

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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised August 8, 2011

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

### Release Notification and Corrective Action

#### OPERATOR

☐ Initial Report ☒ Final Report


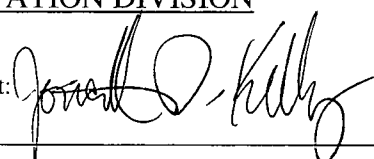
Name of Company <b>ConocoPhillips Company</b>	Contact <b>Crystal Tafoya</b>	
Address <b>3401 East 30<sup>th</sup> St, Farmington, NM</b>	Telephone No. <b>(505) 326-9837</b>	
Facility Name: <b>Tocito 1</b>	Facility Type: <b>P&amp;A Well</b>	
Surface Owner <b>Tribal</b>	Mineral Owner <b>Tribal (I-149-IND-5852)</b>	API No. <b>30-045-60027</b>

#### LOCATION OF RELEASE

Unit Letter <b>L</b>	Section <b>17</b>	Township <b>26N</b>	Range <b>18W</b>	Feet from the <b>3300</b>	North/South Line <b>North</b>	Feet from the <b>660</b>	East/West Line <b>West</b>	County <b>San Juan</b>
-------------------------	----------------------	------------------------	---------------------	------------------------------	----------------------------------	-----------------------------	-------------------------------	---------------------------

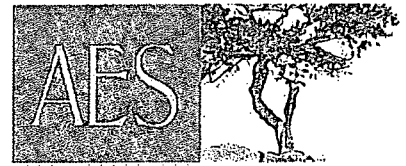
Latitude **36.48748** Longitude **108.79049**

#### NATURE OF RELEASE

Type of Release <b>Hydrocarbon</b>	Volume of Release <b>Unknown</b>	Volume Recovered <b>None</b>
Source of Release <b>Containment Berm</b>	Date and Hour of Occurrence <b>Unknown</b>	Date and Hour of Discovery <b>September 20, 2012</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>RCVD FEB 22 '13</b>	
By Whom?	Date and Hour	<b>OIL CONS. DIV.</b>
Was a Watercourse Reached? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>DIST. 3</b>	
If a Watercourse was Impacted, Describe Fully.* <b>N/A</b>		
Describe Cause of Problem and Remedial Action Taken.* <b>Secondary Containment Berm and visually impacted soil found during second P&amp;A of location. The impacted soil was tested and then removed and transported to a permitted landfarm for disposal.</b>		
Describe Area Affected and Cleanup Action Taken.* <b>The regulatory standard for closure at this site was determined to be 5000 ppm. Samples were taken and then transported to the lab and analytical results for TPH, BTEX and RCRA 8 were conducted. The results were below the regulatory standards set forth in the NMOCD Guidelines for Remediation of Leaks, Spills and Releases. However, based on visual observations along with field screening and lab results, suspected hydraulic oil surface staining existed and was removed. No further remedial action will be taken. The final report is attached for review.</b>		
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: <b>Crystal Tafoya</b>	Approved by Environmental Specialist: 	
Title: <b>Field Environmental Specialist</b>	Approval Date: <b>3/7/2013</b>	Expiration Date:
E-mail Address: <b>crystal.tafoya@conocophillips.com</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>2/18/2013</b> Phone: <b>(505) 326-9837</b>		

\* Attach Additional Sheets If Necessary

NSK 1306632658



Animas Environmental Services, LLC

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

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

January 2, 2013

Crystal Tafoya  
ConocoPhillips  
San Juan Business Unit  
Office 214-05  
5525 Hwy 64  
Farmington, New Mexico 87401

**RE: Initial Release Assessment Report  
Tocito #1  
San Juan County, New Mexico**

Dear Ms. Tafoya:

On September 25, 2012, Animas Environmental Services, LLC (AES) completed a release assessment at the ConocoPhillips (CoP) Tocito #1, located in San Juan County, New Mexico. Petroleum impacted soils were identified within a former secondary containment berm and as isolated spots on the location.

---

## 1.0 Site Information

### 1.1 Location

Location – NW¼ SW¼, Section 17, T26N, R18W, San Juan County, New Mexico  
Monument Latitude/Longitude – N36.48748 and W108.79049, respectively  
Release Latitude/Longitude – N36.48743 and W107.79083, respectively  
Land Jurisdiction – Navajo Tribal Land  
Figure 1. Topographic Site Location Map  
Figure 2. Aerial Site Map, September 2012

### 1.2 Site Ranking

The release area is located within the boundaries of the Navajo Nation. Navajo Nation Environmental Protection Agency (NNEPA) adheres to action levels for releases and spills as established by the New Mexico Oil Conservation Division (NMOCD).

Prior to site work, the NMOCD database was reviewed, and no records were obtained to assist in determining a ranking score for the release location. The New Mexico Office of the State Engineer (NMOSE) database was reviewed for the presence of 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 assessed the NMOCD ranking criteria using topographical interpretation, Global Position System (GPS) elevation readings, and visual reconnaissance. AES personnel concluded that depth to groundwater at the site was greater than 100 feet below ground surface (bgs). The distance to the nearest surface water body, a livestock pond, is located approximately 1,700 feet northeast of the location. The site location has been assigned a ranking score of 0 per the NMOCD *Guidelines for Leaks, Spills, and Releases* (1993).

### **1.3 Release Assessment**

AES was initially contacted by Crystal Tafoya of CoP on September 20, 2012, to assess discolored soils and staining at the location, and on September 25, 2012, Heather Woods and Corwin Lameman of AES completed the release assessment field work. The assessment included collection and field screening of 31 soil samples from 15 soil borings (SB-1 through SB-15) within the secondary containment berm and from visible surface stains. Two composite soil samples SC-1 (SB-1 through SB-6) and SC-2 (SB-7 through SB-15) were also collected at this time. Sample locations are shown on Figure 3.

---

## **2.0 Soil Sampling**

A total of 31 soil samples 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). Two composite samples (SC-1 and SC-2) were submitted for confirmation laboratory analysis and waste characterization.

### **2.1 Field Screening**

#### **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 USEPA Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES's *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

## 2.2 Laboratory Analyses

The composite soil samples (SC-1 and SC-2) 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. Soil samples SC-1 and SC-2 were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per U.S. Environmental Protection Agency (USEPA) Method 8021B;
- TPH for gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) per USEPA Method 8015B;
- Toxicity Characteristic Leaching Procedure (TCLP) Resource Conservation Recovery Act (RCRA) 8 Metals including arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver per USEPA Method 6010B;
- Reactivity, Corrosivity, and Ignitability.

## 2.3 Field Screening and Analytical Results

On September 25, 2012, assessment field screening results for VOCs via OVM showed concentrations ranging from 1.5 ppm in SB-6 up to 8.8 ppm in SB-8. Field TPH concentrations ranged from 35.2 mg/kg in SB-2 to greater than 2,500 mg/kg in SB-7 and SB-9. Results are included below in Table 1 and on Figure 3. The AES Field Screening Report is attached.

Table 1. Soil Field Screening Results  
Tocito #1 Release Assessment, September 2012

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs OVM Reading (ppm)</i>	<i>Field TPH (mg/kg)</i>
<i>NMOCD Action Level*</i>			<i>100</i>	<i>5,000</i>
SB-1	09/25/12	0	2.1	60.3
		1.5	2.9	53.1
		2	3.5	NA
SB-2	9/25/12	0	2.6	53.1
		1	5.1	35.2
SB-3	9/25/12	0	3.4	59.1
		1	3.2	57.9
		1.75	4.9	NA
SB-4	9/25/12	0	6.1	48.4

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs OVM Reading (ppm)</i>	<i>Field TPH (mg/kg)</i>
		<i>NMOCD Action Level*</i>	<i>100</i>	<i>5,000</i>
SB-4	9/25/12	1	5.4	51.9
		2	5.0	NA
SB-5	9/25/12	0	4.1	61.5
		1	3.8	53.1
SB-6	9/25/12	0	1.5	49.5
		1	1.6	51.9
		1.5	3.0	NA
SB-7	9/25/12	0	3.0	NA
		1	2.4	>2,500
		1.25	2.1	>2,500
SB-8	9/25/12	0	7.8	656
		1	8.8	NA
		1.5	5.7	85.4
SB-9	9/25/12	0	4.2	>2,500
		1	3.8	NA
		1.5	4.0	755
SB-10	9/25/12	0	3.4	234
SB-11	9/25/12	0	3.3	164
SB-12	9/25/12	0	4.6	93.7
SB-13	9/25/12	0	3.0	110
SB-14	9/25/12	0	2.7	71.0
SB-15	9/25/12	0	1.6	113

NA – Not Analyzed;

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

Laboratory results for SC-1 and SC-2 were used to confirm field screening results from the release assessment. Benzene and total BTEX concentrations in SC-1 and SC-2 were reported at less than 0.050 mg/kg and 0.25 mg/kg, respectively. TPH concentrations as GRO/DRO/ MRO were reported as less than 65 mg/kg (SC-1) and 50,000 mg/kg (SC-2). Results are presented in Table 2 and on Figures 3. The laboratory analytical report is attached.

Table 2. Laboratory Analytical Results – Benzene, BTEX, and TPH  
Tocito #1 Release Assessment, September 2012

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>Benzene (mg/kg)</i>	<i>BTEX (mg/kg)</i>	<i>TPH-GRO (mg/kg)</i>	<i>TPH-DRO (mg/kg)</i>	<i>TPH-MRO (mg/kg)</i>
<b>NMOCD Action Level*</b>			<b>10</b>	<b>50</b>		<b>5,000</b>	
SC-1	9/25/12	0 to 1.5	<0.050	<0.25	<5.0	<10	<50
SC-2	9/25/12	0	<0.050	<0.25	<5.0	<b>15,000</b>	<b>35,000</b>

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

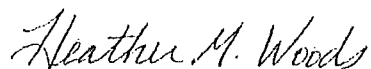
### 3.0 Conclusions and Recommendations

On September 25, 2012, AES conducted a release assessment on petroleum impacted soils at the Tocito #1. NNEPA utilizes action levels for releases determined by NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993), and the release was assigned a rank of 0. Field screening showed concentrations below the NMOCD action level of 100 ppm for VOCs in all of the soil borings (SB-1 through SB-15), with the highest VOC concentration in SB-8 (8.8 ppm). Field screening results for TPH were greater than 2,500 mg/kg in SB-7 and SB-9. Laboratory analytical results for SC-2 reported total TPH concentrations above the NMOCD action level of 5,000 mg/kg with 50,000 mg/kg.

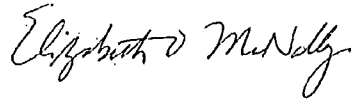
Based on field screening and laboratory analytical results for benzene, total BTEX, and TPH, soils within the bermed area have not been impacted by petroleum hydrocarbons above NMOCD action levels. However, based on visual observations along with field screening and laboratory analytical results, suspected hydraulic oil surface staining exists at the location with TPH concentrations above NMOCD action levels. AES recommends that the petroleum impacted soils be removed from the location. Following removal of impacted soils, additional confirmation soil samples should be collected for clearance of the excavation limits.

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

Sincerely,



Heather Woods  
Staff Geologist

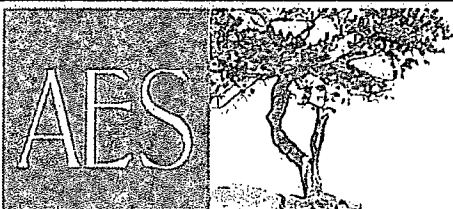
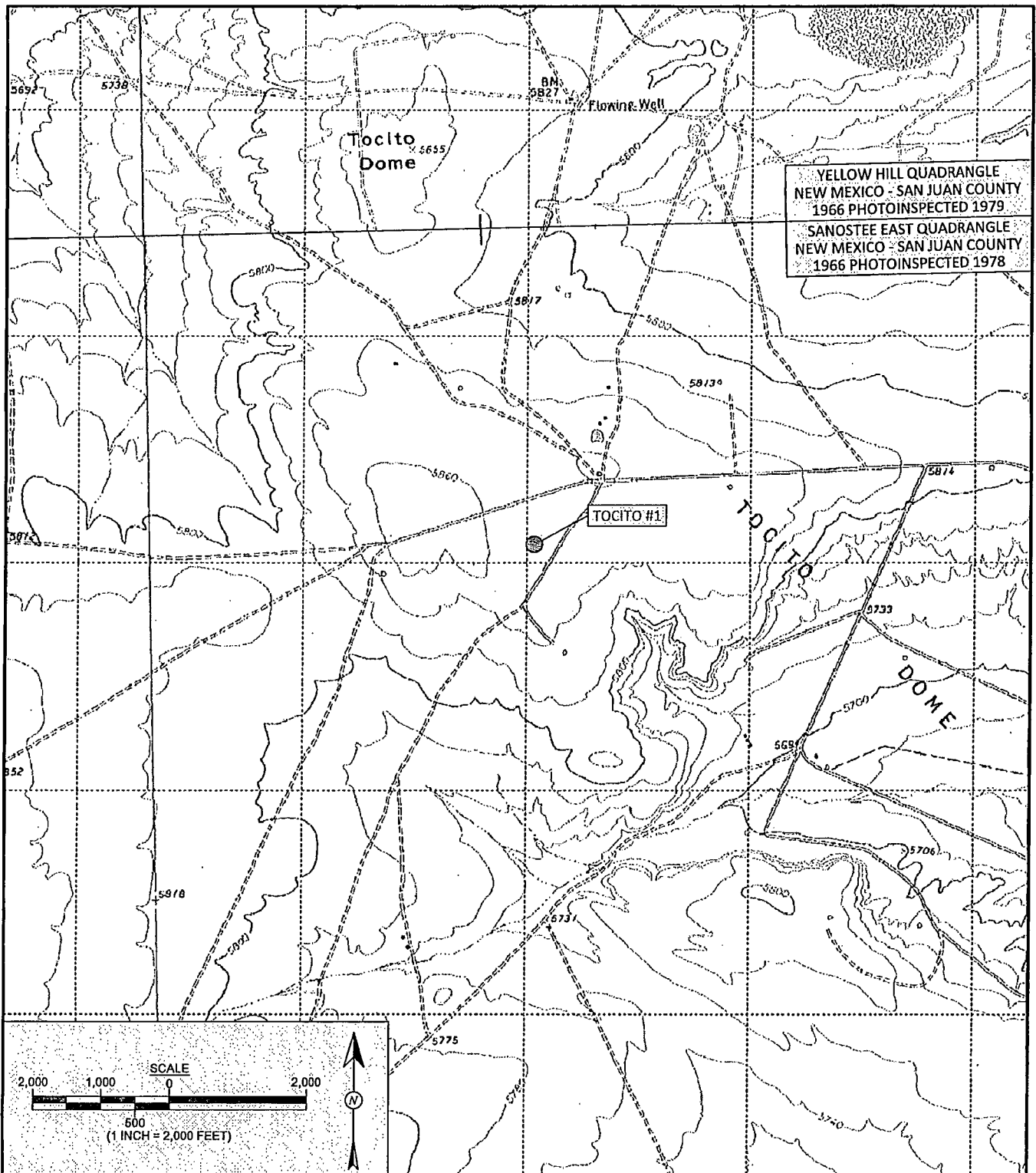


Elizabeth McNally, PE

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, September 2012
- Figure 3. Release Assessment Soil Sample Locations and Results, September 2012
- AES Field Screening Report 092512
- Hall Analytical Report 1209B53

R:\Animas 2000\Dropbox\2013 Projects\ConocoPhillips\Tocito #1\Tocito #1 Release Assessment Report 010213.docx



Animas Environmental Services, LLC

**DRAWN BY:**

C. Lameman

**DATE DRAWN:**

September 28, 2012

**REVISIONS BY:**

C. Lameman

**DATE REVISED:**

December 21, 2012

**CHECKED BY:**

D. Watson

**DATE CHECKED:**

December 21, 2012

**APPROVED BY:**

E. McNally

**DATE APPROVED:**

December 21, 2012

## FIGURE 1

### TOPOGRAPHIC SITE LOCATION MAP

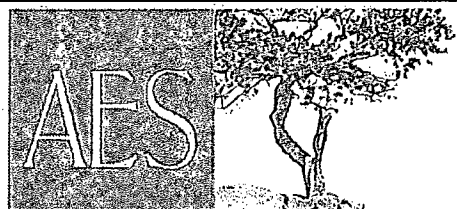
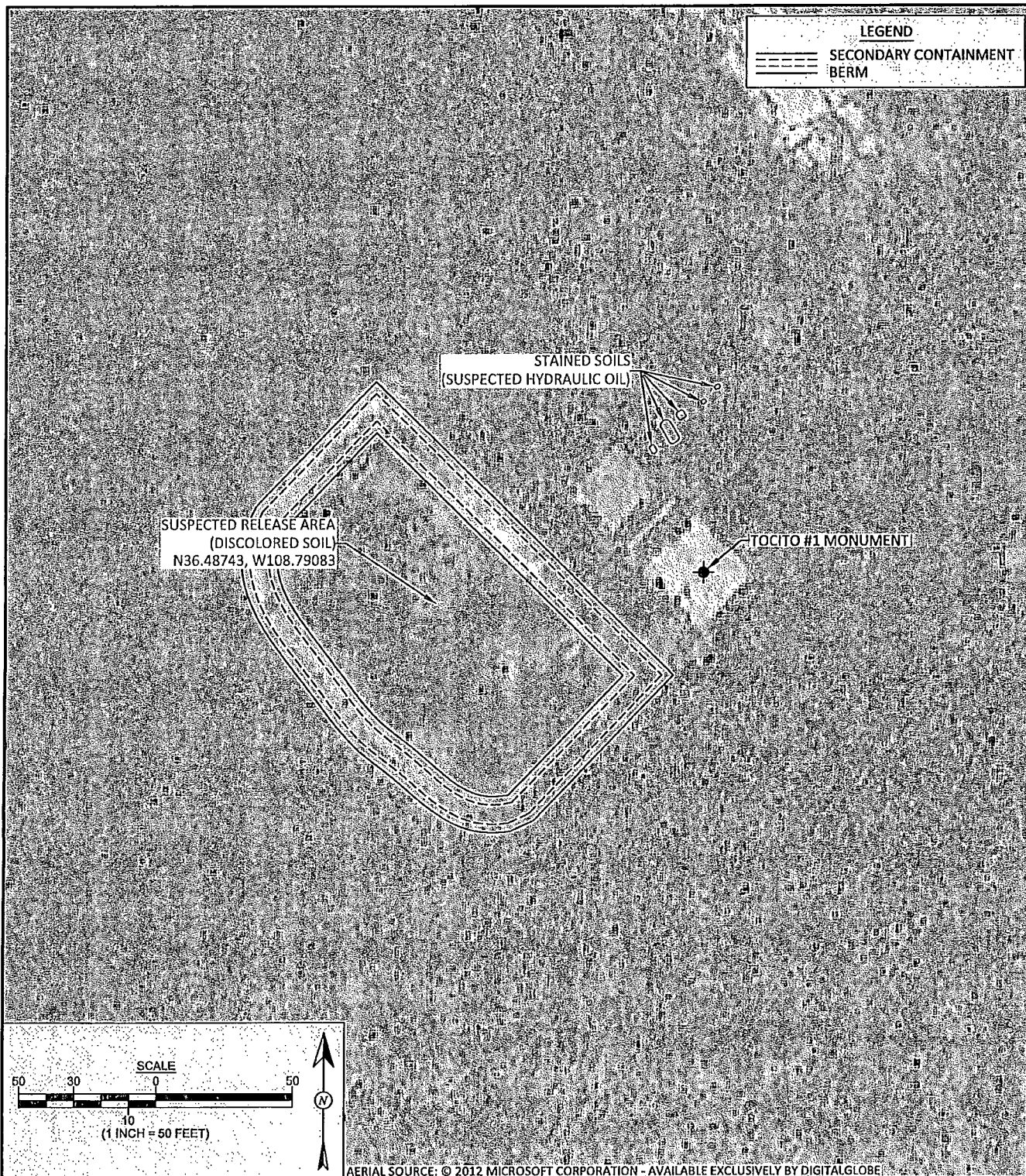
ConocoPhillips

TOCITO #1

SAN JUAN COUNTY, NEW MEXICO

NW¼ SW¼, SECTION 17, T26N, R18W  
N36.48748, W108.79049





Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> September 28, 2012
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> December 21, 2012
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> December 21, 2012
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> December 21, 2012

## FIGURE 2

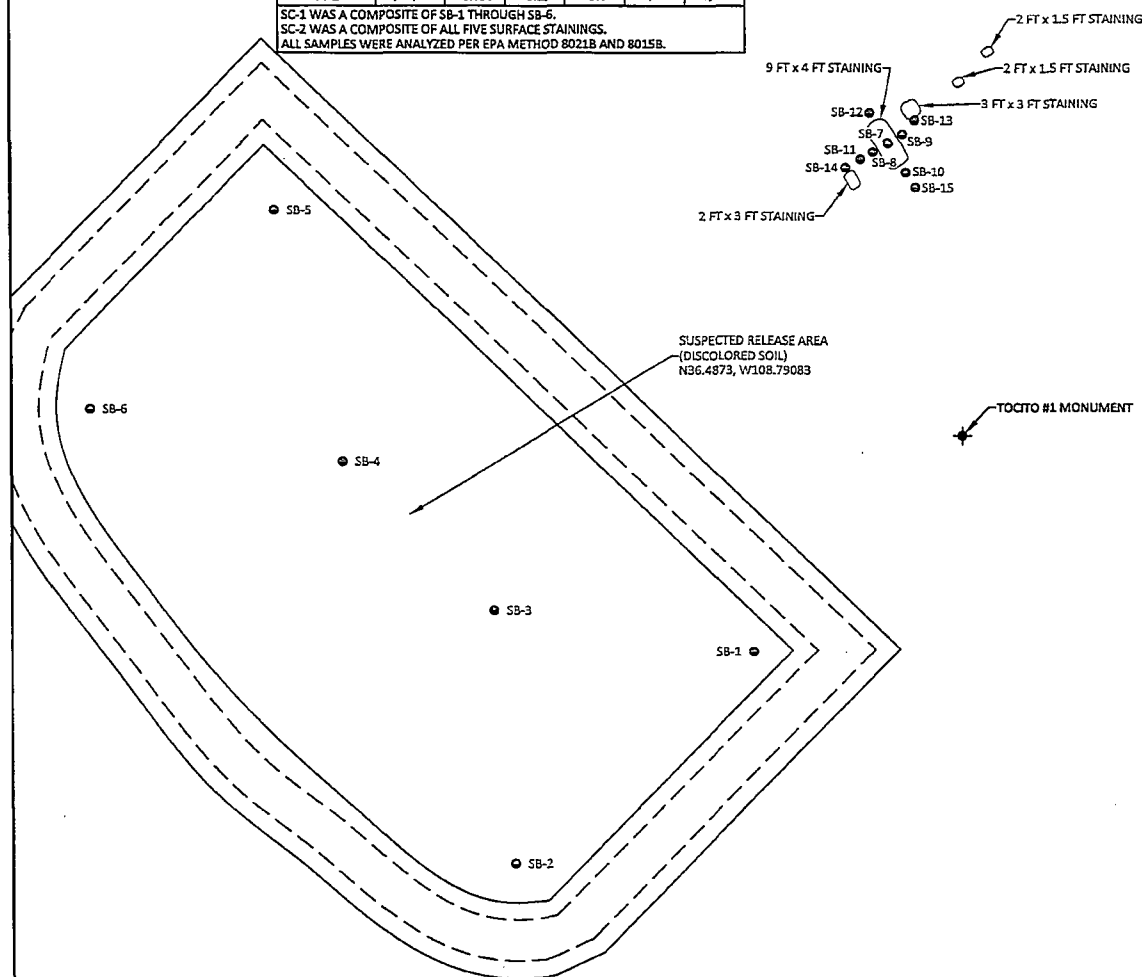
### AERIAL SITE MAP SEPTEMBER 2012

ConocoPhillips  
TOCITO #1

SAN JUAN COUNTY, NEW MEXICO  
NW¼ SW¼, SECTION 17, T26N, R18W  
N36.48748, W108.79049

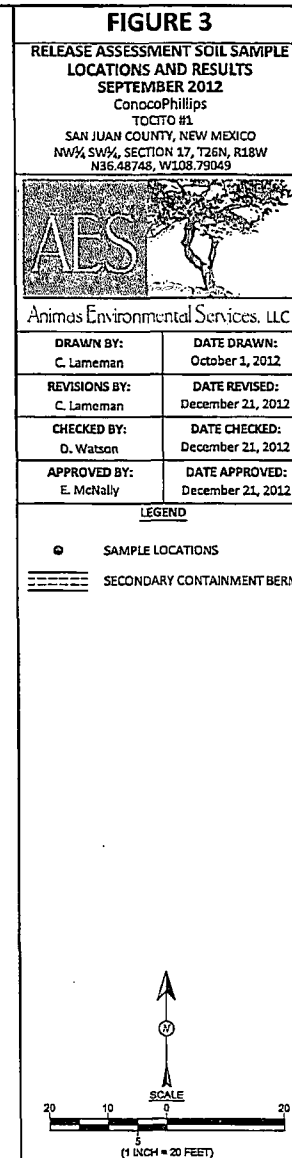
Laboratory Analytical Results						
Sample ID	Date	Benzene (mg/kg)	BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	TPH MRO (mg/kg)
NIMOCD ACTION LEVEL		10	50	5,000		
SC-1	9/25/12	<0.050	<0.25	<5.0	<10	<50
SC-2	9/25/12	<0.050	<0.25	<5.0	15,000	35,000

SC-1 WAS A COMPOSITE OF SB-1 THROUGH SB-6.  
SC-2 WAS A COMPOSITE OF ALL FIVE SURFACE STAININGS.  
ALL SAMPLES WERE ANALYZED PER EPA METHOD 8021B AND 8015B.



Field Screening Results				
Sample ID	Date	Depth (ft)	OVM- PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL		100	5,000	
SB-1	9/25/12	0	2.1	60.3
		1.5	2.9	53.1
		2	3.5	NA
SB-2	9/25/12	0	2.6	53.1
		1	5.1	35.2
		0	3.4	59.1
SB-3	9/25/12	1	3.2	57.9
		1.75	4.9	NA
		0	6.1	48.4
SB-4	9/25/12	1	5.4	51.9
		2	5.0	NA
		0	4.1	61.5
SB-5	9/25/12	1	3.8	53.1
		0	1.5	49.5
		1	1.6	51.9
SB-6	9/25/12	1.5	3.0	NA
		0	3.0	NA
		1	2.4	>2,500
SB-7	9/25/12	1.25	2.1	>2,500
		0	7.8	656
		1	8.8	NA
SB-8	9/25/12	1.5	5.7	85.4
		0	4.2	>2,500
		1	3.8	NA
SB-9	9/25/12	1.5	4.0	755
		0	3.4	234
		0	3.3	164
SB-10	9/25/12	0	4.6	93.7
		0	3.0	110
		0	2.7	71.0
SB-11	9/25/12	0	1.6	113
SB-12	9/25/12			
SB-13	9/25/12			
SB-14	9/25/12			
SB-15	9/25/12			

NA - NOT ANALYZED



# AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

Client: ConocoPhillips

Project Location: Tocito #1

Date: 9/25/2012

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3274

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ 0'	9/25/2012	8:20	2.1	10:21	60.3	20.0	1	HMW
SB-1 @ 1.5'	9/25/2012	8:23	2.9	10:24	53.1	20.0	1	HMW
SB-1 @ 2'	9/25/2012	8:27	3.5	Not Analyzed for TPH				
SB-2 @ 0'	9/25/2012	8:32	2.6	10:27	53.1	20.0	1	HMW
SB-2 @ 1'	9/25/2012	8:37	5.1	10:29	35.2	20.0	1	HMW
SB-3 @ 0'	9/25/2012	8:45	3.4	10:32	59.1	20.0	1	HMW
SB-3 @ 1'	9/25/2012	8:50	3.2	10:34	57.9	20.0	1	HMW
SB-3 @ 1.75'	9/25/2012	8:55	4.9	Not Analyzed for TPH				
SB-4 @ 0'	9/25/2012	8:58	6.1	10:45	48.4	20.0	1	HMW
SB-4 @ 1'	9/25/2012	9:31	5.4	10:47	51.9	20.0	1	HMW
SB-4 @ 2'	9/25/2012	9:35	5.0	Not Analyzed for TPH				
SB-5 @ 0'	9/25/2012	9:38	4.1	10:50	61.5	20.0	1	HMW
SB-5 @ 1'	9/25/2012	9:41	3.8	10:53	53.1	20.0	1	HMW
SB-6 @ 0'	9/25/2012	9:45	1.5	10:37	49.5	20.0	1	HMW
SB-6 @ 1'	9/25/2012	9:50	1.6	10:41	51.9	20.0	1	HMW
SB-6 @ 1.5'	9/25/2012	9:54	3.0	Not Analyzed for TPH				
SB-7 @ 0'	9/25/2012	11:00	3.0	Not Analyzed for TPH				
SB-7 @ 1'	9/25/2012	11:04	2.4	12:23	>2,500	20.0	1	HMW
SB-7 @ 1.25'	9/25/2012	11:08	2.1	12:26	>2,500	20.0	1	HMW
SB-8 @ 0'	9/25/2012	11:22	7.8	11:47	656	20.0	1	HMW
SB-8 @ 1'	9/25/2012	11:25	8.8	Not Analyzed for TPH				
SB-8 @ 1.5'	9/25/2012	11:29	5.7	11:50	85.4	20.0	1	HMW

Tocito #1

Page 1

Report Finalized: 09/25/12

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-9 @ 0'	9/25/2012	11:33	4.2	11:53	>2,500	20.0	1	HMW
SB-9 @ 1'	9/25/2012	11:36	3.8	Not Analyzed for TPH				
SB-9 @ 1.5'	9/25/2012	11:42	4.0	11:56	755	20.0	1	HMW
SB-10 @ 0'	9/25/2012	12:00	3.4	12:31	234	20.0	1	HMW
SB-11 @ 0'	9/25/2012	12:05	3.3	12:34	164	20.0	1	HMW
SB-12 @ 0'	9/25/2012	12:09	4.6	12:37	93.7	20.0	1	HMW
SB-13 @ 0'	9/25/2012	12:12	3.0	12:40	110	20.0	1	HMW
SB-14 @ 0'	9/25/2012	12:17	2.7	12:43	71.0	20.0	1	HMW
SB-15 @ 0'	9/25/2012	12:47	1.6	13:02	113	20.0	1	HMW

Total Petroleum Hydrocarbons - USEPA 418.1

PQL Practical Quantitation Limit

ND Not Detected at the Reporting Limit

DF Dilution Factor

NA Not Analyzed

Analyst:

*Heather M. Woods*

\*Field TPH concentrations recorded may be below PQL.



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

October 03, 2012

Debbie Watson

Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401  
TEL: (505) 486-4071  
FAX

RE: CoP Tocito #1

OrderNo.: 1209B53

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 9/26/2012 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](http://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

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

Lab Order 1209B53

Date Reported: 10/3/2012

**CLIENT:** Animas Environmental Services**Client Sample ID:** SC-1**Project:** CoP Tocito #1**Collection Date:** 9/25/2012 12:26:00 PM**Lab ID:** 1209B53-001**Matrix:** MEOH (SOIL)**Received Date:** 9/26/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JMP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/27/2012 8:42:00 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/27/2012 8:42:00 AM
Surr: DNOP	112	77.6-140		%REC	1	9/27/2012 8:42:00 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/27/2012 2:16:54 PM
Surr: BFB	105	84-116		%REC	1	9/27/2012 2:16:54 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	9/26/2012 2:50:23 PM
Toluene	ND	0.050		mg/Kg	1	9/26/2012 2:50:23 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/26/2012 2:50:23 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/26/2012 2:50:23 PM
Surr: 4-Bromofluorobenzene	96.8	80-120		%REC	1	9/26/2012 2:50:23 PM
<b>MERCURY, TCLP</b>						Analyst: IDC
Mercury	ND	0.020		mg/L	1	10/2/2012 3:56:08 PM
<b>EPA METHOD 6010B: TCLP METALS</b>						Analyst: ELS
Arsenic	ND	5.0		mg/L	1	10/2/2012 6:18:14 AM
Barium	ND	100		mg/L	1	10/2/2012 6:18:14 AM
Cadmium	ND	1.0		mg/L	1	10/2/2012 6:18:14 AM
Chromium	ND	5.0		mg/L	1	10/2/2012 6:18:14 AM
Lead	ND	5.0		mg/L	1	10/2/2012 6:18:14 AM
Selenium	ND	1.0		mg/L	1	10/2/2012 6:18:14 AM
Silver	ND	5.0		mg/L	1	10/2/2012 6:18:14 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- 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
- S Spike Recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Analytical Report

Lab Order 1209B53

Date Reported: 10/3/2012

**CLIENT:** Animas Environmental Services**Client Sample ID:** SC-2**Project:** CoP Tocito #1**Collection Date:** 9/25/2012 12:28:00 PM**Lab ID:** 1209B53-002**Matrix:** MEOH (SOIL)**Received Date:** 9/26/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JMP
Diesel Range Organics (DRO)	15000	970		mg/Kg	100	9/27/2012 4:53:21 PM
Motor Oil Range Organics (MRO)	35000	4900		mg/Kg	100	9/27/2012 4:53:21 PM
Surr: DNOP	0	77.6-140	S	%REC	100	9/27/2012 4:53:21 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/27/2012 2:45:40 PM
Surr: BFB	102	84-116		%REC	1	9/27/2012 2:45:40 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	9/26/2012 3:19:13 PM
Toluene	ND	0.050		mg/Kg	1	9/26/2012 3:19:13 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/26/2012 3:19:13 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/26/2012 3:19:13 PM
Surr: 4-Bromofluorobenzene	98.8	80-120		%REC	1	9/26/2012 3:19:13 PM
<b>MERCURY, TCLP</b>						Analyst: IDC
Mercury	ND	0.020		mg/L	1	10/2/2012 3:57:53 PM
<b>EPA METHOD 6010B: TCLP METALS</b>						Analyst: ELS
Arsenic	ND	5.0		mg/L	1	10/2/2012 6:20:28 AM
Barium	ND	100		mg/L	5	10/2/2012 6:40:53 AM
Cadmium	ND	1.0		mg/L	1	10/2/2012 6:20:28 AM
Chromium	ND	5.0		mg/L	1	10/2/2012 6:20:28 AM
Lead	ND	5.0		mg/L	1	10/2/2012 6:20:28 AM
Selenium	ND	1.0		mg/L	1	10/2/2012 6:20:28 AM
Silver	ND	5.0		mg/L	1	10/2/2012 6:20:28 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- 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
- S Spike Recovery outside accepted recovery limits



YOUR LAB OF CHOICE

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

October 01, 2012

Anne Thorne  
Hall Environmental Analysis Laborat  
4901 Hawkins NE  
Albuquerque, NM 87109

ESC Sample # : L597599-01

Date Received : September 27, 2012  
Description :

Site ID :

Sample ID : 1209B53-001B SC-1

Project # :

Collected By :  
Collection Date : 09/25/12 12:26

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	10/01/12	1
Ignitability	See Footnote		Deg. F	D93/1010A	09/29/12	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	10/01/12	1
Reactive Sulf. (SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	09/27/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 10/01/12 16:30 Printed: 10/01/12 16:51

L597599-01 (IGNITABILITY) - Did Not Ignite @ 170 F





12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

# REPORT OF ANALYSIS

October 01, 2012

Anne Thorne  
Hall Environmental Analysis Laborat  
4901 Hawkins NE  
Albuquerque, NM 87109

Date Received : September 27, 2012  
Description :  
Sample ID : 1209B53-001B SC-2  
Collected By :  
Collection Date : 09/25/12 12:28

ESC Sample # : L597599-02

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	10/01/12	1
Ignitability	See Footnote		Deg. F	D93/1010A	09/29/12	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	10/01/12	1
Reactive Sulf. (SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	09/27/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 10/01/12 16:30 Printed: 10/01/12 16:51  
L597599-02 (IGNITABILITY) - Did Not Ignite @ 170 F



YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory  
Anne Thorne  
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report  
Level II

L597599

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0614289

Est. 1970

October 01, 2012

Analyte	Result	Laboratory Blank Units % Rec	Limit	Batch	Date Analyzed
Reactive Sulf. (SW846 7.3.4.1)	< 25	mg/kg		WG614989	09/27/12 23:37
Reactive CN (SW846 7.3.3.2)	< .125	mg/kg		WG615002	10/01/12 09:47

Analyte	Units	Result	Duplicate Duplicate	RPD	Limit	Ref Samp	Batch
Reactive Sulf. (SW846 7.3.4.1)	mg/kg	0	0	0	20	L597286-02	WG614989
Reactive Sulf. (SW846 7.3.4.1)	mg/kg	0	0	0	20	L597592-02	WG614989
Ignitability	Deg. F	0	0	0	10	L597305-01	WG615257
Ignitability	Deg. F	0	0	0	10	L597599-02	WG615257
Corrosivity		0	0	0	10	L597599-02	WG615388
Reactive CN (SW846 7.3.3.2)	mg/kg	0	0	0	20	L597286-02	WG615002
Reactive CN (SW846 7.3.3.2)	mg/kg	0	0	0	20	L597592-02	WG615002

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
Reactive Sulf. (SW846 7.3.4.1)	mg/kg	100	78.4	78.4	70-130	WG614989
Ignitability	Deg. F	82	83.0	101.	93-107	WG615257
Corrosivity		6.03	6.00	99.5	98-101	WG615388

Analyte	Units	Laboratory Control Sample Duplicate Result Ref %Rec	Limit	RPD	Limit	Batch
Reactive Sulf. (SW846 7.3.4.1)	mg/kg	86.3 78.4 86.0	70-130	9.59	20	WG614989
Ignitability	Deg. F	82.0 83.0 100.	93-107	1.21	20	WG615257
Corrosivity		6.01 6.00 100.	98-101	0.167	10	WG615388

Batch number / Run number / Sample number cross reference

WG614989: R2369018: L597599-01 02  
WG615257: R2370993: L597599-01 02  
WG615388: R2371378: L597599-01 02  
WG615002: R2371753: L597599-01 02

\* \* Calculations are performed prior to rounding of reported values.

\* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1209B53

03-Oct-12

Client: Animas Environmental Services

Project: CoP Tocito #1

Sample ID	MB-3935	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID:	3935	RunNo:	5768					
Prep Date:	9/26/2012	Analysis Date:	9/26/2012	SeqNo:	166136	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	13		10.00		131	77.6	140			

Sample ID	LCS-3935	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	3935	RunNo:	5768					
Prep Date:	9/26/2012	Analysis Date:	9/26/2012	SeqNo:	166144	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.3	52.6	130			
Surr: DNOP	5.9		5.000		118	77.6	140			

Sample ID	1209A69-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	3935	RunNo:	5797					
Prep Date:	9/26/2012	Analysis Date:	9/27/2012	SeqNo:	166858	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.92	0	85.3	57.2	146			
Surr: DNOP	4.6		5.092		89.4	77.6	140			

Sample ID	1209A69-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	3935	RunNo:	5797					
Prep Date:	9/26/2012	Analysis Date:	9/27/2012	SeqNo:	166860	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	51.07	0	92.7	57.2	146	8.61	24.5	
Surr: DNOP	4.5		5.107		88.9	77.6	140	0	0	

## 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#: 1209B53

03-Oct-12

Client: Animas Environmental Services

Project: CoP Tocito #1

Sample ID	MB-3881	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBS	Batch ID:	3881	RunNo:	5824					
Prep Date:	9/22/2012	Analysis Date:	9/27/2012	SeqNo:	167530	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	990		1000		99.3	84	116			

Sample ID	LCS-3881	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSS	Batch ID:	3881	RunNo:	5824					
Prep Date:	9/22/2012	Analysis Date:	9/27/2012	SeqNo:	167531	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	74	117			
Surr: BFB	1000		1000		104	84	116			

## 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#: 1209B53

03-Oct-12

Client: Animas Environmental Services

Project: CoP Tocito #1

Sample ID	MB-3881	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	3881		RunNo:	5783					
Prep Date:	9/22/2012	Analysis Date:	9/26/2012		SeqNo:	166796	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		99.7	80	120				

Sample ID	LCS-3881	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	3881	RunNo:	5783					
Prep Date:	9/22/2012	Analysis Date:	9/26/2012	SeqNo:	166797	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.050	1.000	0	95.3	76.3	117			
Toluene	0.98	0.050	1.000	0	97.8	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	77	116			
Xylenes, Total	3.1	0.10	3.000	0	102	76.7	117			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	1209929-003AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BatchQC	Batch ID:	3881	RunNo:	5783					
Prep Date:	9/22/2012	Analysis Date:	9/26/2012	SeqNo:	166805	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.048	0.9606	0	91.4	67.2	113			
Toluene	0.91	0.048	0.9606	0	94.8	62.1	116			
Ethylbenzene	0.92	0.048	0.9606	0.004087	95.5	67.9	127			
Xylenes, Total	2.8	0.096	2.882	0	97.9	60.6	134			
Surr: 4-Bromofluorobenzene	0.98		0.9606		102	80	120			

Sample ID	1209929-003AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BatchQC	Batch ID:	3881	RunNo:	5783					
Prep Date:	9/22/2012	Analysis Date:	9/26/2012	SeqNo:	166844	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.048	0.9615	0	93.5	67.2	113	2.34	14.3	
Toluene	0.93	0.048	0.9615	0	96.4	62.1	116	1.73	15.9	
Ethylbenzene	0.94	0.048	0.9615	0.004087	97.3	67.9	127	1.95	14.4	
Xylenes, Total	2.8	0.096	2.885	0	97.8	60.6	134	0.0126	12.6	
Surr: 4-Bromofluorobenzene	0.99		0.9615		103	80	120	0	0	

## 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#: 1209B53

03-Oct-12

Client: Animas Environmental Services

Project: CoP Tocito #1

Sample ID	mb-3881	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	3881	RunNo:	5909					
Prep Date:	9/22/2012	Analysis Date:	10/1/2012	SeqNo:	170206	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		88.3	70	130			
Surr: 4-Bromofluorobenzene	0.38		0.5000		76.7	70	130			
Surr: Dibromofluoromethane	0.41		0.5000		81.2	70	130			
Surr: Toluene-d8	0.36		0.5000		72.6	70	130			

Sample ID	LCS-3881	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	3881	RunNo:	5909					
Prep Date:	9/22/2012	Analysis Date:	10/1/2012	SeqNo:	170207	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		87.6	70	130			
Surr: 4-Bromofluorobenzene	0.39		0.5000		78.4	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		108	70	130			
Surr: Toluene-d8	0.37		0.5000		73.2	70	130			

Sample ID	1209921-001ams	SampType:	MS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	BatchQC	Batch ID:	3881	RunNo:	5909					
Prep Date:	9/22/2012	Analysis Date:	10/1/2012	SeqNo:	170211	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.39		0.4845		80.5	70	130			
Surr: 4-Bromofluorobenzene	0.39		0.4845		81.2	70	130			
Surr: Dibromofluoromethane	0.50		0.4845		102	70	130			
Surr: Toluene-d8	0.34		0.4845		69.9	70	130			S

Sample ID	1209921-001amsd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	BatchQC	Batch ID:	3881	RunNo:	5909					
Prep Date:	9/22/2012	Analysis Date:	10/1/2012	SeqNo:	170212	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.41		0.4826		85.2	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.39		0.4826		81.1	70	130	0	0	
Surr: Dibromofluoromethane	0.50		0.4826		105	70	130	0	0	
Surr: Toluene-d8	0.35		0.4826		71.5	70	130	0	0	

## 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#: 1209B53

03-Oct-12

Client: Animas Environmental Services

Project: CoP Tocito #1

Sample ID	MB-4043	SampType:	MBLK	TestCode:	MERCURY, TCLP					
Client ID:	PBW	Batch ID:	4043	RunNo:	5918					
Prep Date:	10/2/2012	Analysis Date:	10/2/2012	SeqNo:	170457	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID	LCS-4043	SampType:	LCS	TestCode:	MERCURY, TCLP					
Client ID:	LCSW	Batch ID:	4043	RunNo:	5918					
Prep Date:	10/2/2012	Analysis Date:	10/2/2012	SeqNo:	170458	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	101	80	120			

Sample ID	1209B53-002AMS	SampType:	MS	TestCode:	MERCURY, TCLP					
Client ID:	SC-2	Batch ID:	4043	RunNo:	5918					
Prep Date:	10/2/2012	Analysis Date:	10/2/2012	SeqNo:	170466	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	93.7	75	125			

Sample ID	1209B53-002AMSD	SampType:	MSD	TestCode:	MERCURY, TCLP					
Client ID:	SC-2	Batch ID:	4043	RunNo:	5918					
Prep Date:	10/2/2012	Analysis Date:	10/2/2012	SeqNo:	170469	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	93.9	75	125	0	20	

## 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#: 1209B53

03-Oct-12

Client: Animas Environmental Services

Project: CoP Tocito #1

Sample ID	MB-4017	SampType:	MBLK	TestCode:	EPA Method 6010B: TCLP Metals					
Client ID:	PBW	Batch ID:	4017	RunNo:	5897					
Prep Date:	10/1/2012	Analysis Date:	10/2/2012	SeqNo:	169955	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Silver	ND	5.0								

Sample ID	LCS-4017	SampType:	LCS	TestCode:	EPA Method 6010B: TCLP Metals					
Client ID:	LCSW	Batch ID:	4017	RunNo:	5897					
Prep Date:	10/1/2012	Analysis Date:	10/2/2012	SeqNo:	169956	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	ND	5.0	0.5000	0	113	80	120			
Barium	ND	100	0.5000	0	96.9	80	120			
Cadmium	ND	1.0	0.5000	0	105	80	120			
Chromium	ND	5.0	0.5000	0	98.8	80	120			
Lead	ND	5.0	0.5000	0	98.3	80	120			
Silver	ND	5.0	0.1000	0	104	80	120			

Sample ID	1209221-001BMS	SampType:	MS	TestCode:	EPA Method 6010B: TCLP Metals					
Client ID:	BatchQC	Batch ID:	4017	RunNo:	5897					
Prep Date:	10/1/2012	Analysis Date:	10/2/2012	SeqNo:	169985	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chromium	ND	5.0	0.5000	0.02317	97.6	75	125			
----------	----	-----	--------	---------	------	----	-----	--	--	--

Sample ID	1209221-001BMSD	SampType:	MSD	TestCode:	EPA Method 6010B: TCLP Metals					
Client ID:	BatchQC	Batch ID:	4017	RunNo:	5897					
Prep Date:	10/1/2012	Analysis Date:	10/2/2012	SeqNo:	169986	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chromium	ND	5.0	0.5000	0.02317	95.8	75	125	0	20	
----------	----	-----	--------	---------	------	----	-----	---	----	--

Sample ID	LCS-4017	SampType:	LCS	TestCode:	EPA Method 6010B: TCLP Metals					
Client ID:	LCSW	Batch ID:	4017	RunNo:	5897					
Prep Date:	10/1/2012	Analysis Date:	10/2/2012	SeqNo:	169987	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Selenium	ND	1.0	0.5000	0	133	80	120			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  
4901 Hawkins NE  
Albuquerque, NM 87105  
TEL: 505-345-3975 FAX: 505-345-4101  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name:	Animas Environmental	Work Order Number:	1209B53
Received by/date:	LM 09/26/12		
Logged By:	Michelle Garcia	9/26/2012 10:00:00 AM	Michelle Garcia
Completed By:	Michelle Garcia	9/26/2012 10:24:35 AM	Michelle Garcia
Reviewed By:	[Signature]	09/26/12	

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 ☒ 09/26/12

Person Notified:	Heath Woods	Date:	09/26/12
By Whom:	Michelle Garcia	Via:	<input type="checkbox"/> eMail <input checked="" type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	Analysis Request		
Client Instructions:	Add RCI to -COO.		

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

Client: Animaps Environmental Services

Mailing Address: 624 E. Comanche

Farmington NM 87401

Phone #: 505-564-2281

email or Fax#:

**QA/QC Package:**

☒ Standard ☐ Level 4 (Full Validation)

## Accreditation

☐ NELAP      ☐ Other \_\_\_\_\_☐ EDD (Type)

**Turn-Around Time:**

☐ Standard ☒ Rush As soon as possible

Project Name:	
---------------	--

COP Toxicity

Project #:

**Project Manager:**

D. Watson

Sampler: H. Woods

ORDER OF THE


Sample Temperature: 60°C

[illegible]

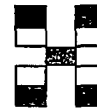
Date:	Time:	Relinquished by:
9/25/12	1635	Leathan M. Woods

Date:	Time:	Relinquished by:
25/12/15	17:51	Mont Walker

Received by:	Date	Time
<i>Chris the Librarian</i>	9/25/17	16:30

Received by:  Date: 09/26/12 Time: 1600

Remarks:	Bill to ConocoPhillips
----------	------------------------



# HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request

[illegible]

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.