

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

Form C-101
May 27, 2004

APR 01 2008

Oil Conservation Division

Submit to appropriate District Office

☐ AMENDED REPORT

HOBBS OCD

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

¹ Operator Name and Address Cimarex Energy Co. 600 N. Marienfeld Street, Ste. 600 Midland, TX 79701		² OGRID Number 215099
³ Property Code 34847		⁴ API Number 30-25-37471
⁵ Property Name Caudill West 8 Fee		⁶ Well No. 002
⁹ Proposed Pool 1 Caudill West 8 Fee, Upper Permian		¹⁰ Proposed Pool 2

⁷ Surface Location

UL or lot no A	Section 8	Township 15S	Range 36E	Lot Idn	Feet from the 1250'	N/S line North	Feet from the 660'	E/W line East	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

¹¹ Work Type Code P	¹² Well Type Code G	¹³ Cable/Rotary	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation 3926'
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#	622'	550	Surface
	9-5/8"	40#	4729'	1850	Surface
	5-1/2"	17#	12707'	1570	3999'

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 Caudill West 8 Fee #2 is currently producing from the Atoka/Morrow 11926'-12429'. Cimarex proposes to plug off the Morrow by setting a CIBP @ 12400' w/35' cmt cap and the Atoka w/a CIBP @ 11900' w/35' cmt cap, then move up hole and Recomplete in the Permo-Penn (Wolfcamp & Strawn) 10322'-11603'. The Permo-Penn will be acidized and fracture stimulated as necessary.

Please see attached procedure and Form C-102.

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

Plugback

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

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: *Laci Luig*

Printed name: Laci Luig

Title: Engineer Tech.

E-mail Address: lluig@cimarex.com

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

OIL CONSERVATION DIVISION

Approved by:

Chris Williams
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 30-025-37471	² Pool Code 10830	³ Pool Name Caudill Austin, Permian Upper
⁴ Property Code 34847	⁵ Property Name Caudill West 8 Fee	
⁷ OGRID No. 215099	⁸ Operator Name Cimarex Energy Company	
		⁶ Well Number 2
		⁹ Elevation 3926'

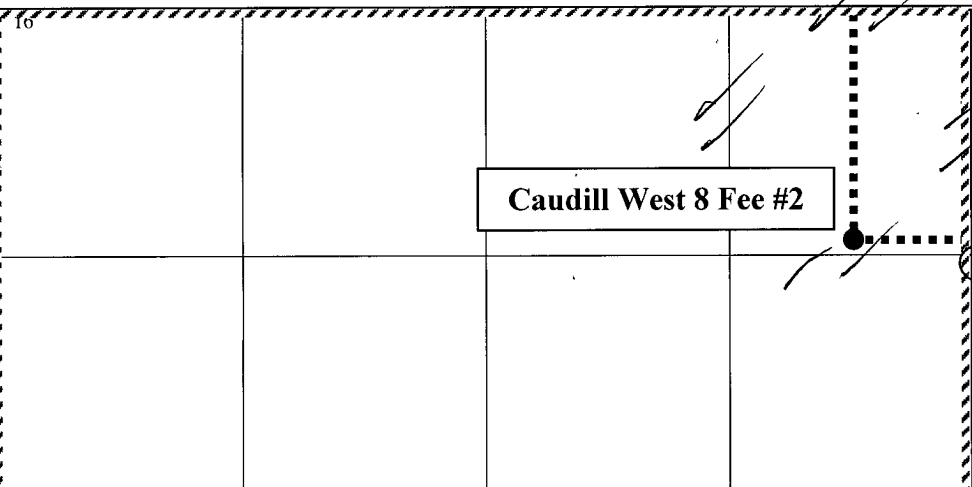
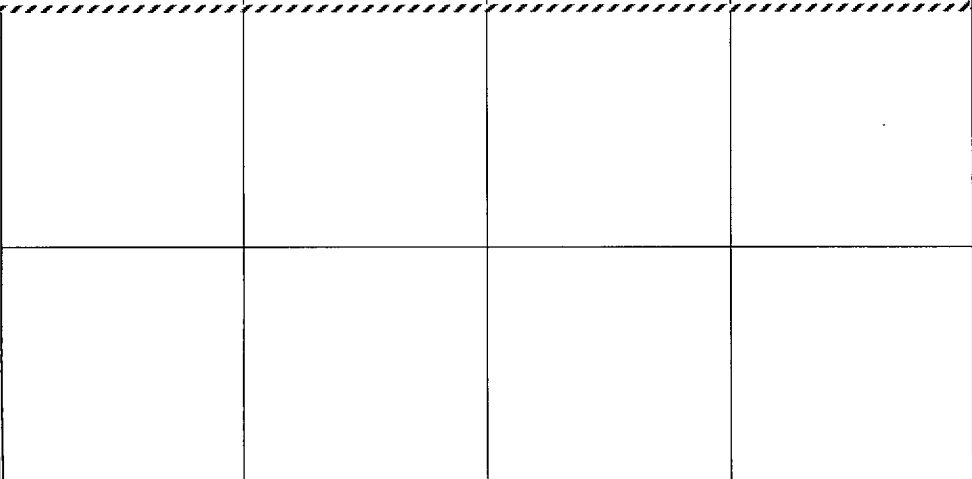
¹⁰ Surface Location

UL or lot no. A	Section 8	Township 15S	Range 36E	Lot Idn	Feet from the 1250'	North/South line North	Feet from the 660'	East/West line East	County Lea
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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 320.40	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.

<div></div>	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 <i>Laci Luig</i>	Date 3/31/08
	Printed Name Laci Luig, Engineer Tech	
<div></div>	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	

CAUDILL WEST 8 FEE #2 PERMO-PENN (STRAWN AND WOLFCAMP) RECOMPLETION

API # 30-025-37471
LEASE 309499-002
1250' FNL & 660' FEL
Section 8, 15S, R-36E
Lea County, New Mexico

GL : 3926' KB : 3606'
 TD DRILLER : 12721' PBDT: 11985' . DOD: 12625'
 SURF CSG : 13-3/8" OD 48#/FT AT 622 (CIRC)
 INTER CSG: 9-5/8" OD 40 #/FT AT 4729' (CIRC)
 PROD CSG : 5-1/2" OD 17# P-110 @ 12707' (DID NOT CIRC OFF DV TOOL – VOID 9110-9330')
 DV TOOL AT 9110' (TOC @ 3999')
 ID=4.892", DRIFT=4.767", BURST=10640, CAPACITY=0.9764 GAL/LF
 TUBING: 2-3/8" 4.7# L-80 TO 11945' OPENENDED
 AS-1X PKR W/ 1.875" BLANKING PLUG AT 11985'
 PERFS: ATOKA 11926'-12218' OVERALL; MORROW 12419'-429' OVERALL

NOTE: ALL WIRELINE WORK CORRELATED TO HALLIBURTON RCBL DATED 7/12/06.

1. MIRU PU. KILL TUBING AND CASING WITH 2% KCL WATER IF NECECCARY. ND TREE AND NU BOP. LOWER TUBING AND LATCH ON-OFF TOOL. RIG UP SLICKLINE TO FISH 1.875" BLANKING PLUG FROM OOT. TOH WITH 2-3/8" TUBING, LAYING DOWN. ORDER 12,000' OF NEW INSPECTED 2-7/8" L-80 TUBING FOR STEP 4.
2. MIRU WIRELINE. RIH WITH 4.5" GR/JB TO 12450'. POH. RIH WITH CIBP AND SET AT 12400'. DUMP BAIL 35' CEMENT ON TOP. MAKE ADDITIONAL GR/JB RUN TO 12000'. RIH WITH CIBP AND SET AT 11900'. LOAD HOLE WITH 2% KCL WATER AND TEST PLUG TO 4000 PSI. IF PLUG HOLDS, BLEED OFF PRESSURE AND RIH WITH DUMP BAILER. DUMP 35' OF CEMENT ON TOP OF CIBP AT 11900'. (ZONES ARE NOW ABANDONED IN ACCORDANCE WITH NMOCD).
3. PERFORATE **PERMO-PENN (WOLFCAMP AND STRAWN)** 2 SPF, 120 DEG SPIRAL PHASING USING PREMIUM CHARGES AS FOLLOWS:

Formation	Top	Bottom	Feet	SPF	Holes
Wolfcamp	10322	10330	8	2	17
Wolfcamp	10404	10412	8	2	17
Wolfcamp	10560	10567	7	2	15
Strawn	11580	11588	8	2	17
Strawn	11592	11603	11	2	23
Total Holes			42		89

MONITOR FLUID LEVEL IN AND OUT OF HOLE. RDMO WIRELINE.

4. PICK UP AND TIH WITH RBP (WITH BALL CATCHER) AND TREATING PACKER ON 2-7/8" TUBING. SET RBP AT 10,250. PICKLE TUBING WITH XYLENE AND 500 GALLONS DOUBLE INHIBITED 15% HCL ACID. REVERSE OUT. LATCH RBP AND RELEASE. LOWER RBP TO 11700' AND SET. MOVE PACKER UPHOLE TO 11603'. SPOT 2 BARRELS 15% STRAWN LIME ACID ACROSS PERFORATIONS. MOVE PACKER UPHOLE AND SET PACKER AT 11500'. OPEN BYPASS AND SPOT ACID TO PACKER. BREAKDOWN STRAWN PERFS

USING 2000 GALLONS 15% STRAWN LIME ACID AND 60 BALL SEALERS. MONITOR 1 SEC PRESSURE DATA FOR 60 MINUTES. FLOW/SWAB UNTIL LOAD RECOVERED OR ENTRY DRIES UP. AFTER LOAD RECOVERED, OBTAIN WATER SAMPLE AND SEND TO LAB FOR FULL WATER ANALYSIS INCLUDING R_w MEASUREMENT. CHECK OIL GRAVITY. (NOTE THAT SAMPLES ARE FROM STRAWN ZONE.)

5. LATCH PLUG AND MOVE UPHOLE TO 10630'. SET PLUG. SPOT 5 BARRELS 15% HCL WOLFCAMP ACID FROM 10567' TO 10350'. BREAKDOWN WOLFCAMP PERFS USING 2000 GAL 15% HCL WOLFCAMP BLEND ACID AND 75 BALL SEALERS. SHUT-DOWN AND MONITOR FALLOFF FOR 60 MINUTES. ACID FRAC PER RECOMMENDATION (TO BE APPROVED BY SKIPPER HERRING). MONITOR 1 SEC DATA FOR 60 MINUTES. SWAB/FLOW BACK LOAD UNTIL PH GREATER THAN 5.5. RELEASE PACKER. LOWER TUBING AND LATCH RBP. RELEASE RBP AND TOH WITH TUBING, PACKER AND RBP.
6. RIH WITH PUMPING BOTTOMHOLE ASSEMBLY ON TUBING. SET PUMP INTAKE ~100' BELOW BOTTOM PERFORATION.
7. ND BOPS AND NU PUMPING TREE. RIH WITH PUMP AND RODS. BEGIN PUMPING PERMO-PENN. RDMO PULLING UNIT.