

ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
- Engineering Bureau -

*1689*

**ADMINISTRATIVE APPLICATION COVERSHEET**

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

- [NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
- [DD-Directional Drilling] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

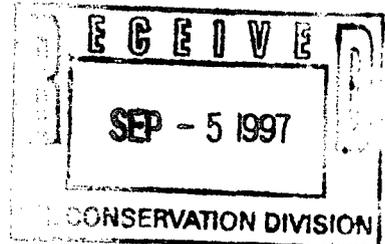
[1] **TYPE OF APPLICATION - Check Those Which Apply for [A]**

- [A] Location - Spacing Unit - Directional Drilling  
 NSL     NSP     DD     SD

Check One Only for [B] and [C]

- [B] Commingling - Storage - Measurement  
 DHC     CTB     PLC     PC     OLS     OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX     PMX     SWD     IPI     EOR     PPR



[2] **NOTIFICATION REQUIRED TO: - Check Those Which Apply, or  Does Not Apply**

- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders or Surface Owner
- [C]  Application is One Which Requires Published Legal Notice
- [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F]  Waivers are Attached

[3] **INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding**

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Jerry W. Hoover  
 Print or Type Name

*Jerry W. Hoover*  
 Signature

Sr. Conservation Coordinator  
 Title

9/3/97  
 Date

DISTRICT I  
P O Box 1980, Hobbs, NM 88241 1980

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107-A  
New 3-12-96

DISTRICT II  
811 Southl First St. Artesia NM 88210 2835

OIL CONSERVATION DIVISION

2040 S. Pacheco  
Santa Fe, New Mexico 87505-6429

APPROVAL PROCESS:  
 Administrative  Hearing

DISTRICT III  
1000 Rio Brazos Rd. Aztec, NM 87410 1693

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE  
 YES  NO

Operator Conoco Inc. Address 10 Desta Dr. Ste 100W, Midland, Tx. 79705-4500

Lease Warren Unit Well No 100 Unit Ltr Sec Twp Rge P, Section 28, T-20-S, R-38-E County Lea

OGRID NO. 005073 Property Code 03122 API NO. 30-025-33016 Spacing Unit Lease Types: (check 1 or more)  
Federal  State  (and/or) Fee

The following facts are submitted in support of downhole commingling:	Upper Zone	intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Warren Grayburg - San Andres 96343		Warren - Glorietta 96247
2. TOP and Bottom of Pay Section (Perforations)	3989 - 4534'		5364 - 5614'
3. Type of production (Oil or Gas)	Oil		Oil
4. Method of Production (Flowing or Artificial Lift)	Bean Pump		Bean pump
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Or Measured Original	a (Current) 900	a.	a. 1300
	b(Original) 1350	b.	b. 1600
6. Oil Gravity (°API) or Gas BT Content	41.0		38.9
7. Producing or Shut-In?	Producing		Shut-in
Production Marginal? (yes or no)	Yes		Yes
• If Shut-In give date and oil/gas/water rates of lst production <small>Note For new zones with no production history applicant shad be required to attach production estimates and supporting data</small> • If Producing, date and oil/gas/water rates of recent test (within 60 days)	Date Rates	Date Rates	Date Rates Incremental production by subtraction
	Date Rates Mid-year average producing rates - see attached table	Date Rates	Date Rates
8. Fixed Percentage Allocation Formula -% for each zone	oil: % Gas %	oil: % Gas %	oil: % Gas %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones?  Yes  No  
If not, have all working, overriding, and royalty interests been notified by certified mail?  Yes  No  
Have all offset operators been given written notice of the proposed downhole commingling?  Yes  No

11. Will cross-flow occur?  Yes  No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable.  Yes  No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each others  Yes  No

13. Will the value of production be decreased by commingling?  Yes  No (If Yes, attach explanation)

14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application.  Yes  No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). \_\_\_\_\_

16. ATTACHMENTS
- \* C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
  - \* Production curve for each zone for at least one year. (If not available, attach explanation.)
  - \* For zones with no production history, estimated production rates and supporting data.
  - \* Data to support allocation method or formula.
  - \* Notification list of all offset operators.
  - \* Notification list of working, overriding and royalty interests for uncommon interest cases.
  - \* Any additional statements, data, or documents required to support commingling.

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

SIGNATURE Jerry W. Hoover TITLE Sr. Conservation Coord DATE 9/3/97

TYPE OR PRINT NAME Jerry W. Hoover TELEPHONE NO. (915) 686-6548

# Warren Unit No.100 Downhole Commingle Application

## San Andres Production Forecast

DECLINE (%/YR) Oil 0.3092  
LOSS RATIO Oil 0.6908

DECLINE (%/YR) Gas 0.2400  
LOSS RATIO Gas 0.7600

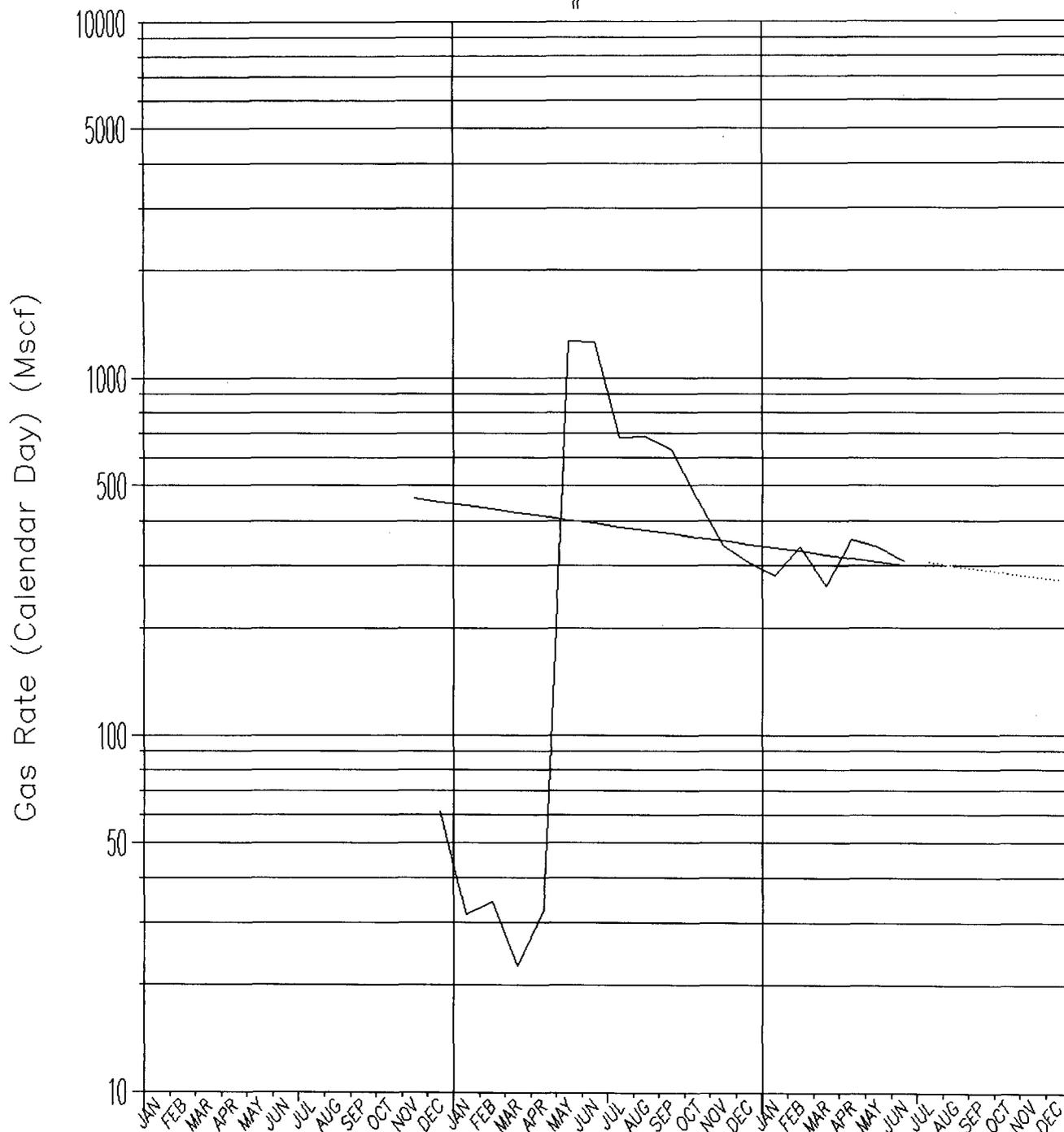
INITIAL RATE (BOPD) 80  
INITIAL RATE (MCFD) 308

NO.MONTHS 1ST YEAR 6  
ECON LIMIT (BOPD) 1

Year	Forecasted Formation	Oil Annual Decline Constant	Gas Annual Decline Constant	Forecasted Oil Production (BO)	Forecasted Gas Production (MCF)	Forecasted Oil Production Daily Average (BOPD)	Forecasted Gas Production Daily Average (MCFPD)
2nd Half 1997	San Andres	0.3092	0.2400	13329	52507	73.0	287.7
1st Half 1998	San Andres	0.3092	0.2400	11078	45776	60.7	250.8
2nd Half 1998	San Andres	0.3092	0.2400	9207	39907	50.5	218.7
1st Half 1999	San Andres	0.3092	0.2400	7652	34791	41.9	190.6
2nd Half 1999	San Andres	0.3092	0.2400	6360	30331	34.8	166.2
1st Half 2000	San Andres	0.3092	0.2400	5286	26442	29.0	144.9
2nd Half 2000	San Andres	0.3092	0.2400	4393	23052	24.1	126.3
1st Half 2001	San Andres	0.3092	0.2400	3651	20097	20.0	110.1
2nd Half 2001	San Andres	0.3092	0.2400	3035	17520	16.6	96.0
1st Half 2002	San Andres	0.3092	0.2400	2522	15274	13.8	83.7
2nd Half 2002	San Andres	0.3092	0.2400	2096	13316	11.5	73.0
1st Half 2003	San Andres	0.3092	0.2400	1742	11609	9.5	63.6
2nd Half 2003	San Andres	0.3092	0.2400	1448	10120	7.9	55.5
1st Half 2004	San Andres	0.3092	0.2400	1203	8823	6.6	48.3
2nd Half 2004	San Andres	0.3092	0.2400	1000	7692	5.5	42.1
1st Half 2005	San Andres	0.3092	0.2400	831	6706	4.6	36.7
2nd Half 2005	San Andres	0.3092	0.2400	691	5846	3.8	32.0
1st Half 2006	San Andres	0.3092	0.2400	574	5097	3.1	27.9
2nd Half 2006	San Andres	0.3092	0.2400	477	4443	2.6	24.3
1st Half 2007	San Andres	0.3092	0.2400	397	3873	2.2	21.2
2nd Half 2007	San Andres	0.3092	0.2400	330	3377	1.8	18.5
1st Half 2008	San Andres	0.3092	0.2400	274	2944	1.5	16.1
2nd Half 2008	San Andres	0.3092	0.2400	228	2567	1.2	14.1
1st Half 2009	San Andres	0.3092	0.2400	189	2237	1.0	12.3
2nd Half 2009	San Andres	0.3092	0.2400	157	1951	0.9	10.7
1st Half 2010	San Andres	0.3092	0.2400	131	1701	0.7	9.3
2nd Half 2010	San Andres	0.3092	0.2400	109	1483	0.6	8.1

Conoco Inc.

WARREN UNIT # 100 - San Andres



Decline Rate (frac) Nominal: 0.022869 Effective: 0.022610 Annual: 0.239997

Current Gas rate: 307.90 Mscf/d

Economic Limit: 20.000 Mscf/d

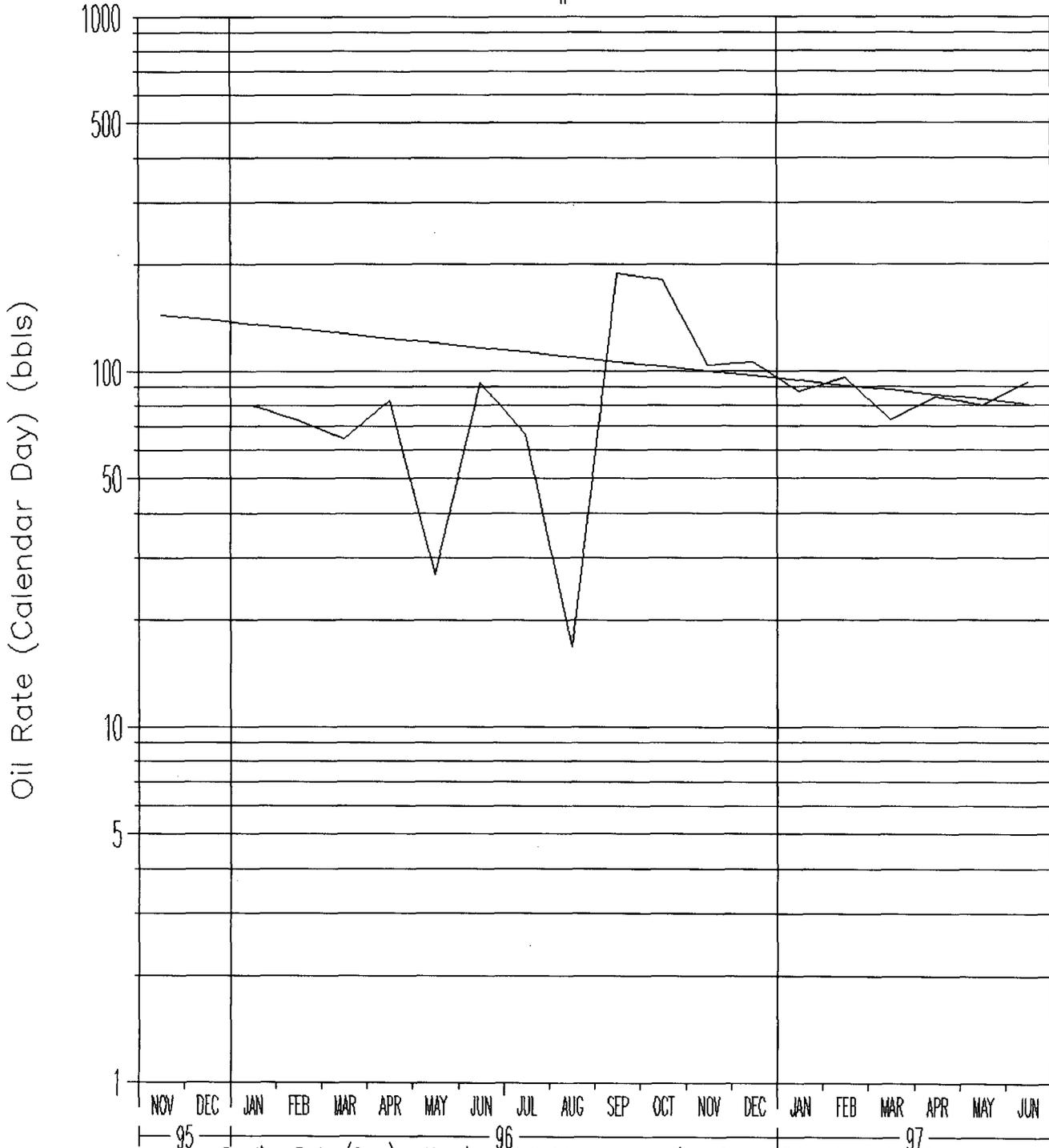
Cumulative Gas Produced: 234.70 MMscf

Remaining Reserves: 383.2 MMscf

Total Reserves: 617.9 MMscf - At the Economic Limit

Conoco Inc.

WARREN UNIT # 100 - San Andres



Decline Rate (frac) Nominal: 0.030824 Effective: 0.030354 Annual: 0.309190

Current Oil rate: 80.0 bbls/d

Economic Limit: 1.0 bbls/d

Cumulative Oil Produced: 48.6 Mbbls

Remaining Reserves: 78.0 Mbbls

Total Reserves: 126.5 Mbbls - At the Economic Limit

District I  
PO Box 1980, Hobbs, NM 88241-1980

State of New Mexico  
Energy, Minerals & Natural Resources Department

Revised February 21, 1994

District II  
PO Drawer DD, Artesia, NM 88211-0719

**OIL CONSERVATION DIVISION**

instructions on back

District III  
1000 Rio Brazos Rd. Aztec, NM 87410

PO Box 2088  
Santa Fe, NM 87504-2088

Submit to Appropriate District Office

District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State Lease - 4 Copies

Fee Lease - 3 Copies

AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number 30-025-33016		2 Pool Code 96247		3 Pool Name Warren Glorieta			
4 Property Code 03122		5 Property Name Warren Unit				6 Well Number 100	
7 OGRID No. 005073		8 Operator Name Conoco Inc., 10 Desta Drive, Ste. 100W, Midland, TX 79705-4500				9 Elevation 3531'	

**10 Surface Location**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	28	20S	38E		990	South	740	East	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 40	13 Joint or Infill	14 Consolidation Code	15 Order No.
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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**

16				

**17 OPERATOR CERTIFICATION**

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

*Jerry W. Hoover*  
Signature

Jerry W. Hoover  
Printed Name

Sr. Conservation Coordinator  
Title

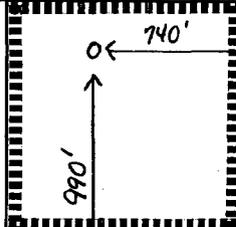
9/13/97  
Date

**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.

Date of Survey

Signature and Seal of Professional Surveyor:



Certificate Number

1980, Hobbs, NM 88241-1980  
 District II  
 PO Drawer DD, Artesia, NM 88211-0719  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 PO Box 2088, Santa Fe, NM 87504-2088

OIL CONSERVATION DIVISION  
 PO Box 2088  
 Santa Fe, NM 87504-2088

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

'API Number		'Pool Code NA		'Pool Name Wildcat San Andres	
'Property Code 003127		'Property Name WARREN UNIT			'Well Number 100
'OGRD No. 005073		'Operator Name CONOCO, INC.			'Elevation 3531'

<sup>10</sup> Surface Location

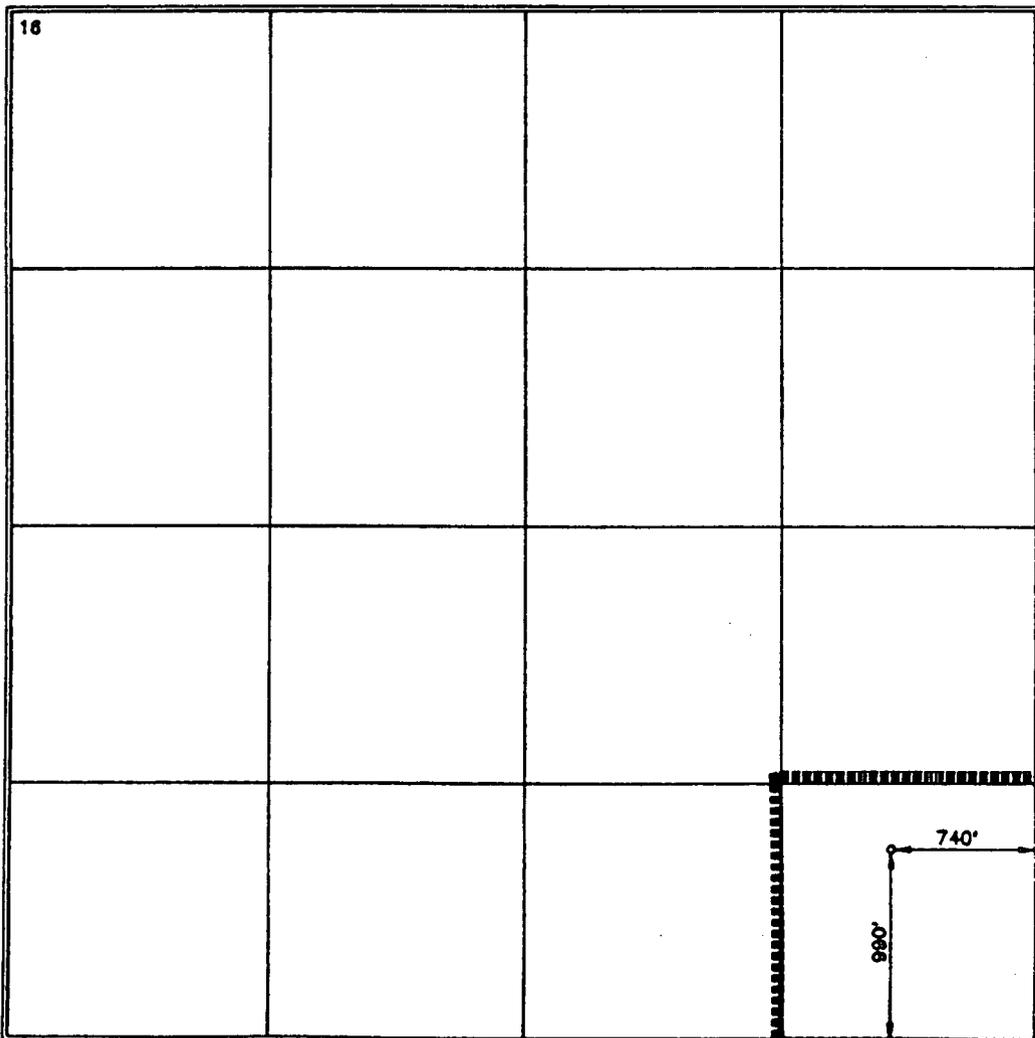
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	28	20-S	38-E		990	SOUTH	740	EAST	LEA

<sup>11</sup> 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

'Dedicated Acres 40	'Joint or Infill	'Consolidation Code	'Order No.
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<sup>17</sup> OPERATOR CERTIFICATION

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

*Jerry W. Hoover*  
 Signature

JERRY W. HOOVER

SR. CONSERVATION COORDINATOR

Title

5/25/95

Date

<sup>18</sup> 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 best of my belief.

APR 24 1995  
 Date of Survey

Signature and Seal of Professional Surveyor



Certificate Number 8278

Conoco, Inc.  
Warren Unit Well # 100  
Section 28, T-20-S, R-38-E  
Lea County, New Mexico

RE: Application For Downhole Commingling

Offset Operators:

Conoco, Inc is the only offset operator