

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

HOBBS OCD

JUL 11 2011

RECEIVED

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
May 27, 2004

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Cimarex Energy Co. of Colorado 600 N. Marienfeld, Ste. 600 Midland, TX 79701		⁹ OGRID Number 162683
		² API Number 30-025-02774
³ Property Code 300528	⁴ Property Name Lea A State	⁶ Well No. 001
⁷ Proposed Pool 1 Townsend; Permo, Upper Penn ✓		¹⁰ Proposed Pool 2 Townsend; Abo, NW ✓

⁷ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	10	16S	35E		660	North	660	West	Lea

⁸ Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Additional Well Information

¹¹ Work Type Code Adding	¹² Well Type Code O	¹³ Cable/Rotary	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 4014' RDB
¹⁶ Multiple Y	¹⁷ Proposed Depth 10401' (PBDT)	¹⁸ Formation Wolfcamp & Abo	¹⁹ Contractor N/A	²⁰ Spud Date When Approved
Depth to Groundwater		Distance from nearest fresh water well		Distance from nearest surface water
Pit Liner Synthetic <input type="checkbox"/> mils thick Clay <input type="checkbox"/> Pit Volume _____ bbls Drilling Method _____				
Closed-Loop System <input checked="" type="checkbox"/> Flowback Tanks _____ Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17½"	13¾"	48#	1422'	1050	Circ
12¼"	9¾"	40#	5416'	1530	Circ
8¾"	7"	29#	11000'	460	

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Well currently producing from Wolfcamp perms @ 10212-268.' Cimarex proposes to add more Wolfcamp perms and also recompletes in the Abo as shown below and on the attached procedure. DHC application in progress.

•Perf Wolfcamp 9650-9744' 90 holes 2 spf. Acidize w/ 2250 gal 15% NeFe HCl & 180 ball sealers. Set RBP @ 8800.'

•Perf Abo 8657-8740' 126 holes 2 spf. Acidize w/ 3500 gal 15% NeFe HCl & 252 ball sealers.

•If productive, remove RBP and produce as DHC Abo/Wolfcamp. If unproductive, evaluate for recompletion or PA.

**Permit Expires 2 Years From Approval
Date Unless Drilling Underway**

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Signature: *Natalie Krueger*

Printed name: Natalie Krueger

Title: Regulatory

E-mail Address: nkrueger@cimarex.com

Date: March 11, 2010

Phone: 469-420-2723

OIL CONSERVATION DIVISION

Approved by: *[Signature]*

Title: **PETROLEUM ENGINEER**

Approval Date: **JUL 29 2011** Expiration Date: _____

"CONDITION FOR APPROVAL" Approval for Drilling only. CANNOT Dispose into the wellbore without a Disposal order approved by the Santa Fe OCD Office



LEA A STATE No. 1
PROCEDURE
March 8, 2010

WELL DATA:

Elevation: 4022' RKB (8' AGL)
TD: 10585'
Correlation Log: Gray Wireline GR-Neutron dated 03/17/06
API No 30-025-02774

PROCEDURE:

1. MI & RU WSU. ND Wellhead and NU BOP. POH w/ production equipment. Test in hole w/ 2 7/8", 6.5# N-80 w/ bit and scraper to top of cement and bridge plug at approximately 10401'. POH. RIH with RBP and set at 10162'. Pressure test casing to 500# Pickle tbg w/ Xylene and 250 gal 15% NEFE HCL. Reverse out. Spot 250 gals 15% NEFE HCL acid from 9744' - 9495'. POH.
2. RU WL co TIH w/ CCL & casing gun. Correlate to existing GR-Neutron-CL. Perforate the Wolfcamp with 2 spf phased as follows:

<u>INTERVAL</u>	<u>HOLES</u>
9650' - 80' (30')	60
9729' - 44' (15')	30

3. RIH w/ work string, SN and treating pkr. Set packer approximately 9590'. Swab test zone and evaluate for further stimulation.
4. Stimulate zone if necessary w/ 2250 gals 15% NEFE HCL with 180 ball sealers at 5 bpm. Max treating pressure 6000#. Flush to bottom perf SI overnight Swab load and evaluate results.
5. Release pkr and POH. RIH w/ retrievable bridge plug and set at 8800'. Test plug to 500#. Spot 250 gal 15% NEFE HCL. POH.
6. RU WL Co. TIH w/CCL & casing gun. Correlate to existing GR-Neutron-CL. Perforate the Abo with 2 spf phased:

<u>INTERVAL</u>	<u>HOLES</u>
8657' - 65' (8')	16
8672' - 84' (12')	24
8697' - 8740' (43')	86

7. TIH w/ treating PKR, SN and tubing. Set packer approximately 8600'. Swab test zone and evaluate for further stimulation
8. Stimulate zone if necessary with acid using 3500 gals 15% NEFE HCL with 252 ball sealers at 5 bpm. Max treating pressure 6000 #. Flush to bottom perf with 2% KCL. SI overnight. Swab back load.
9. If non-productive, evaluate for possible recompletion or PA.
10. If productive, latch on to first RBP and POH w/ RBP and PKR. RIH and retrieve second RBP. TIH w/ production string Put on production.

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-02774	² Pool Code 59847	³ Pool Name Townsend; Permo, Upper Penn
⁴ Property Code 300528	⁵ Property Name Lea A State	⁶ Well Number 001
⁷ OGRID No. 162683	⁸ Operator Name Cimarex Energy Co. of Colorado	⁹ Elevation 4014' RDB

¹⁰ Surface Location

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¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 40	¹³ Joint or Infill N	¹⁴ Consolidation Code	¹⁵ Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division

				<p>¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Zeno Farris</i> 3/11/2010 Signature Date</p> <p>Zeno Farris Printed Name</p>
<p>¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief</p> <p>Date of Survey Signature and Seal of Professional Surveyor</p> <p>Certificate Number</p>				

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⁴ Property Code 300528	⁵ Property Name Lea A State	⁶ Well Number 001
⁷ OGRID No. 162683	⁸ Operator Name Cimarex Energy Co. of Colorado	⁹ Elevation 4014' RDB

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				¹⁸ SURVEYOR CERTIFICATION <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i> Date of Survey Signature and Seal of Professional Surveyor Certificate Number



Cimarex Energy Co. of Colorado
LEA A STATE #1
API 30-025-02774
660' FNL & 660' FWL, Sec 10, T16S R35E
Lea County, NM
GL: 4014' KB: 4022'

11 3/4" 42# H-40 csg @ 364'
Cmr w/450 sx, circ to surface

15" hole to 364'

DST's:

10,190'-10,329' - open 3 hrs, strong blow,
no wtr, blanket rec 120' GCM, no oil
or wtr, FP 55-110#, FSIP 395#
10,428'-10,515' - oper 1 hr 45 min
strong air blow, GTS 3 min, MTS 11 min,
OTS 13 min, 14 hr flow test rec 126 BO,
40 4 grav, GOR 903, FP 510-2980#
25 min SIP 3988#

Dwights Cum'd all zones together
824 MBO + 238 MMCF + 1 MBW

8 5/8" 24/32# J-55/H-40 csg @ 4666'
Cmt w/2250 sx, circ to surface

11" hole to 4666'

TOC 7950' (Temp Survey)

Wolfcamp Perfs
10,212'-220' & 10,252'-268' (7/06)

CIBP @ 10,436 (3/06)
2 sx cmt on top of CIBP to 10,401'

5 1/2" 20/17# J-55/N-80 csg @ 10,460"
Cmt w/600 sx, TOC 7950' (Temp Survey)

CIBP @ 10,519' (11/52)
1 1/2 sx cement of top of CIBP

Cisco (Open Hole) (11/52)
7 7/8" hole to TD 10,585'

PBTD: 10,401'
TD: 10,585'

M Ketter 1/7/2010