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

### State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 GW: 275'

Form C-141 Revised October 10, 2003

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

### Release Notification and Corrective Action

						OPERA"	ror		Initi	ial Report 🛛 F	inal Rep
Name of Co		COG OP	Personal Control of the Party o	and the second district of the second district of the second of the seco		Contact		obert McNe	and the owner, where		
Address				idland, TX 797		Telephone I		132-230-007	SECTION AND ADDRESS.		
Facility Nat	ne	LPC 31	Federal	#001		Facility Typ	e	Tank Batter	у		
Surface Ow	ner Fede	ral		Mineral (	wner			L	ease l	No. (API#) 30-025-	37440
				LOCA	ATION	OF RE	LEASE				
Unit Letter G	Section 31	Township 18S	Range 32E	Feet from the	North	South Line	Feet from the	Enst/W/est	Line	County Lea	
				Latitude 32.7		Longi OF REL	tude 103.80451 FASE				
		l produced wa	ter			Volume of	Release 20bbls bbls of produced	water		16bbls of prod	bbls of o
Source of Re	lease Heate	r treater				Date and H	lour of Occurrences			Hour of Discovery 13 02:00a.m.	
Was Immedi	ate Notice (		Yes [	No Not R	equired	If YES, To				James Amos - BLM	
By Whom?							bur 11-18-2013				
Was a Water	course Read		Yes 🗵	] No		If YES, Vo	lume Impacting (	the Watercou	rse.		
f a Watercon	irse was Im	pacted, Descr	ibe Fully.								
Describe Are Initially 20bb 18bbls of pro	a Affected	and Cleanup /	Action Takeroduced w	ater were releases	i from a	gasket on a h	eater treater that	failed. We we	ere ab	le to recover Obbls of	
regulations al public health should their c or the environ	or the environment. In a	are required to ronment. The save failed to a	acceptant acceptant adequately ICD accep	ed/or file certain r se of a C-141 repo investigate and r	elease no ort by the emediate	NMOCD me contamination	nd perform correct arked as "Final R on that pose a thr	ctive actions f eport" does n	or rel ot rel wate	suant to NMOCD rule eases which may enda ieve the operator of his r, surface water, huma compliance with any of	inger ability in health
							OIL CON	SERVAT	ION	DIVISION	
Signature: The stuf						Annenued by	District Supervis	or			
Printed Name	:	Rober	Grubbs .	lr.			- Julian Sulvei Als				
Title:		Senior Enviro	nmental C	oordinator	1	Approval Dat	e:	Expir	ation	Date:	
E-mail Addre	ss:	rgrubbs@	concho.c	om		Conditions of	Approval:			Attached 🗀	
	27-2013 tional Shee	ets If Necess	Phone:	432-661-660	1					1	

		SITE INFOR	RMATION							
		Report Type:	Work Plan	1						
General Site In	formation;									
Site:		LPC 31 Federal #1								
Company:		COG Operating LLC								
	ship and Range	Sec 31 T 18S	R 32E							
Lease Number		API # 30-025-37440								
County:		Lea County								
GPS:		32.70587° N	V		103.80451° W					
Surface Owner Mineral Owner		Federal								
Directions:		miles, turn NORTH onto CR 1 lease road and continue for a miles, turn EAST onto lease r	126A and continue px8 miles, road	for approximate curves SOUTH						
Release Data:		11/19/0012								
Date Released:		11/18/2013			AND PROPERTY OF THE PROPERTY OF					
Type Release:		Oil and Produced Water								
Source of Conta Fluid Released:		Failed gasket	and water							
		20 bbls oil 50 bbls produced water								
luids Recovered:		0 bbls oil 16 bbls produced water								
	THE RESERVE AND ADDRESS OF THE PARTY OF THE	O DDIS OII 16 DDIS PRODUC	ed water		A TANK OF THE PARTY OF THE PART					
Official Commi	THE RESERVE AND ADDRESS OF THE PARTY OF THE	O DDIS OII 16 DDIS produc		Ike Tavarez						
Official Commi Name:	unication:			lke Tavarez Tetra Tech						
Official Commo Name: Company:	Robert McNeil	TC		Tetra Tech	ng					
Official Commo Name: Company:	Robert McNeil COG Operating, L	LC ler			ng					
Official Common Name: Company: Address:	Robert McNeil COG Operating, I	LC ler		Tetra Tech 4000 N. Big Spri Ste 401	ng					
Official Common Name: Company: Address: City:	Robert McNeil COG Operating, L One Concho Cent 600 W. Illinois Av	LC ler		Tetra Tech 4000 N. Big Spri Ste 401 Midland, Texas	ng					
Pluids Hecovered Official Commit Name: Company: Address: City: Phone number: Fax:	Robert McNeil COG Operating, I One Concho Cent 600 W. Illinois Av	LC ler		Tetra Tech 4000 N. Big Spri Ste 401						

Depth to Groundwater:		Ranking Score		Site Data
<50 ft		20	-	2.74
50-99 ft		10		
>100 ft.		0	10 mm 1 m	
WellHead Protection:		Ranking Score		Site Data
Water Source <1,000 ft., Private <	200 ft.	20		PERSONAL PROPERTY.
Water Source >1,000 ft., Private >	200 ft.	0	Section 1985	0
Surface Body of Water:		Ranking Score		Site Data
<200 ft.		20		the second second
200 ft - 1,000 ft.	1. 1. 1. 1. 1.	10	stationarile and the second	
>1,000 ft.		0		0
	The Control of the Control			HOBBS OCD
Total Ranking S	core:	0		4 T
HOBBS OCD		Parket St.		MAY O O
	Accept	able Soil ARAL (n	g/kg)	MAY 28
MAY 2 8 2014	Benzene	Total BTEX	TPH	
MAI 20 2014	10	50	5,000	RECEIVED

RECEIVED



May 16, 2014

Mr. Geoffrey Leking **Environmental Engineer Specialist** Oil Conservation Division, District 1 1625 North French Drive Hobbs, New Mexico 88240

Work Plan for the COG Operating LLC., LPC 31 Federal #1, Unit G, Section 31, Township 18 South, Range 32 East, Lea County, New Mexico.

Mr. Leking:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill from the LPC 31 Federal #1, Unit G, Section 31, Township 18 South, Range 32 East, Lea County, New Mexico (Site). The spill site coordinates are N 32.70587°, W 103.80451°. The site location is shown on Figures 1 and 2.

### Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on November 18, 2013, and released approximately twenty (20) barrels of oil and fifty (50) barrels of produced water from a failed gasket on a heater treater with zero (0) barrels of oil and sixteen (16) barrels of produced water recovered. The spill occurred on the pad inside the tank firewalls measuring approximately 30' x 100'. The initial C-141 form is enclosed in Appendix A.

### Groundwater

No water wells were listed within Section 31. According to the NMOCD groundwater map, the average depth to groundwater in this area is approximately 275' below surface. The average depth to groundwater map is shown in Appendix B.

### Regulatory

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.

### Soil Assessment and Analytical Results

On December 12, 2013, Tetra Tech personnel inspected and sampled the spill area. Three (3) auger holes (AH-1, AH-2, and AH-3) were installed using a stainless steel hand auger to assess the impacted soils. Selected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The results of the sampling are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, none of the auger hole samples were above the RRAL's for TPH or BTEX. The area of AH-1 did show a chloride high of 4,670 mg/kg at 0-1' and declined to 231 mg/kg at 1.1.5' below surface. The deeper samples showed chloride spikes to 2,700 mg/kg at 7'-7.5', 1,260 mg/kg at 8-8.5' and 1,490 mg/kg at 9-9.5' below surface.

The area of auger hole (AH-2) showed elevated chloride concentrations down to 2' to 3' below surface and declined with depth, then spiked to 1,420 mg/kg at 6'-6.5' below surface. The area of auger hole (AH-3) showed elevated chloride concentrations with a chloride high of 4,700 mg/kg at 6'-6.5' below surface. None of the auger holes were vertically defined

On March 11, 2014, Tetra Tech personnel installed two (2) boreholes (BH-1 and BH-2) using a drilling rig to vertically define the chloride impact. Due to rig accessibility, BH-2 was installed between AH-1 and AH-2 and BH-3 was installed in the area of AH-3. The borehole locations are shown on Figure 3. The sampling results are summarized in Table 1. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C.

Borehole (BH-1) showed elevated TPH and BTEX concentrations above the RRAL which then declined with depth to below the RRAL, at 6'-7' below surface. Borehole (BH-2) did not show TPH or BTEX concentrations above the RRAL.

Borehole (BH-1) did not show any significant chloride impact to the soils, with a chloride high of 952 mg/kg at 2'-3' below surface. In addition, the area of borehole (BH-2) also did not show a significant chloride impact to the soils. However, the sampling did show a chloride spike of 1,090 mg/kg at 6'-7' below surface.



#### Work Plan

According to the borehole data, BH-1 and BH-2 did not correlate to the auger hole data. Based on the evaluation, the impacted areas inside the facility appear to have hot spots of the hydrocarbon and chloride impacts in the subsurface soils. Due to the location of the spill, limited excavation will be performed around equipment, production and electrical lines and any remaining impact will be deferred until the abandonment of the facility.

COG proposes to remove all depths highlighted (green) in Table 1. The areas will be excavated to depths of approximately 1.0' to 3.0' below surface. The areas of AH-1 and AH-2 will be excavated to a depth of 1.0' and 2.0', respectively. The area of AH-3 (BH-1) will be excavated to a depth of 3.0' and then capped with either liner or clay material. All of the excavated material will be transported offsite for proper disposal. Once final excavation depths are achieved, the site will be backfilled with clean material and brought to grade.

Due to the location of the spill, the proposed excavation depths or deeper excavation may not be achieved due to wall cave ins, limited access, oil and gas equipment, electrical, structures or lines which may not be feasible or practicable to be removed due to safely concerns. As such, Tetra Tech will excavate the soils to the maximum extent practicable.

Upon completion, a final report will be submitted to the NMOCD. If you have any questions or comments concerning the assessment or the proposed remediation activities for this site, please call me at (432) 682-4559.

Respectfully submitted,

TETRA/TECH

Ike Tavarez, PG Project Manager

cc: Robert McNeill - COG cc: Jeff Robertson - BLM Table 1
COG Operating LLC.
LPC 31 Federal #1
Lea County, New Mexico

Total Chloride	(mg/kg) (mg/kg)	<0.0200 4,670	- 231	- 187	- 231	- 197	- 373	- 378	- 2,700	- 1,260	- 1,490	35.8 6.140	- 2,070	- 1,330	- 903	- 113	- 133	- 1,420	9.48 738	- 643	- 714	1,090	- 385	-	188	+	
Xylene		<0.0200 <			,				,			24.7	đ	U		,			8.50						300	,	
Ethlybenzene	(mg/kg)	<0.0200	-		-	•		1	,		-	5.64	•			•	,	-	0.981		1	í	,			-	
Toluene	(mg/kg)	<0.0200	,	'				,	,	•		5.35	C	1	•	•	,	-	<0.0400	,	-	-				1	
Benzene	(mg/kg)	<0.0200	,	,	,	1		1	•	•		0.110	c	•	-	,		,	<0.0400		,		-				
6)	Total	<50.0		-	1		,		-		,	2700	4:34	1					2,848		•			,			
TPH (mg/kg)	DRO	<50.0	-	,			,	Y		-	•	2090	<50.0	1	-		,		2,780	-		,	,			-	
	GRO	<4.00		,		-	-		-	•	١	610	4.34	•		,	•		9.79			1		'			
Status	Removed																										
Soil	In-Situ	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		×	××
BEB	Depth (ft)	1	•	•	•	,	,	,	1	•	1	1				•	1	,		•	1	1					
Sample	Depth (ft)	0-1	1-1.5	2-2.5	3-3.5	4-4.5	5-5.5	6-6.5	7-7.5	8-8.5	9-9.5	0-1	1-1.5	2-2.5	3-3.5	4-4.5	5-5.5	6-6.5	0-1	2-3	4-5	2-9	9-10	14-15		19-20	19-20
Cample Date		12/12/2013	8			I	2	2	3	2	=	12/12/2013	=					=	3/11/2014	2	2	2					
Comple ID	outpue II	AH-1										AH-2			1				BH-2								

COG Operating LLC. LPC 31 Federal #1 Lea County, New Mexico

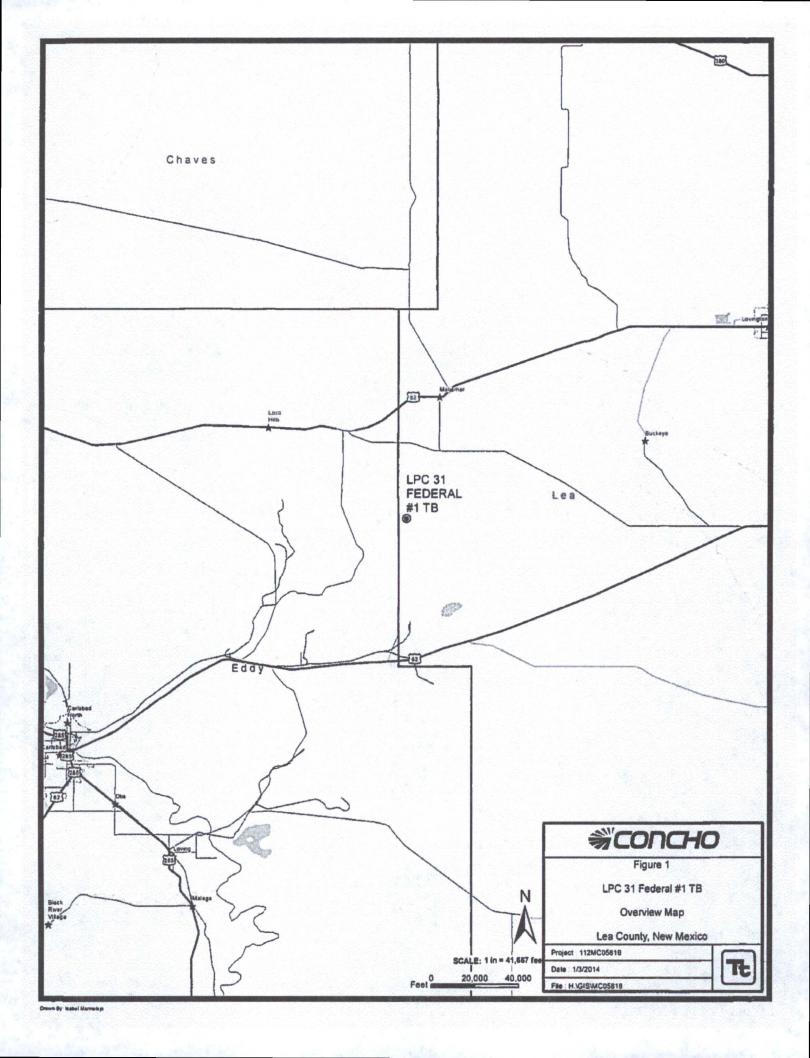
		Sample	BEB	Soil 8	Status		TPH (mg/kg)	6	Benzene	Toluene	Ethivbenzene	Xvlene	Total	Chlorida
	Sample Cate	Depth (ft)	Depth (ft)	In-Situ	Removed	GRO	DRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	BTEX (mg/kg)	(mg/kg)
	12/12/2013	0-1	D	×		5.61	<50.0	5.61	<0.0200	<0.0200	0.0902	1.0.1	1.10	3,560
		1-1.5	1	×		i	ı	O	0	0	•	1	•	2,350
		2-2.5	,	×		•		ı	1	t	0		.0	1,420
		3-3.5		×		•	a	•	b	1	1	0		454
	=	4-4.5		×								•		579
		5-5.5	-	×			,				•			1,290
		6-6.5		×							1			4,700
		7-7.5		×							1			2,820
$\neg$		8-8.5		×		٠	•					•	•	3,780
	3/11/2014	0-1	•	×		7,120	433	7,553	<0.400	<0.400	521	3,710	4,231	797
		2-3	Ε.	×		4,510	188	4,698	<0.100	<0.100	79.4	582	199	952
		4-5	•	×		386	54.0	440	<0.0200	0.0981	48.6	589	638	571
		2-9		×		-	•		<0.0200	<0.0200	0.334	2.67	3.00	200
		9-10	-	×		-								200
		14-15		×		-	•							347
		19-20	•	×		1			•		1		•	114

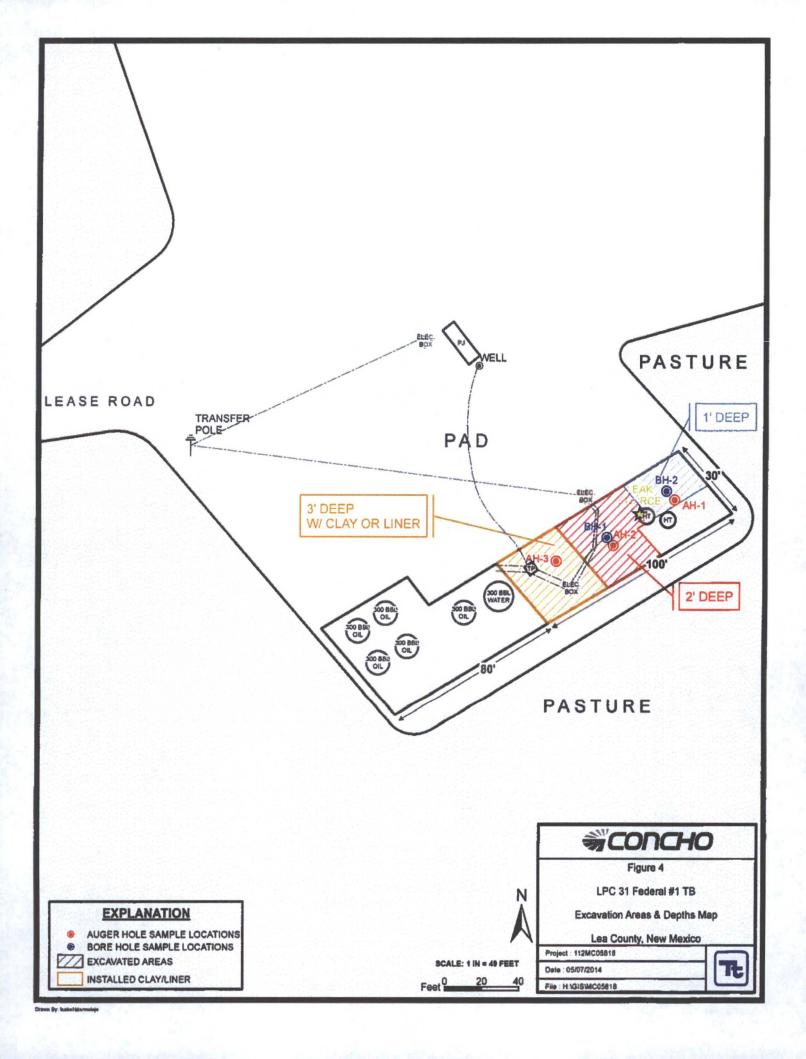
(-) Not Analyzed

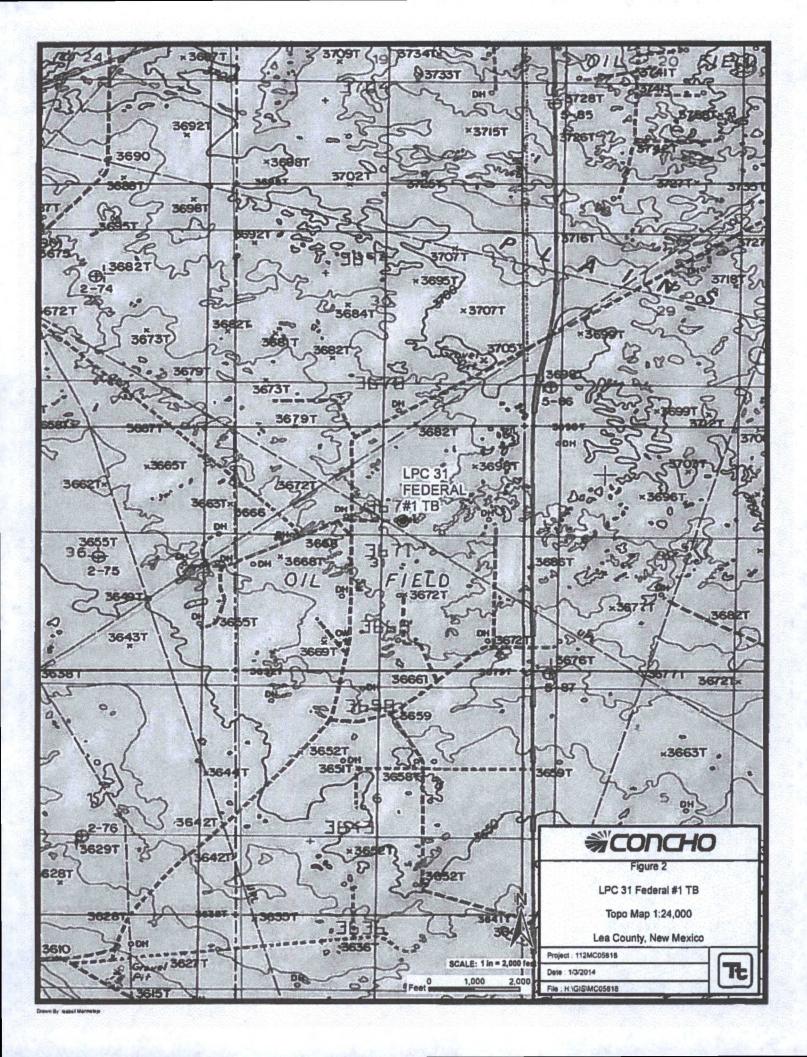
(BEB) Below Excavation Bottom

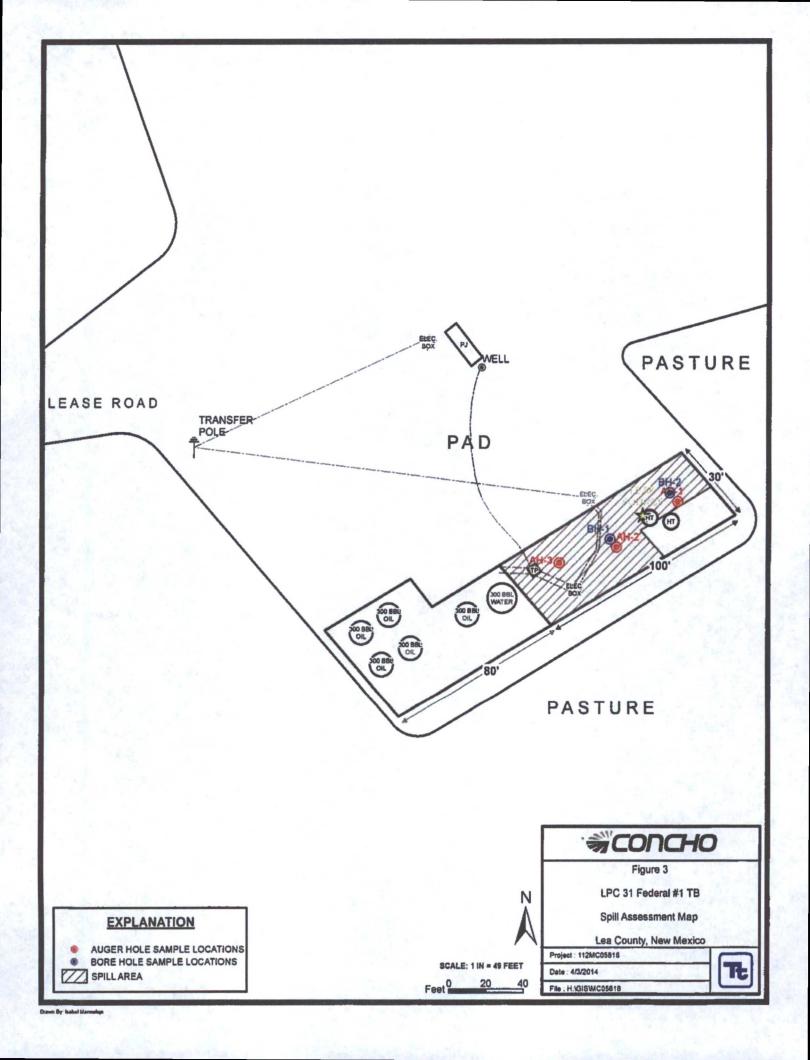
Proposed Excavation Depth

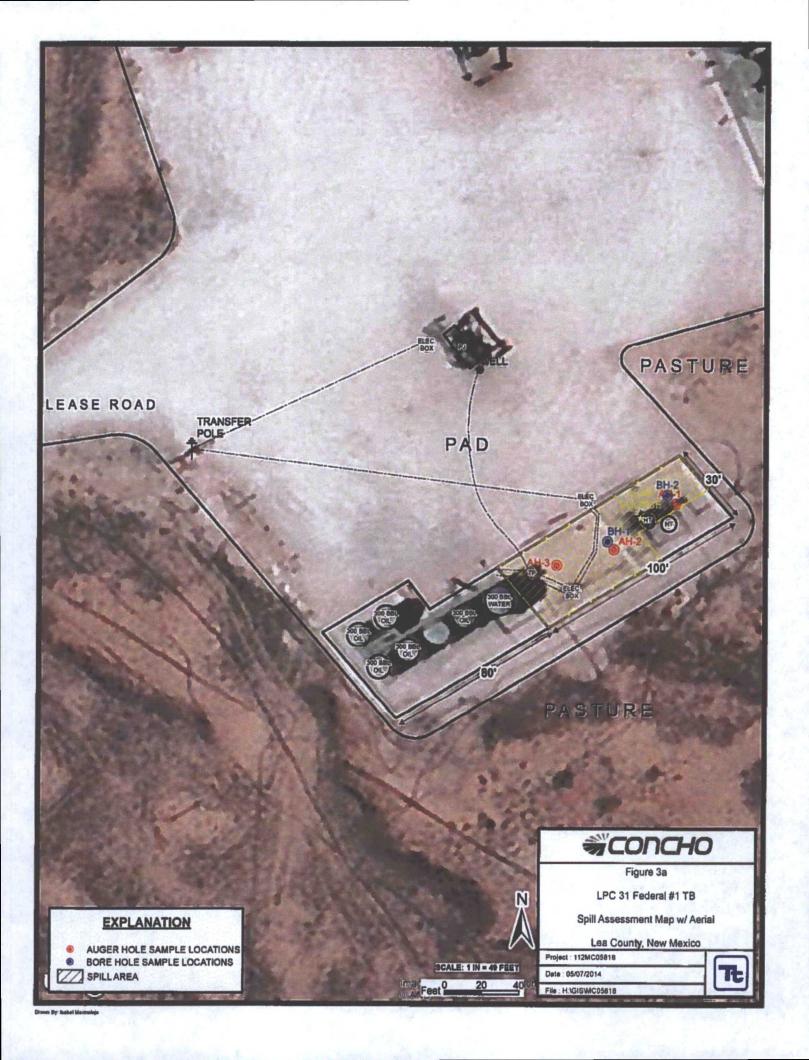
Proposed cap - Liner or clay









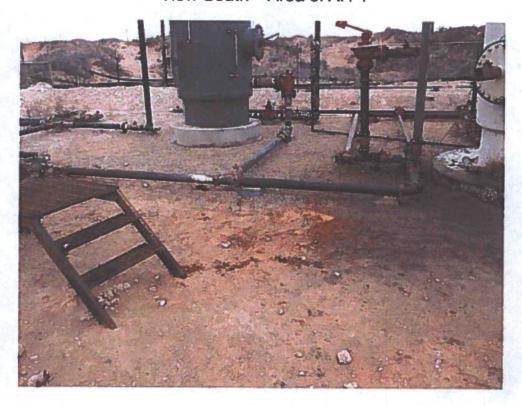


## COG Operating LLC LPC 31 Federal #1 Lea County, New Mexico





View South - Area of AH-1



View East - Area of AH-2

### COG Operating LLC LPC 31 Federal #1 Lea County, New Mexico





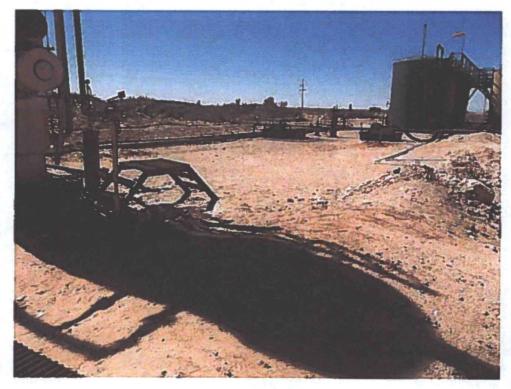
View Southwest - Area of AH-3



View South - Area of BH-1

## COG Operating LLC LPC 31 Federal #1 Lea County, New Mexico





View Southwest - Area of BH-2

# Water Well Data Average Depth to Groundwater (ft) COG -LPC 31 Federal #1 Lea County, New Mexico

	17 S	outh	3	1 East			17	South	32	East			1	7 Sc	outh	- 35	33 East	Sant at
3	5	4	3	2	1	6	5	4 82 Maljan		2 60	1 225	6 1	5		4	3 1	55 2 158	1 15
,	8	9	10	\$1	12	7	8	9	10 132	11 70	12	7 1	67 8		9	10	11	12
8	17	16	15	14	13	18	17	16	15	14	120	18	17:		161	15	14	13
-		1	1999						1			188	180			1	1	165
9	20	21	22	23	24	19	20	21	22	23	24	19	20		21	22	23	24
		1			1	1.14							190		100		115	
30	29	28	27	26	25	30 180	29	28	27	26	25	30	69 29	60	28	27	26	25
11	32	33	34	35	36	dry 31	32	33	34	35	36	31	32		33	34	35	36
"	100	-	271	100			-	~	-		00	10.	36		120	-	155	100
			1871	_			_								120		1100	_
	18 S	outh	3	1 East			18	South	32	East	,		11	8 Sc	uth		33 East	
5	5	4	3	2	1	6	5	4 6	5 3	2	1	6	5		4	3 60	2	1
7	8	9	10	11	12	7 460	8	9	10	11	12	7	8	100	9	10	11	12 14
	11				400	82	1000									62	46	140
8	17	16	15 98	14	13	18	17	16	15	14	13	18	17		16	15	14	13
19	20	21	22	23	24	19	20	21	22	23	24	19	20	_	21	22	36	<del>60</del>
19	20	21	22	23	24	19	164	21	429	۵	2.		-		21	22	23	100
30	29	28	27	26	25	30	29	28	27	26	25	>140 30	29		28	27	26	195
										100		35			-	-		-
31	32	33	34	35	36	31	32	33	34	35	36	31	32		33	34	35	36
				261		SITE			117	1000					177			
	19 S	outh	3	1 East			19	South	32	East			19	9 So	uth		33 East	
5	5	4	3	2	1	6	5	4	3	2	1	6	5		4	3	2	1
7	SITE	9	10	11	12	7	8	9	10	11	12	2	8	_	9	10	11	12
	1	ľ	10		"		365		1.0			ľ	ľ		,	100	1"	16
18	17	16	15	14	13	18	17	16	15	14	13 135	18	17		16	15	14	13
		1					60	142.16			dry	340	116	5				14.4
19	20	21	22	23	24	19	20	21	22	23	24	19	20		21	22	23	24
10	100	100	07	000	000	102	345	000	0.00	00	0.5	-			00 400	07		00
30	29	28	27	26	25	30	29	28	27	26	25	30	29		28 130	21	26 92	25
31	32	180	34	35	36	31	32	33	34	35	36	31	32		dry 33	34	35	36
	1	101		1	130	100			250				185		24.1			
	-	1101			1.00				1244			-	100	-	THE OWNER OF THE OWNER,			-

USGS Well Reports

Geology and Groundwater Conditions in Southern Eddy, County, NM

NMOCD - Groundwater Data

Field water level

New Mexico Water and Infrastructure Data System

## **Summary Report**

Work Order: 14031827

(Corrected Report)

Ike Tavarez Tetra Tech 1901 N. Big Spring St.

Midland, TX 79705

Report Date: April 16, 2014

Work Order: 14031827

Project Location: Lea Co, NM

COG/LPC 31 Fed #1 Project Name:

Project Number: 112MC05818

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
358268	BH-1 0-1'	soil	2014-03-11	00:00	2014-03-18
358269	BH-1 2-3'	soil	2014-03-11	00:00	2014-03-18
358270	BH-1 4-5'	soil	2014-03-11	00:00	2014-03-18
358271	BH-1 6-7'	soil	2014-03-11	00:00	2014-03-18
358272	BH-1 9-10'	soil	2014-03-11	00:00	2014-03-18
358273	BH-1 14-15'	soil	2014-03-11	00:00	2014-03-18
358274	BH-1 19-20'	soil	2014-03-11	00:00	2014-03-18
358275	BH-2 0-1'	soil	2014-03-11	00:00	2014-03-18
358276	BH-2 2-3'	soil	2014-03-11	00:00	2014-03-18
358277	BH-2 4-5'	soil	2014-03-11	00:00	2014-03-18
358278	BH-2 6-7'	soil	2014-03-11	00:00	2014-03-18
358279	BH-2 9-10'	soil	2014-03-11	00:00	2014-03-18
358280	BH-2 14-15'	soil	2014-03-11	00:00	2014-03-18
358281	BH-2 19-20'	soil	2014-03-11	00:00	2014-03-18
358282	BH-2 24-25'	soil	2014-03-11	00:00	2014-03-18
358283	BH-2 29-30°	soil	2014-03-11	00:00	2014-03-18
358284	BH-2 34-35'	soil	2014-03-11	00:00	2014-03-18

		E	TEX		TPH DRO - NEW	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
358268 - BH-1 0-1'	< 0.400 1	<0.400 q	521 Je,Qs	3710 Ja Qa	433 q.	7120 2Ja.Q.
358269 - BH-1 2-3'	< 0.100	<0.100 Qa	79.4 Ja,Qa	582 Ja Qe	188	4510 3 Jan.Qu

continued ...

<sup>&</sup>lt;sup>1</sup>Analyzed previously at 1x with no benzene. Dilution due to xylenes.

<sup>&</sup>lt;sup>2</sup>Analyzed out of hold time.

<sup>&</sup>lt;sup>3</sup>Analyzed out of hold time.

### ... continued

		В	TEX		TPH DRO - NEW	TPH GRO
Sample - Field Code	Benzene (rog/Kg)	Toluene	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO
358270 - BH-1 4-5'	< 0.0200	0.0981 Qs	48.6 Ja,Qs	589 Je,Qe	54.0	386 q.
358271 - BH-1 6-7' 358275 - BH-2 0-1'	<0.0200 <0.0400 <sup>4</sup>	<0.0200 q* <0.0400	0.334 Q. 0.981	2.67 Q. 8.50	2780 q.	67.6

Sample: 358268 - BH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		767	mg/Kg	5

Sample: 358269 - BH-1 2-3'

Param	Flag	Result	Units	RL
Chloride		952	mg/Kg	5

Sample: 358270 - BH-1 4-5'

Param	Flag	Result	Units	RL
Chloride		571	mg/Kg	5

Sample: 358271 - BH-1 6-7'

Param	Flag	Result	Units	RL
Chloride		500	mg/Kg	5

Sample: 358272 - BH-1 9-10'

Param	Flag	Result	Units	RL
Chloride		500	mg/Kg	5

Sample: 358273 - BH-1 14-15'

Param	Flag	Result	Units	RL
Chloride		347	mg/Kg	5

Sample: 358274 - BH-1 19-20'

<sup>&</sup>lt;sup>4</sup>Dilution due to hydorcarbons.

Report Date: April 16, 2014		Work Order: 14031827	Page Number: 3 of 4	
Param	Flag	Result	Units	RL
Chloride		114	mg/Kg	5
Sample: 358275 -	BH-2 0-1'			
Param	Flag	Result	Units	RL
Chloride		738	mg/Kg	5
Sample: 358276 -	BH-2 2-3'			
Param	Flag	Result	Units	RL
Chloride		643	mg/Kg	5
Sample: 358277 -	BH-2 4-5'			
Param	Flag	Result	Units	RL
Chloride		714	mg/Kg	5
Sample: 358278 -	BH-2 6-7'			
Param	Flag	Result	Units	RL
Chloride		1090	mg/Kg	5
Sample: 358279 -	BH-2 9-10'			
Param	Flag	Result	Units	RL
Chloride		385	mg/Kg	5
Sample: 358280 -	BH-2 14-15'			
Param	Flag	Result	Units	RL
Chloride		337	mg/Kg	5
Sample: 358281 -	BH-2 19-20'			
Param	Flag	Result	Units	RL
Chloride		361	mg/Kg	5

Report Date: April 16, 2014		Work Order: 14031827	Page	Number: 4 of 4		
Sample: 358282 - BH-2 24-25'						
Param	Flag	Result	Units	RL		
Chloride		529	mg/Kg	5		
Sample: 358283						
Param	Flag	Result	Units	RL		
Chloride		95.0	mg/Kg	5		
Sample: 358284	- BH-2 34-35'					
Param	Flag	Result	Units	RL		
Chloride		90.0	mg/Kg	5		

# **Summary Report**

Ike Tavarez Tetra Tech 1910 N. Big Spring Street Midland, TX 79705

Report Date: January 2, 2014

Work Order: 13121621

Project Location: Lea Co, NM

Project Name: COG/LPC 31 Fed #1

Project Number: 112MC05818

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
349055	AH-1 0-1'	soil	2013-12-12	00:00	2013-12-16
349056	AH-1 1-1.5'	soil	2013-12-12	00:00	2013-12-16
349057	AH-1 2-2.5'	soil	2013-12-12	00:00	2013-12-16
349058	AH-1 3-3.5'	soil	2013-12-12	00:00	2013-12-16
349059	AH-1 4-4.5'	soil	2013-12-12	00:00	2013-12-16
349060	AH-1 5-5.5'	soil	2013-12-12	00:00	2013-12-16
349061	AH-1 6-6.5'	soil	2013-12-12	00:00	2013-12-16
349062	AH-1 7-7.5'	soil	2013-12-12	00:00	2013-12-16
349063	AH-1 8-8.5'	soil	2013-12-12	00:00	2013-12-16
349064	AH-1 9-9.5'	soil	2013-12-12	00:00	2013-12-16
349065	AH-2 0-1'	soil	2013-12-12	00:00	2013-12-16
349066	AH-2 1-1.5'	soil	2013-12-12	00:00	2013-12-16
349067	AH-2 2-2.5'	soil	2013-12-12	00:00	2013-12-16
349068	AH-2 3-3.5'	soil	2013-12-12	00:00	2013-12-16
349069	AH-2 4-4.5'	soil	2013-12-12	00:00	2013-12-16
349070	AH-2 5-5.5'	soil	2013-12-12	00:00	2013-12-16
349071	AH-2 6-6.5'	soil	2013-12-12	00:00	2013-12-16
349072	AH-3 0-1'	soil	2013-12-12	00:00	2013-12-16
349073	AH-3 1-1.5'	soil	2013-12-12	00:00	2013-12-16
349074	AH-3 2-2.5'	soil	2013-12-12	00:00	2013-12-16
349075	AH-3 3-3.5'	soil	2013-12-12	00:00	2013-12-16
349076	AH-3 4-4.5'	soil	2013-12-12	00:00	2013-12-16
349077	AH-3 5-5.5'	soil	2013-12-12	00:00	2013-12-16
349078	AH-3 6-6.5'	soil	2013-12-12	00:00	2013-12-16
349079	AH-3 7-7.5'	soil	2013-12-12	00:00	2013-12-16
349080	AH-3 8-8.5'	soil	2013-12-12	00:00	2013-12-16

		BTEX			TPH DRO - NEW	NEW   TPH GRO
Sample - Field Code	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene	DRO (mg/Kg)	GRO (mg/Kg)
349055 - AH-1 0-1'	< 0.0200	< 0.0200	< 0.0200	< 0.0200	<50.0	< 4.00
349065 - AH-2 0-1'	< 0.0200	< 0.0200	< 0.0200	< 0.0200	<50.0	< 4.00
349072 - AH-3 0-1'	< 0.0200	< 0.0200	0.0902	1.01	<50.0	5.61

Sample: 349055 - AH-1	Sample	349055	-	AH-1	0-1'
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Param	Flag	Result	Units	RL
Chloride		4670	mg/Kg	4

### Sample: 349056 - AH-1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		231	mg/Kg	4

### Sample: 349057 - AH-1 2-2.5'

Param	Flag	Result	Units	RL
Chloride		187	mg/Kg	4

### Sample: 349058 - AH-1 3-3.5'

Param	Flag	Result	Units	RL
Chloride		231	mg/Kg	4

### Sample: 349059 - AH-1 4-4.5'

Param	Flag	Result	Units	RL
Chloride		197	mg/Kg	4

### Sample: 349060 - AH-1 5-5.5'

Param	Flag	Result	Units	RL
Chloride		373	mg/Kg	4

### Sample: 349061 - AH-1 6-6.5'

deport Date: January 2, 2014		y 2, 2014 Work Order: 13121621		Number: 3 of 5
sample 349061 con	itinued			
Param	Flag	Result	Units	RL
Param	Flag	Result	Units	RL
Chloride		378	mg/Kg	4
Sample: 349062	- AH-1 7-7.5'			
Param	Flag	Result	Units	RL
Chloride		2700	mg/Kg	4
Sample: 349063	- AH-1 8-8.5'			
Param	Flag	Result	Units	RL
Chloride		1260	mg/Kg	4
Sample: 349064				
Contract the second sec	Flag	Result 1490	Units mg/Kg	RL 4
Clıloride Sample: 349065	- AH-2 0-1'	1490	mg/Kg	4
Chloride Sample: 349065 ·				
Chloride Sample: 349065 · Param Chloride	- AH-2 0-1' Flag	1490 Result	mg/Kg Units	4 RL
Chloride  Sample: 349065  Param Chloride  Sample: 349066	- AH-2 0-1' Flag	Result 6140  Result	mg/Kg Units mg/Kg Units	4 RL
Chloride  Sample: 349065  Param Chloride  Sample: 349066	- AH-2 0-1' Flag - AH-2 1-1.5'	1490 Result 6140	mg/Kg Units mg/Kg	RL 4
Chloride	- AH-2 0-1' Flag - AH-2 1-1.5' Flag	Result 6140  Result	mg/Kg Units mg/Kg Units	RL 4
Chloride Sample: 349065 Param Chloride Sample: 349066 Param Chloride	- AH-2 0-1' Flag - AH-2 1-1.5' Flag	Result 6140  Result	mg/Kg Units mg/Kg Units	RL 4

Sample: 349068 - AH-2 3-3.5'

Report Date: January 2, 2014		Work Order: 13121621	Page Number: 4 of 5	
Param	Flag	Result	Units	RL
Chloride		903	mg/Kg	4]
Sample: 349069	- AH-2 4-4.5'			
Param	Flag	Result	Units	RL
Chloride		113	mg/Kg	4
Sample: 349070	- AH-2 5-5.5'			
Param	Flag	Result	Units	RL
Chloride		133	mg/Kg	4
Sample: 349071	- AH-2 6-6.5'			
Param	Flag	Result	Units	RL
Chloride		1420	mg/Kg	4
Sample: 349072 -	- AH-3 0-1'			
Param	Flag	Result	Units	RL
Chloride		3560	mg/Kg	- 4
Sample: 349073 -	- AH-3 1-1.5'			
Param	Flag	Result	Units	RL
Chloride		2350	mg/Kg	- 4
Sample: 349074 -	AH-3 2-2.5'			
Param	Flag	Result	Units	RL
Chloride		1420	mg/Kg	4
Sample: 349075 -	AH-3 3-3.5'			
Param	Flag	Result	Units	RL
Chloride		454	mg/Kg	41

Report Date: Janu	tary 2, 2014	Work Order: 13121621	Page Number: 5 of		
Sample: 349076 - AH-3 4-4.5'					
Param	Flag	Result	Units	RL	
Chloride		579	mg/Kg	4	
Sample: 349077	- AH-3 5-5.5'				
Param	Flag	Result	Units	RL	
Chloride		1290	mg/Kg	4	
Sample: 349078	- AH-3 6-6.5'				
Param	Flag	Result	Units	RL	
Chloride		4700	mg/Kg	-4	
Sample: 349079	- AH-3 7-7.5'				
Param	Flag	Result	Units	RL	
Chloride		2820	mg/Kg	4	
	- AH-3 8-8.5'				
Sample: 349080	- 1111-0 0-0:0				
Sample: 349080 Param	Flag	Result	Units	RL	