

Highlander Environmental Corp.

Midland, Texas

July 16, 2007

Mr. Larry Johnson Environmental Engineer Specialist Oil Conservation Division, District 1 1625 North French Drive Hobbs, New Mexico 88240

What is are constanted to the Poper ties. Assessment and Closure Report for the Pogo Producing Company, CM #2 Tank Re: Battery Release Located in Unit B, Section 2, Township 18 South, Range 33 East, Lea County, New Mexico.

Dear Mr. Johnson:

Highlander Environmental Corp. (Highlander) was contacted by Pogo Producing Company (Pogo) to assess a spill from the CM #2 Tank Battery, located in Unit B, Section 2, Township 18 South, Range 33 East, Lea County, New Mexico (Site). The spill site coordinates are N 32° 46' 54.2", W 103° 37' 50.8". According to the State of New Mexico C-141 Initial Report, approximately 80 barrels (bbls) of oil/produced water were released due to an oil/water dump plug failure at the tank battery which occurred on May 10, 2007. Of the 80 bbls released, an undetermined amount of bbls were recovered. The State of New Mexico C-141 (Initial and Final) are included in Appendix C. The Site is shown on Figure 1 and 2.

Groundwater and Regulatory

The New Mexico State Engineer's Office database showed no water wells located within Section 2, Township 18 South, Range 33 East. However, one well was located in Section 35, Township 17 South, Range 33 East with a reported depth to water of 155 feet below ground surface (bgs). The New Mexico State Engineer water well report is shown in Appendix A.

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed

RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 5,000 mg/kg.

Assessment and Results

In May 2007, Pogo Producing had a local dirt contractor remove approximately the first 6 inches of soil in the spill area which is located to the east of the tank battery and well pad. The soils were scrapped and stockpiled on the adjacent well pad.

On May 23, 2007, Highlander personnel inspected and sampled the spill area. The spill area fingered out and measured approximately 45' x 135', 25' x 150' and 70' x 70'. A total of eight (8) auger holes (AH-1 through AH-8) were installed using a stainless steel hand auger to assess the impacted soils. Select samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Of the samples collected, all of the TPH and BTEX concentrations were below the RRAL. The chloride concentrations ranged from 13.4 mg/kg (AH-8 at 0-0.5') to 882 mg/kg (AH-4 at 0-0.5'). With the depth to groundwater at greater than 100 feet bgs and maximum chloride levels in the soil of 882 mg/kg, it is unlikely the remaining chlorides will leach into the surrounding groundwater. Copies of the laboratory analysis and chain-of-custody documentation are included in Appendix B. The auger hole locations are shown on Figure 3. The results of the sampling are summarized in Table 1.

Conclusions

The impacted area was confined to 45' x 135', 25' x 150', and 70' x 70' areas to the east of the tank battery and well pad. The first six inches of soil were scraped and stockpiled on the well pad. No remaining TPH or BTEX concentrations currently exceed the RRAL. Although not resampled, chloride residuals may remain at 0.5 feet bgs at AH-4 and AH-5. However, based on the depth to groundwater and the results of the assessment, the residual chloride concentrations do not appear to be an imminent threat to groundwater.

Based upon the results of the assessment work performed at this site, Pogo requests closure of this Site. If you require any additional information or have any questions or comments concerning the assessment/closure report, please call at (432) 682-4559.

Respectfully submitted, Highlander Environmental Corp.

Jeffrey Kindley, P.G.

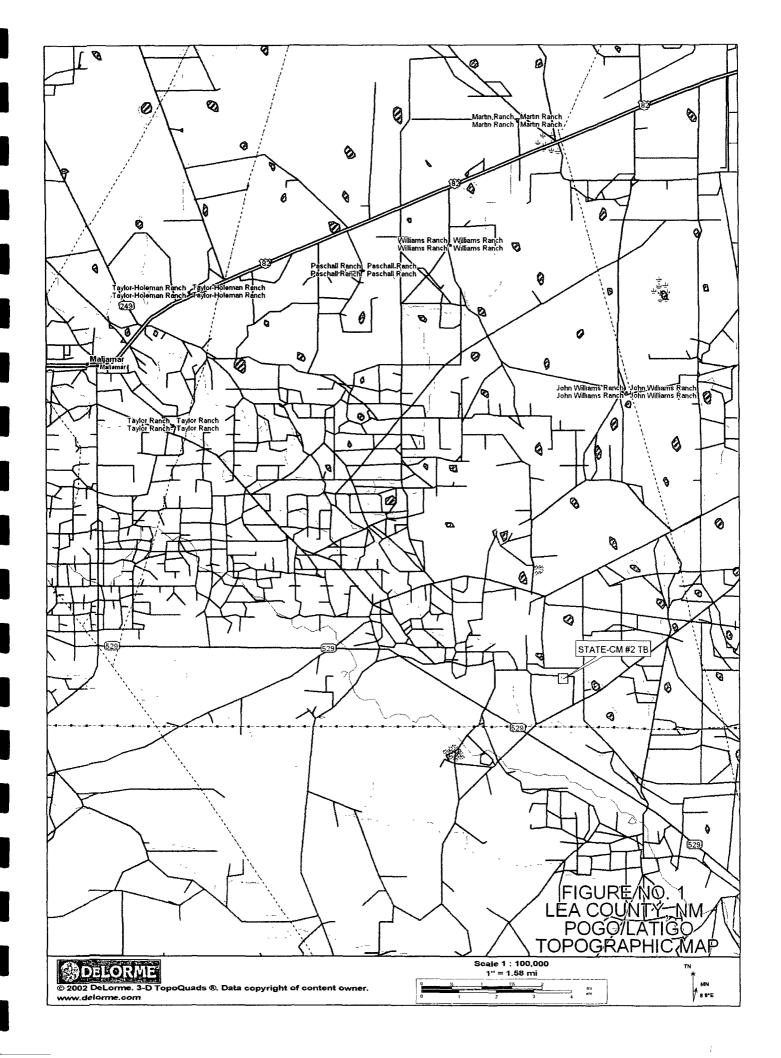
Senior Environmental Geologist

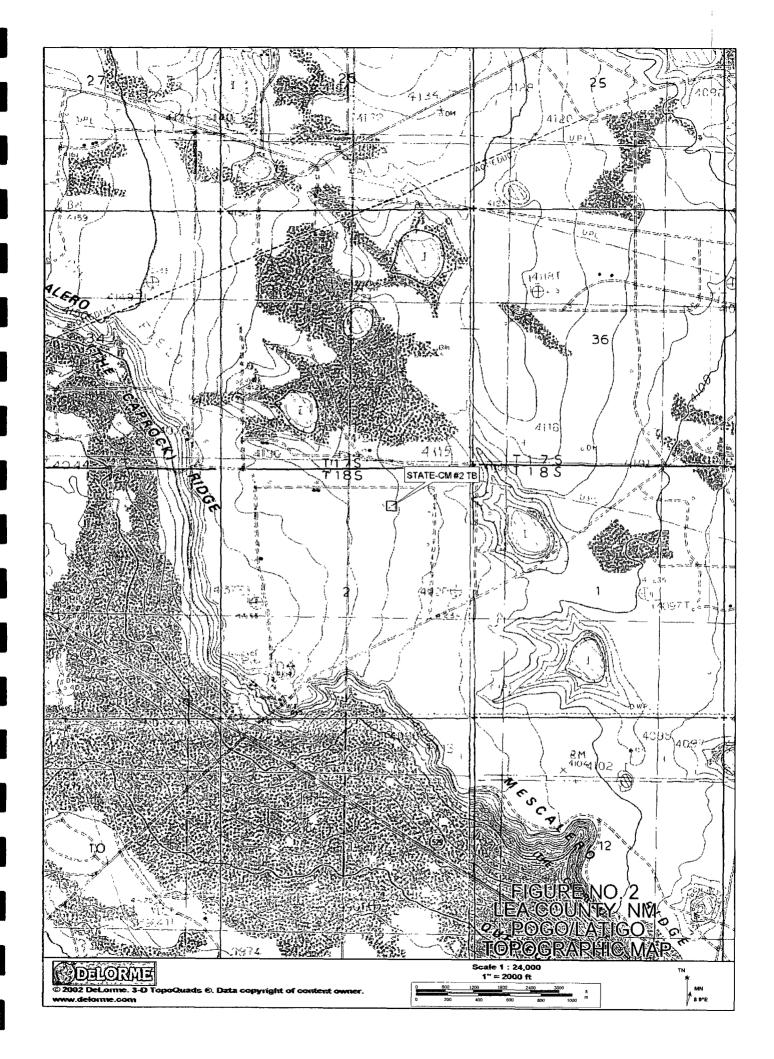
cc: Pat Ellis – Pogo Producing Company
Don Riggs – Pogo Producing Company

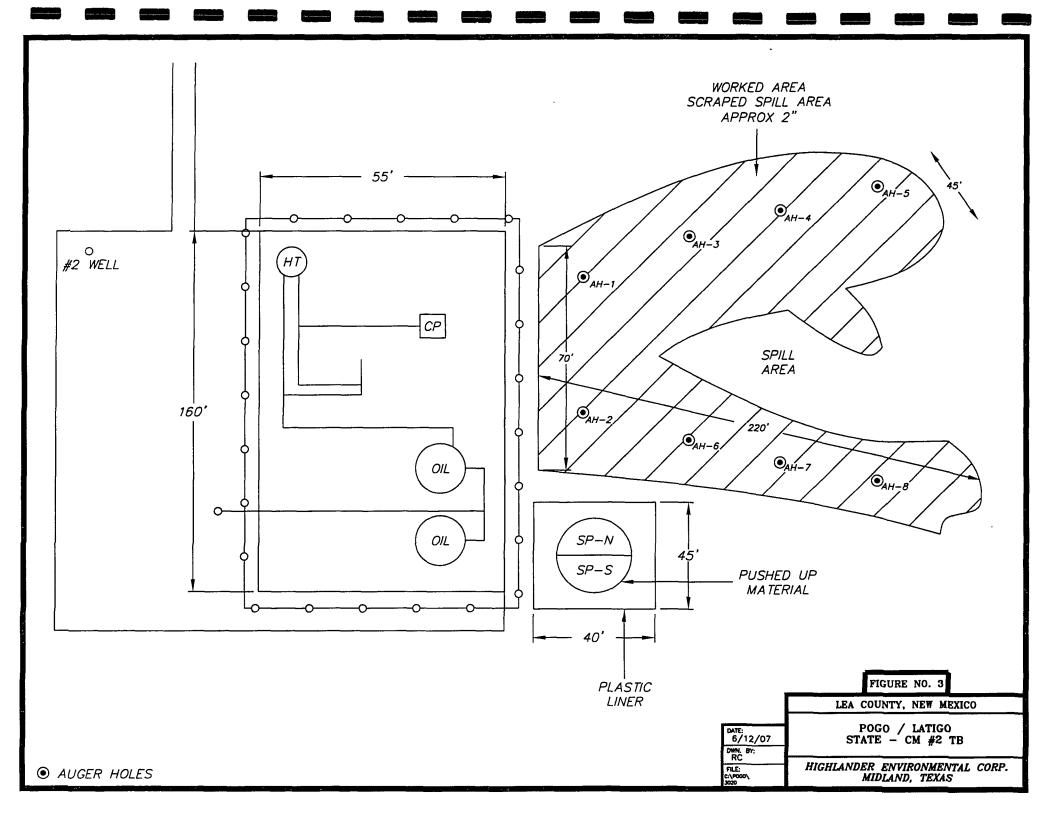


		SIT	E INFORMATION						
		Report T	pe: CLOSURE REPOR	rT					
General Site Info	ormation: 🖟 🗼		, , 0% _§ %,	3772320					
Site:		CM #2 Tank B	attery Release	100- 50					
Company:		Pogo Produci	ng Company	(6) 20 3					
Well Location:		Section 2, T18	S R33E	/ Co 1111 canca 120					
Spill Location:		Section 2, T18	S R33E	18 EAT 571 551					
Unit Letter:		Unit B		Hobbs W					
Lease Number:				OCD W					
County:		Lea		/2					
Spill GPS:		32° 46′ 54.2″, 1		110,087.9326.0					
Surface Owner:		State of New M		087.83					
Mineral Owner:		State of New Mexico							
Directions:		From the intersection of Hwy 62 (180) and 529 head west on 529 for 17.8 miles then							
		turn right onto-di	rt road and head for 0 6 miles to	dirt road. Turn right on dirt road for					
		0.6 miles to curv	e in road then turn left on next d	irt road. Travel down road for 0.5					
		miles to site. Sit	e is on the right hand side of roa	ad.					
Release Data:									
Date Released:		5/10/2007							
Type Release:		Oil and water							
Source of Contar	nination:	Tank Battery							
Fluid Released:		Oil/water dump	Oil/water dump plug failure						
Fluids Recovered	l:	Unknown	nknown						
Official Commu	nication:		,						
Name:	Pat Ellis		Don Riggs	lke Tavarez					
Company:	Pogo Producir	ng Company	Pogo Producing Company	Highlander Environmental Corp.					
Address:	300 N. Marien		5 Greenway Plaza, Suite 2700	1910 N. Big Spring					
P.O. Box	Box 10340	John Markey (· ·					
City:	Midland Texas	s, 79701-7340	Houston, Texas 77046	Midland, Texas					
Phone number:	(432) 685-810		(713) 297-5045	(432) 692- 4559					
Email:	EllisP@pogop		riggsd@pogoproducing.com	itavarez@hec-enviro.com					
	1-mor wpogop	. caacing.com	1.33346 pogoproduomig.com	1.55.55.55.65.65.65.65.65.65.65.65.65.65.					

Ranking Criteria					
Depth to Groundwater:		Ranking Score		Site Data	
<50 ft	20				
50-99 ft	10				
>100 ft.	0		Average Depth >100 BS		
WellHead Protection:	Ranking Score		Site Data		
Water Source <1,000 ft., Private <200	20	None			
Water Source >1,000 ft., Private >200 ft.		0			
Surface Body of Water:		Ranking Score		Site Data	
<200 ft.		20	None		
200 ft - 1,000 ft.		10		None	
>1,000 ft.		0			
Total Ranking Score		0			
		ole Soti RRAL (m	g/kg))		
	Benzene	Total BTEX	TPH	,	
	10	50	5,000	,	







Pogo Producing State CM #2 TB Lea County, New Mexico

Sample	Date	Sample		TPH (mg/kg)		Benzene	Toluene	Ethlybenzene	Xylene	Chloride (mg/kg)
ID	Sampled	Depth (ft)	GRO	DRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
AH-1	05/23/07	0-0.5'	290	2,250	2,540	<0.05	0.385	<0.05	9.29	306
AH-2	05/23/07	0-0.5'	1,150	1,570	2,720	-	-	-	-	56.9
AH-3	05/23/07	0-0.5'	6.30	<50.0	6	-	-	-	-	63.7
AH-4	05/23/07	0-0.5'	95.2	587	682.2	<0.05	<0.05	<0.05	<0.05	(8,82)
AH-5	05/23/07	0-0.5'	145	766	911	-	-	-		804
AH-6	05/23/07	0-0.5'	4.51	<50.0	4.51	-	-	-	-	88.3
AH-7	05/23/07	0-0.5'	573	2,240	2813	<0.20	6.22	10.6	16.9	669
AH-8	05/23/07	0-0.5'	2.76	<50.0	2.76	-	-	-	-	13.4

(-) Not Analyzed Area highlighted in yellow inidated analysis above RRAL

NED COLLINE TO TON OF SOIL

SHOW DISPOSITION



6701 Aberdeen Avenue, Suite 9 200 East Sunset Road, Suite E 5002 Basin Street, Suite A1

6015 Harris Parkway, Suite 110

Lubbock, Texas 79424 El Paso, Texas 79922 Midland, Texas 79703 800 • 378 • 1296 888 • 588 • 3443 806 • 794 • 1296 915 • 585 • 3443 432 • 689 • 6301 FAX 806 • 794 • 1298 FAX 915 • 585 • 4944 FAX 432 • 689 • 6313

817 • 201 • 5260

Ft Worth, Texas 76132 E-Mail lab@traceanalysis.com

Analytical and Quality Control Report

Ike Tavarez

Highlander Environmental Services

1910 N Big Spring Street Midland, TX, 79705 Report Date. May 31, 2007

Work Order 7052414

Project Location:

Lea County, NM

Project Name.

POGO-State CM #2 TB

Project Number.

3020

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
125238	AH-1 (0-0.5')	soil	2007-05-23	00:00	2007-05-24
125239	AH-2 (0-0.5')	soil	2007-05-23	00:00	2007-05-24
125240	AH-3 (0-0.5 [*])	soil	2007-05-23	00:00	2007-05-24
125241	AH-4 (0-0 5')	soil	2007-05-23	00:00	2007-05-24
125242	AH-5 (0-0.5')	soil	2007-05-23	00:00	2007-05-24
125243	AH-6 (0-0.5`)	soil	2007-05-23	00.00	2007-05-24
125244	AH-7 (0-0.5')	soil	2007-05-23	00.00	2007-05-24
125245	AH-8 (0-0.5')	soil	2007-05-23	00:00	2007-03-24
125246	Stockpile North	soil	2007-05-23	00.00	2007-05-24
125247	Stockpile South	soil	2007-05-23	00 00	2007-05-2=

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 19 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis. Inc.

Dr Biair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank

Case Narrative

Samples for project POGO-State CM #2 TB were received by TraceAnalysis, Inc. on 2007-05-24 and assigned to work order 7052414 Samples for work order 7052414 were received intact without headspace and at a temperature of 4 deg C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
BTEX	S 8021B
Chloride (IC)	E 300.0
TPH DRO	Mod 8015B
TPH GRO	S 8015B

Results for these samples are reported on a wet weight basis unless data package indicates otherwise

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 7052414 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project

Work Order. 7052414 POGO-State CM #2 TB Page Number 3 of 19 Lea County, NM

Analytical Report

Sample: 125238 - AH-1 (0-0.5')

Analysis: BTEX QC Batch: 37595 Prep Batch: 32578 Analytical Method. S 8021B Date Analyzed: 2007-05-28 Sample Preparation 2007-05-27

Prep Method: S 5035 Analyzed By: AG Prepared By AG

		RL				
Parameter	Flag	Result	${f Units}$	Dilution	RL	
Benzene		< 0.0500	m mg/Kg	5	0.0100	
Toluene		0.385	m mg/Kg	ā	0.0100	
Ethylbenzene		< 0.0500	m mg/Kg	ð	0.0100	
Xylene		9.29	mg/Kg	ð	0.0100	

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		2.23	mg/Kg	õ	5.00	45	26 - 117.8
4-Bromofluorobenzene (4-BFB)	1	7.18	${ m mg/Kg}$	ā	5.00	144	51.1 - 119.1

Sample: 125238 - AH-1 (0-0.5')

Analysis: Chloride (IC) QC Batch: 37509 Prep Batch: 32526 Analytical Method E 300.0 Date Analyzed 2007-05-24 Sample Preparation

Prep Method N/A Analyzed By AR Prepared By AR

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		306	mg/Kg	10	1.00

Sample: 125238 - AH-1 (0-0.5')

Analysis TPH DRO QC Batch 37504 Prep Batch 32522 Analytical Method: Mod 8015B
Date Analyzed: 2007-05-24
Sample Preparation. 2007-65-24

Prep Method: N/A
Anaivzed By AG
Prepared By AG

		RL			
Parameter	Flag	Result	Units	Dilution	RL
DRO		2250	mg/Kg	1	50.0

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		292	mg/Kg	1	150	195	32.9 - 167

Sample: 125238 - AH-1 (0-0.5')

Analysis: TPH GRO QC Batch: 37596 Prep Batch: 32578

Analytical Method. S 8015B
Date Analyzed 2007-05-28
Sample Preparation: 2007-05-27

Prep Method: S 5035
Analyzed By AG
Prepared By AG

¹High surrogate recovery due to peak interference

²High surrogate recovery due to peak interference.

Work Order: 7052414 POGO-State CM #2 TB

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			RL						
Parameter	Flag		Result		Units		Dilution		RL
GRO			290		mg/Kg		5		1.00
Surrogata		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Reco Lin	,
Surrogate Trifluorotolu	ene (TET)	Trag	1.98	mg/Kg	5	5.00	4()	52.4 -	
	robenzene (4-BFB)	4	16.2	mg/Kg	5	5.00	324	67.5 -	
Sample: 12	5239 - AH-2 (0-0	1.5')							
Analysis [.]	Chloride (IC)		Analvt	ıcal Method	: E 300.0		Prep N	Aethod·	N/A
QC Batch	37509		-	nalyzed	2007-05-	24		zed By	AR
Prep Batch	32526			Preparatio				red By:	AR
			RL						
Parameter	Flag		Result		Units		Dilution		RL
Chloride			56.9		mg/Kg		5		1 00
Analysis QC Batch Prep Batch	TPH DRO 37504 32522		Date Ana	al Method: alyzed reparation	Mod 8015 2007-05-24 2007-05-24		Prep M Analyz Prepai		N/A AG AG
Parameter	Flag		Result		Units		Dilution		RL
DRO			1570		mg/Kg		1		5(4.0
c .	T71	D. Iv	7.*	D.I.		Spike	Percent		overī
Surrogate n-Triacontan	Flag	Result 260	Units nig/K		ution 1	Amount 150	Recovery 173		mits - 167
	5239 - AH-2 (0-€			7					
Analysis	TPH GRO		Analytica	al Method	S 8015B		Prep Me	ethod S	5 5035
QC Batch	37689		Date Ana		2007-05-30		Analyze		A G
Prep Batch.	32656		Sample F	reparation.	2007-05-30		Prepared	d By A	AG
-			RL		.				
Parameter	Flag		Result		Units		Dilution		RL
GRO			1150		mg/Kg	· · · · · · · · · · · · · · · · · · ·	50		1.00
						Spike	Percent	Reco	
Surrogate	(P) T)	Flag	Result	Units	Dilution	Aniount	Recovery		nits
Trifluorotolu			41.7	mg/Kg	50	50.0	83	52.4 -	
4-Bromofiuoi	robenzene (4-BFB)		69.6	mg/Kg	50	50.0	139	67.5 -	140.3

³Surrogate out due to peak interference ⁴High surrogate recovery due to peak interference ⁵High surrogate recovery due to peak interference

Report Date: May 31, 2007 Work Order: 7052414 Page Number: 5 of 19 3020 POGO-State CM #2 TB Lea County NM

Sample: 125240 - AH-3 (0-0.5')

Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/AQC Batch: 37509 Date Analyzed: 2007-05-24 Analyzed By. ARSample Preparation: Prepared By ARPrep Batch: 32526

Sample: 125240 - AH-3 (0-0.5')

TPH DRO Analytical Method Mod. 8015B Prep Method. N/AAnalysis: QC Batch 37504 Date Analyzed: 2007-05-24 Analyzed By: AG Sample Preparation 2007-05-24 Prepared By AG Prep Batch. 32522

Spike Percent Recovery Result Units Dilution Amount Recovery Lunits Surrogate Flag 32 9 - 167 n-Triacontane 238 mg/Kg 1 15(1 159

Sample: 125240 - AH-3 (0-0.5')

TPH GRO S 8015BPrep Method: S 5035 Analytical Method Analysis: 2007-05-28 Analyzed By AGQC Batch 37596 Date Analyzed Prep Batch 32578 Sample Preparation: 2007-05-27 Prepared By AG

Percent Spike Recovery Dilution Recovery Limits Surrogate Flag Result Umts Amount Triffuorotoluene (TFT) 0.472mg/Kg 1 1 00 47 52.4 - 123 7 4-Bromofluorobenzene (4-BFB) 1.80 1 00 180 67.5 - 140.3 mg/Kg

Sample: 125241 - AH-4 (0-0.5')

 $\le 8021B$ Prep Method: S 5035 Analysis BTEX Analytical Method QC Batch 37595 Date Analyzed: 2007-05-28 Analyzed By AG Prep Batch: 32578 Sample Preparation: 2007-05-27 Prepared By-AG

RLFlag Dilution Parametei Result Units RLBenzene < 0.0500 mg/Kg Š 0.0100Toluene <0.0500 mg/Kg 5 0.0100

continued

Surrogate out due to peak interference

⁷ High surrogate recovery due to peak interference

⁸Sample ran at dilution due to hydrocarbons with a retention time greater than xvlene

Work Order: 7052414 POGO-State CM #2 TB Page Number: 6 of 19 Lea County, NM

sample 125241 continued ...

			RI	- ب				
Parameter F	lag		Resul	t	Units]	Dilution	RL
Ethylbenzene			< 0.050	U	mg/Kg		5	0.0100
Xylene	,	< 0.0500		mg/Kg	ว็		0.0100	
						Spike	Percent	Recovery
Surrogate	Fla	ag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			3.20	mg/Kg	อ	5.00	64	26 - 117.8
4-Bromofiuorobenzene (4-BFI	3) ⁶		6.08	${ m mg/Kg}$	อ์	5.00	122	51.1 - 119.1

Sample: 125241 - AH-4 (0-0.5')

Analysis QC Batch Prep Batch:	Chloride (IC) 37509 32526	Analytical Method Date Analyzed [,] Sample Preparation	2007-05-24	Prep Method: Analyzed By Prepared By	AR
_		RL	**	To the	D.
Parameter	Flag	Result	Units	Dilution	RL
Chloride		882	nig/kg	100	1.00

Sample: 125241 - AH-4 (0-0.5')

Analysis QC Batch Prep Batch	TPH DRO 37504 32522		Analytical M Date Analyze Sample Prepa	ed: 2007-0	5-24	Prep A Analyz Prepar	ed By: AG
			RL				
Parametei	F.	lag	Result	Un	its	Dilution	RL
DR()			587	mg/	Kg	1	50.0
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		268	m mg/Kg	1	150	179	32.9 - 167

Sample: 125241 - AH-4 (0-0.5')

Analysis QC Batch Prep Batch	TPH GRO 37596 32578	Analytical Method Date Analyzed Sample Preparation:	S 8015B 2007-05-28 2007-05-27	Prep Method Analyzed By Prepared By	\overline{AG}
		RL			
Parameter	Flag	Result	Units	Dilution	RL
GRO		95.2	nig/Kg	5	1.00

⁹High surrogate recovery due to peak interference

¹⁰High surrogate recovery due to peak interference.

3020

Work Order: 7052414 POGO-State CM #2 TB Page Number: 7 of 19 Lea County, NM

Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recov Lim	•
Trifluorotoluene (TETI	11	2.39	mg/Kg	5	5.00	48	$\frac{-524}{524}$	
4-Bromofluoroben		12	8.93	$\frac{m_{\rm g}}{{ m Kg}}$	5	5.00	179	67.5 -	
		~ ~ ~ ~							
Sample: 125242	- AH-5 (0-0	1.57)							
Analysis Chl	oride (IC)		Analyt	ical Method	E 300.0		Prep N	vlethod	N/A
QC Batch 375	09		Date A	nalyzed.	2007-05-	-24	Analyz	zed By	AR
Prep Batch: 325	26		Sample	Preparatio	n		Prepai	red By	AR
			RL						
Parameter	Flag		Result		Units		Dilution		RL
Chloride			804		mg/Kg		50		1.00
Sample: 125242 Analysis TP	: - AH -5 (0-0	0.5')	Analytica	al Method	Mod 8013	5B	Prep 1	Method	N/A
QC Batch. 375			Date Ana		2007-05-24			zed By	AG
Prep Batch: 325				reparation	2007-05-24			red By.	AG
r Tep Daten. 520	22		Danijne i	reparation	2007-00-2-	•	i Tejiai	red Dy.	ACI
_	T		RL		T		TO 17		D.I.
Parameter	Flag		Result		Units		Dilution		RL
DRO			766		mg/Kg		<u> </u>		50.6
						Spike	Percent		overy.
Surrogate	Flag	Result	Units		ution	Amount	Recovery		nits
n-Triacontane	13	253	mg/Kg		1	150	169	32.9	- 167
Sample: 125242	`	1.5')	A 1.	1 7 5 - 4 1 - 3	C 901~D		F i N f	h. 1 . C	*09-
	H GRO			al Method	S 8015B		Prep Me		5035
QC Batch 375			Date Ana		2007-05-28 2007-05-27		Analyze Prepare		re re
Prep Batch: 325	10		sample F	Preparation	ZUU 1-UU-27		r. tebare	и Бу А	<i>1</i> (-
Th.	T-1		RL		T		D'I		T. T
Parameter	Flag		Result		Units		Dilution		RL
GRO	<u></u>		145		mg/Kg		10		1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Reco Lim	
Trifluorotoluene (TFT)	14	5.11	mg/Kg	10	10.0	51	52.4 -	
4. Bromofinorober		15	16.0	ma/Ka	10	10.0	160	07.5	

Sample: 125243 - AH-6 (0-0.5')

4-Bromofiuorobenzene (4-BFB)

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method	N/A
QC Batch	37509	Date Analyzed	2007-05-24	Analyzed By:	AR
Prep Batch:	32526	Sample Preparation		Prepared By	AR

mg/Kg

10

10.0

169

67.5 - 140.3

16.9

¹¹ Surrogate out due to peak interference 12 High surrogate recovery due to peak interference

¹³ High surrogate recovery due to peak interference 14 Surrogate out due to peak interference 15 High surrogate recovery due to peak interference

3020

Work Order: 7052414 POGO-State CM #2 TB Page Number: 8 of 19 Lea County, NM

Dunamatan	Floor		RL Result		Units		Dilution	ĎΙ
Parameter Chloride	Flag		88.3		mg/Kg		Diffusion 5	RL 1.00
Cmoride			00.0		mg/Kg			1.00
Sample: 12	5243 - AH-6 (0-0).5')						
Analysis:	TPH DRO		Analytica	al Method:	Mod. 8015	В	Prep 1	Method N/A
QC Batch	37504		Date Ana	ılyzed:	2007-05-24			zed By A.G
Prep Batch	32522		Sample F	reparation	: 2007-05-24		Prepar	red By. AG
			RL					
Parameter	Flag		Result		Units		Dilution	RL
DRO			< 50.0		m mg/Kg		1	50.0
Surrogate	Flag	Result	Units	D;	lution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontan		226	mg/Kg		1	150	151	32.9 - 167
	5243 - AH-6 (0-0	3. 5')						
Analysis:	TPH GRO			d Method	S 8015B		Prep Me	
QC Batch	37596		Date Ana		2007-05-28		Analyze	
Prep Batch	32578		Sample P	reparation	. 2007-05-27		Prepare	d By AG
	_,		RL					
Parameter GRO	Flag		Result		Units		Dilution	RL
GRO			4.51		mg/Kg		1	1 00
						Spike	Percent	Recovery
Surrogate	(MDM)	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoiue	ene (TFT) robenzene (4-BFB)		0.781 1.23	mg/Kg mg/Kg	1 1	1.00 1.00	78 123	52 4 - 123 7 67.5 - 140.3
4-bromondor	Obelizen (4-DFD)	 	1.20	mg/Kg	1	1.00	120	07.8 - 140.0
·	5244 - AH-7 (0-0). 5')						
Analysis	BTEX		Analytical l		S 8021B		Prep Me	
QC Batch:	37595 32578		Date Analy		2007-05-28		Analyze	
Prep Batch	32378		Sample Pre	paration	2007-05-27		Prepare	d By. AG
.	~·		RL					
Parameter	Fla	8	Result		Units		Dilution	RL
Benzene Toluen€			<0.200 6.22		mg/Kg nig/Kg		20 20	0.0100 0.0100
Ethylbenzene	د		10.6		$\frac{mg}{Kg}$		20 20	0.0100
Xylene	·		16.9		mg/Kg		20	0.0100
						Spike	Percent	Recovery
Surrogate	(707277)	、 Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoiue			20.7	mg/Kg	20	20.0	104	26 - 117.8
4-Bromofiuor	robenzene (4-BFB)		17.7	mg/Kg	20	20.0	88	51.1 - 119 1

Work Order: 7052414 POGO-State CM #2 TB Page Number 9 of 19 Lea County. NM

Sample: 125244 - AH-7 (0-0.5')

Analysis Chloride (IC) QC Batch: 37509 Prep Batch: 32526 Analytical Method: Date Analyzed Sample Preparation E 300.0 2007-05-24 Prep Method: N/A Analyzed By: AR Prepared By AR

RL Payelt

Sample: 125244 - AH-7 (0-0.5')

Analysis TPH DRO QC Batch: 37504 Prep Batch: 32522 Analytical Method Mod 8015B Date Analyzed 2007-05-24 Sample Preparation 2007-05-24

Prep Method: N/A Analyzed By. AG Prepared By: AG

Spike Percent Recovery Surrogate Flag Dilution Recovery Result Units Amount Limits n-Triacontane 315mg/Kg 1 150 21(. 32.9 - 167

Sample: 125244 - AH-7 (0-0.5')

Analysis TPH GRO QC Batch. 37596 Prep Batch 32578 Analytical Method: S 8015B
Date Analyzed 2007-05-28
Sample Preparation: 2007-05-27

Prep Method S 5035 Analyzed By AG Prepared By AG

Spike Percent Recovery Dilution Surrogate Flag Units LimitsResult Amount Recovers Trifluorotoluene (TFT) 20 16.1mg/Kg20.080 52.4 - 123.7 17 4-Bromofluorobenzene (4-BFB) 36.2mg/Kg20 20.0 181 67.5 - 140.3

Sample: 125245 - AH-8 (0-0.5')

Analysis Chloride (IC) QC Batch 37509 Prep Batch 32526 Analytical Method. E 300 0
Date Analyzed 2007-05-24
Sample Preparation

Prep Method: N/A Anaiyzed By: AR Prepared By: AR

¹⁶High surrogate recovery due to peak interference

¹⁷High surrogate recovery due to peak interference

Report Date: May 31, 2007 Work Order: 7052414 Page Number: 10 of 19 3020 POGO-State CM #2 TB Lea County. NM

Sample: 125245 - AH-8 (0-0.5')

TPH DRO Analytical Method: Mod 8015B Prep Method: N/AAnalysis. QC Batch: Date Analyzed: 2007-05-24 Analyzed By-AG37504 Prep Batch: 32522 Sample Preparation: 2007-05-24 Prepared By. AG

					$_{ m Spike}$	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		238	${ m mg/Kg}$	1	150	159	32.9 - 167

Sample: 125245 - AH-8 (0-0.5')

TPH GRO Analysis: Analytical Method S 8015B Prep Method: S 5035 QC Batch. 37596 Date Analyzed 2007-05-28 Analyzed By-АG Prep Batch 32578 Sample Preparation: 2007-05-27 Prepared By: AG

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoiuene (TFT)		0.782	mg/Kg	1	1.00	78	52 4 - 123 7
4-Bromofluorobenzene (4-BFB)		1.20	mg/Kg	1	1.00	120	67.5 - 140.3

Sample: 125246 - Stockpile North

Analysis: Chloride (IC) Analytical Method. E 300.0 Prep Method: N/A QC Batch 37509 2007-05-24 Date Analyzed: Analyzed By. ARPrep Batch 32526 Sample Preparation: Prepared By AR

 RL

 Parameter
 Flag
 Result
 Umts
 Dilution
 RL

 Chloride
 2900
 mg/Kg
 100
 1 00

Sample: 125246 - Stockpile North

Analysis TPH DRO Analytical Method: Mod. 8015B Prep Method N/AQC Batch 37504Date Analyzed 2007-05-24 Analyzed By ΑG Prep Batch 32522 Sample Preparation 2007-05-24 Prepared By. AG

		RL			
Parameter	Flag	Result	Units	Dilution	RL
DRO		8860	mg/Kg	1(1	50 (1

Work Order: 7052414 POGO-State CM #2 TB Page Number: 11 of 19 Lea County, NM

Prep Method: S 5035

AG

AG

Analyzed By

Prepared By

Surrogate	Flag	Result	Units	Dih	ition	Spike Amount	Percent Recovery	Reco Lim	
n-Triacontane	18	885	mg/Kg		10	150	590	32.9 -	167
Sample: 12524	6 - Stockpile	North							
Analysis TI	PH GRO		Analytical		S 8015B		Prep Me		503
•	689 65.6		Date Anal		2007-05-30 2007-05-30		Analyzeo Prepareo		
Prep Batch 32	656		Sample Fi	eparation.	2007-00-30	J	Fleparec	ab) A	_7
D	T)		RL		T1:		D:3		ъr
Parameter GRO	Flag		Result 655		Units mg/Kg		Dilution 50	····	RI 1 00
310			000		1116/116				1 (1)
0		7 71	1 2	1	D:1 .	Spike	Percent	Recov	
Surrogate Trifluorotoluene	(TET)	Flag	Result 42.4	Units nig/Kg	Dilution 50	Amount 50.0	Recovery 85	Limi 52 4 - 1	
4-Bromofluorobe	•		47.7	mg/Kg mg/Kg	50 50	50.0	95	67.5 - 1	
-	509 526		Date Ai Sample	Preparation	2007-05- n:				AR AR
r rep Daton - 52	020		RL	гтерагамо			1 repa.	160 D'	A.F.
Parameter	Flag		Result		Units		Dilution		RI
Chloride			2550		mg/Kg		100] ()(
Analysis TF QC Batch 37	PH DRO 504	South	Analytical Date Anal Sample Pr	yzed	Mod 8013 2007-05-24 2007-05-24	4	Analy	zed By.	N/A AG AG
Analysis TF QC Batch 37 Prep Batch. 32	PH DRO 504 522		Date Anal Sample Pi RL	yzed	2007-05-24 2007-05-24	4	Analy Prepa	zed By.	AG
Analysis TF QC Batch 37 Prep Batch 32 Parameter	PH DRO 504		Date Anal Sample Pr RL Result	yzed	2007-05-24 2007-05-24 Units	4	Analy Prepa Dilution	zed By.	AG AG RI
Analysis TF QC Batch 37 Prep Batch 32 Parameter	PH DRO 504 522		Date Anal Sample Pi RL	yzed	2007-05-24 2007-05-24	4	Analy Prepa	zed By.	АG
QC Batch 37	PH DRO 504 522		Date Anal Sample Pr RL Result	yzed reparation	2007-05-24 2007-05-24 Units	4	Analy Prepa Dilution	zed By.	AG AG RI 50 (

Analytical Method

Sample Preparation: 2007-05-30

Date Analyzed:

S 8015B

2007-05-30

TPH GRO

37689

32656

Analysis.

QC Batch

Prep Batch

¹⁸High surrogate recovery due to peak interference ¹⁹High surrogate recovery due to peak interference

3020

Work Order: 7052414 POGO-State CM #2 TB Page Number: 12 of 19 Lea County, NM

Parameter	Flag	RL Result		Units		Dilution		RL
GRO	1 100	1890		mg/Kg		50		1.00
*****					6.5	ъ.	т.	
	T 1,	1 5. 1.	T .	12.11	Spike	Percent	Reco	-
Surrogate	Flag	Result	Units	Dilution		Recovery	Lim	
Trifluorotoluene (TFT)	(4 RFR) 20	53.1	mg/Kg	5(1	50.0	106	52.4 -	
4-Bromofluorobenzene ((4-BFB) 20	80.9	mg/Kg	5(1	50.0	162	67.5 -	140.3
Method Blank (1)	QC Batch: 3750	<u>)</u> 4						
QC Batch: 37504 Prep Batch: 32522		Date An QC Prep		007-05-24 007-05-24			yzed By ared By	AG MS
			MDL					
Parameter	Flag		Result			nits		RL
DRO			29.5)	mg	/Kg		50
Company	ag Result	Units	Dile	ition	Spike Amount	Percent Recovery	Recc Lin	
Surrogate Fl n-Triacontane	lag Result	mg/Kg		1	150	116	44.7 -	
Matrix Blank (1) QC Batch 37509 Prep Batch: 32526	QC Batch: 37509	Date An QC Prep		2007-05-24 2007-05-24			yzed By. ared By:	AR AR
D	F1		MDI		¥ 7.			ומ
Parameter	Flag		Result			nits		RL
Chloride			0.44	2	mg	;/Kg	··· <u>·</u>	<u> </u>
Method Blank (1)	QC Batch 3759	95						
QC Batch 37595 Prep Batch 32578		Date An		007-05-28			vzed By:	
		C, C I I C ₁	paration 2	2007-05-27		Prep	ared By	AG AG
Parameter	Flag		M Res	2007-05-27 DL pult		Jnits	•	AG RL
Benzene	Flag	CO I IO	M Res <0.00	2007-05-27 DL rult 110	m	units g/Kg	•	AG RL 0.01
Benzene Toluene	Flag	Q; (C) I TO	M Res <0.00	2007-05-27 DL ult 110 150	m m	Onits g/Kg g/Kg	•	AG RL 0.01 0.01
Benzene Toluene Ethylbenzene	Flag		M Res <0.00 <0.00 <0.00	2007-05-27 DL sult 110 150 160	m m m	Jnits g/Kg g/Kg g/Kg	•	AG RL 0.01 0.01 0.01
Benzene	Flag	Ç. 110 ₁	M Res <0.00	2007-05-27 DL sult 110 150 160	m m m	Onits g/Kg g/Kg	•	AG
Benzene Toluene Ethylbenzene Xvlene	Flag Flag	Result	M Res <0.00 <0.00 <0.00	2007-05-27 DL sult 110 150 160	m m m Spike	Jnits g/Kg g/Kg g/Kg	•	AG RL 0.01 0.01 0.01 0.01
Benzene Toluene Ethylbenzene			M Res <0.00 <0.00 <0.00 <0.00	2007-05-27 DL ult 110 150 160 410	m m m Spike	Onits g/Kg g/Kg g/Kg g/Kg g/Kg	ared By	AG RL 0.01 0.01 0.01 0.01 0.01 every

 $^{^{20}\}mathrm{High}$ surrogate recovery due to peak interference

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Method Blank (1) QC Batch 37596

QC Batch: 37596 Date Analyzed: 2007-05-28 Analyzed By: AG Prep Batch: 32578 QC Preparation: 2007-05-27 Prepared By. AG

MDL

Parameter Flag Result Units RLGRO < 0.739 mg/Kg 1

					Spike	Percent	Recovery
Surrogate	Flag	Result	Umits	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.595	mg/Kg	1	1.00	60	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1 40	${ m mg/Kg}$	1	1.00	140	67.5 - 140.3

Method Blank (1) QC Batch: 37689

QC Batch: 37689 Date Analyzed Prep Batch: 32656

2007-05-30 Analyzed By: AG QC Preparation: 2007-05-30 Prepared By-AG

MDL Parameter Flag Result Units RLGRO < 0.739 mg/Kg

					Spike	Percent	Recovery
Surrogate	Fiag	Result	Units	Dilution	Amount	Recovery	Linnis
Trifluorotoluene (TFT)		0.891	mg/Kg	1	1.00	89	52 4 - 123.7
4-Broniofluorobenzene (4-BFB)		0.834	$\mathrm{mg/k.g}$	1	1.00	83	67.5 - 140 5

Laboratory Control Spike (LCS-1)

QC Batch: 37504 Date Analyzed 2007-05-24 Analyzed By AGPrep Batch 32522QC Preparation: 2007-05-24 Prepared By MS

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil	Amount	Result	Rec	Limit
DR()	263	mg/Ks	1	250	<14.6	105	47.5 - 144 1

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dıl	Amount	Result	Rec.	Limit	RPD	Limit
DRO	251	mg/Kg	1	250	<14.6	100	47.5 - 144.1	5	20.

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result

	LCS	LCSD			Spike	LCS	LCSD	Rec
Surrogate	Result	Result	Units	Dil	Amount	Rec.	Rec	$_{ m Limit}$
n-Triacontane	377	170	mg/Kg	1	150	118	113	57.3 - 131.6

3020

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Laboratory Control Spike (LCS-1)

QC Batch: 37509 Prep Batch. 32526 Date Analyzed 2007-05-24 QC Preparation 2007-05-24 Analyzed By AR Prepared By. AR

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil	Amount	Result	Rec	Limit
Chloride	15.1	m mg/Kg	1	12.5	2.0886	104	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec	Limit	RPD	Limit
Chloride	15.2	mg/Kg	1	12.5	2.0886	104	90 - 110	0	

Percent recovery is based on the spike result RPD is based on the spike and spike duplicate result

Laboratory Control Spike (LCS-1)

QC Batch 37595 Prep Batch 32578 Date Analyzed 2007-05-28 QC Preparation. 2007-05-27

Analyzed By AG Prepared By AG

	LCS			Spike	Matrix		Rec.
Param	Result	$_{ m Units}$	Dil	Amount	Result	Rec	Limit
Benzene	1.15	mg/Kg	1	1.00	< 0.00110	115	68.6 - 123 4
Totuene	1 14	mg/Kg	1	1.00	< 0 00150	114	74.6 - 119 3
Ethylbenzene	1.12	mg/Kg	1	1.00	< 0.00160	112	72.3 - 126.2
Xylene	3.36	mg/Kg	1	3.00	< 0.00410	112	76.5 - 121.6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec		RPD
Paran:	Result	Units	Dil	Amount	Result	Rec	Limit	RPD	Limit
Benzene	1.19	mg/Kg	1	1.00	< 0.00110	119	68.6 - 123.4	3	20
Toluene	1.17	mg/Kg	1	1.00	< 0.00150	117	74.6 - 119.3	3	20
Ethylbenzene	1.16	mg/Kg	1	1 00	< 0.00160	116	72.3 - 126 2	$\underline{4}$	20
Xylen€	3 48	mg/Kg	1	3 00	< 0 00410	116	76.5 - 121.6	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spik€	LCS	LCSD	Rec
Surrogate	Result	Result	$_{ m Umts}$	Dil	Amount	Rec	Rec	Limit
Trifluorotoluene (TFT)	0.694	0.669	mg/Kg	1	1 00	69	67	64.1 - 118.2
4-Bromoffuorobenzene (4-BFB)	1.04	1 06	m mg/Kg	1	1 00	104	106	687 - 1258

Laboratory Control Spike (LCS-1)

QC Batch 37596 Prep Batch 32578 Date Analyzed 2007-05-28 QC Preparation. 2007-05-27 Analyzed By AG Prepared By AG

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec	Limit
GRO	6 6 8	mg/Kg	1	10.0	< 0.739	67	57.7 - 102.5

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result

3020

Surrogate

n-Triacontane

Result

222

Result

216

Worl: Order: 7052414 POGO-State CM #2 TB Page Number: 15 of 19 Lea County, NM

	LOGD			N. F		т	.		
Param	LCSD Result	Units D	Spike il Amoun	Matri t Resul			lec. imit	RPD	RPD Limit
GRO			1 10.0	<0.73			- 102 5	13	20
								10	20
Percent recovery is based on the s	spike result R	PD is base	d on the spik	e and spil	ke duplica	te resul	t.		
	LCS	LCSD			Spike	LCS	LCSD	F	lec .
Surrogate	Result	Result	Units	Dil. A	Amount	Rec	Rec		imit
Trifluorotoluene (TFT)	0.838	0.813	mg/Kg	1	1.00	84	81	36.8	- 152 8
4-Bromofluorobenzene (4-BFB)	1.28	1.26	mg/Kg	1	1 00	128	126	70	- 130
Laboratory Control Spike (LC	7S_1)								u-man error de mande error
QC Batch. 37689		ate Analyz						yzed By	
Prep Batch: 32656	(,	C Prepara	tion 2007-0	05-30			Prep	ared By	AG
	LCS			Spike	- M	atrix		F	₹ec.
Param	Result	Units	s Dil	Amou		esult	Rec		imit
GRO	9.55	mg/K		10 0		0.739	96		- 102.5
Percent recovery is based on the s									30270
	LCSD			Matri			lec.		RPD
Param		Units D	Spike il. Amoun				imit	RPD	
GRO			1 10.0	< 0.73			- 102 5	101 1	Limit 20
Percent recovery is based on the s		· · · · · · · · · · · · · · · · · · ·							
refrent recovery is based on the s			d on the spin	e and sym					
	LCS	LCSD	3 . T	TO 11	Spike	LCS	LCSD		lec.
Surrogate	Result	Result	Units		Amount	Rec	Rec		imit
Trifluorotoluene (TFT)	1.13	1 10	mg/Kg	1	1 00	113	110		- 152 8
4-Bromofluorobenzene (4-BFB)	1.00	0.980	mg/Kg	1	1.00	100	98	70	- 130
Matrix Spike (MS-1) Spiked	d Sample [,] 125:	245							
QC Batch: 37504	D	ate Analyz	zed 2007-0)5-24			Anai	vzed By	· AG
Prep Batch 32522		C Prepara						ared By	MS
_	MS		****	Spike		atrix	***	_	lec .
Param	Result	Units		Amou		esult	Rec		mit
DRO	290	mg/K		250		14.6	116	11.7	- 152 (
Percent recovery is based on the s	spike result. R	PD is base	d on the spik	e and spil	ke duplica	te resul	t		
_	MSD		Spike	Matri			iec		RPD
Param		Units D					imit	RPD	Limi
DRO	284 n	ıg/Kg :	1 250	<14.	6 114	11.7	- 152.3	2	20
Percent recovery is based on the s	spike result. R	PD is base	d on the spik	e and spil	ke duplica	te resul	t.		
MS	MSD			Spi	ke	MS	MSD		Rec
Commonato Danila	T)	71.1.	TO 11	4		T)	70	,	

Dil.

Amount

150

 ${\rm Rec}$

148

Rec

144

Limit

17 - 163.1

Units

mg/Kg

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Matrix Spike (MS-1) Spiked Sample: 125247

QC Batch 37509 Prep Batch 32526 Date Analyzed: 2007-05-24 QC Preparation: 2007-05-24 Analyzed By: AR Prepared By: AR

	MS			Spike	Matrix		$\mathrm{Re} \mathfrak{c}$
Param	Result	Units	Dil	Amount	Result	Rec	Limit
Chloride	3910	mg/Kg	100	1250	2548.25	109	90 - 110

Percent recovery is based on the spike result RPD is based on the spike and spike duplicate result

		MSD			Spike	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride	21	3550	mg/Kg	100	1250	2548.25	80	90 - 110	10	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result

Matrix Spike (MS-I) Spiked Sample 125245

QC Batch. 37596 Prep Batch 32578 Date Analyzed 2007-05-28 QC Preparation 2007-05-27 Analyzed By: AG Prepared By: AG

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec	Limit
GRO	7.59	mg/Kg	1	10.0	2.76	48	10 - 141 5

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec		RPD
Param	Result	$_{ m Units}$	$_{\mathrm{Dil}}$	Amount	Result	Rec	Limit	RPD	Limit
GRO	7.37	mg/Kg	1	10 0	2.7€	4(.	10 - 141 5	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result

Surrogate	MS Result	MSD Result	Units	Dil	Spike Amount	MS Rec	MSD Rec	Rec Limit
Triftuorotoluene (TFT)	0.681	0.663	mg/Kg	1	<u>1</u>	68	66	40 - 125 3
4-Bromofluorobenzene (4-BFB)	1.18	1.13	${ m mg/Kg}$	1	Ĩ	118	113	867 - 1445

Matrix Spike (MS-1) Spiked Sample: 125777

QC Batch 37689 Prep Batch 32656 Date Analyzed: 2007-05-30 QC Preparation: 2007-05-30 Analyzed By AG Prepared By AG

	MS			Spike	Matrix		${ m Rec}$
Param	Result	Units	Dil	Amount	Result	Rec	Limit
GRO	7.20	mg/Kg	1	10.0	0.8627	63	16 - 141 5

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result

	MSD			Spike	Matrix		Rec		RPD
Parain	Result	Units	Dil	Amount	Result	Rec.	Limit	RPD	Limit
GRO	7.66	${ m mg/Kg}$	1	10.0	0.8627	68	10 - 141 5	б	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

²¹Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control

Chloride

nig/Kg

12.5

12.4

100

96 - 110

2007-05-24

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Surrogate			MS Result	MSD Result	Units	Dıl.	Spike Amount	MS Rec	MSD Rec	Rec Limit			
	uene (TFT)		0.684	0.689	mg/Kg	1	1	68	69	40 - 125.3			
	orobenzene (4	-BFB)	1.06	1.05	mg/Kg	1	1	106	105	86 7 - 144.5			
Standard	(CCV-1)												
QC Batch	37504		Da	te Analy:	zed· 2007-0	5-24			Analy	zed By: AG			
			CC) Tru		CCVs Found		CCVs ercent	Percent Recovery		Date			
Param	Flag	Units	Con		Conc		covery	Lim		Analyzed			
DRO	11005	mg/Kg	250		253		101	85 -		2007-05-24			
Standard	(CCV-2)												
QC Batch:	37504		Da	Date Analyzed 2007-05-24						Analyzed By: AG			
			CC.		CCVs		CCVs	Perc					
т.	771	Y 7 .	Tru		Found	_	ercent	Recovery Limits		Date			
Param DRO	Flag	Units mg/Kg	Con 250		Conc 283		coverv 113	85 -		Analyzed 2007-05-2-			
Standard OC Batch	,		Da	te Analy	zed 2007-0)5-24			Analy	zea Bv: AG			
QC Batch	37504		Da	te Analy	zed 2007-0)5-24		Analyzed By: AG					
			CC'		CCVs		CCVs	Perc					
_		T-	Tru		Found		ercent	Reco		Date			
Param DRO	Flag	Units mg/Kg	Con 25		Сопс 266	Re	covery 106	Lim 85 -		Analyzed 2007-05-2-			
Standard	(ICV 1)	mg/ ng	2.01	<u>. </u>	200		100		110	2007-00-2-			
QC Batch	37509		Da	te Analy	zed· 2007-0	15-24			Analy	zed By - AR			
				Vs	ICVs		ICVs	Perc		,			
				ue	Found		'ercent	Reco		Date			
Param	Flag	Units	Co		Conc		ecovery	Lin	-	Analyzed			
Chloride		mg/Kg	12	2.5	12 4		98	90 -	110	2007-05-2			
Standard	(CCV-1)												
QC Batch.	37509		Date Analyzed: 2007-05-24						Analy	rzed By - AR			
			CC	CVs	CCVs		CCVs	Perc					
_		. .		ue	Found		ercent	Reco		Date			
Param Chlorida	Flag	Units		nc 5	Conc	R	ecovery	Lin		Analyzed			

Report	Date	May	31.	2007
3020				

Work Order: 7052414 POGO-State CM #2 TB Page Number: 18 of 19 Lea County. NM

Standard (I	$_{ m CV}$	-1)
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QC	Batch.	37595
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Analyzed By AG

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Fiag	Units	Conc	Conc	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.112	112	85 - 115	2007-05-28
Toluene		m mg/Kg	0.100	0.113	113	85 - 115	2007-05-28
Ethylbenzene		mg/Kg	0.100	0.112	112	85 - 115	2007-05-28
Xylene		m mg/Kg	0.300	0 337	112	85 - 115	2007-05-28

Standard (CCV-1)

QC Batch: 37595

Date Analyzed 2007-05-28

Analyzed By: AG

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0 100	0 115	115	85 - 115	2007-05-28
Toluene		mg/Kg	0.100	0.114	114	85 - 115	2007-05-28
Ethylbenzene		mg/Kg	0.106	0.112	112	85 - 115	2007-05-28
Xylene		mg/Kg	0.300	0.335	112	85 - 115	2007-05-28

Standard (ICV-1)

QC Batch 37596

Date Analyzed. 2007-05-28

Analyzed By. AG

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc	Conc	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	0.978	98	85 - 115	2007-03-28

Standard (CCV-1)

QC Batch: 37596

Date Analyzed 2007-05-28

Analyzed By AG

			CCVs	CC\/s	CCV's	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc	Conc	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	0.907	91	85 - 115	2007-05-28

Standard (ICV-1)

QC Batch: 37689

Date Analyzed 2007-05-30

Analyzed By: AG

			FC V s	1CVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1 09	109	85 - 115	2007-05-30

Report Date: May 31, 2007 3020

Work Order: 7052414 POGO-State CM #2 TB Page Number: 19 of 19 Lea County, NM

Standard (CCV-1)

QC Batch 37689

Date Analyzed 2007-05-30

Analyzed By: AG

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc	Recovery	$_{ m Limits}$	Analyzed
GRO		mg/Kg	1.00	1 06	106	85 - 115	2007-05-30

Pat

District 1
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Form C-141
Revised October 10, 2003
Submit 2 Copies to appropriate

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe. NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

1220 5. 50. 110.	(CIS 1)1., Odnii	110, 1111 0750		Sa	ınta Fe	, NM 875	05				
			Rele	ease Notific	ation	and Co	rrective A	ction			
						OPERA:	OR	X Initia	l Report		
Name of Co	ompany La	tigo Petrole	ım, İnc.			Contact List	Hunt				
		0340 Midia		9702-7340	7	Telephone 1	No. (432)685-82	229			
		M #2 Batter					e Tank Battery				
Surface Ov	ner State o	f NM		Mineral ()wnerN	M		Lease N	lo.		
<u> </u>				LOC	A TTO	OF RE	LEASE				
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the	East/West Line	County		
В	2	18S	33E						Lea		
	J	J	<u> </u>		<u> </u>	T . •		<u> </u>			
			La	titude							
Type of Dale	nca C-!!!	*****		NAT	TURE	OF REL		20 DW Volume P	Recovered Still recovering		
Type of Rele Source of Re		Rattery				Date and I	Tour of Occurrence	265/10/0 Date and	Hour of Discovery 5/11-1:00p		
Was Immedi						If YES, To		@ IIpm	1104 01 2/300 701 3/11-1,005		
W MAS AMMINION	and I tolked		Yes [] No 🗌 Not R	equired	Pat Cape		- •			
By Whom?	Lisa Hunt						Iour 5/11/07 - 3				
Was a Water	rcourse Rea		Yes 🛭	7 No		If YES, V	olume Impacting	the Watercourse.			
						ļ					
ir a waterco	urse was in	npacted, Desc	nde Pully.	•	(5)	FO REQ NEED	CHLORID O	n ALL C	· 14.1 REPORTS ON WITE SPILLED		
Describe Ca	use of Probl	lem and Remo	edial Actic	n Taken.*	<u> </u>		<u> </u>	- 00(01010			
Oil and wa	ter dump p	lug failure.			(8)	E) NEED AREAR DIMENSION OF SPILL AREA 3) OCD ASSIGNED RP = ON ALL SUBMITTAL					
					B) OCD 4	SSIGNED	KP# Ora	ALL SUBMITAL		
		and Cleanup ains the gro ce the area is			ne spill j ted we v	ust ran and will send and	didn't soak in. other updated C	Currently, there is	work being done to		
regulations a public health should their or the enviro	all operators a or the envi operations l nument. In a	are required fronment. The bave failed to	to report a e acceptan adequatel; OCD acce	and/or file certain ace of a C-141 rep y investigate and	release n ort by the remediat	otifications a e NMOCD n e contaminat	nd perform corre- tarked as "Final Fion that pose a thi	ctive actions for rele Report" does not reli reat to ground water	suant to NMOCD rules and eases which may endanger leve the operator of liability c, surface water, human health ompliance with any other		
Signature:	Lisa) the	nt			OIL CONSERVATION DIVISION					
Printed Nam	_{le:} Lisa Hur	nt				Approved by	District Supervis	sor:			
Title: Reg	ulatory An	alyst				Approval Da	te:	Expiration	Date:		
E-mail Address: huntl@pogonroducing.com Conditions of Approval:									Attached		

Phone: (432)685-8229

Date: 05/11/2007

^{*} Attach Additional Sheets If Necessary

District I
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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 June 10, 2003
Submit 2 Copies to appropriate
District Office in accordance

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

	Release Notification and Corrective Action											
							OPERA	ATOR Initial Report Final Rep				
ı []	Name of Co	mpany: P	ogo Produci	ng Comp	any		Contact: Pat Ellis					
					79702-7340		Telephone l	No. (432) 685-8	100			
' []	Facility Nan	ne: State	CM #2 Batte	ery			Facility Typ	e: Tank Battery	•			
	Surface Ow	ner State	of NM		Mineral C	Owner	State of NI	Л		Lease N	lo.	
					LOCA	ATIO	N OF RE	LEASE				
	Unit Letter B	Section\ 2	Township 18S	Range 33E	Feet from the		h/South Line	Feet from the	East/	West Line	County Lea	
ΙL				La	titude		Longitu	de	l			
				La			OF REL					
٦	Type of Relea	ase Spill						Release 50BO/30	0BW	Volume R	Recovered Unk	nown
	Source of Rel		Battery				Date and F 05/10/07	lour of Occurrenc	ce		Hour of Discove at 1:00 PM	ery
╟	Was Immedia	ate Notice C	Given?				If YES, To	Whom?		03/11/07	at 1.00 f W	
'			\boxtimes	Yes	No 🗌 Not Re	equired						
	By Whom? Lisa Hunt						Date and F 05/11/07					
	Was a Water	course Read	ched?				If YES, Volume Impacting the Watercourse.					
				Yes 🛚	No			1 0				
	If a Watercou	rse was Im	pacted, Descr	ibe Fully.	*			_				
1 1	Describe Cau Oil and water		em and Reme	dial Actio	n Taken.*							
IL												
			and Cleanup			ovimat	ely 6 inches of	surface soil were	evenua	ted at the cit	te The site was	then hand
								bons were below				then hand
	I hereby certi	fy that the	information g	iven above	e is true and comp	lete to	the best of my	knowledge and u	indersta	ınd that purs	uant to NMOC	
								nd perform correctarked as "Final R				
								ion that pose a thr				
Ц,	or the enviror	nment. In a	ddition, NMC	OCD accep				e the operator of				
	federal, state,	or local lav	ws and/or regi	ulations.								
H	,	/) /	,				OIL CONSERVATION DIVISION					
} <u> </u>	Signature:	Lu	LL. E	Cly					,	a	Ohuson	- ·
. .	Printed Name	e Patrick l	L. Ellis				Approved by	District Supervis		(ID 0 * ! *		
	- THITCH T TAIL	o. Tutton	D. DIII0					0 17	EIV	<u>'IRONME</u>	NTAL ENG	INEER
' ·	Title: Enviro	nmental He	alth and Safet	y Supervi	sor		Approval Da	te: 9.13.07		Expiration	Date:	
L	E-mail Addre	ess: <u>ellisp@</u>	pogoproduci	ng.com			Conditions o	f Approval:			Attached [ا ا
$\ \cdot\ $	Date: 7/1	6/07	Phone	: (432) 68	5-8148						Attached	J
			ets If Necess		5 51 10		OCC					