<u>District I</u> 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

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

Form C-141

Revised August 8, 2011

1220 South St. Francis Dr. Santa Fe, NM 87505 **Release Notification and Corrective Action** 

						<b>OPERA</b>	ГOR		] Initia	l Report	$\boxtimes$	Final Repor
								•				
				-				337				
Facility Na	me: San Ju	ıan 30-6 Un	it 443		1	Facility Typ	e: Gas Well					
Surface Ow	vner State			Mineral O	wner S	tate (E-347	-20)		API No.	30-039-24	317	
				LOCA	TION	OF REI	LEASE					
Unit Letter	Section	Township	Range	Feet from the			Feet from the			County		
G	36	30N	6W ]	2200	<u>N</u>	North	1360	<u>Ea</u>	st	Rio Arrib	<u>a</u>	
Tuna of Pale	Deca Dros	luged Fluide		NAT	URE			<u>, , , , , , , , , , , , , , , , , , , </u>	/olume D	ecovered	Nor	10
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Was Immedi	iate Notice (		v	N. M. N. D.		If YES, To	Whom?					
			Yes	No 🔯 Not Red	quirea							
	naavinaa Daar	-L - d0						the Weters				
was a water	rcourse Read		Yes 🛛 N	No		li 1ES, Vo	nume impacting t	ine waterd	ourse.			
If a Waterco	urse was Im	pacted, Descri	be Fully.*	:					R	CVD JAN	31"	100
									0	IL CONS	i. DIL	. ·
				Taken.*			<del></del>					
Below Grad	le Tank Clo	sure Activitie	es							D151.	3	
					14.1.1	1000 6		. 4-1	4b. a 4		40 4 <b>h</b> 0	lah and
I hereby cert	ify that the i	information gi	ven above	is true and compl	ete to th	ne best of my	knowledge and u	inderstand	that pursi	uant to NM	OCD r	ules and
regulations a	all operators	are required to	o report an	d/or file certain re	elease no	otifications an	nd perform correct	ctive action	ns for rele	ases which	may e	ndanger
or the enviro	nment. In a	ddition, NMC	CD accep	tance of a C-141 r	eport de	oes not reliev	e the operator of	responsibi	lity for co	mpliance w	vith an	y other
federal, state	, or local la	ws and/or regu	lations.				OH GOM	CEDIA	TUCNI	DIVIGIO		_
		<u>, , , , , , , , , , , , , , , , , , , </u>	fi .				OIL CON	SEKVA	NOIT	DIAIZIC	$\frac{N}{2}I$	
	Cycla	la Taj	oya					/	٦. د		1/4	
Signature:		0	0			Approved by	Environmental S	pecialist:	15 ra	M 0/- 1	Cllr	$\nu$
Printed Nam	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: San Juan 30-6 Unit 443 Facility Type: Gas Well  Surface Owner State Mineral Owner State (E-347-20) API No.30-039-24317  LOCATION OF RELEASE  Unit Letter Section Township Range Feet from the North/South Line Feet from the Gast/West Line County G 36 30N 6W 2200 North 1360 FRELEASE  Unit Letter Section Township Range Feet from the North/South Line Feet from the Gast/West Line County G 36 30N 6W 2200 North 1360 FRELEASE  NATURE OF RELEASE  Was Immediate Notice Green?    Ves   No   Not Required   If YES, To Whom?											
	-						0/11/001	2				<del>/</del>
Title: Field	Environme	ntal Specialis	<u>t                                      </u>			Approval Dat	te: 4/11/201	$\frac{1}{2}$	piration I	Date:		<del></del>
E-mail Addr	ess: crystal:	tafova@conoc	ophillips.	com		Conditions of	f Approval: C-14	14 (losa	e PMT			
						social 1	a RISTO	10sure	_	Attached	Ц	
				9837		riecoco -	- / -	- 1/-	711.	<u> </u>		
* Attach Add	itional She	ets It Necess	ary				NZK13	,0423	) 1 F C C			



January 25, 2013

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

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

> Durango, Colorado 970-403-3084

**RE:** Below Grade Tank Closure Report

San Juan 30-6 #443

Rio Arriba 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) San Juan 30-6 #443, located in Rio Arriba 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 – San Juan 30-6 #443

Legal Description – SW¼ NE¼, Section 36, T30N, R6W, Rio Arriba County, New Mexico Well Latitude/Longitude – N36.77037 and W107.41245, respectively BGT Latitude/Longitude – N36.77054 and W107.41273, respectively Land Jurisdiction – State of New Mexico

Land Julisdiction State of New Mexico

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, January 2013

## 1.2 NMOCD Ranking

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) database was reviewed, and a C-144 form dated July 2008 for the San Juan 30-6 #443 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 (<a href="http://ford.nmt.edu/react/project.html">http://ford.nmt.edu/react/project.html</a>) 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. An unnamed wash is located approximately 650 feet south of the location and drains to Frances Creek. Based on this information, the location was assessed a ranking score of 10.

## 1.3 BGT Closure Assessment

AES was initially contacted by Bruce Yazzie, CoP representative, on January 3, 2013, and on January 4, 2013, Deborah Watson and Corwin Lameman 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 January 4, 2013, 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 hydrocarbon (TPH). Soil sample SC-1 was field screened for chloride and was 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;
- Total petroleum hydrocarbons (TPH) for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015B; and
- Chloride per USEPA Method 300.0.

# 2.3 Field and Laboratory Analytical Results

Field screening readings for VOCs via OVM ranged from 0.2 ppm in S-2 up to 0.5 ppm in S-5. Field TPH concentrations ranged from 35.3 mg/kg in S-2 up to 191 mg/kg in S-4. 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 San Juan 30-6 #443 BGT Closure, January 2013

Sample ID	Date Sampled	Depth below BGT (ft)	VOCs OVM Reading (ppm)	Field TPH (mg/kg)	Field Chlorides (mg/kg)
NMOCD Action L	evel (NMAC 19.	15.17.13E)		100	250
S-1	01/04/13	0.5	0.3	72.1	NA
S-2	01/04/13	0.5	0.2	35.3	NA
S-3	01/04/13	0.5	0.3	152	NA
S-4	01/04/13	0.5	0.3	191	NA
S-5	01/04/13	0.5	0.5	94.7	NA
SC-1	01/04/13	0.5	NA	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. TPH concentrations were reported below the laboratory detection limits of 5.0 mg/kg GRO and 9.9 mg/kg DRO. The laboratory chloride concentration was reported below the laboratory detection limit of 30 mg/kg. Laboratory analytical results are summarized in Table 2 and included on Figure 2. Laboratory analytical reports are attached.

Table 2. Soil Laboratory Analytical Results San Juan 30-6 #443 BGT Closure, January 2013

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 19.15	0.2	50	1	00	250	
SC-1	01/04/13	0.5	<0.050	<0.25	<5.0	<9.9	<30

## 3.0 Conclusions and Recommendations

NMOCD action levels for BGT closures are specified in New Mexico Administrative Code (NMAC) 19.15.17.13E. Field TPH concentrations exceeded the NMOCD action level of 100 mg/kg in two samples, S-3 (152 mg/kg) and S-2 (191 mg/kg). However, laboratory analytical results for TPH (as GRO/DRO) in SC-1 were reported below the NMOCD action level of 100 mg/kg. Benzene and total BTEX concentrations in SC-1 were below the NMOCD action level of 0.2 mg/kg and 50 mg/kg, respectively, and chloride concentrations in SC-1 were also below the NMOCD action level of 250 mg/kg. Based on field screening and laboratory analytical results for benzene, total BTEX, TPH, and chlorides, no further work is recommended at the San Juan 30-6 #443.

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

Sincerely,

Kelsey Christiansen Environmental Scientist

Lelay Chrodium

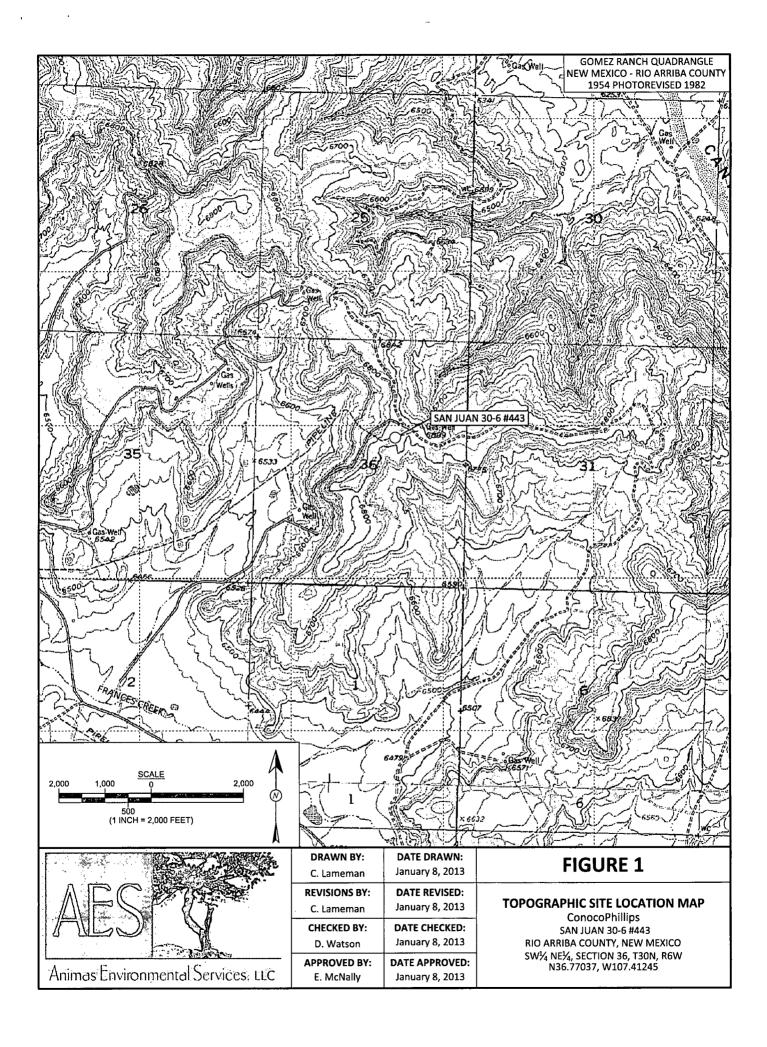
Crystal Tafoya San Juan 30-6 #443 BGT Closure Report January 25, 2013 Page 5 of 5

Elizabeth McNally, P.E.

## Attachments:

Figure 1. Topographic Site Location Map Figure 2. Aerial Site Map, January 2013 AES Field Screening Report 010413 Hall Analytical Report 1301124

R:\Animas 2000\Dropbox\2013 Projects\ConocoPhillips\SJ 30-6 #443\SJ 30-6 #443 BGT Closure Report 012513.docx





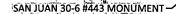
SAMPLE LOCATIONS

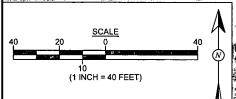
	Field Scr	eening R	esults	
Sample ID	Date	OVM- PID (ppm) (mg/k		Chlorides (mg/kg)
NMOCD ACT	TION LEVEL	-	100	250
S-1	1/4/13	0.3	72.1	NA
S-2	1/4/13	0.2	35.3	NA
S-3	1/4/13	0.3	152	NA
S-4	1/4/13	0.3	191	NA
S-5	1/4/13	0.5	94.7	NA
SC-1	1/4/13	NA	NA NA	40

ļ		Laborato	ry Analytico	ıl 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	10	00	250
SC-1	1/4/13	<0.050	<0.25	<5.0	<9.9	<30
SAMPLE WAS	ANALYZED	PER EPA MI	ETHOD 802:	1B, 8015B A	ND 300.0.	

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







<u>,</u>	DRAWN BY:	DATE DRAWN:	FIGURE 3
AERI	AL SOURCE: © 2012 MICI	ROSOFT CORPORATION -	AVAILABLE EXCLUSIVELY BY DIGITALGLOBE



7	
ital Services, LLC	AF

C. Lameman	January 8, 2013
REVISIONS BY: C. Lameman	DATE REVISED: January 8, 2013
CHECKED BY: D. Watson	DATE CHECKED: January 8, 2013
APPROVED BY: E. McNally	DATE APPROVED: January 8, 2013

# FIGURE 2

## **AERIAL SITE MAP BELOW GRADE TANK CLOSURE JANUARY 2013**

ConocoPhillips SAN JUAN 30-6 #443 RIO ARRIBA COUNTY, NEW MEXICO SW¼ NE¼, SECTION 36, T30N, R6W N36.77037, W107.41245

# **AES Field Screening Report**

AES C

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: San Juan 30-6 #443

Date: 1/4/2013

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	1/4/2013	9:25	North	0.3	NA	17:22	72.1	20.0	1	DAW			
S-2	1/4/2013	9:27	South	0.2	NA	17:25	35.3	20.0	1	DAW			
S-3	1/4/2013	9:30	East	0.3	NA	17:27	152	20.0	1	DAW			
S-4	1/4/2013	9:32	West	0.3	NA	17:29	191	20.0	1	DAW			
S-5	1/4/2013	9:35	Center	0.5	NA	17:31	94.7	20.0	1	DAW			
SC-1	1/4/2013	9:40	Composite	NA	40	Not Analyzed for TPH.							

PQL

**Practical Quantitation Limit** 

Field Chloride - Quantab Chloride Titrators or Drop Count Titration with

Debrah Water

Silver Nitrate

Total Petroleum Hydrocarbons - USEPA 418.1

ND NA

Not Analyzed

DF

**Dilution Factor** 

\*Field TPH concentrations recorded may be below PQL.

Not Detected at the Reporting Limit

Analyst:



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

January 08, 2013

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

**FAX** 

RE: CoP San Juan 30-6 #443

OrderNo.: 1301124

#### Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 1/5/2013 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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

andy

4901 Hawkins NE

Albuquerque, NM 87109

# **Analytical Report**

## Lab Order 1301124

Date Reported: 1/8/2013

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Project: CoP San Juan 30-6 #443

1301124-001 Lab ID:

Client Sample ID: SC-1

Collection Date: 1/4/2013 9:40:00 AM

Received Date: 1/5/2013 12:00:00 PM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE ORGANICS				Analyst: <b>MMD</b>
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	1/7/2013 2:30:11 PM
Surr: DNOP	105	72.4-120	%REC	1	1/7/2013 2:30:11 PM
EPA METHOD 8015B: GASOLINE R	ANGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/7/2013 12:44:27 PM
Surr: BFB	96.7	84-116	%REC	1	1/7/2013 12:44:27 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.050	mg/Kg	1	1/7/2013 12:44:27 PM
Toluene	ND	0.050	mg/Kg	1	1/7/2013 12:44:27 PM
Ethylbenzene	ND	0.050	mg/Kg	1	1/7/2013 12:44:27 PM
Xylenes, Total	ND	0.10	mg/Kg	1	1/7/2013 12:44:27 PM
Surr: 4-Bromofluorobenzene	108	80-120	" %REC	1	1/7/2013 12:44:27 PM
EPA METHOD 300.0: ANIONS					Analyst: <b>JRR</b>
Chloride	ND	30	mg/Kg	20	1/7/2013 11:49:56 AM

Matrix: SOIL

### Qualifiers:

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

- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits Page 1 of 4

# **OC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1301124

08-Jan-13

Client:

Animas Environmental Services

Project:

CoP San Juan 30-6 #443

Sample ID MB-5549

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 5549

RunNo: 7897

Prep Date: 1/7/2013 Analysis Date: 1/7/2013

SeqNo: 228861

Units: mg/Kg

Analyte

Result PQL

HighLimit

%RPD **RPDLimit** 

Qual

Chloride

ND 1.5

Sample ID LCS-5549

LCSS

SampType: LCS

TestCode: EPA Method 300.0: Anions

SPK value SPK Ref Val %REC LowLimit

RunNo: 7897

Prep Date: 1/7/2013 Batch ID: 5549

Analysis Date: 1/7/2013

SeqNo: 228862

Units: mg/Kg

Analyte

Client ID:

1.5

SPK value SPK Ref Val 15.00

%REC 93.4

LowLimit 90

HighLimit %RPD **RPDLimit** Qual

Chloride

Sample ID 1301122-001BMS

SampType: MS

0

TestCode: EPA Method 300.0: Anions

110

Client ID: **BatchQC** Prep Date:

Batch ID: 5549

14

Result

ND

ND

RunNo: 7897 SeqNo: 228864

Units: mg/Kg

Analyte

1/7/2013

Analysis Date: 1/7/2013

SPK value SPK Ref Val

13.10

%REC 73.9

LowLimit HighLimit 64.4 117 %RPD **RPDLimit** 

Qual

Qual

Chloride

Sample ID 1301122-001BMSD

**BatchQC** 

SampType: MSD

PQL

30

30

TestCode: EPA Method 300.0: Anions

RunNo: 7897

Client ID: Prep Date:

1/7/2013

Batch ID: 5549

SeqNo: 228865

Units: mg/Kg

**RPDLimit** 

Analyte Chloride

Analysis Date: 1/7/2013 Result POL

SPK value SPK Ref Val

15.00

15.00

13.10

%REC 66.8

LowLimit

64.4

HighLimit 117 %RPD 0

20

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH greater than 2

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

RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit Page 2 of 4

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1301124

08-Jan-13

Client:

Animas Environmental Services

4.2

Project:

Surr: DNOP

CoP San Juan 30-6 #443

									····	····	
Sample ID MB-5547	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015B: Dies	el Range (	Organics		
Client ID: PBS	Batch	1D: <b>55</b>	47	F	RunNo: <b>7</b>	877					
Prep Date: 1/7/2013	Analysis D	ate: 1/	7/2013	SeqNo: <b>228563</b>			Units: mg/k	Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Surr: DNOP	9.9		10.00		98.8	72.4	120				
Sample ID LCS-5547	SampT	ype: <b>LC</b>	s	Tes	tCode: El	PA Method	8015B: Dies	el Range (	Organics		
Client ID: LCSS	Batch	ID: <b>55</b>	47	F	RunNo: <b>7</b> 8	877					
Prep Date: 1/7/2013	Analysis D	ate: 1/	7/2013	9	SeqNo: <b>2</b> :	28575	Units: mg/k	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	44	10	50.00	0 `	88.1	47.4	122				

83.5

72.4

120

5.000

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

E Value above quantitation range

Analyte detected below quantitation limits

Sample pH greater than 2

Analyte detected in the associated Method Blank

RPD outside accepted recovery limits

Holding times for preparation or analysis exceeded H

Not Detected at the Reporting Limit

Page 3 of 4

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1301124

08-Jan-13

Client:

Animas Environmental Services

Project:

CoP San Juan 30-6 #443

Sample ID 100NG BTEX LCS	SampT	ype: <b>LC</b>	s	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batch	1D: <b>R7</b>	882	F	RunNo: 7					
Prep Date:	Analysis Date: 1/7/2013			5	SeqNo: 228839 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	102	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	. 80	120			

Sample ID 1301122-001AMS	SampType: MS TestCode: EPA Method 8						8021B: Vola	tiles			
Client ID: BatchQC	Batch	Batch ID: <b>R7882</b> RunNo: <b>7882</b>									
Prep Date:	Analysis D	ate: 1/7/2013 SeqNo: 228841			Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.62	0.050	0.6129	0	101	67.2	113				
Toluene	0.62	0.050	0.6129	0	102	62.1	116				
Ethylbenzene	0.63	0.050	0.6129	0	104	67.9	127				
Xylenes, Total	1.9	0.10	1.839	0	103	60.6	134				
Surr: 4-Bromofluorobenzene	0.66		0.6129		108	80	120				

Sample ID 1301122-001AN	TestCode: EPA Method 8021B: Volatiles												
Client ID: BatchQC	ent ID: BatchQC Batch ID: R7882				RunNo: 7882								
Prep Date:	Analysis D	)ate: 1/	7/2013	S	SeqNo: 2	28842	Units: mg/F	ίg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	0.62	0.050	0.6129	0	101	67.2	113	0.769	14.3				
Toluene	0.62	0.050	0.6129	0	102	62.1	116	0.0364	15.9				
Ethylbenzene	0.64	0.050	0.6129	0	104	67.9	127	0.458	14.4				
Xylenes, Total	1.9	0.10	1.839	0	103	60.6	134	0.403	12.6				
Surr: 4-Bromofluorobenzene	0.68		0.6129		111	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

Page 4 of 4



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87105
TEL: 505-345-3975 FAX: 505-345-410;
Website: www.hallenvironmental.com

# Sample Log-In Check List

Clien	t Name: Animas Er	vironmental	1.	٧	Vork Order i	Numb	er: 1:	301124			
Rece	eived by/date:	0//05	-//3								
Logg	ed By: Anne Tho	rne	1/5/2013	12:00:00 PM				A			}
Com	pleted By: Anne Tho	me	1/7/2013	ı			am	A.			
Revie	ewed By:		01/07/	13	***************************************						
<u>Chai</u>	<u>in of Custody</u>		•								
1. 1	Were seals intact?				Yes 🗹	No		Not Pre	esent 🗌		
2.	s Chain of Custody com	plete?			Yes 🗹	No		Not Pre	esent 🗌		
3. 1	How was the sample del	vered?			Courier						
Log	<u>In</u>										
4.	Coolers are present? (se	e 19. for coole	r specific Infon	mation)	Yes 🗹	No			na 🗌		
5. 1	Was an attempt made to	cool the samp	les?		Yes 🗹	No			NA 🗆		
6. 1	Were all samples receive	ed at a tempera	ature of >0° C	to 6.0°C	Yes 🗹	No			na 🗆		
7. 3	Sample(s) in proper conf	ainer(s)?			Yes 🗹	No					
8.	Sufficient sample volume	for indicated t	est(s)?		Yes 🗹	No					
9.	Are samples (except VO	A and ONG) pr	operly preserv	red?	Yes 🗹	No					
10.	Was preservative added	to bottles?			Yes 🗌	No	$\checkmark$		NA 🗆		
11.	VOA vials have zero hea	dspace?			Yes 🗌	No		No VOA	Vials 🗹		
	Were any sample contai		oroken?		Yes	No	V				
	Does paperwork match to (Note discrepancies on co		y)		Yes 🗹	No		bo	of preserved ottles checki r pH:		
14.	Are matrices correctly id	entified on Cha	in of Custody?	•	Yes 🗹	No			· p· ·	(<2 or >1	2 unless noted)
15.	ls it clear what analyses	were requester	<b>i?</b>		Yes 🗹	No			Adjuste	d?	
	Were all holding times a (If no, notify customer fo		)		Yes 🗹	No			Checked	i by:	•
Spec	ial Handling (if ap	pliçable)						L	<del> </del>		
17.	Was client notified of all	discrepancies	with this order	?	Yes 🗌	No			NA 🗹		
	Person Notified:			Date					·		
1	By Whom:			Via:	eMail [	] Pr	none [	Fax	☐ In Pers	on	
	Regarding:			The state of the s							
	Client Instructions:								The second secon		
18.	Additional remarks:										
19. 9	Cooler Information	Condition	Seal Intact	الخيونون ا	Coal Data	1 .	Clá	ايجد			
	Cooler No Temp °C	Good	Yes	Seal No.	Seal Date	1	Signe	и ву			
	***************************************		<del></del>				<del></del>				

Mailing Address: 624 F. Comanche Cop San Juan 30-10 # 938  Fry Mingdon, NM 197401  Phone #: (505) 564-2281  email or Fax#:  QA/QC Package:  QA	Client: Animas Environmental Services			Turn-Around Time:				H H LAIL EMATRONISERITA																
Firm				Project Name:																	٠			
Firm	Mailing	Address	: 624 1	5. Comanche	COP Sa	Cop San Juan 30-6 # \$33				<u> </u>														
Phone # (SCS) Seq 22 A)  email of Facet:  Project Manager:  Pro		Farmi		· -	Project #:					Te	1. 505	-345-	3975	F	=ax	505-	345-	4107	7					
email or Fax#:  Project Manager:  QA/QC Package:  QA/QC Packag											i v	,	Į.	naly	ysis	Req	uest			34.7.3	e de Carlo. Lovezona	- 9 11 - 6		
Date: Time: Relinquished by:  Received by:  Math. Webt.  Date Time Remarks: Bill to Conceptibility S  Math. Webt.  Mills 1740  Date: Time: Relinquished by:  Received by:  Math. Webt.  Math. Med. 1740  Date Time  Remarks: Bill to Conceptibility S  Wath. 1740  Date Time  Ordered by: Bruce Yazzis Supmon: Harry De				Project Mana	iger:			_	(Yl	8				04)										
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14/13 1740 With With Mater Welt 14/13 1740 WD: 1033750 Area: 21  Date: Time: Relinquished by: Received by: Date Time ordered by: Bruce Yazzie Superus: Harry Da	14/13	940	501	SC-I	MERH KILLY	MeOH		-001												士		Ë		
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	14/13	1740	Woh	h Water	Mestre Wester /4/13 1740				WO: 1033750 Area: 24										e.o					
If ne , samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This ser as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.	$\overline{}$	1. 1.0.0	M	et Week	Mille		1/5/13		Ac	fm r	١ ; ١	<u> </u>	<u> </u>			<u> </u>	ser'	K	KGARCIA					