

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

1913

ADMINISTRATIVE APPLICATION COVERSHEET

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

Application Acronyms:

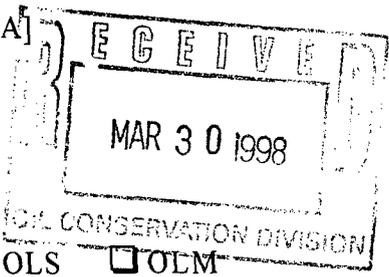
- [NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
- [DD-Directional Drilling] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [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.

Print or Type Name: Kay Maddox Signature: *Kay Maddox* Title: Regulatory Agent Date: 3/26/98

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 South First St. Artesia NM 88210 2835

OIL CONSERVATION DIVISION

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

APPROVAL PROCESS:
 Administrative Hearing
EXISTING WELLBORE
 YES NO

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

APPLICATION FOR DOWNHOLE COMMINGLING

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

Lease Ludwick LS Well No #18M Unit Ltr Sec Twp Rge Section 6, T-29-N, R-10-W, F County San Juan

OGRID NO. 005073 Property Code _____ API NO. _____ 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	Blanco Mesaverde 72319		Basin Dakota 71599
2. TOP and Bottom of Pay Section (Perforations)	4230-4830'		6755-6855'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Expected Flowing		Expected Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a (Current) 606	a.	a. 766
	b(Original) 1223	b.	b. 2485
6. Oil Gravity (°API) or Gas BT Content	1200 est		1200 est
7. Producing or Shut-In?			
Production Marginal? (yes or no)	No		Yes
• If Shut-In give date and oil/gas/water rates of last production Note For new zones with no production history applicant should be required to attach production estimates and supporting data • If Producing, date and oil/gas/water rates of recent test (within 60 days)	Date Rates	Date Rates	Date Rates
	To be supplied upon completion	To be supplied upon completion	To be supplied upon completion
8. Fixed Percentage Allocation Formula - % or 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.

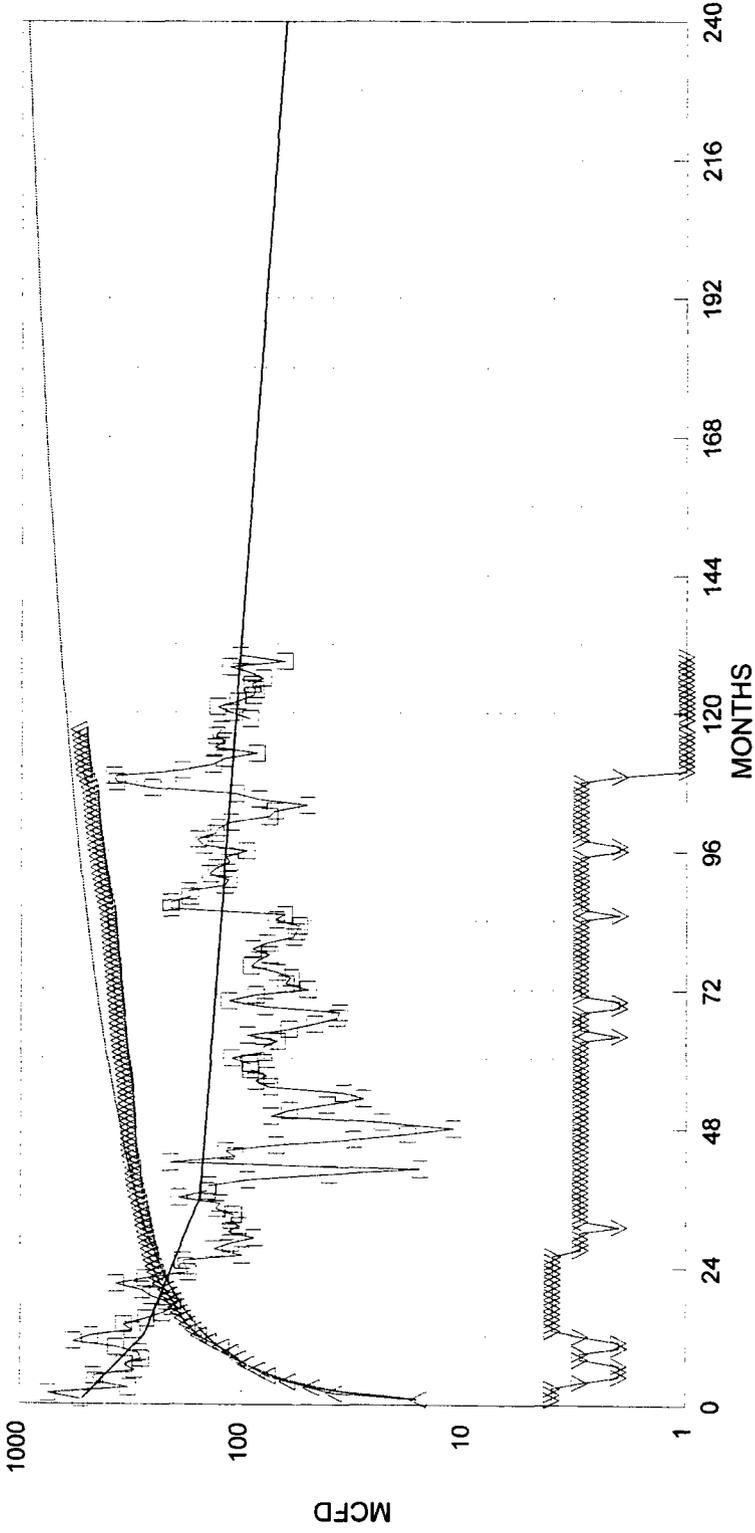
SIGNATURE Kay Maddox TITLE Regulatory Agent DATE 2/26/98

TYPE OR PRINT NAME Kay Maddox TELEPHONE NO. (915) 686-5798

APPLICATION FOR DOWNHOLE COMMINGLING
Ludwick LS 18M (6F 29N 10W)

As shown in the attached production plot for offsets to the Ludwick LS 18M, estimated ultimate recoveries and initial production rates from infill wells to the Dakota formation are insufficient to justify drilling stand alone wells. Furthermore, production plots from each zone indicate a similar decline profile and a fixed allocation formula can be utilized. Upon completion, both zones will be tested and stabilized flow rates will be used to allocate production from each zone. This procedure is common practice in Burlington's 29-7 Unit and reference is made to Order R-10697 as it applies to downhole commingling of marginal zones and the allocation of production between such zones.

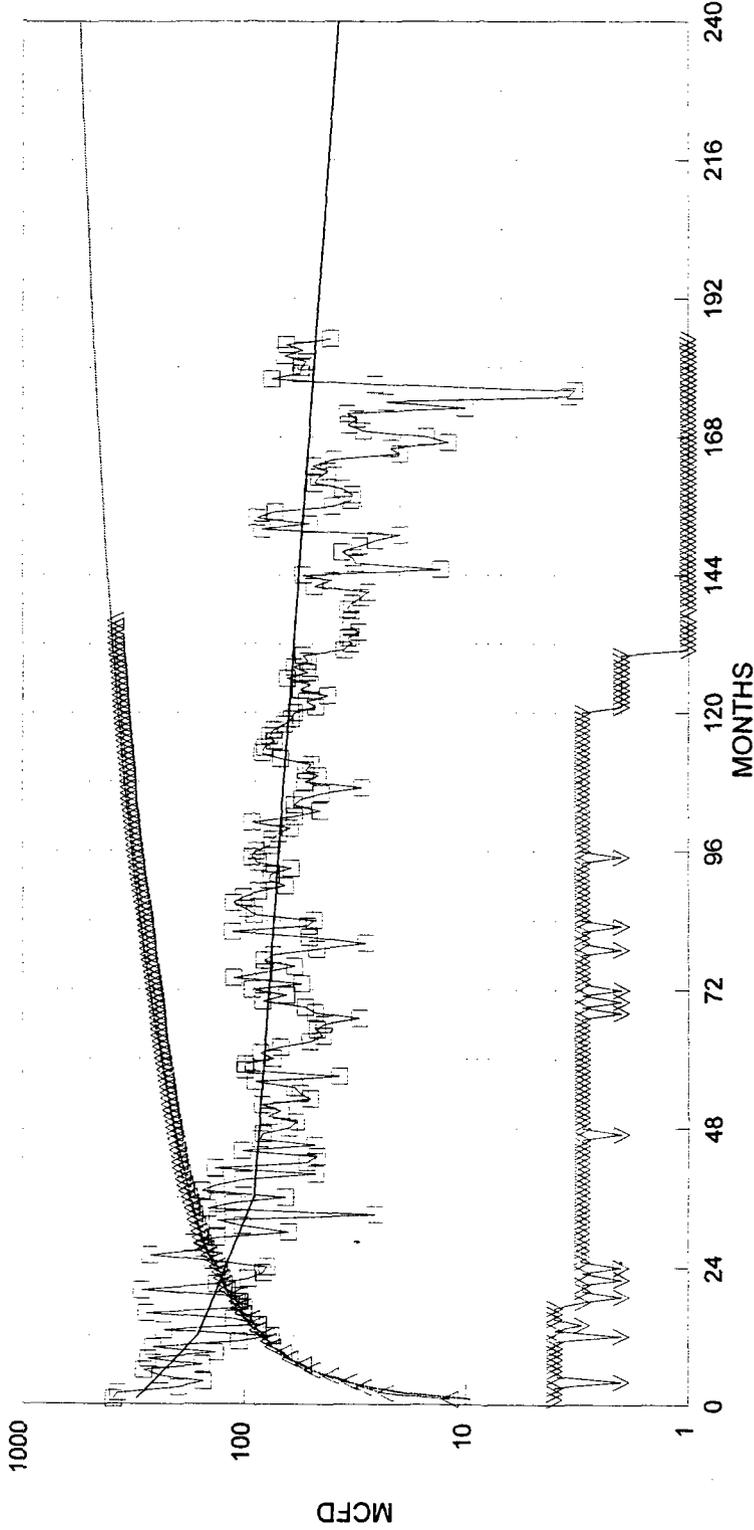
NORMALIZED MESAVERDE PRODUCTION
4 WELLS SINCE 1980; OFFSET TO SECTION 36-30N-11W



- - - FIT MCFD NORMALIZED MCFD ^ NORM CUM MMCF
 v WELLS ON PRODUCTION - - - FIT CUM MMCF - RISKED MCFD

NORMALIZED AVG:	0% RISK
1220 MMCF EUR	1220 MMCF EUR
940 MMCF IN 20 YRS	940 MMCF IN 20 YRS
25 MCFD E.L.	25 MCFD E.L.
0.0021 bbl/mcf oil yield	0.0021 bbl/mcf oil yield
550 MCFD IP	550 MCFD IP
50% DECLINE, 1ST 12 MONTHS	50.0% DECLINE, 1ST 12 MONTHS
25% DECLINE, NEXT 24 MONTHS	25.0% DECLINE, NEXT 24 MONTHS
5.0% FINAL DECLINE	5.0% FINAL DECLINE

**NORMALIZED DAKOTA PRODUCTION
4 WELLS SINCE 1980; OFFSET TO SECTION 36-30N-11W**



- - - FIT MCFD □ NORMALIZED MCFD △ NORM CUM MMCF
 ▽ WELLS ON PRODUCTION - - - FIT CUM MMCF - - - RISKED MCFD

NORMALIZED AVG: 648 MMCF EUR 555 MMCF IN 20 YRS 25 MCFD E.L. 0.0050 bbl/mcf oil yield	RISKED AVG: 648 MMCF EUR 555 MMCF IN 20 YRS 25 MCFD E.L. 0.0050 bbl/mcf oil yield	0% RISK 325 MCFD IP 50% DECLINE, 1ST 12 MONTHS 25% DECLINE, NEXT 24 MONTHS 5.0% FINAL DECLINE	0% RISK 325 MCFD IP 50.0% DECLINE, 1ST 12 MONTHS 25.0% DECLINE, NEXT 24 MONTHS 5.0% FINAL DECLINE
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District II
PO Drawer 80, Artesia, NM 88211-0719

District III
900 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	*Pool Name
		72319 / 71599	BLANCO MESAVERDE / BASIN DAKOTA
*Property Code	*Property Name		*Well Number
	LUDWICK LS		18M
*GRID No.	*Operator Name		*Elevation
005073	CONOCO, INC.		5933'

¹⁰ Surface Location

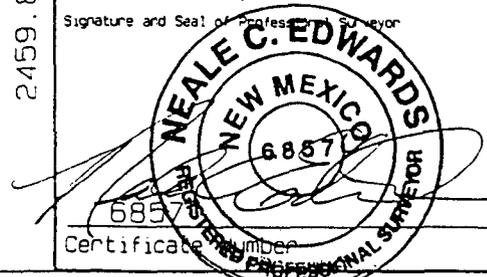
UL or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	Feet from the	East/West line	County
F	6	29N	10W		1450	NORTH	1505	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
320			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A FINAL STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

¹⁶ 1156.32' 1296.24' 11 1295.58' 12 2600.40' 1094.94'	1450' 10 13 21	2644.62' 9 14 17 2694.78'	8 15 16 23	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
				Signature: <i>Mike L. Mankin</i> Printed Name: Mike L. Mankin Title: Right-Of-Way Agent Date: 2-2-98	
6				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.	
				FEBRUARY 13, 1998 Date of Survey Signature and Seal of Professional Surveyor  Certificate Number: 6857	

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO SF 078194	
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____ SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Conoco Inc.		7. UNIT AGREEMENT NAME	
a. ADDRESS AND TELEPHONE NO 10 Desta Dr. Ste 430E, Midland, Tx. 79705-4500 915-686-5794		8. FARM OR LEASE NAME WELL NO LUDWICK LS #18M	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements *) At surface 1450' FNL & 1505' FWL At proposed prod. zone 1450' FNL & 1505' FWL		9. API WELL NO	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*		10. FIELD AND POOL, OR WILDCAT Blanco MV / Basin Dakota	
5. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if Any)		11. SEC. T., R., M., OR BLK. AND SURVEY OR AREA Sec. 6, T29N, R10W	
8. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.		12. COUNTY OR PARISH San Juan	
16. NO. OF ACRES IN LEASE		13. STATE NM	
19. PROPOSED DEPTH 7164'		17. NO. OF ACRES ASSIGNED TO THIS WELL 320	
20. ROTARY OR CABLE TOOLS Rotary		22. APPROX. DATE WORK WILL START* 4/15/98	
21. ELEVATIONS (Show whether DF, RT, GR, etc) 5933' GR			

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	K-55, 9-5/8"	36#	250'	135 sxs, circ.
8-3/4"	K-55, 7"	23#	2618'	320 sxs, circ.
6-1/4"	K-55, 4-1/2"	9.5#	6864'	460 sxs, toc @ 2450'

It is proposed to drill a vertical wellbore to the Blanco Mesaverde and Basin Dakota Pools. NOS was filed 2/21/98. The well will be drilled and equipped according to the following additional attachments:

1. Well Location & Acreage Dedication Plat (C-102).
2. Proposed Well Plan Outline.
3. Cementing Plan.
4. Blowout Preventer Hookup.
5. Surface Use Plan with Production Facility Layout.
6. Pipeline survey plat.

This application includes ROW's for the well pad, access road and pipeline.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Mike L. Mankin TITLE Right-of-Way Agent DATE March 3, 1998

(This space for Federal or State office use)

PERMIT NO _____ APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY _____ TITLE _____ DATE _____

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Conoco, Inc.
Ludwick LS #18M
Section 6, T-29-N, R-10-W, F
San Juan, New Mexico

RE: Application to Downhole Commingle (C-107A)

Notification Of Offset Operators:

Dugan Production Corp.
PO Box 420
Farmington, NM 87499-0420

Merrion Oil & Gas Corp.
610 Reilly Ave
Farmington, NM 87401-2634

Amoco
PO Box 800
Denver, CO 80201

Burlington Resources
PO Box 4239
Houston, TX 77210-4239