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.

			Pole	ase Not	ificatio	and Co	rrective A	ction			
			Keit		Incatio	OPERA'	FOR	CUOI	Initi	al Report	Final Repor
Name of Co	mpany Bu	Irlington Re	sources (Dil &Gas Co).	Contact Lis	a Hunter			urreport	
Address 340	01 East 30th	^h St, Farmin	gton, NM	[Telephone N	No. (505) 258-	1607			
Facility Nar	ne Jicarilla	153 #25				Facility Typ	e: Gas well			-	
Surface Ow	mer: Jican	rilla		Miner	al Owner:	Jicarilla (Contract 153)		API 30	03922421	
LOCATI						N OF REI	LEASE				
Unit Letter	Section	Township	Range	Feet from t	he North	/South Line	Feet from the	East/	West Line	County	
Α	36	26N	5W	950'		North	1100		East	Rio Arriba	1
				Latitud	e 36.44790	6 Longitud	e -107.30425				
Type of Rele	ase Hydro	ocarbon		I	AIURE	Volume of	Release Unkno	own	Volume I	Recovered	1031 vards
Source of Re	lease	Juicon				Date and H	lour of Occurrent	ce	Date and	Hour of Disc	overy
Below Grade	Tank	livon?				Unknown	Whom?		March 2	2, 2016	
was innieur	ale Notice G		Yes 🗌	No 🛛 N	ot Required	11 11.5, 10	witoin?				
By Whom?						Date and H	Iour				
Was a Water	course Reac	hed?	Vac M	N.		If YES, Vo	olume Impacting	the Wat	ercourse.		O DIV DICT S
			Yes 🖂 I	NO	011	ONS. DIV	DISI. J			OILCON	S. DIV DIST. C
If a Watercou	urse was Imp	pacted, Descr	ibe Fully.'	*	UIL		2017			IAN	1 3 2010
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Animas Environmental Services, LLC



January 3, 2017

Robert Spearman ConocoPhillips San Juan Business Unit (505) 320-3045

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

RE: Below Grade Tank Closure, Release Assessment, and Final Excavation Report Jicarilla 153 25 Rio Arriba County, New Mexico

Dear Mr. Spearman:

On March 22, May 17, July 7, and December 27, 2016, Animas Environmental Services, LLC (AES) completed below grade tank (BGT) closure sampling, a release assessment, and environmental clearance of the final excavation limits at the ConocoPhillips (COPC) Jicarilla 153 25, located in Rio Arriba County, New Mexico. At the request of the New Mexico Oil Conservation Division (NMOCD), resampling of the location below the former BGT was required to meet strictest closure criteria listed in New Mexico Administrative Code (NMAC) 19.15.17.13E. After obtaining the results of the March 2016 sampling event, a release assessment was completed by AES on May 17 and July 7, 2016. The final excavation was completed by COPC contractors prior to AES' arrival at the location on December 27, 2016.

1.0 Site Information

1.1 Location

Location – NE¼ NE¼, Section 36, T26N, R5W, Rio Arriba County, New Mexico Latitude/Longitude – N36.44796 and W107.30425, respectively Surface Owner – Jicarilla Apache Nation Figure 1. Topographic Site Location Map Figure 2. Aerial Site Map with BGT Closure Sample Location

604 W. Piñon St. Farmington, NM 87401 505-564-2281

> 1911 Main, Ste 206 Durango, CO 81301 970-403-3084

www.animasenvironmental.com

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1.2 JANOGA and NMOCD Action Levels

The Jicarilla 153 25 release is located on Jicarilla Apache Nation lands, and soil remediation action levels are determined by the Jicarilla Apache Nation Oil and Gas Administration (JANOGA). JANOGA action levels for soils currently follow the New Mexico Oil Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993). Per JANOGA, all locations within Jicarilla Apache Nation lands typically receive a ranking score of 20; however, at the request of NMOCD, the strictest closure criteria from NMAC 19.15.17.13E Table 1 were applied at the site. Action levels are:

- 10 mg/kg benzene and 50 mg/kg total benzene, toluene, ethylbenzene, and xylene (BTEX);
- 100 mg/kg total petroleum hydrocarbons (TPH); and
- 600 mg/kg chloride.

1.3 Assessment

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AES was initially contacted by Robert Spearman of COPC on March 1, 2016. At the request of the NMOCD, resampling of the location below the former BGT was required to meet all required closure criteria listed in NMAC 19.15.17.13E. On March 22, 2016, Sam Glasses and John Sandoval of AES traveled to the location. Soil sampling consisted of collection of one discrete soil sample (S-1) from below the former BGT. The sample location is presented on Figure 2.

On May 17 and July 7, 2016, Corwin Lameman, Sam Glasses, and Emilee Skyles of AES completed release assessment field work. The assessment included collection and sampling of 22 soil samples from 8 borings in and around the release area. Soil borings were terminated between 8.5 and 20 feet. Based on field sampling results, AES recommended further excavation of the release area. Sample locations are shown on Figure 3.

On December 27, 2016, AES returned to the location to collect confirmation soil samples of the excavation. The field sampling activities included collection of five confirmation soil samples (SC-1 through SC-5) from the walls and base of the excavation. The area of the final excavation measured approximately 42 feet by 39 feet by 17 feet in depth. Sample locations and final excavation extents are presented on Figure 4.

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2.0 Soil Sampling

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2.1 Field Screening

2.1.1 Volatile Organic Compounds

Field screening for VOC vapors was conducted with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 ppm isobutylene gas.

2.1.2 Total Petroleum Hydrocarbons

Soil samples were also analyzed in the field for TPH 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 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. The samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico.

S-1 was laboratory analyzed for:

- BTEX per USEPA Method 8021B;
- TPH per USEPA Method 418.1;
- TPH as gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015D; and
- Chlorides per USEPA Method 300.0.

SC-1 through SC-5 were laboratory analyzed for:

- BTEX per USEPA Method 8021B;
- TPH per USEPA Method 418.1; and
- TPH as GRO, DRO, and Motor Oil Range Organics (MRO) and per USEPA Method 8015.

Robert Spearman Jicarilla 153 25 BGT Closure, Release Assessment, and Final Excavation Report January 3, 2017; Page 4 of 7

2.3 Field Screening and Laboratory Analytical Results

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Field sampling results are summarized in Table 1 and presented on Figures 3 and 4. Laboratory analytical results are summarized in Table 2 and presented on Figures 2 and 4. The AES Field Sampling Reports and the laboratory analytical reports are attached.

Table 1. Soil Field Screening VOC and TPH Results

Jicarilla 15	3 25 Release A	ssessments a	nd Final Exca	vation
	May to	December 20	16	
	-	Depth	VOCs OVM	ТРН
Commission (D	Date	below BGT	Reading	418.1
	Samplea	(JT Dgs)	(ppm)	(тд/кд)
INMAC 1	9.15.17.13E Ta	ble 1)*	100	100
	E /17/14 C	7.75	647	15,600
	5/1//16	8.5	4,142	6,190
SB-1		12	4,255	2,870
	7/7/16	14	818	NA
		16	17.7	20.3
CD 2	F/17/1C	8	0.9	59.1
5B-2	5/1//10	12	7.1	51.0
	F/17/1C	9	2,834	637
	5/1//10	12	4,534	5,540
SB-3		14	1,651	NA
	7/7/16	16	12.9	<20.0
		20	7.1	<20.0
CD /	E/17/16	8	0.4	60.7
3B-4	5/1//10	12	1,266	256
CD F	E/17/16	8	168	NA
20-2	5/1//10	12	1,273	306
SB-6	5/17/16	12	0.5	21.7
SB-7	5/17/16	12	0.0	<20.0
		8	0.4	<20.0
CD 0	7/7/16	12	0.3	NA
28-9	////10	14	0.1	NA
		16	0.0	<20.0

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Sample ID	Date Sampled	Depth below BGT (ft bgs)	VOCs OVM Reading (ppm)	TPH 418.1 (mg/kg)
JANOGA aı (NMAC 1	nd NMOCD Acti 9.15.17.13E Ta	on Levels ble 1)*	100	100
SC-1	12/27/16	0 to 17	0.2	<20.0
SC-2	12/27/16	0 to 17	25.2	33.2
SC-3	12/27/16	0 to 17	0.1	<20.0
SC-4	12/27/16	0 to 17	0.0	<20.0
SC-5	12/27/16	17	0.8	<20.0

NA - Not Analyzed

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*Action level determined by JANOGA and NMAC 19.15.17.13E Table 1.

Table 2. Soil Laboratory Analytical Results – Benzene, Total BTEX, TPH, and Chloride Jicarilla 153 25 BGT Closure and Final Excavation Clearance

				Total	TPH –	TPH –	TPH –		
Sample ID	Date Sampled	Depth (ft)	Benzene (8021) (mg/kg)	BTEX (8021) (mg/kg)	GRO (8015) (mg/kg)	DRO (8015) (mg/kg)	MRO (8015) (mg/kg)	TPH (418.1) mg/kg	Chlorides (300.0) (mg/kg)
JANOGA/I (NMAC 1	NMOCD Acti 9.15.17.13E	on Levels Table 1)*	10	50		100		100	600
S-1	3/22/16	8	<0.24	28.7	280	8,600	NA	30,000	<30
SC-1	12/27/16	0 to 17	<0.023	<0.207	<4.6	<9.4	<47	<19	NA
SC-2	12/27/16	0 to 17	< 0.025	<0.222	<4.9	<9.9	<50	<18	NA
SC-3	12/27/16	0 to 17	<0.024	<0.216	<4.8	<9.6	<48	<20	NA
SC-4	12/27/16	0 to 17	<0.023	<0.208	<4.6	<9.5	<47	<19	NA
SC-5	12/27/16	17	< 0.024	<0.216	<4.8	<9.4	<47	<18	NA

NA – Not Analyzed

* Action level determined by JANOGA and NMAC 19.15.17.13E Table 1.

3.0 Conclusions and Recommendations

3.1 BGT Closure

On March 22, 2016, AES conducted a BGT closure and assessment of petroleum contaminated soils associated at the Jicarilla 153 25 location. NMOCD action levels for BGT closures are specified in NMAC 19.15.17.13E Table 1. BGT closure sampling results for TPH in March 2016 were above the NMOCD action levels, with S-1 at 30,000 mg/kg TPH (via USEPA Method 418.1). Laboratory results for chloride in S-1 were reported below the NMOCD action level of 600 mg/kg, with a concentration below the laboratory detection limit of 30 mg/kg. Based on laboratory results for TPH, a release was confirmed at the Jicarilla 153 25 location.

3.2 Release Assessment and Excavation

On May 17 and July 7, 2016, AES completed release assessments at the Jicarilla 153 25 release location. Action levels for releases are determined by JANOGA but at the request of NMOCD, the strictest closure requirements in NMAC 19.15.17.13E Table 1 were utilized. Initial release assessment field sampling results above the NMOCD action level of 100 mg/kg TPH were reported in SB-1 and SB-3 through SB-5, with the highest TPH concentration reported in SB-1 with 15,600 mg/kg. Based on the field sampling results, excavation of contaminated soils was recommended.

On December 27, 2016, final clearance of the excavation area was completed. Field sampling results of the excavation extents showed that field TPH concentrations were below the applicable NMOCD action level of 100 mg/kg for the final walls and base of the excavation. Laboratory analytical results reported benzene, total BTEX, and TPH concentrations (via USEPA Methods 418.1 and 8015) as below the applicable NMOCD action levels.

Based on final field sampling and laboratory analytical results of the excavation of petroleum contaminated soils at the Jicarilla 153 25, VOC, benzene, total BTEX, and TPH concentrations were below applicable NMOCD action levels for each of the sidewalls and base of the excavation. No further work is recommended.

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

Robert Spearman Jicarilla 153 25 BGT Closure, Release Assessment, and Final Excavation Report January 3, 2017; Page 7 of 7

Sincerely,

David g Rem

David J. Reese Environmental Scientist

Elizabeth o Mandly

Elizabeth McNally, P.E.

Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map with BGT Closure Sample Location, March 2016
Figure 3. Release Assessment Sample Locations and Results, May and July 2016
Figure 4. Final Excavation Sample Locations and Results, December 2016
AES Field Sampling Report 051716
AES Field Sampling Report 070716
AES Field Sampling Report 122716
Hall Laboratory Analytical Report 1603B39
Hall Laboratory Analytical Report 1612D34

C:\Users\emcnally\Dropbox (Animas Environmental)\2017 Client Projects\ConocoPhillips\Jicarilla 153 25\Jicarilla 153 25 Release and Final Excavation Report 010317.docx









Field Screening Release	e Assessment Field I	Report			Date:	5-17-11	6
Client:	COPC	AES Personne	el: C. Chmeman	Billi	ng Info:		
ل Well or Lease Name:	icanille 135 25		S. Glasses	_	WO #:		
CoP Onsite Supervisor:	C. Lameman	Beginning mileag	e: 48083	-	Supervisor:		
Site Arrival Time:	1000	Ending Mileag	e: 48312	_	USER:		
Site Departure Time:	330	Release Sourc	e: Historic But	_	Area:		
		Well Head (GPS	1): 36.44796, -107.30425		Activity Code:		
Land Jurisdiction:	Scarilla Re	lease Location (GPS	1): 36.44777, -157.30414	_	Ordered by:		
County/State:	RA / NM			-			
Site Rank:	JANOGA			T	1		
			Buck Machine #	50 /lug	100	500 mg/kg	
Equipment in place:	Jellhead Mon ument		Calibration ABS Values	50 mg/kg	100 mg/kg	500 mg/kg	
Photos taken:	Yar				I	I	
Project Details:		A 1	Site Sketch (DOES NOT REPLA		P) and Current	Excavation Di	mensions:
FIDJECT Details. BET to release	e on regulatory tout.	Release	Site Sketch (DOES NOT KETE		a jana current		inclisions.
Assessment.			Harizantal (Cross Section Via				
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Initial Deservation and stimmer				Se AH	report 1		
Initial Recommendations:	out with a push is	or cupped.					
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			Vertical (Den View)				
1 instal-al-			vertical (Plan view):				
Limitiations: Roin & Light	thing. Auger extension	Linishton					
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Animas Environmental Services, LL	_C						
604 W Pinon St. Farmington, NM 8	37401 office # 505-564-2281						
1911 N Main, Ste 280, Durango, C	0 81301	1 of		R	elease Assessn	nent Field Form	1 060215.xlsx

-

Date: 5-17-16 AES personnel: C.Lameman, S. Classes

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	Collection	Time of Sample	Sample	OVM	OVM	Field TPH	Field TPH		
Sample ID	Date	Collection	Location	(ppm)	Time	(mg/kg)	Analysis Time	ABS	NOTES
SB-10-8.75'	5-17-16	1032	Center	647	1050	15600	1053	0.958×10	PGS, Md-CG, Brown, Strong oder, Gray, V. Moist
08.5'		1039		9142	1051	4,1900	1057	0.395 x 10	P65, C6, Dray, V.St. Oder, V Nuist Liner. Stopper
5B-20 8'		1053	NJ SB-1	0.9	1117	59.1	1120	0.031	P65, Ud, fed-Brown, N. O eder, No String, Maist
c12'		1113		7.1	1126	57.0	1/29	0.026	CL 4/Sd, DK. Bran, No Odor, No Souring, Moist
58-309'	/	1134	W-75B-1	2834	1150	437	1155	0.386	Santy 6/CL, Dk. Bran, oder, Gry Staining, Hoist
e 12'		1143		4534	1203	5,540	1208	6.335 × 10	(Lu) So De, Borron, St. Edus, Gray Schring, Merch Snd
58-408'		1227	5 07 58-1	0,4	1233	607	1237	0.032	P65 Fn-Hd, Red Down, No Dear, No Staining, Marst
e 12'		1242		1266	1304	256	1309	0,152	i wild , De Brown , Edser, Some Sturning , Harst
56-509'		1313	E.R 58-1	168	1337	-			Quest, DKBrown St. Odor, Blk Staining, Moist
·e /2 '		1329		1273	1349	306	1352	0.183	
SB-6 e 12'		1409	Wog SB-3	0.5	1426	21.65	1428	0.008	
- SB-7012	4	1492	EOF	0.0	1503	220.0	1505	0.006	

*Include Benzene readings in the notes section initially and transfer to Limitations if Benzene is a problem on the location.

Well or Lease Name: Apimas Environmental Services, LLC 604 W Pinon St. Farmington, NM 87401 office # 505-564-2281 1911 N Main, Ste 280, Durango, CO 81301



Field Screening Relea	ase Assessment Field	Report			Date: 7-7-16	
Client:	COPC	AES Personnel:	E-Skyles	Billii	ng Info:	
- Well or Lease Name:	JICARILLA 153 25	-	S. Glasses	_	WO #:	
CoP Onsite Supervisor:	E. Skyles	Beginning mileage:	· · · · · · · · · · · · · · · · · · ·	_	Supervisor:	
Site Arrival Time:	9:35 am	Ending Mileage:			USER:	
Site Departure Time:		Release Source:	BGT-Historic	_	Area:	
		Well Head (GPS):		_	Activity Code:	
Land Jurisdiction:	JICAPILLA RE	lease Location (GPS):			Ordered by:	
County/State:	Pio APRIBA /NM	-		-		
Site Rank:	20	T		1	I	
	. /		Buck Machine #			
Equipment in place:	PEA Site / Well Mo	nument Only	Concentration	50 mg/kg	100 mg/kg 500 mg/kg	
-		1	Calibration ABS Values			
Project Details:			Site Sketch (DOES NOT REPLA Horizontal (Cross-Section Vie	<u>се site ма</u> w): <i>3-4</i> 5	$\begin{array}{c} P) \text{ and } Current Excavation Dim} \\ & \longrightarrow F \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & &$	<u>iensions</u> :
<u>Limitiations</u> : Animas Environmental Services	, LLC		Vertical (Plan View):			
604 W Pinon St. Farmington, NI	VI 87401 office # 505-564-228	1				
1911 N Main, Ste 280, Durango	, CO 81301	1 of			Release Assessment Field Fe	orm 112114

Well or Lease Name: Jicarilla 153 25

Date: 7/7/16

Date: 7/7/16 AES personnel: E. Skyles (S. glasses

	Collection	Time of Sample	Sample	OVM	OVM	Field TPH	Field TPH		
Sample ID	Date	Collection	Location	(ppm)	Time	(mg/kg)	Analysis Time	ABS	NOTES
SB-3€ €16'	717/16	10:10		12.9	10:20	> 20.0	1026	0.017	Slighfodor sandy w/ Clay
5B-3e 20'	7/7/16	10:15		7.1	10:22	>20.0	1032	0.018	no pdok
\$-30141	777/16	10:12		1651	10:21	NA	NA	AG	slight o dop - day
SB-1012'	7/7/16	10:54		4,255	11:05	2,871	11:22		\$10
SB-1e14'	7/7/16	10=55		818	11:05	NA	NA	AK	
SB-1016'	7/7/16	10:56		17.7	11:06	20.3			
SB-808'	717/16	11:22		0.4	1137				Sand,
SB-812'	7/7/16	11:31		0.3	(137				clay
88-8e141	7/7/14	11:32		0.]	1137				clay
SB-8016	7/7/16	(1:33		0.0	1137				clav

*Include Benzene readings in the notes section initially and transfer to Limitations if Benzene is a problem on the location.

Animas Environmental Services, LLC 604 W Pinon St. Farmington, NM 87401 office # 505-564-2281 1911 N Main, Ste 280, Durango, CO 81301

SOIL BORING	LOG		
Soil Boring No:	SB-	1	(cont.)

Soil Boring No:

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Animas Environmental Services

604 W. Piñon St., Farmington, NM 87401 Tel (505) 564-2281 Eax (505) 324-2022

Mo	nitor	Well No	:		Те	1. (505) 56	4-2281 Fa	ax (505) 3	324-2	2022
Proj	ect:	Geopre	obe Del	inertie	Date: 7(7/16					
Clie	nt:	COPC			Latitude/Longitude					
Loci	ation	Jic	anilla	153	25 Datum:					
Dril	er:	Kyvel Anthod	<u>C</u>	. 0	Elevation:	4.h				
Der	th to	Water (HONOW S	stem - ye	Time Recorded: 10:500 Total Depth (ft): 1	11				
		match (1						<u> </u>	
Depth (ft)	Sample Interval	Sample Type (SPT, Grab, etc)	Sample Time	Biow Count (per 3x6" intervals	Soil Description TYPE, density/consistency, color, grain size, moisture, other (i.e. odor, staining)	USCS Symbol	OVM (ppm)	OVM Time	MW Schematic	and Description
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8,5	津	a ta da ana ang katalan na sang		a an an an Anna an Anna an Anna an Anna A	Clay w/some sand, gray to brown, how non playtic & moint, strong adaR	14 1		**************************************		
14	14		and the state of the		Clay brown, soft, low plasticity, dry to moist			aller meneters artistics and		******
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Soil Boring Log

Animas Environmental Services

Soil	Bori	ng	No):
Mo	nitor	W	ell	No:

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August 3, 2015

SO	IL BO	DRING I	OG		Anima	s Envir	onmei	ntal Se	rvi	ces
Soil	Bori	ng No:	5B-3	3	604 \	V. Piñon S	St., Farmi	ngton, N	M 87	7401
Mo	nitor	Well No	:		Tel	. (505) 56	4-2281 F	ax (505) 3	\$24-2	2022
Proj	ect:	teopho	e Velimora	im	Date: 1771					
Loca	ation	· Ti wil	1. 163	25	Datum:					an an an Anna
Dril	ler:	KYVEY	10 195	27	Elevation:		Marrison (1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.			
Dril	ling N	Aethod:	Hole Ste	m - Grenn	volve - (ratinumes Logged by: ES					
Dep	th to	Water (ft): 23'	???	Time Recorded: Total Depth (ft): 24	+'				
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	val	()		evia					tic	ion
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E	e In	e Ty	e Ti	.9	Soil Description				che	esci
pth	ldu	npl ⊢	ldu	W (TYPE, density/consistency, color, grain size, moisture, other	USCS	OVM	OVM	NS	DP
De	Sar	Sar (SP	Sar	Blo (pe	(i.e. odor, staining)	Symbol	(ppm)	Time	ž	an
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12	15	and	10:12	NA	Clar, soft brown, low-plasticity, moist odor		1651	10:21		
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Soil Boring Log

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Animas Environmental Services

Soil	Bori	ng	No):
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August 3, 2015

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SO	LBC	ORING I	LOG		Anir	nas Envir	onmei	ntal Se	rvices
Soil	Bori	ng No:	5B-8		6	04 W. Piñon S	St., Farmi	ngton, N	M 87401
Mo	nitor	Well No	:		-	Tel. (505) 56	4-2281 F	ax (505) 3	324-2022
Proj	ect:	Geopr	obe bel	inentio	Date: 7/7/16				.
Clie	nt:	COPC	61		Latitude/Longitu	de:			·····
Loca	ation	: Jich	villa 1	53 25	p Datum:				
Drill	er:	FyreF	11.11.21	T	Elevation:				
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Depth (ft)	Sample Interval	Sample Type (SPT, Grab, etc)	Sample Time	Blow Count (per 3x6" intervals	Soil Description TYPE, density/consistency, color, grain size, moisture, other (i.e. odor, staining)	USCS Symbol	OVM (ppm)	OVM Time	MW Schematic and Description
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Soil Boring Log

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Animas Environmental Services

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August 3, 2015

Field Screening Release Assessment Field	Report			Date:	12-27-16
Client: Phillips	AES Personnel:	C. Lamennan	Billi	ng Info:	
Well or Lease Name: Jicarilla 153 25				WO #:	21340535
CoP Onsite Supervisor: Eric Smith	Beginning mileage:	53214	_	Supervisor:	Terry Nelson
Site Arrival Time: 740	Ending Mileage:	53444	_	USER:	MCINNSR
Site Departure Time: ////	Release Source:	Historic BGT	_	Area:	9
	Well Head (GPS):	36.44796, -107.30425	-	Activity Code	:
Land Jurisdiction: Javilla Re	lease Location (GPS):	36.44777, -107.30414	-	Ordered by:	Bobby Speanman
County/State: Li Amba / New Mixico		3	-		-contact Lisa Hunter
Site Rank:ANDGA - 100			1	1	
		Buck Machine #	1		
Equipment in place: Shipped - P & location		Concentration	50 mg/kg	100 mg/kg	500 mg/kg
Photos taken: V.A		Calibration Abs values	0.015	0.151	P 20.0
poy					
Project Details: Excavation Cleanance.		Site Sketch (DOES NOT REPLA	CE SITE MA	P) and Curren	t Excavation Dimensions:
		Horizontal (Cross-Section View	w):		
		42' × 39 , 17'			
		Ver Ver	P		
Initial Recommendations:					
1042					
		Vertical (Plan View):			
Limitiations: NW.					
Animas Environmental Services, LLC					
1911 N Main. Ste 280. Durango. CO 81301	1 of ~		R	elease Acceso	nent Field Form 060215 view
00 01001	201	£	/10		10110 1 1010 1 01111 000210.XISX

3-Day Turnaround per Lisa Hunter

Well or Lease Name: Jicurilla 153 25

Date: 12 - 27-16

AES personnel: Clameman

	Collection	Time of Sample	Sample	OVM	OVM	Field TPH	Field TPH	4.00	NOTES
Sample ID	Date	Collection	Location	(ppm)	Time	(mg/kg)	Analysis Time	ABS	NOTES
86-1	12-27-16	\$35	N. Wall	0.2	735	<20.0	742	0.008	SEND, CG, Thn, No odor or Staining
56-2	7	915	S. Wall	25.2	940	33.2	947	0.027	SAND and some U. (6, Tan-Brown, SI Odor, NoStrin
56-3		840	E. Wall	6.1	934	220.0	951	0.011	SAND, GG, Jan, No odor or Staining
56-4		845	W. Wall	0.0	937	<20.0	953	0.004	5A.A.
56-5		828	Buse	0.8	938	<20.0	957	0.005	SA.A.
Over burden	1	854	stalepile Comp.	1.0	939	<20.0	959	0.000	Dirty Strikpile - Sand and U. Some adar
			1						80me strining
									/

*Include Benzene readings in the notes section initially and transfer to Limitations if Benzene is a problem on the location.

Animas Environmental Services, LLC 604 W Pinon St. Farmington, NM 87401 office # 505-564-2281 1911 N Main, Ste 280, Durango, CO 81301



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

April 06, 2016

Emilee Skyles Animas Environmental 604 Pinon Street Farmington, NM 87401 TEL: (505) 564-2281 FAX

RE: COPC JICARILLA 153 25

OrderNo.: 1603B39

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/23/2016 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued March 31, 2016.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1603B39 Date Reported: 4/6/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Animas Environmental			C	lient Sam	ple ID: S-1		
Project:	COPC JICARILLA 153 25				Collection	Date: 3/22	2/2016 12:18:00 PM	
Lab ID:	1603B39-001	Matrix:	SOIL		Received	Date: 3/23	3/2016 7:15:00 AM	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA MET	THOD 418.1: TPH						Analys	t: TOM
Petroleu	m Hydrocarbons, TR	30000	1900		mg/Kg	100	3/30/2016 12:00:00 PM	1 24419
EPA MET	THOD 300.0: ANIONS						Analys	t: LGT
Chloride		ND	30		mg/Kg	20	3/29/2016 12:18:25 PM	24484
EPA MET	HOD 8015M/D: DIESEL RANG	E ORGANIC	S				Analys	t: KJH
Diesel R	ange Organics (DRO)	8600	950		mg/Kg	100	4/6/2016 9:33:47 AM	24573
Surr: [DNOP	0	70-130	S	%Rec	100	4/6/2016 9:33:47 AM	24573
EPA MET	HOD 8015D: GASOLINE RANG	GE					Analys	: NSB
Gasoline	Range Organics (GRO)	280	48		mg/Kg	10	3/24/2016 7:17:29 PM	24391
Surr: E	BFB	171	66.2-112	S	%Rec	10	3/24/2016 7:17:29 PM	24391
EPA MET	HOD 8021B: VOLATILES						Analys	NSB
Benzene		ND	0.24	D	mg/Kg	10	3/24/2016 7:17:29 PM	24391
Toluene		ND	0.48	D	mg/Kg	10	3/24/2016 7:17:29 PM	24391
Ethylben	zene	1.7	0.48	D	mg/Kg	10	3/24/2016 7:17:29 PM	24391
Xylenes,	Total	27	0.96	D	mg/Kg	10	3/24/2016 7:17:29 PM	24391
Surr: 4	4-Bromofluorobenzene	122	80-120	SD	%Rec	10	3/24/2016 7:17:29 PM	24391

	and the second s			
Qualifiers:	*	Value exceeds Maximum Contaminant Level.	в	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 6
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

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Hall Environmental Analysis Laboratory, Inc.

WO#: 1603B39

06-Apr-16

Client: Animas Environmental **Project: COPC JICARILLA 153 25**

Sample ID MB-24484	SampType: I	IBLK	TestCode: EPA Method 300.0: Anions					
Client ID: PBS	Batch ID:	24484	R	RunNo: 33158				
Prep Date: 3/29/2016	Analysis Date:	3/29/2016	S	SeqNo: 1018203	Units: mg/H	٢g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC LowLin	nit HighLimit	%RPD	RPDLimit	Qual
Chloride	ND 1.	5						
Sample ID LCS-24484	SampType: I	.cs	Test	tCode: EPA Meth	od 300.0: Anior	IS		
Sample ID LCS-24484 Client ID: LCSS	SampType: I Batch ID: 2	.CS 24484	Test	tCode: EPA Meth RunNo: 33158	od 300.0: Anior	IS		
Sample ID LCS-24484 Client ID: LCSS Prep Date: 3/29/2016	SampType: I Batch ID: 2 Analysis Date:	.CS 24484 3/29/2016	Test R S	tCode: EPA Meth RunNo: 33158 SeqNo: 1018204	od 300.0: Anior Units: mg/ł	is (g		
Sample IDLCS-24484Client ID:LCSSPrep Date:3/29/2016Analyte	SampType: I Batch ID: 2 Analysis Date: Result PQL	.CS 24484 3/29/2016 . SPK value	Test R S SPK Ref Val	tCode: EPA Meth RunNo: 33158 SeqNo: 1018204 %REC LowLin	od 300.0: Anior Units: mg/ł nit HighLimit	is (g %RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded H
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank В
- E Value above quantitation range
- Analyte detected below quantitation limits J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 2 of 6

WO#: 1603B39

Page 3 of 6

06-Apr-16

Client: Animas Environmental

Project:	COPC	JICARILLA 153	25							
Sample ID	MB-24419	SampType:	MBLK	Tes	tCode: EF	PA Method	418.1: TPH			
Client ID:	PBS	Batch ID:	24419	F	RunNo: 3	3169				
Prep Date:	3/24/2016	Analysis Date:	3/30/2016	5	SeqNo: 1	018640	Units: mg/l	۲g		
Analyte		Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hyd	rocarbons, TR	ND	20							
Sample ID	LCS-24419	SampType:	LCS	Tes	tCode: EF	PA Method	418.1: TPH			
Client ID:	LCSS	Batch ID:	24419	F	RunNo: 3	3169				
Prep Date:	3/24/2016	Analysis Date:	3/30/2016	S	SeqNo: 10	018641	Units: mg/k	٢g		
Analyte		Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hyd	rocarbons, TR	110	20 100.0	0	109	83.4	127			
Sample ID	LCSD-24419	SampType:	LCSD	Tes	tCode: EF	PA Method	418.1: TPH			
Client ID:	LCSS02	Batch ID:	24419	F	RunNo: 33	3169				
Prep Date:	3/24/2016	Analysis Date:	3/30/2016	5	SeqNo: 10	018642	Units: mg/H	٢g		
Analyte		Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hyd	rocarbons, TR	100	20 100.0	0	102	83.4	127	6.58	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

WO#: 1603B39

06-Apr-16

Client:Animas EnvironmentalProject:COPC JICARILLA 153 25

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Sample ID MB-24573	SampType: N	IBLK	Tes	tCode: E	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: PBS	Batch ID: 24573		F	RunNo: 33293					
Prep Date: 4/1/2016	Analysis Date:	4/5/2016	S	SeqNo: 1	022944	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	9.6	10.00		95.9	70	130			
Sample ID LCS-24573	SampType: L	CS	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	organics	
								-	
Client ID: LCSS	Batch ID: 2	4573	R	RunNo: 3	3293				
Client ID: LCSS Prep Date: 4/1/2016	Batch ID: 2 Analysis Date: 4	4573 ¥/6/2016	R	RunNo: 3: SeqNo: 10	3293 024363	Units: mg/K	g		
Client ID: LCSS Prep Date: 4/1/2016 Analyte	Batch ID: 2 Analysis Date: 4 Result PQL	4573 i/6/2016 SPK value	R S SPK Ref Val	RunNo: 33 SeqNo: 10 %REC	3293 024363 LowLimit	Units: mg/K HighLimit	g %RPD	RPDLimit	Qual
Client ID: LCSS Prep Date: 4/1/2016 Analyte Diesel Range Organics (DRO)	Batch ID: 2 Analysis Date: 4 Result PQL 50 10	4573 4/6/2016 SPK value 50.00	R S SPK Ref Val 0	RunNo: 3: SeqNo: 10 %REC 99.7	3293 024363 LowLimit 65.8	Units: mg/K HighLimit 136	g %RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 4 of 6

QC SUMMARY REPORT

WO#: 1603B39

06-Apr-16

Hall Environmental Analysis Laboratory, Inc.

Client: Animas Environmental **Project:** СОРС ЛСАRILLA 153 25

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Sample ID MB-24391 Client ID: PBS	Samp ⁻ Batc	SampType: MBLK TestCode: EPA Method 8015E Batch ID: 24391 RunNo: 33039					8015D: Gaso	oline Rang	е	
Prep Date: 3/23/2016	Date: 3/23/2016 Analysis Date: 3/24/2016			S	SeqNo: 1014105 Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB	ND 1000	5.0	1000		103	66.2	112			
Sample ID LCS-24391	Samp	Type: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: LCSS	Batc	h ID: 24	391	R	RunNo: 3	3039				
Prep Date: 3/23/2016	Analysis [Date: 3/	24/2016	S	SeqNo: 1	014106	Units: mg/M	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.5	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 5 of 6

QC SUMMARY REPORT

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Hall Environmental Analysis Laboratory, Inc.

Client:Animas EnvironmentalProject:COPC JICARILLA 153 25

Sample ID MB-24391	Samp	Гуре: МВ	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batc	h ID: 24	391	F	RunNo: 3	3039				
Prep Date: 3/23/2016	Analysis [Date: 3/	24/2016	5	SeqNo: 1	014146	Units: mg/M	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			
Sample ID LCS-24391	SampT	Type: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batcl	h ID: 24	391	F	RunNo: 3	3039				
Prep Date: 3/23/2016	Analysis E	Date: 3/	24/2016	S	SeqNo: 1	014147	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	75.3	123			
Toluene	0.99	0.050	1.000	0	99.3	80	124			
Ethylbenzene	1.0	0.050	1.000	0	99.9	82.8	121			
Xylenes, Total	3.0	0.10	3.000	0	99.4	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1,000		113	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 6 of 6

WO#: 1603B39

06-Apr-16

•	HALL ENVI ANAL LABO	RONMENTAL YSIS RATORY	Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com	S
	Client Name:	Animas Environmental Λ	Work Order Number: 1603B39	

Sample Log-In Check List

Client Name: Animas Environmental	Work Order Number:	1603839		RcptNo: 1
Received by/date:	- 0323110			·· ·· ·· ··
Logged By: Lindsay Mangin	3/23/2016 7:15:00 AM		Andyther	
Completed By: Lindsay Mangin	3/23/2016 9:38:00 AM		ginder Hango	
Reviewed By: IO	03 23/16		050	
Chain of Custody				
1. Custody seals intact on sample bottle	es?	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 sa	mples?	Yes 🗹	No 🗌	NA 🗌
5. Were all samples received at a temp	erature of >0° C to 6.0°C	Yes 🗹	No 🗌	
6. Sample(s) in proper container(s)?		Yes 🗹	No	
7. Sufficient sample volume for indicate	d 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 receive	d broken?	Yes	No 🗹	# of procented
				bottles checked
12. Does paperwork match bottle labels?	odv)	Yes 🗹	No 🗀	(<2 or >12 unless noted)
13. Are matrices correctly identified on C	hain of Custody?	Yes 🖌	No 🗆	Adjusted?
14. Is it clear what analyses were reques	ted?	Yes 🗹	No 🗌	
15. Were all holding times able to be met (If no, notify customer for authorization)	l? on.)	Yes 🗹	No 🗌	Checked by:
Special Handling (if applicable)				
16. Was client notified of all discrepancie	s with this order?	Yes	No 🗌	NA 🗹
Person Notified:	Date			
By Whom:	Via:	eMail	Phone 📋 Fax	In Person
Regarding:	a design and the second s			
Client Instructions:	****			
17. Additional remarks:				
18. Cooler Information				
Cooler No Temp °C Conditio	on Seal Intact Seal No	Seal Date	Signed By	
1 1.6 Good	Yes			
Page 1 of 1		A		

Ch	ain-o	t-Cust	tody Record	Turn-Around 1	IIIIE.					н	A I			T	PC		MF	NT	Δ.	1
Client:	Animas	Enviror	nmental Services, LLC	X Standard	C Rush		- r			A	NA		SI	IS LABORATORY					Y	
4				Project Name:	COPC JICAR	RILLA 153 25					www	hall	envi	ronm	nent	ai.co	m			
Mailing Ad	dress:	604 W	Pinon St.					49	01 H	awki	ns N	E -	Albu	uque	erque	ə, NN	A 871	09		
		Farming	gton, NM 87401	Project #:			Tel. 505-345-3975 Fax 505-345-4107													
Phone #:	505-564	-2281										Ana	lysi	s Re	eque	st				
Email or Fa	ax#:	eskyles@	animasenvironmental.com	Project Manag	er:															
QA/QC Pac	kage:				E. Skyles															
X Standar	d		Level 4 (Full Validation)	Complex C. C		devel														
	on:	Other		On ice	asses/J. San															
EDD (T	ype)			Samole Terrio	erature- Z.	s-10er=16		-	0.											or N
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NG	BTEX - 8021B	TPH - EPA 418.	Chlorides - 300											Air Bubbles (Y
3/22/16	12:18	SOIL	S-1	1 - 4 oz.	cool	-001	x	х	х											
												+						+	+	+
																				+
			······									-	-	1				+	+	+
Date: 3/22/16	Time: 1701	Relinquish	ed by: A Glomp	Received by:	Walt	Date Time $\frac{3}{22}/14$ 1701	Ren WO Sup	# 2 ervis	8: Bill 1340 for:	I to C 555 Nelso	onoc	o Ph	illips	P	er	Enily	- <i>add</i>	64	= (D)	(ü
Date:"	Time: [747	Relinquish	ed by: Ust Walter	Received by:	E 03	Date Time 23/16/0715	Area	a: 9 ered	by: 1	Bobb	y Spe	earm	an				d	4/	1	



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

December 30, 2016

Corwin Lameman Animas Environmental 604 Pinon Street Farmington, NM 87401 TEL: (505) 564-2281 FAX

RE: CoPC Jicarilla 153 25

OrderNo.: 1612D34

Dear Corwin Lameman:

Hall Environmental Analysis Laboratory received 5 sample(s) on 12/28/2016 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,

andis

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1612D34 Date Reported: 12/30/2016

12/29/2016 11:59:13 AM 29438

12/29/2016 11:59:13 AM 29438

12/29/2016 11:59:13 AM 29438

12/29/2016 2:40:11 PM 29431

Analyst: NSB

Analyst: NSB

Hall Environmental Analysis Laboratory, Inc.

Diesel Range Organics (DRO)

Surr: DNOP

Surr: BFB

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Motor Oil Range Organics (MRO)

Gasoline Range Organics (GRO)

Surr: 4-Bromofluorobenzene

EPA METHOD 8021B: VOLATILES

EPA METHOD 8015D: GASOLINE RANGE

CLIENT:	Animas Environmental	Client Sample ID: SC-1									
Project:	CoPC Jicarilla 153 25	Collection Date: 12/27/2016 8:35:00 AM									
Lab ID:	1612D34-001	Matrix: SC	DIL	Received Date: 12/28/2016 8:00:00 AM							
Analyses		Result	PQL Qual	Units	DF	Date Analyzed	Batch				
EPA MET	HOD 418.1: TPH					Analy	/st: MAB				
Petroleur	m Hydrocarbons, TR	ND	19	mg/Kg	1	12/29/2016 12:00:00	PM 29437				
EPA MET	HOD 8015M/D: DIESEL RAM	NGE ORGANICS				Analy	st: TOM				

9.4

47

4.6

70-130

68.3-144

0.023

0.046

0.046

0.092

80-120

mg/Kg

mg/Kg

%Rec

mg/Kg

%Rec

mg/Kg

mg/Kg

mg/Kg

mg/Kg

%Rec

ND

ND

99.9

ND

84.3

ND

ND

ND

ND

93.4

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method I	Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 1 of 0
	ND Not Detected at the Reporting Limit		Р	Sample pH Not In Range	Tage TOT 9
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
S		% Recovery outside of range due to dilution or matrix		Sample container temperature is out of limit	t as specified

1

1

1

1

1

1

1

1

1

1

Analytical Report
Lab Order 1612D34
Date Reported: 12/30/2016

12/29/2016 3:50:50 PM 29431

12/29/2016 3:50:50 PM 29431

12/29/2016 3:50:50 PM 29431

12/29/2016 3:50:50 PM 29431

Hall Environmental Analysis Laboratory, Inc.

4

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Toluene

Ethylbenzene

Xylenes, Total

Surr: 4-Bromofluorobenzene

CLIENT:	Animas Environmental	Client Sample ID: SC-2										
Project:	CoPC Jicarilla 153 25		Collection Date: 12/27/2016 9:15:00 AM									
Lab ID:	1612D34-002	Matrix:	Received 1	Date: 12	/28/2016 8:00:00 AM	[
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	Batch					
EPA MET	HOD 418.1: TPH					Analys	st: MAB					
Petroleur	m Hydrocarbons, TR	ND	18	mg/Kg	1	12/29/2016 12:00:00 F	PM 29437					
EPA MET	HOD 8015M/D: DIESEL RAN	GE ORGANICS	6			Analys	st: TOM					
Diesel Ra	ange Organics (DRO)	ND	9.9	mg/Kg	1	12/29/2016 12:20:46 F	PM 29438					
Motor Oil	Range Organics (MRO)	ND	50	mg/Kg	1	12/29/2016 12:20:46 F	PM 29438					
Surr: D	NOP	99.0	70-130	%Rec	1	12/29/2016 12:20:46 F	PM 29438					
EPA MET	HOD 8015D: GASOLINE RA	NGE				Analys	t: NSB					
Gasoline	Range Organics (GRO)	ND	4.9	mg/Kg	1	12/29/2016 3:50:50 PI	M 29431					
Surr: E	BFB	87.8	68.3-144	%Rec	1	12/29/2016 3:50:50 PI	M 29431					
EPA MET	HOD 8021B: VOLATILES					Analys	t: NSB					
Benzene		ND	0.025	mg/Kg	1	12/29/2016 3:50:50 PI	A 29431					

0.049

0.049

0.099

80-120

mg/Kg

mg/Kg

mg/Kg

%Rec

1

1

1

1

ND

ND

ND

93.6

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	J Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	1 age 2 01 7
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit	it as specified

Analytical Report
Lab Order 1612D34
Date Reported: 12/30/2016

Hall Environmental Analysis Laboratory, Inc.

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CLIENT:	Animas Environmental	Client Sample ID: SC-3									
Project:	CoPC Jicarilla 153 25	Collection Date: 12/27/2016 8:40:00 AM									
Lab ID:	1612D34-003	Matrix:	SOIL	Received	Date: 12	/28/2016 8:00:00 AM					
Analyses		Result	PQL Qual	Units	DF	Date Analyzed	Batch				
EPA MET	HOD 418.1: TPH					Analys	t: MAB				
Petroleun	n Hydrocarbons, TR	ND	20	mg/Kg	1	12/29/2016 12:00:00 F	°M 29437				
EPA MET	HOD 8015M/D: DIESEL RANG	E ORGANICS	S			Analys	t: TOM				
Diesel Ra	ange Organics (DRO)	ND	9.6	mg/Kg	1	12/29/2016 12:42:23 F	M 29438				
Motor Oil	Range Organics (MRO)	ND	48	mg/Kg	1	12/29/2016 12:42:23 F	M 29438				
Surr: D	NOP	99.5	70-130	%Rec	1	12/29/2016 12:42:23 P	M 29438				
EPA MET	HOD 8015D: GASOLINE RANG	GE				Analys	t: NSB				
Gasoline	Range Organics (GRO)	ND	4.8	mg/Kg	1	12/29/2016 4:14:27 PM	1 29431				
Surr: B	FB	83.3	68.3-144	%Rec	1	12/29/2016 4:14:27 PM	/ 29431				
EPA MET	HOD 8021B: VOLATILES					Analys	t: NSB				

Benzene ND 0.024 12/29/2016 4:14:27 PM 29431 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 12/29/2016 4:14:27 PM 29431 1 12/29/2016 4:14:27 PM 29431 Ethylbenzene ND 0.048 mg/Kg Xylenes, Total ND 0.096 mg/Kg 1 12/29/2016 4:14:27 PM 29431 Surr: 4-Bromofluorobenzene 91.9 80-120 %Rec 1 12/29/2016 4:14:27 PM 29431

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 3 of 9
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report									
Lab Order 1612D34									
Date Reported: 12/30/2016									

Hall Environmental Analysis Laboratory, Inc.

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CLIENT:	Animas Environmental	Client Sample ID: SC-4									
Project:	CoPC Jicarilla 153 25			Collection	Date: 12	/27/2016 8:45:00 AM					
Lab ID:	Lab ID: 1612D34-004		JIL	Received Date: 12/28/2016 8:00:00 AM							
Analyses		Result	PQL Qual	Units	DF	Date Analyzed	Batch				
EPA MET	HOD 418.1: TPH					Analys	t: MAB				
Petroleum Hydrocarbons, TR		ND	19	mg/Kg	1	12/29/2016 12:00:00 F	M 29437				
EPA MET	HOD 8015M/D: DIESEL RAN	GE ORGANICS				Analys	t: TOM				
Diesel Range Organics (DRO)		ND	9.5	mg/Kg	1	12/29/2016 1:03:47 PM	1 29438				

5 5			0 0			
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/29/2016 1:03:47 PM	29438
Surr: DNOP	100	70-130	%Rec	1	12/29/2016 1:03:47 PM	29438
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	12/29/2016 4:37:58 PM	29431
Surr: BFB	82.8	68.3-144	%Rec	1	12/29/2016 4:37:58 PM	29431
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.023	mg/Kg	1	12/29/2016 4:37:58 PM	29431
Toluene	ND	0.046	mg/Kg	1	12/29/2016 4:37:58 PM	29431
Ethylbenzene	ND	0.046	mg/Kg	1	12/29/2016 4:37:58 PM	29431
Xylenes, Total	ND	0.093	mg/Kg	1	12/29/2016 4:37:58 PM	29431
Surr: 4-Bromofluorobenzene	89.9	80-120	%Rec	1	12/29/2016 4:37:58 PM	29431

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method I	3lank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
H Holding times for preparationND Not Detected at the Reportion		Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 4 of 9
		Not Detected at the Reporting Limit	Р	Sample pH Not In Range	1 age + 01 7
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
S		% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit	t as specified

Analytical Report Lab Order 1612D34 Date Reported: 12/30/2016

Hall Environmental Analysis Laboratory, Inc.

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CLIENT:	Animas Environmental		C	lient Samp	ole ID: SC	-5				
Project:	CoPC Jicarilla 153 25			Collection Date: 12/27/2016 8:54:00 AM						
Lab ID:	1612D34-005	Matrix: S	OIL	Received Date: 12/28/2016 8:00:00 AM						
Analyses		Result	PQL Qual	Units	DF	Date Analyzed	Batch			
EPA MET	THOD 418.1: TPH					Analy	st: MAB			
Petroleum Hydrocarbons, TR		ND	18	mg/Kg	1	12/29/2016 12:00:00	PM 29437			

-						
EPA METHOD 8015M/D: DIESEL RANGE O	RGANIC	S			Analyst:	том
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	12/29/2016 1:25:06 PM	29438
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/29/2016 1:25:06 PM	29438
Surr: DNOP	99.9	70-130	%Rec	1	12/29/2016 1:25:06 PM	29438
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/29/2016 5:01:26 PM	29431
Surr: BFB	82.9	68.3-144	%Rec	1	12/29/2016 5:01:26 PM	29431
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	12/29/2016 5:01:26 PM	29431
Toluene	ND	0.048	mg/Kg	1	12/29/2016 5:01:26 PM	29431
Ethylbenzene	ND	0.048	mg/Kg	1	12/29/2016 5:01:26 PM	29431
Xylenes, Total	ND	0.096	mg/Kg	1	12/29/2016 5:01:26 PM	29431
Surr: 4-Bromofluorobenzene	90.0	80-120	%Rec	1	12/29/2016 5:01:26 PM	29431

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blan	ık	
	D	Sample Diluted Due to Matrix	E	Value above quantitation range		
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	age 5 of 9	
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range		
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit		
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as	specified	

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WO#:

Client:	Animas	Environmen	Ital								
Project:	CoPC J	icarilla 153 2	25								
Sample ID	MB-29437	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	418.1: TPH			
Client ID:	PBS	Batch	ID: 294	437	F	RunNo: 3	9725				
Prep Date:	12/28/2016	Analysis Da	ate: 12	2/29/2016	5	SeqNo: 1	244707	Units: mg/h	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hyd	Irocarbons, TR	ND	20								
Sample ID	LCS-29437	SampT	ype: LC	s	Tes	tCode: El	PA Method	418.1: TPH			
Client ID:	LCSS	Batch	ID: 294	437	RunNo: 39725						
Prep Date:	12/28/2016	Analysis Da	ate: 12	2/29/2016	SeqNo: 1244708			Units: mg/h	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hyd	frocarbons, TR	87	20	100.0	0	86.8	80.7	121			
Sample ID	LCSD-29437	SampT	ype: LC	SD	Tes	tCode: El	PA Method	418.1: TPH			
Client ID:	LCSS02	Batch	ID: 294	437	F	RunNo: 3	9725				
Prep Date:	12/28/2016	Analysis Da	ate: 12	2/29/2016	S	SeqNo: 1	244709	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hyd	frocarbons, TR	93	20	100.0	0	93.3	80.7	121	7.12	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 6 of 9

1612D34 30-Dec-16

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WO#: 1612D34 30-Dec-16

Client: Project:	Animas CoPC Ji	Environmen carilla 153 2	tal 5									
Sample ID	LCS-29423	SampTy	pe: LC	s	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID:	LCSS	Batch	ID: 29	423	RunNo: 39712							
Prep Date:	12/28/2016	Analysis Da	te: 1	2/29/2016	S	eqNo: 1	244401	Units: %Re	с			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP		4.6		5.000		92.7	70	130				
Sample ID	Sample ID MB-29423 SampType: MBLK					Code: E	PA Method	8015M/D: Di	esel Range	e Organics		
Client ID:	PBS	Batch ID: 29423			R	unNo: 3	9712					
Prep Date:	12/28/2016	Analysis Da	te: 1	2/29/2016	S	eqNo: 1	244402	Units: %Re	с			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP		9.5		10.00		95.1	70	130				
Sample ID	LCS-29438	SampTy	pe: LC	s	Test	Code: El	PA Method	8015M/D: Di	esel Range	e Organics		
Client ID:	LCSS	Batch	ID: 29	438	R	unNo: 3	9713					
Dress Dates												
Prep Date:	12/28/2016	Analysis Da	te: 1	2/29/2016	S	eqNo: 1	244632	Units: mg/k	(g			
Analyte	12/28/2016	Analysis Da Result	te: 1 : PQL	2/29/2016 SPK value	S SPK Ref Val	eqNo: 1 %REC	244632 LowLimit	Units: mg/ł HighLimit	(g %RPD	RPDLimit	Qual	
Analyte Diesel Range	12/28/2016 Organics (DRO)	Analysis Da Result 50	te: 1 : PQL 10	2/29/2016 SPK value 50.00	SPK Ref Val	eqNo: 1 %REC 100	244632 LowLimit 63.8	Units: mg/F HighLimit 116	(g %RPD	RPDLimit	Qual	
Analyte Diesel Range C Surr: DNOP	12/28/2016 Organics (DRO)	Analysis Da Result 50 5.1	te: 1: PQL 10	2/29/2016 SPK value 50.00 5.000	SPK Ref Val 0	eqNo: 1 %REC 100 102	244632 LowLimit 63.8 70	Units: mg/F HighLimit 116 130	(g %RPD	RPDLimit	Qual	
Analyte Diesel Range (Surr: DNOP	12/28/2016 Organics (DRO) MB-29438	Analysis Da Result 50 5.1 SampTy	te: 1 : PQL 10 pe: M I	2/29/2016 SPK value 50.00 5.000 BLK	S SPK Ref Val 0 Test	eqNo: 1 %REC 100 102 Code: E	244632 LowLimit 63.8 70 PA Method	Units: mg/k HighLimit 116 130 8015M/D: Di	(g %RPD esel Rango	RPDLimit	Qual	
Analyte Diesel Range (Surr: DNOP Sample ID Client ID:	12/28/2016 Organics (DRO) MB-29438 PBS	Analysis Da Result 50 5.1 SampTy Batch	te: 1 : PQL 10 pe: MI ID: 29	2/29/2016 SPK value 50.00 5.000 BLK 438	SPK Ref Val 0 Test	eqNo: 1 %REC 100 102 Code: El	244632 LowLimit 63.8 70 PA Method 9713	Units: mg// HighLimit 116 130 8015M/D: Di	Kg %RPD esel Range	RPDLimit	Qual	
Analyte Diesel Range (Surr: DNOP Sample ID Client ID: Prep Date:	12/28/2016 Organics (DRO) MB-29438 PBS 12/28/2016	Analysis Da Result 50 5.1 SampTy Batch Analysis Da	te: 1 PQL 10 pe: MI ID: 29 te: 1	2/29/2016 SPK value 50.00 5.000 BLK 438 2/29/2016	SPK Ref Val 0 Test R S	eqNo: 1 %REC 100 102 Code: El cunNo: 3 eqNo: 1	244632 LowLimit 63.8 70 PA Method 9713 244633	Units: mg/k HighLimit 116 130 8015M/D: Di Units: mg/k	(g %RPD esel Rango	RPDLimit	Qual	
Analyte Diesel Range (Surr: DNOP Sample ID Client ID: Prep Date: Analyte	12/28/2016 Organics (DRO) MB-29438 PBS 12/28/2016	Analysis Da Result 50 5.1 SampTy Batch Analysis Da Result	te: 1: PQL 10 pe: MI ID: 29 te: 1: PQL	2/29/2016 SPK value 50.00 5.000 BLK 438 2/29/2016 SPK value	SPK Ref Val 0 Test R SPK Ref Val	eqNo: 1 %REC 100 102 Code: El cunNo: 3 eqNo: 1 %REC	244632 LowLimit 63.8 70 PA Method 9713 244633 LowLimit	Units: mg/k HighLimit 116 130 8015M/D: Di Units: mg/k HighLimit	Kg %RPD esel Range Kg %RPD	RPDLimit	Qual	
Analyte Diesel Range (Surr: DNOP Sample ID Client ID: Prep Date: Analyte Diesel Range (12/28/2016 Organics (DRO) MB-29438 PBS 12/28/2016 Organics (DRO)	Analysis Da Result 50 5.1 SampTy Batch Analysis Da Result ND	te: 1: PQL 10 pe: MI ID: 29 te: 1: PQL 10	2/29/2016 SPK value 50.00 5.000 BLK 438 2/29/2016 SPK value	S SPK Ref Val 0 Test R S SPK Ref Val	REC 100 102 100 102 100 102 100 102 100 102 100 102 100 102 100 102 100 102 100 102 100	244632 LowLimit 63.8 70 PA Method 9713 244633 LowLimit	Units: mg/k HighLimit 116 130 8015M/D: Di Units: mg/k HighLimit	Kg %RPD esel Range Kg %RPD	RPDLimit	Qual	
Analyte Diesel Range (Surr: DNOP Sample ID Client ID: Prep Date: Analyte Diesel Range (Motor Oil Range	12/28/2016 Organics (DRO) MB-29438 PBS 12/28/2016 Organics (DRO) ge Organics (MRO)	Analysis Da Result 50 5.1 SampTy Batch Analysis Da Result ND ND	te: 1: PQL 10 pe: MI ID: 29 te: 1: PQL 10 50	2/29/2016 SPK value 50.00 5.000 BLK 438 2/29/2016 SPK value	SPK Ref Val 0 Tesi R SPK Ref Val	eqNo: 1 %REC 100 102 Code: El cunNo: 3 eqNo: 1 %REC	244632 LowLimit 63.8 70 PA Method 9713 244633 LowLimit	Units: mg/k HighLimit 116 130 8015M/D: Di Units: mg/k HighLimit	Kg %RPD esel Range Kg %RPD	RPDLimit e Organics RPDLimit	Qual	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 7 of 9

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WO#: 1612D34

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30-Dec-16

Client:	Animas E	Invironme	ental									
Project:	CoPC Jic	arilla 153	25									
Sample ID	MB-29431	Samp	Туре: М	IBLK	TestCode: EPA Method 8015D: Gasoline Range							
Client ID:	PBS	Batc	h ID: 2	9431	RunNo: 39723							
Prep Date:	12/28/2016	Analysis [Date: 1	2/29/2016	S	SeqNo: 1	245219	Units: mg/l	Kg			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Rang	ge Organics (GRO)	ND	5.0)								
Surr: BFB		810		1000		81.3	68.3	144				
Sample ID LCS-29431 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range												
Client ID:	LCSS	Batc	h ID: 2	9431	F	RunNo: 3	9723					
Prep Date:	12/28/2016	Analysis [Date: 1	12/29/2016	S	SeqNo: 1	245220	Units: mg/l	Kg			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Rang	ge Organics (GRO)	26	5.0	25.00	0	103	74.6	123				
Surr: BFB		910		1000		90.6	68.3	144				
Sample ID	1612D34-001AMS	Samp	Туре: М	IS	Tes	tCode: El	PA Method	8015D: Gas	oline Rang	e		
Client ID:	SC-1	Batc	h ID: 2	9431	RunNo: 39723							
Prep Date:	12/28/2016	Analysis [Date: 1	12/29/2016	5	SeqNo: 1	245225	Units: mg/l	Kg			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Rang	ge Organics (GRO)	28	4.7	23.52	0	118	61.3	150				
Surr: BFB		860		940.7		91.6	68.3	144				
Sample ID	1612D34-001AMS	D Samp	Туре: М	ISD	Tes	tCode: El	PA Method	8015D: Gas	oline Rang	e		
Client ID:	SC-1	Batc	h ID: 2	9431	F	RunNo: 3	9723					
Prep Date:	12/28/2016	Analysis [Date: 1	12/29/2016	5	SeqNo: 1	245226	Units: mg/l	Kg			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Rand	e Organics (GRO)	27	4.8	3 24.08	0	111	61.3	150	3.18	20		
	ge erganiee (erre)											

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Η
- Not Detected at the Reporting Limit ND
- RPD outside accepted recovery limits R
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Detection Limit RL
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

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Client:

Xylenes, Total

Surr: 4-Bromofluorobenzene

Project: CoPC	Jicarilla 153	25									
Sample ID MB-29431	SampT	ype: ME	BLK	Tes	TestCode: EPA Method 8021B: Volatiles						_
Client ID: PBS	Batch	Batch ID: 29431			RunNo: 3	9723					
Prep Date: 12/28/2016	Analysis D	Analysis Date: 12/29/2016		SeqNo: 1245244			Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.025									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 4-Bromofluorobenzene	0.90		1.000		89.6	80	120				
Sample ID LCS-29431	SampT	ype: LC	S	Tes	TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batch	n ID: 29	431	F	RunNo: 3	9723					
Prep Date: 12/28/2016	Analysis D	ate: 12	2/29/2016	5	SeqNo: 1	245245	Units: mg/k	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.0	0.025	1.000	0	105	75.2	115				
Toluene	1.0	0.050	1.000	0	100	80.7	112				
Ethylbenzene	0.97	0.050	1.000	0	97.4	78.9	117				

0

98.1

95.4

79.2

80

115

120

Hall Environmental Analysis Laboratory, Inc.

0.10

3.000

1.000

2.9

0.95

Animas Environmental

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Η
- Not Detected at the Reporting Limit ND
- RPD outside accepted recovery limits R
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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WO#: 1612D34

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

Sample Log-In Check List

Client Name: Animas	Environmental	Work Order Number	er: 1612D34		RcptNo:	1
Received by/date:	FJ 12	128/16				
Logged By: Anne T	horne	12/28/2016 8:00:00	AM	ame Im	-	
Completed By: Anne T	home	12/28/2016 9:21:06	AM	an the	_	
Reviewed By:	I	12/28/16		Citra Jos	-	
Chain of Custody						
1. Custody seals intact of	in sample bottles?		Yes	No 🗌	Not Present 🗹	
2. Is Chain of Custody c	omplete?		Yes 🗹	No 🗌	Not Present	
3. How was the sample	delivered?		Courier			
Log In						
4. Was an attempt made	e to cool the sample	s?	Yes 🖌	No 🗌	NA 🗆	
5. Were all samples reco	eived at a temperatu	re of >0° C to 6.0°C	Yes 🗹	No 🗌		
6. Sample(s) in proper of	ontainer(s)?		Yes 🗹	No 🗌		
7. Sufficient sample volu	me for indicated tes	t(s)?	Yes 🗹	No 🗌		
8. Are samples (except)	/OA and ONG) prop	erly preserved?	Yes 🗹	No 🗌		
9. Was preservative add	ed to bottles?		Yes 🗌	No 🗹	NA 🗆	
10.VOA viais have zero h	eadspace?		Yes	No 🗆	No VOA Viais 🗹	э.
11. Were any sample cor	tainers received bro	ken?	Yes	No 🗹		
12. Does paperwork mate (Note discrepancies o	h bottle labels? n chain of custody)		Yes 🗹	No 🗆	# of preserved bottles checked for pH:	r >12 unless noted)
13, Are matrices correctly	identified on Chain	of Custody?	Yes 🗹	No 🗌	Adjusted?	
14. Is it clear what analys	es were requested?		Yes 🗹	No 🗌		
15. Were all holding times (If no, notify customer	able to be met? for authorization.)		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				
By Whom:		Via:	eMail	Phone 🗌 Fax	In Person	
Regarding:						
Client Instructio	ns:					
17. Additional remarks:						
18. Cooler Information						
Cooler No Tem	o °C Condition	Seal Intact Seal No	Seal Date	Signed By		
1 1.0	Good Y	es		an a	1	
Page 1 of 1						

Chain-of-Custody Record Client: Animas Environmental Services Mailing Address: 604 W. Pinon St Farmington NM COLLOI			Turn-Around Time: Di Standard & Rush & Day Turna mind Project Name: COPC J1 carilla 153 25 Project #:					HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109													
Phone #	#: 505	-564 -2	281										Ana	ysis	Req	uest	t				
email or	Fax#: C	lameman	Canimasenvironmental.com	Project Mana	ger:	,		Ē	(lu	RO)				04)							
QA/QC Package: Ճ Standard □ Level 4 (Full Validation)		CL JEM			8	rs (802	(Gas o	RO / M		SIMS		2,PO4,S	2 PCB'								
Accredi	tation AP	□ Othe	r	Sampler: UL On tea Stres - DNo					HdT +	RO/D	418.1)	r 8270	s s	O3,NO	is / 808		(YC				or N)
Date	(Type) _ Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL-NO		BTEX+_MTBE	BTEX + MTBE	TPH 8015B (G	TPH (Method	PAH's (8310 0	RCRA 8 Metal	Anions (F,CI,N	8081 Pesticide	8260B (VOA)	8270 (Semi-VC				Air Bubbles (Y
227-16	835	Soil	SC-1	2-402 jars	MeOH Cool	-00	k	×		×	x										
2-27-16	915	Soi/	SL-2			-70	12	X		X	X										
2-27-16	840	Suil	SC-3			U	B	X		×	x										
2-27-16	\$45	Soil	SC-4			72	,4	X		X	X										
12-27-16	854	Soi/	<u>5</u> 2-5	· _	1	DI	Ś	X		X	X										
								i 											_		
							\neg		_										-	+	F
Date:	Time: 1701 Time:	Relinquishe Relinquishe	ed by:	Received by: Date Time 2/2/27/10 [26] Received by: Date Time				Remarks: Bill to ConocoPhillips , / Wott: 21340555 Ordered By: Bobby Spearman Supervisor: Nelson, Teny												nan	
12311	18:2	1/Ym	1stru / Deba	tan// 12/26/16 0800 trong 9:						KIN	nsk	. '			C	ul i	~ G	ruesti	ans		
fed	necessary,	samples subr	nitted to Hall Environmental may be subc	ontracted to other ad	credited laboratorie	es. This serves as notice o	of this p	ossib	ility. A	ny sub	-contra	cted da	ta will I	be clea	rly not	ated or	n the a	nalytica	il report.		