

DISTRICT I
O. J. 1900, Hobbs, NM 88241-1900

DISTRICT II
d11 South First St. Artesia NM 88210-2835

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

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

Jicarilla K

16 E

Section 12, T-25-N, R-5-W, A

Rio Arriba

Lease

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)	5229-5590'		7257-7487'
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)	a	a
Oil Zones - Artificial Lift Estimated Current	562		950
Gas & Oil - Flowing Measured Current	b (Original)	b	b
All Gas Zones Estimated Or Measured Original	1321		2810
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	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	Date Rates	Anticipated 1st Yr Average 221 MCFD, 3.3 BOPD
8. Fixed Percentage Allocation Formula - % of 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

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.

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

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

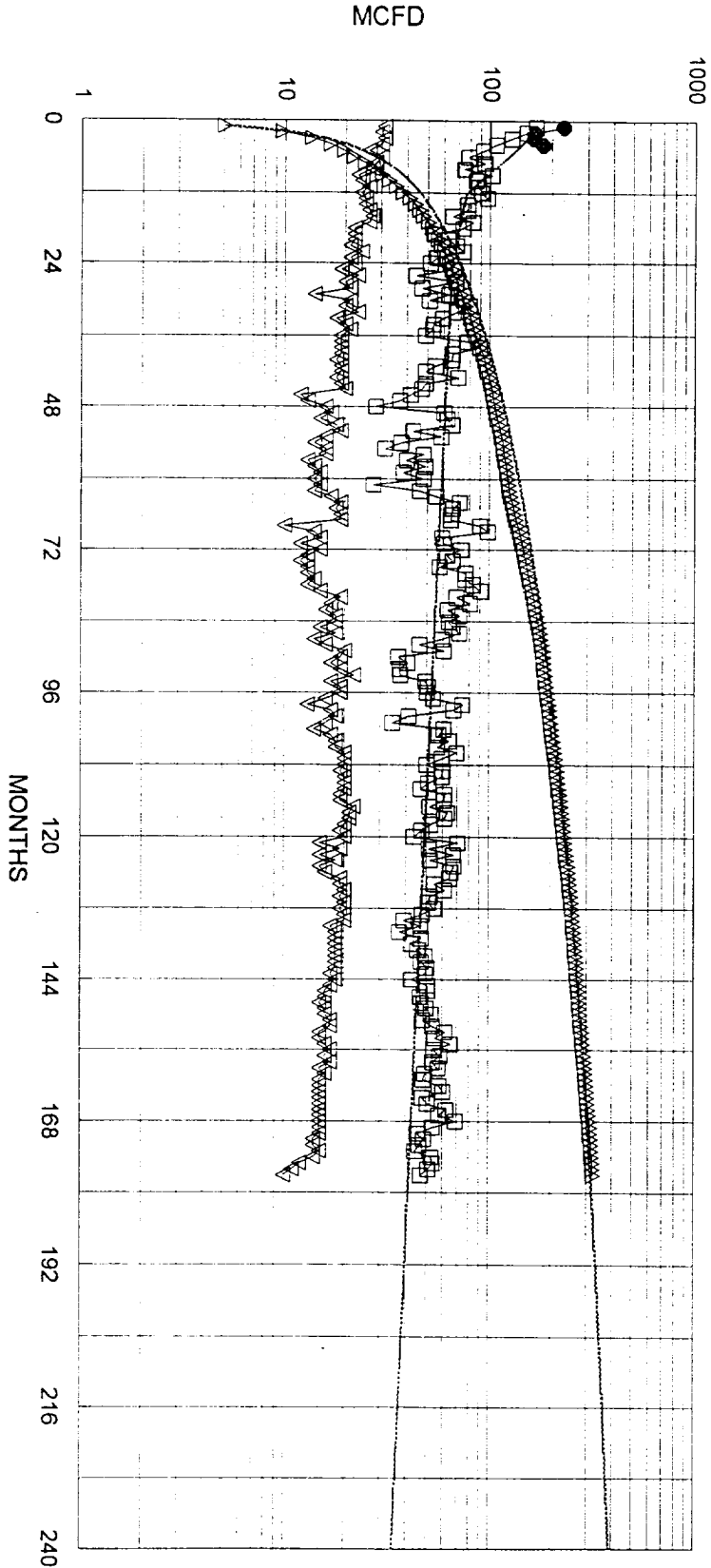
APPLICATION FOR DOWNHOLE COMMINGLING

Jicarilla K 16E, Unit Letter A, Section 12-T25N-R5W
Rio Arriba County, New Mexico

As shown in the attached production plot for offsets to the Jicarilla K 16E, 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 MESAVERDE PRODUCTION

31 WELLS SINCE 1980; OFFSET TO JICARILLA K LEASE; SE 26N 5W AND NE 25N 05W



— FIT MCFD □ NORMALIZED MCFD △ NORM CUM MMCF
▽ WELLS ON PRODUCTION — FIT CUM MMCF ● 6 NEW 1997 RECOMPLETIONS

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

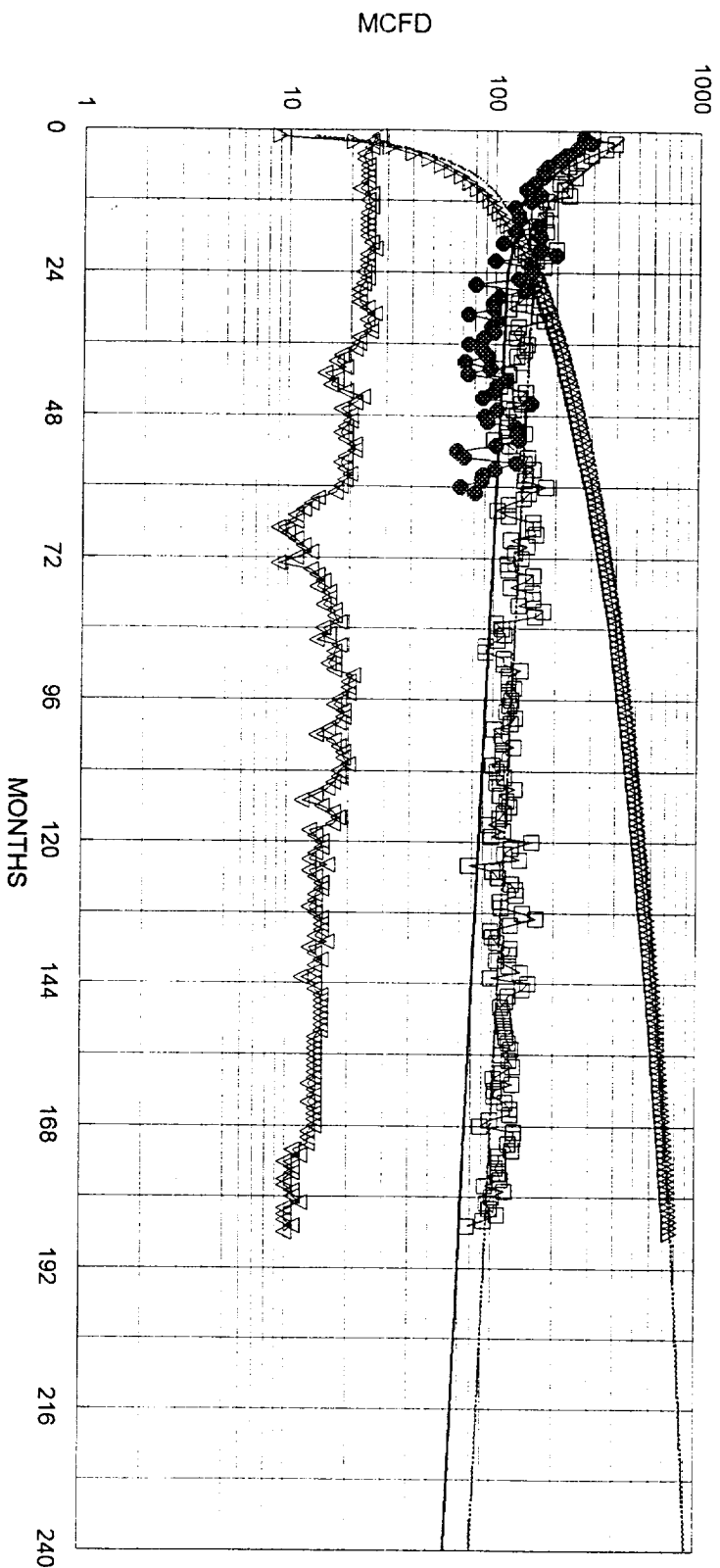
192 MCFD IP
60% DECLINE, 1ST 12 MONTHS
15% DECLINE, NEXT 12 MONTHS
3.5% FINAL DECLINE

NEW RECOMPLETIONS IN 1997:

JICARILLA K 10	1D-25N-5W	JICARILLA K 15	1I-25N-5W
JICARILLA K 10E	1K-25N-5W	JICARILLA K 15E	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:

1531 MMCF EUR
 913 MMCF IN 20 YRS
 20 MCFD E.L.
 0.0149 bbl/mcf oil yield

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

RISKED AVG:

25% RISK (EXPECTED NEW COMPLETION AVERAGE)

1097 MMCF EUR
 684 MMCF IN 20 YR
 20 MCFD E.L.
 0.0149 bbl/mcf oil yield

338 MCFD IP
 60.0% DECLINE, 1ST 12 MONTHS
 15.0% DECLINE, NEXT 12 MONTHS
 3.5% FINAL DECLINE

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Other instructions on
reverse side

FORM APPROVED
OMB NO. 1004-0136
Expires February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1. TYPE OF WORK

DRILL ☒

DEEPEN ☐

2. TYPE OF WELL

WELL ☐

GAS WELL ☒

OTHER

OTHER ☐

OTHER ☐

3. NAME OF OPERATOR

Conoco Inc.

4. ADDRESS AND TELEPHONE NO.

10 Desta Dr. Ste 430E, Midland, Tx. 79705-4500

915-686-5794

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements *)

At surface

1190' FNL & 1060' FEL

At proposed prod. zone

1190' FNL & 1060' FEL

6. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

7. LEASE DESIGNATION AND SERIAL NO.

CONT 145

8. IF INDIAN, ALLOTTEE OR TRIBE NAME

JICARILLA

9. UNIT AGREEMENT NAME

10. FARM OR LEASE NAME WELL NO.

JICARILLA K #16E

11. API WELL NO.

12. FIELD AND POOL, OR WILDCAT

Blanco MV/Basin Dakota/Otero

13. SEC. T. R. M. OR BLK. AND SURVEY OR AREA

Sec. 12, T25N, R5W

14. COUNTY OR PARISH

Rio Arriba

15. STATE

NM

16. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

17. NO. OF ACRES IN LEASE

18. NO. OF ACRES ASSIGNED
TO THIS WELL

320/320/160

19. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

20. PROPOSED DEPTH

7787'

21. ROTARY OR CABLE TOOLS

Rotary

22. ELEVATIONS (Show whether DF, RT, GR, etc.)

6693' GR

23. APPROX. DATE WORK WILL START*

4/15/98

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#	7487'	1080 sxs, circ.

It is proposed to drill vertical wellbore to be downhole commingled in the Blanco Mesaverde, Basin Dakota and Otero Chacra 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.

SIGNED 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.

1. Well Location and Acreage Dedication Plat

2. CONSERVATION DIVISION

PO BOX 2038

Santa Fe, NM 87504-2038

3. Well Number

4. Well Name

5. Well Completion Date

WELL LOCATION AND ACREAGE DEDICATION PLAT

APN Number	Prop. Code	Well Name
72319/71599/82329	Blanco Mesaverd/Basin Dakota/Chacra	Otero
Property Code	Property Name	Well Number
JICARILLA K		16E
UGRID No	Operator Name	Elevation
005073	CONOCO	6593'

10 Surface Location

UL or Lot No	Section	Township	Range	Lot Ecn	Feet from the	North/South line	Feet from the	East/West line	County
A	12	25N	5W		1190	North	1060	East	PIO ARIZONA

11 Bottom Hole Location If Different From Surface

UL or Lot No	Section	Township	Range	Lot Ecn	Feet from the	North/South line	Feet from the	East/West line	County
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12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320/320/160			

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	5270.10'	1190'	1060'	17 OPERATOR CERTIFICATION
				I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.
				Signature
				Mike L Mankin
				Printed Name
				Right-of-Way Agent
				Title
				3-3-98
				Date
5280.00'	12	5280.00'		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 Professional Surveyor
				NEALE C. EDWARDS
				NEW MEXICO
				6857
				RECEIVED
				Certified by the Professional Surveyor
5266.50'				

Jicarilla K # 16E
Section 12, T-25-N, R-5-W, A
Rio Arriba, New Mexico

RE: Downhole Commingle C107A Application

Notification of Offset Operators:

Amoco, Inc.
PO Box 800
Denver, CO 80201

Burlington Resources
PO Box 4289
Farmington, NM 87499

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

CONDITIONS OF APPROVAL FOR DOWNHOLE COMMINGLING

Operator Conoco Inc. Well Name Jic. 145 K #16E

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.