

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

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) 258-1607
Facility Name: Michener A LS #6E	Facility Type: Gas Well
Surface Owner BLM	Mineral Owner BLM (SF-077107)
API No. 3004523879	

LOCATION OF RELEASE

Unit Letter D	Section 31	Township 28N	Range 9W	Feet from the 820	North/South Line North	Feet from the 910	East/West Line West	County San Juan
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Latitude 36.62353 Longitude -107.83478

OIL CONS. DIV DIST. 3

NATURE OF RELEASE

Type of Release - Hydrocarbon (Historic)	Volume of Release Unknown	Volume Recovered None
Source of Release Below Grade Tank (BGT)	Date and Hour of Occurrence Unknown	Date and Hour of Discovery September 1, 2016
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour N/A	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

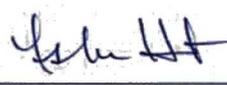
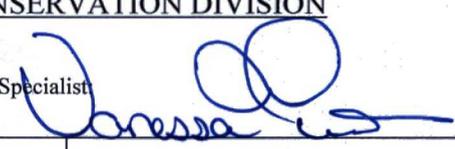
NOV 18 2016

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

Describe Cause of Problem and Remedial Action Taken.*
Below-Grade Tank Closure activities with samples taken resulting in constituents exceeded standards outlined by 19.15.17.13 NMAC.

Describe Area Affected and Cleanup Action Taken.*
The below grade tank field sample results were above regulatory standard by USEPA method 418.1 for TPH and Organic Vapors, confirming a release. The sample was then transported to the lab and analytical results were below the regulatory standards set forth in the NMOCD Guidelines for Remediation of Leaks, Spills and Release. No further work will be performed. The final report is attached for review.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Lisa Hunter	Approved by Environmental Specialist 	
Title: Field Environmental Specialist	Approval Date: 12/27/2016	Expiration Date:
E-mail Address: Lisa.Hunter@cop.com	Conditions of Approval: NJF 1636231694	Attached <input type="checkbox"/>
Date: November 16, 2016	Phone: (505) 326-9786	

* Attach Additional Sheets If Necessary



November 10, 2016

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

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

**RE: West Below Grade Tank Closure Report
Michener A LS #6E
San Juan County, New Mexico**

Dear Ms. Hunter:

Animas Environmental Services, LLC (AES) is pleased to provide the final report associated with the below grade tank (BGT) closure at ConocoPhillips (COPC) Michener A LS #6E, located in San Juan County, New Mexico. Tank removal was completed by COPC contractors while AES was on site.

1.0 Site Information

1.1 Location

Site Name – Michener A LS #6E
Legal Description – NW¼ NW¼, Section 31, T28N, R9W, San Juan County, New Mexico
Well Latitude/Longitude – N36.62342 and W107.83478, respectively
BGT Latitude/Longitude – N36.62353 and W107.83478, respectively
Land Jurisdiction – Bureau of Land Management (BLM)
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, September 2016

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

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

1.2 Depth to Groundwater Determination (NMAC 19.15.17.13 Table 1)

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) database was reviewed, and the site-specific hydrogeology within a C-144 Pit Closure Form dated February 2016 reported the depth to groundwater as 424 feet below ground surface (bgs). However, based on a site closure variance dated July 2016, the most stringent closure action levels were applied due to the pit being inadvertently omitted during the 2008 BGT permitting project.

1.3 BGT Closure Assessment

AES was initially contacted by Lisa Hunter of COPC on August 24, 2016, and on September 1, 2016, Sam Glasses of AES mobilized to the location. AES personnel collected one 5-point soil sample composited from four perimeter samples and one center sample of the BGT footprint from below the BGT liner.

2.0 Soil Sampling

On September 1, 2016, AES personnel conducted field sampling and collected one 5-point composite (BGT SC-1) from below the BGT. Soil was collected from approximately 0.5 feet below the former BGT. Soil sample BGT SC-1 was field screened for volatile organic compounds (VOCs), total petroleum hydrocarbon (TPH), and chloride, and was submitted for confirmation laboratory analysis. Soil sample locations are included on Figure 2.

2.1 Field Sampling

2.1.1 Volatile Organic Compounds

A portion of BGT SC-1 was utilized for field screening of VOC vapors 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 sample BGT SC-1 was also analyzed in the field for TPH per U.S. Environmental Protection Agency (USEPA) Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES's *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

2.1.3 Chlorides

Soil sample BGT 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 composite soil sample BGT SC-1 collected for laboratory analysis was placed into a new, clean, laboratory-supplied container, which was then labeled, placed on ice, and logged onto a sample chain of custody record. The sample was maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. Soil sample BGT SC-1 was laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021B;
- TPH per USEPA Method 418.1; and
- Chloride per USEPA Method 300.0.

2.3 Field and Laboratory Analytical Results

Field screening readings for VOCs via OVM were measured at 0.0 ppm in BGT SC-1. Field TPH concentrations were reported at 112 mg/kg. The field chloride concentration was 20 mg/kg. Field sampling results are summarized in Table 1 and presented on Figure 2. The AES Field Sampling Report is attached.

Table 1. Soil Field VOCs, TPH, and Chloride Results
 Michener A LS #6E – West BGT Closure, September 2016

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Depth below BGT (ft)</i>	<i>VOCs OVM Reading (ppm)</i>	<i>Field TPH* (mg/kg)</i>	<i>Field Chlorides (mg/kg)</i>
<i>NMOCD Action Level (NMAC 19.15.17.13 Table 1)</i>			--	100	600
BGT SC-1	9/1/16	0.5	0.0	112	20

*Analyzed per USEPA Method 418.1.

Laboratory analytical results reported benzene and total BTEX concentrations in BGT SC-1 as less than 0.024 mg/kg and 0.219 mg/kg, respectively. TPH concentrations were reported at less than 20 mg/kg. The laboratory chloride concentration was reported below the laboratory detection limit of 30 mg/kg. Laboratory analytical results are summarized in Table 2 and included on Figure 2. The laboratory analytical report is attached.

Table 2. Soil Laboratory Analytical Results
Michener A LS #6E – West BGT Closure, September 2016

Sample ID	Date Sample d	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	Total TPH (mg/kg)	Chlorides (mg/kg)
<i>NMOCD Action Level (NMAC 19.15.17.13 Table 1)</i>			10	50	100	600
BGT SC-1	9/1/16	0.5	<0.024	<0.219	<18	<30

3.0 Conclusions and Recommendations

NMOCD action levels for BGT closures are specified in New Mexico Administrative Code (NMAC) 19.15.17.13 Table 1. Field TPH concentrations were above the NMOCD action level of 100 mg/kg, with a concentration reported at 112 mg/kg. However, laboratory analytical results for TPH in BGT SC-1 were reported below the NMOCD action level of 100 mg/kg. Benzene and total BTEX concentrations were also below the NMOCD action levels of 10 mg/kg and 50 mg/kg, respectively. Chloride concentrations in BGT SC-1 were below the NMOCD action level of 600 mg/kg. Based on laboratory analytical results for benzene, total BTEX, TPH, and chlorides, no further work is recommended for the west BGT at the Michener A LS #6E.

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

Sincerely,



Emilee Skyles
Geologist/Project Lead

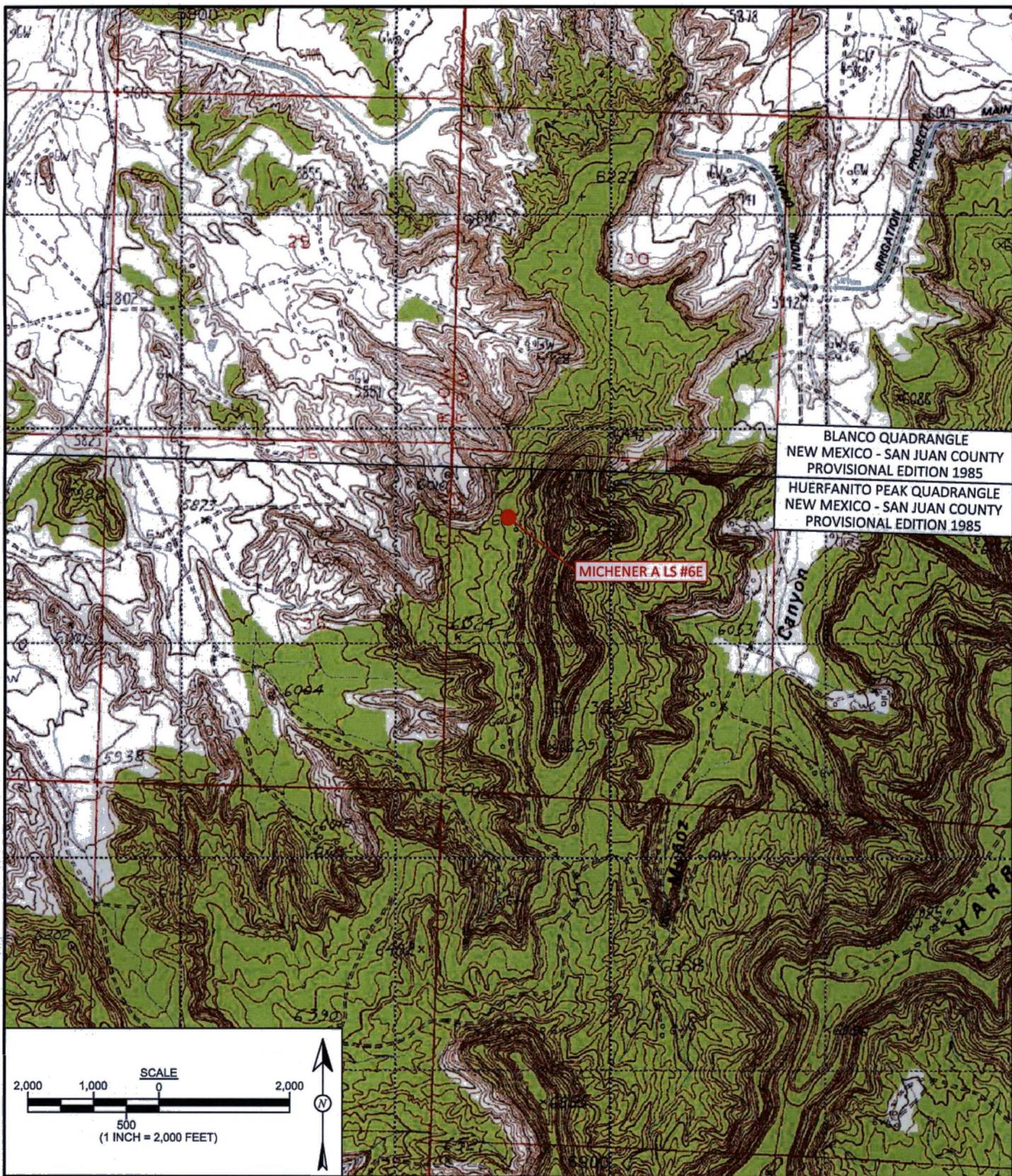


Elizabeth McNally, P.E.

Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, September 2016
AES Field Sampling Report 090116
Hall Analytical Report 1609174

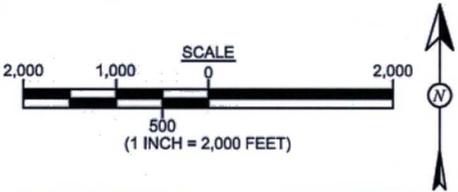
\\SVRMAIN2\Shared\Animas 2000\Dropbox (Animas Environmental)\0000 AES Server Client
Projects Dropbox\2016 Client Projects\ConocoPhillips\Michener A LS #6E\COPC Michener A LS
6E West BGT Closure Report 111016 VG.docx



BLANCO QUADRANGLE
 NEW MEXICO - SAN JUAN COUNTY
 PROVISIONAL EDITION 1985

HUERFANITO PEAK QUADRANGLE
 NEW MEXICO - SAN JUAN COUNTY
 PROVISIONAL EDITION 1985

MICHENER A LS #6E



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

DRAWN BY: S. Glasses	DATE DRAWN: September 7, 2016
REVISIONS BY: S. Glasses	DATE REVISED: September 7, 2016
CHECKED BY: E. Skyles	DATE CHECKED: September 7, 2016
APPROVED BY: E. McNally	DATE APPROVED: September 7, 2016

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP
 ConocoPhillips
 MICHENER A LS #6E
 NW¼ NW¼, SECTION 31, T28N, R9W
 SAN JUAN COUNTY, NEW MEXICO
 N36.62342, W107.83478

LEGEND
 **SAMPLE LOCATIONS**

Field Sampling Results					
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)	Chlorides (mg/kg)
NMOCD ACTION LEVEL			--	100	600
BGT SC-1	9/1/16	0.5	0.0	112	20

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

Laboratory Analytical Results						
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH (mg/kg)	Chlorides (mg/kg)
NMOCD ACTION LEVEL			10	50	100	600
BGT SC-1	9/1/16	0.5	<0.024	<0.219	<18	<30

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



AERIAL SOURCE: © 2016 GOOGLE EARTH PRO, AERIAL DATE: MARCH 15, 2015



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

DRAWN BY: S. Glasses	DATE DRAWN: September 7, 2016
REVISIONS BY: C. Lameman	DATE REVISED: November 10, 2016
CHECKED BY: E. Skyles	DATE CHECKED: November 10, 2016
APPROVED BY: E. McNally	DATE APPROVED: November 10, 2016

FIGURE 2
AERIAL SITE MAP
WEST BELOW GRADE TANK CLOSURE
SEPTEMBER 2016
 ConocoPhillips
 MICHENER A LS #6E
 NW¼ NW¼, SECTION 31, T28N, R9W
 SAN JUAN COUNTY, NEW MEXICO
 N36.62342, W107.83478

AES Field Sampling Report

Animas Environmental Services, LLC



Client: ConocoPhillips

Project Location: Michener A LS #6E

Date: 9/1/2016

Matrix: Soil

Sample ID	Collection Date	Collection Time	Sample Location	OVM (ppm)	Field Chloride (mg/kg)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
BGT SC-1	9/1/2016	12:11	Composite	0.0	20	112.0	11:35	20.0	1	SG

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, 2016

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

RE: COPC Michener A LS 6E

OrderNo.: 1609174

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 2 sample(s) on 9/1/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Project: COPC Michener A LS 6E
Lab ID: 1609174-001

Matrix: SOIL

Client Sample ID: BGT SC-1
Collection Date: 9/1/2016 11:12:00 AM
Received Date: 9/1/2016 7:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: MAB
Petroleum Hydrocarbons, TR	ND	18		mg/Kg	1	9/8/2016	27384
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	9/8/2016 12:01:29 PM	27403
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/8/2016 12:39:08 PM	27385
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/8/2016 12:39:08 PM	27385
Surr: DNOP	94.3	70-130		%Rec	1	9/8/2016 12:39:08 PM	27385
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/8/2016 2:04:59 PM	27376
Surr: BFB	88.7	68.3-144		%Rec	1	9/8/2016 2:04:59 PM	27376
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	9/8/2016 2:04:59 PM	27376
Toluene	ND	0.049		mg/Kg	1	9/8/2016 2:04:59 PM	27376
Ethylbenzene	ND	0.049		mg/Kg	1	9/8/2016 2:04:59 PM	27376
Xylenes, Total	ND	0.097		mg/Kg	1	9/8/2016 2:04:59 PM	27376
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	9/8/2016 2:04:59 PM	27376

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Project: COPC Michener A LS 6E
Lab ID: 1609174-002

Matrix: SOIL

Client Sample ID: BGT SC-2
Collection Date: 9/1/2016 12:11:00 PM
Received Date: 9/1/2016 7:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: MAB
Petroleum Hydrocarbons, TR	28	20		mg/Kg	1	9/8/2016	27384
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	9/8/2016 1:28:22 PM	27403
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/8/2016 1:06:56 PM	27385
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/8/2016 1:06:56 PM	27385
Surr: DNOP	97.4	70-130		%Rec	1	9/8/2016 1:06:56 PM	27385
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/8/2016 3:15:26 PM	27376
Surr: BFB	88.7	68.3-144		%Rec	1	9/8/2016 3:15:26 PM	27376
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	9/8/2016 3:15:26 PM	27376
Toluene	ND	0.047		mg/Kg	1	9/8/2016 3:15:26 PM	27376
Ethylbenzene	ND	0.047		mg/Kg	1	9/8/2016 3:15:26 PM	27376
Xylenes, Total	ND	0.095		mg/Kg	1	9/8/2016 3:15:26 PM	27376
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	9/8/2016 3:15:26 PM	27376

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609174

09-Sep-16

Client: Animas Environmental
Project: COPC Michener A LS 6E

Sample ID	MB-27403	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	27403	RunNo:	37065					
Prep Date:	9/8/2016	Analysis Date:	9/8/2016	SeqNo:	1149778	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-27403	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	27403	RunNo:	37065					
Prep Date:	9/8/2016	Analysis Date:	9/8/2016	SeqNo:	1149779	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.3	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
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1609174
 09-Sep-16

Client: Animas Environmental
Project: COPC Michener A LS 6E

Sample ID MB-27384	SampType: MBLK	TestCode: EPA Method 418.1: TPH								
Client ID: PBS	Batch ID: 27384	RunNo: 37074								
Prep Date: 9/7/2016	Analysis Date: 9/8/2016	SeqNo: 1149375	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID LCS-27384	SampType: LCS	TestCode: EPA Method 418.1: TPH								
Client ID: LCSS	Batch ID: 27384	RunNo: 37074								
Prep Date: 9/7/2016	Analysis Date: 9/8/2016	SeqNo: 1149376	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	100.0	0	113	80.7	121			

Sample ID LCSD-27384	SampType: LCSD	TestCode: EPA Method 418.1: TPH								
Client ID: LCSS02	Batch ID: 27384	RunNo: 37074								
Prep Date: 9/7/2016	Analysis Date: 9/8/2016	SeqNo: 1149377	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	100.0	0	107	80.7	121	5.07	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609174

09-Sep-16

Client: Animas Environmental
Project: COPC Michener A LS 6E

Sample ID	LCS-27385	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	27385	RunNo:	37060					
Prep Date:	9/7/2016	Analysis Date:	9/8/2016	SeqNo:	1148921	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.8	62.6	124			
Surr: DNOP	3.9		5.000		78.6	70	130			

Sample ID	MB-27385	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	27385	RunNo:	37060					
Prep Date:	9/7/2016	Analysis Date:	9/8/2016	SeqNo:	1148922	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	7.1		10.00		71.5	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609174
09-Sep-16

Client: Animas Environmental
Project: COPC Michener A LS 6E

Sample ID	1609174-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BGT SC-1	Batch ID:	27376	RunNo:	37063					
Prep Date:	9/7/2016	Analysis Date:	9/8/2016	SeqNo:	1149486	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	4.9	24.68	0	114	59.3	143			
Surr: BFB	980		987.2		98.8	68.3	144			

Sample ID	1609174-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BGT SC-1	Batch ID:	27376	RunNo:	37063					
Prep Date:	9/7/2016	Analysis Date:	9/8/2016	SeqNo:	1149487	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.7	23.65	0	108	59.3	143	9.83	20	
Surr: BFB	920		946.1		97.7	68.3	144	0	0	

Sample ID	LCS-27376	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	27376	RunNo:	37063					
Prep Date:	9/7/2016	Analysis Date:	9/8/2016	SeqNo:	1149497	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	97.1	80	120			
Surr: BFB	950		1000		95.4	68.3	144			

Sample ID	MB-27376	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	27376	RunNo:	37063					
Prep Date:	9/7/2016	Analysis Date:	9/8/2016	SeqNo:	1149498	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	880		1000		87.6	68.3	144			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1609174
09-Sep-16

Client: Animas Environmental
Project: COPC Michener A LS 6E

Sample ID	1609174-002AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BGT SC-2	Batch ID:	27376	RunNo:	37063					
Prep Date:	9/7/2016	Analysis Date:	9/8/2016	SeqNo:	1149504	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9950	0	102	71.5	122			
Toluene	1.0	0.050	0.9950	0	104	71.2	123			
Ethylbenzene	1.1	0.050	0.9950	0	106	75.2	130			
Xylenes, Total	3.1	0.10	2.985	0	104	72.4	131			
Surr: 4-Bromofluorobenzene	1.1		0.9950		110	80	120			

Sample ID	1609174-002AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BGT SC-2	Batch ID:	27376	RunNo:	37063					
Prep Date:	9/7/2016	Analysis Date:	9/8/2016	SeqNo:	1149505	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	0.9843	0	98.0	71.5	122	4.65	20	
Toluene	1.0	0.049	0.9843	0	104	71.2	123	1.57	20	
Ethylbenzene	1.1	0.049	0.9843	0	108	75.2	130	0.602	20	
Xylenes, Total	3.2	0.098	2.953	0	107	72.4	131	1.97	20	
Surr: 4-Bromofluorobenzene	1.1		0.9843		110	80	120	0	0	

Sample ID	LCS-27376	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	27376	RunNo:	37063					
Prep Date:	9/7/2016	Analysis Date:	9/8/2016	SeqNo:	1149514	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.77	0.025	1.000	0	77.3	75.3	123			
Toluene	0.92	0.050	1.000	0	92.1	80	124			
Ethylbenzene	1.0	0.050	1.000	0	101	82.8	121			
Xylenes, Total	3.0	0.10	3.000	0	102	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Sample ID	MB-27376	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	27376	RunNo:	37063					
Prep Date:	9/7/2016	Analysis Date:	9/8/2016	SeqNo:	1149515	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		105	80	120			

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 |
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| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |



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

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1609174

RcptNo: 1

Received by/date: AT 09/01/16

Logged By: Lindsay Mangin 9/1/2016 7:05:00 AM *[Signature]*

Completed By: Lindsay Mangin 9/6/2016 2:50:52 PM *[Signature]*

Reviewed By: *[Signature]* 09/06/16

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: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good	Yes			

