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 Oil & Gas Company**	Contact **Crystal Tafoya**
Address 3401 East 30th St, Farmington, NM	Telephone No.(505) 326-9837
Facility Name: **Garrett Federal Com 2 1E**	Facility Type: **Gas Well**

Surface Owner **Fee**	Mineral Owner **Fee**	API No.**30-045-24311**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	**13**	**29N**	**11W**	**1040**	**South**	**1000**	**East**	**San Juan**

Latitude 36.72125 Longitude 107.94794

NATURE OF RELEASE

Type of Release **Produced Fluids**	Volume of Release **Unknown**	Volume Recovered **242 cu. yds**
Source of Release **Production Tank**	Date and Hour of Occurrence **Unknown**	Date and Hour of Discovery **February 7, 2013**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	RCVD AUG 23 '13
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	OIL CONS. DIV. DIST. 3

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
Production Tank release discovered during P&A Activities

Describe Area Affected and Cleanup Action Taken.*
Historical hydrocarbon impacted soil was found during the P&A activities around the production tank on the subject well. The excavation was 27'x 36' x 7' and 242 yds of soil was transported to IEI landfarm and 242yds of clean soil was transported from Aztec Machine and placed in the excavation site. 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: Crystal L. Tafoya	OIL CONSERVATION DIVISION
Printed Name: **Crystal Tafoya**	Approved by Environmental Specialist: Jonathan D. Kelly
Title: **Field Environmental Specialist**	Approval Date: 9/11/2013 Expiration Date:
E-mail Address: crystal.tafoya@conocophillips.com	Conditions of Approval: Attached ☐
Date: 8/23/2013 Phone: (505) 326-9837	

* Attach Additional Sheets If Necessary

nJK1325451089

24

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3084

August 19, 2013

Crystal Tafoya
ConocoPhillips
San Juan Business Unit
Office 214-05
5525 Hwy 64
Farmington, New Mexico 87401

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

RE: Initial Release Assessment and Final Excavation Report
Garrett Federal Com 2 #1E
San Juan County, New Mexico

Dear Ms. Tafoya:

On February 7 and June 24, 2013, Animas Environmental Services, LLC (AES) completed an initial release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) Garrett Federal Com 2 #1E, located in San Juan County, New Mexico. The release consisted of produced water and condensate and was the result of a corrosion hole on the bottom of the condensate tank at the location. The initial release assessment was completed by AES on February 7, 2013. The final excavation was completed by CoP contractors prior to AES' arrival at the location on June 24, 2013.

1.0 Site Information

1.1 Location

Location – SW¼ SW¼, Section 13, T29N, R11W, San Juan County, New Mexico
Well Head Latitude/Longitude – N36.72138 and W107.94859, respectively
Release Location Latitude/Longitude – N36.72170 and W107.94846, respectively
Land Jurisdiction – Private
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, February 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 40 based on the following factors:

- **Depth to Groundwater:** Based on the elevation differential between the site and the nearest surface water, AES personnel concluded that depth to groundwater at the site was less than 50 feet bgs. (20 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** Unnamed ponds are located approximately 130 feet northwest and 180 feet east of the location. Additionally, Citizens Ditch is located approximately 210 feet northeast of the location. (20 points)

1.3 Assessment

AES was initially contacted by Crystal Tafoya of CoP on February 6, 2013, and on February 7, 2013, Heather Woods and Zachary Trujillo of AES completed the release assessment field work. The assessment included collection and field screening of 26 soil samples from 8 borings (SB-1 through SB-8) in and around the release area. Soil borings were terminated between 4 and 6 feet. Based on the field screening results, AES recommended excavation of the release area. Sample locations are shown on Figure 3.

On June 24, 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) of the walls and base of the excavation. The area of the final excavation was approximately 26 feet by 36 feet by 5 to 7 feet in depth. Sample locations and final excavation extents are presented on Figure 4.

2.0 Soil Sampling

A total of 26 soil samples from 8 borings (SB-1 through SB-8) 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). Two composite samples (SC-1 and SC-2) collected during the excavation clearance 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 sample SC-1 was laboratory analyzed for:

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

Soil sample SC-2 was laboratory analyzed for:

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

2.3 Field Screening and Laboratory Analytical Results

On February 7, 2013, initial assessment field screening results for VOCs via OVM showed concentrations ranging from 0.7 ppm in SB-3 up to 2,860 ppm in SB-2. Field TPH concentrations ranged from less than 20.0 mg/kg in SB-2, SB-5, and SB-6 up to 4,990 mg/kg in SB-4.

On June 24, 2013, final excavation field screening results for VOCs via OVM showed concentrations ranging from 1.2 ppm in SC-1 up to 139 ppm in SC-2. Field TPH concentrations ranged from 75.8 mg/kg in SC-3 up to 115 mg/kg in SC-1. 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
Garrett Federal Com 2 #1E Initial Release Assessment and Final Excavation
February and June 2013

Sample ID	*Date Sampled*	*Sample Depth (ft bgs)*	*VOCs via OVM (ppm)*	*Field TPH (mg/kg)*
NMOCD Action Level*			***100***	***100***
SB-1	2/7/13	Surface	**2,550**	**1,290**
		2	**2,101**	**3,210**
		4	**618**	29.4
		6	22.5	NA
SB-2	2/7/13	Surface	**2,860**	**2,770**
		2	12.9	<20.0
		4	5.0	NA
SB-3	2/7/13	Surface	0.8	NA
		2	0.7	NA
		4	0.8	NA
SB-4	2/7/13	Surface	**2,250**	**508**
		2	**1,686**	NA
		4	**1,750**	**4,990**
		6	15.2	30.6
SB-5	2/7/13	Surface	7.6	NA
		2	11.5	NA
		4	12.1	<20.0
SB-6	2/7/13	Surface	5.0	NA
		2	13.2	<20.0
		4	6.6	NA
SB-7	2/7/13	Surface	2.7	NA
		2	1.4	NA
		4	1.1	NA
SB-8	2/7/13	Surface	2.1	NA
		2	2.1	NA
		4	1.4	NA

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
NMOCD Action Level*			100	100
SC-1	6/24/13	1 to 7	1.2	**115**
SC-2	6/24/13	1 to 7	**139**	91.4
SC-3	6/24/13	1 to 7	1.3	75.8
SC-4	6/24/13	1 to 7	18.2	80.1
SC-5	6/24/13	5 to 7	6.1	91.4

NA – not analyzed
*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993)

Laboratory analyses for SC-1 and SC-2 were used to confirm field screening results from the final excavation. Benzene and total BTEX concentrations in SC-2 were reported below laboratory detection limits of 0.12 mg/kg and 1.1 mg/kg, respectively. TPH concentrations as GRO/DRO in SC-1 were reported below the laboratory detection limit 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 – Benzene, Total BTEX, and TPH
Garrett Federal Com 2 #1E Final Excavation, June 2013

Sample ID	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)
NMOCD Action Level*			10	50	100	
SC-1	6/24/13	1 to 7	NA	NA	<5.0	<10
SC-2	6/24/13	1 to 7	<0.12	<1.1	NA	NA

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

3.0 Conclusions and Recommendations

On February 7, 2013, AES conducted an initial assessment of petroleum contaminated soils associated with a historic release of produced water and condensate at the Garrett Federal Com 2 #1E. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993), and the site was assigned a rank of 40. Field screening results above the NMOCD action level of 100

ppm VOCs and 100 mg/kg TPH were reported in SB-1, SB-2, and SB-4. The highest VOC concentration was reported in SB-2 with 2,860 ppm, and the highest TPH concentration was reported in SB-4 with 4,990 mg/kg.

On June 24, 2013, final assessment of the excavation area was completed. Field screening results of the excavation extents showed that VOC concentrations were below applicable NMOCD action levels for the final walls and base of the excavation, except for SC-2 (east wall) which had a VOC concentration of 139 ppm. Field TPH concentrations were below the applicable NMOCD action level of 100 mg/kg for the final walls and base of the excavation, with the exception of SC-1 (north wall) which had a TPH concentration of 115 mg/kg. Laboratory analytical results from June 24, 2013, reported benzene and total BTEX concentrations in SC-2 below NMOCD action levels, and TPH concentrations as GRO/DRO were reported below the applicable NMOCD action level in SC-1.

Based on final field screening and laboratory analytical results of the excavation of petroleum contaminated soils at the Garrett Federal Com 2 #1E, 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,

Landrea R. Cupps

Landrea Cupps
Environmental Scientist

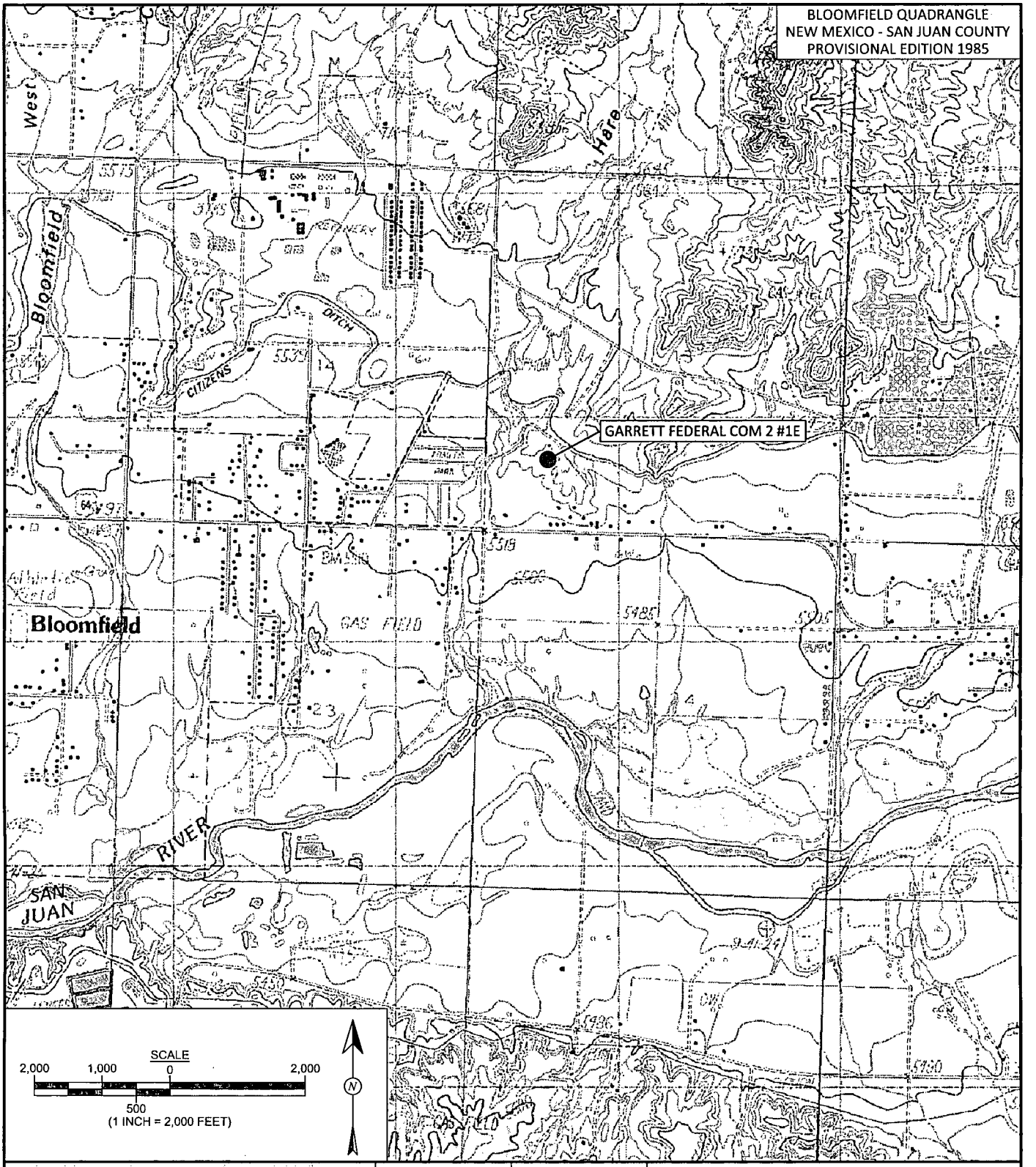
Elizabeth D McNally

Elizabeth McNally, PE

Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, February 2013
Figure 3. Initial Assessment Sample Locations and Results, February 2013
Figure 4. Final Excavation Sample Locations and Results, June 2013
AES Field Screening Report 020713
AES Field Screening Report 062413
Hall Laboratory Analytical Report 1306A23

R:\Animas 2000\Dropbox\2013 Projects\ConocoPhillips\Garrett Federal Com 2 #1E\CoP Garrett Fed Com 2 #1E Release and Final Excavation Report 081913.docx



Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** February 8, 2013
REVISIONS BY: C. Lameman	**DATE REVISED:** February 8, 2013
CHECKED BY: D. Watson	**DATE CHECKED:** February 8, 2013
APPROVED BY: E. McNally	**DATE APPROVED:** February 8, 2013

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP
ConocoPhillips
GARRETT FEDERAL COM 2 #1E
SW¼ SW¼, SECTION 13, T29N, R11W
SAN JUAN COUNTY, NEW MEXICO
N36.72138, W107.94859

Animas Environmental Services, LLC

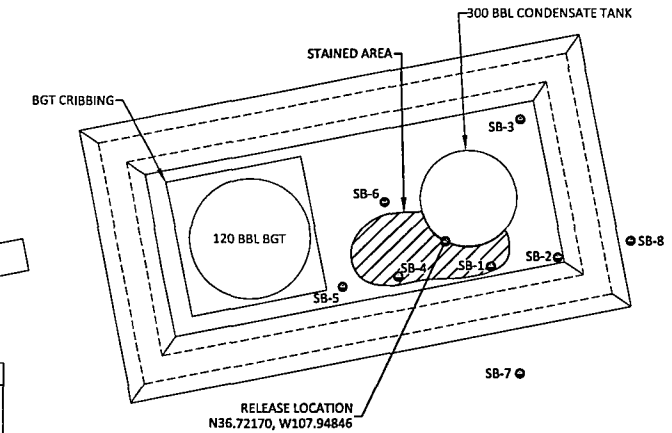
DRAWN BY: C. Lameman	**DATE DRAWN:** February 8, 2013
REVISIONS BY: C. Lameman	**DATE REVISED:** February 8, 2013
CHECKED BY: D. Watson	**DATE CHECKED:** February 8, 2013
APPROVED BY: E. McNally	**DATE APPROVED:** February 8, 2013

FIGURE 2

AERIAL SITE MAP
FEBRUARY 2013
ConocoPhillips
GARRETT FEDERAL COM 2 #1E
SW¼ SW¼, SECTION 13, T29N, R11W
SAN JUAN COUNTY, NEW MEXICO
N36.72138, W107.94859

FIGURE 3

INITIAL ASSESSMENT SAMPLE LOCATIONS AND RESULTS
FEBRUARY 2013
ConocoPhillips
GARRETT FEDERAL COM 2 #1E
SW¼ SW¼, SECTION 13, T29N, R11W
SAN JUAN COUNTY, NEW MEXICO
N36.72138, W107.94859



SEPARATOR

SERVICE ROAD

WOODROW STILES GALE #1 MONUMENT

GARRETT FEDERAL COM 2 #1E WELL HEAD

Field Screening Results				
Sample ID	*Date*	*Depth (ft)*	*OVM-PID (ppm)*	*TPH (mg/kg)*
NMOCD ACTION LEVEL			*100*	*100*
SB-1	2/7/13	Surface	**2,550**	**1,290**
		2	**2,101**	**3,210**
		4	**618**	29.4
		6	22.5	*NA*
SB-2	2/7/13	Surface	**2,860**	**2,770**
		2	12.9	<20.0
		4	5.0	*NA*
SB-3	2/7/13	Surface	0.8	*NA*
		2	0.7	*NA*
		4	0.8	*NA*
SB-4	2/7/13	Surface	**2,250**	**508**
		2	**1,686**	*NA*
		4	**1,750**	**4,990**
		6	15.2	30.6
SB-5	2/7/13	Surface	7.6	*NA*
		2	11.5	*NA*
		4	12.1	<20.0
SB-6	2/7/13	Surface	5.0	*NA*
		2	13.2	<20.0
		4	6.6	*NA*
SB-7	2/7/13	Surface	2.7	*NA*
		2	1.4	*NA*
		4	1.1	*NA*
SB-8	2/7/13	Surface	2.1	*NA*
		2	2.1	*NA*
		4	1.4	*NA*

NA - NOT ANALYZED

Animas Environmental Services, LLC

DRAWN BY:	DATE DRAWN:
C. Lameman	February 8, 2013
REVISIONS BY:	**DATE REVISED:**
C. Lameman	June 25, 2013
CHECKED BY:	**DATE CHECKED:**
D. Watson	June 25, 2013
APPROVED BY:	**DATE APPROVED:**
E. McNally	June 25, 2013

LEGEND

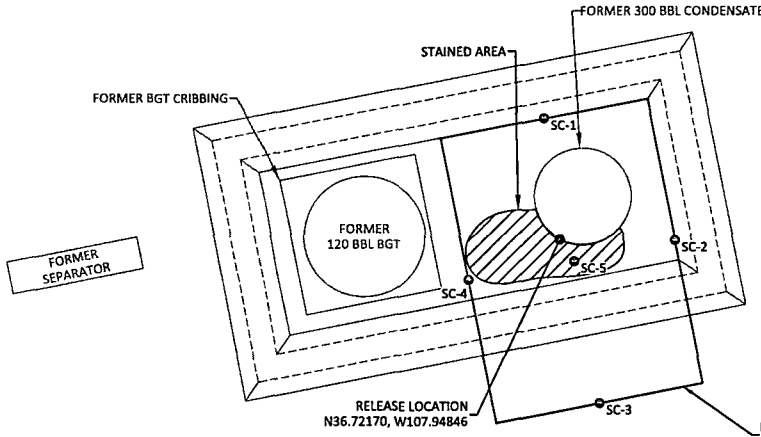
- SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM

N

SCALE
15 9 0 15
3
(1 INCH = 15 FEET)

FIGURE 4

FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS
JUNE 2013
ConocoPhillips
GARRETT FEDERAL COM 2 #1E
SW¼ SW¼, SECTION 13, T29N, R11W
SAN JUAN COUNTY, NEW MEXICO
N36.72138, W107.94859



Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	100
SC-1	6/24/13	1 to 7	1.2	115
SC-2	6/24/13	1 to 7	139	91.4
SC-3	6/24/13	1 to 7	1.3	75.8
SC-4	6/24/13	1 to 7	18.2	80.1
SC-5	6/24/13	5 to 7	6.1	91.4
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	100	
SC-1	6/25/13	1 to 7	NA	NA	<5.0	<10
SC-2	6/25/13	1 to 7	<0.12	<1.1	NA	NA
ALL SAMPLES WERE ANALYZED PER EPA METHOD 8021B OR 8015D.						

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: June 25, 2013
REVISIONS BY: C. Lameman	DATE REVISED: June 25, 2013
CHECKED BY: D. Watson	DATE CHECKED: June 25, 2013
APPROVED BY: E. McNally	DATE APPROVED: June 25, 2013

LEGEND

- SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM

N

SCALE
15 9 0 15
3
(1 INCH = 15 FEET)

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: Garrett Federal Com 2 #1E

Date: 2/7/2013

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ Surface	2/7/2013	13:15	2,550	13:52	1,290	100	1	HMW
SB-1 @ 2'	2/7/2013	13:19	2,101	13:55	3,210	100	1	HMW
SB-1 @ 4'	2/7/2013	13:26	618	13:57	29.4	20.0	1	HMW
SB-1 @ 6'	2/7/2013	14:09	22.5	*Not Analyzed for TPH*				
SB-2 @ Surface	2/7/2013	13:29	2,860	14:26	2,770	100	1	HMW
SB-2 @ 2'	2/7/2013	13:34	12.9	14:29	<20.0	20.0	1	HMW
SB-2 @ 4'	2/7/2013	13:38	5.0	*Not Analyzed for TPH*				
SB-3 @ Surface	2/7/2013	13:41	0.8	*Not Analyzed for TPH*				
SB-3 @ 2'	2/7/2013	13:45	0.7	*Not Analyzed for TPH*				
SB-3 @ 4'	2/7/2013	13:48	0.8	*Not Analyzed for TPH*				
SB-4 @ Surface	2/7/2013	13:51	2,250	14:43	508	100	1	HMW
SB-4 @ 2'	2/7/2013	13:57	1,686	*Not Analyzed for TPH*				
SB-4 @ 4'	2/7/2013	14:01	1,750	14:47	4,990	40.0	1	HMW
SB-4 @ 6'	2/7/2013	14:24	15.2	15:09	30.6	20.0	1	HMW
SB-5 @ Surface	2/7/2013	14:13	7.6	*Not Analyzed for TPH*				
SB-5 @ 2'	2/7/2013	14:17	11.5	*Not Analyzed for TPH*				
SB-5 @ 4'	2/7/2013	14:20	12.1	15:16	<20.0	20.0	1	HMW
SB-6 @ Surface	2/7/2013	14:27	5.0	*Not Analyzed for TPH*				
SB-6 @ 2'	2/7/2013	14:30	13.2	15:19	<20.0	20.0	1	HMW
SB-6 @ 4'	2/7/2013	14:33	6.6	*Not Analyzed for TPH*				
SB-7 @ Surface	2/7/2013	14:37	2.7	*Not Analyzed for TPH*				
SB-7 @ 2'	2/7/2013	14:40	1.4	*Not Analyzed for TPH*				

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-7 @ 4'	2/7/2013	14:44	1.1	*Not Analyzed for TPH*				
SB-8 @ Surface	2/7/2013	14:46	2.1	*Not Analyzed for TPH*				
SB-8 @ 2'	2/7/2013	14:50	2.1	*Not Analyzed for TPH*				
SB-8 @ 4'	2/7/2013	14:54	1.4	*Not Analyzed for TPH*				

Total Petroleum Hydrocarbons - USEPA 418.1

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

Analyst: Heather 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: Garrett Federal Com 2 #1E

Date: 6/24/2013

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	6/24/2013	11:24	North Wall	1.2	12:53	115	20.0	1	HMW
SC-2	6/24/2013	11:27	East Wall	139	12:56	91.4	20.0	1	HMW
SC-3	6/24/2013	11:30	South Wall	1.3	12:58	75.8	20.0	1	HMW
SC-4	6/24/2013	11:33	West Wall	18.2	13:00	80.1	20.0	1	HMW
SC-5	6/24/2013	11:36	Base	6.1	13:02	91.4	20.0	1	HMW

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

Total Petroleum Hydrocarbons - USEPA 418.1
**Field TPH concentrations recorded may be below PQL.*

Analyst: Heather M. Woods

Report Finalized: 06/24/13

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 27, 2013

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

RE: CoP Garrett Fed Com 2 #1E Excavation OrderNo.: 1306A23

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/25/2013 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 qualifers 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.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1306A23**
Date Reported: **6/27/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Client Sample ID: SC-1
Project: CoP Garrett Fed Com 2 #1E Excavation
Collection Date: 6/24/2013 11:24:00 AM
Lab ID: 1306A23-001
Matrix: MEOH (SOIL)
Received Date: 6/25/2013 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)	ND	10		mg/Kg	1	6/25/2013 11:30:03 AM	8095
Surr: DNOP	91.1	63-147		%REC	1	6/25/2013 11:30:03 AM	8095
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/25/2013 11:47:41 AM	R11540
Surr: BFB	88.6	80-120		%REC	1	6/25/2013 11:47:41 AM	R11540

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Client Sample ID: SC-2
Project: CoP Garrett Fed Com 2 #1E Excavation
Collection Date: 6/24/2013 11:27:00 AM
Lab ID: 1306A23-002
Matrix: MEOH (SOIL)
Received Date: 6/25/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.12		mg/Kg	5	6/25/2013 12:18:00 PM	R11540
Toluene	ND	0.25		mg/Kg	5	6/25/2013 12:18:00 PM	R11540
Ethylbenzene	ND	0.25		mg/Kg	5	6/25/2013 12:18:00 PM	R11540
Xylenes, Total	ND	0.50		mg/Kg	5	6/25/2013 12:18:00 PM	R11540
Surr: 4-Bromofluorobenzene	102	80-120		%REC	5	6/25/2013 12:18:00 PM	R11540

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1306A23**

27-Jun-13

Client: Animas Environmental

Project: CoP Garrett Fed Com 2 #1E Excavation

Sample ID **MB-8095**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **8095**	RunNo: **11523**
Prep Date: **6/25/2013**	Analysis Date: **6/25/2013**	SeqNo: **326782** 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	8.5		10.00		85.3	63	147			

Sample ID **LCS-8095**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **8095**	RunNo: **11523**
Prep Date: **6/25/2013**	Analysis Date: **6/25/2013**	SeqNo: **326783** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.1	77.1	128			
Surr: DNOP	4.4		5.000		88.3	63	147			

Sample ID **MB-8058**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **8058**	RunNo: **11523**
Prep Date: **6/21/2013**	Analysis Date: **6/25/2013**	SeqNo: **327121** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.9		10.00		89.0	63	147			

Sample ID **LCS-8058**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **8058**	RunNo: **11523**
Prep Date: **6/21/2013**	Analysis Date: **6/25/2013**	SeqNo: **327122** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.000		93.0	63	147			

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
- 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#: **1306A23**

27-Jun-13

Client: Animas Environmental

Project: CoP Garrett Fed Com 2 #1E Excavation

Sample ID **MB-8070**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R11540**	RunNo: **11540**
Prep Date: **6/24/2013**	Analysis Date: **6/25/2013**	SeqNo: **327402** 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	910		1000		90.7	80	120			

Sample ID **LCS-8070**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R11540**	RunNo: **11540**
Prep Date: **6/24/2013**	Analysis Date: **6/25/2013**	SeqNo: **327404** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.5	62.6	136			
Surr: BFB	970		1000		96.8	80	120			

Sample ID **MB-8070**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **8070**	RunNo: **11540**
Prep Date: **6/24/2013**	Analysis Date: **6/25/2013**	SeqNo: **327416** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	910		1000		90.7	80	120			

Sample ID **LCS-8070**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **8070**	RunNo: **11540**
Prep Date: **6/24/2013**	Analysis Date: **6/25/2013**	SeqNo: **327419** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970		1000		96.8	80	120			

Sample ID **1306931-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **8070**	RunNo: **11540**
Prep Date: **6/24/2013**	Analysis Date: **6/25/2013**	SeqNo: **327429** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	950		964.3		98.6	80	120			

Sample ID **1306931-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **8070**	RunNo: **11540**
Prep Date: **6/24/2013**	Analysis Date: **6/25/2013**	SeqNo: **327430** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	950		963.4		99.0	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1306A23**

27-Jun-13

Client: Animas Environmental

Project: CoP Garrett Fed Com 2 #1E Excavation

Sample ID **MB-8070**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R11540**	RunNo: **11540**
Prep Date: **6/24/2013**	Analysis Date: **6/25/2013**	SeqNo: **327452** 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		101	80	120			

Sample ID **LCS-8070**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R11540**	RunNo: **11540**
Prep Date: **6/24/2013**	Analysis Date: **6/25/2013**	SeqNo: **327453** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.050	1.000	0	97.0	80	120			
Toluene	0.95	0.050	1.000	0	94.6	80	120			
Ethylbenzene	0.96	0.050	1.000	0	96.4	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.9	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID **MB-8070**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **8070**	RunNo: **11540**
Prep Date: **6/24/2013**	Analysis Date: **6/25/2013**	SeqNo: **327472** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID **LCS-8070**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **8070**	RunNo: **11540**
Prep Date: **6/24/2013**	Analysis Date: **6/25/2013**	SeqNo: **327473** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID **1306930-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **8070**	RunNo: **11540**
Prep Date: **6/24/2013**	Analysis Date: **6/25/2013**	SeqNo: **327475** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		0.9625		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
- 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#: **1306A23**

27-Jun-13

Client: Animas Environmental

Project: CoP Garrett Fed Com 2 #1E Excavation

Sample ID	**1306930-001AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**BatchQC**	Batch ID:	**8070**		RunNo:	**11540**					
Prep Date:	**6/24/2013**	Analysis Date:	**6/25/2013**		SeqNo:	**327476**	Units:	**%REC**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene		1.0		0.9634		104	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
- 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

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: 1306A23 RcptNo: 1

Received by/date: AG 06/25/13

Logged By: Lindsay Mangin 6/25/2013 10:00:00 AM

Completed By: Lindsay Mangin 6/25/2013 10:14:19 AM

Reviewed By: 06/25/13

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? (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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Animas Environmental Services

Mailing Address: 624 E. Comanche

Farmington, NM 87401

Phone #: 505-564-2281

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☐ Standard ☒ Rush Same Day

Project Name:

CoP Garrett Fed Com 2#1E Excavation

Project #:

Project Manager:

D. Watson

Sampler: H. Woods

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1306472	BTEX + MTBE + TMB (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	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)
6/24/13	1124	Soil	SC-1	MeOH/HCl 1-402	MeOH	-001			X									
6/24/13	1127	Soil	SC-2	MeOH/HCl 1-402	MeOH	-002	X											

Analysis Request

Relinquished by:	Date	Time	Received by:	Date	Time
Heather M. Woods	6/24/13	1734	Christie Walters	6/24/13	1734
Christie Walters	6/24/13	1758		06/25/13	1000

Remarks: Bill to ConocoPhillips

WO: 95816317

Supervisor: Mike Smith

User ID: ~~BEATRICE~~ KGARCIA

Area: 3

Ordered by: Eric Smith

Activity: D150

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.