

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

Form C-101
May 27, 2004

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

Submit to appropriate District Office

APR 01 2008

☐ AMENDED REPORT

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

¹ Operator Name and Address Cimarex Energy Co. of Colorado 600 N. Marienfeld Street, Ste. 600 Midland, TX 79701		² OGRID Number 162683
³ Property Code 30906		⁴ Property Name Mary 7 State
⁵ Well No 1		⁶ API Number 30 - 025 - 36068
⁹ Proposed Pool 1 Wildcat Osado, Bone Spring		¹⁰ Proposed Pool 2

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
C	7	21S	35E		990'	North	1500'	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 P	¹² Well Type Code G	¹³ Cable/Rotary	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3678'
¹⁶ Multiple No	¹⁷ Proposed Depth	¹⁸ Formation	¹⁹ Contractor	²⁰ Spud Date
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 type="checkbox"/> 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
	13-3/8"	48#	1422'	1050	Surface
	9-5/8"	40#	5416'	460	DV @ 4039'
	7"	29#	1100'	460	6810' +/-
	4-1/2"	4.7#	11904'	160	TOL 10691'

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.

The Mary 7 State #1 is currently producing from the Morrow 11894'-11963'. Cimarex proposes to plug off the Morrow by setting a CIBP @ 11860' w/35' cmt cap then Recomplete the Bone Spring 7962'-7988' and 9492'-9516'. The Bone Spring will be acidized as necessary.

Please see attached procedure and C-102.

CONDITIONS OF APPROVAL: Intent to drill ONLY -- CANNOT produce until the Non-Standard Location for oil well has been approved by OCD Santa Fe office.

**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:

Printed name: Laci Luig

Title: Engineer Tech

E-mail Address: llui@cimarex.com

Date: 3/31/08 Phone (432) 571 7810

OIL CONSERVATION DIVISION

Approved by:

Title: OC DISTRICT SUPERVISOR/GENERAL MANAGER

Approval Date: APR 02 2008 Expiration Date:

Conditions of Approval Attached ☐

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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

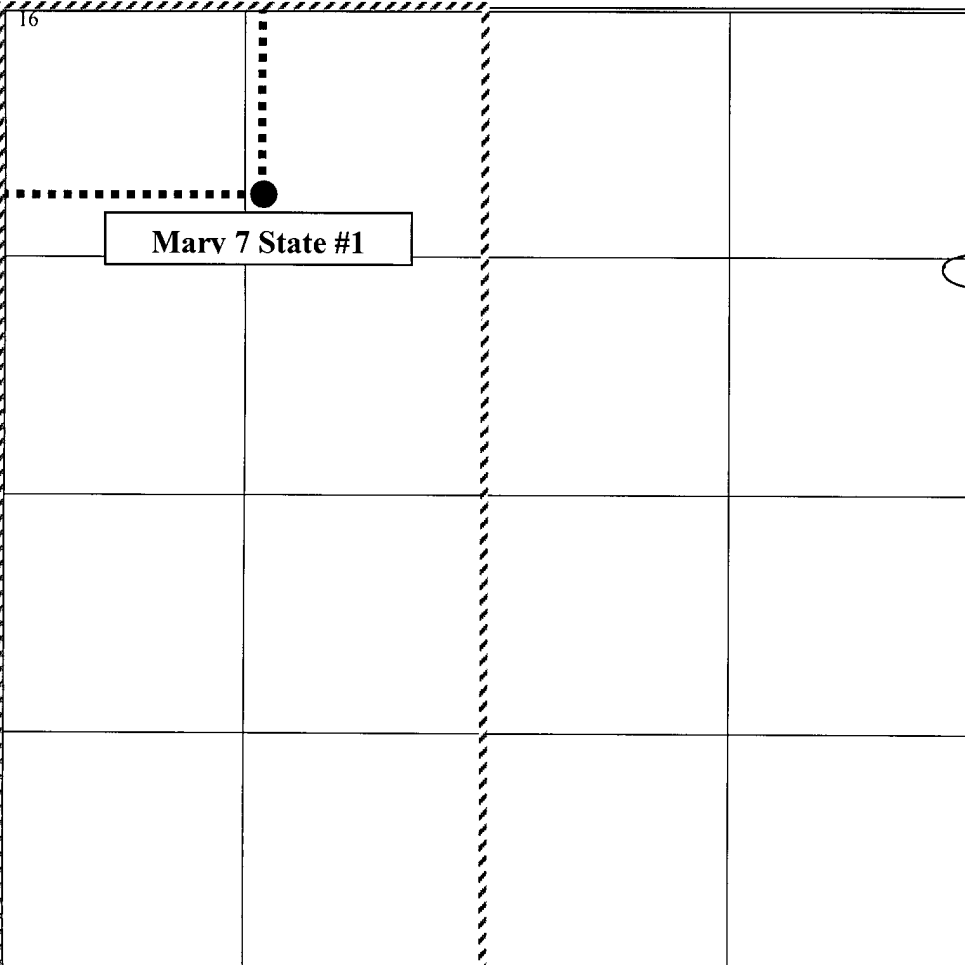
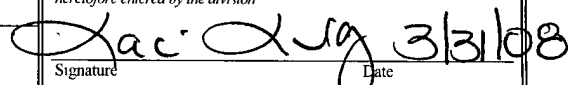
WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-36068	² Pool Code ✓	³ Pool Name Wildcat Osado; Bone Spring
⁴ Property Code 30906	⁵ Property Name Mary 7 State	⁶ Well Number 1
⁷ OGRID No. 162683	⁸ Operator Name Cimarex Energy Co. of Colorado	⁹ Elevation 3678'

¹⁰ Surface Location									
UL or lot no. C	Section 7	Township 21S	Range 35E	Lot Idn	Feet from the 990'	North/South line North	Feet from the 1500'	East/West line West	County Lea

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 320	¹³ Joint or Infill	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.

¹⁶ 	¹⁷ OPERATOR CERTIFICATION <i>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</i>  Signature _____ Date 3/31/08 Laci Luig, Engineer Tech Printed Name _____	
	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 _____	

Mary 7 State #1
Bone Springs Recompletion Procedure

Well Data:

KB	20' above GL
TD	12350'
PBTD	12244'
Casing	13-3/8" 48# H-40 @ 1422'. Cmtd w/ 1050 sx. Cmt circ. 9-5/8" 40# I-80 & J-55 @ 5416'. Cmtd w/ 460 sx. DV Tool @ 4039' 7" 29# P-110 @ 11000'. Cmtd w/ 460 sx. TOC @ 6810'(?).
Liner	4-1/2" 13.5# P-110 @ 12348'. Cmtd w/ 160 sx. TOL @ 10691'.
Packer	Arrowset IX 10K @ 11802'
Perfs	Morrow (11894' – 11963')

Procedure:

1. MIRU pulling unit. Kill well w/ FW, ND WH, NU BOP. Release pkr and TOOH w/ pkr and tbq.
2. RU wireline, Run GR to 11880'. Run and set CIBP @ \pm 11860' and dump 35' of cmt on top of CIBP. Run CBL/ GR log from 9700' to 7500'. If there is good bond from 9600' to 9300' proceed to step 6.
3. If there is not good bond from 9600' to 9300', shoot squeeze holes @ 9600' and 9300' @ 6 JSPF. RD wireline. TIH w/ 7" cmt retainer on 2-3/8" tbq and set @ \pm 9350'. Pump in squeeze holes @ 9600' and establish circulation out squeeze holes @ 9300'. RU Halliburton and suicide squeeze as per recommendation. Flush w/ fresh wtr to cmt retainer. After flushing to retainer, immediately sting out of retainer and pull tbq up to 8000'. Reverse out cmt from tbq. SI well for 48 hours.
4. TIH w/ bit, 6 – DC's, and 2-3/8" tbq and drill out cmt and retainer to 9550'. Pressure test csg to 1500 psig. TOOH w/ bit, DC's, and tbq.
5. RU wireline and run CBL/CCL log from 9550' to 8500'. If necessary, resqueeze cement to obtain required cement coverage of Bone Springs zone.
6. RU wireline, Perforate Bone Springs (9492' – 9516') w/ premium charges 2 JSPF (total of 48 holes). Depth reference log Spectral Density Dual Spaced Neutron Gamma Ray log dated December 26, 2002. RD wireline.
7. TIH w/ pkr and 2-3/8" tbq and set pkr @ \pm 9400'. Acidize Bone Springs perfs (9492' – 9516') w/ 3000 gals 15% HCl and 72 ball sealers at 4 to 5 BPM. Flush w/ FW.

Mary 7 State #1
Bone Springs Recompletion Procedure
Page 2

8. Swab test and report results.
9. TOOH w/ pkr and tbg. TIH w/ RBP or CIBP based upon swab results and set @ \pm 9450'. RU wireline, Perforate Bone Springs (7962' – 7988') w/ premium charges 2 JSPF (total of 52 holes). Depth reference log Spectral Density Dual Spaced Neutron Gamma Ray log dated December 26, 2002. RD wireline.
10. TIH w/ pkr and 2-3/8" tbg and set pkr @ \pm 7900'. Acidize Bone Springs perms (7962' – 7988') w/ 3000 gals 15% HCl and 78 ball sealers at 4 to 5 BPM. Flush w/ FW.
11. Swab test and report results.
12. FIH w/ pkr and tbg and retrieve RBP (if set). TOOH and LD tbg. TIH w/ 2-7/8" tbg for production. ND BOP, NU WH. TIH w/ rods and pump and put well on production.