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 **Burlington Resources Oil & Gas Company**	Contact **Crystal Tafoya**
Address 3401 East 30th St, Farmington, NM	Telephone No.(505) 326-9837
Facility Name: **Murphy E 5**	Facility Type: **Gas Well**

Surface Owner **BLM**	Mineral Owner **BLM (SF-043260-A)**	API No.**30-045-26476**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	**33**	**30N**	**11W**	**1590**	**South**	**1070**	**East**	**San Juan**

Latitude 36.76580 Longitude 107.990230

NATURE OF RELEASE

Type of Release **Produced Fluids**	Volume of Release **Unknown**	Volume Recovered **None**
Source of Release **Below Grade Tank**	Date and Hour of Occurrence **Unknown**	Date and Hour of Discovery **October 9, 2012**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	RCVD JAN 25 '13
By Whom?	Date and Hour	OIL CONS. DIV.
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	DIST. 3

If a Watercourse was Impacted, Describe Fully.*

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

Describe Area Affected and Cleanup Action Taken.*
The regulatory standard for closure at this site was determined to be 1000 ppm. A sample was taken and then transported to the lab and analytical results for TPH, BTEX and Chlorides were below the regulatory standards set forth in the NMOCD Guidelines for Remediation of Leaks, Spills and Release; therefore no further action is required. The final report is attached for your 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: Crystal L. Tafoya	OIL CONSERVATION DIVISION Approved by Environmental Specialist: Jonathan D. Kelly
Printed Name: **Crystal Tafoya**	
Title: **Field Environmental Specialist**	Approval Date: 1/29/2013 Expiration Date:
E-mail Address: crystal.tafoya@conocophillips.com	Conditions of Approval: C-144 Closure Permit needed for BGT Closure Attached ☐
Date: 1/24/2013 Phone: (505) 326-9837	

* Attach Additional Sheets If Necessary

nJK1302956248

16

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3274

December 10, 2012

Crystal Tafoya
ConocoPhillips
San Juan Business Unit
Office 214-5
5525 Hwy 64
Farmington, New Mexico 87401

RE: Below Grade Tank Closure Report
Murphy E #5
San Juan County, New Mexico

Dear Ms. Tafoya:

Animas Environmental Services, LLC (AES) is pleased to provide the final report associated with the below grade tank (BGT) closure at ConocoPhillips (CoP) Murphy E #5, located in San Juan County, New Mexico. Tank removal had been completed by CoP contractors prior to AES' arrival at the location.

1.0 Site Information

1.1 Location

Site Name – Murphy E #5
Legal Description – NE¼ SE¼, Section 33, T30N, R11W, San Juan County, New Mexico
Well Latitude/Longitude – N36.76567 and W107.99039, respectively
BGT Latitude/Longitude – N36.76557 and W107.99043, respectively
Land Jurisdiction – Bureau of Land Management (BLM)
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, October 2012

1.2 NMOCD Ranking

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) database was reviewed, and a C-144 form dated March 2008 for the Murphy E #5 well reported the depth to groundwater as greater than 100 feet below ground surface (bgs). The New Mexico Office of the State Engineer (NMOSE) database was reviewed for nearby water wells, and no registered water wells were reported to be located within 1,000 feet of the location. Additionally, Google Earth and the New Mexico Tech Petroleum Recovery

Research Center online mapping tool (http://ford.nmt.edu/react/project.html) were accessed to aid in the identification of downgradient surface water.

Once on site, AES personnel further assessed the ranking using topographical interpretation, Global Positioning System (GPS) elevation readings, and visual reconnaissance. AES personnel concluded that depth to groundwater at the site was greater than 100 feet bgs. The wash in Ruins Canyon is located approximately 750 feet northwest of the location. Based on this information, the location was assessed a ranking score of 10.

1.3 BGT Closure Assessment

AES was initially contacted by Jess Henson, CoP representative, on October 9, 2012, and on October 10, 2012, Corwin Lameman and Zach Trujillo of AES mobilized to the location. AES personnel collected six soil samples from below the BGT liner. Four samples were collected from the perimeter of the BGT footprint, one sample was collected from the center of the BGT footprint, and one sample was composited from the four perimeter samples and one center sample.

2.0 Soil Sampling

On October 10, 2012, AES personnel conducted field screening and collected five soil samples (S-1 through S-5) and one 5-point composite (SC-1) from below the BGT. Soil samples were collected from approximately 0.5 feet below the former BGT for field screening of volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH). Soil sample SC-1 was field screened for chlorides and submitted for confirmation laboratory analysis. Soil sample locations are included on Figure 2.

2.1 Field Screening

2.1.1 Volatile Organic Compounds

A portion of each sample 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 samples were also analyzed in the field for TPH per USEPA Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES's *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

2.1.3 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 composite soil sample 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 SC-1 was laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per U.S. Environmental Protection Agency (USEPA) Method 8021B;
- Chloride per USEPA Method 300.0.

2.3 Field and Laboratory Analytical Results

Field screening readings for VOCs via OVM ranged from 1.2 ppm in S-2 up to 4.3 ppm in S-3. Field TPH concentrations ranged from 38.4 mg/kg in S-2 and S-4 up to 50.7 mg/kg in S-1. The field chloride concentration in SC-1 was 40 mg/kg. Field screening results are summarized in Table 1 and presented on Figure 2. The AES Field Screening Report is attached.

Table 1. Soil Field Screening VOCs, TPH, and Chloride Results
Murphy E #5 BGT Closure, October 2012

Sample ID	*Date Sampled*	*Depth below BGT (ft)*	*VOCs OVM Reading (ppm)*	*Field TPH (mg/kg)*	*Field Chlorides (mg/kg)*
NMOCD Action Level (NMAC 19.15.17.13E)			*--*	***100***	***250***
S-1	10/10/12	0.5	3.7	50.7	NA
S-2	10/10/12	0.5	1.2	38.4	NA
S-3	10/10/12	0.5	4.3	42.5	NA
S-4	10/10/12	0.5	3.6	38.4	NA
S-5	10/10/12	0.5	2.1	39.8	NA
SC-1	10/10/12	0.5	2.6	NA	40

NA - Not Analyzed

Laboratory analytical results reported benzene and total BTEX concentrations in SC-1 as less than 0.050 mg/kg and 0.25 mg/kg, respectively. The laboratory chloride concentration was 52 mg/kg. Laboratory analytical results are summarized in Table 2 and included on Figure 2. Laboratory analytical reports are attached.

Table 2. Soil Laboratory Analytical Results
Murphy E #5 BGT Closure, October 2012

Sample ID	*Date Sampled*	*Depth (ft)*	*Benzene (mg/kg)*	*BTEX (mg/kg)*	*TPH-GRO (mg/kg)*	*TPH-DRO (mg/kg)*	*Chlorides (mg/kg)*
NMOCD Action Level (NMAC			*0.2*	*50*	*100*		*250*
SC-1	10/10/12	0.5	<0.050	<0.25	NA	NA	52

NA - Not Analyzed

3.0 Conclusions and Recommendations

NMOCD action levels for BGT closures are specified in New Mexico Administrative Code (NMAC) 19.15.17.13E. Benzene and total BTEX concentrations in SC-1 were below the NMOCD action levels 0.2 mg/kg and 50 mg/kg, respectively. Field TPH concentrations were below the NMOCD action level of 100 mg/kg in each sample (S-1 through S-5). The chloride concentration in SC-1 was below the NMOCD action level of 250 mg/kg. Based on field screening and laboratory analytical results for benzene, BTEX, TPH, and chlorides, no further work is recommended.

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

Sincerely,

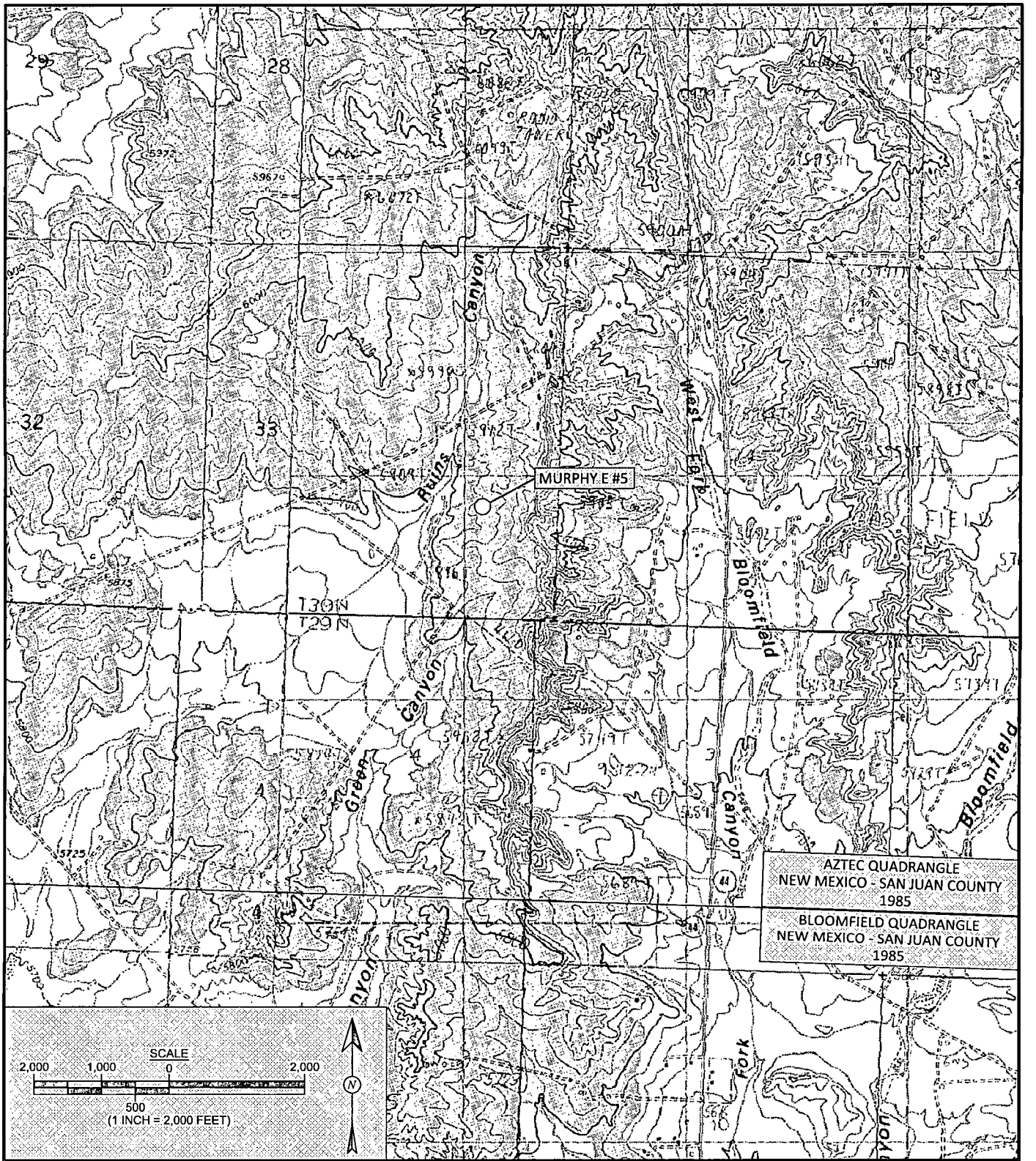
Corwin Lameman
Geologist Intern

Elizabeth McNally, P.E.

Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, October 2012
AES Field Screening Report 101012
Hall Analytical Report 1210588

R:\Animas 2000\Dropbox\2012 December 2012 (Former Trial File)\ConocoPhillips\Murphy E #5\Murphy E #5 BGT Closure Report 121012.docx



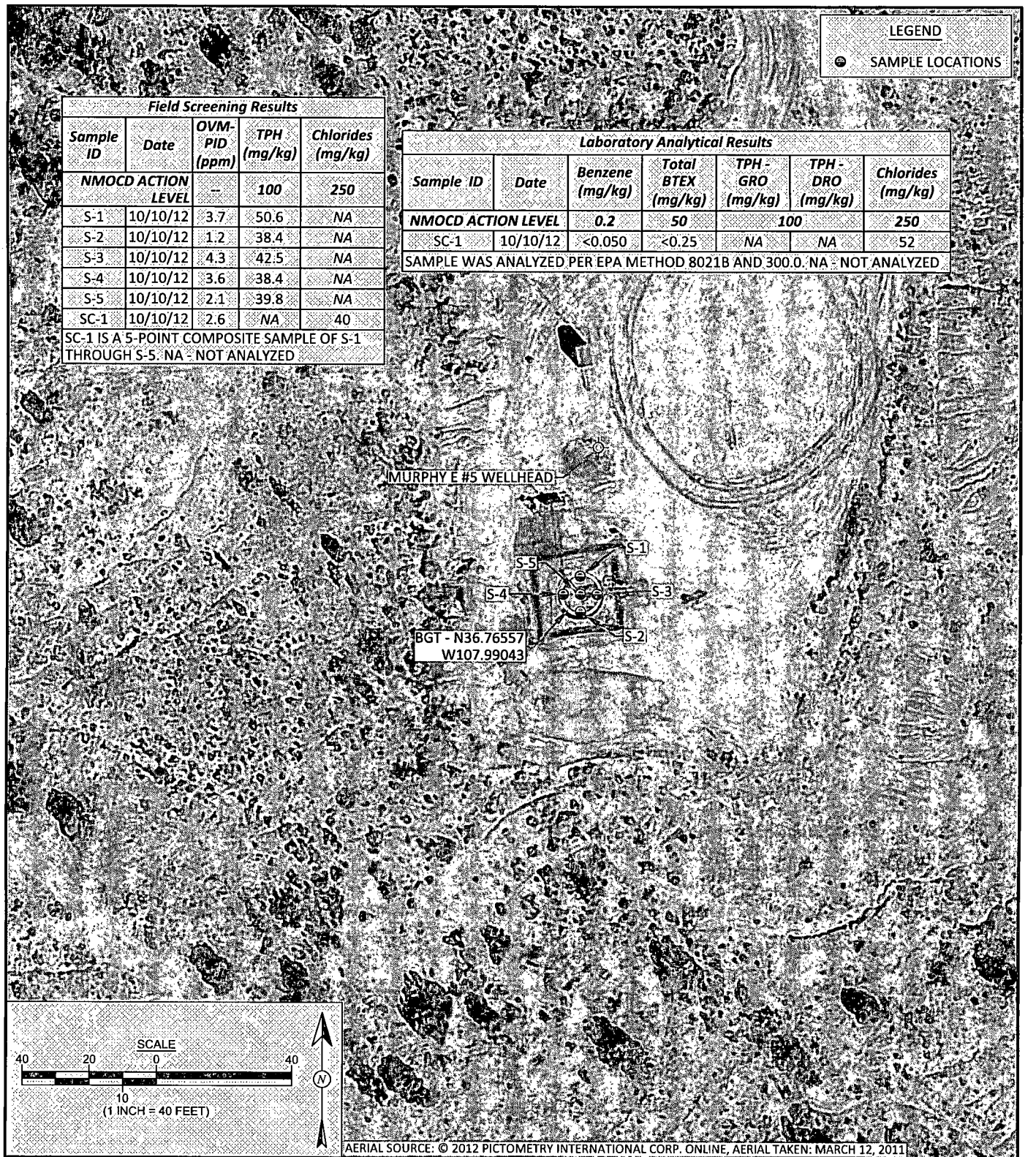
Animas Environmental Services, LLC

DRAWN BY: K. Christiansen	**DATE DRAWN:** October 9, 2012
REVISIONS BY: K. Christiansen	**DATE REVISED:** October 9, 2012
CHECKED BY: D. Watson	**DATE CHECKED:** October 9, 2012
APPROVED BY: E. McNally	**DATE APPROVED:** October 9, 2012

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP

ConocoPhillips
MURPHY E #5
SAN JUAN COUNTY, NEW MEXICO
NE¼ SE¼, SECTION 33, T30N, R11W
N36.76567, W107.99039



Field Screening Results

Sample ID	Date	OVM-PID (ppm)	TPH (mg/kg)	Chlorides (mg/kg)
NMOCD ACTION LEVEL		--	100	250
S-1	10/10/12	3.7	50.6	NA
S-2	10/10/12	1.2	38.4	NA
S-3	10/10/12	4.3	42.5	NA
S-4	10/10/12	3.6	38.4	NA
S-5	10/10/12	2.1	39.8	NA
SC-1	10/10/12	2.6	NA	40

SC-1 IS A 5-POINT COMPOSITE SAMPLE OF S-1 THROUGH S-5. NA - NOT ANALYZED

Laboratory Analytical Results

Sample ID	Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	Chlorides (mg/kg)
NMOCD ACTION LEVEL		0.2	50	100		250
SC-1	10/10/12	<0.050	<0.25	NA	NA	52

SAMPLE WAS ANALYZED PER EPA METHOD 8021B AND 300.0. NA - NOT ANALYZED

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** October 10, 2012
REVISIONS BY: C. Lameman	**DATE REVISED:** October 10, 2012
CHECKED BY: D. Watson	**DATE CHECKED:** October 10, 2012
APPROVED BY: E. McNally	**DATE APPROVED:** October 10, 2012

FIGURE 2

AERIAL SITE MAP
BELOW GRADE TANK CLOSURE
OCTOBER 2012
ConocoPhillips
MURPHY E #5
SAN JUAN COUNTY, NEW MEXICO
NE¼ SE¼, SECTION 33, T30N, R11W
N36.76567, W107.99039

AES Field Screening Report

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3274

Client: ConocoPhillips

Project Location: Murphy E #5

Date: 10/10/2012

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	Field Chloride (mg/kg)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
S-1	10/10/2012	9:37	North	3.7	NA	10:17	50.7	20.0	1	CEL
S-2	10/10/2012	9:39	South	1.2	NA	10:20	38.4	20.0	1	CEL
S-3	10/10/2012	9:41	East	4.3	NA	10:24	42.5	20.0	1	CEL
S-4	10/10/2012	9:43	West	3.6	NA	10:27	38.4	20.0	1	CEL
S-5	10/10/2012	9:45	Center	2.1	NA	10:30	39.8	20.0	1	CEL
SC-1	10/10/2012	9:47	Composite	2.6	40	*Not Analyzed for Field TPH*				

PQL Practical Quantitation Limit

ND Not Detected at the Reporting Limit

DF Dilution Factor

NA Not Analyzed

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

Field Chloride - Quantab Chloride Titrators or Drop Count Titration with Silver Nitrate

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:

Report Finalized: 101012

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

October 17, 2012

Ross Kennemer
Animas Environmental Services
624 East Comanche
Farmington, NM 87401
TEL: (505) 486-1776
FAX (505) 324-2022

RE: CoP Murphy E #5 OrderNo.: 1210588

Dear Ross Kennemer:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/11/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1210588**
Date Reported: **10/17/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: SC-1
Project: CoP Murphy E #5
Collection Date: 10/10/2012 9:47:00 AM
Lab ID: 1210588-001
Matrix: MEOH (SOIL)
Received Date: 10/11/2012 9:57:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	10/12/2012 1:42:28 PM
Toluene	ND	0.050		mg/Kg	1	10/12/2012 1:42:28 PM
Ethylbenzene	ND	0.050		mg/Kg	1	10/12/2012 1:42:28 PM
Xylenes, Total	ND	0.10		mg/Kg	1	10/12/2012 1:42:28 PM
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	10/12/2012 1:42:28 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	52	30		mg/Kg	20	10/11/2012 12:06:38 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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 greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210588**

17-Oct-12

Client: Animas Environmental Services

Project: CoP Murphy E #5

Sample ID	**MB-4252**	SampType: **MBLK**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID: **4252**			RunNo: **6174**					
Prep Date:	**10/11/2012**	Analysis Date: **10/11/2012**			SeqNo: **177945**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-4252**	SampType: **LCS**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID: **4252**			RunNo: **6174**					
Prep Date:	**10/11/2012**	Analysis Date: **10/11/2012**			SeqNo: **177946**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.3	90	110			

Sample ID	**1210398-003AMS**	SampType: **MS**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**BatchQC**	Batch ID: **4252**			RunNo: **6174**					
Prep Date:	**10/11/2012**	Analysis Date: **10/11/2012**			SeqNo: **177963**		Units: **mg/Kg-dry**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	20	16	16.26	8.436	73.5	64.4	117			

Sample ID	**1210398-003AMSD**	SampType: **MSD**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**BatchQC**	Batch ID: **4252**			RunNo: **6174**					
Prep Date:	**10/11/2012**	Analysis Date: **10/11/2012**			SeqNo: **177964**		Units: **mg/Kg-dry**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	21	16	16.26	8.436	78.9	64.4	117	4.25	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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 greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210588**

17-Oct-12

Client: Animas Environmental Services

Project: CoP Murphy E #5

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBS	Batch ID:	R6205	RunNo:	6205					
Prep Date:		Analysis Date:	10/12/2012	SeqNo:	178737	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	84	116			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSS	Batch ID:	R6205	RunNo:	6205					
Prep Date:		Analysis Date:	10/12/2012	SeqNo:	178738	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		111	84	116			

Sample ID	1210582-004BMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R6205	RunNo:	6205					
Prep Date:		Analysis Date:	10/12/2012	SeqNo:	178752	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	800		730.5		109	84	116	0	0	

Sample ID	B27	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBS	Batch ID:	R6205	RunNo:	6205					
Prep Date:		Analysis Date:	10/12/2012	SeqNo:	178761	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		105	84	116			

Sample ID	2.5UG GRO LCS-II	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSS	Batch ID:	R6205	RunNo:	6205					
Prep Date:		Analysis Date:	10/13/2012	SeqNo:	178762	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		112	84	116			

Sample ID	1210653-005BMS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R6205	RunNo:	6205					
Prep Date:		Analysis Date:	10/12/2012	SeqNo:	178768	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		113	84	116			

Sample ID	1210653-005BMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R6205	RunNo:	6205					
Prep Date:		Analysis Date:	10/12/2012	SeqNo:	178769	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1200		1000		117	84	116	0	0	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210588**

17-Oct-12

Client: Animas Environmental Services

Project: CoP Murphy E #5

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178787** 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		111	80	120			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178788** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	104	76.3	117			
Toluene	1.0	0.050	1.000	0	105	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	77	116			
Xylenes, Total	3.1	0.10	3.000	0	104	76.7	117			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Sample ID **1210588-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SC-1**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178790** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.72	0.050	0.6894	0	105	67.2	113			
Toluene	0.72	0.050	0.6894	0	104	62.1	116			
Ethylbenzene	0.73	0.050	0.6894	0	105	67.9	127			
Xylenes, Total	2.2	0.10	2.068	0	105	60.6	134			
Surr: 4-Bromofluorobenzene	0.82		0.6894		119	80	120			

Sample ID **1210588-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SC-1**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178791** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.70	0.050	0.6894	0	102	67.2	113	3.42	14.3	
Toluene	0.69	0.050	0.6894	0	100	62.1	116	3.44	15.9	
Ethylbenzene	0.70	0.050	0.6894	0	101	67.9	127	4.09	14.4	
Xylenes, Total	2.1	0.10	2.068	0	100	60.6	134	4.65	12.6	
Surr: 4-Bromofluorobenzene	0.84		0.6894		121	80	120	0	0	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1210588

Received by/date: AG 10/11/12

Logged By: **Michelle Garcia** 10/11/2012 9:57:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 10/11/2012 10:01:51 AM Michelle Garcia

Reviewed By: ZO 10/11/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. 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)

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

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

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: Animas Environmental Services	☐ Standard ☒ Rush Same day
	Project Name: CoP MURPHY E #5
Mailing Address 624 E Comanche Farmington NM	Project #:
Farmington, NM 87401	
Phone #: 505-564-2281	
email or Fax#: 505-324-2022	Project Manager: R. Kennemer
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)	Sampler: C. Lauerman / Z. Trujillo
Accreditation: ☐ NELAP ☐ Other	On Ice: ☒ Yes ☐ No
☐ EDD (Type)	Sample Temperature: 1.0

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1201 0328	8021 - BTEX	300.0 - Chlorides	Air Bubbles (Y or N)
10-12	0997	Soil	SC-1	4-oz jar	Meoh/NA	-001	X	X	

Date:	Time:	Relinquished by:	Received by:	Date	Time
10-11-12	1619			10/11/12	0957
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: BILL TO CONOCO Phillips

Work Order: 1034098?

Activity Code: C200

Supervisor: Harry Lee

User ID: KGARCIA

Area: 3

Work ordered by: Jess Henson

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.