

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

OIL CONS. DIV DIST.

JUN 21 2017

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 ConocoPhillips Company	Contact Lisa Hunter	
Address 3401 East 30th St, Farmington, NM	Telephone No. (505) 258-1607	
Facility Name: Jicarilla 17	Facility Type: Gas Well	
Surface Owner Jicarilla	Mineral Owner Jicarilla	API No. 3003922427

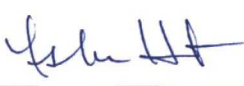

LOCATION OF RELEASE

Unit Letter B	Section 32	Township 26N	Range 04W	Feet from the 990	North/South Line North	Feet from the 1850	East/West Line East	County Rio Arriba
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Latitude **36.44760** Longitude **-107.27236**

NATURE OF RELEASE

Type of Release Hydrocarbon (Historic)	Volume of Release Unknown	Volume Recovered 375 c/yds
Source of Release BGT (Closure)	Date and Hour of Occurrence Unknown	Date and Hour of Discovery April 17, 2017
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	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* Below-Grade Tank Closure activities with samples taken resulting in constituents exceeded standards outlined by 19.15.17.13 NMAC.		
Describe Area Affected and Cleanup Action Taken.* Historical hydrocarbon impacted soil was found during the BGT closure for the subject well. The excavation was 26' x 26' x 16' in depth and 375 c/yds of soil was transported to IEI land farm. 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: 6/22/2017	Expiration Date:
E-mail Address: Lisa.Hunter@cop.com		Conditions of Approval:	
Date: June 19, 2017 Phone: (505) 258-1607		Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

NVFI636441086

56



May 15, 2017

Lisa Hunter
ConocoPhillips
San Juan Business Unit
(505) 326-9525

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

**RE: Below Grade Tank Closure, Release Assessment, and Final Excavation Report
Jicarilla 17
Rio Arriba County, New Mexico**

Dear Ms. Hunter:

On April 17, 18, and 20, 2017, and May 2, 2017, Animas Environmental Services, LLC (AES) completed below grade tank (BGT) closure sampling, a release assessment, and environmental clearance of the final excavation limits at the ConocoPhillips (COP) Jicarilla 17, located in Rio Arriba County, New Mexico. BGT closure sampling was conducted on April 17, 2017, and a release assessment was completed on April 18, 2017. Final excavation was completed by COPC contractors while AES was on location on May 2, 2017.

1.0 Site Information

1.1 Location

Location – NW¼ NE¼, Section 32, T26N, R4W, Rio Arriba County, New Mexico

Latitude/Longitude – N36.44760 and W107.27236, respectively

Surface Owner – Jicarilla Apache Nation

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, April 2017

604 W. Piñon St.
Farmington, NM 87401
505-564-2281

1911 Main, Ste 206
Durango, CO 81301
970-403-3084

1.2 JANOGA and NMOCD Action Levels

The Jicarilla 17 release is located on Jicarilla Apache Nation lands, and soil remediation action levels are determined by the Jicarilla Apache Nation Oil and Gas Administration (JANOGA). JANOGA action levels for soil currently follow the New Mexico Oil Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993). Per JANOGA, all locations within Jicarilla Apache Nation lands typically receive a ranking score of 20. Action levels are:

- 10 mg/kg benzene and 50 mg/kg total benzene, toluene, ethylbenzene, and xylene (BTEX);
- 100 mg/kg total petroleum hydrocarbons (TPH); and
- 250 mg/kg chloride.

1.3 BGT Closure and Release Assessment

AES was initially contacted by Lisa Hunter of COPC on April 12, 2017. On April 17, 2017, Corwin Lameman and Sam Glasses of AES traveled to the location. Soil sampling consisted of collection of one discrete soil sample (BGT SC-1) from below the former BGT. The sample location is presented on Figure 2.

On April 18, 2017, Corwin Lameman and Sam Glasses completed release assessment field work. The assessment included collection and sampling of 10 soil samples from five borings in and around the release area. Soil borings were terminated between 7 and 12 feet in depth. Based on field sampling results, AES recommended further excavation of the release area. Sample locations are shown on Figure 3.

On April 20 and May 2, 2017, AES returned to the location to collect confirmation soil samples of the excavation. The field sampling activities included collection of five confirmation soil samples (SC-1 through SC-5) from the walls and base of the excavation. The area of the final excavation measured approximately 26 feet by 26 feet by 16 feet in depth. Sample locations and final excavation extents are presented on Figure 4.

2.0 Soil Sampling

2.1 Field Screening

2.1.1 Volatile Organic Compounds

Field screening for volatile organic compound (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 ppm isobutylene gas.

2.1.2 Total Petroleum Hydrocarbons

Soil samples were also analyzed in the field for TPH 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 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. The samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico.

SC-1 through SC-5 were laboratory analyzed for:

- BTEX per USEPA Method 8021B; and
- TPH as Gasoline Range Organics (GRO), Diesel Range Organics (DRO), and Motor Oil Range Organics (MRO) and per USEPA Method 8015.

BGT SC-1 was also laboratory analyzed for:

- TPH per USEPA Method 418.1; and
- Chlorides per USEPA Method 300.0.

2.3 Field Screening and Laboratory Analytical Results

Field sampling results are summarized in Table 1 and presented on Figures 2 through 4. Laboratory analytical results are summarized in Table 2 and presented on Figures 2 through 4. The AES Field Sampling Reports and the laboratory analytical reports are attached.

Table 1. Soil Field Screening VOC and TPH Results
Jicarilla 17 BGT Closure, Release Assessment and Final Excavation
April and May 2017

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Depth below BGT (ft bgs)</i>	<i>VOCs OVM Reading (ppm)</i>	<i>TPH 418.1 (mg/kg)</i>	<i>Chlorides (mg/kg)</i>
<i>JANOGA and NMOCD Action Levels (NMAC 19.15.17.13)/*</i>			<i>NE/100</i>	<i>100</i>	<i>250</i>
BGT SC-1	4/17/17	7	3,666	284	60
SB-1	4/18/17	10	486	59.2	NA
		12	281	37.1	NA
SB-2	4/18/17	7	0.0	39.0	NA
		12	0.0	40.9	NA
SB-3	4/18/17	7	0.0	39.6	NA
		12	0.0	38.3	NA
SB-4	4/18/17	7	0.0	40.2	NA
		12	0.0	42.8	NA
SB-5	4/18/17	7	0.0	37.1	NA
		12	0.0	38.3	NA
SC-1	4/20/17	0 to 11	0.0	45.9	NA
SC-2	4/20/17	0 to 11	341	62.4	NA
SC-3	4/20/17	0 to 11	16.2	54.2	NA
SC-4	4/20/17	0 to 11	3.8	42.8	NA
SC-5	5/2/17	16	16.0	33.8	NA

NA – Not Analyzed

NE – Not Established

*Action level determined by JANOGA (Ref. NMOCD ranking score of 20 per NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993)).

Table 2. Soil Laboratory Analytical Results – Benzene, Total BTEX, TPH, and Chloride
Jicarilla 17 BGT Closure, Release Assessment and Final Excavation
April and May 2017

Sample ID	Date Sampled	Depth (ft)	Benzene (8021) (mg/kg)	Total BTEX (8021) (mg/kg)	TPH – GRO (8015) (mg/kg)	TPH – DRO (8015) (mg/kg)	TPH – MRO (8015) (mg/kg)	TPH (418.1) (mg/kg)	Chlorides (300.0) (mg/kg)
JANOGA/NMOCD Action Levels (NMAC 19.15.17.13)*			0.2/10	50		100		100	250
BGT SC-1	4/17/17	7	<0.016	0.245	<3.2	<9.5	<47	<19	110
SB-1	4/18/17	10	0.15	0.90	6.2	<10	<50	NA	NA
		12	<0.015	0.034	<3.0	<9.2	<46	NA	NA
SC-1	4/20/17	0 to 11	<0.025	<0.224	<5.0	<9.7	<48	NA	NA
SC-2	4/20/17	0 to 11	<0.024	1.42	15	56	<46	NA	NA
SC-3	4/20/17	0 to 11	<0.023	<0.211	<4.7	<9.8	<49	NA	NA
SC-4	4/20/17	0 to 11	<0.023	<0.211	<4.7	<9.8	<49	NA	NA
SC-5	5/2/17	16	<0.015	<0.135	<3.0	<9.4	<47	NA	NA

NA – Not Analyzed

* Action level determined by JANOGA (Ref. NMOCD ranking score of 20 per NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993)).

3.0 Conclusions and Recommendations

3.1 BGT Closure

On April 17, 2017, AES conducted a BGT closure and release assessment of petroleum contaminated soils associated at the Jicarilla 17 location. NMOCD action levels for BGT closures are specified in NMAC 19.15.17.13. BGT closure sampling results for TPH in April 2017 were above the NMOCD action levels, with BGT SC-1 at 284 mg/kg TPH (via USEPA Method 418.1). Laboratory results for chloride in BGT SC-1 were reported below the NMOCD action level of 250 mg/kg, with a concentration of 60 mg/kg. Based on field sampling results for TPH, along with the presence of stained soils, a release was confirmed at the Jicarilla 17 location.

3.2 Release Assessment and Excavation

On April 18, 2017, AES completed further release assessment at the Jicarilla 17 location. Action levels for releases are determined by JANOGA and on NMAC 19.15.17.13. Initial release assessment field sampling results above the NMOCD action level of 100 ppm

VOCs were reported in SB-1, with the highest VOC concentration reported at 486 ppm. Based on the field sampling results, excavation of contaminated soils was recommended.

On May 2, 2017, final clearance of the excavation area was completed. Field sampling results of the excavation extents showed that field VOC concentrations were below the applicable NMOCD action level of 100 ppm for the final walls and base of the excavation except for SC-2 (southwest wall). Additionally, laboratory analytical results also reported benzene, total BTEX concentrations and TPH concentrations (via USEPA Methods 418.1 and 8015) as below the applicable NMOCD action levels.

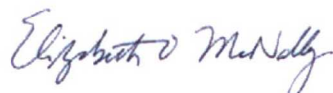
Based on final field sampling and laboratory analytical results of the excavation of petroleum contaminated soils at the Jicarilla 17, VOCs, benzene, total BTEX, and TPH concentrations were below applicable JANOGA/NMOCD action levels for each of the sidewalls and base of the excavation. No further work is recommended.

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

Sincerely,



David J. Reese
Environmental Scientist



Elizabeth McNally, P.E.

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map with BGT Closure Sample Location, April 2017
- Figure 3. Release Assessment Sample Locations and Results, April 2017
- Figure 4. Final Excavation Sample Locations and Results, April and May 2017
- AES Field Sampling Reports 041717, 041817, 042017, 050217
- Hall Laboratory Analytical Reports 1704817, 1704816, 1704A44, 1705138



FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP

ConocoPhillips
JICARILLA 17
NW¼ NE¼, SECTION 32, T26N, R4W
RIO ARriba COUNTY, NEW MEXICO
N36.44760, W107.27236



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services
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animasenvironmental.com

DRAWN BY:
C. Lameman

DATE DRAWN:
April 26, 2017

REVISIONS BY:
C. Lameman

DATE REVISED:
April 26, 2017

CHECKED BY:
E. McNally

DATE CHECKED:
April 26, 2017

APPROVED BY:
E. McNally

DATE APPROVED:
April 26, 2017

Field Screening Results					
Sample ID	Date	Depth (ft)	PID-OVM (ppm)	TPH (mg/kg)	Chlorides (mg/kg)
JANOGA ACTION LEVEL			--	100	250
BGT SC-1	4/17/17	7	3,666	284	60

BGT SC-1 IS A 5-POINT COMPOSITE SAMPLE.

LEGEND	
	SAMPLE LOCATIONS
	SECONDARY CONTAINMENT
	BERM
	FENCE

Laboratory Analytical Results									
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	TPH - MRO (mg/kg)	TPH 418.1 (mg/kg)	Chlorides (mg/kg)
JANOGA ACTION LEVEL			0.2	50	100			100	250
BGT SC-1	4/17/17	7	<0.016	0.245	<3.2	<9.5	<47	<19	110

SAMPLE WAS ANALYZED PER USEPA METHOD 8021B, 8015D, 418.1, AND 300.0.



FIGURE 2

**BELOW GRADE TANK CLOSURE
APRIL 2017**
ConocoPhillips
JICARILLA 17
NW¼ NE¼, SECTION 32, T26N, R4W
RIO ARriba COUNTY, NEW MEXICO
N36.44760, W107.27236



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DRAWN BY:
C. Lameman

DATE DRAWN:
April 26, 2017

REVISIONS BY:
C. Lameman

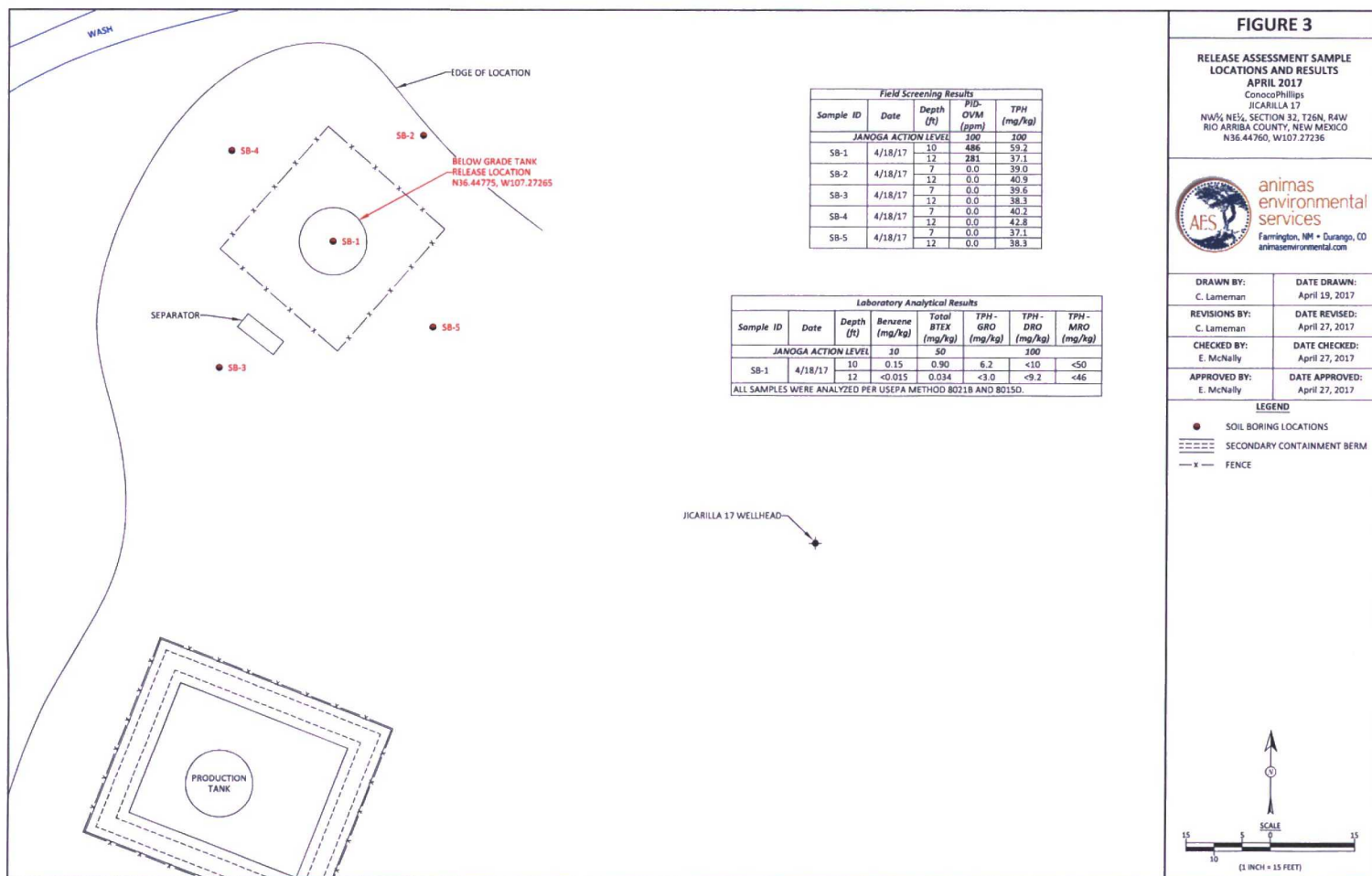
DATE REVISED:
April 26, 2017

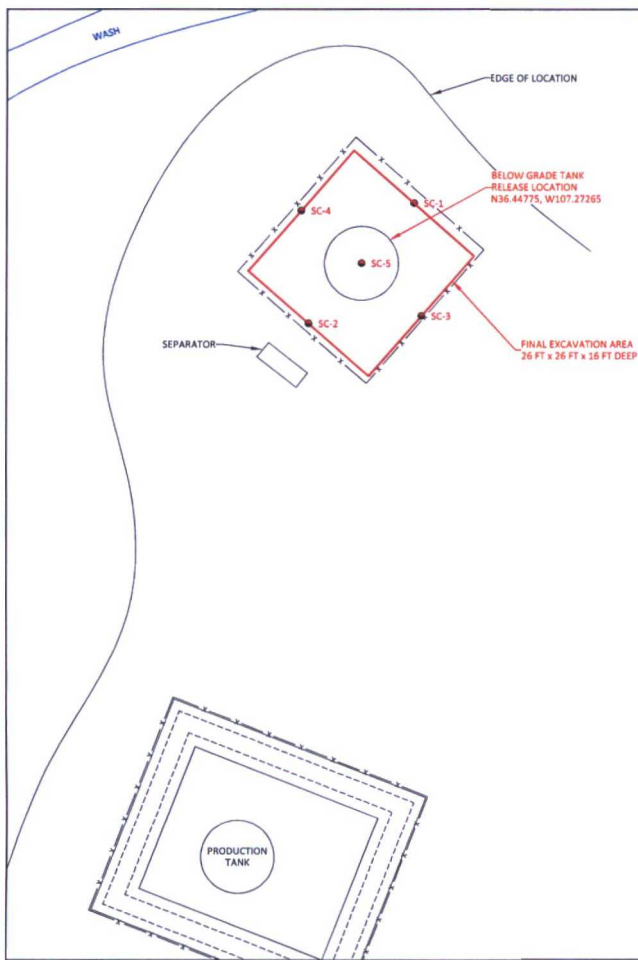
CHECKED BY:
E. McNally

DATE CHECKED:
April 26, 2017

APPROVED BY:
E. McNally

DATE APPROVED:
April 26, 2017





Field Screening Results				
Sample ID	Date	Depth (ft)	PID - OVM (ppm)	TPH (mg/kg)
JANOGA ACTION LEVEL			100	100
SC-1	4/20/17	0 to 11	0.0	45.9
SC-2	4/20/17	0 to 11	341	67.4
SC-3	4/20/17	0 to 11	16.2	54.2
SC-4	4/20/17	0 to 11	3.8	41.8
SC-5	5/2/17	16	16.0	33.8

Laboratory Analytical Results						
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)
JANOGA ACTION LEVEL			10	50	100	100
SC-1	4/20/17	0 to 11	<0.025	<0.224	<5.0	<9.7
SC-2	4/20/17	0 to 11	<0.024	1.42	15	56
SC-3	4/20/17	0 to 11	<0.023	<0.211	<4.7	<9.8
SC-4	4/20/17	0 to 11	<0.023	<0.211	<4.7	<9.8
SC-5	5/2/17	16	<0.015	<0.135	<3.0	<9.4

ALL SAMPLES WERE ANALYZED PER USEPA METHOD 8021B AND 80150.

FIGURE 4

FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS
APRIL AND MAY 2017
ConocoPhillips
JICARILLA 17
NW¼ NE¼, SECTION 32, T26N, R4W
RIO ARRIBA COUNTY, NEW MEXICO
N36.44760, W107.27236

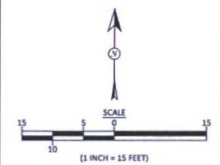


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DRAWN BY: C. Lameman	DATE DRAWN: April 27, 2017
REVISIONS BY: C. Lameman	DATE REVISED: May 3, 2017
CHECKED BY: E. McNally	DATE CHECKED: May 3, 2017
APPROVED BY: E. McNally	DATE APPROVED: May 3, 2017

LEGEND

● SAMPLE LOCATIONS
--- SECONDARY CONTAINMENT BERM
— FENCE



Field Forms

AES BGT Field Report

Client: ConocoPhillips

Well or Lease Name: Jicorilla #17

CoP Onsite Supervisor: C. Lammeman

Site Arrival Time: 1030

Site Departure Time: 1208

Date: 4-17-16

AES Personnel: C. Lammeman

S. Glesser

Beginning mileage: 95315

Ending Mileage: 95430 (Not billed)



anumascenvironmental.com

604 W. Pinon Street
Farmington, NM 87401
Tel (505) 564-2281
Fax (505) 524-2022

1911 Main Avenue, Suite 280
Durango, CO 81301
Tel (970) 403-3084

Below Grade Tank Information:

BGT (GPS): 36.44775, -107.27265

Upon Arrival: ☒ Tank Removed / ☐ Tank in Place

Tank Size: 95 bbls 5' H 12' dia.

Well Head Information:

Well Head (GPS): 36.44760, -107.27230

Work at Site: ☐ Rework ☐ P&A

Tank Reset Other: Tank Release

Buck Machine #:	Concentration	Calibration ABS Values
<u>1</u>		
Calibration Date: <u>3/16/17</u>	50 mg/kg	<u>0.136</u>
	100 mg/kg	<u>0.26</u>
	500 mg/kg	

Site Rank: Jicorilla
Depth to Water: 1
Land Type: 1
County: Rio Arriba

Composite Sample Data (S-__):

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	OVM Time	Field Chloride (mg/kg)	Field Chloride time	ABS	Field TPH (mg/kg)	Field TPH Analysis Time
BGT SC-1	4-17-17	1033	5-pt Comp.	3,666	1058	100	1100	0.412	284	1054

*Record data as read off instruments/ lab spreadsheets.

Notes:

BGT was removed. No backfill. Black tarp lines at bottom of pit. A puddle of oil or condensate on lines.

5-pt Composite sample collected @ 1 ft deep. Sand, brown, no staining, strong odor

Well or Lease Name: *Travilla 17*

Date: *4-18-17*

AES personnel: *CL/KG*

Spts 7 and 12 Lab 4

3-Day

*ND - No Odor
NS - No Staining*

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	OVM Time	Field TPH (mg/kg)	Field TPH Analysis Time	ABS	NOTES
SB-1 e 10'	4-18-17	<i>Cont'd BGT</i>	<i>1025</i>	486	1056	59.22	1106	0.057	<i>Clayey Sand, Brown, Moist, ND, NS</i>
e 12'		<i>1038</i>		281	1057	37.1	1110	0.022	<i>SAA</i>
SB-2 e 7'		<i>1049</i>	<i>N B BGT 10'</i>	0.0	1112	38.0	1116	0.025	<i>Sand & Clay, Brown, Dry, No, NS</i>
e 12'		<i>1058</i>		0.0	1113	40.9	1120	0.028	<i>Sand, Fine, Brown, Dry, No, NS</i>
SB-3 e 7'		<i>1123</i>	<i>16' S BGT 5' Sep.</i>	0.0	1145	39.6	1148	0.026	<i>Clay some Sand, Brown, Moist, No, NS</i>
e 12'		<i>1138</i>		0.0	1156	38.3	1158	0.024	<i>Sand & Clay, Brown, Moist, No, NS</i>
SB-4 e 7'		<i>1203</i>	<i>10' W BGT</i>	0.0	1219	40.2	1222	0.027	<i>Sand, Fine, Brown, Dry, No, NS</i>
e 12'		<i>1213</i>		0.0	1224	42.8	1226	0.031	<i>Sand, V. Fine, Brown, Dry, No, NS</i>
SB-5 e 7'		<i>1235</i>	<i>10' E BGT</i>	0.0	1252	37.1	1254	0.022	<i>Sand & Clay, Brown, Moist, No, NS</i>
e 12'		<i>1245</i>		0.0	1256	38.3	1258	0.024	<i>Sand, Loose, Tan-Brown, Dry, No, NS</i>

*Include Benzene readings in the notes section initially and transfer to Limitations if Benzene is a problem on the location.



Field Screening Release Assessment Field Report

Date: 4-26-17

Client: ConocoPhillips
 Well or Lease Name: Jicarilla 17
 CoP Onsite Supervisor: Tom Stanley
 Site Arrival Time: 1040
 Site Departure Time: 1654
 Land Jurisdiction: Jicarilla 17
 County/State: RA / NM
 Site Rank: 20

AES Personnel: C. Lamenan
 Beginning mileage: 95779
 Ending Mileage: 95999
 Release Source: BGT
 Well Head (GPS): 36.44760, -107.27236
 Release Location (GPS): 36.44775, -107.27265

Billing Info:
 WO #: No Change
 Supervisor:
 USER:
 Area:
 Activity Code:
 Ordered by:

Equipment in place: PT, Sep, Meter House, WH

Buck Machine #			
Concentration	50 mg/kg	100 mg/kg	500 mg/kg
Calibration ABS Values			

Project Details: Excavation of Contaminated area. On arrival excavation dimensions were 15'x15'x10' Deep. Additional Excavation commenced. to 26'x26'x11' deep.

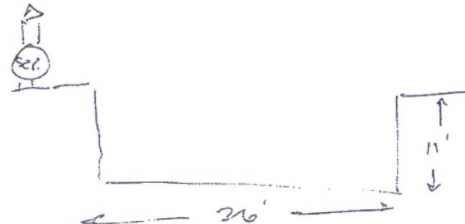
Initial Recommendations: not Continue digging to bottom of contamination.

Limitations: Backhoe safety. walls are sheer/vertical and unable to sit on edge. Must use a trackhoe per CF & M. from man.

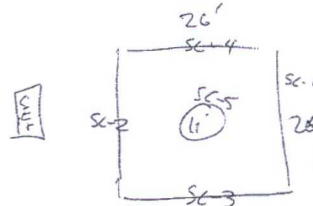
Animas Environmental Services, LLC
 604 W Pinon St. Farmington, NM 87401 office # 505-564-2281
 1911 N Main, Ste 280, Durango, CO 81301

Site Sketch (DOES NOT REPLACE SITE MAP) and Current Excavation Dimensions:

Horizontal (Cross-Section View):



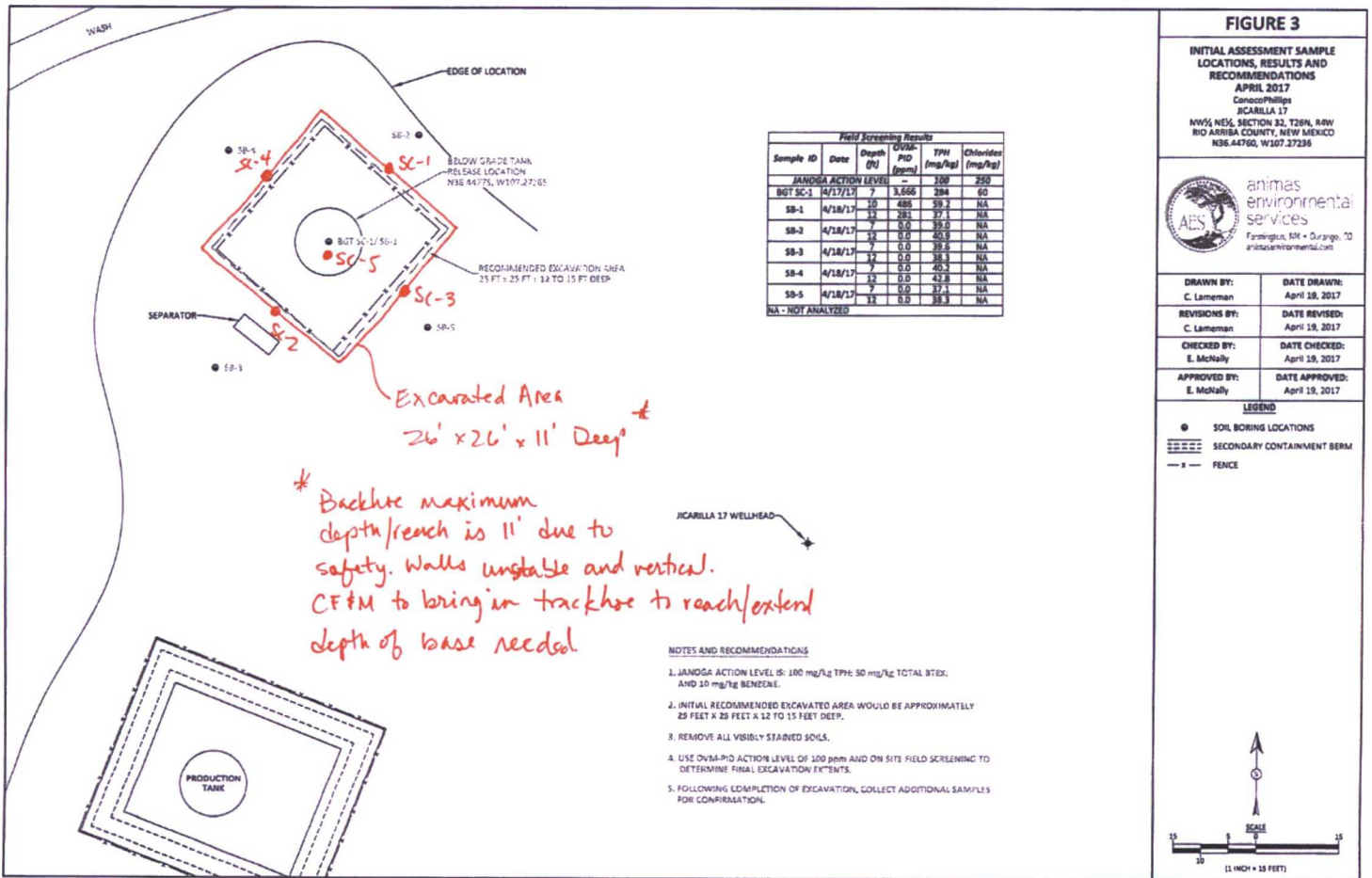
Vertical (Plan View):



1 of _____

Release Assessment Field Form 112114

4-20-17 a



AES personnel: C. Lameman

[illegible]

Animas Environmental Services, LLC
604 W Pinon St. Farmington, NM 87401 office # 505-564-2281
1911 N Main, Ste 280, Durango, CO 81301

Analytical Reports



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

April 24, 2017

Corwin Lameman
Animas Environmental
604 Pinon Street
Farmington, NM 87401
TEL: (505) 564-2281
FAX

RE: COPC Jicarilla 17

OrderNo.: 1704817

Dear Corwin Lameman:

Hall Environmental Analysis Laboratory received 1 sample(s) on 4/19/2017 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

Analytical Report

Lab Order 1704817

Date Reported: 4/24/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: BGT SC-1

Project: COPC Jicarilla 17

Collection Date: 4/17/2017 10:33:00 AM

Lab ID: 1704817-001

Matrix: MEOH (SOIL)

Received Date: 4/19/2017 6:46:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: MAB
Petroleum Hydrocarbons, TR	ND	19		mg/Kg	1	4/24/2017	31364
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	110	30		mg/Kg	20	4/19/2017 3:38:03 PM	31315
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/20/2017 5:01:33 PM	31314
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/20/2017 5:01:33 PM	31314
Surr: DNOP	108	70-130		%Rec	1	4/20/2017 5:01:33 PM	31314
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	4/19/2017 7:51:58 PM	31299
Surr: BFB	98.4	54-150		%Rec	1	4/19/2017 7:51:58 PM	31299
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.016		mg/Kg	1	4/19/2017 7:51:58 PM	31299
Toluene	0.085	0.032		mg/Kg	1	4/19/2017 7:51:58 PM	31299
Ethylbenzene	ND	0.032		mg/Kg	1	4/19/2017 7:51:58 PM	31299
Xylenes, Total	0.16	0.065		mg/Kg	1	4/19/2017 7:51:58 PM	31299
Surr: 4-Bromofluorobenzene	113	66.6-132		%Rec	1	4/19/2017 7:51:58 PM	31299

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1704817

24-Apr-17

Client: Animas Environmental

Project: COPC Jicarilla 17

Sample ID	MB-31315		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	31315		RunNo:	42222				
Prep Date:	4/19/2017		Analysis Date:	4/19/2017		SeqNo:	1327296		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-31315		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 31315		RunNo: 42222					
Prep Date:	4/19/2017		Analysis Date: 4/19/2017		SeqNo: 1327297		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.1	90	110			

Sample ID	MB-31315		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 31315		RunNo: 42250					
Prep Date:	4/19/2017		Analysis Date: 4/20/2017		SeqNo: 1328675		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-31315		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 31315		RunNo: 42250					
Prep Date:	4/19/2017		Analysis Date: 4/20/2017		SeqNo: 1328676		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.9	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1704817

24-Apr-17

Client: Animas Environmental

Project: COPC Jicarilla 17

Sample ID	MB-31364		SampType: MBLK		TestCode: EPA Method 418.1: TPH					
Client ID:	PBS		Batch ID: 31364		RunNo: 42318					
Prep Date:	4/21/2017		Analysis Date: 4/24/2017		SeqNo: 1330184		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID	LCS-31364		SampType: LCS		TestCode: EPA Method 418.1: TPH					
Client ID:	LCSS		Batch ID: 31364		RunNo: 42318					
Prep Date:	4/21/2017		Analysis Date: 4/24/2017		SeqNo: 1330185		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	100.0	0	108	61.7	138			

Sample ID	LCSD-31364	SampType: LCSD			TestCode: EPA Method 418.1: TPH					
Client ID:	LCSS02	Batch ID: 31364			RunNo: 42318					
Prep Date:	4/21/2017	Analysis Date: 4/24/2017			SeqNo: 1330186		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	100.0	0	110	61.7	138	1.17	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1704817

24-Apr-17

Client: Animas Environmental

Project: COPC Jicarilla 17

Sample ID	LCS-31314		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics			
Client ID:	LCSS		Batch ID:	31314		RunNo:	42241			
Prep Date:	4/19/2017		Analysis Date:	4/20/2017		SeqNo:	1327762		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.2	63.8	116			
Surr: DNOP	4.7		5.000		93.6	70	130			

Sample ID	MB-31314		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics			
Client ID:	PBS		Batch ID:	31314		RunNo:	42241			
Prep Date:	4/19/2017		Analysis Date:	4/20/2017		SeqNo:	1327763		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	10		10.00		103	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1704817

24-Apr-17

Client: Animas Environmental

Project: COPC Jicarilla 17

Sample ID	MB-31299		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 31299		RunNo: 42221					
Prep Date:	4/18/2017		Analysis Date: 4/19/2017		SeqNo: 1326923		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	930		1000		93.2	54	150			

Sample ID	LCS-31299		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 31299		RunNo: 42221					
Prep Date:	4/18/2017		Analysis Date: 4/19/2017		SeqNo: 1326924		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	76.4	125			
Surr: BFB	1000		1000		102	54	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1704817

24-Apr-17

Client: Animas Environmental

Project: COPC Jicarilla 17

Sample ID	MB-31299	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID: 31299			RunNo: 42221					
Prep Date:	4/18/2017	Analysis Date: 4/19/2017			SeqNo: 1326955		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		111	66.6	132			

Sample ID	LCS-31299		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 31299		RunNo: 42221					
Prep Date:	4/18/2017		Analysis Date: 4/19/2017		SeqNo: 1326956		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	107	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.8	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		115	66.6	132			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified



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: 1704817

RcptNo: 1

Received By: Lindsay Mangin 4/19/2017 6:46:00 AM

Completed By: Ashley Gallegos 4/19/2017 8:27:50 AM

Reviewed By: ENM 04/19/17

Ashley Gallegos
AG

Chain of Custody

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

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	1.1	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:
Client: <u>Animus Environmental</u>	<input type="checkbox"/> Standard	<input checked="" type="checkbox"/> Rush <u>3-day</u>
<u>Services, LLC</u>	Project Name:	
Mailing Address: <u>604 W Pinos St</u>	<u>COPC Jicarilla #17</u>	
<u>Farmington NM, 87401</u>	Project #:	
Phone #:		
email or Fax#: <u>claweman@animusenvironmental.com</u>	Project Manager:	
QA/QC Package:	<u>Claweman / E. McNally</u>	
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Level 4 (Full Validation)	
Accreditation		
<input type="checkbox"/> NELAP	<input type="checkbox"/> Other _____	
<input type="checkbox"/> EDD (Type) _____	Sampler: <u>CL/SG</u>	
	On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	Sample Temperature: <u>6.1</u>	

☐ Standard ☒ Rush 3-day

Project Name: Cope Jicarilla #17

Project Manager:

Clawerman / E. McNally

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.1

HEAL No.

1704817

- 00

Black	White	Black
White	Black	White
Black	White	Black

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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


Analysis Request

email or Fax#: <u>Claneman@grimesenvironmental.com</u>				Project Manager: <u>Claneman / E. McNally</u>		BTEX + MTBE + TMBs (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)		Chlorides (300.0)		Air Bubbles (Y or N)	
QA/QC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)				Sampler: <u>CL/SG</u>																											
Accreditation <input type="checkbox"/> NELAP <input type="checkbox"/> Other _____				On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																											
<input type="checkbox"/> EDD (Type) _____				Sample Temperature: <u>6.1</u>																											
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.																									
4-17-17	10:33	Soil	BGT SC-1	Mettler 1-4oz Jar	U60H Cool	1704817-001	X		X	X																					
																										</					

Date:	Time:	Relinquished by:
4/18/17	1633	[Signature]

Date:	Time:	Relinquished by:
4/13/17	1820	[Signature]

Received by: Ch. Waelt

Received by: 

Date Time
4/18/17 1633

Date: 19/7/2017 Time: 02:10

Remarks:	userID: KAITLW
W0: 22054036	ordered by: Lisa Hunter
Area: 9	
Supervisor: Terry Nelson	
Bill to Comprophilios	call with cross-

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.



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

April 21, 2017

Corwin Lameman
Animas Environmental
604 Pinon Street
Farmington, NM 87401
TEL: (505) 564-2281
FAX

RE: COPC Jicarilla 17

OrderNo.: 1704816

Dear Corwin Lameman:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/19/2017 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 1704816

Date Reported: 4/21/2017

CLIENT: Animas Environmental

Client Sample ID: SB-1 @ 10'

Project: COPC Jicarilla 17

Collection Date: 4/18/2017 10:25:00 AM

Lab ID: 1704816-001

Matrix: MEOH (SOIL)

Received Date: 4/19/2017 6:46:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/20/2017 3:32:22 PM	31314
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/20/2017 3:32:22 PM	31314
Surr: DNOP	107	70-130		%Rec	1	4/20/2017 3:32:22 PM	31314
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	6.2	2.6		mg/Kg	1	4/19/2017 4:44:50 PM	31299
Surr: BFB	103	54-150		%Rec	1	4/19/2017 4:44:50 PM	31299
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.15	0.013		mg/Kg	1	4/19/2017 4:44:50 PM	31299
Toluene	0.38	0.026		mg/Kg	1	4/19/2017 4:44:50 PM	31299
Ethylbenzene	ND	0.026		mg/Kg	1	4/19/2017 4:44:50 PM	31299
Xylenes, Total	0.37	0.052		mg/Kg	1	4/19/2017 4:44:50 PM	31299
Surr: 4-Bromofluorobenzene	118	66.6-132		%Rec	1	4/19/2017 4:44:50 PM	31299

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1704816

Date Reported: 4/21/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Animas Environmental**Client Sample ID:** SB-1 @ 12'**Project:** COPC Jicarilla 17**Collection Date:** 4/18/2017 10:38:00 AM**Lab ID:** 1704816-002**Matrix:** MEOH (SOIL)**Received Date:** 4/19/2017 6:46:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/20/2017 4:39:20 PM	31314
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/20/2017 4:39:20 PM	31314
Surr: DNOP	109	70-130		%Rec	1	4/20/2017 4:39:20 PM	31314
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.0		mg/Kg	1	4/19/2017 7:05:21 PM	31299
Surr: BFB	97.9	54-150		%Rec	1	4/19/2017 7:05:21 PM	31299
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.015		mg/Kg	1	4/19/2017 7:05:21 PM	31299
Toluene	0.034	0.030		mg/Kg	1	4/19/2017 7:05:21 PM	31299
Ethylbenzene	ND	0.030		mg/Kg	1	4/19/2017 7:05:21 PM	31299
Xylenes, Total	ND	0.059		mg/Kg	1	4/19/2017 7:05:21 PM	31299
Surr: 4-Bromofluorobenzene	116	66.6-132		%Rec	1	4/19/2017 7:05:21 PM	31299

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1704816

21-Apr-17

Client: Animas Environmental

Project: COPC Jicarilla 17

Sample ID	LCS-31314		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31314		RunNo: 42241					
Prep Date:	4/19/2017		Analysis Date: 4/20/2017		SeqNo: 1327762		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.2	63.8	116			
Surr: DNOP	4.7		5.000		93.6	70	130			

Sample ID	MB-31314	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 31314			RunNo: 42241					
Prep Date:	4/19/2017	Analysis Date: 4/20/2017			SeqNo: 1327763		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	10		10.00		103	70	130			

Sample ID	1704816-001AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SB-1 @ 10'		Batch ID: 31314		RunNo: 42241					
Prep Date:	4/19/2017		Analysis Date: 4/20/2017		SeqNo: 1327975		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.40	0	99.3	51.6	130			
Surr: DNOP	5.0		5.040		98.9	70	130			

Sample ID	1704816-001AMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SB-1 @ 10'		Batch ID: 31314		RunNo: 42241					
Prep Date:	4/19/2017		Analysis Date: 4/20/2017		SeqNo: 1327976		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.9	49.31	0	99.9	51.6	130	1.64	20	
Surr: DNOP	4.9		4.931		98.9	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1704816

21-Apr-17

Client: Animas Environmental

Project: COPC Jicarilla 17

Sample ID	MB-31299		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 31299		RunNo: 42221					
Prep Date:	4/18/2017		Analysis Date: 4/19/2017		SeqNo: 1326923		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	930		1000		93.2	54	150			

Sample ID	LCS-31299		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 31299		RunNo: 42221					
Prep Date:	4/18/2017		Analysis Date: 4/19/2017		SeqNo: 1326924		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	76.4	125			
Surr: BFB	1000		1000		102	54	150			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | 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 | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1704816

21-Apr-17

Client: Animas Environmental

Project: COPC Jicarilla 17

Sample ID	MB-31299		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	31299		RunNo:	42221			
Prep Date:	4/18/2017		Analysis Date:	4/19/2017		SeqNo:	1326955		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		111	66.6	132			

Sample ID	LCS-31299		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	31299		RunNo:	42221			
Prep Date:	4/18/2017		Analysis Date:	4/19/2017		SeqNo:	1326956		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	107	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.8	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		115	66.6	132			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified



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: 1704816

RcptNo: 1

Received By: Lindsay Mangin

4/19/2017 6:46:00 AM

Completed By: Ashley Gallegos

4/19/2017 8:20:38 AM

Reviewed By: ENM

04/19/17

[Handwritten signatures]

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? Client

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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	1.1	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:
Client: <u>Animas Environmental Services</u>	<input type="checkbox"/> Standard	<input checked="" type="checkbox"/> Rush <u>3 Day</u>
Mailing Address: <u>604 W. Pine St</u>	Project Name: <u>COPC Tularilla #17</u>	
<u>Farmington NM</u>	Project #:	
Phone #: <u>505-24-2281</u>	Project Manager:	
email or Fax#: <u>clawson@animasenvironmental.com</u>	<u>C. Clawson / E. McNally</u>	
QA/QC Package:		
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Level 4 (Full Validation)	
Accreditation		
<input type="checkbox"/> NELAP	<input type="checkbox"/> Other _____	
<input type="checkbox"/> EDD (Type) _____	Sampler: <u>LL56</u>	
	On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	Sample Temperature: <u>1.1</u>	

☐ **Standard**

☒ Rush 3 Day

COPC Ticavilla #17

Project #:

Project Manager:

C. Lemermon / E. McNally

Sampler:

On Ice: ☒ Yes ☐ No


Sample Temperature: 4.1

[illegible]

Date: 4/18/12	Time: 1633	Relinquished by: [Signature]
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Received by:	Date	Time
<i>R. W. Get</i>	<i>4/18/7</i>	<i>1633</i>

Date: 4/18/17	Time: 1820	Relinquished by: [Signature]
---------------	------------	------------------------------

Received by:  Date: 04/19/17 Time: 01:04

Remarks: bill to Conoco Phillips
 MO#: 22054036 user : KAITLW
 Area: 9 ordered by: Lisa Hunter
 Supervisor: Tommy Nelson Call out question



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

April 27, 2017

Corwin Lameman
Animas Environmental
604 Pinon Street
Farmington, NM 87401
TEL: (505) 564-2281
FAX

RE: COPC Jicarilla 17

OrderNo.: 1704A44

Dear Corwin Lameman:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/22/2017 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

Analytical Report

Lab Order 1704A44

Date Reported: 4/27/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-1

Project: COPC Jicarilla 17

Collection Date: 4/20/2017 3:35:00 PM

Lab ID: 1704A44-001

Matrix: SOIL

Received Date: 4/22/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/25/2017 7:40:58 PM	31395
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/25/2017 7:40:58 PM	31395
Surr: DNOP	103	70-130		%Rec	1	4/25/2017 7:40:58 PM	31395
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/25/2017 9:18:48 PM	31392
Surr: BFB	102	54-150		%Rec	1	4/25/2017 9:18:48 PM	31392
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	4/25/2017 9:18:48 PM	31392
Toluene	ND	0.050		mg/Kg	1	4/25/2017 9:18:48 PM	31392
Ethylbenzene	ND	0.050		mg/Kg	1	4/25/2017 9:18:48 PM	31392
Xylenes, Total	ND	0.099		mg/Kg	1	4/25/2017 9:18:48 PM	31392
Surr: 4-Bromofluorobenzene	111	66.6-132		%Rec	1	4/25/2017 9:18:48 PM	31392

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1704A44

Date Reported: 4/27/2017

CLIENT: Animas Environmental

Client Sample ID: SC-2

Project: COPC Jicarilla 17

Collection Date: 4/20/2017 2:50:00 PM

Lab ID: 1704A44-002

Matrix: SOIL

Received Date: 4/22/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	56	9.1		mg/Kg	1	4/25/2017 8:02:59 PM	31395
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/25/2017 8:02:59 PM	31395
Surr: DNOP	107	70-130		%Rec	1	4/25/2017 8:02:59 PM	31395
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	15	4.8		mg/Kg	1	4/26/2017 5:53:24 PM	31392
Surr: BFB	132	54-150		%Rec	1	4/26/2017 5:53:24 PM	31392
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/26/2017 5:53:24 PM	31392
Toluene	0.12	0.048		mg/Kg	1	4/26/2017 5:53:24 PM	31392
Ethylbenzene	ND	0.048		mg/Kg	1	4/26/2017 5:53:24 PM	31392
Xylenes, Total	1.3	0.096		mg/Kg	1	4/26/2017 5:53:24 PM	31392
Surr: 4-Bromofluorobenzene	111	66.6-132		%Rec	1	4/26/2017 5:53:24 PM	31392

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1704A44

Date Reported: 4/27/2017

CLIENT: Animas Environmental

Client Sample ID: SC-3

Project: COPC Jicarilla 17

Collection Date: 4/20/2017 3:40:00 PM

Lab ID: 1704A44-003

Matrix: SOIL

Received Date: 4/22/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/25/2017 8:24:52 PM	31395
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/25/2017 8:24:52 PM	31395
Surr: DNOP	108	70-130		%Rec	1	4/25/2017 8:24:52 PM	31395
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/25/2017 10:06:50 PM	31392
Surr: BFB	97.8	54-150		%Rec	1	4/25/2017 10:06:50 PM	31392
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	4/25/2017 10:06:50 PM	31392
Toluene	ND	0.047		mg/Kg	1	4/25/2017 10:06:50 PM	31392
Ethylbenzene	ND	0.047		mg/Kg	1	4/25/2017 10:06:50 PM	31392
Xylenes, Total	ND	0.094		mg/Kg	1	4/25/2017 10:06:50 PM	31392
Surr: 4-Bromofluorobenzene	106	66.6-132		%Rec	1	4/25/2017 10:06:50 PM	31392

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1704A44

Date Reported: 4/27/2017

CLIENT: Animas Environmental

Client Sample ID: SC-4

Project: COPC Jicarilla 17

Collection Date: 4/20/2017 2:53:00 PM

Lab ID: 1704A44-004

Matrix: SOIL

Received Date: 4/22/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/25/2017 8:46:40 PM	31395
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/25/2017 8:46:40 PM	31395
Surr: DNOP	107	70-130		%Rec	1	4/25/2017 8:46:40 PM	31395
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/25/2017 10:30:56 PM	31392
Surr: BFB	99.4	54-150		%Rec	1	4/25/2017 10:30:56 PM	31392
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	4/25/2017 10:30:56 PM	31392
Toluene	ND	0.047		mg/Kg	1	4/25/2017 10:30:56 PM	31392
Ethylbenzene	ND	0.047		mg/Kg	1	4/25/2017 10:30:56 PM	31392
Xylenes, Total	ND	0.094		mg/Kg	1	4/25/2017 10:30:56 PM	31392
Surr: 4-Bromofluorobenzene	107	66.6-132		%Rec	1	4/25/2017 10:30:56 PM	31392

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1704A44

27-Apr-17

Client: Animas Environmental

Project: COPC Jicarilla 17

Sample ID	LCS-31395		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31395		RunNo: 42335					
Prep Date:	4/24/2017		Analysis Date: 4/25/2017		SeqNo: 1331306		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.3	63.8	116			
Surr: DNOP	4.6		5.000		92.8	70	130			

Sample ID	MB-31395	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 31395			RunNo: 42335					
Prep Date:	4/24/2017	Analysis Date: 4/25/2017			SeqNo: 1331307		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		107	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | 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 | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1704A44

27-Apr-17

Client: Animas Environmental

Project: COPC Jicarilla 17

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G42346	RunNo:	42346					
Prep Date:		Analysis Date:	4/25/2017	SeqNo:	1331528	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		99.7	54	150			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G42346	RunNo:	42346					
Prep Date:		Analysis Date:	4/25/2017	SeqNo:	1331529	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		114	54	150			

Sample ID	MB-31392	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	31392	RunNo:	42346					
Prep Date:	4/24/2017	Analysis Date:	4/25/2017	SeqNo:	1331541	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	1000		1000		102	54	150			

Sample ID	LCS-31392	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	31392	RunNo:	42346					
Prep Date:	4/24/2017	Analysis Date:	4/25/2017	SeqNo:	1331542	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	76.4	125			
Surr: BFB	1100		1000		111	54	150			

Sample ID	MB-31417	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	31417	RunNo:	42378					
Prep Date:	4/25/2017	Analysis Date:	4/26/2017	SeqNo:	1332745	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	920		1000		92.0	54	150			

Sample ID	LCS-31417	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	31417	RunNo:	42378					
Prep Date:	4/25/2017	Analysis Date:	4/26/2017	SeqNo:	1332746	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		100	54	150			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1704A44

27-Apr-17

Client: Animas Environmental

Project: COPC Jicarilla 17

Sample ID	MB-31392		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	31392		RunNo:	42346			
Prep Date:	4/24/2017		Analysis Date:	4/25/2017		SeqNo:	1331567		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		111	66.6	132			

Sample ID	LCS-31392		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	31392		RunNo:	42346			
Prep Date:	4/24/2017		Analysis Date:	4/25/2017		SeqNo:	1331568		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.025	1.000	0	82.9	80	120			
Toluene	0.85	0.050	1.000	0	84.6	80	120			
Ethylbenzene	0.87	0.050	1.000	0	86.6	80	120			
Xylenes, Total	2.6	0.10	3.000	0	88.1	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	66.6	132			

Sample ID	MB-31417		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	31417		RunNo:	42378			
Prep Date:	4/25/2017		Analysis Date:	4/26/2017		SeqNo:	1332767		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		104	66.6	132			

Sample ID	LCS-31417		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	31417		RunNo:	42378			
Prep Date:	4/25/2017		Analysis Date:	4/26/2017		SeqNo:	1332768		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		105	66.6	132			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



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: 1704A44

RcptNo: 1

Received By: Lindsay Mangin 4/22/2017 10:00:00 AM

Completed By: Anne Thorne 4/24/2017 9:33:08 AM

Reviewed By: ERE 04/24/17

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 $>0^{\circ}\text{C}$ 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
2	4/22/17 10.	Good	Yes			

UNIT-ARGUMENT III

☒ Standard ☐ Rush

Project Name: COPC Jicarilla 17

Project #:

Project Manager:
C. Lameman/ E. McNally

☒ Standard ☐ Level 4 (Full Validation)

Sampler: CL

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.2

[illegible]

Received by:	Date	Time
Christa L. Bet	4/21/17	1345

Received by: [Signature] Date: 04/22/17 Time: 1000

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Air Bubbles (Y or N)

Remarks: Bill to Conoco Phillips
WO # 22054036
Supervisor: Terry nelson
USERID: KAITLW
Area: 9
Ordered by: Lisa Hunter



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

May 04, 2017

Corwin Lameman
Animas Environmental
604 Pinon Street
Farmington, NM 87401
TEL: (505) 564-2281
FAX

RE: COPC Jicarilla 17

OrderNo.: 1705138

Dear Corwin Lameman:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/3/2017 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 1705138

Date Reported: 5/4/2017

CLIENT: Animas Environmental

Client Sample ID: SC-5

Project: COPC Jicarilla 17

Collection Date: 5/2/2017 11:32:00 AM

Lab ID: 1705138-001

Matrix: MEOH (SOIL)

Received Date: 5/3/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/3/2017 10:34:33 AM	31540
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/3/2017 10:34:33 AM	31540
Surr: DNOP	85.5	70-130		%Rec	1	5/3/2017 10:34:33 AM	31540
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.0		mg/Kg	1	5/3/2017 9:52:14 AM	31528
Surr: BFB	99.8	54-150		%Rec	1	5/3/2017 9:52:14 AM	31528
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.015		mg/Kg	1	5/3/2017 9:52:14 AM	31528
Toluene	ND	0.030		mg/Kg	1	5/3/2017 9:52:14 AM	31528
Ethylbenzene	ND	0.030		mg/Kg	1	5/3/2017 9:52:14 AM	31528
Xylenes, Total	ND	0.060		mg/Kg	1	5/3/2017 9:52:14 AM	31528
Surr: 4-Bromofluorobenzene	117	66.6-132		%Rec	1	5/3/2017 9:52:14 AM	31528

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1705138

04-May-17

Client: Animas Environmental

Project: COPC Jicarilla 17

Sample ID	LCS-31540		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 31540		RunNo: 42506					
Prep Date:	5/3/2017		Analysis Date: 5/3/2017		SeqNo: 1336816		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.4	63.8	116			
Surr: DNOP	4.4		5.000		87.9	70	130			

Sample ID	MB-31540	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 31540			RunNo: 42506					
Prep Date:	5/3/2017	Analysis Date: 5/3/2017			SeqNo: 1336817		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	9.6		10.00		96.3	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | 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 | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1705138

04-May-17

Client: Animas Environmental

Project: COPC Jicarilla 17

Sample ID	MB-31528	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	31528	RunNo:	42521					
Prep Date:	5/2/2017	Analysis Date:	5/3/2017	SeqNo:	1337213	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		98.0	54	150			

Sample ID	LCS-31528	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	31528	RunNo:	42521					
Prep Date:	5/2/2017	Analysis Date:	5/3/2017	SeqNo:	1337214	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.1	76.4	125			
Surr: BFB	1100		1000		110	54	150			

Sample ID	MB-31527	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	31527	RunNo:	42521					
Prep Date:	5/2/2017	Analysis Date:	5/3/2017	SeqNo:	1337221	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970		1000		96.8	54	150			

Sample ID	LCS-31527	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	31527	RunNo:	42521					
Prep Date:	5/2/2017	Analysis Date:	5/3/2017	SeqNo:	1337222	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	54	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1705138

04-May-17

Client: Animas Environmental

Project: COPC Jicarilla 17

Sample ID	MB-31528		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	31528		RunNo:	42521			
Prep Date:	5/2/2017		Analysis Date:	5/3/2017		SeqNo:	1337245		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		117	66.6	132			

Sample ID	LCS-31528		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	31528		RunNo:	42521			
Prep Date:	5/2/2017		Analysis Date:	5/3/2017		SeqNo:	1337246		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.4	80	120			
Toluene	0.98	0.050	1.000	0	97.6	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.1	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		121	66.6	132			

Sample ID	MB-31527		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	31527		RunNo:	42521			
Prep Date:	5/2/2017		Analysis Date:	5/3/2017		SeqNo:	1337252		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		114	66.6	132			

Sample ID	LCS-31527		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	31527		RunNo:	42521			
Prep Date:	5/2/2017		Analysis Date:	5/3/2017		SeqNo:	1337253		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		111	66.6	132			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1705138

RcptNo: 1

Received By: Ashley Gallegos

5/3/2017 7:30:00 AM

Completed By: Ashley Gallegos

5/3/2017 8:02:50 AM

Reviewed By: *aj*

5/3/17

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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	2.2	Good	Yes			

