#### 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.

1220 S. St. Fran	icis Dr., Sant	a Fe, NM 8750:	5	S	anta F	e, 1	<u>NM 875</u>	05					
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Name of Co	ompany B	urlington Re	sources O	il & Gas Compa	any	Сс	ontact Lir	ndsay Dumas			·····		· · · ·
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E-mail Addr	ess: Lindsa	y.Dumas@co	nocophilli	ps.com		Co	nditions of	Approval:		-	Attached		
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Animas Environmental Services, LLC



October 10, 2014

Lindsay Dumas ConocoPhillips San Juan Business Unit Office 214-07 5525 Hwy 64 Farmington, New Mexico 87401

Via electronic mail to: <u>SJBUE-Team@ConocoPhillips.com</u>

### RE: Initial Release Assessment and Final Excavation Report Huerfanito #97 San Juan County, New Mexico

Dear Ms. Dumas:

On July 10 and 11, August 28, and September 3, 2014, Animas Environmental Services, LLC (AES) completed an initial release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) Huerfanito #97, located in San Juan County, New Mexico. Historic contamination was discovered beneath a production tank during facility reset activities at the location. The initial release assessment was completed by AES on July 11, 2014, and the final excavation was completed by CoP contractors prior to AES' arrival at the location on September 3, 2014.

## 1.0 Site Information

## 1.1 Location

Site Name – Huerfanito #97 Location – NW¼ SW¼, Section 24, T27N, R9W, San Juan County, New Mexico Well Head Lat/Long – N36.55838 and W107.74498, respectively Release Location Lat/Long – N36.55838 and W107.74521, respectively Land Jurisdiction – Navajo Nation Allotment Figure 1. Topographic Site Location Map Figure 2. Aerial Site Map, July 2014

### 1.2 NMOCD Ranking

The Huerfanito #97 is located within Navajo Nation Allotment lands. Navajo Nation Environmental Protection Agency (NNEPA) adheres to action levels for releases and spills as established by the New Mexico Oil Conservation Division (NMOCD).

In accordance with the New Mexico Oil Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), the location was given a ranking score of 20 based on the following factors:

- Depth to Groundwater: The location is approximately 150 feet higher than Blanco Wash, which is located approximately 0.6 miles northeast. (0 points)
- Wellhead Protection Area: The release location is not within a known wellhead protection area. (0 points)
- Distance to Surface Water Body: A small unnamed wash that is a tributary to Blanco Wash is located approximately 140 feet to the south. (20 points)

### 1.3 Assessment

AES was initially contacted by Dan Rudder, CoP representative, on July 10, 2014, and on July 10 to 11, 2014, Stephanie Lynn and Sam Glasses of AES completed the release assessment field work. The assessment included collection and field sampling of 36 soil samples from 10 borings in and around the release area. Soil borings were terminated between 4 and 12 feet below grade. Based on the field sampling results, AES recommended further excavation of the release area. Sample locations are shown on Figure 3.

On August 28 and September 3, 2014, AES returned to the location to collect confirmation soil samples of the excavation. The field sampling activities included collection of 10 confirmation soil samples from the walls and base of the excavation. The area of the final excavation measured approximately 105 feet by 70 feet by 17 feet in depth. Sample locations and final excavation extents are presented on Figure 4.

## 2.0 Soil Sampling

A total of 36 soil samples from 10 borings (SB-1 through SB-10) and 10 composite samples (SC-1 through SC-10) were collected during the assessments. All soil samples were field screened for volatile organic compounds (VOCs), and selected samples were also analyzed for total petroleum hydrocarbons (TPH). One sample collected during the initial assessment (SB-10) and all composite samples (SC-1 through SC-10) collected during the excavation clearance were submitted for confirmation laboratory analysis.

## 2.1 Field Sampling

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

## 2.2 Laboratory Analyses

The soil samples collected for laboratory analysis were placed into new, clean, laboratorysupplied 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. All soil samples were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021B; and
- TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015D.

## 2.3 Field and Laboratory Analytical Results

On July 10 and 11, 2014, initial assessment field screening results for VOCs via OVM showed concentrations ranging from 0.3 ppm in SB-5 and SB-6 up to 3,901 ppm in SB-3. Field TPH concentrations ranged from 37.9 mg/kg in SB-2 to greater than 2,500 mg/kg in SB-1.

On August 28 and September 3, 2014, final excavation field screening results for VOCs via OVM ranged from 6.5 ppm in SC-10 up to 3,481 ppm in SC-3. Field TPH concentrations ranged from 26.9 mg/kg in SC-9 up to 494 mg/kg in SC-3. Results are included below in Table 1 and on Figures 3 and 4. The AES Field Sampling Reports are attached.

Sample ID	Date Sampled	Sample Depth (ft bas)	VOCs via OVM (ppm)	TPH 418.1 (ma/ka)
, NMO	CD Action Lev	vel*	100	100
		Surface	2,055	145
		2	55.7	NA
	-	4	86.2	NA
SB-1	7/10/14 ·	6	3,271	>2,500
		9	1,579	86.8
		11	1,681	108
	7/11/14	12	3,725	1,540
		Surface	12.4	37.9
SB-2	7/10/14	2	1.2	NA
	//10/14	4	1.1	NA
		6	1.9	NA
		Surface	591	NA
SB-3	7/10/14	2	64.8	NA
		4	3,901	529
		Surface	91.5	NA
	7/40/44	2	1.1	NA
SB-4	//10/14	4	0.8	NA
		6	9.1	323
	7/11/14	9	2,937	NA
		Surface	0.4	ŅA
	7/10/14	2	0.5	NA
SB-5		4	0.3	NA
	7/11/14	9	3,091	134
	//11/14	12	2,055	362

Table 1. Field Sampling VOCs and TPH Results Huerfanito #97 Release Assessment and Final Excavation

#### Lindsay Dumas

Huerfanito #97 Release Assessment and Final Excavation Report October 10, 2014

Page 5

Sample ID	Date Sampled	Sample Depth (ft bas)	VOCs via OVM (ppm)	TPH 418.1 (ma/ka)
NMO	CD Action Lev	vel*	100	100
		Surface	0.4	NA
60 G	- / /	2	0.3	NA
SB-6	//10/14	4	0.3	NA
		6	0.4	NA
	7/44/44	9	2,123	225
SB-7	//11/14	12	1,895	662
<u></u>	- 14 4 14 4	9	23.5	60.2
28-8	//11/14	12	261	64.4
<u> </u>	7/44/44	9	1.3	60.2
2B-9	//11/14	12	172	63.0
CD 10	7/11/14	9	1,051	186
2B-10	//11/14	12	1,385	334
SC-1	8/28/14	1 to 17	540	76.5
SC-2	8/28/14	1 to 17	433	28.6
SC-3	8/28/14	1 to 17	3,481	494
SC-4	8/28/14	17	968	148
SC-5	8/28/14	1 to 17	951	39.5
SC-6	8/28/14	1 to 17	3,254	126
SC-7	8/28/14	1 to 17	1,437	56.8
SC-8	8/28/14	17	607	45.5
SC-9	9/3/14	1 to 17	144	26.9
SC-10	9/3/14	1 to 17	6.5	86.9

NA – not analyzed

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

Laboratory analyses for SB-10 were used to confirm field sampling results of the initial release assessment. Benzene and total BTEX concentrations were reported at 0.41 mg/kg and 28.9 mg/kg, respectively. TPH concentrations as GRO/DRO were reported as 433 mg/kg.

Laboratory analyses for SC-1 through SC-10 were used to confirm field sampling results from the final excavation. Benzene concentrations in all samples were reported below laboratory detection limits, ranging between 0.028 mg/kg and 0.074 mg/kg. Total BTEX concentrations ranged from below laboratory detection limits in SC-1, SC-2, SC-8, and SC-10, up to 7.5 mg/kg in SC-3. TPH concentrations as GRO/DRO ranged from below laboratory detection limits in SC-1, SC-2, SC-8, and SC-10, up to 340 mg/kg in SC-3. Results are presented in Table 2 and on Figure 4. The laboratory analytical reports are attached.

	Ju	ly, August,	and Septe	mber 2014	1	
Sample ID	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)
NMO	CD Action Le	vel*	10	50	1	00
SB-10	7/11/14	12	0.41	28.9	410	23
SC-1	8/28/14	1 to 17	<0.072	<0.642	<14	16
SC-2	8/28/14	1 to 17	<0.035	<0.175	<3.5	<9.9
SC-3	8/28/14	1 to 17	<0.070	7.5	170	170
SC-4	8/28/14	17	<0.055	0.72	28	27
SC-5	8/28/14	1 to 17	<0.058	0.89	20	<9.9
SC-6	8/28/14	1 to 17	<0.070	3.1	60	67
SC-7	8/28/14	1 to 17	<0.074	1.4	37	14
SC-8	8/28/14	17	<0.071	<0.631	<14	<10
SC-9	9/3/14	1 to 17	<0.029	0.034	6.9	<9.9
SC-10	9/3/14	1 to 17	<0.028	<0.140	<2.8	<9.9

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, and TPHHuerfanito #97 Initial Release Assessment and Final Excavation

#### NA – not analyzed

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

## 3.0 Conclusions and Recommendations

On July 10 and 11, 2014, AES conducted an initial assessment of petroleum contaminated soils associated with historic contamination beneath a production tank at the Huerfanito #97, located within the Navajo Nation Allotment. NNEPA utilizes action levels for releases and spills as established by the NMOCD.

Action levels for releases are determined by the NMOCD (NNEPA) ranking score per NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993), and the site was assigned a rank of 20.

Initial assessment field sampling results from July 2014 were above the NMOCD action level of 100 ppm VOCs and 100 mg/kg TPH in SB-1, SB-3 through SB-5, and SB-7 through SB-10. The highest VOC concentration was reported in SB-3 with 3,901 ppm, and the highest TPH concentration was reported in SB-1 with greater than 2,500 mg/kg. Laboratory analyses for SB-10 were used to confirm field sampling results. Benzene and total BTEX concentrations were reported below the NMOCD action levels of 10 mg/kg and 50 mg/kg, respectively. However, TPH concentrations as GRO/DRO exceeded the NMOCD action level of 100 mg/kg (433 mg/kg). Because TPH concentrations exceeded NMOCD action levels, a release was confirmed and excavation of the impacted soils was recommended.

On August 28, 2014, initial excavation of the impacted area was completed. Field sampling results of the excavation extents showed that VOC concentrations were above applicable NMOCD action levels in all samples. Additionally, field TPH concentrations were above the applicable NMOCD action level of 100 mg/kg for SC-3 (south wall), SC-4 (south base), and SC-6 (northeast wall). However, laboratory analytical results reported benzene and total BTEX concentrations below NMOCD action levels in all samples, and TPH concentrations as GRO/DRO were reported below the applicable NMOCD action level in all samples, except SC-3 (340 mg/kg) and SC-6 (127 mg/kg).

On September 3, 2014, final excavation of the impacted area was completed. Field sampling results of the final excavation area showed that VOC concentrations were slightly above applicable NMOCD action levels in SC-9 (final south wall) but below NMOCD action levels in SC-10 (final east wall). Field TPH concentrations were below the applicable NMOCD action level in both samples. Laboratory analytical results also reported benzene, total BTEX, and TPH (as GRO/DRO) concentrations in SC-9 and SC-10 below NMOCD action levels in both samples.

Based on final field sampling and laboratory analytical results of the excavation of petroleum contaminated soils at the Huerfanito #97, VOC, benzene, total BTEX, and TPH concentrations were below applicable NMOCD action levels for each of the sidewalls and base of the final excavation. No further work is recommended.

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

Sincerely,

David g Rece

David J. Reese Environmental Scientist

Elyster V Mirsdy

Elizabeth McNally, PE

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, July 2014
- Figure 3. Initial Assessment Sample Locations and Results, July 2014
- Figure 4. Final Excavation Sample Locations and Results, August and September 2014
- AES Field Sampling Report 071014
- AES Field Sampling Report 071114
- AES Field Sampling Report 082814
- AES Field Sampling Report 090314
- Hall Laboratory Analytical Report 1407710
- Hall Laboratory Analytical Report 1408F22
- Hall Laboratory Analytical Report 1408G09
- Hall Laboratory Analytical Report 1409140

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ALAS	TELE <u>SEPARATOR</u>	
	EGI E	
		HUERFANITO #97 WELLHEADE
PRODUCTION TANK RELEASE LOCATION N36.55838, W107.74521		
40 20 0 40 10 (1 INCH = 40 FEET)		
A AFRIA	L SOURCE: © 2014 GOOGLE EARTH PRO, AERIAL DA DRAWN BY: DATE DRAWN:	FIGURE 2
AES	C. LamemanSeptember 2, 2014REVISIONS BY:DATE REVISED:C. LamemanSeptember 15, 2014CHECKED BY:DATE CHECKED:E. SkylesSeptember 15, 2014	AERIAL SITE MAP JULY 2014 ConocoPhillips HUERFANITO #97
Animas Environmental Services: LLC	APPROVED BY: DATE APPROVED: E. McNally September 15, 2014	SAN JUAN COUNTY, NEW MEXICO N36.55838, W107.74498





**AES Field Sampling Report** 

Client: ConocoPhillips

Date: 7/10/2014

Project Location: Huerfanito #97

Matrix: Soil



Animas Environmental Services, u.c.

www.animasenvironmentalicom;

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

> Durango, Colorado 970-403-3084

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials		
SB-1 @ Surface	7/10/2014	14:05	2,055	145	11:40	20.0	1	SL		
SB-1 @ 2'	7/10/2014	14:08	55.7		Not	Analyzed for T	PH			
SB-1 @ 4'	7/10/2014	14:12	86.2		Not	Analyzed for T	PH			
SB-1 @ 6'	7/10/2014	14:20	3,271	>2,500 11:40 20.0 1						
SB-1 @ 9'	7/10/2014	14:30	1,579	86.8	11:40	20.0	1	SL		
SB-1 @ 11'	7/10/2014	14:50	1681	108	11:40	20.0	1	SL		
SB-2 @ Surface	7/10/2014	14:58	12.4	37.9	12:49	20.0	1	SL		
SB-2 @ 2'	7/10/2014	15:04	1.2		Not	Analyzed for T	PH			
SB-2 @ 4'	7/10/2014	15:10	1.1		Not	Analyzed for T	PH			
SB-2 @ 6'	7/10/2014	15:15	1.9	Not Analyzed for TPH						
SB-3 @ Surface	7/10/2014	15:20	591	Not Analyzed for TPH						
SB-3 @ 2'	7/10/2014	15:25	64.8	Not Analyzed for TPH						
SB-3 @ 4'	7/10/2014	15:30	3,901	529	12:53	20.0	1	SL		

.

Page 1 Report Finalized: 7/10/14

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials	
SB-4 @ Surface	7/10/2014	15:35	91.5		Not	Analyzed for T	РН		
SB-4 @ 2'	7/10/2014	15:40	1.1		Not	Analyzed for T	РН		
SB-4 @ 4'	7/10/2014	15:45	0.8		Not	Analyzed for T	РН		
SB-4 @ 6'	7/10/2014	15:50	9.1	323	12:57	20.0	1	SL	
SB-5 @ Surface	7/10/2014	16:05	0.4		Not	Analyzed for T	РН		
SB-5@2'	7/10/2014	16:10	0.5		Not	Analyzed for T	РН		
SB-5@4'	7/10/2014	16:20	0.3		Not	Analyzed for T	РН	_	
SB-6 @ Surface	7/10/2014	16:30	0.4		Not	Analyzed for T	РН		
SB-6 @ 2'	7/10/2014	16:35	0.3	Not Analyzed for TPH					
SB-6 @ 4'	7/10/2014	16:45	0.3	Not Analyzed for TPH					
SB-6@6'	7/10/2014	16:50	0.4		Not	Analyzed for T	РН		

- DF Dilution Factor
- NA Not Analyzed

ND Not Detected at the Reporting Limit

PQL Practical Quantitation Limit

\*Field TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:

•

stephanicollyn

Page 2 Report Finalized: 7/10/14 **AES Field Sampling Report** 

Client: ConocoPhillips

Date: 7/11/2014

Project Location: Huerfanito #97

Matrix: Soil



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www.animasenvironmental.com

624 E. Comanche Farmington, NM 87401 505-504-2281

> Durango, Colorado 970-403-3084

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ 12'	7/11/2014	9:00	3,725	1,541	10:20	20.0	1	CL
SB-4 @ 9'	7/11/2014	10:15	2,937		Not	Analyzed for T	PH	
SB-5 @ 9'	7/11/2014	9:20	3,091	134	10:25	20.0	1	CL
SB-5 @ 12'	7/11/2014	9:25	2,055	362	10:28	20.0	1	CL
SB-7 @ 9'	7/11/2014	9:35	2,123	225	10:32	20.0	1	CL
SB-7 @ 12'	7/11/2014	9:45	1,895	662	10:35	20.0	1	CL
SB-8 @ 9'	7/11/2014	10:25	23.5	60.2	10:44	20.0	1	CL
SB-8 @ 12'	7/11/2014	10:31	261	64.4	10:47	20.0	1	CL
SB-9 @ 9'	7/11/2014	10:39	1.3	60.2	11:24	20.0	1	CL
SB-9 @ 12'	7/11/2014	10:45	172	63.0	11:30	20.0	1	CL
SB-10 @ 9'	7/11/2014	10:52	1,051	186	11:35	20.0	1	CL
SB-10 @ 12'	7/11/2014	10:59	1,385	334	11:40	20.0	1	CL

Page 1 Report Finalized: 7/11/14

ĺ									
ļ						Field TPH			ТРН
		Collection	Collection	OVM	Field TPH*	Analysis	TPH PQL		Analysts
	Sample ID	Date	Time	(ppm)	(mg/kg)	Time	(mg/kg)	DF	Initials

DF Dilution Factor

NA Not Analyzed

.

ND Not Detected at the Reporting Limit

PQL Practical Quantitation Limit

\*Field TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Coi hi Analyst:

Page 2 Report Finalized: 7/11/14 **AES Field Sampling Report** 

Client: ConocoPhillips Project Location: Huerfanito #97 Date: 8/28/2014

Matrix: Soil

AES

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www.animasenvironmental.com,

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

> Durango, Colorado 970-403-3084

	Collection	Time of Sample	Sample	оум	Field TPH*	Field TPH Analysis	TPH PQL		TPH Analysts
Sample ID	Date	Collection	Location	(ppm)	(mg/kg)	Time	(mg/kg)	DF	Initials
SC-1	8/28/2014	16:40	North Wall	540	76.5	18:09	20.0	1	SL
SC-2	8/28/2014	16:45	South Wall	433	28.6	18:11	20.0	1	SL
SC-3	8/28/2014	16:50	West Wall	3,481	494	18:07	20.0	1	SL
SC-4	8/28/2014	16:55	Base	968	148	18:05	20.0	1	SL
SC-5	8/28/2014	17:00	North Wall	951	39.5	18:00	20.0	1	SL
SC-6	8/28/2014	17:05	South Wall	3,254	126	18:13	20.0	1	SL
SC-7	8/28/2014	17:10	East Wall	1,437	56.8	18:14	20.0	1	SL
SC-8	8/28/2014	17:15	Base	607	45.5	18:03	20.0	1	SL

DF Dilution Factor

NA Not Analyzed

ND Not Detected at the Reporting Limit

PQL Practical Quantitation Limit

\*TPH concentrations recorded may be below PQL.

Steplance Algon. Analyst:

Total Petroleum Hydrocarbons - USEPA 418.1

Page 1 Report Finalized: 8/28/14 **AES Field Sampling Report** 

3

Client: ConocoPhillips Project Location: Huerfanito #97 Date: 9/3/2014

Matrix: Soil



Animas Environmental Services Lie

www.anlinasenvironmental.com

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

Durango, Colorado 970-403-3084

		Time of				Field TPH			ТРН
	Collection	Sample	Sample	OVM	Field TPH*	Analysis	TPH PQL		Analysts
Sample ID	Date	Collection	Location	(ppm)	(mg/kg)	Time	(mg/kg)	DF	Initials
SC-1	9/3/2014	14:10	West Wall	144	26.9	14:33	20.0	1	CL
SC-2	9/3/2014	14:15	Southeast Wall	6.5	86.9	14:30	20.0	1	CL

DF Dilution Factor

NA Not Analyzed

ND Not Detected at the Reporting Limit

PQL Practical Quantitation Limit

\*TPH concentrations recorded may be below PQL.

Total Petroleum Hydrocarbons - USEPA 418.1

Coi he Analyst:

Page 1 Report Finalized: 9/3/14



July 23, 2014 Debbie Watson Animas Environmental 624 East Comanche Farmington, NM 87401 TEL: (505) 486-4071 FAX

RE: CoP Huerfanito #97

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

OrderNo.: 1407710

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 7/16/2014 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. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andia

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report
Lab Order 1407710

20 7/21/2014 3:15:38 PM

20 7/21/2014 3:15:38 PM

R20023

R20023

Date Reported: 7/23/2014

## Hall Environmental Analysis Laboratory, Inc.

Xylenes, Total

Surr: 4-Bromofluorobenzene

CLIENT: Animas Environmental Project: CoP Huerfanito #97 Lab ID: 1407710-001	Matrix:	SOIL	(	Client Sampl Collection   Received	e ID: SB Date: 7/1 Date: 7/1	-10 @ 12' 1/2014 10:59:00 AM 6/2014 8:10:00 AM	
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS					Analyst	BCN
Diesel Range Organics (DRO)	23	10		mg/Kg	1	7/17/2014 10:56:28 AM	14274
Surr: DNOP	79.4	57.9-140		%REC	1	7/17/2014 10:56:28 AM	14274
EPA METHOD 8015D: GASOLINE RA	NGE					Analyst	NSB
Gasoline Range Organics (GRO)	410	58		mg/Kg	20	7/21/2014 3:15:38 PM	R20023
Surr: BFB	171	80-120	S	%REC	20	7/21/2014 3:15:38 PM	R20023
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	0.41	0.29		mg/Kg	20	7/21/2014 3:15:38 PM	R20023
Toluene	1.4	0.58		mg/Kg	20	7/21/2014 3:15:38 PM	R20023
Ethylbenzene	2.1	0.58		mg/Kg	20	7/21/2014 3:15:38 PM	R20023

1.2

80-120

mg/Kg

%REC

25

114

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	od Blank
	<ul><li>E Value above quantitation range</li><li>J Analyte detected below quantitation limits</li></ul>		Н	Holding times for preparation or analysi	s exceeded
			ND	Not Detected at the Reporting Limit	Page 1 of 4
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	Tuge Tot T
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

......

Client: Project:	Animas E CoP Huer	nvironmer fanito #97	ntal 7								
Sample ID	MB-14274	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D: Diese	el Range (	Drganics	
Client ID:	PBS	Batch	1D: <b>14</b> :	274	F	RunNo: 1	9943				
Prep Date:	7/17/2014	Analysis D	ate: 7/	17/2014	S	SeqNo: 5	80659	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (	Organics (DRO)	ND	10								
Surr: DNOP		7.7		10.00		76.8	57.9	140			
Sample ID	LCS-14274	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015D: Diese	el Range (	Drganics	
Client ID:	LCSS	Batch	n ID: 14	274	F	RunNo: 1	9943				
Prep Date:	7/17/2014	Analysis D	ate: 7/	17/2014	S	SeqNo: 5	80660	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (	Organics (DRO)	47	10	50.00	0	93.1	68.6	130			
Surr: DNOP		3.9		5.000		77.7	57.9	140			
Sample ID	1407710-001AMS	SampT	ype: MS	;	Tes	tCode: El	PA Method	8015D: Diese	el Range (	Drganics	
Client ID:	SB-10 @ 12'	Batch	n ID: 14	274	ਜ	RunNo: 1	9943				
Prep Date:	7/17/2014	Analysis D	ate: 7/	17/2014	S	SeqNo: 5	80663	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	69	9.9	49.46	23.42	92.9	40.1	152			
Surr: DNOP		3.9		4.946		78.5	57.9	140			
Sample ID	1407710-001AMSE	) SampT	ype: MS	SD	Tes	tCode: El	PA Method	8015D: Diese	el Range (	Drganics	
Client ID:	SB-10 @ 12'	Batch	n ID: 14	274	F	RunNo: <b>1</b>	9943				
Prep Date:	7/17/2014	Analysis D	ate: 7/	17/2014	S	SeqNo: 5	80664	Units: mg/K	g		

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1407710

23-Jul-14

Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Analyte 3.44 32.1 Diesel Range Organics (DRO) 72 10 50.20 23.42 96.3 40.1 152 Surr: DNOP 4.0 5.020 80.3 57.9 140 0 0

#### Qualifiers:

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

Page 2 of 4

Detection Limit

Hall Environmental Analysis Laboratory, Inc.

880

1000

		<u> </u>									
Client: Project:	Animas E CoP Huer	nvironment fanito #97	al								
Sample ID	5ML RB	SampTyp	De: MI	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	PBS	Batch I	D: <b>R1</b>	9984	F	RunNo: 1	9984				
Prep Date:		Analysis Dat	te: 7/	/18/2014	S	SeqNo: 5	81093	Units: %RE	с		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		940		1000		93.7	80	120			
Sample ID	2.5UG GRO LCSB	SampTyp	be: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	LCSS	Batch I	D: R1	9984	F	RunNo: 1	9984				
Prep Date:		Analysis Dat	te: 7	/18/2014	S	SeqNo: 5	81094	Units: %RE	с		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		980		1000		97.7	80	120		· · · · · · · · · · · · · · · · · · ·	
Sample ID	MB-14303 MK	SampTyp	be: MI	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	PBS	Batch I	D: R2	20023	F	RunNo: 2	0023				
Prep Date:		Analysis Dat	te: 7/	/21/2014	ę	SeqNo: 5	82200	Units: mg/h	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	ND	5.0								
Surr: BFB	·	840		1000		83.8	80	120			<u>.                                    </u>
Sample ID	LCS-14303 MK	SampTyp	be: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	LCSS	Batch I	D: R2	20023	F	RunNo: 2	0023				
Prep Date:		Analysis Dat	te: 7	/21/2014	S	SeqNo: 5	82201	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rand	e Organics (GRO)	23	5.0	25.00	0	92.6	71.7	134			

Sasoline Range Organics Surr: BFB

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- 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

88.4

80

120

- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 3 of 4

WO#:

1407710

23-Jul-14

inple pri greater than 2.

Hall Environmental Analysis Laboratory, Inc.

Client:	Animas E	Invironmen	ntal								
Project:	CoP Hue	rfanito #97									
Sample ID	5ML RB	SampT	ype: M	BLK	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID:	PBS	Batch	ID: R	19984	F	RunNo: 1	19984				
Prep Date:		Analysis D	ate: 7	/18/2014	S	SeqNo: 8	581128	Units: %RE	С		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bron	nofluorobenzene	1.1		1.000		106	80	120			
Sample ID	100NG BTEX LCS	SampT	ype: L(	cs	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID:	LCSS	Batch	ID: R	19984	F	RunNo: 1	19984				
Prep Date:		Analysis Da	ate: 7	/18/2014	5	SeqNo: 8	581129	Units: %RE	с		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bron	nofluorobenzene	1.0		1.000		104	80	120			
Sample ID	MB-14303 MK	SampT	ype: M	BLK	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID:	PBS	Batch	1D: R	20023	F	RunNo: 2	20023				
Prep Date:		Analysis Da	ate: 7	//21/2014	S	SeqNo: 8	582227	Units: mg/K	g		
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	1							
Xylenes, Total		ND	0.10	)							
Surr: 4-Bron	nofluorobenzene	0.98		1.000		97.6	80	120			
Sample ID	LCS-14303 MK	SampT	ype: L	cs	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID:	LCSS	Batch	ID: R	20023	F	RunNo: 2	20023				
Prep Date:		Analysis Da	ate: 7	//21/2014	5	SeqNo:	582228	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.93	0.050	1.000	0	92.9	80	120			
Toluene		0.92	0.050	1.000	0	91.8	80	120			
Ethylbenzene		0.93	0.050	1.000	0	93.2	80	120			
Xylenes, Total		3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bron	nofluorobenzene	1.0		1.000		105	80	120			

#### Qualifiers:

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

Page 4 of 4

23-Jul-14

WO#: 1407710

ANALYSIS LABORATORY <i>Website: www.h</i>	4901 Hawkins Ibuquerque, NM 87 75 FAX: 505-345-4 hallenvironmental.	NE 109 <b>Sam</b> 107 com	ple Log-In Cł	neck List
Client Name: Animas Environmental Work Order Numbe	er: 1407710		RcptNo:	1
Received by/date: CS 07/16/19		·····		······ · · · · · · · · · · · · · · · ·
Logged By: Anne Thome 7/16/2014 8:10:00 AM	N	ame Im		
Completed By: Anne Thome 7/16/2014		ann An		
Reviewed By: US/ the o7/16/14				
Chain of Custody				
1 Custody seals intact on sample bottles?	Yes 🗋	No 🗌	Not Present 🗹	
2. Is Chain of Custody complete?	Yes 🗹	No 🗋	Not Present	
3. How was the sample delivered?	Courier			
Log In				
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗆	na 🗔	
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes 🗹	No 🗌	NA 🗌	
6. Sample(s) In proper container(s)?	Yes 🗹	No 🗆		
7. Sufficient sample volume for indicated test(s)?	Yes 🗹	No 🗔		
8. Are samples (except VOA and ONG) properly preserved?	Yes 🗹	No 🗌		
9. Was preservative added to bottles?	Yes 🗋	No 🗹	NA 🗋	
10.VOA vials have zero headspace?	Yes 🗌	No 🗌	No VOA Vials 🗹	
11. Were any sample containers received broken?	Yes 🗆	No 🗹		
12. Does paperwork match bottle labels?	Yes 🗹	No 🗆	for pH:	
(Note discrepancies on chain of custody)	No. 2		(<2 or Adiusted?	>12 unless noted)
1.4. Is it clear what analyses were requested?	Tes 🗹 Yes 🕅			
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗹		Checked by:	
	V	м. 🗂	A.A. []	
TO, was client notified of all discrepancies with this order?	res 🖵			J
Person Notified: Date				
By whom: Via:				
Client Instructions:	<sup>**</sup>	······		
17. Additional remarks:		<u> </u>		2
18. <u>Cooler Information</u> <u>Cooler No</u> <u>Temp <sup>o</sup>C</u> <u>Condition</u> <u>Seal Intact</u> <u>Seal No</u> <u>1</u> <u>1.4</u> <u>Good</u> <u>Yes</u>	Seal Date	Signed By		
			<b></b>	<u> </u>

.

C	hain-	of-Cu	stody Record	Turn-Around	Time:			Ι.			L				31/	ТС	<b>)</b>			літ	A 1	
Client:	Anim	as En	vironmental		🗆 Rush					 	A	N	LL AL'	er Ys	IS	┙┙ ╕┠	.AE	30	RA	TC	R)	1
	0	<u> </u>	1. <i>r</i>	Project Name	):					d,						nont						_
Mailing	Address	624 F	Comanche	COP Hu	crfanito	, #97			490	01 H	awkii	ns Ni	.пам Е -	Albu	ique	erque	e, Ni	M 87	'109			
È		n NI/	N 87401	Project #:				1	Те	1.50	5-34	5-39	75	F	ax <i>f</i>	505-:	345-	4107	7			
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email or	<u>r 90°</u> Fav#		1 660	Project Mana	der:			* (in	<u>(</u> )	$\widehat{\mathbf{O}}$			\$15.		()							
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:				Container	Preservativo			+	Σ	115	<b>leth</b>	Aeth	83	8	Щ.	esti	S	Sem				plei
Date	Time	Matrix	Sample Request ID	Type and #	Type	HEAL	No	Ш	ж	H 80	E I	е В	H's	₹	suo	μ	SOB SOB	s) 0'				Bub
				wit.	Maraul -	1467	$\Pi()^{**}$	ВТ	ВТ	ЧL	d L	G	PA	22	Ani	õ	826	827		•		Air
7-11-14	1059	Soil	SB-10@12'	Mc011. 402	cold	-	-701	X		X	ſ											
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Date:	Time:	Relicquish	ed by:	Received by:		Date	Time	Ave	a: 2	1	· · ·			1	G	nae	. v	my.	nan 101	ny K	uaa	n
TISM	18750/	1ht	- Walte	Celina	Sun	07/16/14	0810	Sup	ervis	n:	ash	o Tru	yıll	0		wer		UA7	J ()	+		
tali	I LOUS	samples sub	mitted to Hall Environmental may be sub	contracted to other a	ccredited laboratorie	es. This serves a	s notice of this	a possi	bility. A	Anv su	b-contr	acted	data w	dil be d	deady	v notal	ted on	the ar	alvica	l report		<u> </u>

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited labo Is serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



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

September 02, 2014

Emilee Skyles Animas Environmental 624 East Comanche Farmington, NM 87401 TEL: (505) 564-2281 FAX

RE: COP Huerfanito #97

OrderNo.: 1408F22

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 8 sample(s) on 8/29/2014 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. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andif

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 9/2/2014

#### \_ **CLIENT:** Animas Environmental Client Sample ID: SC-1 COP Huerfanito #97 Project: Collection Date: 8/28/2014 4:40:00 PM Lab ID: 1408F22-001 Matrix: SOIL Received Date: 8/29/2014 8:25:00 AM Result **RL** Qual Units Analyses **DF** Date Analyzed Batch EPA METHOD 8021B: VOLATILES Analyst: NSB Benzene ND 0.072 8/29/2014 11:22:25 AM R20898 mg/Kg 5 Toluene ND 0.14 5 mg/Kg 8/29/2014 11:22:25 AM R20898 Ethylbenzene ND 0.14 mg/Kg 5 8/29/2014 11:22:25 AM R20898 Xylenes, Total ND 0.29 mg/Kg 5 8/29/2014 11:22:25 AM R20898 Surr: 4-Bromofluorobenzene 103 80-120 %REC 5 8/29/2014 11:22:25 AM R20898

Hall Environmental Analysis Laboratory, Inc.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analys	is exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 11
	O RSD is greater than RSDlimit		Р	Sample pH greater than 2.	ragerorri
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

**Analytical Report** 

# Hall Environmental Analysis Laboratory, Inc.

Lab Order **1408F22** Date Reported: **9/2/2014** 

CLIENT: Project: Lab ID:	Animas Environmental COP Huerfanito #97 1408F22-002	Client Sample ID: SC-2Collection Date: 8/28/2014 4:45:00 PMMatrix: SOILReceived Date: 8/29/2014 8:25:00 AM								
Analyses		Result	RL (	Qual Units	DF	Date Analyzed	Batch			
EPA MET	HOD 8021B: VOLATILES	· · · · · · · · ·	•			Analyst	: NSB			
Benzene		ND	0.035	mg/Kg	1	8/29/2014 11:51:05 AM	R20898			
Toluene		ND	0.035	mg/Kg	1	8/29/2014 11:51:05 AM	R20898			
Ethylben	zene	ND	0.035	mg/Kg	1	8/29/2014 11:51:05 AM	R20898			
Xylenes,	Total	ND	0.070	mg/Kg	1	8/29/2014 11:51:05 AM	R20898			
Surr: 4	-Bromofluorobenzene	103	80-120	%REC	1	8/29/2014 11:51:05 AM	R20898			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
-	Е	Value above quantitation range	Н	Holding times for preparation or analysi	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 11
	O RSD is greater than RSDlimit		Р	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Date Reported: 9/2/2014

# Hall Environmental Analysis Laboratory, Inc.

-

<b>CLIENT:</b> Animas Environmental	Client Sample ID: SC-3											
Project: COP Huerfanito #97				Collection I	Date: 8/2	28/2014 4:50:00 PM						
Lab ID: 1408F22-003	Matrix: SOIL			Received Date: 8/29/2014 8:25:00 AM								
Analyses	Result	RL (	Qual	Units	DF	Date Analyzed	Batch					
EPA METHOD 8015D: DIESEL RANGE	ORGANICS					Analyst	JME					
Diesel Range Organics (DRO)	170	9.9		mg/Kg	1	8/29/2014 11:06:52 AM	15031					
Surr: DNOP	84.8	57.9-140		%REC	1	8/29/2014 11:06:52 AM	15031					
EPA METHOD 8015D: GASOLINE RAM	NGE					Analyst	NSB					
Gasoline Range Organics (GRO)	170	14		mg/Kg	5	8/29/2014 12:19:47 PM	R20898					
Surr: BFB	326	80-120	S	%REC	5	8/29/2014 12:19:47 PM	R20898					
EPA METHOD 8021B: VOLATILES						Analyst	NSB					

PA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.070	mg/Kg	5	8/29/2014 12:19:47 PM	R20898
Toluene	0.21	0.14	mg/Kg	5	8/29/2014 12:19:47 PM	R20898
Ethylbenzene	0.41	0.14	mg/Kg	5	8/29/2014 12:19:47 PM	R20898
Xylenes, Total	6.9	0.28	mg/Kg	5	8/29/2014 12:19:47 PM	R20898
Surr: 4-Bromofluorobenzene	119	80-120	%REC	5	8/29/2014 12:19:47 PM	R20898

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank	
	Е	Value above quantitation range	Н	H Holding times for preparation or analysis		
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 11	
	O RSD is greater than RSD limit		Р	Sample pH greater than 2.	ruge 5 of 11	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		
	S	Spike Recovery outside accepted recovery limits				

Date Reported: 9/2/2014

8/29/2014 12:48:22 PM R20898

## Hall Environmental Analysis Laboratory, Inc.

CLIENT:Animas EnvironmentalProject:COP Huerfanito #97Lab ID:1408F22-004	Client Sample ID: SC-4Collection Date: 8/28/2014 4:55:00 PMMatrix: SOILReceived Date: 8/29/2014 8:25:00 AM						
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch	
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analy	st: JME	
Diesel Range Organics (DRO)	27	10	mg/Kg	1	8/29/2014 11:07:10 A	M 15031	
Surr: DNOP	99.0	57.9-140	%REC	1	8/29/2014 11:07:10 A	M 15031	
EPA METHOD 8015D: GASOLINE RA	NGE				Analy	st: NSB	

28

#### Surr: BFB E

Gasoline Range Organics (GRO)

Surr: BFB	158	80-120	S	%REC	2	8/29/2014 12:48:22 PM	R20898
PA METHOD 8021B: VOLATILES						Analyst:	NSB
Benzene	ND	0.055		mg/Kg	2	8/29/2014 12:48:22 PM	R20898
Toluene	ND	0.055		mg/Kg	2	8/29/2014 12:48:22 PM	R20898
Ethylbenzene	0.060	0.055		mg/Kg	2	8/29/2014 12:48:22 PM	R20898
Xylenes, Total	0.66	0.11		mg/Kg	2	8/29/2014 12:48:22 PM	R20898
Surr: 4-Bromofluorobenzene	110	80-120		%REC	2	8/29/2014 12:48:22 PM	R20898

5.5

mg/Kg

2

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analys	is exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 4 of 11
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	i age + oi i i
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

**Analytical Report** 

Lab Order 1408F22

Date Reported: 9/2/2014

CLIENT: Animas Environmental	Client Sample ID: SC-5								
<b>Project:</b> COP Huerfanito #97		Collection Date: 8/28/2014 5:00:00 PM							
Lab ID: 1408F22-005	Matrix:	Received	Received Date: 8/29/2014 8:25:00 AM						
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch			
EPA METHOD 8021B: VOLATILES					Analys	NSB			
Benzene	ND	0.058	mg/Kg	2	8/29/2014 1:17:06 PM	R20898			
Toluene	ND	0.058	mg/Kg	2	8/29/2014 1:17:06 PM	R20898			
Ethylbenzene	ND	0.058	mg/Kg	2	8/29/2014 1:17:06 PM	R20898			
Xylenes, Total	0.89	0.12	mg/Kg	2	8/29/2014 1:17:06 PM	R20898			
Surr: 4-Bromofluorobenzene	109	80-120	%REC	2	8/29/2014 1:17:06 PM	R20898			

Hall Environmental Analysis Laboratory, Inc.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
	Е	Value above quantitation range	н	Holding times for preparation or analys	is exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 5 of 11
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	ruge s er m
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

**Analytical Report** 

Lab Order 1408F22

5

%REC

Date Reported: 9/2/2014

8/29/2014 1:45:47 PM

R20898

# Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

CLIENT: Animas EnvironmentalProject:COP Huerfanito #97Lab ID:1408F22-006	Client Sample ID: SC-6Collection Date: 8/28/2014 5:05:00 PMMatrix: SOILReceived Date: 8/29/2014 8:25:00 AM							
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch	
EPA METHOD 8015D: DIESEL RANG	E ORGANICS					Analyst:	JME	
Diesel Range Organics (DRO)	67	9.9		mg/Kg	1	8/29/2014 11:30:39 AM	15031	
Surr: DNOP	97.9	57.9-140		%REC	1	8/29/2014 11:30:39 AM	15031	
EPA METHOD 8015D: GASOLINE RA	NGE					Analyst:	NSB	
Gasoline Range Organics (GRO)	60	14		mg/Kg	5	8/29/2014 1:45:47 PM	R20898	
Surr: BFB	151	80-120	S	%REC	5	8/29/2014 1:45:47 PM	R20898	
EPA METHOD 8021B: VOLATILES						Analyst:	NSB	
Benzene	ND	0.070		mg/Kg	5	8/29/2014 1:45:47 PM	R20898	
Toluene	0.22	0.14		mg/Kg	5	8/29/2014 1:45:47 PM	R20898	
Ethylbenzene	0.18	0.14		mg/Kg	5	8/29/2014 1:45:47 PM	R20898	
Xylenes, Total	2.7	0.28		mg/Kg	5	8/29/2014 1:45:47 PM	R20898	

80-120

110

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analys	is exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 6 of 11
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	Tage 0 01 11
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Date Reported: 9/2/2014

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas EnvironmentalProject:COP Huerfanito #97Lab ID:1408F22-007	Client Sample ID: SC-7Collection Date: 8/28/2014 5:10:00 PMMatrix: SOILReceived Date: 8/29/2014 8:25:00 AM							
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch		
EPA METHOD 8021B: VOLATILES					Analys	I NSB		
Benzene	ND	0.074	mg/Kg	5	8/29/2014 2:14:32 PM	R20898		
Toluene	0.15	0.15	mg/Kg	5	8/29/2014 2:14:32 PM	R20898		
Ethylbenzene	ND	0.15	mg/Kg	5	8/29/2014 2:14:32 PM	R20898		
Xylenes, Total	1.2	0.30	mg/Kg	5	8/29/2014 2:14:32 PM	R20898		
Surr: 4-Bromofluorobenzene	107	80-120	%REC	5	8/29/2014 2:14:32 PM	R20898		

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analyst	is exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 7 of 11
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Date Reported: 9/2/2014

CLIENT: Animaś Environmental Project: COP Huerfanito #97 Lab ID: 1408F22-008	Client Sample ID: SC-8Collection Date: 8/28/2014 5:15:00 PMMatrix: SOILReceived Date: 8/29/2014 8:25:00 AM							
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch		
EPA METHOD 8021B: VOLATILES					Analys	t: NSB		
Benzene	ND	0.071	mg/Kg	5	8/29/2014 2:43:11 PM	R20898		
Toluene	ND	0.14	mg/Kg	5	8/29/2014 2:43:11 PM	R20898		
Ethylbenzene	ND	0.14	mg/Kg	5	8/29/2014 2:43:11 PM	R20898		
Xylenes, Total	ND	0.28	mg/Kg	5	8/29/2014 2:43:11 PM	R20898		
Surr: 4-Bromofluorobenzene	103	80-120	%REC	5	8/29/2014 2:43:11 PM	R20898		

Hall Environmental Analysis Laboratory, Inc.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	iod Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analys	is exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 8 of 11
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	i uge o oi i i
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

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WO#: 1408F22

02-Sep-14

Client: Anin Project: COl	mas Environmental P Huerfanito #97								
Sample ID MB-15031	SampType:	SampType: MBLK TestCode: EPA Method 8				8015D: Dies	el Range (	Drganics	
Client ID: PB\$	Batch ID: 1	15031 RunNo: 20880							
Prep Date: 8/29/2014	Analysis Date:	8/29/2014	S	SeqNo: 6	07914	Units: mg/H	٩		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND 1	0							
Surr: DNOP	9.3	10.00		92.7	57.9	140			
Sample ID LCS-15031	SampType: I	_cs	Tes	tCode: E	PA Method	8015D: Dies	el Range (	Drganics	
Client ID: LC\$S	Batch ID: 1	15031	R	RunNo: 2	0880				
Prep Date: 8/29/2014	Analysis Date:	8/29/2014	S	SeqNo: 6	07922	Units: mg/k	٢g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47 1	0 50.00	0	93.9	68.6	130			
Surr: DNOP	4.4	5.000		87.8	57.9	140			

#### Qualifiers:

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

Page 9 of 11

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1408F22

02-Sep-14

Client:AnimasProject:COP H	Environme uerfanito #9	ntal 97				•				
Sample ID MB-15023 MK	Samp	Гуре: МІ	BLK	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID: PBS	Batc	h ID: <b>R2</b>	20898	F	RunNo: 2	0898				
Prep Date:	Analysis (	Date: 8	/29/2014	5	SeqNo: 6	08485	Units: mg/ł	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.4	80	120		_	
Sample ID LCS-15023 MK	Samp	Гуре: LC	s	Tes	tCode: E	PA Method	8015D: Gase	line Rang	e	
Client ID: LCSS	Batc	h ID: <b>R2</b>	20898	F	RunNo: 2	0898				
Prep Date:	Analysis [	Date: <b>8</b> /	/29/2014	5	SeqNo: 6	08486	Units: mg/ł	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	110	65.8	139			
Surr: BFB	1000		1000		102	80	120			

#### Qualifiers:

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

Page 10 of 11

Hall Environmental Analysis Laboratory, Inc.

Client: Animas Project: COP Hu	Environme Ierfanito #9	ental 97								
Sample ID MB-15023 MK	Samp	Туре: МЕ	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batc	h ID: R2	0898	F	tunNo: 2	0898				
Prep Date:	Analysis [	Date: 8/	29/2014	5	SeqNo: 6	08502	Units: mg/k	٩g		
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-15023 MK	Samp	Type: LC	:s	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batc	h ID: R2	0898	F	RunNo: 2	0898				
Prep Date:	Analysis [	Date: 8/	29/2014	S	SeqNo: 6	08503	Units: mg/)	۲g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	101	80	120			
Foluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.1	0.050	1.000	0	105	80	120			
Xylenes, Total	3.2	0.10	3.000	0	106	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

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

Page 11 of 11

- WO#: 1408F22
  - 02-Sep-14

#### HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

# Sample Log-In Check List

Client Name:	Animas Environmental	Work Order Number:	1408F22		RcptNo:	1
Received by/da	ate: MG-05	29/14		·		
Logged By:	Anne Thorne	8/29/2014 8:25:00 AM		anne Im	-	
Completed By:	Anne Thorne	8/29/2014		Den M.		
Reviewed By:	20	08/29/14		Cione Ji Can	-	
Chain of Cu	stody					
1. Custody se	ais intact on sample bottles	?	Yes 🗆	No 🗔	Not Present	
2. Is Chain of	Custody complete?		Yes 🗹	No 🗌	Not Present 🔲	
3. How was th	ne sample delivered?		<u>Courier</u>			
<u>l.og In</u>						
4. Was an at	tempt made to cool the sam	ples?	Yes 🗹	No 🗖	NA 🗌	
5. Were all sa	amples received at a temper	ature of >0° C to 6.0°C	Yes 🗹	No 🗌	NA 🗌	
6. Sample(s)	in proper container(s)?		Yes 🗹	No 🗌		
7. Sufficient s	ample volume for indicated	test(s)?	Yes 🗹	No 🗌		
8. Are sample	es (except VOA and ONG) p	roperly preserved?	Yes 🗹	No 🗆		
9. Was prese	rvative added to bottles?		Yes 🗋	No 🗹	NA 🗌	
10.VOA viais i	have zero headspace?		Yes 🔲	No 🗔	No VOA Viais 🗹	
11, Were any	sample containers received	broken?	Yes 🗆	No 🗹	# of preserved	
12.Does pape (Note discr	rwork match bottle labels? epancies on chain of custod	y)	Yes 🗹	No 🗆	for pH:	r >12 unless noted)
13. Are matrice	es correctly identified on Cha	ain of Custody?	Yes 🗹	No 🗆	Adjusted?	
14. Is it clear w	nat analyses were requeste	d?	Yes 🗹	No 🗖		
15. Were all ho (If no, notif	olding times able to be met? y customer for authorization	)	Yes 🗹	No	Checked by:	<u></u>
<u>Special Han</u>	dling (if applicable)					
16. Was client	notified of all discrepancies	with this order?	Yes 🗌	No 🗌	NA 🗹	

Person Notified: By Whom:	Date Date Bail Dehone Deax Denson
Regarding: Client Instructions:	

17. Additional remarks:

#### 18. Cooler Information

Ī	Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
I	1	1.0	Good	Yes			
				· · · · · · · · · · · · · · · · · · ·		*	

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Ļ	nain	-ot-Ci	ustody Record	l'um-	Arouna	ıme:				1		_											
Client:	Annas	ENUNO	mental Services		tändard	<u> </u>	Rush	same day				F	1a Nn	ll Al	. El .Y:	NV SIS	YIR S L	20 .Ae	Nî 30	YE R/	INT ATC	AL )R	Y
			·	Proje	ct Nam	e:		0		<u>_</u>	4. <sup>4</sup>		ww	v.ha	llenv	rironi	ment	tal.co	om				
Mailing	Address	124 P	Comandie	1	COP	Hue	rfan	Tto #97		49	01 H	lawki	ins N	IE -	Alb	บดม	erau	e. Ni	M 87	7109			
	Farm	ngton	NM 87401	Proje	ct #:					Te	əl. 50	)5-34	5-3	975		Fax	505-	345-	-410	7			
Phone	#: (50	5) 5	14-2281	1							€ 9 ÷ <del>~</del>	مام <u>ما</u>	an a	A	nal	/sis	Req	uest					2
email o	r Fax#:		· · · · · · · · · · · · · · · · · · ·	Proje	ct Mana	ager:		······································		(ylr	Ŷ.	4				<b>)</b> ₄)							
QA/QC	Package:			1	לי ל	K.10.			021	IS OI	¥,	~		S)		4,S(	CB's						
V Star	idard	<del></del>	□ Level 4 (Full Validation)	. C	2.2	ryies		······		Ű	2			SIM		PO,	2 PC						
	itation		a'r	Samp	oler: S,	lynn			<b>₽</b> ₽	Hall	0 Ø	(F)	(1)	270		N N	808	:					Î
	(Tyne)			On IC Same	e: Io Tom	Meyes.			+	+ ш	(K)	418	504	or 8;	als	N N N	es /		Q				د د
Date	Time	Matrix	Sample Request ID	Con Type	tainer and #	Preserv Typ	vative e	HEALING HARE22	втех + <del>м10</del>	BTEX + MTB	ГРН 8015В (	TPH (Method	EDB (Method	PAH's (8310	RCRA 8 Meta	Anions (F,CI,I	3081 Pesticid	3260B (VOA)	8270 (Semi-V				Air Bubbles (
8/28/19	16:40	507	56-1	Meon	4402	MeOH	old	-501	X													-	┯
7/28/14	112:45	Soll	SL-2	2)	\$407.	1		-(02	X		1												
8 halin	16:50	Sol	SC-3	1	1			713	X		X			•				•				-	+
8/28/14	16:55	Soll	SC-4					-cert	X		X												+
8/28/14	17:00	soil	SC-5	2 ×	Hoz.			705	X								:					╈	╈
8/18/14	17:05	soil	SC-6					-od-	X		X											-	+
8/28/14	17:10	Sort	SC-70	2×	402.			-417	X			-											$\uparrow$
8/28/14	17:15	Son	SC-8	24	402.			-708	X														╈
				Me	×129/14																		Τ
	•			ΓŪ	•							:							:				$\top$
													-		1					1		-	$\top$
																							00
Date:	Time:	Relinquishe	ed by:	Receive	ed by:	,	7.	Date Time	Ren	arks	<sup>3:</sup> Bi	1 1	0	Con	)C0	PI	ANIA	5'	<u> </u>	8		 ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
Date:	Time:	Relinquishe	d by:	Receive	ed by:	/	<u>, , , , , , , , , , , , , , , , , , , </u>	Date Time			C	ull	<del>ب</del> ۲	g u	esti	TMS	•					:	

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.



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

September 09, 2014 Emilee Skyles Animas Environmental 624 East Comanche Farmington, NM 87401 TEL: (505) 564-2281

FAX

RE: CoP Huerfanito #97

OrderNo.: 1408G09

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 5 sample(s) on 8/29/2014 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. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andia

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental

1408G09-001

**Project:** CoP Huerfanito #97

Lab ID:

 Iysis Laboratory, Inc.
 Date Reported: 9/9/2014

 Client Sample ID: SC-1
 Collection Date: 8/28/2014 4:40:00 PM

 Matrix: SOIL
 Received Date: 8/29/2014 8:25:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	GE ORGANICS		<u> </u>		Analys	st: BCN
Diesel Range Organics (DRO)	16	10	mg/Kg	1	9/3/2014 7:43:14 PM	15080
Surr: DNOP	80.5	57.9-140	%REC	1	9/3/2014 7:43:14 PM	15080
EPA METHOD 8015D: GASOLINE RA	ANGE				Analys	st: NSB
Gasoline Range Organics (GRO)	ND	14	mg/Kg	5	8/29/2014 11:22:25 A	M R20898
Surr: BFB	97.9	80-120	%REC	5	8/29/2014 11:22:25 A	M R20898

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 8
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	Tuge Fore
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

A	na	ly	tical	Report

#### Lab Order 1408G09

Date Reported: 9/9/2014

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas EnvironmentalProject:CoP Huerfanito #97Lab ID:1408G09-002	Matrix:	SOIL	Client Sampl Collection I Received I	e ID: SC Date: 8/2 Date: 8/2	-2 8/2014 4:45:00 PM 9/2014 8:25:00 AM	
Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analyst	BCN
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	9/3/2014 8:04:39 PM	15080
Surr: DNOP	95.1	57.9-140	%REC	1	9/3/2014 8:04:39 PM	15080
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	3.5	mg/Kg	1	8/29/2014 11:51:05 AM	R20898
Surr: BFB	107	80-120	%REC	1	8/29/2014 11:51:05 AM	R20898

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 8
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 2 01 0
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

#### Date Reported: 9/9/2014

2 8/29/2014 1:17:06 PM R20898

# Hall Environmental Analysis Laboratory, Inc.

Surr: BFB

CLIENT: Animas Environmental Project: CoP Huerfanito #97			Client Sampl Collection	e ID: SC Date: 8/2	2-5 28/2014 5:00:00 PM		
Lab ID: 1408G09-003	Matrix:	Received	Received Date: 8/29/2014 8:25:00 AM				
Analyses	Result	RL (	Qual Units	DF	Date Analyzed	Batch	
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analys	t: BCN	
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	9/3/2014 8:26:02 PM	15080	
Surr: DNOP	89.7	57.9-140	%REC	1	9/3/2014 8:26:02 PM	15080	
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	t: NSB	
Gasoline Range Organics (GRO)	20	5.8	mg/Kg	2	8/29/2014 1:17:06 PM	R20898	

80-120

S

127

%REC

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	d Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis	exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 8
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 450 5 01 0
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

#### Date Reported: 9/9/2014

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas EnvironmentalProject:CoP Huerfanito #97Lab ID:1408G09-004	Matrix:	SOIL	Client Sampl Collection Received	e ID: SC Date: 8/2 Date: 8/2	2-7 28/2014 5:10:00 PM 29/2014 8:25:00 AM	
Analyses	Result RL Qual Units DF I					Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analys	t: BCN
Diesel Range Organics (DRO)	14	9.9	mg/Kg	1	9/3/2014 8:47:28 PM	15080
Surr: DNOP	114	57.9-140	%REC	1	9/3/2014 8:47:28 PM	15080
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	t: NSB
Gasoline Range Organics (GRO)	37	15	mg/Kg	5	8/29/2014 2:14:32 PM	R20898
Surr: BFB	117	80-120	%REC	5	8/29/2014 2:14:32 PM	R20898

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank			
	Е	Value above quantitation range	Н	Holding times for preparation or analysis	sis exceeded			
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 4 of 8			
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.				
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit				
	S	Spike Recovery outside accepted recovery limits						

Date Reported: 9/9/2014

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Project: Lab ID:	Animas Environmental CoP Huerfanito #97 1408G09-005	Matrix:	SOIL	Client Sampl Collection 1 Received 1	e ID: SC Date: 8/2 Date: 8/2	2-8 28/2014 5:15:00 PM 29/2014 8:25:00 AM	
Analyses		Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA MET	HOD 8015D: DIESEL RANG	E ORGANICS				Analyst	BCN
Diesel Ra	ange Organics (DRO)	ND	10	mg/Kg	1	9/3/2014 9:08:42 PM	15080
Surr: [	ONOP	94.7	57.9-140	%REC	1	9/3/2014 9:08:42 PM	15080
EPA MET	HOD 8015D: GASOLINE RA	NGE				Analyst	NSB
Gasoline	Range Organics (GRO)	ND	14	mg/Kg	5	8/29/2014 2:43:11 PM	R20898
Surr: E	BFB	95.1	80-120	%REC	5	8/29/2014 2:43:11 PM	R20898

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank			
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded				
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 5 of 8			
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.				
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit				
	S	Spike Recovery outside accepted recovery limits	ery limits					

Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Animas CoP Hu	Environmental erfanito #97								
Sample ID	MB-15081	SampType:	MBLK	Tes	tCode: EP	A Method	8015D: Diese	i Range (	Organics	
Client ID:	PBS	Batch ID:	15081	F	RunNo: <b>20</b>	948				
Prep Date:	9/3/2014	Analysis Date:	9/3/2014	S	SeqNo: 61	0141	Units: %REC	;		
Analyte		Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		8.6	10.00		86.0	57.9	140			
Sample ID	LCS-15081	SampType:	LCS	Tes	tCode: EP	A Method	8015D: Diese	I Range (	Organics	
Client ID:	LCSS	Batch ID:	15081	F	RunNo: <b>20</b>	948				
Prep Date:	9/3/2014	Analysis Date:	9/3/2014	S	SeqNo: 61	0142	Units: %REC	;		
Analyte		Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		3.8	5.000		76.2	57.9	140			
Sample ID	MB-15053	Samp'Type:	MBLK	Tes	tCode: EP	A Method	- 8015D: Diese	l Range (	Organics	
Client ID:	PBS	Batch ID:	15053	F	RunNo: <b>20</b>	950			-	
Prep Date:	9/2/2014	Analysis Date:	9/3/2014	5	SeqNo: 61	0293	Units: %REC	;		
Analyte		Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		7.2	10.00		71.9	57.9	140			
Sample ID	LCS-15053	SampType:	LCS	Tes	tCode: EP	A Method	8015D: Diese	l Range (	Organics	
Client ID:	LCSS	Batch ID:	15053	F	RunNo: <b>20</b>	950		_	-	
Prep Date:	9/2/2014	Analysis Date:	9/3/2014	5	SeqNo: 61	0294	Units: %REC	;		
Analyte		Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		3.9	5.000		78.6	57.9	140			
Sample ID	MB-15080	SampType:	MBLK	Tes	tCode: EP	A Method	8015D: Diese	l Range (	Organics	
Client ID:	PBS	Batch ID:	15080	F	RunNo: 20	948		-	-	
Prep Date:	9/3/2014	Analysis Date:	9/3/2014	9	SeqNo: 61	0470	Units: mg/K	g		
Analyte		Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (	Organics (DRO)	ND	10							
Surr: DNOP		8.1	10.00		81.2	57.9	140			
Sample ID	LCS-15080	SampType:	LCS	Tes	tCode: EP	PA Method	8015D: Diese	l Range (	Organics	
Client ID:	LCSS	Batch ID:	15080	F	RunNo: 20	948				
Prep Date:	9/3/2014	Analysis Date:	9/3/2014	5	SeqNo: 61	0471	Units: mg/K	9		
Analyte		Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (	Organics (DRO)	48	10 50.00	0	95.2	68.6	130			
SUIT: DINOP		4.3	0.000		00.9	57.9	140			

#### Qualifiers:

- Value exceeds Maximum Contaminant Level. \*
- Value above quantitation range Ε
- Analyte detected below quantitation limits J
- RSD is greater than RSDlimit 0
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits S
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Sample pH greater than 2. Р
- Reporting Detection Limit RL

Page 6 of 8

WO#: 1408G09

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1408G09

09-Sep-14

Client: Project:	Animas CoP Hu	Environmental Ierfanito #97								
Sample ID	MB-15106	SampType: ME	BLK	Test	Code: EF	A Method	8015D: Diese	l Range C	Drganics	
Client ID:	PBS	Batch ID: 15	106	R	unNo: 20	982				
Prep Date:	9/4/2014	Analysis Date: 9/	4/2014	S	eqNo: 61	0877	Units: %REC	2		
Analyte		Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		8.4	10.00		83.8	57.9	140			
Sample ID	LCS-15106	SampType: LC	S	Test	Code: EF	PA Method	8015D: Diese	I Range C	Drganics	
Client ID:	LCSS	Batch ID: 15	106	R	unNo: 20	)982				
Prep Date:	9/4/2014	Analysis Date: 9/	4/2014	s	eqNo: 61	10878	Units: %RE	C		
Analyte		Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		4.1	5.000		82.5	57.9	140			
Sample ID	MB-15134	SampType: ME	BLK	Test	Code: EF	PA Method	8015D: Diese	I Range C	Organics	
Client ID:	PBS	Batch ID: 15	134	R	unNo: 21	1011				
Prep Date:	9/5/2014	Analysis Date: 9/	5/2014	S	eqNo: 61	11900	Units: %RE	C		
Analyte		Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		8.2	10.00		81.6	57.9	140			
Sample ID	LCS-15134	SampType: LC	s	Test	tCode: EF	PA Method	8015D: Diese	l Range C	Drganics	
Client ID:	LCSS	Batch ID: 15	134	R	unNo: <b>2</b> 1	1011				
Prep Date:	9/5/2014	Analysis Date: 9/	5/2014	S	eqNo: 61	11901	Units: %RE	C		
Analyte		Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		3.9	5.000		79.0	57.9	140		· · · · · ·	

Qualifiers:

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

Page 7 of 8

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# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1408G09

09-Sep-14

Client: Animas Project: CoP Hu	Animas Environmental CoP Huerfanito #97								
Sample ID MB-15023 MK	SampType:	MBLK	Tes	tCode: El	PA Method	8015D: Gase	line Rang	e	
Client ID: PBS	Batch ID:	R20898	F	RunNo: 2	0898				
Prep Date:	Prep Date: Analysis Date: 8/29/2014 SeqNo: 608485					Units: mg/k	(g		
Analyte	Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND 5	5.0							
Surr: BFB	910	1000		91.4	80	120			
Sample ID LCS-15023 MK	SampType:	LCS	Tes	tCode: El	PA Method	8015D: Gase	oline Rang	e	
Client ID: LCSS	Batch ID:	R20898	F	RunNo: <b>2</b>	0898				
Prep Date:	Analysis Date:	8/29/2014	S	SeqNo: 6	08486	Units: <b>mg/k</b>	۲g		
Analyte	Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27 5	5.0 25.00	0	110	65.8	139			
Surr: BFB	1000	1000		102	80	120			

#### Qualifiers:

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

Page 8 of 8

#### Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: Animas Environmental	Work Order Number:	1408G09		RcptNo:	1
Received by/date: 4004	08/29/201	<u>}</u>			
Logged By: Ashley Gallegos	8/29/2014 8:25:00 AM		A		
Completed By: Ashley Gallegos	9/3/2014,2:35:38,PM		A		
Reviewed By:	naloziu	Į	U		
Chain of Custody		•		<u> </u>	and the second second
1. Custody seals intact on sample bottles?		Yes 🗌	No 🗌	Not Present M	
2. Is Chain of Custody complete?		Yes 🗹	No 🗔	Not Present	
3. How was the sample delivered?		<u>Courier</u>			
Log In					
4. Was an attempt made to cool the sample	s?	Yes 🗹	No 🗀		
5. Were all samples received at a temperatu	re of >0° C to 6.0°C	Yes 🗹	No 🗔		
6. Sample(s) in proper container(s)?		Yes 🗹	No 🗌		
7. Sufficient sample volume for indicated tes	t(s)?	Yes 🗹	No 🗌		
8. Are samples (except VOA and ONG) prop	erly preserved?	Yes 🗹	No 🗆		
9. Was preservative added to bottles?		Yes 🗌	No 🗹	NA 🗆	
10.VOA viais have zero headspace?		Yes 🗖	No 🗔	No VOA Viais 🗹	
11. Were any sample containers received bro	ken?	Yes 🗆	No 🗹		· · · · · ·
				# of preserved bottles checked	
12. Does paperwork match bottle labels?		Yes 🗹	No 🗆	for pH:	>12 unless noted)
(Note discrepancies on chain or custody)	of Custody?	Yes 🔽	No 🗆	Adjusted?	· · ·
14 is it clear what analyses were requested?		Yes 🗹	No 🗌		
15. Were all holding times able to be met?		Yes 🗹	No 🗖	Checked by:	······································
Special Handling (if applicable)					
16. Was client notified of all discrepancies wit	h this order?	Yes 🗌	No 🗌	NA 🗹	
Person Notified:	Date:	2000-00-00-00-00-00-00-00-00-00-00-00-00			
By Whom:	Via:	🗋 eMail 📋	Phone 🔲 Fax	In Person	
Regarding:		• <u>•</u> ••••••••••••••••••••••••••••••••••			
Client Instructions:					
17. Additional remarks:				a a ven	
18. Cooler Information					
Cooler No Temp °C Condition	Seal Intact Seal No	Seal Date	Signed By		
	<u> </u>	l	"		

Chain-of-Custody Record		Turn-Around	Time:	 - -			<b>.</b>					/T P				81 <b>T</b>	A 1		
Client:	Andrea	EENN	maniente Services	Vi Standard	🗆 Rusi	1				ti a A Ri	ll I A 1	. E Vq	614 674	7 I F 2 I		nir Ro	"IC! Ra	N I A	NDV Al
<u></u>	11	<u>, 0 /( 11</u>		Project Name	Э:	······					what	llen.	dironu		tal co				
Mailing	Address	1.74	4 lander	COP H	luerfault	n #97		4901	l Haw	kine l		. ΔIF		erau	а .N	ли м 87	109		
	t.	601	NAI 87401	Project #:	101-11-11-1		1	Tel	505-3	45-3	975		≓ax	505-	.345	-4107	7		
Phone	Fan # 1505	1) Say	1-7781	- , ,				101.	000-0		A	nal	ysis	Req	uesi			*	
email o	r Fax#:			Project Mana	iger:			2					04)		-1 <u>-</u> 0				
QA/QC	Package: dard		Level 4 (Full Validation)	E. SK	yles		s (8021	(Gas or			SIMS)		PO4.SC	PCB's					
Accred	tation			Sampler: S.Lynn			MB	표	힌 =	÷.	205		NO2 NO	8082					
		□ Othe	۲۰ <u></u>	Onlices	NYes.		+	<b>-</b>  (		504	or 82	5	ç S	es / l		(OA)			or
Date	Time	Matrix	Sample Request ID	Container	Preservative Type	HEAL NO	BTEX + MTB	BTEX + MTBI	TPH 8015B (	EDB (Method	PAH's (8310 (	RCRA 8 Meta	Anions (F,CI,	8081 Pesticid	8260B (VOA)	8270 (Semi-V			Air Bubbles ()
2/28/14	16:40	501]	SC-1	1-402	cold	-001			X	T .	,								
1/28/14	16:45	Soll	Stop SC-2			-002		·	X	Τ						· ·			
5/28/14	17:00	Sol	5(-5			-003			<u>x</u>	Ī									
8/28/14	17:10	90()	SC-7			-004			X						;				
: <u>]28]i4</u>	17:15	SO()	SC-8	V	4	-005			×					·		$\square$			
												:							
									-										1
Date: Date:	Time:	Relinquish D Relinquish	ed by: ephonee flyn 6d by:	Received by:	uG-	Date Time <u>(X/29/14 68-25</u> Date Time	Remi	arks:	Bith Cal	to 1/ if	Con	ue	Ph stru pe	11月 いた いた いた	's ro	ily	20	d. '	Apos
·	fnecessary	samples sub	mitted to Hall Environmental may be sub-	contracted to other a	ccredited laboratori	es. This serves as notice of this	possibili			ar	COX Ediata	All will be	dearl		ted on	the er			FJJ
							2-20.00		, 00			1	~??			ul		m	_0810:



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

September 05, 2014

Emilee Skyles Animas Environmental 624 East Comanche Farmington, NM 87401 TEL: (505) 564-2281 FAX

RE: CoP Huerfanito #97

OrderNo.: 1409140

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 2 sample(s) on 9/4/2014 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. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andial

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

**Analytical Report** 

#### Lab Order 1409140

Date Reported: 9/5/2014

9/4/2014 10:42:30 AM

9/4/2014 10:42:30 AM

R20986

R20986

.

## Hall Environmental Analysis Laboratory, Inc.

Xylenes, Total

Surr: 4-Bromofluorobenzene

CLIENT: Animas Environmental Project: CoP Huerfanito #97			C	lient Sampl Collection	e ID: SC Date: 9/3	C-9 8/2014 2:10:00 PM	
Lab ID: 1409140-001	Matrix:	SOIL		Received	Date: 9/4	4/2014 7:00:00 AM	
Analyses	Result	RL (	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS					Analyst	BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/4/2014 10:41:23 AM	15106
Surr: DNOP	90.8	57.9-140		%REC	1	9/4/2014 10:41:23 AM	15106
EPA METHOD 8015D: GASOLINE RA	NGE					Analyst	NSB
Gasoline Range Organics (GRO)	6.9	2.9		mg/Kg	1	9/4/2014 10:42:30 AM	R20986
Surr: BFB	139	80-120	s	%REC	1	9/4/2014 10:42:30 AM	R20986
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.029		mg/Kg	1	9/4/2014 10:42:30 AM	R20986
Toluene	ND	0.029		mg/Kg	1	9/4/2014 10:42:30 AM	R20986
Ethylbenzene	0.034	0.029		mg/Kg	1	9/4/2014 10:42:30 AM	R20986

0.059

80-120

S

mg/Kg

%REC

1

1

ND

121

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank						
-	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded							
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 5						
	0	O RSD is greater than RSDlimit		Sample pH greater than 2.	ruge rors						
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit							
S		Spike Recovery outside accepted recovery limits									

Analytical Report Lab Order 1409140

Date Reported: 9/5/2014

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental			Client Sampl	e ID: SC	C-10									
Project: CoP Huerfanito #97		Collection Date: 9/3/2014 2:15:00 PM												
Lab ID: 1409140-002	Matrix:	SOIL	Received	Date: 9/4	4/2014 7:00:00 AM									
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch								
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analys	t: BCN								
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	9/4/2014 11:13:09 AM	15106								
Surr: DNOP	90.9	57.9-140	%REC	1	9/4/2014 11:13:09 AM	15106								
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	t: NSB								
Gasoline Range Organics (GRO)	ND	2.8	mg/Kg	1	9/4/2014 11:12:36 AM	R20986								
Surr: BFB	88.6	80-120	%REC	1	9/4/2014 11:12:36 AM	R20986								
EPA METHOD 8021B: VOLATILES					Analys	t: NSB								
Benzene	ND	0.028	mg/Kg	1	9/4/2014 11:12:36 AM	R20986								

PA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.028	mg/Kg	1	9/4/2014 11:12:36 AM	R20986
Toluene	ND	0.028	mg/Kg	1	9/4/2014 11:12:36 AM	R20986
Ethylbenzene	ND	0.028	mg/Kg	1	9/4/2014 11:12:36 AM	R20986
Xylenes, Total	ND	0.056	mg/Kg	1	9/4/2014 11:12:36 AM	R20986
Surr: 4-Bromofluorobenzene	102	80-120	%REC	1	9/4/2014 11:12:36 AM	R20986

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank						
	Е	Value above quantitation range	Н	H Holding times for preparation or analysis exceeded							
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of f						
0		RSD is greater than RSDlimit	Р	Sample pH greater than 2.							
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit							
	S	Spike Recovery outside accepted recovery limits									

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1409140

05-Sep-14

Client: Project:	Anin CoP	nas Environme Huerfanito #9'	ntal 7											
Sample ID	MB-15106	Samp	Type: ME	3LK	TestCode: EPA Method 8015D: Diesel Range Organics									
Client ID: F	PBS	Batc	h ID: 15	106	٦	RunNo: 2	0982							
Prep Date:	9/4/2014	Analysis [	Date: 9/	4/2014	5	SeqNo: 6	10877	Units: mg/ł						
Analyte	alyte Result PQL SPK value				SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Diesel Range Or	rganics (DRO)	ND	10											
Surr: DNOP		8.4		10.00		83.8	57.9	140						
Sample ID	LCS-15106	Samp	Type: LC	s	Tes	tCode: El	PA Method	8015D: Dies	el Range (	Drganics				
Client ID: L	LCSS	Batc	h ID: 15	106	F	RunNo: 2	0982							
Prep Date:	9/4/2014	Analysis [	Date: 9/	4/2014	S	10878	Units: <b>mg/l</b>	٢g						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Diesel Range Or	rganics (DRO)	50	10	50.00	0	100	68.6	130						
Surr: DNOP		4.1		5.000		82.5	57.9	140						

#### Qualifiers:

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

Page 3 of 5

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:	Animas	Environmen	tal											
Project:	CoP Hu	erfanito #97												
Sample ID	MB-15090 MK	SampTy	/pe: MI	3LK	Tes	tCode: E	PA Method	8015D: Gasc	line Rang	e				
Client ID:	PBS	Batch	ID: <b>R2</b>	0986	F	RunNo: 2	0986							
Prep Date:		Analysis Da	ate: 9/	4/2014	S	eqNo: 6	11356	Units: mg/K	g					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Gasoline Rang	ge Organics (GRO)	ND	5.0											
Surr: BFB		1000		1000		100	80	120						
Sample ID	LCS-15090 MK	SampTy	/pe: LC	s	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e				
Client ID:	LCSS	Batch	ID: <b>R2</b>	0986	F	RunNo: 2	0986							
Prep Date:		Analysis Da	Analysis Date: 9/4/2014			SeqNo: 611357			Units: mg/Kg					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Gasoline Rang	ge Organics (GRO)	24	5.0	25.00	0	95.6	65.8	139						
Surr: BFB		1100		1000		107	80	120						
Sample ID	MB-15090	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	e				
Client ID:	PBS	Batch	ID: 15	090	F	RunNo: 2	0986							
Prep Date:	9/3/2014	Analysis Da	ate: 9/	/4/2014	5	SeqNo: 6	11358	Units: %RE	с					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Surr: BFB		1000		1000		100	80	120						
Sample ID	LCS-15090	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	le				
Client ID:	LCSS	Batch	ID: 15	090	F	RunNo: 2	0986							
Prep Date:	9/3/2014	Analysis D	ate: 9/	/4/2014	S	SeqNo: 6	11359	Units: %RE	с					
Analyta		Result	POI	SPK value	SPK Ref Val	%REC	Low/ imit	Hight imit	%RPD	RPDI imit	Qual			

Surr: BFB

Qualifiers:

\* Value exceeds Maximum Contaminant Level.

1100

1000

- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank

120

80

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

107

- P Sample pH greater than 2.
- RL Reporting Detection Limit

Page 4 of 5

1409140

WO#:

05-Sep-14

QC	SUMMARY REPORT	
Hall	Environmental Analysis Laboratory, In	ic.

Animas Environmental

Project:	CoP Hu	erfanito #97	7											
Sample ID	MB-15090 MK	SampT	ype: M	BLK	TestCode: EPA Method 8021B: Volatiles									
Client ID:	PBS	Batch	n ID: R2	0986	F	RunNo: 2	0986							
Prep Date:		Analysis Date: 9/4/2014			S	SeqNo: 6	11373	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-Brom	ofluorobenzene	1.2		1.000		118	80	120						
Sample ID	LCS-15090 MK	SampT	ype: LC	s	TestCode: EPA Method 8021B: Volatiles									
Client ID:	LCSS	Batch	n ID: R2	0986	F	RunNo: <b>2</b>								
Prep Date:		Analysis D	Date: 9/	4/2014	5	SeqNo: 6	11374	Units: <b>mg/k</b>	٢g					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene		0.90	0.050	1.000	0	90.2	80	120						
Toluene		0.90	0.050	1.000	0	89.7	80	120						
Ethylbenzene		0.94	0.050	1.000	0	93.6	80	120						
Xylenes, Total		2.9	0.10	3.000	0	. 97.4	80	120						
Surr: 4-Brom	ofluorobenzene	1.1		1.000		105	80	120						
Sample ID	MB-15090	SampT	ype: MI	3LK	Tes	tCode: E	PA Method	8021B: Vola	tiles					
Client ID:	PBS	Batch	h ID: 15	090	F	RunNo: 2	0986							
Prep Date:	9/3/2014	Analysis D	Date: 9/	4/2014	5	SeqNo: 6	11384	Units: %RE	C					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Surr: 4-Brom	ofluorobenzene	1.2		1.000		118	80	120						
Sample ID	LCS-15090	SampT	Type: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles					
Client ID:	LCSS	Batch	h ID: 15	090	F	RunNo: 2	0986							
Prep Date:	9/3/2014	Analysis E	Date: 9	4/2014	Ś	SeqNo: 6	11385	Units: %RE	C					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Surr: 4-Brom	ofluorobenzene	1.1		1.000		105	80	120						

Qualifiers:

**Client:** 

- Value exceeds Maximum Contaminant Level. \*
- Е Value above quantitation range
- Analyte detected below quantitation limits J
- RSD is greater than RSDlimit 0
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit ND
- Sample pH greater than 2. Р
- RL Reporting Detection Limit

WO#: 1409140

05-Sep-14

Page 5 of 5

1.4	HALL
	ENVIRONMENTAL
	ANALYSIS
2   2   2   2   2   2   2   2   2   2	LABORATORY

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

# Sample Log-In Check List

Client Name: Animas Environmental	Work Order Number	1409140		ReptNo:	1
Received by/date: AT U9/	14/14		<u></u>		
Logged By: Anne Thome	9/4/2014 7:00:00 AM		ame Im	-	
Completed By: Anne Thorne	9/4/2014		an the		
Reviewed By:	04/04/14	•			
Chain of Custody					······
1. Custody seals intact on sample bottles?		Yes 🗌	No 🗆	Not Present 🗹	
2. Is Chain of Custody complete?		Yes 🗹	No 🔲	Not Present	
3. How was the sample delivered?		Courier			
<u>_og in</u>					
4. Was an attempt made to cool the sample	es?	Yes 🗹	No 🗌		
5. Were all samples received at a temperat	ure of >0° C to 6.0°C	Yes 🗹	No 🗌		
6. Sample(s) in proper container(s)?		Yes 🗹	No 🗌		
. 7. Sufficient sample volume for indicated ter	st(s)?	Yes 🔽	No 🗌		
8. Are samples (except VOA and ONG) pro	perty preserved?	Yes 🗹	Nó 🗌		
9. Was preservative added to bottles?		Yes 🔲	No 🗹	NA 🗆	
0.VOA vials have zero headspace?		Yes 🗌	No 🗌	No VOA Viais 🗹	
1. Were any sample containers received br	oken?	Yes	No ☑ [		
			<u>.                                    </u>	# of preserved bottles checked	
12. Does paperwork match bottle labels?		Yes 🗹	No 🗌	for pH:	12 unloss noted
(Note discrepancies on chain of custody)	al Curked A	Non M		Adjusted?	
		Yes M			·····
15. Were all holding times able to be met?		Yes M	No 🖾	Checked by:	
(If no, notify customer for authorization.)					
pecial <u>Handling</u> (if applicable)		•			
16. Was client notified of all discrepancies w	th this order?	Yes 🗌	No 🗔	NA 🗹	
Person Notified:	Date				
By Whom:	Vis:	🗋 eMail 🔲	Phone 🔄 Fax	In Person	
Regarding:					
Client Instructions:	ng traditional and a second		nen anti-attikan da kantaken anti-attikan da kantaken da kantaken da kantaken da kantaken da kantaken da kantak	na sense and the definition of the and the set of the the set of t	
17. Additional remarks:	inter de la mais de la construcción de la construcción de la construcción de la construcción de la construcción Construcción de la construcción de l	and a factoria de la companya de la	and a second	and the second second and the failed of	ц.
18 Cooler Information					
Cooler No Temp °C Condition	Seal Intact Seal No	Seal Date	Signed By		

1

2.1

Yes

Good

С	hain-	of-Cu	istody Record	Turn-Around Time:						LI	A I 8	E	RI\.	et e	5	<b>N  N</b> /		та	
Client:	trino	s En	Wironinen tal	Standard		Same Day	ANALYSIS LABORATORY												
	Seria	as		Project Nam	e:	۲.				W	ww.h	allenv	/iron	ment	tal.co	m			
Mailing	Address	604	W. Pinon	COP-	ther fai	nito \$97	4901 Hawkins NE - Albuquerque, NM 87109												
Fa	min	atan	NM 87401	Project #:				Tel. 505-345-3975 Fax 505-345-4107											
Phone #	+ 53	-56	4 -2281				Analysis Request												
email o	Fax#:			Project Mana	ager:			ly)	<u>_</u>		:		5						
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Accredi	tation			Sampler:	C. 1	ALINAM		ΡН	L D	<u> </u>	<u>- 2</u>		٥ و	082					13
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							単	TM	158	etř	831 831	Ž	E .	estic	8	em			bles
Date	Time	Matrix	Sample Request ID	Container	Preservative	HEAL NO.		+ ×	8	Ξ	∑) (S	¶₹	Suc	P.	В	0(S)			3ub
	<b>A a</b> 1 a:				i ypc	Halth		ЗТЕ	헙	췹	휘창	۲ ۲	Anio	308	326	327			Air
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PHC	necessary,	samples sub	mitted to Hall Environmental may be subo	ontracted to other a	ccredited laboratori	es. This serves as notice of this	s possil	oitity.	Any sui	-contra	cted dat	a will b	e clear	iy nota	ated on	the an	alytical r	eport.	
		V Z						-	-								-		