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 Crystal Tafoya		
Address 3401 East 30 <sup>th</sup> St, Farmington, NM	Telephone No.(505) 326-9837		
Facility Name: San Juan 32 Federal 12 # 1A	Facility Type: Gas Well		

Surface Owner BLM

Mineral Owner BLM (SF-079329)

API No.30-045-31608

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
Ι	12	32N	9W	<u>1</u> 695	South	1380	East	San Juan

#### Latitude 36.99583 Longitude 107.72528

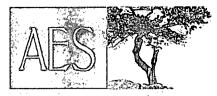
#### NATURE OF RELEASE

Type of Release Produced Water	Volume of Release ~164bbls	Volume Recovered ~117bbls
Source of Release Transfer Pump	Date and Hour of Occurrence	Date and Hour of Discovery
	Unknown	8/15/2012 at 9:30am
Was Immediate Notice Given?	If YES, To Whom?	
Yes 🗌 No 🗌 Not Required	Brandon Powell (OCD) & Mark K	elly (BLM)
By Whom? Crystal Tafoya	Date and Hour 8/16/2012 at 9:15an	n
Was a Watercourse Reached?	If YES, Volume Impacting the Water	rcourse.
🗌 Yes 🖾 No		
If a Watercourse was Impacted, Describe Fully.*		BAIR HOLL
N/A		RCVD NOV 14'12
		OIL CONS. DIV.
		DIST. 3
Describe Cause of Problem and Remedial Action Taken.*		
3/8" stainless steel tubing broke from the fitting on the line that goes f		
Water filled the berm around the water tanks and seeped to the outsid		
and the 1" ball valve up stream of the line leak was closed. Water tru	cks were called immediately to pull t	he water from inside the berm where
~117bbls was recovered.		
Describe Area Affected and Cleanup Action Taken.*		
Soil sampling was conducted by a third party and results were below	NMOCD action levels. The soil was	treated in place with MicroBlaze
aggressively and the location is visible appealing. The soil sampling a		
	-	
I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release no		
public health or the environment. The acceptance of a C-141 report by the		
should their operations have failed to adequately investigate and remediate		
or the environment. In addition, NMOCD acceptance of a C-141 report do		
federal, state, or local laws and/or regulations.		5 1 5
	OIL CONSERV	ATION DIVISION
Pin Prod		
Cystal at Tafaya		$\cap$
	Approved by Environmental Specialist:	Unatthe King
Printed Name: Crystal Tafoya		
		- V
Title: Field Environmental Specialist	Approval Date: $1/27/26(2)$ E	Expiration Date:
	······································	
E-mail Address: crystal.tafoya@conocophillips.com	Conditions of Approval:	Attached
······································		Attached
Date: 8/20/2012 Phone: (505) 326-9837		

\* Attach Additional Sheets If Necessary

nJK1233252076

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Animas Environmental Services, LLC

www.animasenvironmental.com

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

> Durango, Colorado 970-403-3274

November 7, 2012

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

#### RE: Initial Release Assessment Report San Juan 32 Federal 12 #1A San Juan County, New Mexico

Dear Ms. Tafoya:

On August 16, 2012, Animas Environmental Services, LLC (AES) completed an initial release assessment at the ConocoPhillips (CoP) San Juan 32 Federal 12 #1A, located in San Juan County, New Mexico. A release occurred at the location as a result of a faulty transfer pump and was primarily contained within the secondary containment berm. The initial release assessment was completed by AES on August 16, 2012.

### 1.0 Site Information

### 1.1 Location

Location – NW¼ SE¼, Section 12, T32N, R9W, San Juan County, New Mexico Well Location Latitude/Longitude – N36.99587 and W107.72581, respectively Release Latitude/Longitude – N36.99602 and W107.72619, respectively Land Jurisdiction – Bureau of Land Management (BLM) Figure 1. Topographic Site Location Map Figure 2. Aerial Site Map, August 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 February 2004 for the San Juan 32 Federal 12 #1A reported the depth to groundwater as 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 (<u>http://ford.nmt.edu/react/project.html</u>) were accessed to aid in the identification of downgradient surface water.

Crystal Tafoya San Juan 32 Federal 12 #1A Release Assessment Report November 7, 2012 Page 2 of 6

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 Beef Canyon is located approximately 700 feet northeast of the location. The site location has been assigned a ranking score of 10 per the *NMOCD Guidelines for Leaks, Spills, and Releases* (1993).

#### 1.3 Release Assessment

AES was initially contacted by Crystal Tafoya of CoP on August 15, 2012, and on August 16, 2012, Tom Long and Nathan Willis of AES completed the release assessment field work. The assessment included collection of 44 soil samples from 21 soil borings (SB-1 through SB-21) and one 5-point composite sample (SC-1) from within the release area. Sampling locations and results are presented on Figure 3.

#### 2.0 Soil Sampling

A total of 44 soil samples and 1 composite soil sample 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). Samples SB-10, SB-12 through SB-15, and SC-1 were submitted for confirmation laboratory analysis.

#### 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 six soil samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto

a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. Soil samples were laboratory analyzed for:

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

Note that SC-1 was only analyzed for chloride per USEPA Method 300.0.

### 2.3 Field Screening and Laboratory Analytical Results

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Field screening results for VOCs via OVM showed concentrations ranging from 0.2 ppm in SB-8 and SB-19 at 2 feet up to 904 ppm in SB-14 at 2 feet. Field TPH concentrations ranged from 141 mg/kg in SB-12 at 1.5 feet up to 375 mg/kg if SB-15 at 1 foot. Results are included below in Table 1 and on Figure 3. The AES field screening report is attached.

	Derte	Sample	VOCs OVM	Field
Sample ID	Date Sampled	Depth (ft bgs)	Reading (ppm)	TPH (mg/kg)
Sumple ID		ction Level*	100	1,000
		1	21.1	175
SB-1	8/16/12	2	19.8	NA
	-	3	25.7	178
SB-2	8/16/12	1	2.0	234
SB-3	8/16/12	1	0.4	161
CD /	8/16/12 ·	1	0.4	NA
SB-4	8/10/12	2	0.8	184
	8/16/12	1	0.4	NA
SB-5		2	0.5	167
		3	0.5	NA
	-	1	0.6	NA
SB-6	8/16/12	2	0.8	153
		3.5	0.7	NA
SB-7	8/16/12 ·	1	0.3	NA
		2	0.5	147
SB-8	8/16/12 ·	1	0.6	NA
<u> </u>	0/10/12	2	0.2	150
SB-9	8/16/12 ·	1	0.6	NA
	0/10/12	1.5	0.8	147
SB-10	8/16/12	1	26.2	NA

Table 1. Soil Field Screening Results

Crystal Tafoya San Juan 32 Federal 12 #1A Release Assessment Report November 7, 2012 Page 4 of 6

	Date	Sample Depth	VOCs OVM Reading	Field TPH
Sample ID	Sampled	(ft bgs)	(ppm)	(mg/kg)
	NMOCD A	ction Level*	100	1,000
		2	222	153
		1	92.9	184
SB-11	8/16/12	2	37.6	NA
	-	3	11.6	NA
CD 10	0/10/10	1	42	NA
SB-12	8/16/12 -	1.5	153	141
		1	103	NA
SB-13	8/16/12	2	347	156
	-	2.5	210	NA
CD 14	0/10/10	1	226	NA
SB-14	8/16/12 -	2	904	243
		1	554	375
SB-15	8/16/12	2	325	NA
	-	3	447	175
SB-16	8/16/12	0.5	0.3	181
		1	0.8	NA
SB-17	8/16/12	2	0.8	319
	-	3	1.3	NA
SB-18	8/16/12	1	0.4	170
CD 10	0/10/10	1	2.7	NA
SB-19	8/16/12 -	2	0.2	240
CD 20	0/10/10	1	1.8	NA
SB-20	8/16/12 -	2	1.3	153
SB-21	8/16/12	1	0.7	186

NA – Not Analyzed

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

Laboratory analyses were used to confirm field screening results from the assessment. Laboratory analytical results for all samples reported concentrations less than 0.050 mg/kg benzene and less than 0.25 mg/kg total BTEX. A chloride concentration of 53 mg/kg was reported in SC-1. Laboratory analytical results are summarized in Table 2 and included on Figure 3. The laboratory analytical report is attached.

	Sample ID	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	Chlorides (mg/kg)
NMOCD Action Level			10	50	1,0	000	250	
	SB-10	8/16/12	2	<0.050	<0.25	NA	NA	NA
	SB-12	8/16/12	1.5	<0.050	<0.25	NA	NA	NA
	SB-13	8/16/12	2	<0.050	<0.25	NA	NA	NA
	SB-14	8/16/12	2	<0.050	<0.25	NA	NA	NA
	SB-15	8/16/12	1	<0.050	<0.25	NA	NA	NA
-	SC-1	8/16/12	0.5 to 1	NA	NA	NA	NA	53
	NIA _ N	lot Analyzad						

#### Table 2. Laboratory Analytical Results – Benzene, Total BTEX and Chlorides San Juan 32 Federal 12 #1A Release Assessment, August 2012

NA=Not Analyzed

## 3.0 Conclusions and Recommendations

On August 16, 2012, AES conducted an initial assessment of a produced water release caused by a faulty transfer pump at the San Juan 32 Federal 12 #1A, located in San Juan County, New Mexico. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993), and the site was assigned a rank of 10. Field screening results above the NMOCD action level of 100 ppm for VOCs were reported in SB-10 and SB-12 through SB-15, with the highest concentration reported in SB-14 (904 ppm). However, field TPH results were reported below the NMOCD action level of 1,000 m/kg in all samples analyzed.

Samples selected for laboratory analyses reported benzene and total BTEX concentrations below the NMOCD action levels of 10 mg/kg and 50 mg/kg, respectively. The chloride concentration in SC-1 was reported below the NMOCD action level of 250 mg/kg with 53 mg/kg.

Based on visual observations along with field screening and laboratory analytical results, residual soil contaminants from the release do not exceed applicable NMOCD action levels. Therefore, 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.

Crystal Tafoya San Juan 32 Federal 12 #1A Release Assessment Report November 7, 2012 Page 6 of 6

Sincerely,

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Aleather M. Woods

Heather Woods Staff Geologist

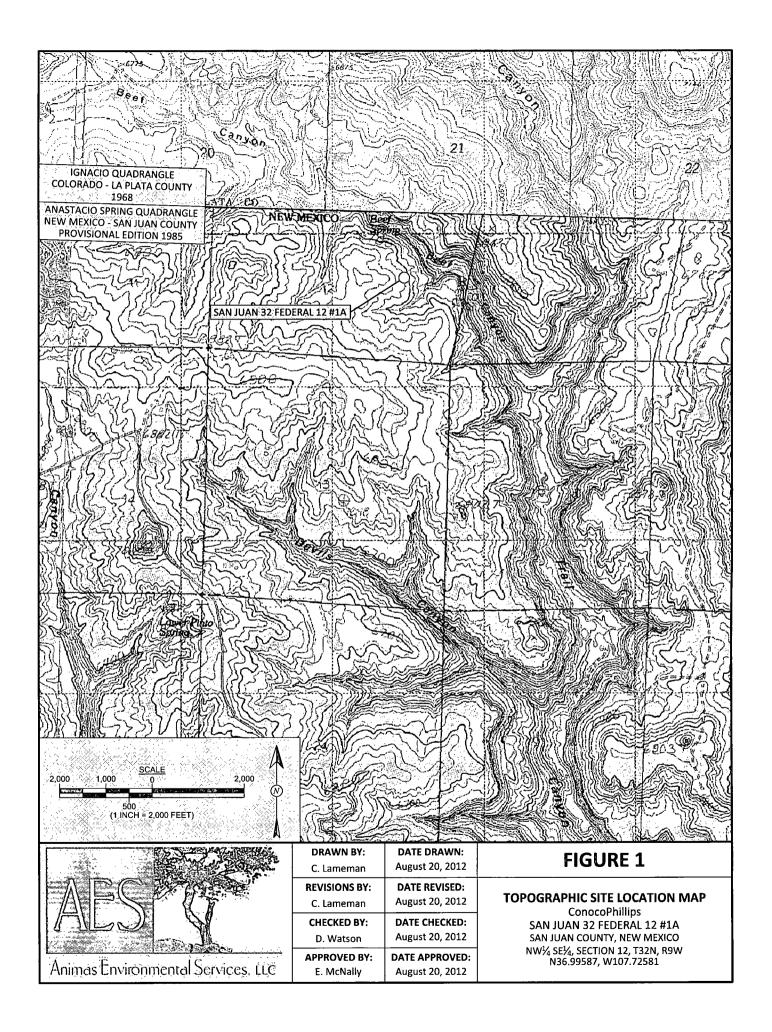
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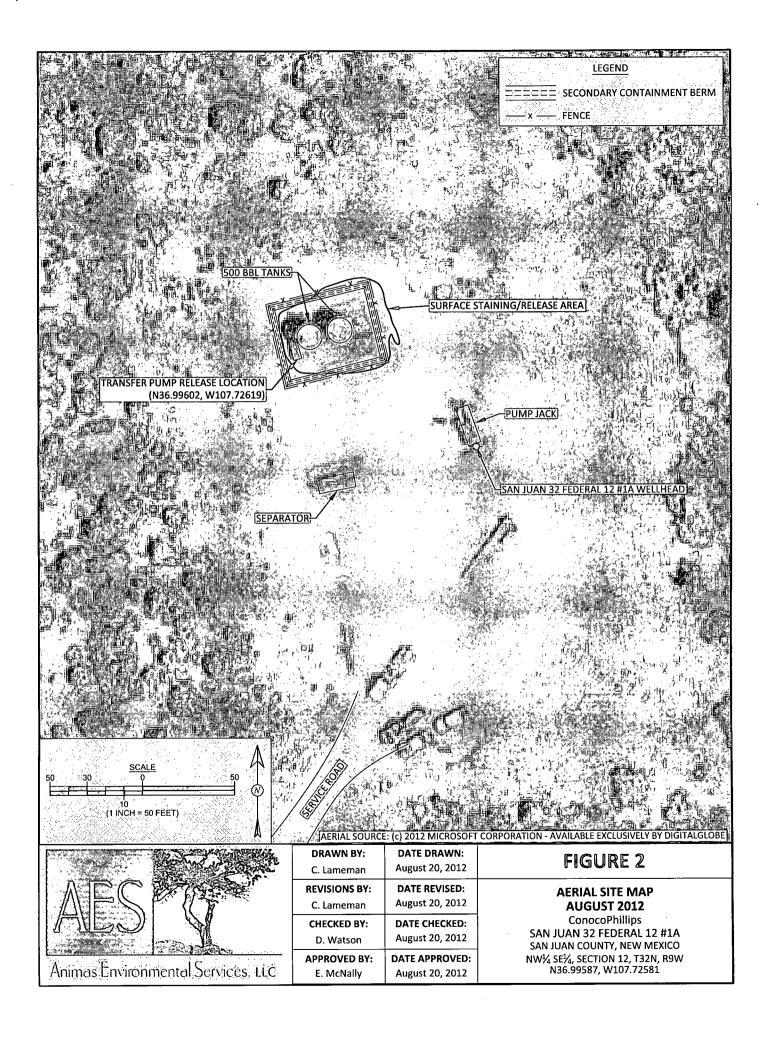
Elizabeth McNally, PE

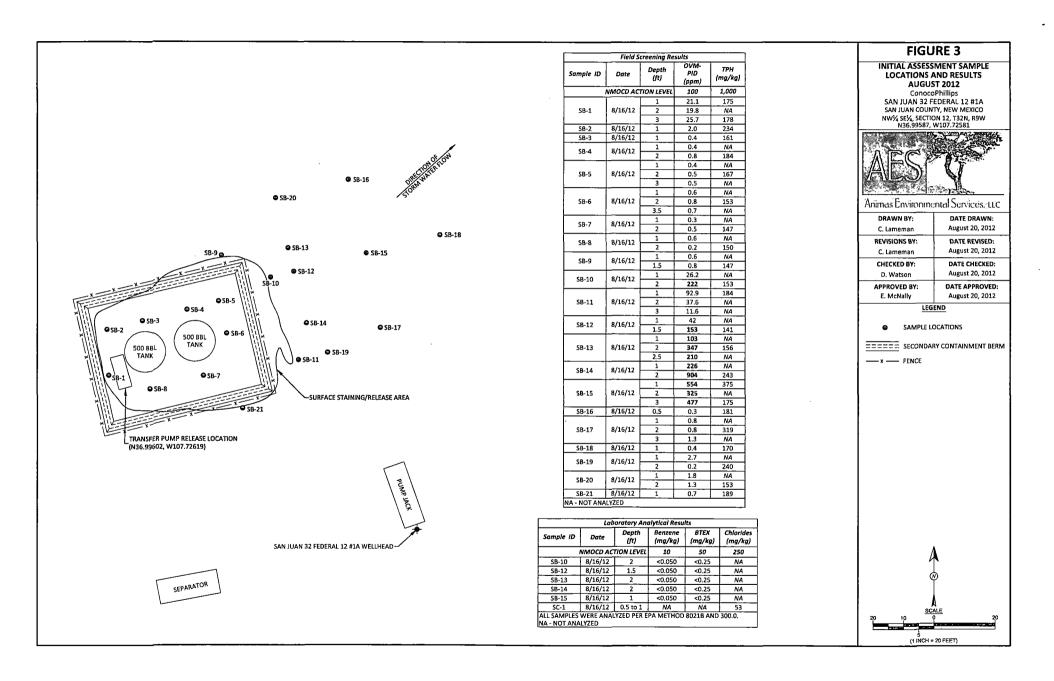
Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, August 2012
Figure 3. Initial Assessment Soil Sample Locations and Results, August 2012
AES Field Screening Report 081612
Hall Analytical Report 1208801
Hall Analytical Report 1208876

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## **AES Field Screening Report**

## Client: ConocoPhillips

## Project Location: San Juan 32 Federal 12 #1A

### Date: 8/16/2012

Matrix: Soil



Animas Environmental Services, LLC

www.animasenvironmental.com

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

> Durango, Colorado 970-403-3274

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 @ 1'	8/16/2012	10:55	21.1	17:45	175	40.0	1	кс
SB-1 @ 2'	8/16/2012	10:57	19.8		Not An	alyzed for TP	РН	
SB-1 @ 3'	8/16/2012	10:59	25.7	17:49	178	40.0	1	КС
SB-2 @ 1'	8/16/2012	11:03	2.0	17:52	234	40.0	1	кс
SB-3 @ 1'	8/16/2012	11:07	0.4	17:56	161	40.0	1	КС
SB-4 @ 1'	8/16/2012	11:10	0.4		Not An	alyzed for TP	°H	
SB-4 @ 2'	8/16/2012	11:13	0.8	18:00	184	40.0	1	кс
SB-5 @ 1'	8/16/2012	11:18	0.4		Not An	alyzed for TP	РΗ	
SB-5 @ 2'	8/16/2012	11:20	0.5	18:03	167	40.0	1	КС
SB-5 @ 3'	8/16/2012	11:22	0.5		Not An	alyzed for TP	РΗ	
SB-6 @ 1'	8/16/2012	11:23	0.6		Not An	alyzed for TP	РΗ	
SB-6 @ 2'	8/16/2012	11:24	0.8	18:05	153	40.0	1	кс
SB-6 @ 3.5'	8/16/2012	11:26	0.7		Not An	alyzed for TP	РН	
SB-7 @ 1'	8/16/2012	11:28	0.3		Not An	alyzed for TP	РН	
SB-7 @ 2'	8/16/2012	11:30	0.5	18:08	147	40.0	1	кс
SB-8 @ 1'	8/16/2012	11:33	0.6		Not An	alyzed for TP	Н	
SB-8 @ 2'	8/16/2012	11:35	0.2	18:12	150	40.0	1	кс
SB-9 @ 1'	8/16/2012	11:42	0.6	Not Analyzed for TPH				
SB-9 @ 1.5'	8/16/2012	11:44	0.8	18:14 147 40.0 1 KC				
SB-10 @ 1'	8/16/2012	11:49	26.2	Not Analyzed for TPH				
SB-10 @ 2'	8/16/2012	11:53	222	18:17	153	40.0	1	кс
SB-11 @ 1'	8/16/2012	11:56	92.9	18:21	184	40.0	1	кс

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-11 @ 2'	8/16/2012	12:00	37.6		Not An	alyzed for TP	Н	
SB-11 @ 3'	8/16/2012	12:03	11.6		Not An	alyzed for TP	H	
SB-12 @ 1'	8/16/2012	12:10	42		Not An	alyzed for TP	H	
SB-12 @ 1.5'	8/16/2012	12:12	153	18:24	141	40.0	1	кс
SB-13 @ 1'	8/16/2012	12:16	103		Not Ar	alyzed for TP	'H	
SB-13 @ 2'	8/16/2012	12:18	347	18:26	156	40.0	1	кс
SB-13 @ 2.5'	8/16/2012	12:19	210		Not An	alyzed for TP	Н	
SB-14 @ 1'	8/16/2012	12:21	226		Not An	alyzed for TP	Н	
SB-14 @ 2'	8/16/2012	12:23	904	18:29	243	40.0	1	кс
SB-15 @ 1'	8/16/2012	12:55	554	18:30	375	40.0	1	кс
SB-15 @ 2'	8/16/2012	12:57	325		Not An	alyzed for TP	H	
SB-15 @ 3'	8/16/2012	12:58	477	18:33	175	40.0	1	КС
SB-16 @ 0.5'	8/16/2012	13:01	0.3	18:35	181	40.0	1	КС
SB-17 @ 1'	8/16/2012	13:15	0.8		Not An	alyzed for TP	Н	
SB-17 @ 2'	8/16/2012	13:17	0.8	18:37	319	40.0	1	кс
SB-17 @ 3'	8/16/2012	13:19	1.3		Not An	alyzed for TP	H	
SB-18 @ 1'	8/16/2012	13:20	0.4	18:39	170	40.0	1	КС
SB-19 @ 1'	8/16/2012	13:25	2.7	Not Analyzed for TPH				
SB-19 @ 2'	8/16/2012	13:28	0.2	18:40 240 40.0 1 KC				
SB-20 @ 1'	8/16/2012	13:30	1.8		Not An	alyzed for TP	H	
SB-20 @ 2'	8/16/2012	13:32	1.3	18:42	153	40.0	1	<sup>·</sup> KC
SB-21 @ 1'	8/16/2012	13:50	0.7	18:45	189	40.0	1	кс

Total Petroleum Hydrocarbons - USEPA 418.1

- PQL Practical Quantitation Limit
- ND Not Detected at the Reporting Limit
- DF Dilution Factor
- NA Not Analyzed

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Analyst:

Lelang Christian



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

August 20, 2012

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

RE: CoP San Juan 32 Federal 12 #1A

OrderNo.: 1208801

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 8/18/2012 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 <u>www.hallenvironmental.com</u> 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,

antiel

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

#### **Analytical Report**

#### Lab Order 1208801 .

Date Reported: 8/20/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT:	<b>CLIENT:</b> Animas Environmental Services			Client Sample ID: SB-10@2'					
Project:	CoP San Juan 32 Federal 12	#1A		Collection <b>D</b>	ate: 8/16/2	012 11:53:00 AM			
Lab ID:	1208801-001	Matrix:	rix: MEOH (SOIL) Received Date: 8/18/2012 10:30:00 AM						
Analyses		Result	RL Q	ual Units	DF	Date Analyzed			
EPA MET	THOD 8021B: VOLATILES					Analyst: RAA			
Benzene	9	ND	0.050	mg/Kg	1	8/18/2012 12:57:06 PM			
Toluene		ND	0.050	mg/Kg	1	8/18/2012 12:57:06 PM			
Ethylber	zene	ND	0.050	mg/Kg	1	8/18/2012 12:57:06 PM			
Xylenes,	Total	ND	0.10	mg/Kg	1	8/18/2012 12:57:06 PM			
Surr: 4	4-Bromofluorobenzene	98.0	80-120	%REC	1	8/18/2012 12:57:06 PM			

#### **Qualifiers:**

- \*/X Value exceeds Maximum Contaminant Level. Е Value above quantitation range
- J
- Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL
- Page 1 of 6

#### **Analytical Report**

#### Lab Order 1208801

Date Reported: 8/20/2012

#### **CLIENT:** Animas Environmental Services Client Sample ID: SB-12@1.5' **Project:** CoP San Juan 32 Federal 12 #1A Collection Date: 8/16/2012 12:12:00 PM Lab ID: 1208801-002 Matrix: MEOH (SOIL) Received Date: 8/18/2012 10:30:00 AM DF Analyses Result **RL** Qual Units **Date Analyzed** EPA METHOD 8021B: VOLATILES Analyst: RAA Benzene ND 0.050 mg/Kg 1 8/18/2012 1:25:49 PM Toluene ND 0.050 mg/Kg 1 8/18/2012 1:25:49 PM Ethylbenzene ND 0.050 mg/Kg 1 8/18/2012 1:25:49 PM Xylenes, Total ND 0.10 mg/Kg 8/18/2012 1:25:49 PM 1 Surr: 4-Bromofluorobenzene %REC 95.7 80-120 1 8/18/2012 1:25:49 PM

## Hall Environmental Analysis Laboratory, Inc.

Qualifiers:

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

U Samples with CalcVal < MDL

Page 2 of 6

# Analytical Report Lab Order 1208801

## Date Reported: 8/20/2012

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services			Client Sample ID: SB-13@2'					
Project:	Project: CoP San Juan 32 Federal 12 #1A			Collection D	ate: 8/16/2	012 12:18:00 PM		
Lab ID: 1208801-003 Matrix:			MEOH (SOIL) Received Date: 8/18/2012 10:30:00 AM					
Analyses		Result	RL Qu	al Units	DF	Date Analyzed		
EPA MET	HOD 8021B: VOLATILES					Analyst: RAA		
Benzene	)	ND	0.050	mg/Kg	1	8/18/2012 1:54:32 PM		
Toluene		ND	0.050	mg/Kg	1	8/18/2012 1:54:32 PM		
Ethylben	zene	ND	0.050	mg/Kg	1	8/18/2012 1:54:32 PM		
Xylenes,	Total	ND	0.10	mg/Kg	1	8/18/2012 1:54:32 PM		
Surr: 4	4-Bromofluorobenzene	96.9	80-120	%REC	1	8/18/2012 1:54:32 PM		

Qualifiers:

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL
- Page 3 of 6

# Analytical Report Lab Order 1208801

Date Reported: 8/20/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Serv	Client Sample ID: SB-14@2'					
Project: CoP San Juan 32 Federal 12		Collection <b>D</b>	Date: 8/16/2	012 12:23:00 PM		
Lab ID: 1208801-004	MEOH (SOIL) Received Date: 8/18/2012 10:30:00 AM					
Analyses	Result	RL Qual	Units	DF	Date Analyzed	
EPA METHOD 8021B: VOLATILES					Analyst: RAA	
Benzene	ND	0.050	mg/Kg	1	8/18/2012 2:23:21 PM	
Toluene	ND	0.050	mg/Kg	1	8/18/2012 2:23:21 PM	
Ethylbenzene	ND	0.050	mg/Kg	1	8/18/2012 2:23:21 PM	
Xylenes, Total	ND	0.10	mg/Kg	1	8/18/2012 2:23:21 PM	
Surr: 4-Bromofluorobenzene	98.7	80-120	%REC	1	8/18/2012 2:23:21 PM	

Qualifiers:

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

## Analytical Report

Lab Order 1208801

Date Reported: 8/20/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services		Client Sample ID: SB-15@1'							
Project: CoP San Juan 32 Federal 12 #1A		Collection Date: 8/16/2012 12:55:00 PM							
Lab ID: 1208801-005	Matrix:	ix: MEOH (SOIL) Received Date: 8/18/2012 10:30:00 AM							
Analyses	Result	RL Qual	Units	DF	Date Analyzed				
EPA METHOD 8021B: VOLATILES					Analyst: RAA				
Benzene	ND	0.050	mg/Kg	1	8/18/2012 2:52:12 PM				
Toluene	ND	0.050	mg/Kg	1	8/18/2012 2:52:12 PM				
Ethylbenzene	ND	0.050	mg/Kg	1	8/18/2012 2:52:12 PM				
Xylenes, Total	ND	0.10	mg/Kg	1	8/18/2012 2:52:12 PM				
Surr: 4-Bromofluorobenzene	96.4	80-120	%REC	1	8/18/2012 2:52:12 PM				

Qualifiers:

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

U Samples with CalcVal < MDL

Page 5 of 6

## **QC SUMMARY REPORT** Hall Environmental Analysis Laboratory, Inc.

Animas Environmental Services

**Client:** 

Project:		1 Juan 32 F												
Sample ID	MB-3385	Samp <sup>-</sup>	Type: ME	BLK	TestCode: EPA Method 8021B: Volatiles									
Client ID:	PBS	Batc	h ID: 33	85	1									
Prep Date:	8/17/2012	Analysis [	)ate: <b>8</b> /	/18/2012	:	SeqNo: <b>1</b>	40000	Units: mg/l	٨g					
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-Brom	nofluorobenzene	1.0		1.000		101	80	120						
Sample ID	LCS-3385	Samp	Type: LC	:s	TestCode: EPA Method 8021B: Volatiles									
Client ID:	LCSS	Batc	h ID: 33	85	I	RunNo: <b>4</b>	951							
Prep Date:	8/17/2012	Analysis Date: 8/18/2012			:	SeqNo: <b>1</b>	40004	Units: <b>mg/l</b>	۶g					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene		0.91	0.050	1.000	0	91.1	76.3	117						
Toluene		0.94	0.050	1.000	0	93.9	80	120						
Ethylbenzene		0.97	0.050	1.000	0	96.9	77	116						
Xylenes, Total		2.9	0.10	3.000	0	97.0	76.7	117						
Surr: 4-Brom	nofluorobenzene	1.0		1.000		103	80	120						
Sample ID	1208727-001A M	S Samp	Type: MS	5	Tes	stCode: E	PA Method	8021B: Vola	tiles					
Client ID:	BatchQC	Batc	h ID: 33	85	RunNo: <b>4951</b>									
Prep Date:	8/17/2012	Analysis [	Date: <b>8</b> /	18/2012	:	SeqNo: 1	40006	· Units: mg/Kg						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene		0.95	0.048	0.9643	0	98.7	67.2	113						
Toluene		1.0	0.048	0.9643	0	104	62.1	116						
Ethylbenzene		1.0	0.048	0.9643	0	108	67.9	127						
Xylenes, Total		3.1	0.096	2.893	0	109	60.6	134						
Surr: 4-Brom	nofluorobenzene	0.95		0.9643		98.8	80	120						
Sample ID	1208727-001A M	SD Samp	Type: MS	SD	Tes	stCode: E	PA Method	8021B: Vola	tiles					
Client ID:	BatchQC	Batc	h ID: 33	85	I	RunNo: <b>4</b>	951							
Prep Date:	8/17/2012	Analysis [	Date: <b>8</b> /	/18/2012	:	SeqNo: 1	40007	Units: <b>mg/l</b>	٨g					
Analyte		Result	PQL		SPK Ref Val		LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene		0.97	0.048	0.9653	0	101	67.2	113	2.20	14.3				
Toluene		1.0	0.048	0.9653	0	104	62.1	116	0.224	15.9				
Ethylbenzene		1.0	0.048	0.9653	0	107	67.9	127	1.24	14.4				
Vulance Total		24	0.007	0.000	0	107	60.6	101	1 2 4	10.0				

Qualifiers:

Xylenes, Total

Surr: 4-Bromofluorobenzene

\*/X Value exceeds Maximum Contaminant Level.

3.1

0.98

0.097

2.896

0.9653

E Value above quantitation range

- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

60.6

80

- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

0

107

101

12.6

0

1.34

0

134

120

WO#: 1208801

20-Aug-12

ENVIRONMENTAL ANALYSIS LABORATORY	TEL: 505-345-3975	4901 Hawkins NE Juerque, NM 87105	Sample Log-In Check List
Client Name: Animas Environmental Received by/date: AT	08/18/12	ork Order Number:	1208801
Logged By: Michelle Garcia	B/18/2012 10:30:00 AM	11	Jurelle Garines
Completed By: Michelle Garcla	B/18/2012 10:51:20 AM D8/18/12	-tr	Jurell Genuies
Chain of Custody	1 - 1		
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	
<u>Log In</u>			
4. Coolers are present? (see 19. for cooler spec	cific Information)	Yes 🗹 No 🗌	
5. Was an attempt made to cool the samples?		Yes 🗹 No 🗌	
6. Were all samples received at a temperature	of >0° C to 6.0°C	Yes 🗹 No 🗌	
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) propert	y preserved?	Yes 🗹 No 🗌	
10. Was preservative added to bottles?		Yes 🗌 No 🗹	NA 🗆
11. VOA vials have zero headspace?		Yes 🗌 No 🗌	No VOA Viais 🗹
12. Were any sample containers received broker	י?	Yes 🗆 No 🗹	
<ol> <li>Does paperwork match bottle labels? (Note discrepancies on chain of custody)</li> </ol>		Yes 🗹 No 🗌	# of preserved bottles checked for pH:
14. Are matrices correctly identified on Chain of	Custody?	Yes 🗹 No 🗌	(<2 or >12 unless noted)
15. Is it clear what analyses were requested?		Yes 🗹 No 🗌	Adjusted?
<ul><li>16. Were all holding times able to be met?</li><li>(If no, notify customer for authorization.)</li></ul>		Yes 🗹 No 🗌	Checked by:
Special Handling (if applicable)			
17. Was client notified of all discrepancies with th	his order?	Yes No 🗌	NA 🗹
Person Notified: By Whom: Regarding: Client Instructions:	Date: Via:	eMail 🗌 Phone	Fax In Person

18. Additional remarks:

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#### 19. Cooler Information

1	Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
	1	1.7	Good	Yes			

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·	Chain	of-Cu	istody Record	Turn-Around						L	1 <b>a</b> 1			<b></b>		30	RIR		NT	<b>A 1</b>	
Client	Anin	s En	sionmental	□ Standard		Sameday-													TO		
	Cau	vices	ÜL	Project Name	<del>)</del> :	0		2	A CONTRACT							al.co					
Mailin	g Address	· 624	E Comanche	Cop Sanc	luan 32 Fe	<u>sameday</u> deval 12#1A		490	)1 H						•		M 87	'109			
Far	minch	n N	M 87401	Project #:			1				5-39						4107				
Phone			+ 2281						· · • • • • • •			A	naly	/sis	Rëq	uest					
email	or Fax#:			Project Mana	ger:		<del>,</del>	(yluo	sel)					O₄)	6						
QA/QC	Package: ndard		Level 4 (Full Validation)	DW	atson		<b>P</b> (8021)	TPH (Gas o	(Gas/Diesel)					PO4,S	e PCB'						
	ditation			Sampler:	TLong			Hd		<del>.</del>	<del>,</del>	÷		NO <sub>2</sub>	8082						1
	······		۲	On Icers	QCVest )			+	3015	418.	504	₹	s	40 <sub>3</sub> ,	l / Se		(S				N vr NI
	D (Type) <u>-</u> T	1		Samplestern	oerature i M. <del>K</del>	<u>// /</u>		MTBE	bo	por	por	A or	/leta	,CI,N	licide	(A)	- - -				2
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEADNO	BTEX + 🝇	BTEX + M	TPH Method 8015B	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,CI,NO <sub>3</sub> ,NO <sub>2</sub> ,PO <sub>4</sub> ,SO <sub>4</sub> )	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)				Air Ruhhla
8-16-12	. 1153	Sort	SB-10@21	Meolt Kut 202 p.V	meot	-601	X							4	ω					╈	f
1	1212	. ]	SB-12@1.51		[	-002	X													Τ	T
	1218		SB-13@21			-003	X														T
	1223		SB-14@21			-004	X														T
	1255	L	SB-15@1'			-005	Ϋ́,														T
																					$\Box$
									·												Ι
						<u>.</u>															T
										_											
Date:	Time:	Relinquish	ed by: no Jury	Received by:			Ren	narks	B	ill	10	Cør	noc	P	ult	<b>ps</b>					
Date:	$\underline{10.10}$	Religquish		Received by:	yrele	Dete Time	1														
8/17/12	1701	N.	ate Walk		an -	Dete Time US/IS/2 1030	ļ								•						

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If necessary emplace submitted to Hall Environmental may be subcontracted to other accredited laboratorice. This canves as notice of this nessibility. Any sub-contracted data will be clearly notated on the analytical report

## 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

August 22, 2012

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

RE: COP San Juan 32 Federal 12 #1A

OrderNo.: 1208876

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/21/2012 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 <u>www.hallenvironmental.com</u> 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,

andig

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1208876

#### Date Reported: 8/22/2012

#### **CLIENT:** Animas Environmental Services Client Sample ID: SC-1 COP San Juan 32 Federal 12 #1A Collection Date: 8/20/2012 9:30:00 AM **Project:** 1208876-001 Matrix: SOIL Received Date: 8/21/2012 10:31:00 AM Lab ID: Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 300.0: ANIONS** Analyst: SRM 53 20 8/21/2012 12:23:48 PM Chloride 30 mg/Kg

Hall Environmental Analysis Laboratory, Inc.

#### Qualifiers:

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Page 1 of 2

## QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

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Client: Project:		Cnvironmer Juan 32 Fo												
Sample ID	MB-3423	ype: ME	PA Method	300.0: Anion	s									
Client ID:	PBS	Batch	ID: 34	23	F	RunNo: 5	5004							
Prep Date:	8/21/2012	Analysis D	ate: 8/	21/2012	S	SeqNo: 1	41603	Units: <b>mg/K</b>	g					
Analyte Chloride		Result ND	PQL 1.5	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Sample ID	ple ID LCS-3423 SampType: LCS TestCode: EPA Method 300.0: Anions													
Client ID:	LCSS	Batch	ID: 34	23	F									
Prep Date:	8/21/2012	Analysis D	ate: 8/	21/2012	41604	Units: mg/K	g							
Analyte		Result	PQL		SPK Ref Val		LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Chloride		14	1.5	15.00	0	93.7	90	110						
Sample ID	1208829-008AMS	SampT	ype: MS	3	Tes	tCode: E	PA Method	300.0: Anion	s					
Client ID:	BatchQC	Batch	ID: 34	23	F	RunNo: 5								
Prep Date:	8/21/2012	Analysis D	ate: <b>8</b> /	21/2012	S	eqNo: 1	41627	Units: mg/K	g					
Analyte Chloride		Result 36	PQL 7.5	SPK value 15.00	SPK Ref Val 18.31	%REC 116	LowLimit 64.4	HighLimit 117	%RPD	RPDLimit	Qual			
Sample ID	1208829-008AMSI	) SampT	ype: MS	SD	Tes	tCode: E	PA Method	300.0: Anion	s					
Client ID:	BatchQC	Batch	ID: 34	23	F	tunNo: 5	6004							
Prep Date:	8/21/2012	Analysis D	ate: 8/	21/2012	S	eqNo: 1	41628	Units: mg/K	g					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Chloride	_	31	7.5	15.00	18.31	87.4	64.4	117	13.0	20				

Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

WO#: 1208876

22-Aug-12

ENVIRONMENTAL ANALYSIS LABORATORY TEL: 505-345-3975	al Analysis Laboratory 4901 Hawkins NE Ibuquerque, NM 87105 75 FAX: 505-345-410; hallenvironmental.com
	Work Order Number: 1208876
Received by/date: 08212	<u> </u>
Logged By: Ashley Gallegos 8/21/2012 10:31:00 At	M AZ
Completed By: Ashiev Gallegos 8/21/2012 10:39:16 AM	M
Reviewed By:	
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
<u>Log In</u>	
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)?	
8. Sufficient sample volume for indicated test(s)?	Yes 🗹 No 🗔 Yes 🗹 No
<ul> <li>9. Are samples (except VOA and ONG) properly preserved?</li> <li>10. Was preservative added to bottles?</li> </ul>	
11. VOA vials have zero headspace?	Yes 🔲 No 💭 No VOA Vials 🗹
12. Were any sample containers received broken?	Yes No V # of preserved
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	bottles checked
14. Are matrices correctly identified on Chain of Custody?	Yes V No (<2 or >12 unless noted)
15. Is it clear what analyses were requested?	Yes 🗹 No 🗋 Adjusted?
16. Were all holding times able to be met?	Yes 🗹 No
(If no, notify customer for authorization.)	Checked by:
Special Handling (if applicable)	
17. Was client notified of all discrepancies with this order?	
Person Notified: Date:	
	eMail Phone Fax In Person
Regarding: Client Instructions:	
18. Additional remarks:	
19. <u>Cooler Information</u>	of the bound have been a
Cooler No         Temp °C         Condition         Seal Intact         Seal No         Seal No	Seal Date Signed By

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Page 1 of 1

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Client: Mailing	Anin Erv Address	nas En 1 ces L 1 624 f n NM	87401	Turn-Around Standard Project Name CP Sauch Project #:		Nameday_ eval 12#1A		Te	el. 50	awki 5-34	www ins N	<b>AL</b> v.hal IE - 975	lenv Alb F	ironr uque	<b>5 L</b> ment erque	<b>A</b> E al.co e, NI 345-	3 <b>0</b> om M 87 4107	<b>R/</b> 109 7	NT ATC	DR	Y
Phone # email or Q/QC F X Stan Accredi D NEL	Fax#: Package: dard tation AP		o 나 228   □ Level 4 (Full Validation)	Project Mana D. W Sampler: Sample:	atson.	inson Inson	TBE + TMB's (8021)	+ TPH (Gas only)	TPH Method 8015B (Gas/Diesel)					Anions (F,Cl,NO <sub>3</sub> ,NO <sub>2</sub> ,PO <sub>4</sub> ,SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's			chlordes			
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	- HEAL ND - 1208857160	BTEX + MTBE	BTEX + MTBE	TPH Metho	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	<b>RCRA 8 Metals</b>	Anions (F,(	8081 Pesti	8260B (VOA)	8270 (Semi-VOA)	300.00			Air Bubbles (Y or N)
8 <u>-2012-</u>	0930	<u>snì</u>	SC-1	1-402														×			
												-							_		
			· · · · · · · · · · · · · · · · · · ·		•								-								
Date: Date: Date: Date: 8 120/12 12 12	Time: <u>1722</u> Time: <u>1747</u> necessary,	Relinquishe Relinquishe	Mahm	Received by:	Weet	Date Time $\frac{8}{20}/n$ 1772 Date Time $\frac{10}{20}$ 21 12 0	Ren	L							•		the ar	halvtina	a) report		

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