

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

DISTRICT II
811 South First St. Artesia NM 88210-2835

DISTRICT III
1000 Rio Brazos Rd. Aztec NM 87410-1653

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

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

APPROVAL PROCESS

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☐ YES ☒ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Conoco Inc.

10 Desta Dr. Ste 100W, Midland, Tx 79705-4500

Lease # 17 E Section 12, T-25-N, R-5-W, O Rio Arriba
Well No Unit Ctr Sec Twp Rge County

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)	5922-6283'		7899-8129'
3 Type of production (Oil or Gas)	Gas		Gas
4 Method of Production (Flowing or Artificial Lift)	To Flow		To Flow
5 Bottomhole Pressure	a (Current) 570	a	a
Oil Zones - Artificial Lift Gas & Oil - Flowing All Gas Zones Estimated Or Measured Original	b (Original) 1342	b	b
6 Oil Gravity (*API) or Gas BT Content	1260		1248
7 Producing or Shut-in?	To be Completed		To be Completed
Production Marginal? (yes or no)	Yes (expected)		Yes (expected)
• If Shut-In give date and oil/gas/water rates of last production <small>Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.</small>	Date Rates	Date Rates	Date Rates
• If Producing, date and oil/gas/water rates of recent test (within 60 days)	Anticipated 1st Yr average 126 MCFD, 3.5 BOPD	Anticipated 1st Yr average	Anticipated 1st Yr average 221 MCFD, 3.3 BOPD
8 Fixed Percentage Allocation Formula - % for each zone	Gas	Gas	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. NMOC 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 4/24/98

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

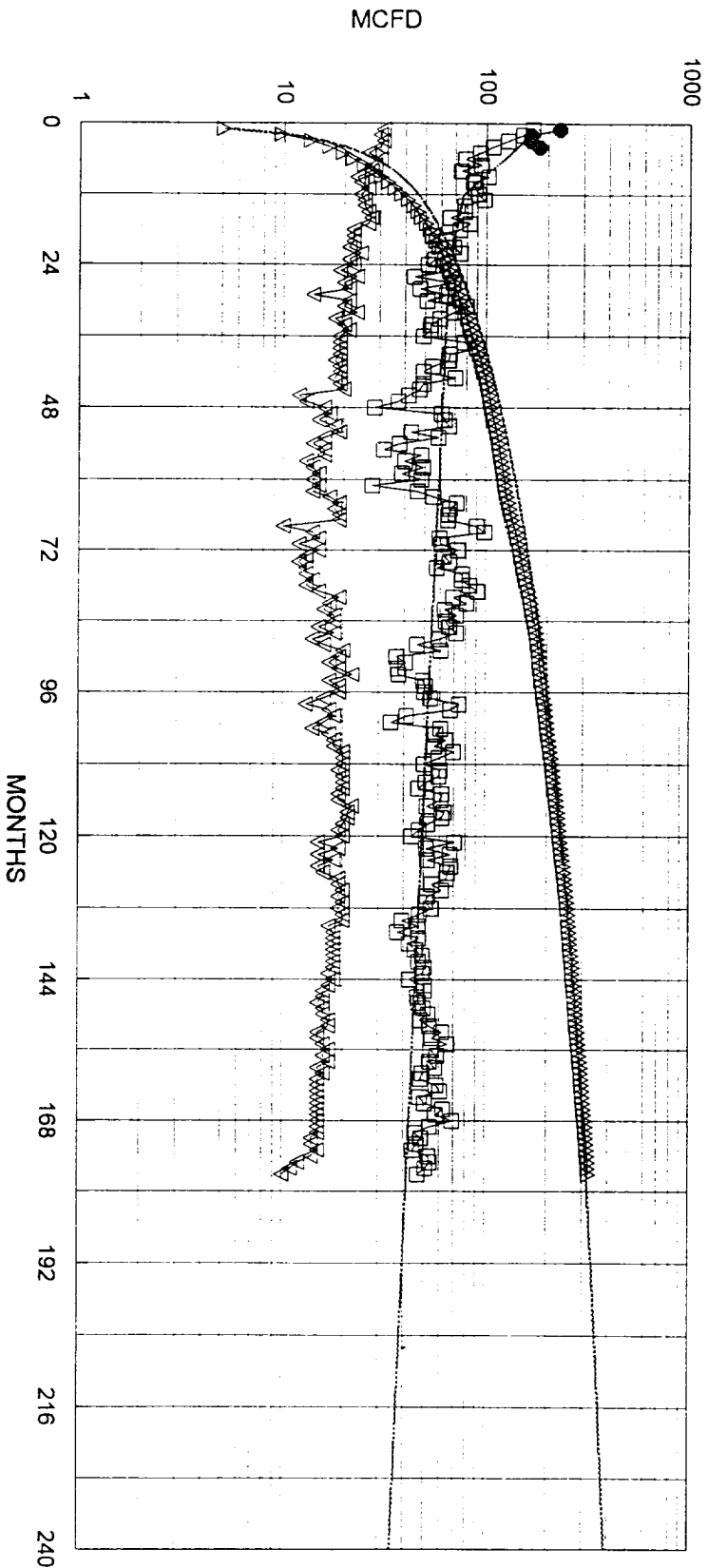
RECEIVED
MAY 13 1998
OIL CON. DIV.
DIST. 3

APPLICATION FOR DOWNHOLE COMMINGLING

Jicarilla K 17E, Unit Letter O, Section 12-T25N-R5W
Rio Arriba County, New Mexico

As shown in the attached production plot for offsets to the Jicarilla K 17E, estimated ultimate recoveries and initial production rates from infill wells to the Dakota and Mesaverde formations are clearly marginal in this area. Mesaverde estimated recoveries in particular do not justify drilling stand alone wells (389 MMCF recovery in 20 years, 536 MMCF ultimate recovery). 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 Conoco's 28-7 Unit and reference is made to Order R-10476-B as it applies to downhole commingling of marginal zones and the allocation of production between such zones.

NORMALIZED MESAUVERDE PRODUCTION
31 WELLS SINCE 1980. OFFSET TO JICARILLA K LEASE: SE 26N 5W AND NE 25N 05W



NORMALIZED AVERAGE PER WELL & EXPECTED NEW WELL AVG.

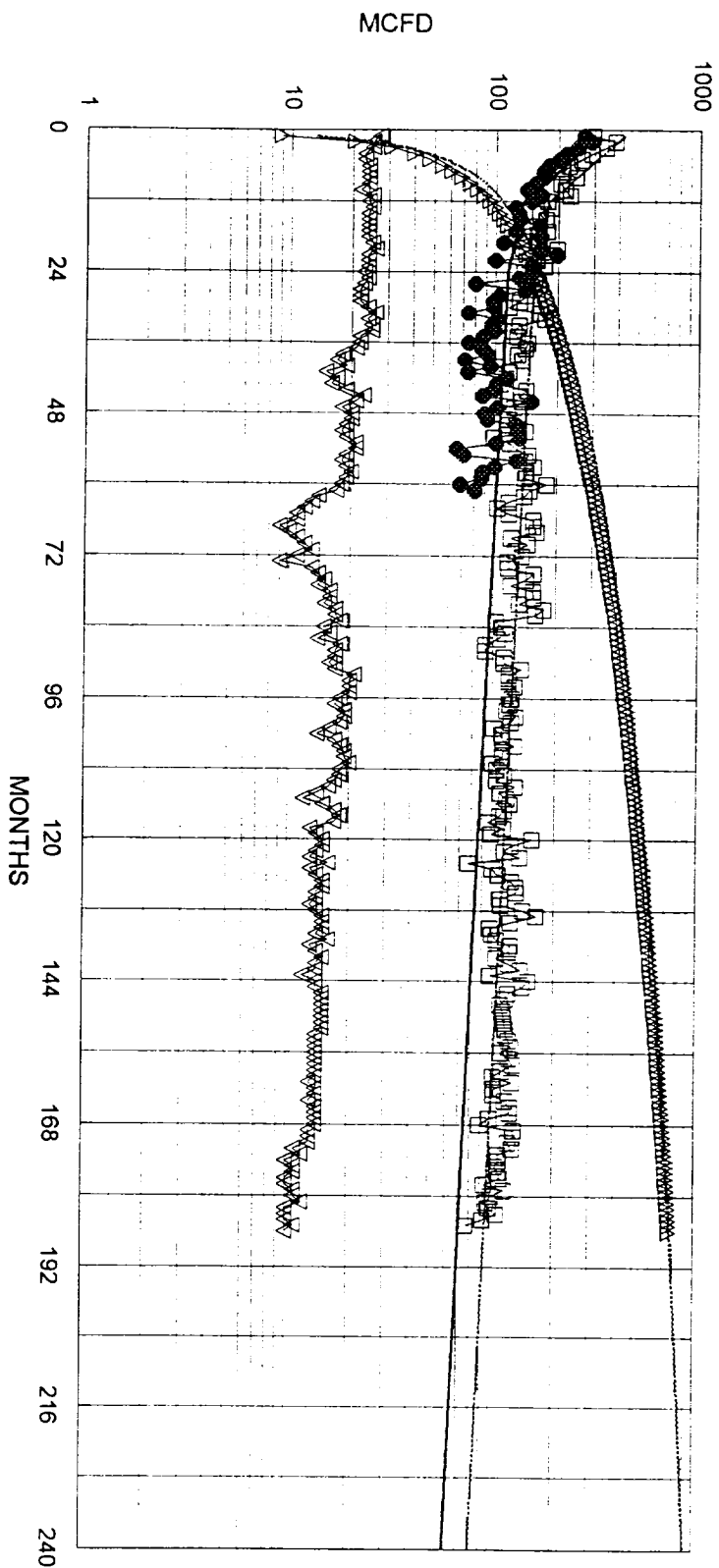
536 MMCF EUR
 389 MMCF IN 20 YRS
 20 MCFD E.L.
 0.0278 bbl/mcf oil yield

192 MCFD IP
 60% DECLINE, 1ST 12 MONTHS
 15% DECLINE, NEXT 12 MONTHS
 3.5% FINAL DECLINE

NEW RECOMPLETIONS IN 1997:

JICARILLA K 10	1D-25N-5W	JICARILLA K 15	11-25N-5W
JICARILLA K 10E	1K-25N-5W	JICARILLA K 16E	1A-25N-5W
JICARILLA K 11	2E-25N-5W		
JICARILLA K 11E	2B-25N-5W		

NORMALIZED DAKOTA PRODUCTION
27 WELLS SINCE 1980, 16 SECTIONS SURROUNDING JIC, K LEASE (SEC 1,2,11, & 12; 25N-05W)



— FIT MCFD	□ NORMALIZED MCFD	△ NORM CUM MMCF	▽ WELLS ON PRODUCTION
.... FIT CUM MMCF	— RISKED MCFD	◆ 4 WELLS SINCE 1992	

NORMALIZED AVG PER WELL:		RISKED AVG:	
1531 MMCF EUR	450 MCFD IP	25% RISK (EXPECTED NEW COMPLETION AVERAGE)	
913 MMCF IN 20 YRS	60% DECLINE, 1ST 12 MONTHS	1097 MMCF EUR	338 MCFD IP
20 MCFD E.L.	15% DECLINE, NEXT 12 MONTHS	684 MMCF IN 20 YR	60.0% DECLINE, 1ST 12 MONTHS
0.0149 bbl/mcf oil yield	3.5% FINAL DECLINE	20 MCFD E.L.	15.0% DECLINE, NEXT 12 MONTHS
		0.0149 bbl/mcf oil yield	3.5% FINAL DECLINE

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

FORM APPROVED
OMB NO. 1004-0126
Expires February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>			2. LEASE DESIGNATION AND SERIAL NO. CONT 145	
3. NAME OF OPERATOR Conoco Inc.			4. INDIAN ALLOTTEE OR TRIBE NAME JICARILLA	
5. ADDRESS AND TELEPHONE NO. 10 Desta Dr. Ste 430E, Midland, Tx. 79705-4500 915-686-5794			6. UNIT AGREEMENT NAME JICARILLA K #17E	
7. LOCATION OF WELL (Report location clearly and in accordance with any State requirements *) At surface 790' FSL & 1850' FEL At proposed prod. zone 790' FNL & 1850' FEL			8. FARM OR LEASE NAME WELL NO. JICARILLA K #17E	
9. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*			10. FIELD AND POOL, OR WILDCAT Blanco MV/Basin Dakota	
11. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any)			12. SEC. T., R., M., OR BLK AND SURVEYOR AREA Sec. 12, T25N, R5W	
13. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.			14. COUNTY OR PARISH Rio Arriba	
15. NO. OF ACRES IN LEASE			16. STATE NM	
17. NO. OF ACRES ASSIGNED TO THIS WELL 320			18. ROTARY OR CABLE TOOLS Rotary	
19. PROPOSED DEPTH 8429'			20. APPROX. DATE WORK WILL START* 4/15/98	
21. ELEVATIONS (Show whether OF, RT, GR, etc.) 7379' GR				

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	K-55, 8-5/8"	24#	300'	130 sxs, circ.
7-7/8"	K-55, 5-1/2"	15.5#	8129'	1180 sxs, circ.

It is proposed to drill verical wellbore to be downhole commingled in the Blanco Mesaverde and Basin Dakota Pools following the acquisition of sufficient production test data for allocation purposes. A downhole commingling application will be filed with the BLM and NMOCD prior to commingling. A NOS was filed 10/31/97. This well will drilled and equipped according to the following attachments:

1. Well Location & Acreage Dedication Plat (C-102) and other associated plats.
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 wellpad and access road.

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.

APPROVED *Mike L. Mankin* TITLE Right-of-Way Agent DATE March 4, 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.

NEW MEXICO
 DEPARTMENT OF LAND AND NATURAL RESOURCES
 OIL CONSERVATION DIVISION
 P.O. Box 20498
 Santa Fe, NM 87501-2049

WELL LOCATION AND ACREAGE DEDICATION PLAT

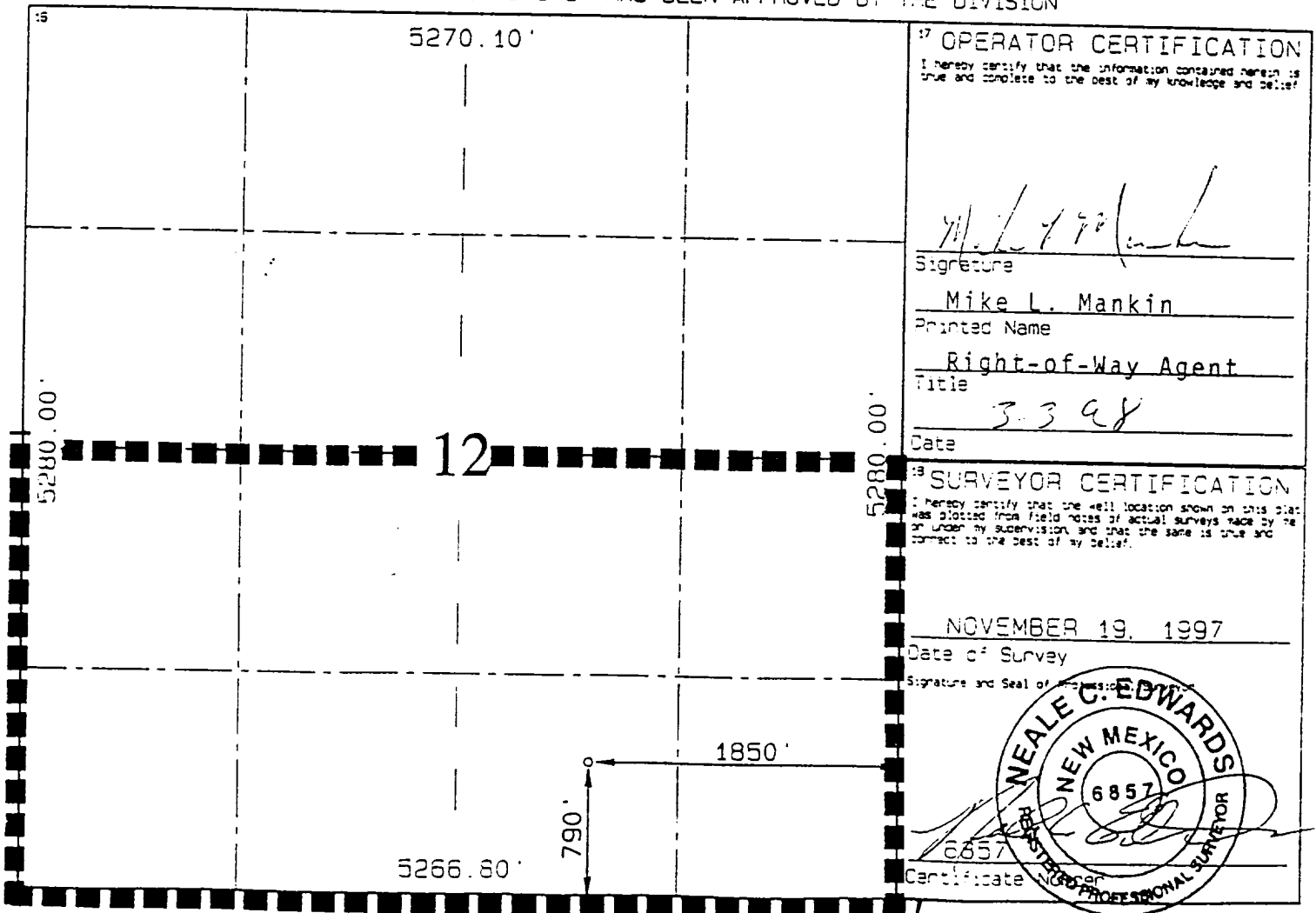
*API Number		*Pool Code		*Well Name	
		72319/71599		Blanco Mesaverde/Basin Dakota	
*Property Code		*Property Name			*Well Number
18023		JICARILLA K			17E
*CGRTO No		*Operator Name			*Elevation
005073		CONOCO, INC.			7379

10 Surface Location									
UL or lot no	Section	Township	Range	Lot 10n	Feet from the	North/South line	Feet from the	East/West line	County
0	12	25N	5W		790	South	1850	East	ARIZONA

11 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

*Dedicated Acres	*Joint or Infill	*Consolidation Code	*Order No.
320			

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



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

Mike L. Mankin
 Signature
 Mike L. Mankin
 Printed Name
 Right-of-Way Agent
 Title
 3-3-98
 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.

NOVEMBER 19, 1997
 Date of Survey

Signature and Seal of the Surveyor

NEALE C. EDWARDS
 NEW MEXICO
 6857
 PROFESSIONAL SURVEYOR
 Certificate No. 6857

Jicarilla K #17E
Section 12, T-25-N, R-5-W,
Rio Arriba County, TX

RE: Application C-107A to Downhole Commingle

Notification of Offset Operators:

Burlington Resources
PO Box 4289
Farmington, NM 87499

Amoco
PO Box 800
Denver, CO 80201

A copy of the C-107A has been sent to the above listed parties

CONDITIONS OF APPROVAL FOR DOWNHOLE COMMINGLING

Operator Conoco Inc. Well Name Jic. 145 K #17E

1. The individual production zones will be tested every three years, or more often if production rates indicate a change to allocation factors, to verify that the allocation factors and methods remain proper.
2. Production from downhole commingled wells are to be reported with an alpha character, "C" (ie C1, C2, etc).
3. The following modifications to your downhole commingling program are to be made :

Submit production allocation formula upon completion of testing.

Submit well bore diagram upon completion of well.