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

State of New Mexico ENERGEIVED

Oil Conservation Division MAR 02 201 Submit to appropriate District Office

1220 South St. Francis DrOCD ARTESIA AMENDED REPORT

Form C-101

May 27, 2004

1220 S. St. Fr	1220 S. St. Francis Dr., Santa Fe, NM 87505 Santa Fe, NM 87505										
APPL	ICATI	ON FO	R PERMIT	TODR	ILI), RE-1	ENTER, I	DEEPEN	N, PLUGBA	CK, OR AI	OD A ZONE	
Operator Name and Address Cimarex Energy Co. of Colorado								OGRID Number 162683 —			
600 N. Marienfeld, Ste. 600							,	³ API Number			
Midland, 7	1				30-015- 38599						
³ Prope	~ ~			Property:				_			
	<u> </u>	Proposed Pool 1		эрікец	ail SWD 001 001 10 Proposed Pool 2						
					<sup>7</sup> Surface	Location		,			
UL or lot no.	Section 5	Township 17S	Range 29E	Lot Idn	Feet from 26		th/South line South	Feet from the 1980	East/West line West	County Eddy	
			<sup>8</sup> Propo	sed Botton	n Hole Loca	tion If Differ	rent From	Surface			
UL or lot no.	Section	Township	Range	Lot Idn	Feet fro	om the Nort	th/South line	Feet from the	East/West line	County	
	·				itional We						
New	Type Code / Well		12 Well Type C SWD	/		le/Rotary	14 Lease Type Code S		<sup>15</sup> Ground Level Elevation 3638 GL		
			<sup>17</sup> Proposed De <b>9400</b>	epth 🗸	h September 18 Formation Cisco/Canyo			<sup>19</sup> Contractor N/A	<sup>20</sup> Spud Date When Approved		
				Distance f	from nearest fres	earest fresh water well			Distance from nearest surface water		
Pit: Liner: Syntheticmils thick Clay Pit Volume:bbls Drilling Method:											
Close	ed-Loop S <u>ys</u>	stem 🛛	Flowback		1843			Brine Diesel/C	oil-based 🔲 Ga	s/Air 🔲	
		· ·	2	Propose	d Casing a	ind Cemen	nt Program	m			
Hole Size		Casing Size		Casing weight/foot		Setting Depth			Cement	Estimated TOC	
17½ 12¼		13¾ 9¾		48		450 1200			00   70	Circ Circ	
83/4		7		26		9400			50	Circ	
22 Describe t	he propose	d program	f this application	is to DEEPE	N or PLUG R	ACK give the	data on the n	recent productive 2	one and propose	d new productive zone.	
			gram, if any. Us				uata on the p	resent productive z	one and proposed	a new productive zone.	
Drill Cisco	/Canyor	า SWD พย	ell. Wells di	sposing in	to the SW	) will be Ci	marex op	erated Paddo	ck/Blinebry	wells in the area.	
Injection i	interval	will be 88	350-9300. Ao ttached pro	cidize perf	fs with 150	0 gal 7½%	acid. Pac	ker to be set (	@ 8750 with	ı 3½" 9.3# J55	
			•								
C-108 cur	rently in	progress	at NMOCD	Santa Fe.							
			n given above is				OILC	ONSERVAT	TONDIVIS	SION	
best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines, a general permit, or						Approved by:					
Signature: 1	an (attached) alternative OCD-approved plan  Signature: ( 1 20 talla) Ky ecox						Title:				
Printed name	e Krueger	,	<u>// T</u>		(7000015						
Title: Regu	-				Approval Date: 3/23/2011 Expiration Date: 3/23/2012						
E-mail Addre	ss: <u>nkru</u> e	eger@cin	narex.com					<i></i>			
Date: March 1, 2011 Phone: 432-620-1936						Conditions of Approval Attached					





## **DRILLING PROGNOSIS Cimarex Energy Company**

8/23/2010

Well:

Spiketail SWD 1

Location: County, State Sec 5, T17S, R29E **Eddy County, NM** 

Surface Location: Wellhead:

2310' FNL & 890' FEL

Trns -13\_3/8" 3000 x 11\_3/4" SOW "A" 8 \_5/8" SOW x 11" 3000

"B" 11" 3000 x 7\_1/16" 5000

Lse Serial #

Field:

Loco Hills Objective: Cisco/Canyon

TVD/MD:

9400'

Tbg:

3-1/2"

Hole Size	Formation Tops Other	Logs Cement Mud Weigh
17-1/2'	17-1/2" hole @ 40'	20 bbl FW spacer Lead: 200 xx Class."C". + 4% DD20 (Extender) + 2% S001 (CaCl2) + 0.2% D046 (Defoamer) , Mixed at 12.9 ppg, 1.97 cuffsx, 10.861 gal/sx fresh water Tail: 300 sx Class. C + 1% S001 (CaCl2), Mixed at 14.8 ppg, 1.34 cuff/sx, 6.35 gal/sx fresh water 8.4 - 8.6 PPG fresh water spud mud
12-1/4"	Yates @ 850'  9-5/8",40#, J/K55, LTC @ ± 1200'	Lead: 200 sx 50:50 Poz: Class "C" + 0.2% Defoamer (D046) + 5% D044 (Salt) +10% D020 (Extender Gel) + 1/8 pps Polyflake (D130) + 2 pps Gilsonite (D042) Mixed at 11.8 ppg, Yeild 2.57 cut/usx, 15.061 gal/sx fresh water. Tail: 270 sx Class "C" + 1% S001 (CaCl2), Mixed at 14.8 ppg, 1.35 cut/usx, 6.365 gal/sx fresh water.  TOC @ surface (volume calculated to circ w/ 70% excess in open hole section - recalc after fluid caliper is run)  Drill with 10.0 ppg brine water to eliminate leeching of salt sections.
8-3/4" Tbg: 3½" 9.3# J55 @ 8750	Queens @ 2140' San Andres @ 2410'  Glorieta @ 3820'  Paddock @ 3900' Blinebry @ 4375'  Tubbs @ 5220'  Hueco @ 7180'  Cisco @ 8550'	Triple Combo / Possible SWCs  STAGE 1  Lead: 600 sacks 35/65 Poz/ H + 5% Salt (D044) + 6% Extender Gel (D020) + 0.02% Anti Foam (D046) + 1.5% Fluid Loss (D112) + 3 lbs/sx Extender (D042) + 0.125 lbs/sx Lost Circ Flakes, 0.1% Retarder (D000), Mixed at 12.4 ppg. Yeild 2.28 cuff/sx, 12.66 gal/sx Fresh Water. Tali: 350 sx PVL+ 0.2% Fluid loss (D167) + 2.% Dispersant (D65) + .% Anti foam(D46) + 0.15 gas Retarder (D177) + 1.3% NaCl 13.0 ppg 1.4 ft3/sk  TOC ±0* TOT7000*  8.4-9.1 PPG FW/Brine

## NOTES:

Cement volumes for surface csg include a 100% excess in the open hole section. If drilling conditions deem necessary, fluid caliper hole and adjust volumes.

Cement volumes for intermediate csg include a 70% excess in the open hole section. If drilling conditions deem necessary, fluid caliper hole and adjust volumes. Csg set above the Yates, 20' into Tansill.

Cement volumes for production csg include a 25% excess in the open hole section. Adjust volumes after caliper + 25% excess.