environmental Services, LLC

www.animasenvironmental.com

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

Durango, Colorado
970-403-3084

June 28, 2014

Lisa Hunter
ConocoPhillips
San Juan Business Unit
Office 214-04
5525 Hwy 64
Farmington, New Mexico 87401

Via electronic mail to:

SJBUE-Team@ConocoPhillips.com

**RE: Initial Release Assessment and Final Excavation Report
Riddle #2A
San Juan County, New Mexico**

OIL CONS. DIV DIST. 3

JUL 18 2014

Dear Ms. Hunter:

On January 8 and June 10, 2014, Animas Environmental Services, LLC (AES) completed an initial release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) Riddle #2A, located in San Juan County, New Mexico. The release consisted of approximately 6 barrels (bbls) of produced water and 7 bbls of hydrocarbons and occurred when the ball valve associated with production tank froze and split. The initial release assessment was completed by AES on January 9, 2014, and the final excavation was completed by CoP contractors prior to AES' arrival at the location on June 10, 2014.

1.0 Site Information

1.1 Location

Site Name – Riddle #2A

Location – NE¼ NW¼, Section 3, T30N, R9W, San Juan County, New Mexico

Well Head Latitude/Longitude – N36.84490 and W107.77217, respectively

Release Location Latitude/Longitude – N36.84513 and W107.77203, respectively

Land Jurisdiction – Bureau of Land Management (BLM)

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, January 2014

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 20 based on the following factors:

- **Depth to Groundwater:** A cathodic protection report form dated May 1991 for the location reported the depth to groundwater at 220 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:** Approximately 150 feet to the northwest is an unnamed wash that is a tributary to Crow Canyon wash. (20 points)

1.3 Assessment

AES was initially contacted by Lisa Hunter of CoP on December 31, 2013, and on January 8, 2014, Stephanie Lynn and Jesse Christopherson of AES completed the release assessment field work. The assessment included collection and field sampling of 10 soil samples from 10 borings in and around the release area. Soil borings were terminated between 0 and 0.25 feet due to frozen soil conditions. Based on the field sampling results, AES recommended further excavation of the release area. Sample locations are shown on Figure 3.

On June 10, 2014, AES returned to the location to collect confirmation soil samples of the excavation. The field sampling activities included collection of five confirmation soil samples from the walls and base of the excavation. The area of the final excavation measured approximately 33 feet by 30 feet by 10 feet in depth. Sample locations and final excavation extents are presented on Figure 4.

2.0 Soil Sampling

A total of 10 soil samples from 10 borings (SB-1 through SB-10) and 5 composite samples (SC-1 through SC-5) 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). All composite samples (SC-1 through SC-5) collected during the excavation clearance 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:

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

2.3 Field and Laboratory Analytical Results

On January 8, 2014, initial assessment field screening results for VOCs via OVM showed concentrations ranging from 1.1 ppm in SB-9 up to 4,090 ppm in SB-6. Field TPH concentrations ranged from 72.7 mg/kg in SB-4 up to 37,900 mg/kg in SB-8.

On June 10, 2014, final excavation field screening results for VOCs via OVM ranged from 6.8 ppm in SC-5 up to 88.2 ppm in SC-4. Field TPH concentrations ranged from 37.1 mg/kg in SC-3 up to 81.7 mg/kg in SC-4. Results are included below in Table 1 and on Figures 3 and 4. The AES Field Sampling Reports are attached.

Table 1. Field Sampling VOCs and TPH Results
Riddle #2A Initial Release Assessment and Final Excavation
January and June 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>
<i>NMOCD Action Level*</i>			100	100
SB-1	1/8/14	0.25	2,761	>2,500
SB-2	1/8/14	0.25	6.7	NA
SB-3	1/8/14	Surface	16.1	719
SB-4	1/8/14	0.25	22.1	72.7
SB-5	1/8/14	0.25	30.1	NA
SB-6	1/8/14	0.25	4,090	>2,500
SB-7	1/8/14	0.25	39.4	208
SB-8	1/8/14	0.25	1,803	37,900
SB-9	1/8/14	0.25	1.1	NA
SB-10	1/8/14	0.25	1.4	NA
SC-1	6/10/14	1 to 10	44.5	41.4
SC-2	6/10/14	1 to 10	24.2	52.9
SC-3	6/10/14	1 to 10	45.0	37.1
SC-4	6/10/14	1 to 10	88.2	81.7
SC-5	6/10/14	10	6.8	24.1

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 through SC-5 were used to confirm field sampling results from the final excavation. TPH concentrations as GRO/DRO in SC-1 through SC-5 were reported below the laboratory detection limits, with the exception of DRO in SC-4 which had a concentration of 15 mg/kg. Results are presented in Table 2 and on Figure 4. The laboratory analytical report is attached.

Table 2. Laboratory Analytical Results –TPH
Riddle #2A Final Excavation Clearance, June 2014

Sample ID	Date Sampled	Sample Depth (ft bgs)	GRO (mg/kg)	DRO (mg/kg)
<i>NMOCD Action Level*</i>			<i>100</i>	
SC-1	6/10/14	1 to 10	<4.8	<10
SC-2	6/10/14	1 to 10	<4.9	<10
SC-3	6/10/14	1 to 10	<4.7	<10
SC-4	6/10/14	1 to 10	<4.7	15
SC-5	6/10/14	10	<4.9	<9.8

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 January 8, 2014, AES conducted an initial assessment of petroleum contaminated soils associated with a release of produced water and condensate from a split ball valve at the Riddle #2A. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the site was assigned a rank of 20.

Initial assessment field sampling results above the NMOCD action level of 100 ppm VOCs and 100 mg/kg TPH were reported in SB-1, SB-3, SB-6, SB-7, and SB-8. The highest VOC concentration was reported in SB-6 with 4,090 ppm, and the highest TPH concentration was reported in SB-8 with 37,900 mg/kg.

On June 10, 2014, final clearance of the excavation area was completed. Field sampling results of the excavation extents showed that VOC concentrations were below applicable NMOCD action levels for the final walls and base of the excavation. Field TPH concentrations were also below the applicable NMOCD action level of 100 mg/kg for the final walls and base of the excavation. Laboratory analytical results from June 10, 2014, reported TPH concentrations as GRO/DRO in SC-1 through SC-5 below NMOCD action levels.

Based on final field sampling and laboratory analytical results of the excavation of petroleum contaminated soils at the Riddle #2A, VOC and TPH concentrations were

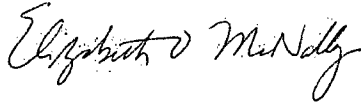
below applicable NMOCD action levels for each of the sidewalls and base of the excavation. No further work is recommended.

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

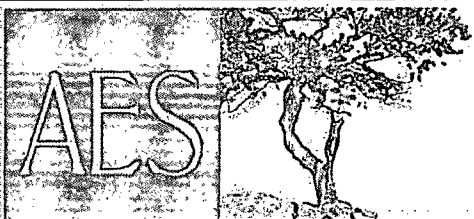
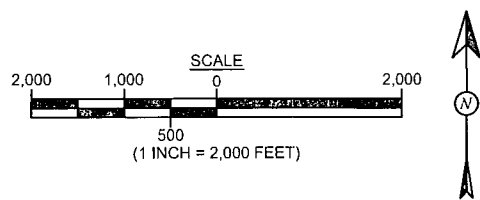
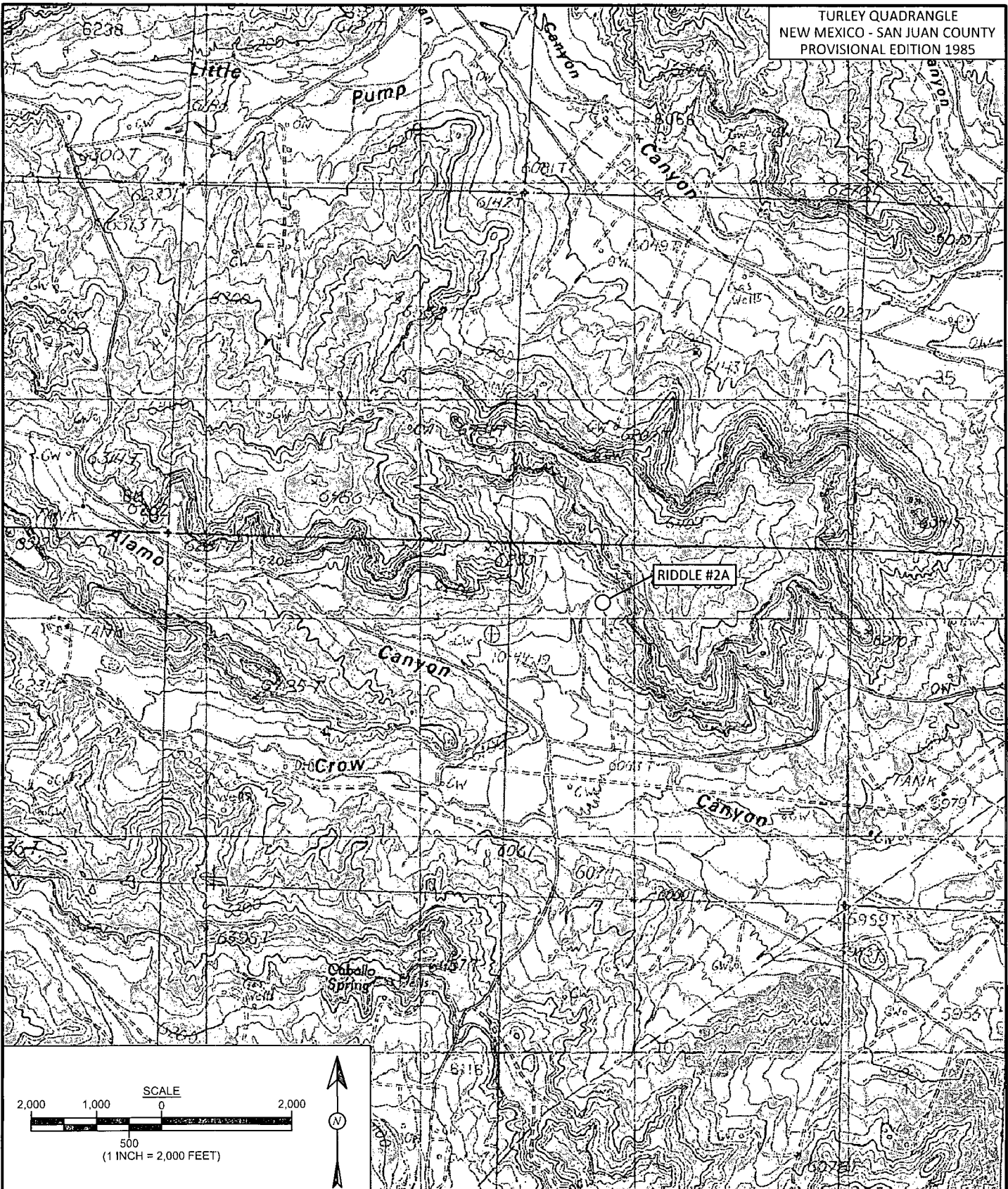


Elizabeth McNally, PE

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, January 2014
- Figure 3. Initial Assessment Sample Locations and Results, January 2014
- Figure 4. Final Excavation Sample Locations and Results, June 2014
- AES Field Sampling Report 010814
- AES Field Sampling Report 061014
- Hall Laboratory Analytical Report 1406469

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EM\2014 Projects\ConocoPhillips\Riddle #2A\Riddle #2A Release and Final Excavation Report
062814.docx



Animas Environmental Services, LLC

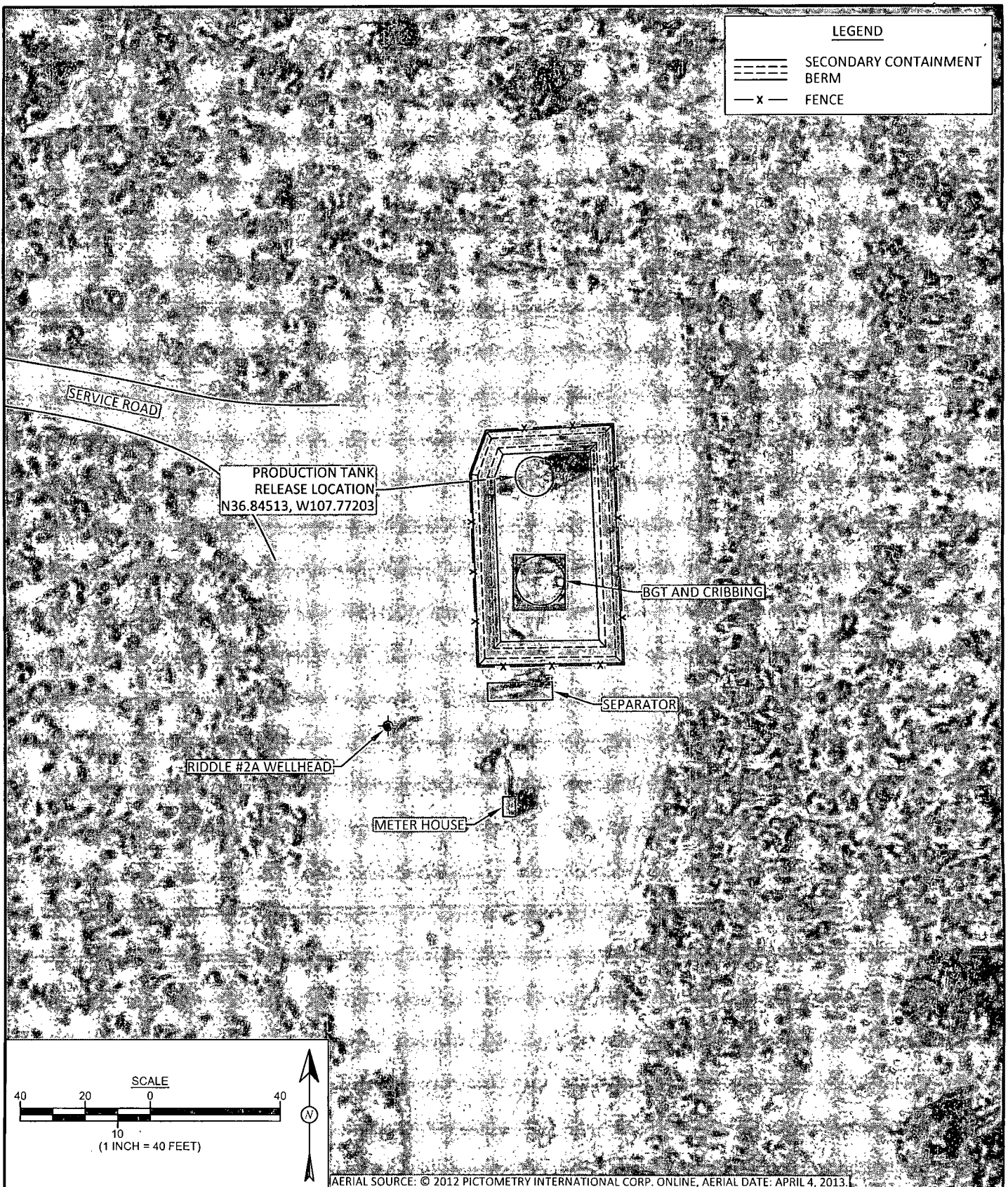
DRAWN BY: C. Lameman	DATE DRAWN: June 11, 2014
REVISIONS BY: C. Lameman	DATE REVISED: June 11, 2014
CHECKED BY: D. Watson	DATE CHECKED: June 11, 2014
APPROVED BY: E. McNally	DATE APPROVED: June 11, 2014

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP

ConocoPhillips
RIDDLE #2A
NE¼ NW¼, SECTION 3, T30N, R9W
SAN JUAN COUNTY, NEW MEXICO
N36.84490, W107.77217

LEGEND	
	SECONDARY CONTAINMENT BERM
	FENCE



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REVISIONS BY: C. Lameman	DATE REVISED: June 11, 2014
CHECKED BY: D. Watson	DATE CHECKED: June 11, 2014
APPROVED BY: E. McNally	DATE APPROVED: June 11, 2014

FIGURE 2

**AERIAL SITE MAP
JANUARY 2014**

ConocoPhillips
RIDDLE #2A
NE¼ NW¼, SECTION 3, T30N, R9W
SAN JUAN COUNTY, NEW MEXICO
N36.84490, W107.77217

FIGURE 3

**INITIAL ASSESSMENT SAMPLE
LOCATIONS AND RESULTS
JANUARY 2014**
ConocoPhillips
RIDDLE #2A
NE¼ NW¼, SECTION 3, T30N, R9W
SAN JUAN COUNTY, NEW MEXICO
N36.84490, W107.77217

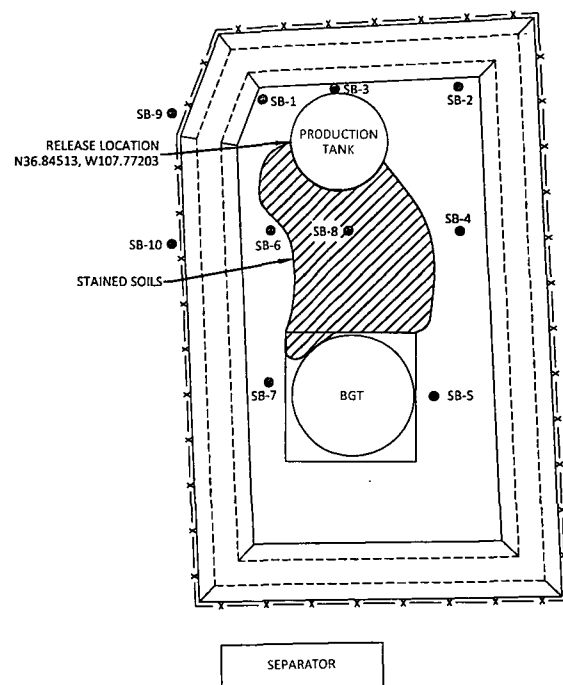
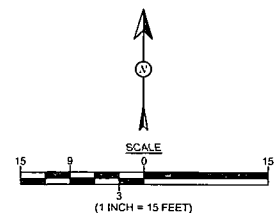


Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: January 9, 2014
REVISIONS BY: C. Lameman	DATE REVISED: June 11, 2014
CHECKED BY: D. Watson	DATE CHECKED: June 11, 2014
APPROVED BY: E. McNally	DATE APPROVED: June 11, 2014

LEGEND

- SAMPLE LOCATIONS
- ===== SECONDARY CONTAINMENT BERM
- x — FENCE



Field Sampling Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	100
SB-1	1/8/14	0.25	2,761	>2,500
SB-2	1/8/14	0.25	6.7	NA
SB-3	1/8/14	Surface	16.1	719
SB-4	1/8/14	0.25	22.1	72.7
SB-5	1/8/14	0.25	30.1	NA
SB-6	1/8/14	0.25	4,090	>2,500
SB-7	1/8/14	0.25	39.4	208
SB-8	1/8/14	0.25	1,803	37,900
SB-9	1/8/14	0.25	1.1	NA
SB-10	1/8/14	0.25	1.4	NA
NA - NOT ANALYZED				

FIGURE 4

**FINAL EXCAVATION SAMPLE
LOCATIONS AND RESULTS
JUNE 2014**
ConocoPhillips
RIDDLE #2A
NE¼ NW¼, SECTION 3, T30N, R9W
SAN JUAN COUNTY, NEW MEXICO
N36.84490, W107.77217

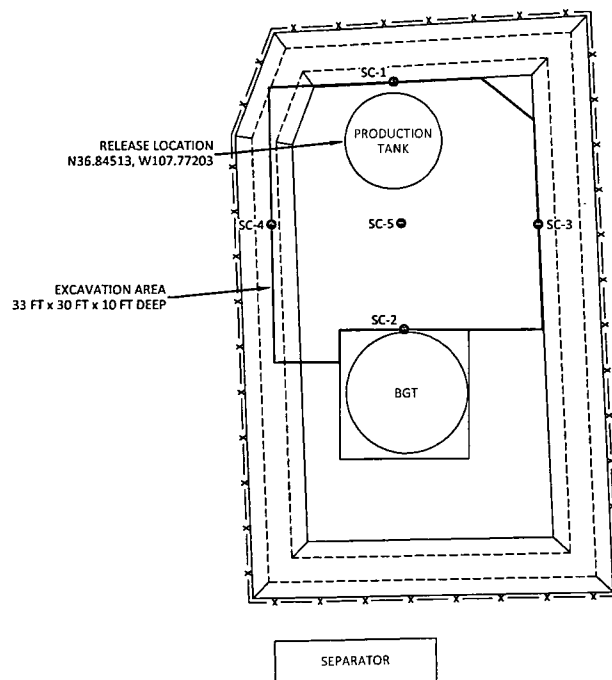
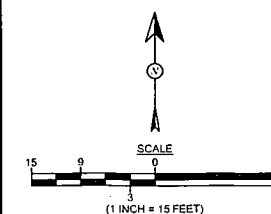


Animas Environmental Services, LLC

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REVISIONS BY: C. Lameman	DATE REVISED: June 11, 2014
CHECKED BY: D. Watson	DATE CHECKED: June 11, 2014
APPROVED BY: E. McNally	DATE APPROVED: June 11, 2014

LEGEND

- SAMPLE LOCATIONS
- ===== SECONDARY CONTAINMENT BERM
- x — FENCE



RIDDLE #2A WELLHEAD

METER HOUSE

Field Sampling Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	100
SC-1	6/10/14	1 to 10	44.5	41.4
SC-2	6/10/14	1 to 10	24.2	52.9
SC-3	6/10/14	1 to 10	45.0	37.1
SC-4	6/10/14	1 to 10	88.2	81.7
SC-5	6/10/14	10	6.8	24.1
ALL SAMPLES WERE COMPOSITE SAMPLES.				

Laboratory Analytical Results				
Sample ID	Date	Depth (ft)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)
NMOCD ACTION LEVEL			100	
SC-1	6/10/14	1 to 10	<4.8	<10
SC-2	6/10/14	1 to 10	<4.9	<10
SC-3	6/10/14	1 to 10	<4.7	<10
SC-4	6/10/14	1 to 10	<4.7	15
SC-5	6/10/14	10	<4.9	<9.8
ALL SAMPLES WERE ANALYZED PER EPA METHOD 8015D.				

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: Riddle #2A

Date: 1/8/2014

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@ 0.25'	1/8/2014	11:05	2,761	>2,500	11:52	20.0	1	SL
SB-2@ 0.25'	1/8/2014	11:10	6.7	Not Analyzed for TPH				
SB-3@ Surface	1/8/2014	11:15	16.1	719	16:45	20.0	1	SL
SB-4@ 0.25'	1/8/2014	11:20	22.1	72.7	16:40	20.0	1	SL
SB-5@ 0.25'	1/8/2014	11:25	30.1	Not Analyzed for TPH				
SB-6@ 0.25'	1/8/2014	11:30	4,090	>2,500	11:56	20.0	1	SL
SB-7@ 0.25'	1/8/2014	11:35	39.4	208	16:55	20.0	1	SL
SB-8@ 0.25'	1/8/2014	11:40	1,803	37,900	12:00	2,000	100	SL
SB-9@ 0.25'	1/8/2014	11:45	1.1	Not Analyzed for TPH				
SB-10@ 0.25'	1/8/2014	11:50	1.4	Not Analyzed for TPH				

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:

Stephanie Lynn

AES Field Sampling Report



Animas Environmental Services, LLC

www.animasenvironmental.com

Client: ConocoPhillips

Project Location: Riddle #2A

Date: 6/10/2014

Matrix: Soil

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

Durango, Colorado
970-403-3084

Sample ID	Collection Date	Collection Time	Sample Location	OVM (ppm)	TPH* 418.1 (mg/kg)	TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	6/10/2014	9:25	North Wall	44.5	41.4	10:33	20	1	SAL
SC-2	6/10/2014	10:55	South Wall	24.2	52.9	11:26	20	1	SAL
SC-3	6/10/2014	9:32	East Wall	45.0	37.1	10:37	20	1	SAL
SC-4	6/10/2014	11:00	West Wall	88.2	81.7	11:31	20	1	SAL
SC-5	6/10/2014	11:55	Base	6.8	24.1	12:21	20	1	SAL

DF Dilution Factor

NA Not Analyzed

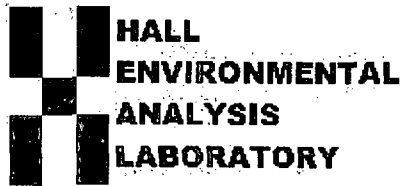
ND Not Detected at the Reporting Limit

PQL Practical Quantitation Limit

*TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:



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

June 16, 2014

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

RE: CoP Riddle 2A

OrderNo.: 1406469

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/11/2014 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.

Analytical Report

Lab Order **1406469**

Date Reported: 6/16/2014

CLIENT: Animas Environmental

Client Sample ID: SC-1

Project: CoP Riddle 2A

Collection Date: 6/10/2014 9:25:00 AM

Lab ID: 1406469-001

Matrix: SOIL

Received Date: 6/11/2014 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS					Analyst: JME		
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/13/2014 6:28:58 PM	13630
Surr: DNOP	93.0	57.9-140		%REC	1	6/13/2014 6:28:58 PM	13630
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB		
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/13/2014 11:59:05 PM	13634
Surr: BFB	95.5	80-120		%REC	1	6/13/2014 11:59:05 PM	13634

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		

Analytical ReportLab Order **1406469**Date Reported: **6/16/2014****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Animas Environmental**Client Sample ID:** SC-2**Project:** CoP Riddle 2A**Collection Date:** 6/10/2014 10:55:00 AM**Lab ID:** 1406469-002**Matrix:** SOIL**Received Date:** 6/11/2014 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/13/2014 6:51:17 PM	13630
Surr: DNOP	98.3	57.9-140		%REC	1	6/13/2014 6:51:17 PM	13630
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/14/2014 12:27:42 AM	13634
Surr: BFB	95.4	80-120		%REC	1	6/14/2014 12:27:42 AM	13634

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		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1406469

Date Reported: 6/16/2014

CLIENT: Animas Environmental

Client Sample ID: SC-3

Project: CoP Riddle 2A

Collection Date: 6/10/2014 9:32:00 AM

Lab ID: 1406469-003

Matrix: SOIL

Received Date: 6/11/2014 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS					Analyst: JME		
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/13/2014 7:13:21 PM	13630
Surr: DNOP	89.2	57.9-140		%REC	1	6/13/2014 7:13:21 PM	13630
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB		
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/14/2014 12:56:17 AM	13634
Surr: BFB	95.9	80-120		%REC	1	6/14/2014 12:56:17 AM	13634

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		

Analytical ReportLab Order **1406469**Date Reported: **6/16/2014****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Animas Environmental**Client Sample ID:** SC-4**Project:** CoP Riddle 2A**Collection Date:** 6/10/2014 11:00:00 AM**Lab ID:** 1406469-004**Matrix:** SOIL**Received Date:** 6/11/2014 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	15	10		mg/Kg	1	6/13/2014 7:35:37 PM	13630
Surr: DNOP	106	57.9-140		%REC	1	6/13/2014 7:35:37 PM	13630
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/13/2014 2:47:17 AM	13634
Surr: BFB	91.9	80-120		%REC	1	6/13/2014 2:47:17 AM	13634

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	Page 4 of 7
	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			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1406469

Date Reported: 6/16/2014

CLIENT: Animas Environmental

Client Sample ID: SC-5

Project: CoP Riddle 2A

Collection Date: 6/10/2014 11:55:00 AM

Lab ID: 1406469-005

Matrix: SOIL

Received Date: 6/11/2014 9:03:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS					Analyst: JME		
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/13/2014 7:57:44 PM	13630
Surr: DNOP	92.1	57.9-140		%REC	1	6/13/2014 7:57:44 PM	13630
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB		
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/13/2014 3:17:15 AM	13634
Surr: BFB	88.3	80-120		%REC	1	6/13/2014 3:17:15 AM	13634

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#: 1406469

16-Jun-14

Client: Animas Environmental

Project: CoP Riddle 2A

Sample ID	MB-13630	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	13630	RunNo:	19186					
Prep Date:	6/11/2014	Analysis Date:	6/11/2014	SeqNo:	554717	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	9.2		10.00		92.3	57.9	140			

Sample ID	LCS-13630	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	13630	RunNo:	19186					
Prep Date:	6/11/2014	Analysis Date:	6/11/2014	SeqNo:	554718	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	108	60.8	145			
Surr: DNOP	4.7		5.000		94.5	57.9	140			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406469

16-Jun-14

Client: Animas Environmental

Project: CoP Riddle 2A

Sample ID	MB-13634	SampType	MBLK	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	PBS	Batch ID	13634	RunNo	19247					
Prep Date	6/11/2014	Analysis Date	6/13/2014	SeqNo	557296	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	920		1000		91.7	80	120			

Sample ID	LCS-13634	SampType	LCS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	LCSS	Batch ID	13634	RunNo	19247					
Prep Date	6/11/2014	Analysis Date	6/13/2014	SeqNo	557304	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	107	71.7	134			
Surr: BFB	1000		1000		99.9	80	120			

Sample ID	1406469-001AMS	SampType	MS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	SC-1	Batch ID	13634	RunNo	19247					
Prep Date	6/11/2014	Analysis Date	6/13/2014	SeqNo	557310	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.7	23.54	0	114	69.5	145			
Surr: BFB	960		941.6		102	80	120			

Sample ID	1406469-001AMSD	SampType	MSD	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	SC-1	Batch ID	13634	RunNo	19247					
Prep Date	6/11/2014	Analysis Date	6/13/2014	SeqNo	557311	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.7	23.54	0	113	69.5	145	0.423	20	
Surr: BFB	970		941.6		103	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. |
| 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 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: 1406469

RcptNo: 1

Received by/date:

[Signature] 06/11/14

Logged By: Lindsay Mangin

6/11/2014 9:03:00 AM

[Signature]

Completed By: Lindsay Mangin

6/11/2014 9:42:01 AM

[Signature]

Reviewed By:

[Signature] 06/11/14 @ 1025

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? FedEx

Log In

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

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

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

