

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

**RECEIVED** State of New Mexico  
Energy Minerals and Natural Resources  
SEP 30 2010  
Oil Conservation Division  
HOBBSOCD 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**

<sup>1</sup> Operator Name and Address Cimarex Energy Co. of Colorado 600 N. Marienfeld, Ste. 600 Midland, TX 79701		<sup>2</sup> OGRID Number 162683
		<sup>3</sup> API Number 30-025-34626
<sup>4</sup> Property Code 300545	<sup>5</sup> Property Name Red Hills Unit	<sup>6</sup> Well No. 004
<sup>9</sup> Proposed Pool 1 Red Hills; Wolfcamp (Gas)		<sup>10</sup> Proposed Pool 2

**7 Surface Location**

UL or lot no. N	Section 32	Township 25S	Range 33E	Lot Idn	Feet from the 454	North/South line South	Feet from the 1500	East/West line West	County Lea
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**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
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**Additional Well Information**

<sup>11</sup> Work Type Code P	<sup>12</sup> Well Type Code G	<sup>13</sup> Cable/Rotary	<sup>14</sup> Lease Type Code S	<sup>15</sup> Ground Level Elevation 3387 GL
<sup>16</sup> Multiple N	<sup>17</sup> Proposed Depth 14900' (PBTD)	<sup>18</sup> Formation Wolfcamp	<sup>19</sup> Contractor N/A	<sup>20</sup> 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
26	20	94 & 106	892	1700	Circ
17½	13¾	72 & 68	4880	2745	Circ
12¾	9¾	53.5	13002	1475	Circ
	7		12750-17046	585	
	4½		16827-17675	100	

<sup>22</sup> 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 SI in Devonian. Plan to set 2 plugs, one CIBP @ 17400 w 10.5 bbl CI H cmt and a balanced plug @ 1500-14861 w 25 sx CI H. Temporary TA applied for via Sundry Notice. Then plan to recomplete to Wolfcamp as shown below and on attached procedure.

Perf Wolfcamp 13708-13726 2 spf.  
Flow test and stabilize production.  
Acidize with 5000 gal 15% HCl and displace w 2% KCl.

<sup>23</sup> 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: September 29, 2010

Phone: 432-620-1936

**OIL CONSERVATION DIVISION**

Approved by: *[Signature]*

Title: PETROLEUM ENGINEER

Approval Date: OCT 29 2010

Expiration Date:

Conditions of Approval Attached ☐

**Red Hills Unit # 4**  
**Wolfcamp Recompletion Procedure**  
**API # 30025291910001**  
454' FSL & 1500' FWL  
Section 32, T25S, R33E  
Lea County, New Mexico

Well Data:

KB	27' above GL
TD	17675'
PBTD	17628'
Casing	20" 94 & 106 # J-55 @ 892'. Cmtd w/ 1700 sx. Cmt circ. 13-3/8" 72 & 68 # P-110 and J-55 @ 4880' Cmtd w/ 2745 sx. Cmt circ. 9-5/8" 53.5 # P110 @ 13002' Cmtd w/ 1475 sx. 7" 38 # P110 @ 12750-17046' Cmtd w/ 585 sx.
Perfs	4-1/2" 13.5 # P-110 @ 16827-17675'. Cmtd w/ 100 sx. Full Returns. Devonian (17468' -72', 17504'-22', 17530'-67') w CIBP @ +/- 17400' w 375' cmt plug 50' above TOL and 100' cmt plug at 14861' to 15000'.

Well TA

1. MIRU pulling unit. Kill well with 6% KCL ND WH, NU BOP. TOO H w/ tbg.
2. NU 10 K Frac Valve, BOP on top of valve.
3. Run Wireline CBL from 13900 to 12900.
4. RIH W/ TCP perforating guns, Sub, XN Nipple, Sub, PKR, Nipple and Tbg. Hydrotesting to 8000 psi.
5. RUWL. Correlate Logs to packer and TCP Setting Depth. Space out TCP guns to open hole logs to perforate (13708'-13726'). RDWL. Depth reference log Schlumberger. Platform Express Density Neutron, Run 2, Date: Feb 2, 2000.
6. Set PKR W/ Recommendation by packer Company.
7. RU N2 Unit. Pressure up on tubing to fire Guns. RD N2 Unit.
8. Record pressures before flowing well to vessels.

9. Flow Test Well, Stabilize Production.

**NOTE:** Timing of Acid Job to be Determined by Flow Rates.

10. Acidize (13708'-13726') w/5000 gal 15% HCL. **Note: Max Pressure for acid 5500 PSI.**

11. Displace acid w/ 2% KCL.

12. Swab well until pH is greater than 4.5.

13. Record fluid levels and oil cuts and report to Midland.