

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

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

Form C-141  
Revised August 8, 2011

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

### Release Notification and Corrective Action

#### OPERATOR

Initial Report  Final Report

Name of Company <b>ConocoPhillips Company</b>	Contact <b>Lisa Hunter</b>
Address <b>3401 East 30<sup>th</sup> St, Farmington, NM</b>	Telephone No. <b>(505) 258-1607</b>
Facility Name: <b>State Com R #14</b>	Facility Type: <b>Gas Well</b>
Surface Owner <b>State</b>	Mineral Owner <b>State (E-11479)</b>
API No. <b>3004508912</b>	

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<b>M</b>	<b>36</b>	<b>30N</b>	<b>09W</b>	<b>940</b>	<b>South</b>	<b>990</b>	<b>West</b>	<b>San Juan</b>

Latitude 36.76329 Longitude -107.73658

#### NATURE OF RELEASE

Type of Release <b>Historic Contamination</b>	Volume of Release <b>Unknown</b>	Volume Recovered <b>0</b>
Source of Release <b>Discharge Line</b>	Date and Hour of Occurrence <b>Unknown</b>	Date and Hour of Discovery <b>01/31/17 @ 9:00 a.m.</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>OCD and BLM via email notification</b>	
By Whom? <b>N/A</b>	Date and Hour <b>February 2, 2017 @ 2:40 p.m.</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>N/A</b>	

**OIL CONS. DIV DIST. 3**

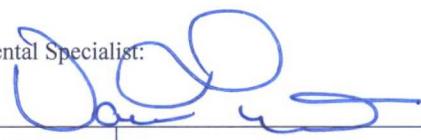
**JUL 20 2017**

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

Describe Cause of Problem and Remedial Action Taken.\*  
During Enterprise's remediation of their "Florance 21A" line leak on the COPC location **State Com R 14**, an abandoned COPC discharge line with evidence of a past leak was discovered. COPC was notified by Enterprise Environmental on Tuesday, January 31<sup>st</sup>. As more information was gathered the following day, it was evident that the contamination had the potential to be large.

Describe Area Affected and Cleanup Action Taken.\*  
**Third-party environmental contractor conducted release assessment on 2-17-17 and estimates soil remediation to be approximately 50 ft x 75 ft x 2-6ft (sandstone). COPC will schedule the remediation. Site Risk Rank: 10. The excavation was 76' x 92' x 4-7' in depth and approximately 1500 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: 	<b>OIL CONSERVATION DIVISION</b>	
	Approved by Environmental Specialist: 	
Printed Name: <b>Lisa Hunter</b>	Approval Date: <b>7/31/2017</b>	Expiration Date:
Title: <b>Field Environmental Specialist</b>	Conditions of Approval:	
E-mail Address: <b>Lisa.Hunter@cop.com</b>	Attached <input type="checkbox"/>	
Date: <b>July 17, 2017</b> Phone: <b>(505) 258-1607</b>		

\* Attach Additional Sheets If Necessary

**NMF1703748825**



July 17, 2017

Lisa Hunter  
ConocoPhillips  
San Juan Business Unit  
(505) 326-9786

*Via electronic mail to:*  
[SJBUE-Team@ConocoPhillips.com](mailto:SJBUE-Team@ConocoPhillips.com)

**RE: Release Assessment and Final Excavation Report  
State Com R 14 CDP  
San Juan County, New Mexico**

Dear Ms. Hunter:

On February 17, June 27, and July 5, 2017, Animas Environmental Services, LLC (AES) completed a release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (COP) State Com R 14 CDP, located in San Juan County, New Mexico. The initial release assessment was completed on February 17, 2017, and the final excavation was completed by COP contractors while AES was on location on June 27, 2017.

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## 1.0 Site Information

### 1.1 Location

Site Name – State Com R 14 CDP

Legal Description – SW $\frac{1}{4}$  SW $\frac{1}{4}$ , Section 36, T30N, R9W, San Juan County, New Mexico

Well Latitude/Longitude – N36.76325 and W107.73741, respectively

Release Latitude/Longitude – N36.76327 and W107.73767, respectively

Land Jurisdiction – State of New Mexico

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, February 2017

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

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

## 1.2 NMOCD Ranking

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to site work. The release was given a ranking score of 10 based on the following factors:

- **Depth to Groundwater:** The location is approximately 155 feet higher than the Animas River, which is located 930 feet to the northwest. Based on elevation, topographic interpretation and visual reconnaissance, depth to groundwater is interpreted to be greater than 100 feet below ground surface (bgs). (0 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. Domestic water well SJ 02298 is located approximately 1,550 feet northwest of the location. (0 points)
- **Distance to Surface Water Body:** The Animas River is located 930 feet to the northwest. (10 points)

## 1.3 Assessment

AES was initially contacted by Lisa Hunter of COP on February 1, 2017, and on February 17, 2017, Corwin Lameman and Sam Glasses of AES completed the release assessment field work. The assessment included collection and field sampling of 19 soil samples from 13 soil borings (SB-1 through SB-13). Based on field sampling results, AES recommended excavation of the release area. Sample locations are shown on Figure 3.

On June 27 and July 5, 2017, AES returned to the location to collect confirmation soil samples of the excavation extents. The field sampling activities included collection of 10 confirmation soil samples (SC-1 through SC-10) from the walls and base of the excavation. The area of the final excavation measured approximately 76 feet by 92 feet by 4 to 7 feet in depth. Note that the depth of the excavation was limited due to a confining sandstone unit around 4 to 7 feet bgs. Sample locations and final excavation extents are presented on Figure 4.

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## 2.0 Soil Sampling

### 2.1 Field Sampling

#### 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 parts per million (ppm) isobutylene gas.

**2.1.2 Total Petroleum Hydrocarbons**

Soil samples were also analyzed in the field for total petroleum hydrocarbons (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' *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

**2.2 Laboratory Analyses**

The soil samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto sample chain of custody records. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. Soil samples SC-1 through SC-10 were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021B; and
- TPH as gasoline range, diesel range, and motor oil range organics (GRO/DRO/MRO) per USEPA Method 8015.

**2.3 Field and Laboratory Analytical Results**

Field sampling results and laboratory analytical results are summarized in Tables 1 and 2, respectively, and on Figures 3 and 4. The AES Field Sampling Reports and laboratory analytical reports are attached.

Table 1. Soil Field VOCs and TPH Results  
 State Com R 14 CDP Release Assessment and Final Excavation  
 February and June 2017

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft)</i>	<i>VOCs OVM Reading (ppm)</i>	<i>Field TPH (418.1) (mg/kg)</i>
<i>NMOCD Action Level*</i>			<i>100</i>	<i>1,000</i>
SB-1	2/17/17	2	101	74.3
		4.25	163	103
SB-2	2/17/17	0.5	1,136	180
		5	4,286	2,320
SB-3	2/17/17	0.75	222	NA
		4	4,517	9,020
SB-4	2/17/17	0.75	335	NA

<b>Sample ID</b>	<b>Date Sampled</b>	<b>Sample Depth (ft)</b>	<b>VOCs OVM Reading (ppm)</b>	<b>Field TPH (418.1) (mg/kg)</b>
<i>NMOCD Action Level*</i>			<b>100</b>	<b>1,000</b>
		5	<b>5,223</b>	533
SB-5	2/17/17	1	<b>420</b>	NA
		4.25	<b>6,284</b>	<b>3,200</b>
SB-6	2/17/17	1	<b>227</b>	NA
		3	<b>374</b>	234
SB-7	2/17/17	4	9.6	45.7
SB-8	2/17/17	2.25	94.7	38.5
SB-9	2/17/17	4.25	15.1	48.5
SB-10	2/17/17	5	1.1	42.8
SB-11	2/17/17	5	0.0	37.1
SB-12	2/17/17	4	45.8	437
SB-13	2/17/17	2	11.8	31.3
SC-1	6/27/17	0 to 4	12.0	88.5
SC-2	6/27/17	0 to 7	24.3	69.6
SC-3	6/27/17	0 to 7	<b>851</b>	71.0
SC-4	6/27/17	0 to 7	50.6	279
SC-5	6/27/17	0 to 4	<b>907</b>	339
SC-6	6/27/17	0 to 4	<b>1,919</b>	714
SC-7	6/27/17	0 to 4	<b>2,031</b>	389
SC-8	6/27/17	0 to 7	<b>4,594</b>	213
SC-9	6/27/17	4 to 7	<b>830</b>	334
SC-10	6/27/17	4 to 7	<b>2,757</b>	445

\*Action level determined by NMAC 19.15.17.13

NA – not analyzed

Table 2. Soil Laboratory Analytical Results – Benzene, Total BTEX, and TPH  
 State Com R 14 CDP Final Excavation  
 June and July 2017

<b>Sample ID</b>	<b>Date Sampled</b>	<b>Sample Depth (ft bgs)</b>	<b>Benzene (mg/kg)</b>	<b>Total BTEX (mg/kg)</b>	<b>TPH-GRO (mg/kg)</b>	<b>TPH-DRO (mg/kg)</b>	<b>TPH-MRO (mg/kg)</b>
<i>NMOCD Action Level*</i>			10	50		1,000	
SC-1	6/27/17	0 to 4	<0.018	<0.159	<3.5	<10	<50
SC-2	6/27/17	0 to 7	<0.016	<0.145	<3.2	<9.2	<46
SC-3	6/27/17	0 to 7	0.026	2.51	45	16	<48
SC-4	6/27/17	0 to 7	<0.016	1.41	26	26	<47
SC-5	6/27/17	0 to 4	<0.017	0.088	20	77	200
SC-6	7/5/17	0 to 4	<0.017	0.17	16	160	190
SC-7	7/5/17	0 to 4	<0.016	<0.148	<3.3	47	250
SC-8	6/27/17	0 to 7	<0.074	7.4	190	53	<46
SC-9	6/27/17	4 to 7	<0.016	0.578	18	26	97
SC-10	6/27/17	4 to 7	<0.015	1.12	38	63	170

\*Action level determined by *NMAC 19.15.17.13*

### 3.0 Conclusions and Recommendations

#### 3.1 Release Assessment

On February 17, 2017, AES conducted an initial assessment of petroleum contaminated soils associated with an abandoned and corroded pipeline at the State Com R 14 CDP. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the site was assigned a rank of 10.

Release assessment field sampling results above the NMOCD action level of 100 ppm VOCs and 1,000 mg/kg TPH were reported in SB-1 through SB-6. The highest field VOC concentration was reported in SB-5, with a concentration of 6,284 ppm, and the greatest field TPH concentration was reported in SB-3, at 9,020 mg/kg TPH. Excavation of the release area was recommended.

### **3.2 Excavation Clearance**

On July 5, 2017, final clearance of the excavation area was completed. Field sampling results of the excavation extents showed field VOC concentrations exceeded the applicable NMOCD action level of 100 ppm in SC-3 and SC-5 through SC-10. In contrast, field TPH concentrations were below the applicable NMOCD action level of 1,000 mg/kg for all samples. Additionally, laboratory analytical results reported benzene, total BTEX, and TPH concentrations (as GRO/DRO/MRO) in all samples as below NMOCD action levels.

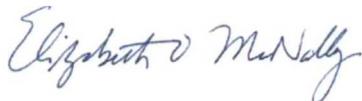
Based on the final field sampling and laboratory analytical results of the excavation of petroleum contaminated soils at the State Com R 14 CDP, benzene, total BTEX, and TPH concentrations were below the applicable NMOCD action levels for the final sidewalls and base of the excavation. No further work is recommended.

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

Sincerely,



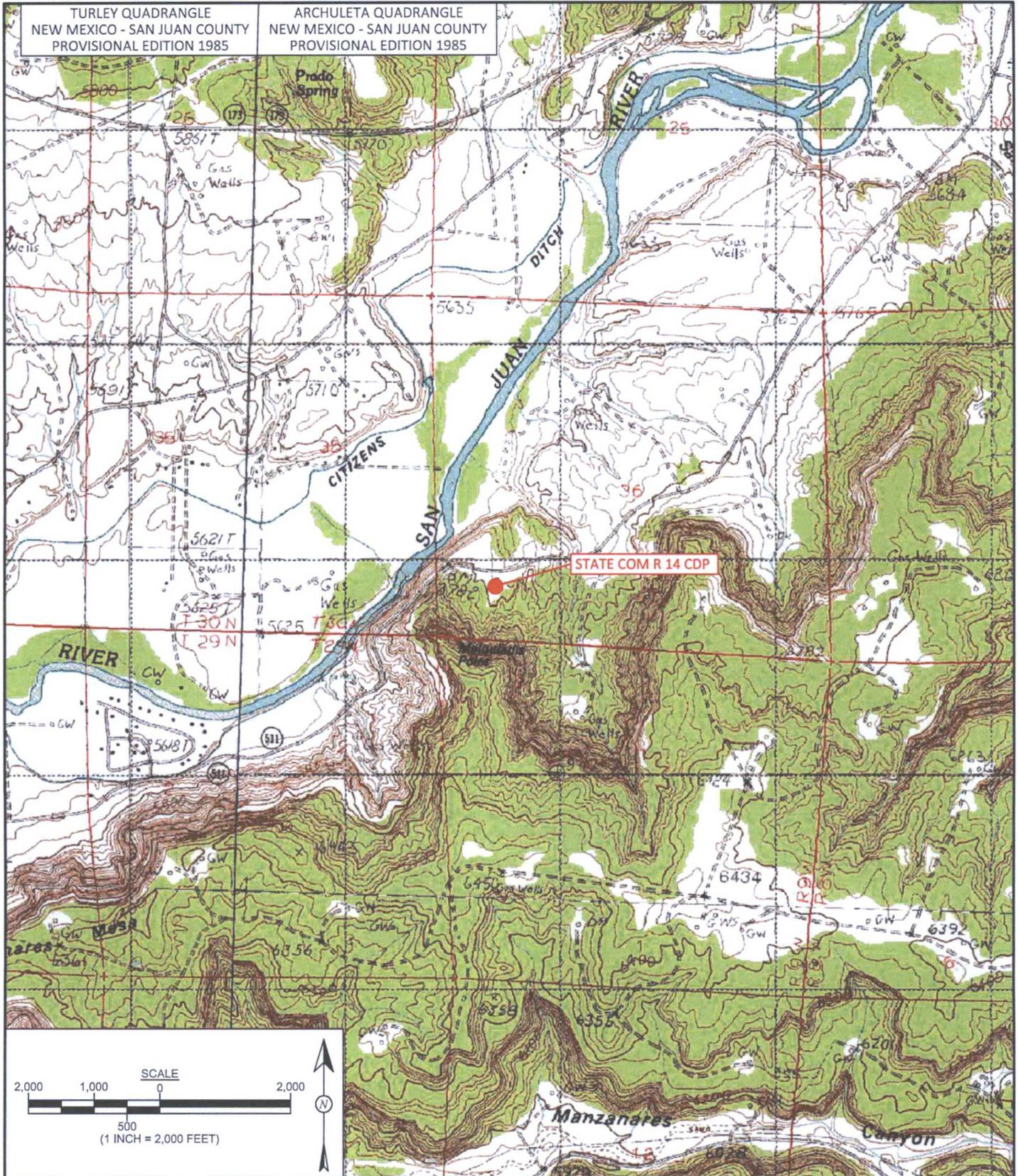
David J. Reese  
Environmental Scientist



Elizabeth McNally, PE

#### **Attachments:**

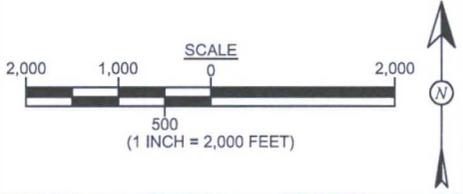
- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, February 2017
- Figure 3. Release Assessment Sample Locations and Results, February 2017
- Figure 4. Final Excavation Sample Locations and Results, June and July 2017
- AES Field Sampling Reports 021717, 062717
- Hall Laboratory Analytical Reports 1706E67, 1706E69, 1707252



TURLEY QUADRANGLE  
NEW MEXICO - SAN JUAN COUNTY  
PROVISIONAL EDITION 1985

ARCHULETA QUADRANGLE  
NEW MEXICO - SAN JUAN COUNTY  
PROVISIONAL EDITION 1985

STATE COM R 14 CDP



**animas  
environmental  
services**  
Farmington, NM • Durango, CO  
animasenvironmental.com

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> February 21, 2017
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> July 10, 2017
<b>CHECKED BY:</b> E. McNally	<b>DATE CHECKED:</b> July 10, 2017
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> July 10, 2017

### FIGURE 1

**TOPOGRAPHIC SITE LOCATION MAP**  
ConocoPhillips  
STATE COM R 14 CDP  
SW¼ SW¼, SECTION 36, T30N, R9W  
SAN JUAN COUNTY, NEW MEXICO  
N36.76325, W107.73741

LEGEND	
	SECONDARY CONTAINMENT BERM
	FENCE



AERIAL SOURCE: © 2017 GOOGLE EARTH PRO, AERIAL DATE: OCTOBER 5, 2016.

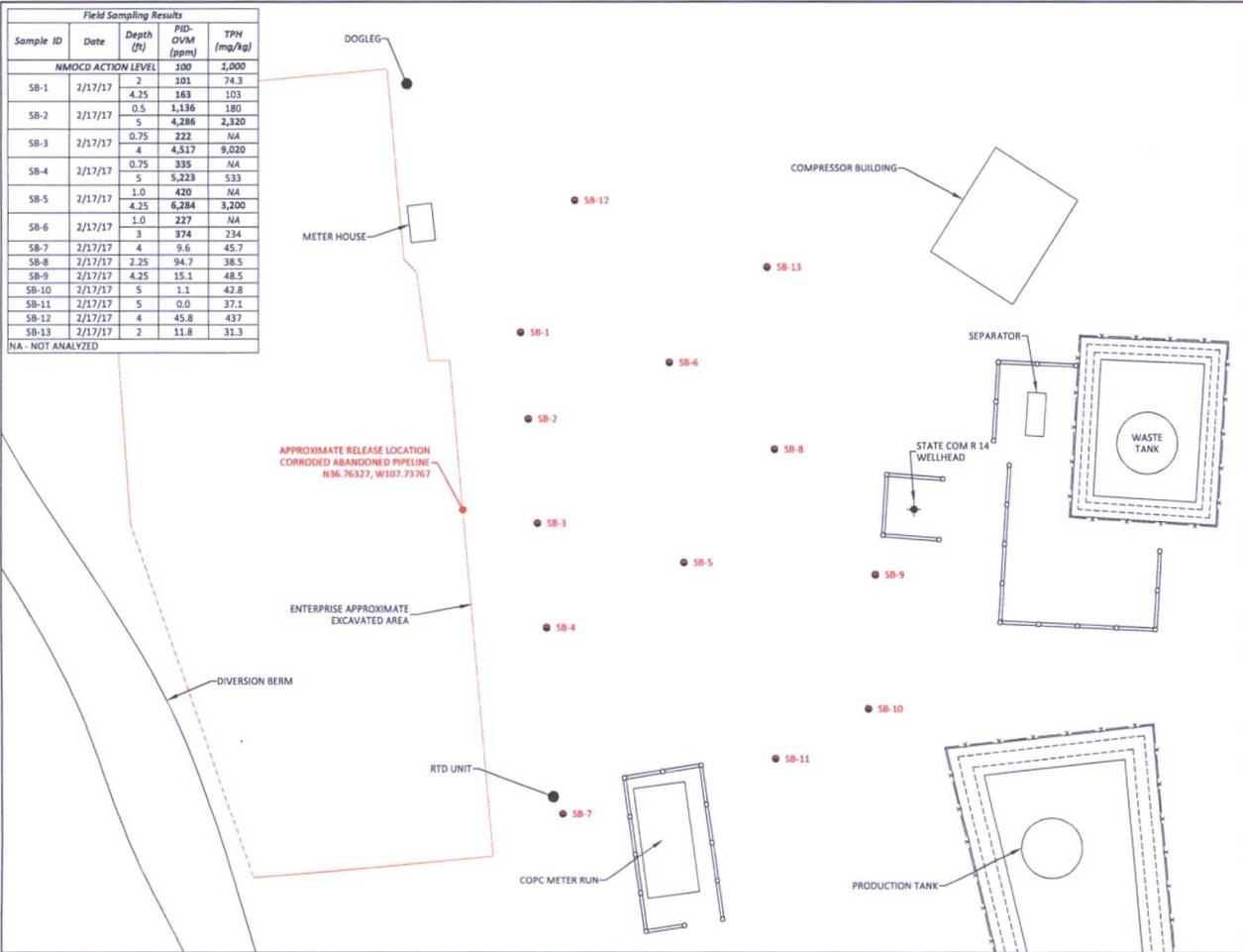


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[animasenvironmental.com](http://animasenvironmental.com)

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> February 21, 2017
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> July 10, 2017
<b>CHECKED BY:</b> E. McNally	<b>DATE CHECKED:</b> July 10, 2017
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> July 10, 2017

**FIGURE 2**  
**AERIAL SITE MAP**  
**FEBRUARY 2017**  
 ConocoPhillips  
 STATE COM R 14 CDP  
 SW¼ SW¼, SECTION 36, T30N, R9W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.76325, W107.73741

Field Sampling Results			
Sample ID	Date	Depth (ft)	TPH (mg/kg)
NMOCD ACTION LEVEL			
		100	1,000
SB-1	2/17/17	2	101
		4.25	163
		0.5	1,136
SB-2	2/17/17	5	4,286
		0.75	222
		4	4,517
SB-3	2/17/17	0.75	335
		5	5,223
SB-4	2/17/17	1.0	420
		4.25	6,284
SB-5	2/17/17	1.0	227
SB-6	2/17/17	3	374
SB-7	2/17/17	4	9.6
SB-8	2/17/17	2.25	94.7
SB-9	2/17/17	4.25	15.1
SB-10	2/17/17	5	1.1
SB-11	2/17/17	5	0.0
SB-12	2/17/17	4	45.8
SB-13	2/17/17	2	11.8
NA - NOT ANALYZED			



**FIGURE 3**

**RELEASE ASSESSMENT SAMPLE LOCATIONS AND RESULTS FEBRUARY 2017**  
 ConocoPhillips  
 STATE COM R 14 CDP  
 SW 1/4 SW 1/4 SECTION 36, T30N, R9W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.76325, W107.73741

<b>DRAWN BY:</b> C. Lameaman	<b>DATE DRAWN:</b> February 17, 2017
<b>REVISIONS BY:</b> S. Glasses	<b>DATE REVISED:</b> July 11, 2017
<b>CHECKED BY:</b> E. McNally	<b>DATE CHECKED:</b> July 11, 2017
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> July 11, 2017

**LEGEND**

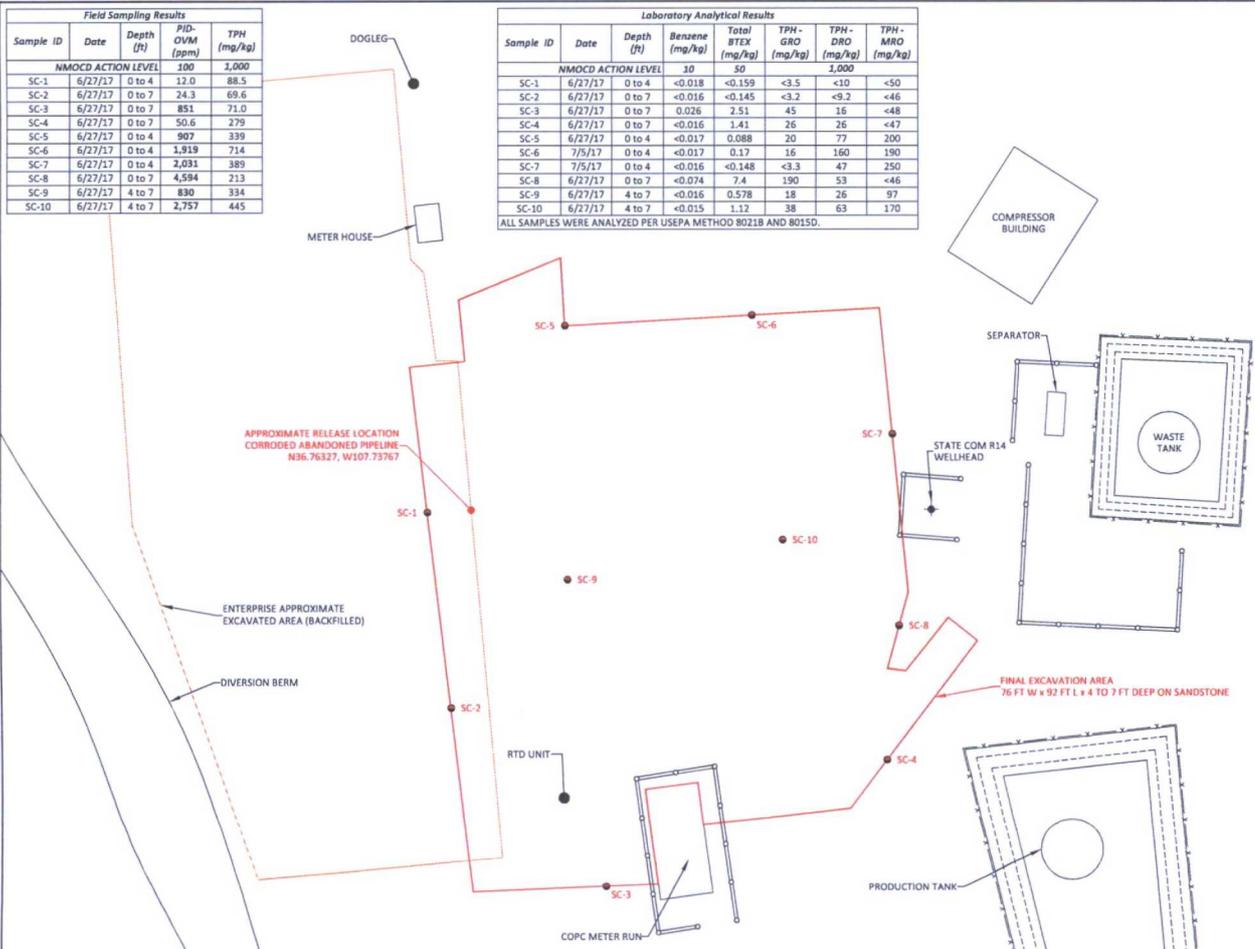
- SOIL BORING LOCATIONS
- ▭ SECONDARY CONTAINMENT BERM
- x- FENCE

SCALE  
 15 10 5 0 5 15  
 (1 INCH = 15 FEET)

Field Sampling Results				
Sample ID	Date	Depth (ft)	PID-OVM (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL				
			100	1,000
SC-1	6/27/17	0 to 4	12.0	88.5
SC-2	6/27/17	0 to 7	24.3	69.6
SC-3	6/27/17	0 to 7	851	71.0
SC-4	6/27/17	0 to 7	50.6	279
SC-5	6/27/17	0 to 4	907	339
SC-6	6/27/17	0 to 4	1,919	714
SC-7	6/27/17	0 to 4	2,031	389
SC-8	6/27/17	0 to 7	4,594	213
SC-9	6/27/17	4 to 7	830	334
SC-10	6/27/17	4 to 7	2,757	445

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)
NMOCD ACTION LEVEL							
			10	50	1,000		
SC-1	6/27/17	0 to 4	<0.018	<0.159	<3.5	<10	<50
SC-2	6/27/17	0 to 7	<0.016	<0.145	<3.2	<9.2	<46
SC-3	6/27/17	0 to 7	0.026	2.51	45	16	<48
SC-4	6/27/17	0 to 7	<0.016	1.41	26	26	<47
SC-5	6/27/17	0 to 4	<0.017	0.088	20	77	200
SC-6	7/5/17	0 to 4	<0.017	0.17	16	160	190
SC-7	7/5/17	0 to 4	<0.016	<0.148	<3.3	47	250
SC-8	6/27/17	0 to 7	<0.074	7.4	190	53	<46
SC-9	6/27/17	4 to 7	<0.016	0.578	18	26	97
SC-10	6/27/17	4 to 7	<0.015	1.12	38	63	170

ALL SAMPLES WERE ANALYZED PER USEPA METHOD 8021B AND 8015D.



**FIGURE 4**

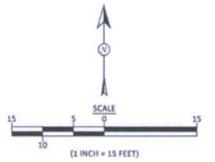
**FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS JUNE AND JULY 2017**  
 STATE COM R 14 CDP  
 SW 1/4 SW 1/4, SECTION 36, T30N, R09W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.76325, W107.73741



<b>DRAWN BY:</b> C. Larmann	<b>DATE DRAWN:</b> July 10, 2017
<b>REVISIONS BY:</b> S. Glasses	<b>DATE REVISED:</b> July 11, 2017
<b>CHECKED BY:</b> E. McNally	<b>DATE CHECKED:</b> July 11, 2017
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> July 11, 2017

**LEGEND**

- SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM
- - - FENCE



# AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: State Com R 14 CDP

Date: 2/17/2017

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ 2'	2/17/2017	9:38	101	74.3	10:26	20.0	1	CL
SB-1 @ 4.25'	2/17/2017	9:42	163	103	10:29	20.0	1	CL
SB-2 @ 0.5'	2/17/2017	9:47	1,136	180	10:33	20.0	1	CL
SB-2 @ 5'	2/17/2017	9:58	4,286	2,320	10:45	200	10	CL
SB-3 @ 0.75'	2/17/2017	10:04	222	<i>Not Analyzed for TPH</i>				
SB-3 @ 4'	2/17/2017	10:15	4,517	9,020	10:56	200	10	CL
SB-4 @ 0.75'	2/17/2017	10:19	335	<i>Not Analyzed for TPH</i>				
SB-4 @ 5'	2/17/2017	10:30	5,223	533	10:59	20.0	1	CL
SB-5 @ 1'	2/17/2017	10:58	420	<i>Not Analyzed for TPH</i>				
SB-5 @ 4.25'	2/17/2017	11:07	6,284	3,200	11:37	200	10	CL
SB-6 @ 1'	2/17/2017	11:13	227	<i>Not Analyzed for TPH</i>				
SB-6 @ 3'	2/17/2017	11:22	374	234	11:41	20.0	1	CL
SB-7 @ 4'	2/17/2017	11:37	9.6	45.7	12:00	20.0	1	CL
SB-8 @ 2.25'	2/17/2017	11:48	94.7	38.5	12:07	20.0	1	CL

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-9 @ 4.25'	2/17/2017	12:05	15.1	48.5	12:35	20.0	1	CL
SB-10 @ 5'	2/17/2017	12:16	1.1	42.8	12:39	20.0	1	CL
SB-11 @ 5'	2/17/2017	12:26	0.0	37.1	12:44	20.0	1	CL
SB-12 @ 4'	2/17/2017	13:35	45.8	437	14:02	20.0	1	CL
SB-13 @ 2'	2/17/2017	13:42	11.8	31.3	14:05	20.0	1	CL

DF Dilution Factor

NA Not Analyzed

PQL Practical Quantitation Limit

\*Field TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:



AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: State Com R 14 CDP

Date: 6/27/2017

Matrix: Soil

Sample ID	Collection Date	Collection Time	Sample Location	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	6/27/2017	8:50	W Wall N 1/2	12.0	88.5	9:53	20.0	1	CL
SC-2	6/27/2017	8:55	W Wall S 1/2	24.3	69.6	9:59	20.0	1	CL
SC-3	6/27/2017	12:20	S Wall W 1/2	851	71.0	12:45	20.0	1	CL
SC-4	6/27/2017	9:10	S Wall E 1/2	50.6	279	10:10	20.0	1	CL
SC-5	6/27/2017	9:50	N Wall W 1/2	907	339	10:36	20.0	1	CL
SC-6	6/27/2017	9:55	N Wall E 1/2	1,919	714	10:41	20.0	1	CL
SC-7	6/27/2017	12:25	E Wall N 1/2	2,031	389	12:50	20.0	1	CL
SC-8	6/27/2017	12:30	E Wall S 1/2	4,594	213	12:53	20.0	1	CL
SC-9	6/27/2017	10:38	Base W 1/2	830	334	11:11	20.0	1	CL
SC-10	6/27/2017	10:42	Base E 1/2	2,757	445	11:17	20.0	1	CL

DF Dilution Factor  
 NA Not Analyzed  
 PQL Practical Quantitation Limit

\*TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: *Carie*



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

June 29, 2017

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

RE: COPC State Com R14 CDP

OrderNo.: 1706E67

Dear Corwin Lameman:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/28/2017 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](http://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 white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Analytical Report

Lab Order 1706E67

Date Reported: 6/29/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-8

Project: COPC State Com R14 CDP

Collection Date: 6/27/2017 12:30:00 PM

Lab ID: 1706E67-001

Matrix: SOIL

Received Date: 6/28/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	53	9.3		mg/Kg	1	6/28/2017 11:12:12 AM	32530
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/28/2017 11:12:12 AM	32530
Surr: DNOP	111	70-130		%Rec	1	6/28/2017 11:12:12 AM	32530
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	190	15		mg/Kg	5	6/28/2017 9:33:01 AM	G43850
Surr: BFB	774	54-150	S	%Rec	5	6/28/2017 9:33:01 AM	G43850
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.074		mg/Kg	5	6/28/2017 9:33:01 AM	B43850
Toluene	0.31	0.15		mg/Kg	5	6/28/2017 9:33:01 AM	B43850
Ethylbenzene	0.89	0.15		mg/Kg	5	6/28/2017 9:33:01 AM	B43850
Xylenes, Total	6.2	0.30		mg/Kg	5	6/28/2017 9:33:01 AM	B43850
Surr: 4-Bromofluorobenzene	149	66.6-132	S	%Rec	5	6/28/2017 9:33:01 AM	B43850

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

<b>Qualifiers:</b>	* 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
	PQL Practical Quantitative Limit	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#: 1706E67

29-Jun-17

Client: Animas Environmental  
Project: COPC State Com R14 CDP

Sample ID	<b>MB-32530</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>32530</b>	RunNo:	<b>43842</b>					
Prep Date:	<b>6/28/2017</b>	Analysis Date:	<b>6/28/2017</b>	SeqNo:	<b>1381829</b>	Units:	<b>mg/Kg</b>			
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			

Sample ID	<b>LCS-32530</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>32530</b>	RunNo:	<b>43842</b>					
Prep Date:	<b>6/28/2017</b>	Analysis Date:	<b>6/28/2017</b>	SeqNo:	<b>1381830</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.3	73.2	114			
Surr: DNOP	5.1		5.000		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
- PQL Practical Quantitative Limit
- 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#: 1706E67

29-Jun-17

**Client:** Animas Environmental  
**Project:** COPC State Com R14 CDP

Sample ID <b>RB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>G43850</b>		RunNo: <b>43850</b>							
Prep Date:	Analysis Date: <b>6/28/2017</b>		SeqNo: <b>1382732</b>		Units: <b>mg/Kg</b>					
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		92.6	54	150			

Sample ID <b>2.5UG GRO LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>G43850</b>		RunNo: <b>43850</b>							
Prep Date:	Analysis Date: <b>6/28/2017</b>		SeqNo: <b>1382733</b>		Units: <b>mg/Kg</b>					
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			

### 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                                    |
| PQL Practical Quantitative Limit                        | 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#: 1706E67

29-Jun-17

Client: Animas Environmental  
Project: COPC State Com R14 CDP

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B43850	RunNo:	43850					
Prep Date:		Analysis Date:	6/28/2017	SeqNo:	1382749	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		119	66.6	132			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B43850	RunNo:	43850					
Prep Date:		Analysis Date:	6/28/2017	SeqNo:	1382750	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	103	80	120			
Toluene	1.0	0.050	1.000	0	105	80	120			
Ethylbenzene	1.0	0.050	1.000	0	105	80	120			
Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		124	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                                    |
| PQL Practical Quantitative Limit                        | 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: 1706E67

RcptNo: 1

Received By: Anne Thorne 6/28/2017 8:00:00 AM

*Anne Thorne*

Completed By: Anne Thorne 6/28/2017 8:45:31 AM

*Anne Thorne*

Reviewed By: *[Signature]* 6/28/17

**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? Yes  No   
 (Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

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

**Special Handling (if applicable)**

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

Person Notified: _____	Date: _____
By Whom: _____	Via: <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	1.0	Good	Yes			







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

June 29, 2017

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

RE: COPC State Com R14 CDP

OrderNo.: 1706E69

Dear Corwin Lameman:

Hall Environmental Analysis Laboratory received 7 sample(s) on 6/28/2017 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](http://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 white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Analytical Report

Lab Order 1706E69

Date Reported: 6/29/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-1

Project: COPC State Com R14 CDP

Collection Date: 6/27/2017 8:50:00 AM

Lab ID: 1706E69-001

Matrix: SOIL

Received Date: 6/28/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/29/2017 8:15:31 AM	32532
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2017 8:15:31 AM	32532
Surr: DNOP	87.5	70-130		%Rec	1	6/29/2017 8:15:31 AM	32532
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	6/28/2017 11:09:10 AM	G43850
Surr: BFB	94.8	54-150		%Rec	1	6/28/2017 11:09:10 AM	G43850
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	6/28/2017 11:09:10 AM	B43850
Toluene	ND	0.035		mg/Kg	1	6/28/2017 11:09:10 AM	B43850
Ethylbenzene	ND	0.035		mg/Kg	1	6/28/2017 11:09:10 AM	B43850
Xylenes, Total	ND	0.071		mg/Kg	1	6/28/2017 11:09:10 AM	B43850
Surr: 4-Bromofluorobenzene	117	66.6-132		%Rec	1	6/28/2017 11:09:10 AM	B43850

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

<b>Qualifiers:</b>	* 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
	PQL Practical Quantitative Limit	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 1706E69

Date Reported: 6/29/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-2

Project: COPC State Com R14 CDP

Collection Date: 6/27/2017 8:55:00 AM

Lab ID: 1706E69-002

Matrix: SOIL

Received Date: 6/28/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	6/29/2017 8:43:23 AM	32532
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/29/2017 8:43:23 AM	32532
Surr: DNOP	94.0	70-130		%Rec	1	6/29/2017 8:43:23 AM	32532
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	6/28/2017 11:33:22 AM	G43850
Surr: BFB	95.5	54-150		%Rec	1	6/28/2017 11:33:22 AM	G43850
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	6/28/2017 11:33:22 AM	B43850
Toluene	ND	0.032		mg/Kg	1	6/28/2017 11:33:22 AM	B43850
Ethylbenzene	ND	0.032		mg/Kg	1	6/28/2017 11:33:22 AM	B43850
Xylenes, Total	ND	0.065		mg/Kg	1	6/28/2017 11:33:22 AM	B43850
Surr: 4-Bromofluorobenzene	121	66.6-132		%Rec	1	6/28/2017 11:33:22 AM	B43850

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

<b>Qualifiers:</b>	* 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
	PQL Practical Quantitative Limit	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 1706E69

Date Reported: 6/29/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-3

Project: COPC State Com R14 CDP

Collection Date: 6/27/2017 12:20:00 PM

Lab ID: 1706E69-003

Matrix: SOIL

Received Date: 6/28/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	16	9.7		mg/Kg	1	6/29/2017 9:11:12 AM	32532
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/29/2017 9:11:12 AM	32532
Surr: DNOP	90.1	70-130		%Rec	1	6/29/2017 9:11:12 AM	32532
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	45	2.9		mg/Kg	1	6/28/2017 11:57:18 AM	G43850
Surr: BFB	542	54-150	S	%Rec	1	6/28/2017 11:57:18 AM	G43850
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	0.026	0.014		mg/Kg	1	6/28/2017 11:57:18 AM	B43850
Toluene	0.13	0.029		mg/Kg	1	6/28/2017 11:57:18 AM	B43850
Ethylbenzene	0.25	0.029		mg/Kg	1	6/28/2017 11:57:18 AM	B43850
Xylenes, Total	2.1	0.057		mg/Kg	1	6/28/2017 11:57:18 AM	B43850
Surr: 4-Bromofluorobenzene	140	66.6-132	S	%Rec	1	6/28/2017 11:57:18 AM	B43850

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

<b>Qualifiers:</b>	* 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
	PQL Practical Quantitative Limit	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 1706E69

Date Reported: 6/29/2017

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental

**Client Sample ID:** SC-4

**Project:** COPC State Com R14 CDP

**Collection Date:** 6/27/2017 9:10:00 AM

**Lab ID:** 1706E69-004

**Matrix:** SOIL

**Received Date:** 6/28/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	26	9.5		mg/Kg	1	6/29/2017 9:38:55 AM	32532
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/29/2017 9:38:55 AM	32532
Surr: DNOP	90.5	70-130		%Rec	1	6/29/2017 9:38:55 AM	32532
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	26	3.2		mg/Kg	1	6/28/2017 1:09:06 PM	G43850
Surr: BFB	319	54-150	S	%Rec	1	6/28/2017 1:09:06 PM	G43850
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	6/28/2017 1:09:06 PM	B43850
Toluene	0.099	0.032		mg/Kg	1	6/28/2017 1:09:06 PM	B43850
Ethylbenzene	0.11	0.032		mg/Kg	1	6/28/2017 1:09:06 PM	B43850
Xylenes, Total	1.2	0.064		mg/Kg	1	6/28/2017 1:09:06 PM	B43850
Surr: 4-Bromofluorobenzene	131	66.6-132		%Rec	1	6/28/2017 1:09:06 PM	B43850

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

<b>Qualifiers:</b>	* 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
	PQL Practical Quantitative Limit	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 1706E69

Date Reported: 6/29/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-5

Project: COPC State Com R14 CDP

Collection Date: 6/27/2017 9:50:00 AM

Lab ID: 1706E69-005

Matrix: SOIL

Received Date: 6/28/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	77	9.4		mg/Kg	1	6/29/2017 10:06:44 AM	32532
Motor Oil Range Organics (MRO)	200	47		mg/Kg	1	6/29/2017 10:06:44 AM	32532
Surr: DNOP	95.0	70-130		%Rec	1	6/29/2017 10:06:44 AM	32532
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	20	3.5		mg/Kg	1	6/28/2017 1:33:09 PM	G43850
Surr: BFB	230	54-150	S	%Rec	1	6/28/2017 1:33:09 PM	G43850
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	6/28/2017 1:33:09 PM	B43850
Toluene	ND	0.035		mg/Kg	1	6/28/2017 1:33:09 PM	B43850
Ethylbenzene	ND	0.035		mg/Kg	1	6/28/2017 1:33:09 PM	B43850
Xylenes, Total	0.088	0.070		mg/Kg	1	6/28/2017 1:33:09 PM	B43850
Surr: 4-Bromofluorobenzene	134	66.6-132	S	%Rec	1	6/28/2017 1:33:09 PM	B43850

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
PQL	Practical Quantitative Limit	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 1706E69

Date Reported: 6/29/2017

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental

**Client Sample ID:** SC-9

**Project:** COPC State Com R14 CDP

**Collection Date:** 6/27/2017 10:38:00 AM

**Lab ID:** 1706E69-006

**Matrix:** SOIL

**Received Date:** 6/28/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	26	9.6		mg/Kg	1	6/29/2017 11:02:59 AM	32532
Motor Oil Range Organics (MRO)	97	48		mg/Kg	1	6/29/2017 11:02:59 AM	32532
Surr: DNOP	109	70-130		%Rec	1	6/29/2017 11:02:59 AM	32532
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	18	3.2		mg/Kg	1	6/28/2017 1:57:13 PM	G43850
Surr: BFB	272	54-150	S	%Rec	1	6/28/2017 1:57:13 PM	G43850
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	6/28/2017 1:57:13 PM	B43850
Toluene	0.045	0.032		mg/Kg	1	6/28/2017 1:57:13 PM	B43850
Ethylbenzene	0.063	0.032		mg/Kg	1	6/28/2017 1:57:13 PM	B43850
Xylenes, Total	0.47	0.064		mg/Kg	1	6/28/2017 1:57:13 PM	B43850
Surr: 4-Bromofluorobenzene	133	66.6-132	S	%Rec	1	6/28/2017 1:57:13 PM	B43850

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

<b>Qualifiers:</b>	* 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
	PQL Practical Quantitative Limit	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 1706E69

Date Reported: 6/29/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-10

Project: COPC State Com R14 CDP

Collection Date: 6/27/2017 10:42:00 AM

Lab ID: 1706E69-007

Matrix: SOIL

Received Date: 6/28/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	63	10		mg/Kg	1	6/29/2017 11:31:11 AM	32532
Motor Oil Range Organics (MRO)	170	50		mg/Kg	1	6/29/2017 11:31:11 AM	32532
Surr: DNOP	92.4	70-130		%Rec	1	6/29/2017 11:31:11 AM	32532
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	38	3.1		mg/Kg	1	6/28/2017 2:21:15 PM	G43850
Surr: BFB	472	54-150	S	%Rec	1	6/28/2017 2:21:15 PM	G43850
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.015		mg/Kg	1	6/28/2017 2:21:15 PM	B43850
Toluene	0.092	0.031		mg/Kg	1	6/28/2017 2:21:15 PM	B43850
Ethylbenzene	0.12	0.031		mg/Kg	1	6/28/2017 2:21:15 PM	B43850
Xylenes, Total	0.91	0.061		mg/Kg	1	6/28/2017 2:21:15 PM	B43850
Surr: 4-Bromofluorobenzene	134	66.6-132	S	%Rec	1	6/28/2017 2:21:15 PM	B43850

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

<b>Qualifiers:</b>	* 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
	PQL Practical Quantitative Limit	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#: 1706E69

29-Jun-17

**Client:** Animas Environmental  
**Project:** COPC State Com R14 CDP

Sample ID: <b>MB-32532</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>32532</b>	RunNo: <b>43873</b>								
Prep Date: <b>6/28/2017</b>	Analysis Date: <b>6/29/2017</b>	SeqNo: <b>1382816</b>	Units: <b>mg/Kg</b>							
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		109	70	130			

Sample ID: <b>LCS-32532</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>32532</b>	RunNo: <b>43873</b>								
Prep Date: <b>6/28/2017</b>	Analysis Date: <b>6/29/2017</b>	SeqNo: <b>1382994</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.9	73.2	114			
Surr: DNOP	5.2		5.000		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
- PQL Practical Quantitative Limit
- 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#: 1706E69

29-Jun-17

**Client:** Animas Environmental  
**Project:** COPC State Com R14 CDP

Sample ID <b>RB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>G43850</b>		RunNo: <b>43850</b>							
Prep Date:	Analysis Date: <b>6/28/2017</b>		SeqNo: <b>1382732</b>		Units: <b>mg/Kg</b>					
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		92.6	54	150			

Sample ID <b>2.5UG GRO LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>G43850</b>		RunNo: <b>43850</b>							
Prep Date:	Analysis Date: <b>6/28/2017</b>		SeqNo: <b>1382733</b>		Units: <b>mg/Kg</b>					
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			

**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
- PQL Practical Quantitative Limit
- 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#: 1706E69

29-Jun-17

**Client:** Animas Environmental  
**Project:** COPC State Com R14 CDP

Sample ID <b>RB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>B43850</b>		RunNo: <b>43850</b>							
Prep Date:	Analysis Date: <b>6/28/2017</b>		SeqNo: <b>1382749</b>		Units: <b>mg/Kg</b>					
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		119	66.6	132			

Sample ID <b>100NG BTEX LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>B43850</b>		RunNo: <b>43850</b>							
Prep Date:	Analysis Date: <b>6/28/2017</b>		SeqNo: <b>1382750</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	103	80	120			
Toluene	1.0	0.050	1.000	0	105	80	120			
Ethylbenzene	1.0	0.050	1.000	0	105	80	120			
Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		124	66.6	132			

Sample ID <b>1706E69-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>SC-1</b>	Batch ID: <b>B43850</b>		RunNo: <b>43850</b>							
Prep Date:	Analysis Date: <b>6/28/2017</b>		SeqNo: <b>1382754</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.76	0.018	0.7082	0	108	61.5	138			
Toluene	0.77	0.035	0.7082	0.005949	108	71.4	127			
Ethylbenzene	0.78	0.035	0.7082	0	110	70.9	132			
Xylenes, Total	2.4	0.071	2.125	0.02146	111	76.2	123			
Surr: 4-Bromofluorobenzene	0.88		0.7082		124	66.6	132			

Sample ID <b>1706E69-001AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>SC-1</b>	Batch ID: <b>B43850</b>		RunNo: <b>43850</b>							
Prep Date:	Analysis Date: <b>6/28/2017</b>		SeqNo: <b>1382755</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.74	0.018	0.7082	0	104	61.5	138	3.45	20	
Toluene	0.75	0.035	0.7082	0.005949	105	71.4	127	3.28	20	
Ethylbenzene	0.76	0.035	0.7082	0	107	70.9	132	2.60	20	
Xylenes, Total	2.3	0.071	2.125	0.02146	108	76.2	123	2.48	20	
Surr: 4-Bromofluorobenzene	0.86		0.7082		122	66.6	132	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
- PQL Practical Quantitative Limit
- 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: 1706E69

RcptNo: 1

Received By: Anne Thorne 6/28/2017 8:00:00 AM

*Anne Thorne*

Completed By: Anne Thorne 6/28/2017 9:10:17 AM

*Anne Thorne*

Reviewed By: *SRC 06/28/17*

**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	1.0	Good	Yes			

# Chain-of-Custody Record

Client: Animas Environmental Services, LLC

Turn-Around Time:

Standard  Rush 2-DAY TAT



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Mailing Address: 604 W Pinon St.  
Farmington, NM 87401

Project Name: COPC State Com R14 CDP

Project #:

Phone #: 505-564-2281  
Email or Fax#: clameman@animasenvironmental.com

Project Manager: C. Lameman/E. McNally

QA/QC Package:  
 Standard  Level 4 (Full Validation)

Accreditation:  
 NELAP  Other  
 EDD (Type)

Sampler: CL  
On Ice:  Yes  No  
Sample Temperature: 1.0

### Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX - 8021B	TPH (GRO/DRO/MRO) - 8015											Air Bubbles (Y or N)						
6/27/17	8:50	SOIL	SC-1	1 - MeOH Kit 1 - 4 oz jar	cool	1706E69 201	X	X																	
6/27/17	8:55	SOIL	SC-2	1 - MeOH Kit 1 - 4 oz jar	cool	202	X	X																	
6/27/17	12:20	SOIL	SC-3	1 - MeOH Kit 1 - 4 oz jar	cool	203	X	X																	
6/27/17	9:10	SOIL	SC-4	1 - MeOH Kit 1 - 4 oz jar	cool	204	X	X																	
6/27/17	9:50	SOIL	SC-5	1 - MeOH Kit 1 - 4 oz jar	cool	205	X	X																	
6/27/17	10:38	SOIL	SC-9	1 - MeOH Kit 1 - 4 oz jar	cool	206	X	X																	
6/27/17	10:42	SOIL	SC-10	1 - MeOH Kit 1 - 4 oz jar	cool	207	X	X																	

Date: 6/27/17 Time: 1754 Relinquished by: *[Signature]*

Received by: *[Signature]* Date: 6/27/17 Time: 1754

Remarks: Bill to Conoco Phillips  
WO # 16400999-a 21992630  
Supervisor: Eric Wyckoff  
USERID: KAITLW

Date: Date: 6/28/17 Time: 0800 Relinquished by:

Received by: *[Signature]* Date: 6/28/17 Time: 0800

Area:  
Ordered by: Lisa Hunter

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](http://www.hallenvironmental.com)

July 10, 2017

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

RE: COPC State Com R14 CDP

OrderNo.: 1707252

Dear Corwin Lameman:

Hall Environmental Analysis Laboratory received 2 sample(s) on 7/7/2017 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](http://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 white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order 1707252

Date Reported: 7/10/2017

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental

**Client Sample ID:** SC-7

**Project:** COPC State Com R14 CDP

**Collection Date:** 7/5/2017 9:25:00 AM

**Lab ID:** 1707252-001

**Matrix:** MEOH (SOIL)

**Received Date:** 7/7/2017 7:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	47	9.7		mg/Kg	1	7/7/2017 10:04:57 AM	32675
Motor Oil Range Organics (MRO)	250	48		mg/Kg	1	7/7/2017 10:04:57 AM	32675
Surr: DNOP	88.7	70-130		%Rec	1	7/7/2017 10:04:57 AM	32675
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	7/7/2017 10:00:38 AM	32652
Surr: BFB	126	54-150		%Rec	1	7/7/2017 10:00:38 AM	32652
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.016		mg/Kg	1	7/7/2017 10:00:38 AM	32652
Toluene	ND	0.033		mg/Kg	1	7/7/2017 10:00:38 AM	32652
Ethylbenzene	ND	0.033		mg/Kg	1	7/7/2017 10:00:38 AM	32652
Xylenes, Total	ND	0.066		mg/Kg	1	7/7/2017 10:00:38 AM	32652
Surr: 4-Bromofluorobenzene	135	66.6-132	S	%Rec	1	7/7/2017 10:00:38 AM	32652

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

<b>Qualifiers:</b>	* 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
	PQL Practical Quantitative Limit	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 1707252

Date Reported: 7/10/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SC-6

Project: COPC State Com R14 CDP

Collection Date: 7/5/2017 9:30:00 AM

Lab ID: 1707252-002

Matrix: MEOH (SOIL)

Received Date: 7/7/2017 7:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	160	9.8		mg/Kg	1	7/7/2017 10:32:43 AM	32675
Motor Oil Range Organics (MRO)	190	49		mg/Kg	1	7/7/2017 10:32:43 AM	32675
Surr: DNOP	92.0	70-130		%Rec	1	7/7/2017 10:32:43 AM	32675
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	16	3.3		mg/Kg	1	7/7/2017 10:25:08 AM	32652
Surr: BFB	385	54-150	S	%Rec	1	7/7/2017 10:25:08 AM	32652
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.017		mg/Kg	1	7/7/2017 10:25:08 AM	32652
Toluene	ND	0.033		mg/Kg	1	7/7/2017 10:25:08 AM	32652
Ethylbenzene	ND	0.033		mg/Kg	1	7/7/2017 10:25:08 AM	32652
Xylenes, Total	0.17	0.067		mg/Kg	1	7/7/2017 10:25:08 AM	32652
Surr: 4-Bromofluorobenzene	138	66.6-132	S	%Rec	1	7/7/2017 10:25:08 AM	32652

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

<b>Qualifiers:</b>	* 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
	PQL Practical Quantitative Limit	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#: 1707252

10-Jul-17

**Client:** Animas Environmental  
**Project:** COPC State Com R14 CDP

Sample ID	<b>LCS-32656</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>				
Client ID:	<b>LCSS</b>		Batch ID:	<b>32656</b>		RunNo:	<b>44043</b>				
Prep Date:	<b>7/6/2017</b>		Analysis Date:	<b>7/7/2017</b>		SeqNo:	<b>1388858</b>		Units: %Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.7		5.000		93.5	70	130				

Sample ID	<b>MB-32656</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>				
Client ID:	<b>PBS</b>		Batch ID:	<b>32656</b>		RunNo:	<b>44043</b>				
Prep Date:	<b>7/6/2017</b>		Analysis Date:	<b>7/7/2017</b>		SeqNo:	<b>1388859</b>		Units: %Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	10		10.00		101	70	130				

Sample ID	<b>LCS-32675</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>				
Client ID:	<b>LCSS</b>		Batch ID:	<b>32675</b>		RunNo:	<b>44044</b>				
Prep Date:	<b>7/7/2017</b>		Analysis Date:	<b>7/7/2017</b>		SeqNo:	<b>1389417</b>		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	52	10	50.00	0	104	73.2	114				
Surr: DNOP	4.3		5.000		86.5	70	130				

Sample ID	<b>MB-32675</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>				
Client ID:	<b>PBS</b>		Batch ID:	<b>32675</b>		RunNo:	<b>44044</b>				
Prep Date:	<b>7/7/2017</b>		Analysis Date:	<b>7/7/2017</b>		SeqNo:	<b>1389418</b>		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	8.3		10.00		82.8	70	130				

Sample ID	<b>1707252-001AMS</b>		SampType:	<b>MS</b>		TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>				
Client ID:	<b>SC-7</b>		Batch ID:	<b>32675</b>		RunNo:	<b>44044</b>				
Prep Date:	<b>7/7/2017</b>		Analysis Date:	<b>7/7/2017</b>		SeqNo:	<b>1389573</b>		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	88	9.8	48.92	46.61	85.1	55.8	122				
Surr: DNOP	4.7		4.892		95.1	70	130				

Sample ID	<b>1707252-001AMSD</b>		SampType:	<b>MSD</b>		TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>				
Client ID:	<b>SC-7</b>		Batch ID:	<b>32675</b>		RunNo:	<b>44044</b>				
Prep Date:	<b>7/7/2017</b>		Analysis Date:	<b>7/7/2017</b>		SeqNo:	<b>1389808</b>		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	110	10	50.20	46.61	118	55.8	122	18.0	20		

**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
- PQL Practical Quantitative Limit
- 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#: 1707252

10-Jul-17

**Client:** Animas Environmental  
**Project:** COPC State Com R14 CDP

Sample ID	1707252-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SC-7	Batch ID:	32675	RunNo:	44044					
Prep Date:	7/7/2017	Analysis Date:	7/7/2017	SeqNo:	1389808	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.020		102	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
- PQL Practical Quantitative Limit
- 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#: 1707252  
10-Jul-17

**Client:** Animas Environmental  
**Project:** COPC State Com R14 CDP

Sample ID	<b>MB-32652</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>32652</b>	RunNo:	<b>44055</b>					
Prep Date:	<b>7/6/2017</b>	Analysis Date:	<b>7/7/2017</b>	SeqNo:	<b>1390847</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	990		1000		99.3	54	150			

Sample ID	<b>LCS-32652</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>32652</b>	RunNo:	<b>44055</b>					
Prep Date:	<b>7/6/2017</b>	Analysis Date:	<b>7/7/2017</b>	SeqNo:	<b>1390848</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.6	76.4	125			
Surr: BFB	1100		1000		113	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
- PQL Practical Quantitative Limit
- 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#: 1707252

10-Jul-17

**Client:** Animas Environmental  
**Project:** COPC State Com R14 CDP

Sample ID	<b>MB-32652</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>32652</b>	RunNo:	<b>44055</b>					
Prep Date:	<b>7/6/2017</b>	Analysis Date:	<b>7/7/2017</b>	SeqNo:	<b>1390864</b>	Units:	<b>mg/Kg</b>			
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	1.3		1.000		129	66.6	132			

Sample ID	<b>LCS-32652</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>32652</b>	RunNo:	<b>44055</b>					
Prep Date:	<b>7/6/2017</b>	Analysis Date:	<b>7/7/2017</b>	SeqNo:	<b>1390865</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	106	80	120			
Toluene	1.1	0.050	1.000	0	106	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120			
Xylenes, Total	3.3	0.10	3.000	0	110	80	120			
Surr: 4-Bromofluorobenzene	1.3		1.000		130	66.6	132			

Sample ID	<b>MB-32630</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>32630</b>	RunNo:	<b>44055</b>					
Prep Date:	<b>7/5/2017</b>	Analysis Date:	<b>7/7/2017</b>	SeqNo:	<b>1390879</b>	Units:	<b>%Rec</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.3		1.000		126	66.6	132			

Sample ID	<b>LCS-32630</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>32630</b>	RunNo:	<b>44055</b>					
Prep Date:	<b>7/5/2017</b>	Analysis Date:	<b>7/7/2017</b>	SeqNo:	<b>1390880</b>	Units:	<b>%Rec</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.3		1.000		132	66.6	132			S

**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
- PQL Practical Quantitative Limit
- 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

**Sample Log-In Check List**

Client Name: Animas Environmental

Work Order Number: 1707252

RcptNo: 1

Received By: Erin Melendrez 7/7/2017 7:50:00 AM

Completed By: Ashley Gallegos 7/7/2017 8:39:58 AM

Reviewed By: *[Signature]* 7/7/17

*[Handwritten initials]*

**Chain of Custody**

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

**Log In**

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

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

**Special Handling (if applicable)**

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

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

17. Additional remarks:

**18. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good	Not Present			

