

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

NOV 09 2015

Form C-141
Revised August 8, 2011

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

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) 326-9786
Facility Name: San Juan 32-7 Unit 19A	Facility Type: Gas Well
Surface Owner Federal	Mineral Owner Federal (SF-078996)
API No. 30-045-34475	

LOCATION OF RELEASE

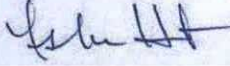

Unit Letter G	Section 4	Township 31N	Range 07W	Feet from the 661	North/South Line North	Feet from the 1450	East/West Line East	County San Juan
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Latitude **36.929245** Longitude **-107.571752**

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 167 BBLs	Volume Recovered 0 BBLs
Source of Release Production Tank	Date and Hour of Occurrence 08-02-15 - 08-06-15	Date and Hour of Discovery August 14, 2015 @ 12:20 PM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? BLM (Shari Ketcham) & OCD (Cory Smith)	
By Whom? Clara Cardoza	Date and Hour 08/14/2015 @ 5:47 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* A 500BBL production tank released ~167BBLs of produced water due to the fire tube failing. No free standing liquid was in or around secondary containment. The location was immediately shut-in.		
Describe Area Affected and Cleanup Action Taken.* Release assessment was completed by third-party environmental and Analytical results were below the NMOCD regulatory standards - no further action required. The soil sampling report is attached for review. No further remediation required.		
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.		

OIL CONSERVATION DIVISION

Signature: 	Approved by Environmental Specialist: 	
Printed Name: Lisa Hunter	Approval Date: 12/24/2015 Expiration Date:	
Title: Field Environmental Specialist	Conditions of Approval:	Attached <input type="checkbox"/>
E-mail Address: Lisa.Hunter@cop.com		
Date: November 5, 2015 Phone: (505) 326-9525		

* Attach Additional Sheets If Necessary

NCS1524541786



October 12, 2015

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

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

**RE: Release Assessment Report
San Juan 32-7 Unit 19A
San Juan County, New Mexico**

Dear Ms. Hunter:

On August 28, 2015, Animas Environmental Services, LLC (AES) completed a release assessment at the ConocoPhillips (COPC) San Juan 32-7 Unit 19A, located in San Juan County, New Mexico. The release consisted of approximately 167 barrels (bbls) of produced water.

1.0 Site Information

1.1 Location

Site Name – San Juan 32-7 Unit 19A

Location – SW¼ NE¼, Section 4, T31N, R7W, San Juan County, New Mexico

Well Head Latitude/Longitude – N36.92929 and W107.57235, respectively

Release Location Latitude/Longitude – N36.92953 and W107.57237, respectively

Land Jurisdiction – Bureau of Land Management (BLM)

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, August 2015

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

1911 Main, Ste 280
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 0 based on the following factors:

- **Depth to Groundwater:** 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. (0 points)
- **Distance to Surface Water Body:** An unnamed drainage which discharges to Los Piños River is located approximately 1,180 feet northwest of the location. (0 points)

1.3 Assessment

AES was initially contacted by Crystal Walker of COPC on August 28, 2015, and on August 28, 2015, Sam Glasses and Corwin Lameman of AES completed the release assessment field work. The assessment included collection and field sampling of 14 soil samples from 8 borings in and around the release area. Soil borings were terminated on sandstone between 0.5 and 2 feet. Sample locations are presented on Figure 3.

2.0 Soil Sampling

A total of 14 soil samples from 8 borings (SB-1 through SB-8) were collected during the assessment. All soil samples were field screened for volatile organic compounds (VOCs), and selected samples were also analyzed for total petroleum hydrocarbons (TPH). Six samples were also submitted for confirmation laboratory analysis.

2.1 Field Sampling

2.1.1 Volatile Organic Compounds

Field screening for VOC vapors was conducted with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas.

2.1.2 Total Petroleum Hydrocarbons

Field TPH samples were analyzed per U.S. Environmental Protection Agency (USEPA) Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses.

Field analytical protocol followed AES's *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

2.1.3 Chlorides

Soil sample SC-1 was field screened for chlorides using Chloride Drop Count Titration with silver nitrate. Sampling and analysis methods followed procedures provided by Hach Company.

2.2 Laboratory Analyses

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

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021B;
- TPH for gasoline range organics (GRO), and diesel range organics (DRO) per USEPA Method 8015D; and
- Chlorides per USEPA 300.0.

2.3 Field and Laboratory Analytical Results

On August 28, 2015, release assessment field screening results for VOCs via OVM showed concentrations ranging from 2.8 ppm in SB-6 up to 104 ppm in SB-1. Field TPH concentrations ranged from 21.7 mg/kg in SB-1 up to 52.2 mg/kg in SB-4, and field chloride ranged from 40 mg/kg in SB-3 and SB-5 up to 80 mg/kg in SB-2 and SB-4. Results are included below in Table 1 and on Figure 3. The AES Field Sampling Report is attached.

Table 1. Soil Field VOCs, TPH and Chlorides
San Juan 32-7 Unit 19A Release Assessment, August 2015

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>	<i>TPH 418.1 (mg/kg)</i>	<i>Field Chlorides (mg/kg)</i>
<i>NMOCD Action Level*</i>			<i>100</i>	<i>5,000</i>	<i>NE</i>
SB-1	8/28/15	0.5	30.5	28.5	60
		1	104	21.8	NA
SB-2	8/28/15	0.5	103	28.5	80
		2	59.1	26.8	80
SB-3	8/28/15	0.5	14.6	37.0	40

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>	<i>TPH 418.1 (mg/kg)</i>	<i>Field Chlorides (mg/kg)</i>
<i>NMOCD Action Level*</i>			100	5,000	NE
SB-4	8/28/15	0.5	7.5	38.7	80
		1	5.6	52.2	60
SB-5	8/28/15	0.5	5.9	33.6	40
		1	4.7	31.9	NA
SB-6	8/28/15	0.5	2.8	NA	NA
		2	4.8	38.7	NA
SB-7	8/28/15	0.5	24.2	NA	NA
		2	3.7	43.7	NA
SB-8	8/28/15	0.5	9.7	40.4	NA

NA – not analyzed

NE – not established

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

Laboratory analyses for SB-1 through SB-5 were used to confirm field sampling results of the release assessment. Benzene and total BTEX concentrations in SB-1 through SB-5 were reported below laboratory detection limits that ranged from 0.047 mg/kg to 0.050 mg/kg and 0.234 mg/kg to 0.245 mg/kg, respectively. TPH concentrations as GRO/DRO in SB-1 through SB-5 were also reported below the laboratory detection limits in each sample. Chloride concentrations ranged from less 30 mg/kg in SB-1, SB-3 and SB-5 up to 200 mg/kg in SB-2. Results are presented in Table 2 and on Figure 3. The laboratory analytical report is attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, TPH and Chlorides
San Juan 32-7 Unit 19A Release Assessment, August 2015

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>Benzene (mg/kg)</i>	<i>Total BTEX (mg/kg)</i>	<i>GRO (mg/kg)</i>	<i>DRO (mg/kg)</i>	<i>Chlorides (mg/kg)</i>
<i>NMOCD Action Level*</i>			10	50	5,000		NE
SB-1	8/28/15	1	<0.047	<0.234	<4.7	<9.9	<30
SB-2	8/28/15	0.5	<0.049	<0.245	<4.9	<9.7	200
SB-2	8/28/15	2	<0.048	<0.240	<4.8	<10	170
SB-3	8/28/15	0.5	<0.048	<0.240	<4.8	<9.9	<30
SB-4	8/28/15	1.0	<0.047	<0.236	<4.7	<9.5	150

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>Benzene (mg/kg)</i>	<i>Total BTEX (mg/kg)</i>	<i>GRO (mg/kg)</i>	<i>DRO (mg/kg)</i>	<i>Chlorides (mg/kg)</i>
SB-5	8/28/15	0.5	<0.050	<0.25	<5.0	<10	<30

NA – not analyzed

NE – not established

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

3.0 Conclusions and Recommendations

On August 28, 2015, AES conducted a release assessment of petroleum contaminated soils associated with a release of produced water at the San Juan 32-7 Unit 19A. 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 0.

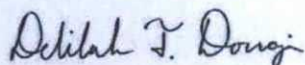
Release assessment field sampling results for VOCs were slightly above the NMOCD action level of 100 ppm in SB-1 (104 ppm) and SB-2 (103 ppm). All soil samples were below the NMOCD action level of 5,000 mg/kg for TPH, with the highest concentration reported in SB-4 at 52.2 mg/kg.

Laboratory analyses for SB-1 through SB-5 were used to confirm field sampling results. Benzene and total BTEX concentrations were reported below the NMOCD action levels of 10 mg/kg and 50 mg/kg, respectively, in each sample. TPH concentrations as GRO/DRO were also reported below the NMOCD action level of 5,000 mg/kg.

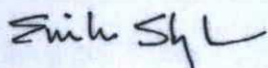
Based on final field sampling and laboratory analytical results of the release assessment at the San Juan 32-7 Unit 19A, benzene, total BTEX, and TPH concentrations were below applicable NMOCD action levels. No further work is recommended.

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

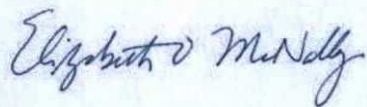
Sincerely,



Delilah T. Dougi
Environmental Technician



Emilee Skyles
Geologist/Project Lead



Elizabeth McNally, PE

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, August 2015
- Figure 3. Release Assessment Sample Locations and Results, August 2015
- AES Field Sampling Report 082815
- Hall Laboratory Analytical Report 1509084
- Hall Laboratory Analytical Report 1509338

R:\Animas 2000\Dropbox (Animas Environmental)\0000 Animas Server Dropbox EM\2015
Projects\ConocoPhillips\SJ 32-7 #19A\COPC SJ 32-7 #19A Release Assessment Report 101215.docx

BURNT MESA QUADRANGLE
NEW MEXICO - SAN JUAN COUNTY
1954 PHOTOREVISED 1971

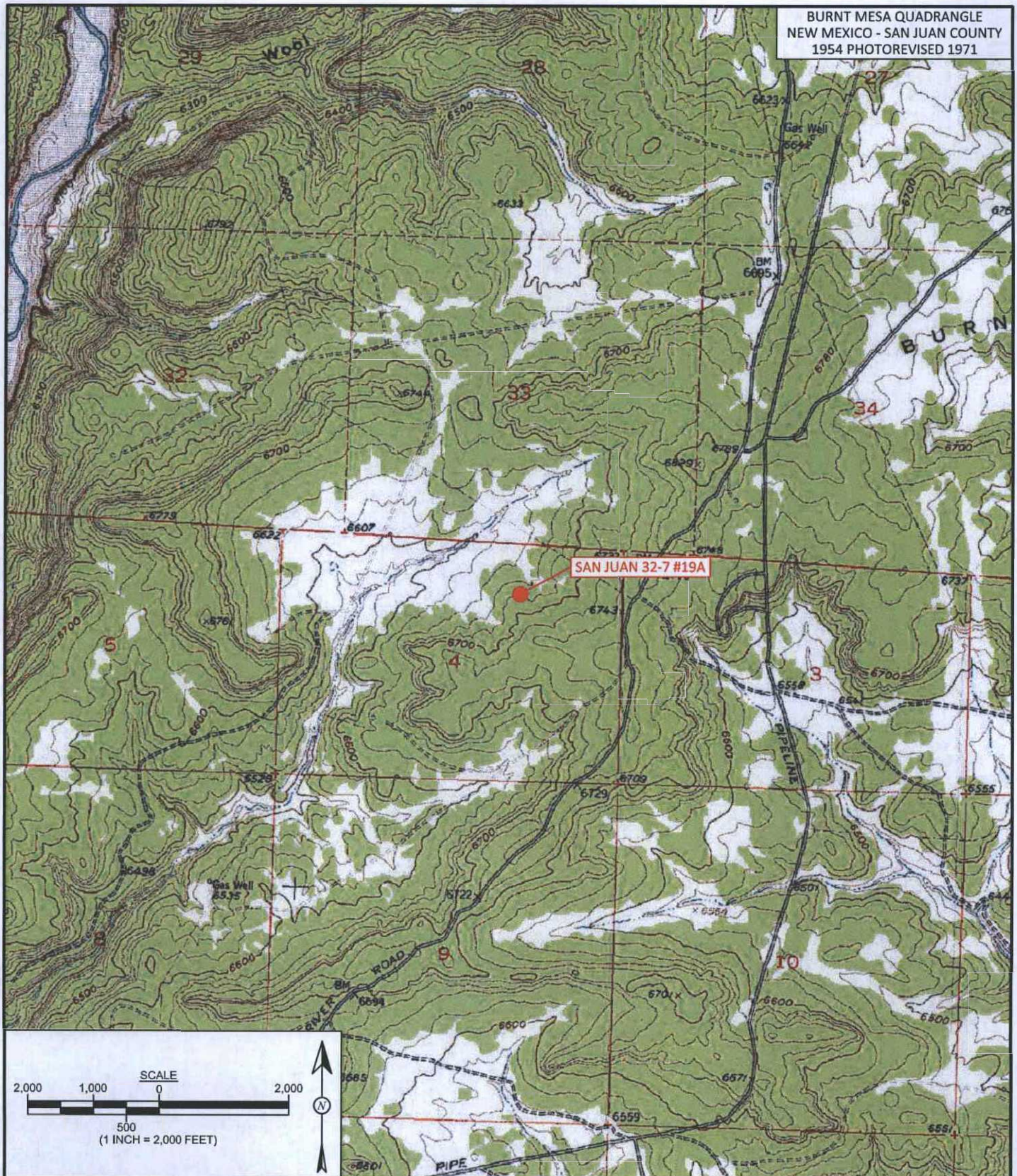


FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP

ConocoPhillips
SAN JUAN 32-7 #19A
SW ¼ NE ¼, SECTION 4, T31N, R7W
SAN JUAN COUNTY, NEW MEXICO
N36.92929, W107.57235



**animas
environmental
services**

Farmington, NM • Durango, CO
animasenvironmental.com

DRAWN BY:
D. Dougi

DATE DRAWN:
August 19, 2015

REVISIONS BY:
C. Lameman

DATE REVISED:
August 19, 2015

CHECKED BY:
E. Skyles

DATE CHECKED:
August 19, 2015

APPROVED BY:
E. McNally

DATE APPROVED:
August 19, 2015



FIGURE 2

**AERIAL SITE MAP
AUGUST 2015**

ConocoPhillips
SAN JUAN 32-7 #19A
SW ¼ NE ¼, SECTION 4, T31N, R7W
SAN JUAN COUNTY, NEW MEXICO
N36.92929, W107.57235



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DRAWN BY: D. Dougi	DATE DRAWN: August 20, 2015
REVISIONS BY: S. Glasses	DATE REVISED: September 2, 2015
CHECKED BY: E. Skyles	DATE CHECKED: September 2, 2015
APPROVED BY: E. McNally	DATE APPROVED: September 2, 2015

FIGURE 3

**RELEASE ASSESSMENT SAMPLE
LOCATIONS AND RESULTS
AUGUST 2015**

ConocoPhillips
SAN JUAN 32-7 #19A
SW ¼ NE ¼, SECTION 4, T31N, R7W
SAN JUAN COUNTY, NEW MEXICO
N36.92929, W107.57235



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animasenvironmental.com

DRAWN BY:
S. Glasses

DATE DRAWN:
September 2, 2015

REVISIONS BY:
D. Dougl

DATE REVISED:
October 2, 2015

CHECKED BY:
E. Skyles

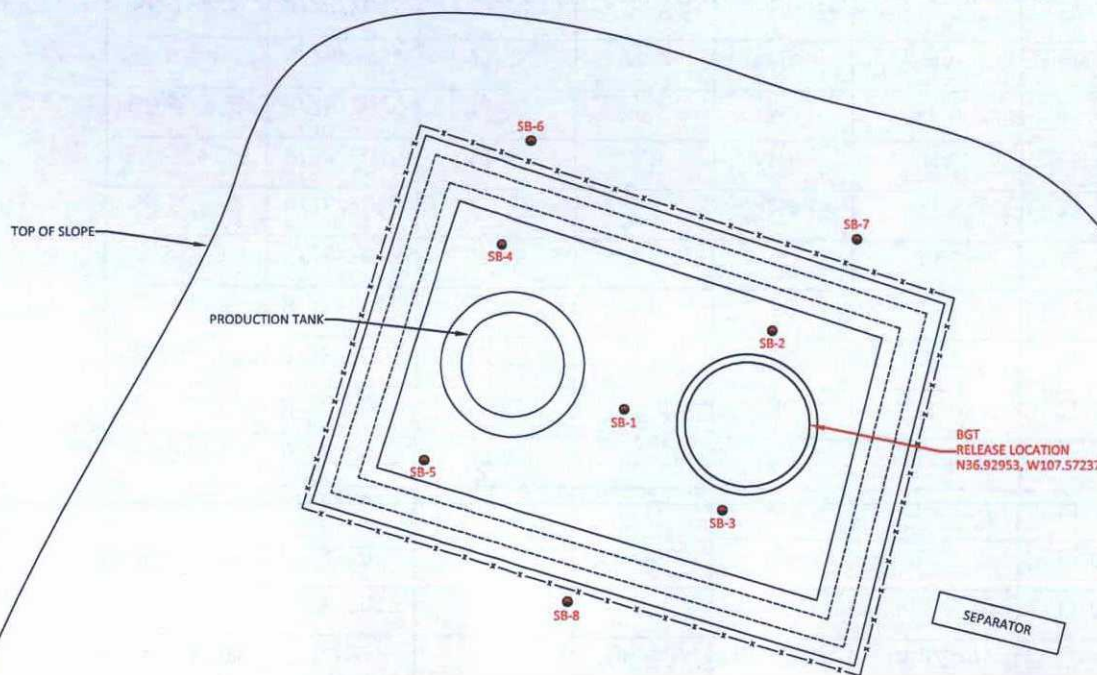
DATE CHECKED:
October 2, 2015

APPROVED BY:
E. McNally

DATE APPROVED:
October 2, 2015

LEGEND

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



Field Sampling Results

Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)	Chlorides (mg/kg)
NMOC ACTION LEVEL			100	5,000	NE
SB-1	8/28/15	0.5	30.5	28.5	60
		1.0	104	21.7	NA
SB-2	8/28/15	0.5	103	28.5	80
		2.0	59.1	26.8	80
SB-3	8/28/15	0.5	14.6	37.0	40
SB-4	8/28/15	0.5	7.5	38.7	80
		1.0	5.6	52.2	60
SB-5	8/28/15	0.5	5.9	33.6	40
		1.0	4.7	31.9	NA
SB-6	8/28/15	0.5	2.8	NA	NA
		2.0	4.8	38.7	NA
SB-7	8/28/15	0.5	24.2	NA	NA
		2.0	3.7	43.7	NA
SB-8	8/28/15	0.5	9.7	40.4	NA

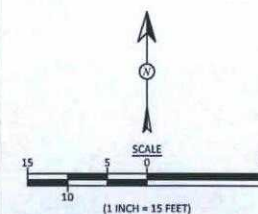
NA - NOT ANALYZED, NE - NOT ESTABLISHED

Laboratory Analytical Results

Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	Chlorides (mg/kg)
NMOC ACTION LEVEL			10	50	5,000	NE	
SB-1	8/28/15	1.0	<0.047	<0.234	<4.7	<9.9	<30
SB-2	8/28/15	0.5	<0.049	<0.245	<4.9	<9.7	200
SB-2	8/28/15	2.0	<0.048	<0.240	<4.8	<10	170
SB-3	8/28/15	0.5	<0.048	<0.240	<4.8	<9.9	<30
SB-4	8/28/15	1.0	<0.047	<0.236	<4.7	<9.5	150
SB-5	8/28/15	0.5	<0.050	<0.250	<5.0	<10	<30

ALL SAMPLES WERE ANALYZED PER USEPA METHOD 8021B, 8015D, AND 300.0.
NA - NOT ANALYZED, NE - NOT ESTABLISHED

SAN JUAN 32-7 #19A WELLHEAD



AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: San Juan 32-7 Unit 19A

Date: 8/28/2015

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field Chloride (mg/kg)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ 0.5'	8/28/2015	10:26	30.5	60	28.5	11:01	20.0	1	CL
SB-1 @ 1'	8/28/2015	10:30	104	NA	21.8	11:04	20.0	1	CL
SB-2 @ 0.5'	8/28/2015	10:35	103	80	28.5	11:07	20.0	1	CL
SB-2 @ 2'	8/28/2015	10:40	59.1	80	26.8	11:10	20.0	1	CL
SB-3 @ 0.5'	8/28/2015	10:47	14.6	40	37.0	11:14	20.0	1	CL
SB-4 @ 0.5'	8/28/2015	10:58	7.5	80	38.7	11:45	20.0	1	CL
SB-4 @ 1'	8/28/2015	11:04	5.6	60	52.2	11:47	20.0	1	CL
SB-5 @ 0.5'	8/28/2015	11:15	5.9	40	33.6	11:50	20.0	1	CL
SB-5 @ 1'	8/28/2015	11:20	4.7	NA	31.9	11:52	20.0	1	CL
SB-6 @ 0.5	8/28/2015	11:47	2.8	NA	NA	NA	20.0	1	CL
SB-6 @ 2'	8/28/2015	11:50	4.8	NA	38.7	12:15	20.0	1	CL
SB-7 @ 0.5'	8/28/2015	11:55	24.2	NA	NA	NA	20.0	1	CL
SB-7 @ 2'	8/28/2015	12:00	3.7	NA	43.7	12:18	20.0	1	CL

SB-8 @ 0.5'	8/28/2015	12:05	9.7	NA	40.4	12:21	20.0	1	CL
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DF Dilution Factor

NA Not Analyzed

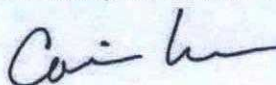
PQL Practical Quantitation Limit

**Field TPH concentrations recorded may be below PQL.*

Field Chloride - Quantab Chloride Titrators or Drop Count

Titration with Silver Nitrate

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: 



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

September 09, 2015

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

RE: COPC SJ 32-7 #19A

OrderNo.: 1509084

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/2/2015 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 1509084

Date Reported: 9/9/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SB-2@2'

Project: COPC SJ 32-7 #19A

Collection Date: 8/28/2015 10:40:00 AM

Lab ID: 1509084-001

Matrix: SOIL

Received Date: 9/2/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	170	30		mg/Kg	20	9/4/2015 2:51:55 PM	21158
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/4/2015 5:13:44 PM	21121
Surr: DNOP	120	57.9-140		%REC	1	9/4/2015 5:13:44 PM	21121
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/3/2015 2:08:58 PM	21112
Surr: BFB	91.2	75.4-113		%REC	1	9/3/2015 2:08:58 PM	21112
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.048		mg/Kg	1	9/3/2015 2:08:58 PM	21112
Toluene	ND	0.048		mg/Kg	1	9/3/2015 2:08:58 PM	21112
Ethylbenzene	ND	0.048		mg/Kg	1	9/3/2015 2:08:58 PM	21112
Xylenes, Total	ND	0.096		mg/Kg	1	9/3/2015 2:08:58 PM	21112
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	9/3/2015 2:08:58 PM	21112

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	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509084

09-Sep-15

Client: Animas Environmental

Project: COPC SJ 32-7 #19A

Sample ID	MB-21158	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	21158	RunNo:	28681					
Prep Date:	9/4/2015	Analysis Date:	9/4/2015	SeqNo:	868771	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-21158	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	21158	RunNo:	28681					
Prep Date:	9/4/2015	Analysis Date:	9/4/2015	SeqNo:	868772	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	90	110			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509084

09-Sep-15

Client: Animas Environmental

Project: COPC SJ 32-7 #19A

Sample ID	MB-21121	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	21121	RunNo:	28657					
Prep Date:	9/3/2015	Analysis Date:	9/4/2015	SeqNo:	868052	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		105	57.9	140			

Sample ID	LCS-21121	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	21121	RunNo:	28657					
Prep Date:	9/3/2015	Analysis Date:	9/4/2015	SeqNo:	868053	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.9	57.4	139			
Surr: DNOP	5.0		5.000		99.7	57.9	140			

Sample ID	1509082-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	21121	RunNo:	28657					
Prep Date:	9/3/2015	Analysis Date:	9/4/2015	SeqNo:	868339	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.8	49.07	0	90.8	42.3	146			
Surr: DNOP	5.3		4.907		107	57.9	140			

Sample ID	1509082-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	21121	RunNo:	28657					
Prep Date:	9/3/2015	Analysis Date:	9/4/2015	SeqNo:	868355	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.7	48.26	0	89.2	42.3	146	3.44	28.9	
Surr: DNOP	5.2		4.826		108	57.9	140	0	0	

Sample ID	MB-21123	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	21123	RunNo:	28658					
Prep Date:	9/3/2015	Analysis Date:	9/4/2015	SeqNo:	868356	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		99.5	57.9	140			

Sample ID	LCS-21123	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	21123	RunNo:	28658					
Prep Date:	9/3/2015	Analysis Date:	9/4/2015	SeqNo:	868359	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.000		102	57.9	140			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509084

09-Sep-15

Client: Animas Environmental

Project: COPC SJ 32-7 #19A

Sample ID	1509083-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC	Batch ID:	21112	RunNo:	28662					
Prep Date:	9/2/2015	Analysis Date:	9/3/2015	SeqNo:	868060	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.8	24.06	2.570	112	62.5	151			
Surr: BFB	1100		962.5		116	75.4	113			S

Sample ID	1509083-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC	Batch ID:	21112	RunNo:	28662					
Prep Date:	9/2/2015	Analysis Date:	9/3/2015	SeqNo:	868061	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.8	24.06	2.570	112	62.5	151	0.130	22.1	
Surr: BFB	1200		962.5		122	75.4	113	0	0	S

Sample ID	LCS-21112	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	21112	RunNo:	28662					
Prep Date:	9/2/2015	Analysis Date:	9/3/2015	SeqNo:	868074	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	79.6	122			
Surr: BFB	1000		1000		99.7	75.4	113			

Sample ID	MB-21112	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	21112	RunNo:	28662					
Prep Date:	9/2/2015	Analysis Date:	9/3/2015	SeqNo:	868075	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	890		1000		88.7	75.4	113			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509084

09-Sep-15

Client: Animas Environmental

Project: COPC SJ 32-7 #19A

Sample ID	1509082-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BatchQC	Batch ID:	21112	RunNo:	28662					
Prep Date:	9/2/2015	Analysis Date:	9/3/2015	SeqNo:	868082	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.048	0.9606	0	115	69.6	136			
Toluene	1.1	0.048	0.9606	0	117	76.2	134			
Ethylbenzene	1.1	0.048	0.9606	0	119	75.8	137			
Xylenes, Total	3.4	0.096	2.882	0.01805	118	78.9	133			
Surr: 4-Bromofluorobenzene	1.1		0.9606		114	80	120			

Sample ID	1509082-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BatchQC	Batch ID:	21112	RunNo:	28662					
Prep Date:	9/2/2015	Analysis Date:	9/3/2015	SeqNo:	868083	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.048	0.9606	0	109	69.6	136	5.18	20	
Toluene	1.1	0.048	0.9606	0	111	76.2	134	5.31	20	
Ethylbenzene	1.1	0.048	0.9606	0	113	75.8	137	4.78	20	
Xylenes, Total	3.3	0.096	2.882	0.01805	113	78.9	133	4.49	20	
Surr: 4-Bromofluorobenzene	1.1		0.9606		116	80	120	0	0	

Sample ID	LCS-21112	SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID: 21112			RunNo: 28662					
Prep Date:	9/2/2015	Analysis Date: 9/3/2015			SeqNo: 868094		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.050	1.000	0	90.7	80	120			
Toluene	0.89	0.050	1.000	0	89.5	80	120			
Ethylbenzene	0.90	0.050	1.000	0	90.2	80	120			
Xylenes, Total	2.7	0.10	3.000	0	90.4	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

Sample ID	MB-21112	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS	Batch ID: 21112		RunNo: 28662						
Prep Date:	9/2/2015	Analysis Date: 9/3/2015		SeqNo: 868095		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

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



HALL ENVIRONMENTAL ANALYSIS LABORATORY
1901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-343-3973 FAX: 505-343-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1509084

RcptNo: 1

Received by/date: LM 09/02/15
Logged By: Celina Sessa 9/2/2015 8:00:00 AM *Celina Sessa*
Completed By: Celina Sessa 9/2/2015 9:05:04 AM *Celina Sessa*
Reviewed By: *CS* 09/02/15

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
1	1.4	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:
Client: Animas Environmental Services		<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush
Mailing Address: 604 W. Pinon St		Project Name: COPC SJ 32-7 #19A
Farmington, NM 87401		Project #:
Phone #: 505-564-2281		Project Manager: E. Skyles
Email or Fax#: eskyles@animasenvironmental.com		
QA/QC Package:		
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		
Accreditation:		Sampler: CL/SG
<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: 1/4

☒ Standard ☐ Rush

COPC SJ 32-7 #19A

Project #:

Project Manager:

E. Skyles

Sampler: CL/SG

On Ice: ☐ No ☒ Yes ☐ No

Sample Temperature: 174

Date	Time	Matrix	Sample Request ID
------	------	--------	-------------------

Container
Type and #Preservative
Type

HEAL No.

150908

8/28/15	10:40	SOIL	SB-2 @ 2'
---------	-------	------	-----------

1 - 4 oz.

cool

- 00

8TEX-8021B

TPH - EPA 8015B (GRO/DRO)

Chlorides - 300.0

Air Bubbles (Y or N)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date:	Time:	Relinquished by:
-------	-------	------------------

Received by:

Date	Time
------	------

Remarks:	BILL TO CONOCO PHILLIPS
----------	-------------------------

WO:

Area: 4

Area Supervisor: Proctor

User/Approver: GARRECD

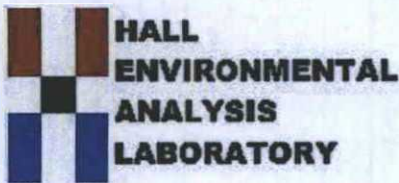
Ordered by: Crystal Walker

Date:	Time:	Relinquished by:
-------	-------	------------------

Received by:

Date	Time
------	------

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

September 16, 2015

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

RE: COPC San Juan 32-7 #19A

OrderNo.: 1509338

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 5 sample(s) on 9/9/2015 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued September 16, 2015.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", with a stylized flourish at the end.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1509338

Date Reported: 9/16/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SB-1@1'

Project: COPC San Juan 32-7 #19A

Collection Date: 8/28/2015 10:30:00 AM

Lab ID: 1509338-001

Matrix: SOIL

Received Date: 9/9/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	9/14/2015 2:02:37 PM	21279
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/11/2015 9:58:53 AM	21245
Surr: DNOP	97.9	57.9-140		%REC	1	9/11/2015 9:58:53 AM	21245
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/10/2015 2:58:28 PM	21207
Surr: BFB	87.4	75.4-113		%REC	1	9/10/2015 2:58:28 PM	21207
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	9/10/2015 2:58:28 PM	21207
Toluene	ND	0.047		mg/Kg	1	9/10/2015 2:58:28 PM	21207
Ethylbenzene	ND	0.047		mg/Kg	1	9/10/2015 2:58:28 PM	21207
Xylenes, Total	ND	0.093		mg/Kg	1	9/10/2015 2:58:28 PM	21207
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	9/10/2015 2:58:28 PM	21207

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		

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1509338

Date Reported: 9/16/2015

CLIENT: Animas Environmental**Client Sample ID:** SB-2@0.5'**Project:** COPC San Juan 32-7 #19A**Collection Date:** 8/28/2015 10:35:00 AM**Lab ID:** 1509338-002**Matrix:** SOIL**Received Date:** 9/9/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	200	30		mg/Kg	20	9/14/2015 2:39:51 PM	21279
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/11/2015 11:03:25 AM	21245
Surr: DNOP	93.7	57.9-140		%REC	1	9/11/2015 11:03:25 AM	21245
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/10/2015 4:14:23 PM	21207
Surr: BFB	92.4	75.4-113		%REC	1	9/10/2015 4:14:23 PM	21207
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	9/10/2015 4:14:23 PM	21207
Toluene	ND	0.049		mg/Kg	1	9/10/2015 4:14:23 PM	21207
Ethylbenzene	ND	0.049		mg/Kg	1	9/10/2015 4:14:23 PM	21207
Xylenes, Total	ND	0.098		mg/Kg	1	9/10/2015 4:14:23 PM	21207
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	9/10/2015 4:14:23 PM	21207

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		

Analytical Report

Lab Order 1509338

Date Reported: 9/16/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SB-3@0.5'

Project: COPC San Juan 32-7 #19A

Collection Date: 8/28/2015 10:47:00 AM

Lab ID: 1509338-003

Matrix: SOIL

Received Date: 9/9/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	9/14/2015 3:17:05 PM	21279
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/11/2015 11:24:44 AM	21245
Surr: DNOP	97.5	57.9-140		%REC	1	9/11/2015 11:24:44 AM	21245
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/10/2015 4:39:46 PM	21207
Surr: BFB	91.2	75.4-113		%REC	1	9/10/2015 4:39:46 PM	21207
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	9/10/2015 4:39:46 PM	21207
Toluene	ND	0.048		mg/Kg	1	9/10/2015 4:39:46 PM	21207
Ethylbenzene	ND	0.048		mg/Kg	1	9/10/2015 4:39:46 PM	21207
Xylenes, Total	ND	0.096		mg/Kg	1	9/10/2015 4:39:46 PM	21207
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	9/10/2015 4:39:46 PM	21207

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		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1509338

Date Reported: 9/16/2015

CLIENT: Animas Environmental

Client Sample ID: SB-4@1'

Project: COPC San Juan 32-7 #19A

Collection Date: 8/28/2015 11:04:00 AM

Lab ID: 1509338-004

Matrix: SOIL

Received Date: 9/9/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	150	30		mg/Kg	20	9/14/2015 3:29:30 PM	21279
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/11/2015 11:46:16 AM	21245
Surr: DNOP	105	57.9-140		%REC	1	9/11/2015 11:46:16 AM	21245
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/10/2015 5:05:07 PM	21207
Surr: BFB	92.9	75.4-113		%REC	1	9/10/2015 5:05:07 PM	21207
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	9/10/2015 5:05:07 PM	21207
Toluene	ND	0.047		mg/Kg	1	9/10/2015 5:05:07 PM	21207
Ethylbenzene	ND	0.047		mg/Kg	1	9/10/2015 5:05:07 PM	21207
Xylenes, Total	ND	0.095		mg/Kg	1	9/10/2015 5:05:07 PM	21207
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	9/10/2015 5:05:07 PM	21207

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		

Analytical Report

Lab Order 1509338

Date Reported: 9/16/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental

Client Sample ID: SB-5@0.5'

Project: COPC San Juan 32-7 #19A

Collection Date: 8/28/2015 11:15:00 AM

Lab ID: 1509338-005

Matrix: SOIL

Received Date: 9/9/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	9/14/2015 3:41:55 PM	21279
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/11/2015 12:07:40 PM	21245
Surr: DNOP	95.4	57.9-140		%REC	1	9/11/2015 12:07:40 PM	21245
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/10/2015 5:30:28 PM	21207
Surr: BFB	89.8	75.4-113		%REC	1	9/10/2015 5:30:28 PM	21207
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	9/10/2015 5:30:28 PM	21207
Toluene	ND	0.050		mg/Kg	1	9/10/2015 5:30:28 PM	21207
Ethylbenzene	ND	0.050		mg/Kg	1	9/10/2015 5:30:28 PM	21207
Xylenes, Total	ND	0.10		mg/Kg	1	9/10/2015 5:30:28 PM	21207
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	9/10/2015 5:30:28 PM	21207

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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509338

06-Oct-15

Client: Animas Environmental
Project: COPC San Juan 32-7 #19A

Sample ID	MB-21279	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	21279	RunNo:	28848					
Prep Date:	9/14/2015	Analysis Date:	9/14/2015	SeqNo:	875029	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-21279	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	21279	RunNo:	28848					
Prep Date:	9/14/2015	Analysis Date:	9/14/2015	SeqNo:	875030	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.6	90	110			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509338

06-Oct-15

Client: Animas Environmental
Project: COPC San Juan 32-7 #19A

Sample ID	MB-21245	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	21245	RunNo:	28770					
Prep Date:	9/10/2015	Analysis Date:	9/11/2015	SeqNo:	872601	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	12		10.00		123	57.9	140			

Sample ID	LCS-21245	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	21245	RunNo:	28770					
Prep Date:	9/10/2015	Analysis Date:	9/11/2015	SeqNo:	872603	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	59	10	50.00	0	117	57.4	139			
Surr: DNOP	5.9		5.000		119	57.9	140			

Sample ID	1509338-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SB-1@1'	Batch ID:	21245	RunNo:	28770					
Prep Date:	9/10/2015	Analysis Date:	9/11/2015	SeqNo:	873803	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	49.90	0	86.8	42.3	146			
Surr: DNOP	4.6		4.990		92.5	57.9	140			

Sample ID	1509338-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SB-1@1'	Batch ID:	21245	RunNo:	28770					
Prep Date:	9/10/2015	Analysis Date:	9/11/2015	SeqNo:	873804	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.7	48.50	0	94.0	42.3	146	5.03	28.9	
Surr: DNOP	4.6		4.850		95.8	57.9	140	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509338

06-Oct-15

Client: Animas Environmental
Project: COPC San Juan 32-7 #19A

Sample ID	MB-21207	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	21207	RunNo:	28761					
Prep Date:	9/9/2015	Analysis Date:	9/10/2015	SeqNo:	872144	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	900		1000		90.1	75.4	113			

Sample ID	LCS-21207	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	21207	RunNo:	28761					
Prep Date:	9/9/2015	Analysis Date:	9/10/2015	SeqNo:	872145	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	94.2	79.6	122			
Surr: BFB	970		1000		97.4	75.4	113			

Sample ID	1509338-002AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SB-2@0.5'	Batch ID:	21207	RunNo:	28761					
Prep Date:	9/9/2015	Analysis Date:	9/10/2015	SeqNo:	872148	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	4.9	24.63	0	112	62.5	151			
Surr: BFB	1000		985.2		103	75.4	113			

Sample ID	1509338-002AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SB-2@0.5'	Batch ID:	21207	RunNo:	28761					
Prep Date:	9/9/2015	Analysis Date:	9/10/2015	SeqNo:	872149	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.9	24.39	0	105	62.5	151	7.52	22.1	
Surr: BFB	1000		975.6		103	75.4	113	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509338

06-Oct-15

Client: Animas Environmental
Project: COPC San Juan 32-7 #19A

Sample ID	MB-21207		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	21207		RunNo:	28761			
Prep Date:	9/9/2015		Analysis Date:	9/10/2015		SeqNo:	872183		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID	LCS-21207		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	21207		RunNo:	28761			
Prep Date:	9/9/2015		Analysis Date:	9/10/2015		SeqNo:	872184		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.050	1.000	0	98.9	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

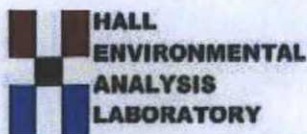
Sample ID	1509338-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SB-1@1'		Batch ID:	21207		RunNo:	28761			
Prep Date:	9/9/2015		Analysis Date:	9/10/2015		SeqNo:	872186		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.047	0.9320	0	107	69.6	136			
Toluene	1.0	0.047	0.9320	0	109	76.2	134			
Ethylbenzene	1.0	0.047	0.9320	0	112	75.8	137			
Xylenes, Total	3.2	0.093	2.796	0	113	78.9	133			
Surr: 4-Bromofluorobenzene	1.1		0.9320		119	80	120			

Sample ID	1509338-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SB-1@1'		Batch ID:	21207		RunNo:	28761			
Prep Date:	9/9/2015		Analysis Date:	9/10/2015		SeqNo:	872187		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.047	0.9320	0	105	69.6	136	2.15	20	
Toluene	1.0	0.047	0.9320	0	109	76.2	134	0.707	20	
Ethylbenzene	1.0	0.047	0.9320	0	111	75.8	137	0.470	20	
Xylenes, Total	3.1	0.093	2.796	0	112	78.9	133	0.975	20	
Surr: 4-Bromofluorobenzene	1.1		0.9320		114	80	120	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



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: 1509338

RcptNo: 1

Received by/date: AG 09/09/15

Logged By: Celina Sessa 9/9/2015 8:30:00 AM Celina Sessa

Completed By: Celina Sessa 9/9/2015 10:17:43 AM Celina Sessa

Reviewed By: AG 09/09/15

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
1	1.5	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:
Client: Animas Environmental Services		<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush
Mailing Address: 604 W. Pinon St. Farmington, NM 87401		Project Name: COPC San Juan 32-7 #19A
Phone #: 505-564-2281		Project #:
Email or Fax#: eskyles@animasenvironmental.com		Project Manager: E. Skyles
QA/QC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		Sampler: <u>CLSG</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>25.10-15</u>

☒ Standard ☐ Rush

COPC San Juan 32-7 #19A

Project #:

Project Manager:

E. Skyles

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 25 / 10 / 5

HEAL No

1509339

HALL ENVIRONMENTAL ANALYSIS LABORATORY


www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

Date: 9/8/15	Time: 1625	Relinquished by: 
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Received by:	Date	Time
M. W. H. H. H.	9/8/15	1625

Remarks:	BILL TO CONOCO PHILLIPS
----------	-------------------------

WFO:

Area: 4

Area Supervisor: Proctor

User/Approver: GARRECD

Ordered by: Crystal Walker

Date:	Time:	Relinquished by:
9/1/15	1711	John J. Waelder

Received by: V. N. Hall Date 09/09/15 Time 0830