

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

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

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

- Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company ConocoPhillips Company	Contact Ashley Maxwell
Address 3401 E. 30th St., Farmington, NM 87402	Telephone No. 505-324-5169
Facility Name Jicarilla K 17M	Facility Type Gas Well

Surface Owner Jicarilla Tribe	Mineral Owner Jicarilla Tribe	API No. 3003925842 Contract Number 145
--------------------------------------	--------------------------------------	---

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	12	025N	005W	790'	South	1850'	East	Rio Arriba

Latitude 36.409 Longitude -107.30758

NATURE OF RELEASE

Type of Release Production Fluids	Volume of Release Unknown	Volume Recovered 233 yds³
Source of Release Below Grade Tank	Date and Hour of Occurrence 9/4/2012	Date and Hour of Discovery
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? RCVD DEC 6 '12 OIL CONS. DIV.	
By Whom? Ashley Maxwell	Date and Hour DIST. 3	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

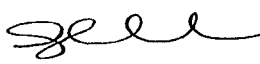
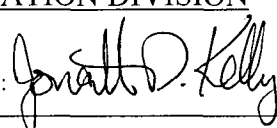
If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* **Below Grade Tank Closure Activities**

Describe Area Affected and Cleanup Action Taken.*

The below grade tank sample results were above regulatory standard by USEPA method 418.1 for TPH confirming a release. Excavation was required based on Jicarilla Apache Nation Oil & Gas Administration (JANOGA) soil remediation action levels. The excavation was 30'X35'X6' and 233 yds³ of soil was transported to a third party land farm. Excavation and confirmation sampling occurred. Analytical results were below the regulatory standards set forth by JANOGA; therefore no further action is needed.

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: Ashley Maxwell	Approved by Environmental Specialist: 	
Title: Field Environmental Specialist	Approval Date: 2/11/2013	Expiration Date:
E-mail Address: ashley.p.wethington@conocophillips.com	Conditions of Approval: C-144 Closure Permit needed for BGT closure	Attached <input type="checkbox"/>
Date December 3, 2012	Phone: 505-324-5169	

* Attach Additional Sheets If Necessary

nJK1304241658



November 19, 2012

Animas Environmental Services, LLC

www.animasenvironmental.com

Ashley Maxwell
ConocoPhillips
San Juan Business Unit
Office 216-2
5525 Hwy 64
Farmington, NM 87401

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

Durango, Colorado
970-403-3274

**RE: Initial Release Assessment and Final Excavation Confirmation Sampling Report
Jicarilla K #17M
Rio Arriba County, New Mexico**

**RCVD DEC 6 '12
OIL CONS. DIV.
DIST. 3**

Dear Ms. Maxwell:

On August 2 and September 5, 2012, Animas Environmental Services, LLC (AES) completed an initial release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) Jicarilla K #17M, located in Rio Arriba County, New Mexico. The initial below grade tank (BGT) removal was completed by CoP contractors prior to AES' arrival to the location on August 2, 2012, and petroleum contaminated soils were encountered during the BGT closure. The final excavation of contaminated soils was also completed by CoP contractors prior to AES' arrival to the location on September 5, 2012.

1.0 Site Information

1.1 Location

Location – SW¼ SE¼, Section 12, T25N, R5W, Rio Arriba County, New Mexico

Well Latitude/Longitude – N36.40896 and W107.30789, respectively

Release Latitude/Longitude - N36.40923 and W107.30779, respectively

Land Jurisdiction – Jicarilla Apache Tribal Land

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, August 2012

1.2 Risk Ranking

The Jicarilla K #17M is located on Jicarilla Apache Tribal lands, and soil remediation action levels are determined by the Jicarilla Apache Nation Oil and Gas Administration (JANOGA). JANOGA action levels for soils are as follows: 10 mg/kg benzene, 50 mg/kg total BTEX (benzene, toluene, ethylbenzene, and xylenes), 100 mg/kg total petroleum

hydrocarbons (TPH) as gasoline range organics (GRO), motor oil range organics (MRO), and diesel range organics (DRO), and 250 mg/kg chlorides.

1.3 Release Assessments

AES was initially contacted by Ashley Maxwell of CoP on August 1, 2012, and on August 2, 2012, Thomas Long and Corwin Lameman of AES completed the initial release assessment field work. The assessment included collection and field screening of 24 soil samples from eight soil borings (SB-1 through SB-8) collected in the vicinity of the former BGT. Based on field screening and laboratory analytical results, AES recommended excavation of the release area. Sample locations are shown on Figure 3.

On September 5, 2012, AES returned to the location to collect confirmation soil samples of the excavation. Field screening 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 20 feet by 15 feet by 6 feet in depth. Sample locations and final excavation extents are shown on Figure 4.

2.0 Soil Sampling

A total of 24 soil samples and 5 composite soil samples were collected during the assessments. Soil samples were field screened for volatile organic compounds (VOCs), and selected samples were also analyzed for TPH. One of the soil samples collected during the initial assessment (SB-8) and five composite soil samples (SC-1 through SC-5) collected during excavation clearance were submitted for 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 six soil samples (SB-8 and SC-1 through SC-5) collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. Soil samples were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per U.S. Environmental Protection Agency (USEPA) Method 8021B;
- TPH as gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) per USEPA Method 8015B; and
- Chloride per USEPA Method 300.0.

Note that SB-8 was analyzed only for TPH per USEPA 8015B.

2.3 Field Screening and Laboratory Analytical Results

On August 2, 2012, initial assessment field screening readings for VOCs via OVM ranged from 0.0 ppm in SB-2 up to 3.7 ppm in SB-4 at 2 feet bgs. Field TPH concentrations ranged from 48.5 mg/kg in SB-3 up to 746 mg/kg in SB-2 at 6 feet bgs.

On September 5, 2012, final excavation clearance field screening readings for VOCs via OVM ranged from 0.7 ppm in SC-4 up to 4.0 ppm in SC-3. Field TPH concentrations ranged from 43.3 mg/kg in SC-3 up to 200 mg/kg in SC-1. Results are included below in Table 1 and on Figures 3 and 4. AES field screening reports are attached.

Table 1. Soil Field Screening Results
Jicarilla K #17M Release Assessment and Final Excavation
August and September 2012

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs OVM Reading (ppm)</i>	<i>Field TPH (mg/kg)</i>
JANOGA Action Level			-	100
SB-1	8/2/12	0	0.7	77.3
		1	2.9	66.3
		2	3.0	53.9
SB-2	8/2/12	1	0.0	60.8
		2	2.6	67.7
		3	1.9	66.3
		4	0.6	69.0

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs OVM Reading (ppm)	Field TPH (mg/kg)
JANOGA Action Level			-	100
SB-3	8/2/12	5	1.5	58.1
		6	1.0	746
		1	2.9	80.0
		2	2.5	48.5
		3	1.3	49.8
SB-4	8/2/12	1	1.8	89.6
		2	3.7	73.2
		3	3.2	121
		4	2.2	106
		5	1.2	293
		6	1.7	314
SB-5	8/2/12	5.5	0.2	232
		6	0.6	626
SB-6	8/2/12	1	2.7	78.7
		2	2.4	58.1
SB-7	8/2/12	3	2.0	96.5
SB-8	8/2/12	2	NA	334
SC-1	9/5/12	1 to 6	1.9	200
SC-2	9/5/12	1 to 6	1.8	51.6
SC-3	9/5/12	1 to 6	4.0	43.3
SC-4	9/5/12	1 to 6	0.7	73.8
SC-5	9/5/12	6	3.2	183

NA – Not Analyzed

Laboratory analytical results for SB-8 were used to confirm field screening TPH results (334 mg/kg) from the initial assessment. The TPH concentration in SB-8 was reported at 110 mg/kg DRO and 80 mg/kg GRO.

Laboratory analytical results for SC-1 through SC-6 reported contaminant concentrations below laboratory detection limits for benzene, total BTEX, and chlorides. TPH concentrations as GRO/MRO/DRO were reported below laboratory detection limits in SC-2 through SC-4. SC-1 and SC-5 had reported TPH concentrations above laboratory

detection limits with 29 mg/kg and 18 mg/kg, respectively. Results are presented in Table 2 and on Figure 3 and 4. Laboratory analytical reports are attached.

Table 2. Laboratory Analytical Results
Jicarilla K #17M Release Assessment and Final Excavation, August and September 2012

<i>Sample ID</i>	<i>Date</i>	<i>Sample Depth (ft bgs)</i>	<i>Benzene (mg/kg)</i>	<i>BTEX (mg/kg)</i>	<i>GRO (mg/kg)</i>	<i>DRO (mg/kg)</i>	<i>MRO (mg/kg)</i>	<i>Chlorides (mg/kg)</i>
JANOGA Action Level			10	50		100		250
SB-8	8/2/12	2	NA	NA	<5.0	110	80	NA
SC-1	9/5/12	1 to 6	<0.050	<0.25	<5.0	29	<50	<30
SC-2	9/5/12	1 to 6	<0.050	<0.25	<5.0	<9.7	<49	<30
SC-3	9/5/12	1 to 6	<0.050	<0.25	<5.0	<10	<50	<30
SC-4	9/5/12	1 to 6	<0.050	<0.25	<5.0	<9.8	<49	<30
SC-5	9/5/12	6	<0.050	<0.25	<5.0	18	<49	<30

NA – Not Analyzed

3.0 Conclusions and Recommendations

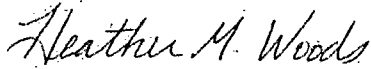
On August 2, 2012, AES conducted an initial assessment of petroleum contaminated soils associated with the former BGT at the Jicarilla K #17M. Field screening and laboratory analyses showed that TPH concentrations (as GRO/MRO/DRO) exceeded the JANOGA action level of 100 mg/kg in SB-2, SB-4, SB-5 and SB-8. The highest field TPH concentration was reported in SB-2 at 6 feet bgs with 746 mg/kg. Based on field screening and laboratory analytical results, excavation of the release area was recommended for the location.

On September 5, 2012, final assessment of the excavation area was completed. Field screening results of the final excavation extents showed that field TPH concentrations exceeded the JANOGA action level of 100 mg/kg in SC-1 (200 mg/kg) and SC-5 (183 mg/kg). Analytical laboratory results for SC-1 through SC-5 showed reported concentrations of benzene, total BTEX, TPH, and chlorides all below applicable JANOGA action levels.

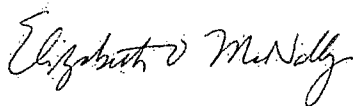
Based on the final field screening and laboratory results for the excavation of petroleum contaminated soils at the Jicarilla K #17M, benzene, total BTEX, TPH, and chloride concentrations were below applicable JANOGA action levels. No further work is recommended.

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

Sincerely,



Heather M. Woods
Staff Geologist

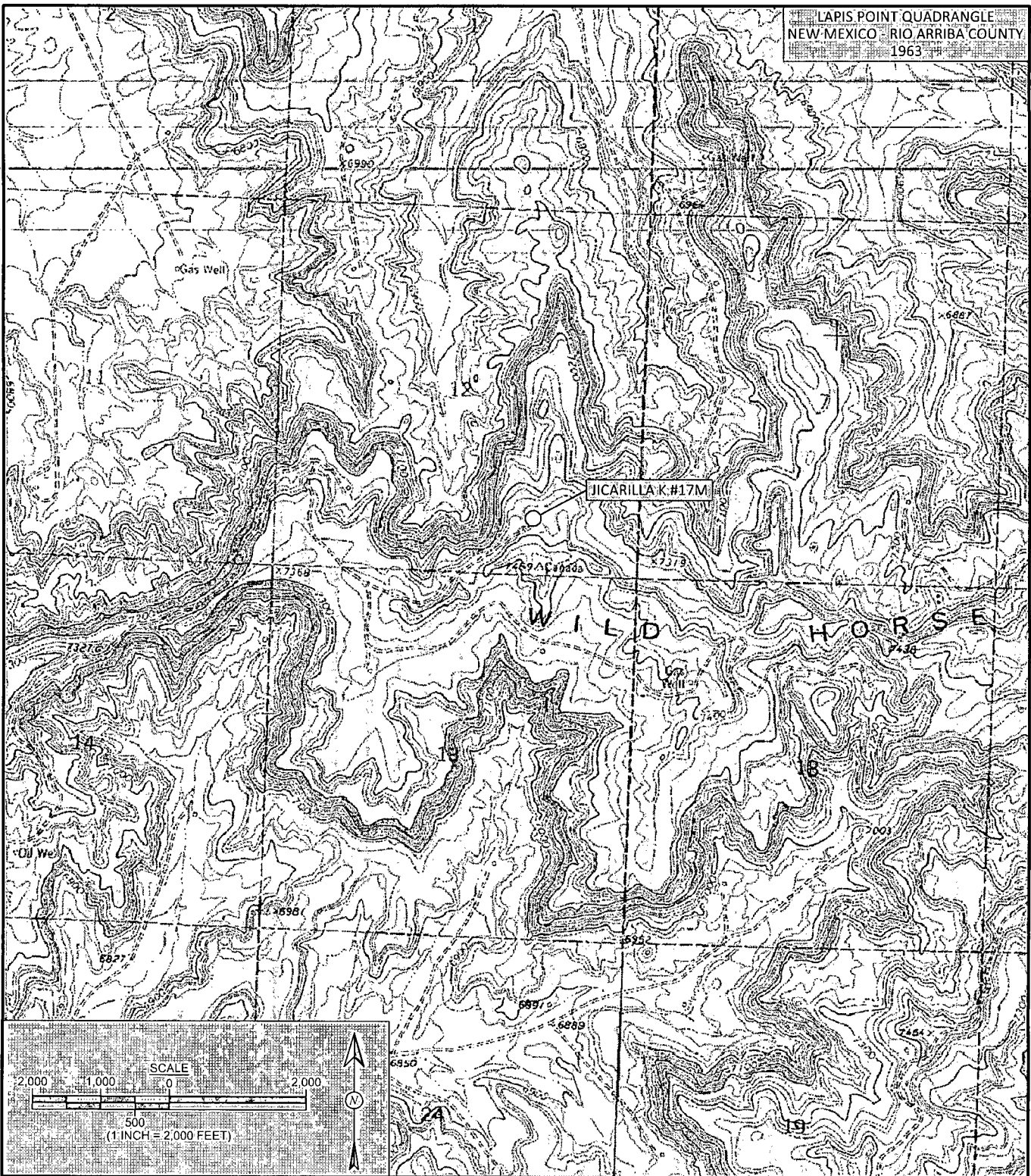


Elizabeth McNally, PE

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, August 2012
- Figure 3. Initial Assessment Soil Sample Locations and Results, August 2012
- Figure 4. Final Excavation Soil Sample Locations and Results, September 2012
- AES Field Screening Report 080212
- AES Field Screening Report 090512
- Hall Laboratory Analytical Report 1208256
- Hall Laboratory Analytical Report 1209161

LAPIS POINT QUADRANGLE
NEW MEXICO - RIO ARriba COUNTY
1963



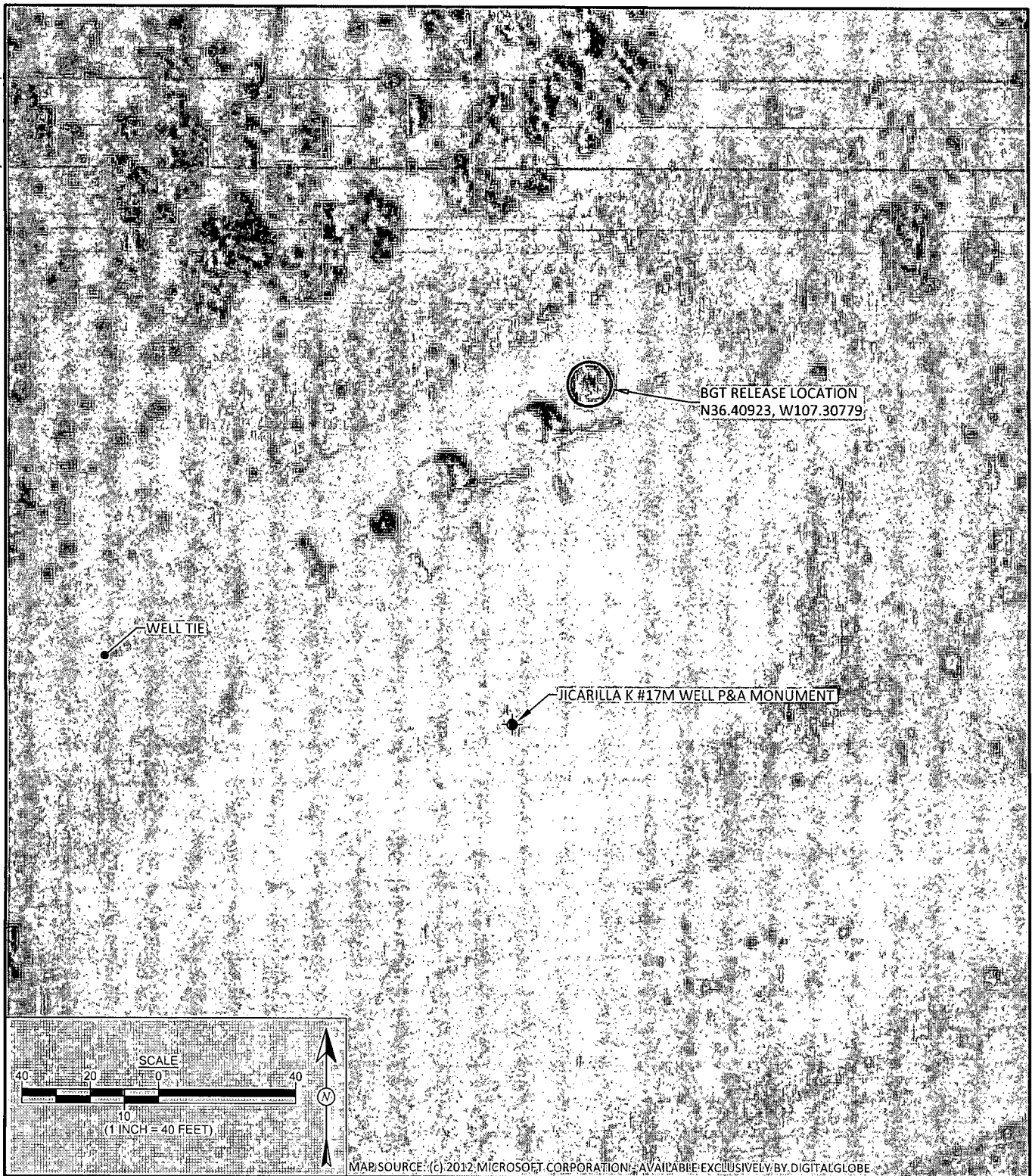
Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: August 3, 2012
REVISIONS BY: C. Lameman	DATE REVISED: October 18, 2012
CHECKED BY: D. Watson	DATE CHECKED: October 18, 2012
APPROVED BY: E. McNally	DATE APPROVED: October 18, 2012

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP

ConocoPhillips
JICARILLA K #17M
RIO ARriba COUNTY, NEW MEXICO
SW¼ SE¼, SECTION 12, T25N, R5W
N36.40896, W107.30789



DRAWN BY: C. Lameman	DATE DRAWN: August 3, 2012
REVISIONS BY: C. Lameman	DATE REVISED: October 18, 2012
CHECKED BY: D. Watson	DATE CHECKED: October 18, 2012
APPROVED BY: E. McNally	DATE APPROVED: October 18, 2012

FIGURE 2

AERIAL SITE MAP
ConocoPhillips
JICARILLA K #17M
RIO ARriba COUNTY, NEW MEXICO
SW¼ SE¼, SECTION 12, T25N, R5W
N36.40896, W107.30789

Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
JANOGA ACTION LEVEL			--	100
SB-1	8/2/12	Surface	0.7	77.3
		1	2.9	66.3
		2	3.0	53.9
SB-2	8/2/12	1	0.0	60.8
		2	2.6	67.7
		3	1.9	66.3
		4	0.6	69.0
		5	1.5	58.1
SB-3	8/2/12	6	1.0	746
		1	2.9	80.0
		2	2.5	48.5
SB-4	8/2/12	3	1.3	49.8
		1	1.8	89.6
		2	3.7	73.2
		3	3.2	121
		4	2.2	106
		5	1.2	293
SB-5	8/2/12	6	1.7	314
		5.5	0.2	232
SB-6	8/2/12	6	0.6	626
		1	2.7	78.7
SB-7	8/2/12	2	2.4	58.1
		3	2.0	96.5
SB-8	8/2/12	3	NA	334

NA - NOT ANALYZED

Laboratory Analytical Results					
Sample ID	Date	Depth (ft)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-MRO (mg/kg)
JANOGA ACTION LEVEL			100		
SB-8	8/2/12	2	<5.0	110	80

SAMPLE WAS ANALYZED PER EPA METHOD 8015B.

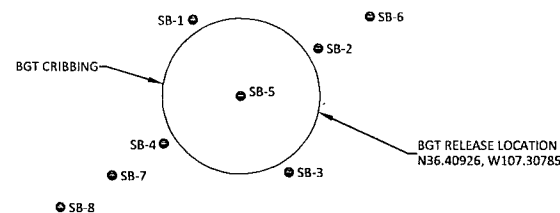


FIGURE 3

**INITIAL ASSESSMENT SOIL
SAMPLE LOCATIONS AND RESULTS
AUGUST 2012**
 CanocoPhillips
 JICARILLA K #17M
 RIO ARriba COUNTY, NEW MEXICO
 SW¼ SE¼, SECTION 12, T25N, R5W
 N36.40896, W107.30789

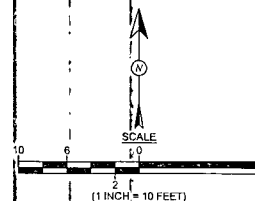


Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: August 3, 2012
REVISIONS BY: C. Lameman	DATE REVISED: October 18, 2012
CHECKED BY: D. Watson	DATE CHECKED: October 18, 2012
APPROVED BY: E. McNally	DATE APPROVED: October 18, 2012

LEGEND

● SAMPLE LOCATIONS



Field Screening Results				
Sample ID	Date	Depth (ft)	OV/M-PID (ppm)	TPH (mg/kg)
JANOGA ACTION LEVEL			--	100
SC-1	9/5/12	1 to 6	1.9	200
SC-2	9/5/12	1 to 6	1.8	51.6
SC-3	9/5/12	1 to 6	4.0	43.3
SC-4	9/5/12	1 to 6	0.7	73.8
SC-5	9/5/12	6	3.2	183
NA - NOT ANALYZED				

Laboratory Analytical Results								
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-MRO (mg/kg)	TPH-MRO (mg/kg)
JANOGA ACTION LEVEL			10	50		100		250
SC-1	9/5/12	1 to 6	<0.050	<0.25	<5.0	29	<50	<30
SC-2	9/5/12	1 to 6	<0.050	<0.25	<5.0	<9.7	<49	<30
SC-3	9/5/12	1 to 6	<0.050	<0.25	<5.0	<10	<50	<30
SC-4	9/5/12	1 to 6	<0.050	<0.25	<5.0	<9.8	<49	<30
SC-5	9/5/12	6	<0.050	<0.25	<5.0	18	<49	<30

SAMPLE WAS ANALYZED PER EPA METHOD 8021B, 8015B, AND 300.0.

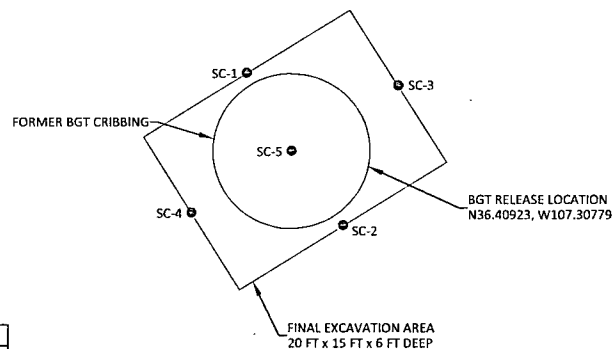


FIGURE 4

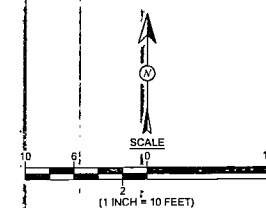
FINAL EXCAVATION SOIL SAMPLE LOCATIONS AND RESULTS SEPTEMBER 2012
 ConocoPhillips
 JICARILLA K #17M
 RIO ARRIBA COUNTY, NEW MEXICO
 SW¼ SE¼, SECTION 12, T25N, R5W
 N36.40896°W107.30789



DRAWN BY: C. Lameman	DATE DRAWN: September 18, 2012
REVISIONS BY: C. Lameman	DATE REVISED: October 18, 2012
CHECKED BY: D. Watson	DATE CHECKED: October 18, 2012
APPROVED BY: E. McNally	DATE APPROVED: October 18, 2012

LEGEND

● SAMPLE LOCATIONS



AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

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

Durango, Colorado
970-403-3274

Client: ConocoPhillips

Project Location: Jicarilla K #17M

Date: 8/2/2012

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 @ 0'	8/2/2012	11:53	0.7	12:25	77.3	20.0	1	CL
SB-1 @ 1'	8/2/2012	11:54	2.9	12:30	66.3	20.0	1	CL
SB-1 @ 2'	8/2/2012	11:56	3.0	12:34	53.9	20.0	1	CL
SB-2 @ 1'	8/2/2012	12:00	0.0	12:39	60.8	20.0	1	CL
SB-2 @ 2'	8/2/2012	12:04	2.6	12:43	67.7	20.0	1	CL
SB-2 @ 3'	8/2/2012	12:06	1.9	12:52	66.3	20.0	1	CL
SB-2 @ 4'	8/2/2012	13:59	0.6	14:35	69.0	20.0	1	CL
SB-2 @ 5'	8/2/2012	14:06	1.5	14:38	58.1	20.0	1	CL
SB-2 @ 6'	8/2/2012	14:08	1.0	14:44	746	20.0	1	CL
SB-3 @ 1'	8/2/2012	12:13	2.9	13:12	80.0	20.0	1	CL
SB-3 @ 2'	8/2/2012	12:15	2.5	13:17	48.5	20.0	1	CL
SB-3 @ 3'	8/2/2012	12:17	1.3	13:20	49.8	20.0	1	CL
SB-4 @ 1'	8/2/2012	12:35	1.8	13:24	89.6	20.0	1	CL

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-4 @ 2'	8/2/2012	12:38	3.7	13:27	73.2	20.0	1	CL
SB-4 @ 3'	8/2/2012	12:40	3.2	13:47	121	20.0	1	CL
SB-4 @ 4'	8/2/2012	14:14	2.2	14:46	106	20.0	1	CL
SB-4 @ 5'	8/2/2012	14:17	1.2	14:52	293	20.0	1	CL
SB-4 @ 6'	8/2/2012	14:19	1.7	15:23	314	20.0	1	CL
SB-5 @ 5.5'	8/2/2012	13:55	0.2	14:24	232	20.0	1	CL
SB-5 @ 6'	8/2/2012	13:56	0.6	14:30	626	20.0	1	CL
SB-6 @ 1'	8/2/2012	14:50	2.7	15:32	78.7	20.0	1	CL
SB-6 @ 2'	8/2/2012	14:52	2.4	15:37	58.1	20.0	1	CL
SB-7 @ 3'	8/2/2012	15:17	2.0	15:42	96.5	20.0	1	CL
SB-8 @ 2'	8/2/2012	15:43	NA	Not Analyzed for TPH.				

Total Petroleum Hydrocarbons - USEPA 418.1

PQL Practical Quantitation Limit

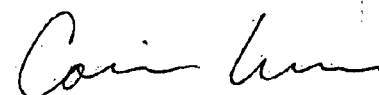
ND Not Detected at the Reporting Limit

DF Dilution Factor

NA Not Analyzed

*Field TPH concentrations recorded may be below PQL.

Analyst:



AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

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

Durango, Colorado
970-403-3274

Client: ConocoPhillips

Project Location: Jicarilla K #17M

Date: 9/5/2012

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
SC-1	9/5/2012	10:34	1.9	11:54	200	20.0	1	TCR
SC-2	9/5/2012	10:40	1.8	11:58	51.6	20.0	1	TCR
SC-3	9/5/2012	10:44	4.0	12:05	43.3	20.0	1	TCR
SC-4	9/5/2012	10:49	0.7	12:09	73.8	20.0	1	TCR
SC-5	9/5/2012	10:52	3.2	12:15	183	20.0	1	TCR

Total Petroleum Hydrocarbons - USEPA 418.1

PQL Practical Quantitation Limit

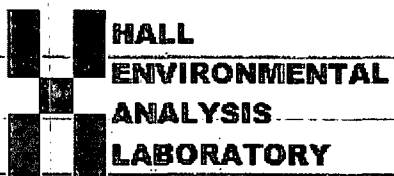
ND Not Detected at the Reporting Limit

DF Dilution Factor

*Field TPH concentrations recorded may be below PQL.

Analyst:

Jami Ross



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

August 08, 2012

Debbie Watson

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

RE: COP Jicarilla K #17M

OrderNo.: 1208256

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/7/2012 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. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical ReportLab Order **1208256****Hall Environmental Analysis Laboratory, Inc.**Date Reported: **8/8/2012****CLIENT:** Animas Environmental Services**Client Sample ID:** SB-8@2'**Project:** COP Jicarilla K #17M**Collection Date:** 8/2/2012 3:47:00 PM**Lab ID:** 1208256-001**Matrix:** MEOH (SOIL)**Received Date:** 8/7/2012 9:57:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
-----------------	---------------	-----------	-------------	--------------	-----------	----------------------

EPA METHOD 8015B: DIESEL RANGE ORGANICSAnalyst: **JMP**

Diesel Range Organics (DRO)	110	10		mg/Kg	1	8/7/2012 11:29:27 AM
Motor Oil Range Organics (MRO)	80	51		mg/Kg	1	8/7/2012 11:29:27 AM
Surr: DNOP	110	77.6-140		%REC	1	8/7/2012 11:29:27 AM

EPA METHOD 8015B: GASOLINE RANGEAnalyst: **RAA**

Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/7/2012 11:45:00 AM
Surr: BFB	97.5	84-116		%REC	1	8/7/2012 11:45:00 AM

Qualifiers:

- * / X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- 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
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208256

08-Aug-12

Client: Animas Environmental Services

Project: COP Jicarilla K #17M

Sample ID	MB-3227	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID:	3227	RunNo:	4686					
Prep Date:	8/7/2012	Analysis Date:	8/7/2012	SeqNo:	132153	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		113	77.6	140			

Sample ID	LCS-3227	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	3227	RunNo:	4686					
Prep Date:	8/7/2012	Analysis Date:	8/7/2012	SeqNo:	132283	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	36	10	50.00	0	71.8	52.6	130			
Surr: DNOP	3.9		5.000		77.8	77.6	140			

Sample ID	MB-3244	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID:	3244	RunNo:	4713					
Prep Date:	8/8/2012	Analysis Date:	8/8/2012	SeqNo:	133155	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		109	77.6	140			

Sample ID	LCS-3244	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	3244	RunNo:	4713					
Prep Date:	8/8/2012	Analysis Date:	8/8/2012	SeqNo:	133156	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.2		5.000		103	77.6	140			

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
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
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208256

08-Aug-12

Client: Animas Environmental Services

Project: COP Jicarilla K #17M

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBS	Batch ID:	R4701	RunNo:	4701					
Prep Date:		Analysis Date:	8/7/2012	SeqNo:	132811	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	980		1000		97.9	84	116			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSS	Batch ID:	R4701	RunNo:	4701					
Prep Date:		Analysis Date:	8/7/2012	SeqNo:	132816	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.4	85	115			
Surr: BFB	1000		1000		101	84	116			

Sample ID	1208256-001A MS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	SB-8@2'	Batch ID:	R4701	RunNo:	4701					
Prep Date:		Analysis Date:	8/7/2012	SeqNo:	132817	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	16	5.0	17.00	2.495	81.4	70	130			
Surr: BFB	710		679.9		105	84	116			

Sample ID	1208256-001A MSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	SB-8@2'	Batch ID:	R4701	RunNo:	4701					
Prep Date:		Analysis Date:	8/7/2012	SeqNo:	132818	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	5.0	17.00	2.495	84.0	70	130	2.63	22.1	
Surr: BFB	720		679.9		105	84	116	0	0	

Qualifiers:

* / X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
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
RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87106
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1208256

Received by/date: *AS* 08/02/12

Logged By: Ashley Gallegos 8/7/2012 9:57:00 AM *AS*

Completed By: Ashley Gallegos 8/7/2012 9:59:17 AM *AS*

Reviewed By: *mg* 08/02/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No NA
5. Was an attempt made to cool the samples? Yes ☒ No NA
6. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes No ☒ NA
- Not required
7. Sample(s) in proper container(s)? Yes ☒ No
8. Sufficient sample volume for indicated test(s)? Yes ☒ No
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No
10. Was preservative added to bottles? Yes No ☒ NA
11. VOA vials have zero headspace? Yes No No VOA Vials ☒
12. Were any sample containers received broken? Yes No ☒
13. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No # of preserved bottles checked for pH:
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No (<2 or >12 unless noted)
15. Is it clear what analyses were requested? Yes ☒ No Adjusted?
16. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No Checked by:

Special Handling (if applicable)

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

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

18. Additional remarks:

19. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	7.3	Good	Yes			

Client: Animes Environmental
Services LLC
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) _____

☐ Standard ☒ Rush same day

CoP Jicarilla K #17M

Project Manager:

Watson

Sampler: T Lona

On Ice ☒ Yes ☐ No

Sample Temperature

Container Type and #	Material	Quantity	Weight	Volume	Notes
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90</	

Preservative
Type

HEAL No.

[illegible]

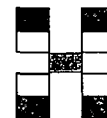
Date:	Time:	Relinquished by:
8/6/12	1650	Debra Watson

Received by:	Date	Time
Christine Walter	8/6/12	1:50

Remarks:	Bill to ConocoPhillips
----------	------------------------

Date:	Time:	Relinquished by:
8/6/12	1712	Christine Walker

Received by:	Date	Time
<i>[Signature]</i>	08/07/12	09:55



HALL ENVIRONMENTAL ANALYSIS LABORATORY

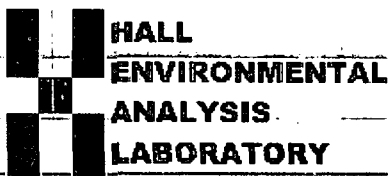
www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]



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

September 11, 2012

Debbie Watson

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

RE: CoP Jicarilla 17M

OrderNo.: 1209161

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 9/6/2012 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. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1209161

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/11/2012

CLIENT: Animas Environmental Services

Client Sample ID: SC-1

Project: CoP Jicarilla 17M

Collection Date: 9/5/2012 10:34:00 AM

Lab ID: 1209161-001

Matrix: MEOH (SOIL)

Received Date: 9/6/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JMP
Diesel Range Organics (DRO)	29	9.9		mg/Kg	1	9/6/2012 10:56:45 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/6/2012 10:56:45 AM
Surr: DNOP	112	77.6-140		%REC	1	9/6/2012 10:56:45 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/6/2012 12:21:56 PM
Surr: BFB	98.1	84-116		%REC	1	9/6/2012 12:21:56 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	9/6/2012 12:21:56 PM
Toluene	ND	0.050		mg/Kg	1	9/6/2012 12:21:56 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/6/2012 12:21:56 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/6/2012 12:21:56 PM
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	9/6/2012 12:21:56 PM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Chloride	ND	30		mg/Kg	20	9/6/2012 11:56:44 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- 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
- RL Reporting Detection Limit

Analytical Report

Lab Order 1209161

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/11/2012

CLIENT: Animas Environmental Services**Client Sample ID:** SC-2**Project:** CoP Jicarilla 17M**Collection Date:** 9/5/2012 10:40:00 AM**Lab ID:** 1209161-002**Matrix:** MEOH (SOIL)**Received Date:** 9/6/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JMP
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/6/2012 11:18:32 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/6/2012 11:18:32 AM
Surr: DNOP	112	77.6-140		%REC	1	9/6/2012 11:18:32 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/6/2012 12:50:44 PM
Surr: BFB	97.8	84-116		%REC	1	9/6/2012 12:50:44 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	9/6/2012 12:50:44 PM
Toluene	ND	0.050		mg/Kg	1	9/6/2012 12:50:44 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/6/2012 12:50:44 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/6/2012 12:50:44 PM
Surr: 4-Bromofluorobenzene	98.9	80-120		%REC	1	9/6/2012 12:50:44 PM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Chloride	ND	30		mg/Kg	20	9/6/2012 12:09:09 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- 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
- RL Reporting Detection Limit

Analytical Report

Lab Order 1209161

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/11/2012

CLIENT: Animas Environmental Services

Client Sample ID: SC-3

Project: CoP Jicarilla 17M

Collection Date: 9/5/2012 10:44:00 AM

Lab ID: 1209161-003

Matrix: MEOH (SOIL)

Received Date: 9/6/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JMP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/6/2012 11:40:26 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/6/2012 11:40:26 AM
Surr: DNOP	115	77.6-140		%REC	1	9/6/2012 11:40:26 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/6/2012 1:19:28 PM
Surr: BFB	99.0	84-116		%REC	1	9/6/2012 1:19:28 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	9/6/2012 1:19:28 PM
Toluene	ND	0.050		mg/Kg	1	9/6/2012 1:19:28 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/6/2012 1:19:28 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/6/2012 1:19:28 PM
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	9/6/2012 1:19:28 PM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Chloride	ND	30		mg/Kg	20	9/6/2012 12:21:34 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- 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
- RL Reporting Detection Limit

Analytical Report

Lab Order 1209161

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/11/2012

CLIENT: Animas Environmental Services

Client Sample ID: SC-4

Project: CoP Jicarilla 17M

Collection Date: 9/5/2012 10:49:00 AM

Lab ID: 1209161-004

Matrix: MEOH (SOIL)

Received Date: 9/6/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JMP
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/6/2012 12:02:19 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/6/2012 12:02:19 PM
Surr; DNOP	118	77.6-140		%REC	1	9/6/2012 12:02:19 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/6/2012 1:48:20 PM
Surr; BFB	99.2	84-116		%REC	1	9/6/2012 1:48:20 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	9/6/2012 1:48:20 PM
Toluene	ND	0.050		mg/Kg	1	9/6/2012 1:48:20 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/6/2012 1:48:20 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/6/2012 1:48:20 PM
Surr; 4-Bromofluorobenzene	100	80-120		%REC	1	9/6/2012 1:48:20 PM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Chloride	ND	30		mg/Kg	20	9/6/2012 12:33:59 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 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
 RL Reporting Detection Limit

Analytical Report

Lab Order 1209161

Date Reported: 9/11/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SC-5

Project: CoP Jicarilla 17M

Collection Date: 9/5/2012 10:52:00 AM

Lab ID: 1209161-005

Matrix: MEOH (SOIL)

Received Date: 9/6/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JMP
Diesel Range Organics (DRO)	18	9.8		mg/Kg	1	9/6/2012 12:26:07 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/6/2012 12:26:07 PM
Surr: DNOP	121	77.6-140		%REC	1	9/6/2012 12:26:07 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/6/2012 2:17:11 PM
Surr: BFB	99.3	84-116		%REC	1	9/6/2012 2:17:11 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	9/6/2012 2:17:11 PM
Toluene	ND	0.050		mg/Kg	1	9/6/2012 2:17:11 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/6/2012 2:17:11 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/6/2012 2:17:11 PM
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	9/6/2012 2:17:11 PM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Chloride	ND	30		mg/Kg	20	9/6/2012 12:46:24 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- 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
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1209161

11-Sep-12

Client: Animas Environmental Services

Project: CoP Jicarilla 17M

Sample ID	LCS-3638		SampType:	LCS		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSS		Batch ID:	3638		RunNo:	5348				
Prep Date:	9/6/2012		Analysis Date:	9/6/2012		SeqNo:	152318		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	93.4	90	110				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- 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
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1209161

11-Sep-12

Client: Animas Environmental Services

Project: CoP Jicarilla 17M

Sample ID	MB-3625	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID:	3625	RunNo:	5328					
Prep Date:	9/5/2012	Analysis Date:	9/6/2012	SeqNo:	151828	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		110	77.6	140			

Sample ID	LCS-3625	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	3625	RunNo:	5328					
Prep Date:	9/5/2012	Analysis Date:	9/6/2012	SeqNo:	151936	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	10	50.00	0	69.7	52.6	130			
Surr: DNOP	4.5		5.000		89.2	77.6	140			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- 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
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1209161

11-Sep-12

Client: Animas Environmental Services

Project: CoP Jicarilla 17M

Sample ID	MB-3624	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range						
Client ID:	PBS	Batch ID:	3624	RunNo:	5347						
Prep Date:	9/5/2012	Analysis Date:	9/6/2012	SeqNo:	152880	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	980		1000		97.6	84	116				

Sample ID	LCS-3624	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range						
Client ID:	LCSS	Batch ID:	3624	RunNo:	5347						
Prep Date:	9/5/2012	Analysis Date:	9/6/2012	SeqNo:	152881	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.2	74	117				
Surr: BFB	1000		1000		101	84	116				

Sample ID	1209093-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range						
Client ID:	BatchQC	Batch ID:	3624	RunNo:	5347						
Prep Date:	9/5/2012	Analysis Date:	9/6/2012	SeqNo:	152889	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	24	4.8	24.06	0	98.3	70	130				
Surr: BFB	980		962.5		102	84	116				

Sample ID	1209093-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range						
Client ID:	BatchQC	Batch ID:	3624	RunNo:	5347						
Prep Date:	9/5/2012	Analysis Date:	9/6/2012	SeqNo:	152890	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	24	4.7	23.43	0	102	70	130	1.13	22.1		
Surr: BFB	960		937.2		103	84	116	0	0		

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- 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
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1209161

11-Sep-12

Client: Animas Environmental Services

Project: CoP Jicarilla 17M

Sample ID	MB-3624		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	3624		RunNo:	5347			
Prep Date:	9/5/2012		Analysis Date:	9/6/2012		SeqNo:	152905		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		100	80	120			

Sample ID	100NG BTEX LCS		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	3624		RunNo:	5347			
Prep Date:			Analysis Date:	9/6/2012		SeqNo:	152906		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.050	1.000	0	98.7	76.3	117			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	77	116			
Xylenes, Total	3.1	0.10	3.000	0	103	76.7	117			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	80	120			

Sample ID	1209161-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SC-1		Batch ID:	3624		RunNo:	5347			
Prep Date:			Analysis Date:	9/6/2012		SeqNo:	152908		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.52	0.050	0.6628	0	77.8	67.2	113			
Toluene	0.53	0.050	0.6628	0	80.0	62.1	116			
Ethylbenzene	0.53	0.050	0.6628	0	80.4	67.9	127			
Xylenes, Total	1.6	0.10	1.988	0	81.4	60.6	134			
Surr: 4-Bromofluorobenzene	0.70		0.6628		105	80	120			

Sample ID	1209161-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SC-1		Batch ID:	3624		RunNo:	5347			
Prep Date:			Analysis Date:	9/6/2012		SeqNo:	152909		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.65	0.050	0.6628	0	97.8	67.2	113	22.9	14.3	R
Toluene	0.66	0.050	0.6628	0	98.9	62.1	116	21.2	15.9	R
Ethylbenzene	0.66	0.050	0.6628	0	100	67.9	127	21.8	14.4	R
Xylenes, Total	2.0	0.10	1.988	0	101	60.6	134	21.7	12.6	R
Surr: 4-Bromofluorobenzene	0.70		0.6628		106	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- 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
- RL Reporting Detection Limit

Sample Log-In Check List

Client Name:	Animas Environmental	Work Order Number:	1209161
Received by/date:	AG 09/06/12		
Logged By:	Michelle Garcia	9/6/2012 10:00:00 AM	Michelle Garcia
Completed By:	Michelle Garcia	9/6/2012 10:11:48 AM	Michelle Garcia
Reviewed By:	IO 09/06/12		

Chain of Custody

- Were seals intact? Yes ☐ No ☐ Not Present ☒
- Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
- How was the sample delivered? Courier

Log In

- Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐
- Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
- Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
- Sample(s) in proper container(s)? Yes ☒ No ☐
- Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
- Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
- Was preservative added to bottles? Yes ☐ No ☒ NA ☐
- VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
- Were any sample containers received broken? Yes ☐ No ☒
- Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
- Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
- Is it clear what analyses were requested? Yes ☒ No ☐
- Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

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

Special Handling (if applicable)

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

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

- Additional remarks:

19. Cooler Information

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

