

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-101
Revised March 17, 1999

Submit to appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

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

¹ Operator Name and Address Conoco Inc., 10 Desta Drive, Suite 649W, Midland, TX 79705		² OGRID Number 005073
		³ API Number 30-025-35485
³ Property Code - 003105 13396	⁵ Property Name Hardy "36" State	⁶ Well No. 31

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
F	36	20S	37E		1900'	North	2310'	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
⁹ Proposed Pool 1 North Hardy Strawn					¹⁰ Proposed Pool 2				

¹¹ Work Type Code N	¹² Well Type Code O	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3500'
¹⁶ Multiple No	¹⁷ Proposed Depth 7950'	¹⁸ Formation Strawn	¹⁹ Contractor	²⁰ Spud Date 04/22/01

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12 1/4"	J-55, 8-5/8"	24#	1500'	665	Surface
7 7/8"	J-55, 5 1/2"	17#	7950'	990'	Surface

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.

1. Well Location and Acreage Dedication Plat (C-102)
2. Proposed Well Plan Outline
3. Cementing Program
4. BOP/Choke Diagram

Permit Expires 1 Year 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.		OIL CONSERVATION DIVISION	
Signature: <i>Kimberly Southall</i>		Approved by: <i>ORION L. SOUTHERN, DISTRICT WILLIAM</i>	
Printed name: Kimberly Southall		Title:	
Title: Analyst		Approval Date: <i>02/20/01</i> Expiration Date:	
Date: 02/20/01	Phone: 915/686-5565	Conditions of Approval:	
		Attached <input type="checkbox"/>	

DISTRICT I
1020 N. Fresno St., El Paso, NM 88240

DISTRICT II
511 Santa Fe Trail, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form O-102
Revised March 17, 1989

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87505

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-35485	Pool Code 96893	Pool Name North Hardy Strawn
Property Code 13396	Property Name HARDY "38" STATE	Well Number 31
UGRD No. 005073	Operator Name CONOCO INC.	Elevation 3500'

Surface Location

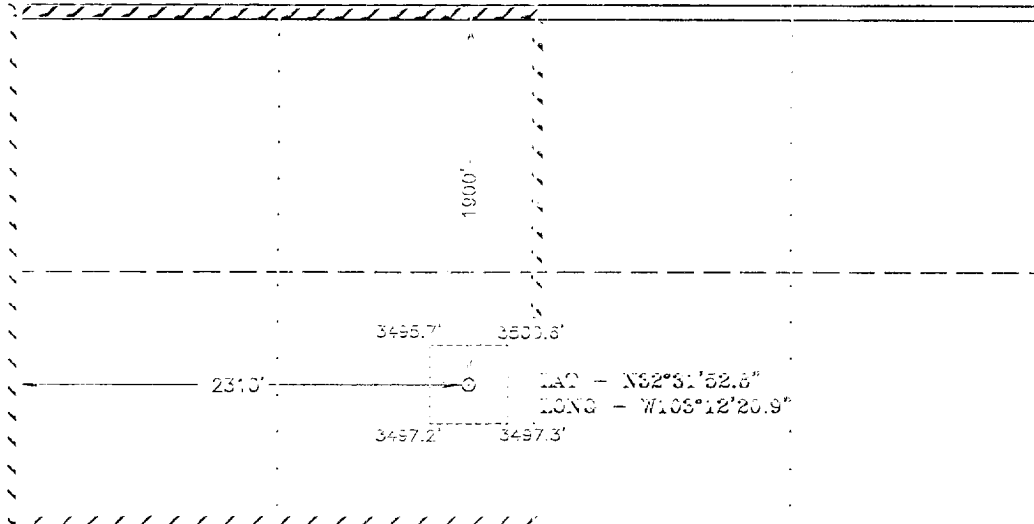
UL or lot No.	Section	Township	Range	Lot 10n	Feet from the	North/South line	Feet from the	East/West line	County
F	38	20 S	37 E		1900	NORTH	2310	WEST	LEA

Bottom Hole Location if Different From Surface

UL or lot No.	Section	Township	Range	Lot 10n	Feet from the	North/South line	Feet from the	East/West line	County
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Dedicated Acres 160	Joint or Unit	Consolidation Code	Order No. NSL-4450-A
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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



OPERATOR CERTIFICATION

I hereby certify the information contained herein is true and complete to the best of my knowledge and belief.

Kip Maddox
Signature
KIP MADDOX
Principal Name
Regulatory Agent
Date
Feb 20, 2001

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of aerial surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

February 9, 2001
Date Surveyed
Signature of Registered Professional Surveyor
C. J. Jones
Certificate No. 2474
7577

Well Name LOCATION	FORMATION TOPS (from CL)	DILLING PROBLEMS	TYPE OF FORMATION EVALUATION	HOLE SIZE	CASING PROGRAM	FAC GRAD	FORM. PRES. GRAD.	Mud Weight & Type	Days
		Possible hole enlargement & sloughing		12-1/4"			Less than 8.3	8.4 - 9.5 Fresh	
	Top Salt @ 1,400'	Wasnouts in Salt Section		7-7/8"	8-5/8", 24#, J-55 ST&C @ 1,500' Circulate Cement			10 Brine	3
							Less than 8.4		
	Base Salt @ 2,650'		Mud Loggers @ 2,600'						
	Yates 2,710'		n2S monitor equipment on @ 2,600'						
	7 Rivers 2,970'								
	Queen 3,530'								
	Penrose 3,635'								
	Grayburg 3,800'								
	San Andres 4,030'								
		Mud loss in San Andres is possible.							
	Grietta 5,255'	Mud loss and differential sticking possible in Grietta							7
	Packock 5,325'								
	Bimetry 5,810'								
	Toss 6,340'								
	Chickara 8,660'								10
	7000 Aco 8,525'		First Log Run: GR-CAL-DOW-WELL-SGR-SONIC FDC-ONL-PE: TD to 2000' Run GR-ONL-Cal to Surf SGR interval to be chosen					10 ppg Starch Gel	
	Strawn 7,830'	Shut-in prior to drilling into Strawn.	Second Log Run: SC Rotary sidewall cores						
	TD @ 7,950'	Offset data from: Mersey GS State #27 Mersey GS State #30	Possible Third Run: FM Imaging log		5-1/2", 17#, J-55 LT&C set @ 7,950' Circulate cement either single or 2 stage				16

CS-Feu-01

విశ్వనాథ సత్యనారాయణ, విజయవాడ, ఆంధ్రప్రదేశ్

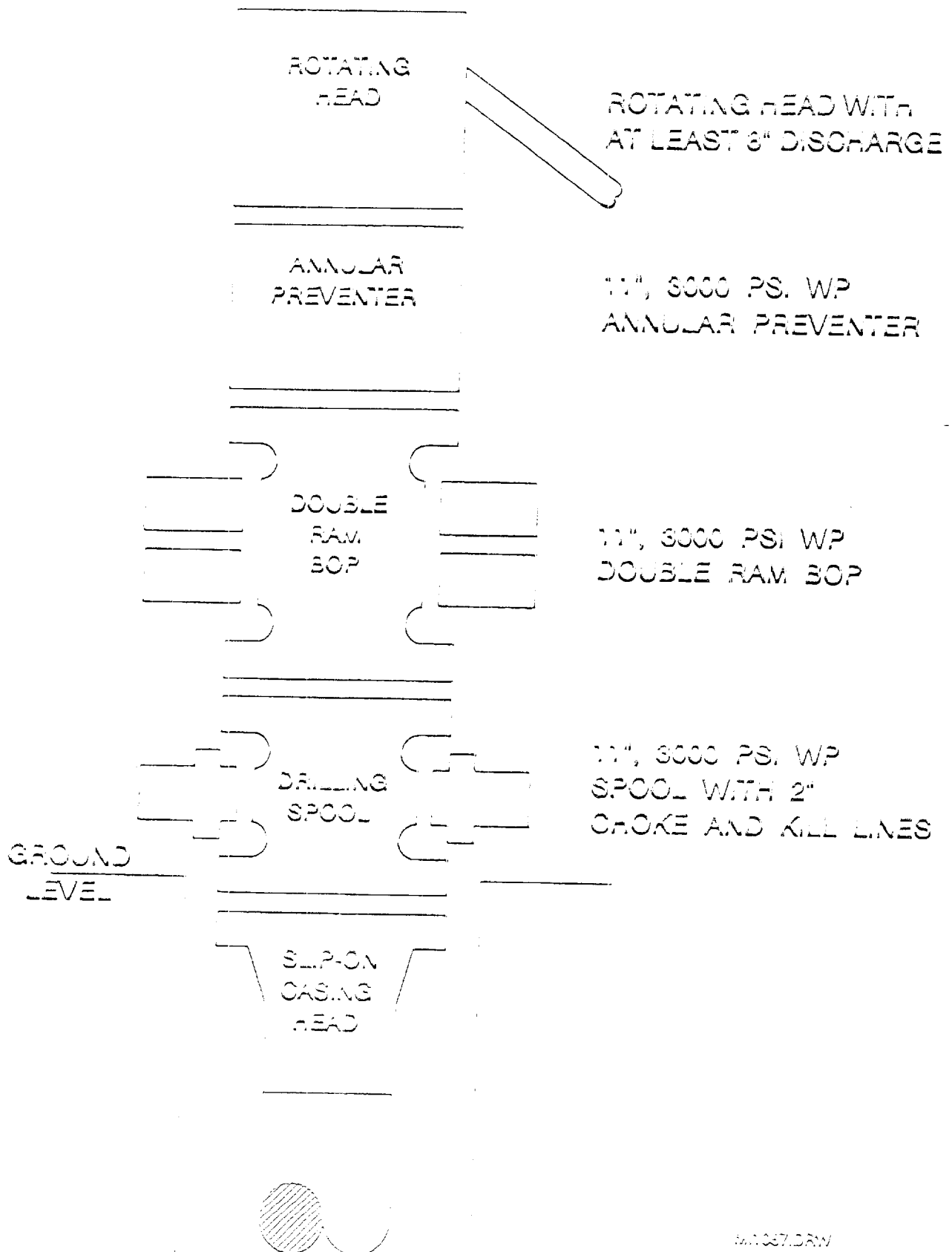
Joe Miner, Reservoir Engineer

HARDY 38 STATE #31
PROPOSED CASING & CEMENT PLAN

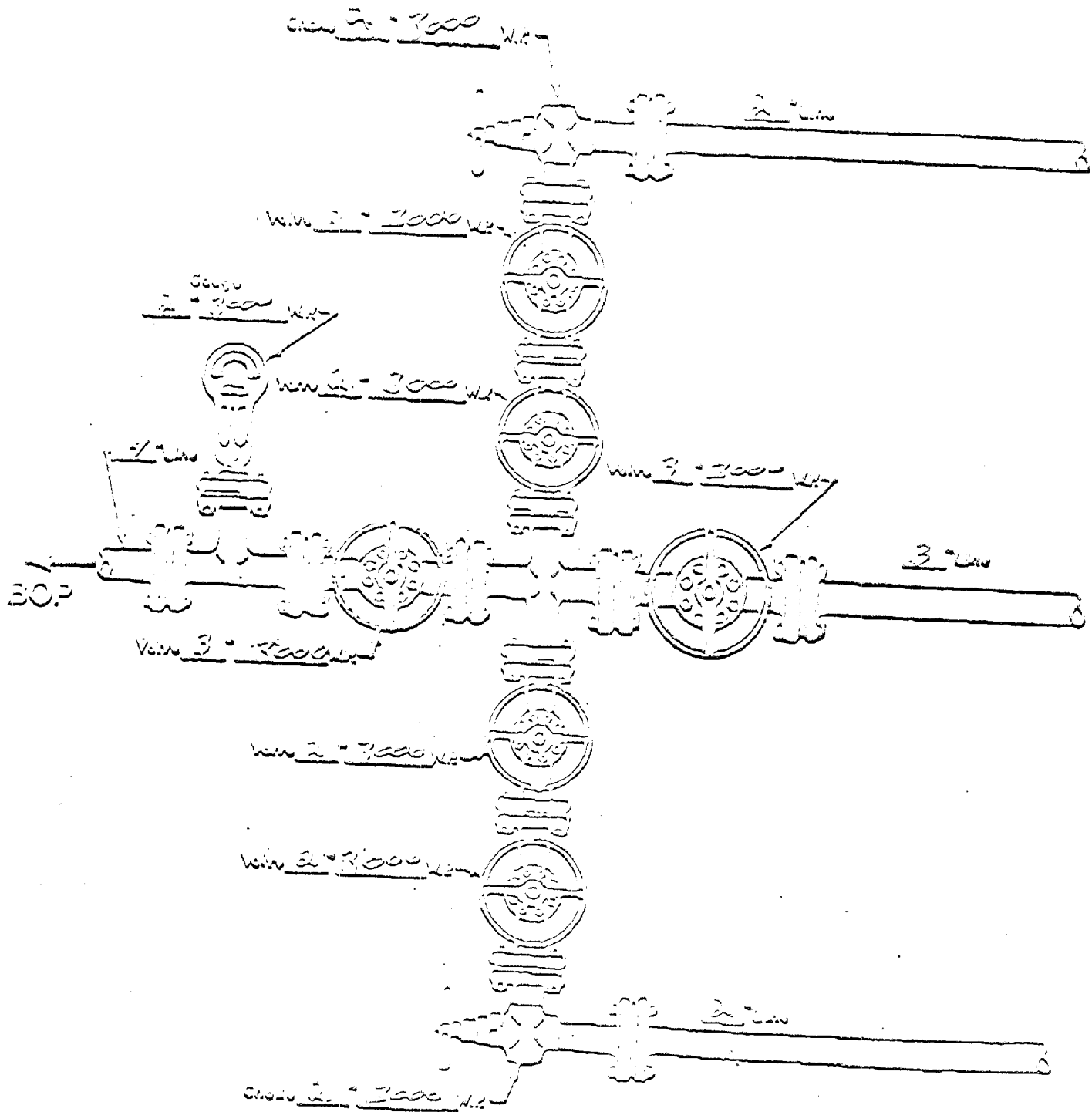
Surface casing size:	8-8/8", 24#, J-55, ST&C	Casing OD:	8.625 in
Surface casing depth:	1,500 ft	Casing ID:	8.057 in
hole size:	12.25 in	Shoe length:	40 ft
Static temperature:	89 deg F	Lead Excess:	101 %
Circulating temperature:	85 deg F	Tail Excess:	106 %
Lead:	465 sx	C: C + 0.25 pps Ceno Flake + 0.005 gps FP-6L + 2% Sodium Metasilicate	
Tail:	200 sx	C: C + 2% CaCl + 0.005 gps FP-6L	
<u>Properties</u>			
		<u>Lead</u>	<u>Tail</u>
Slurry Weight (ppg)		12.4	14.8
Slurry Yield (cf/ps)		2.15	1.34
Mix Water (gps)		12.33	6.35
Pump time - 70 BC (min:MM)		6:25	2:20
Free Water (mls) @ 80 deg F @ 90 deg angle		0	0
Fluid Loss (cc/30 min) @ 1000 psi and 80 deg F		854	900
Compressive Strength (psi)			
12 hrs @	89 deg F	124	1200
24 hrs @	89 deg F	250	2500

Production casing size:	5-1/2", 17#, J55, LT&C	Casing OD:	5.500 in
Production casing depth:	7,950 ft	Casing ID:	4.892 in
hole size:	7.875 in	Shoe length:	80 ft
Static temperature:	128 deg F	Lead Excess:	51 %
Circulating temperature:	122 deg F	Tail Excess:	51 %
Lead:	565 sx	50:50 Poz:Cl C + 5% pwow NaCl + 0.25 pps Ceno Flake + 0.005 gps FP-6L + 10% Bentonite	
Tail:	425 sx	15:81:11 Poz:Cl C:OSE + 5% pwow NaCl + 1% FL-82 + 0.005 gps FP-6L	
<u>Properties</u>			
		<u>Lead</u>	<u>Tail</u>
Slurry Weight (ppg)		11.85	13.6
Slurry Yield (cf/ps)		2.41	1.49
Mix Water (gps)		13.79	7.31
Pump time - 70 BC (min:MM)		2:58	2:31
Free Water (mls) @ 80 deg F @ 90 deg angle		1	0
Fluid Loss (cc/30 min) @ 1000 psi and 80 deg F		792	62
Compressive Strength (psi)			
12 hrs @	124 deg F	50	1013
24 hrs @	124 deg F	175	1875

BOP SPECIFICATIONS



CHOKE MANFOLD DIAGRAM



MANFOLD
2000 W.P.

⊗ Manual
⊐ Hydraulic



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Jennifer A. Salisbury

Cabinet Secretary

March 19, 2001

Lori Wrotenbery

Director

Oil Conservation Division

Conoco, Inc.
10 Desta Drive – Suite 100W
Midland, Texas 79705-4500
Attention: Kay Maddox

Telefax No. (915) 686-5780

Administrative Order NSL-4450-A

Dear Ms. Maddox:

Reference is made to the following: (i) your application dated February 12, 2001 but was not received by the New Mexico Oil Conservation Division ("Division") in Santa Fe until February 23, 2001; and (ii) the Division's records in Santa Fe and Hobbs, including the files on Division Cases No. 12182 and 12532 and Division Administrative Order NSL-4450: all concerning Conoco, Inc.'s request for an exception to Rule 4 of the "*Special Pool Rules for the North Hardy-Strawn Pool*," as promulgated by Division Order No. R-11221, issued in Case No. 12182 dated July 12, 1999, as amended by Division Order No. R-11221-A, dated February 2, 2001, for a non-standard oil well location within a standard 160-acre oil spacing and proration unit for the Undesignated North Hardy-Strawn Pool comprising the NW/4 of Section 36, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico.

Division Administrative Order NSL-4450, dated May 23, 2000, in part granted Conoco, Inc. authority to dedicate this 160-acre unit to its State "KL" 36 Well No. 29 (**API No. 30-025-34999**), drilled at an unorthodox oil well location 330 feet from the North line and 2310 feet from the West line (Unit C) of Section 36. From the record in Case Nos. 12182 (reopened) and 12532 and the Division's well file, Conoco, Inc. drilled this well to a depth of 7,921 feet in July, 2000, tested the Strawn interval and found it to be non-productive. Conoco, Inc. plugged and abandoned this well in September, 2000.

The subject application has been duly filed under the provisions of Division Rule 104.F and the applicable provisions of the rules governing this pool.

By the authority granted me under the provisions of: (i) Rule 5 of these special pool rules; and (ii) Division Rule 104.F (2), the following described well to be drilled at an unorthodox infill oil well location within the above-described 160-acre unit is hereby approved:

Hardy "36" Well No. 31
1900' FNL & 2310' FWL (Unit F).

Further, that portion of Division Administrative Order No. NSL-4450 pertaining to the

Administrative Order NSL-4450-A

Conoco, Inc.

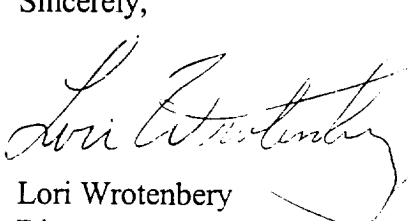
March 19, 2001

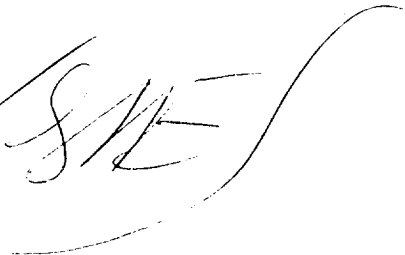
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above-described State "KL" 36 Well No. 29 is hereby placed in abeyance until further notice.

Jurisdiction of this matter shall be further retained for the entry of any such subsequent orders, as the Division may deem necessary.

Sincerely,


Lori Wrotenbery
Director



LW/MES/kv

cc: New Mexico Oil Conservation Division - Hobbs /
New Mexico State Land Office - Santa Fe
W. Thomas Kellahin, Legal Counsel for Conoco, Inc. - Santa Fe
File: Case No. 12182
Case No. 12532
NSL-4450

ELF
8/24/01
ABOVE DATE DOES NOT
INDICATE WHEN
CONFIDENTIAL LOGS
WILL BE RELEASED