

DISTRICT I

10000 Hwy 1900 Hobbs, NM 88241-1900

DISTRICT II

411 South First St. Artesia NM 88210-2835

DISTRICT III

10900 Hwy Brazos Rd. Aztec, NM 87410-1655

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-8429Form 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

Helen Jackson

#2A

Section 33, T-29-N, R-9-W, O

San Juan

Lease

Well No

Unit Ltr Sec Twp Rge

County

OGRID NO 005073

Property Code

API NO

30-045-23294

Spacing Unit Lease Types (check 1 or more)

Federal ☒ State ☐ Land Use Fee ☐

The following facts are submitted in support of downhole commingling	Upper Zone	Intermediate Zone	Lower Zone
1 Pool Name and Pool Code	Blanco Mesavende 72319		Basin Dakota 71599
2 TOP and Bottom of Pay Section (Perforations)	3883-4216'		6616-6800'
3 Type of production (Oil or Gas)	Gas		Gas
4 Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5 Bottomhole Pressure	a. Current 370		a 786
Oil Zones - Artificial Lift Gas & Oil - Flowing Measured Current All Gas Zones Estimated Or Measured Original	b. Original 1155		2450
6 Oil Gravity (°API) or Gas BT Content	1296		1249
7 Producing or Shut-In?	Producing		Producing
Production Marginal? (yes or no)	Yes		Yes
• If Shut-In give date and oil/gas/water rates of last production	Date Rates 6 98 67 MCFD, 1 BOPD	Date Rates	Date Rates 6 98 69 MCFD, 1 BOPD
• If Producing, date and oil/gas/water rates of recent test (within 60 days)			
8 Fixed Percentage Allocation Formula (1 of each zone)	42 42		58 58

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 ☐ No11. 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 ☐ No13. 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

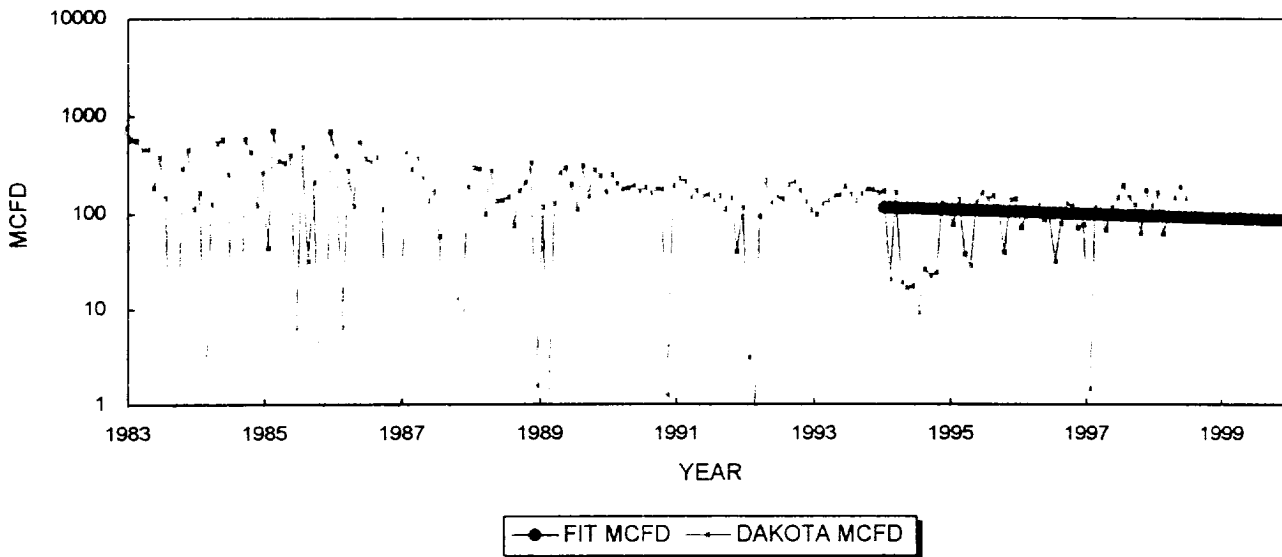
DATE 10/5/98

TYPE OR PRINT NAME Kay Maddox

TELEPHONE NO

(915) 686-5798

**HELEN JACKSON #2A DAKOTA PRODUCTION
SECTION 330-29N-09W**



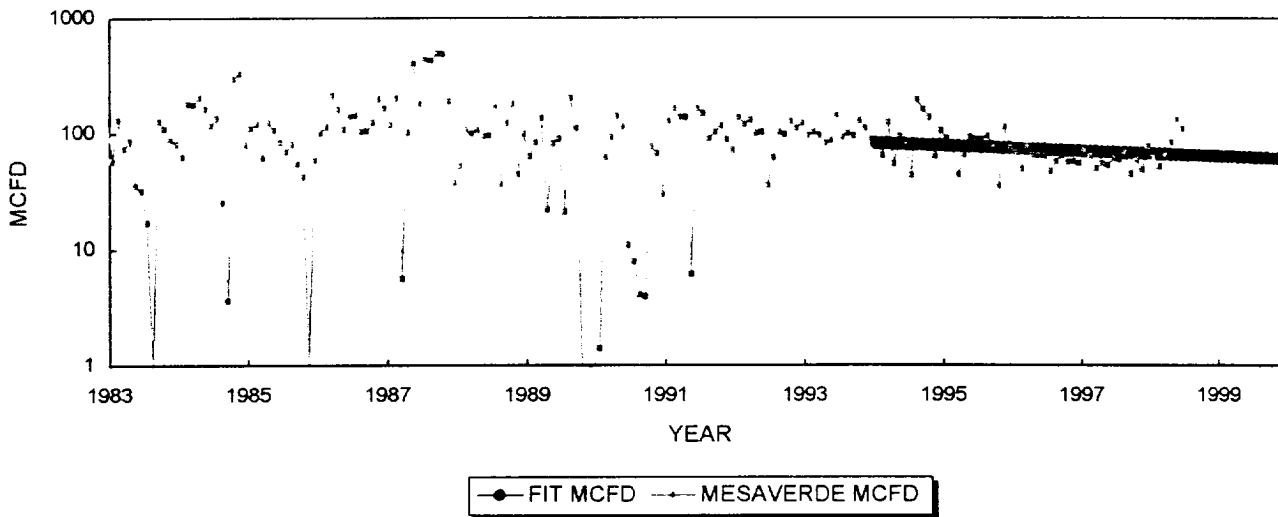
DAKOTA HISTORICAL DATA: 1ST PRD: 04/80

OIL CUM: 13.27 MBO
GAS CUM: 1508.3 MMCF
OIL YIELD: 0.0088 BBL/MCF

DAKOTA PROJECTED DATA

10/1/98 Qi: 91 MCFD
DECLINE %: 5.0% (EXPONENTIAL)

**HELEN JACKSON #2A MESAVERDE PRODUCTION
SECTION 330-29N-09W**



MV HISTORICAL DATA: 1ST PRD: 12/80

OIL CUM: 6.9 MBO
GAS CUM: 763.0 MMCF
OIL YIELD: 0.0090 BBL/MCF

MESAVERDE PROJECTED DATA

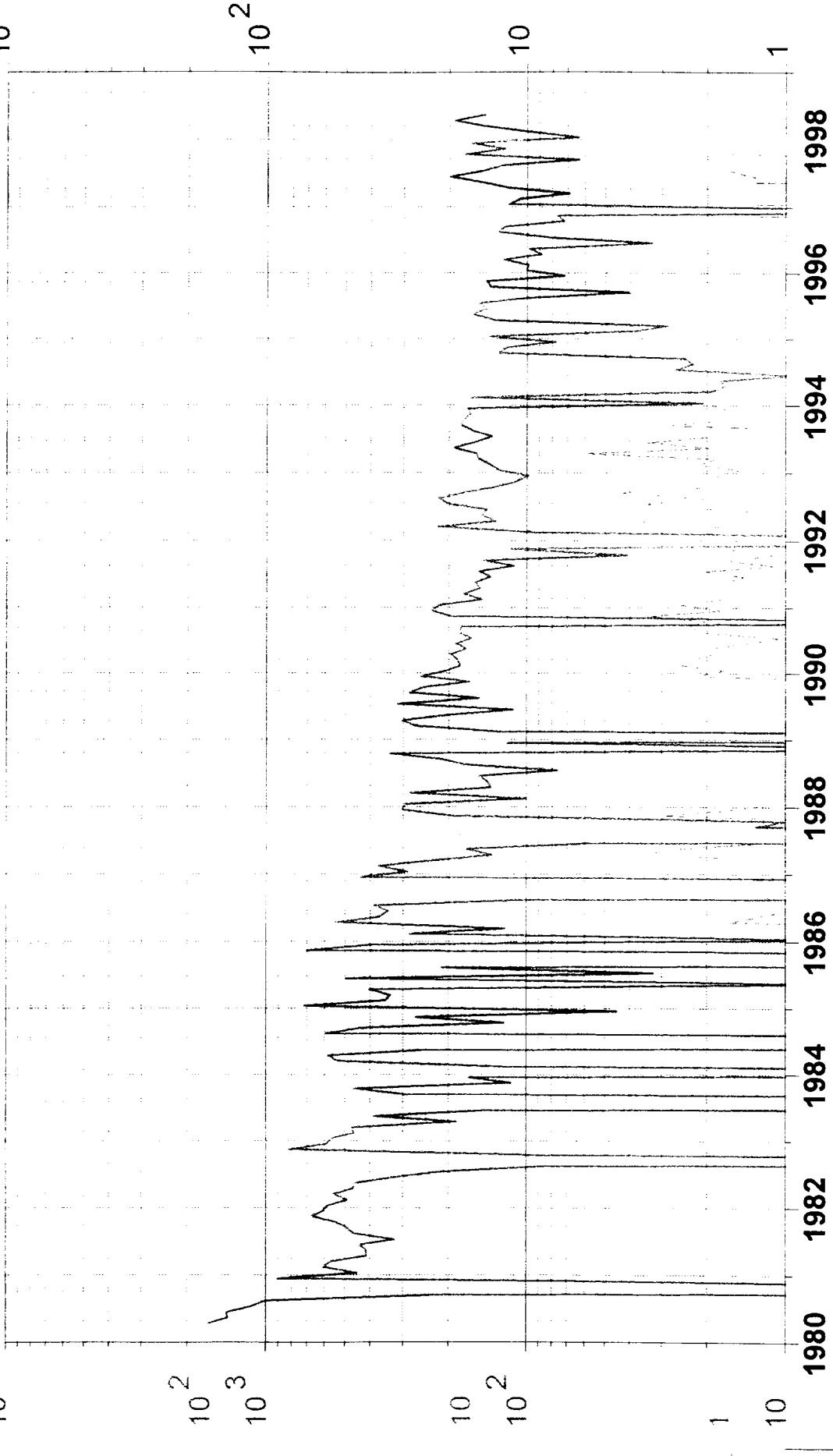
10/1/98 Qi: 65 MCFD
DECLINE %: 5.0% (EXPONENTIAL)

FIXED COMMINGLE ALLOCATION FACTORS:

	GAS	OIL
DAKOTA	58%	58%
MESAVERDE	42%	42%

GAS ALLOCATION BASED ON PROJECTED 1998 RATES
OIL ALLOCATION BASED ON WEIGHTED CUM OIL YIELDS

NOTE: ALL PRODUCTION DATA FROM DWIGHTS ENERGYDATA



Gas (mcf/day)	County: SAN JUAN, NM	F.P. Date: 04/80	Water (bbl/day)
Oil (bbl/day)	Field: BASIN (DAKOTA) DK	Oil Cum: 13.27 mbbl	
	Reservoir: DAKOTA	Gas Cum: 1508 mmcf	
	Operator: CONOCO INC	Location: 33O 29N 9W	

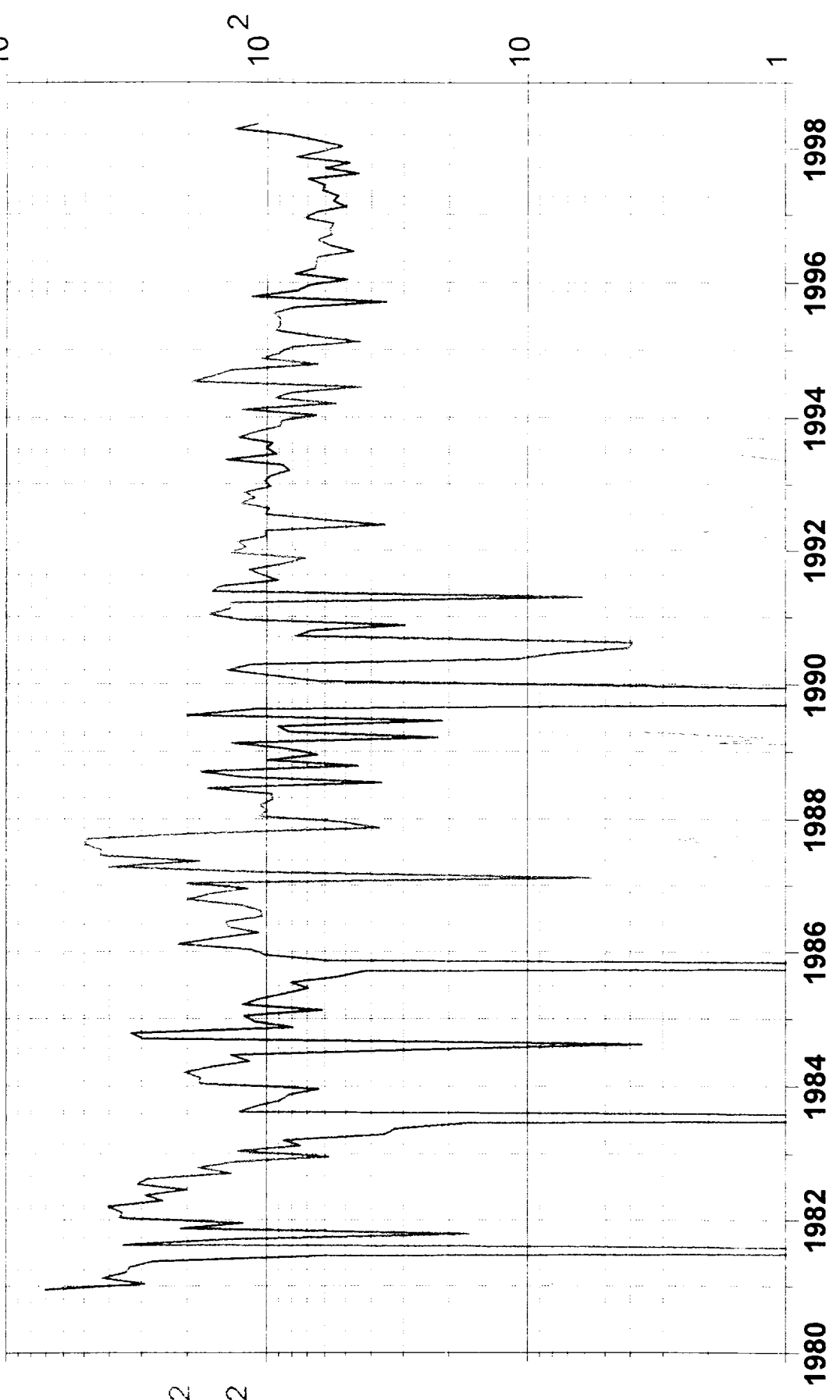
10³
10³
10³

Lease: HELEN JACKSON (2A)

Dwights

Retrieval Code: 251,045,29N09W33O00MV
09/30/98

10³



Gas (mcf/day)

Oil (bbl/day)

Water (bbl/day)

County: SAN JUAN, NM	F.P. Date: 12/80
Field: BLANCO (MESAVARDE)	Oil Cum: 6871 bbl
Reservoir: MESAVARDE	Gas Cum: 762.7 mmcf
Operator: CONOCO INC	Location: 33O 29N 9W

--QUICK BHP--

Calculate BHP and Z-factor from surface shut-in pressure

CURRENT PRESSURES

10/01/98

WELL NAME : HELEN JACKSON 2A CURRENT MESAVERDE PRESSURE
GAS GRAVITY: 0.66 % N2 0.20
CONDENSATE (YES=1): 0 % CO2 0.20 %
RESERVOIR TEMP: 130 'F % H2S 0.00 %
SURFACE TEMP: 60 'F Pc = 671.09 %
DEPTH OF ZONE: 4,050 feet Tc = 376.38

SURFACE PRES	BHP	Z	BHP/Z
psia	psia		psia
336	370	0.9531	388

NOTE:

WELL NAME : HELEN JACKSON 2A INITIAL MESAVERDE PRESSURE
GAS GRAVITY: 0.66 % N2 0.20
CONDENSATE (YES=1): 0 % CO2 0.20 %
RESERVOIR TEMP: 130 'F % H2S 0.00 %
SURFACE TEMP: 60 'F Pc = 671.09 %
DEPTH OF ZONE: 4,050 feet Tc = 376.38

SURFACE PRES	BHP	Z	BHP/Z
psia	psia		psia
1,036	1,155	0.8655	1,334

--QUICK BHP--

Calculate BHP and Z-factor from surface shut-in pressure

CURRENT PRESSURES

10/01/98

WELL NAME : HELEN JACKSON 2A CURRENT DAKOTA PRESSURE
GAS GRAVITY: 0.66 % N2 0.20
CONDENSATE (YES=1): 0 % CO2 0.20 %
RESERVOIR TEMP: 175 'F % H2S 0.00 %
SURFACE TEMP: 60 'F Pc = 671.09 %
DEPTH OF ZONE: 6,708 feet Tc = 376.38

SURFACE PRES	BHP	Z	BHP/Z
psia	psia		psia
670	786	0.9269	848

NOTE:

WELL NAME : HELEN JACKSON 2A INITIAL DAKOTA PRESSURE
GAS GRAVITY: 0.66 % N2 0.20
CONDENSATE (YES=1): 0 % CO2 0.20 %
RESERVOIR TEMP: 175 'F % H2S 0.00 %
SURFACE TEMP: 60 'F Pc = 671.09 %
DEPTH OF ZONE: 6,708 feet Tc = 376.38

SURFACE PRES	BHP	Z	BHP/Z
psia	psia		psia
2,038	2,452	0.8594	2.853

Helen Jackson #2A
API # 30-045-23294
Section 33, T-29-N, R-9-W, O
San Juan County, NM

RE: Downhole Commingle Application C-107A

Notification Of Offset Operators:

Amoco
PO Box 800
Denver, CO 80201

S&G Interests
1331 Lamar STE 501
Houston, TX 77010

Burlington Resources
PO Box 4289
Farmington, NM 87499

Koch Exploration Co.
PO Box 2256
Wichita, KS 67201

Cross Timbers
6001 HWY 64
Farmington, NM 87401

Taurus Exploration Inc
2101 6th Ave N
Birmingham, AL 35203-2784

D.J. Simmons
PO Box 1469
Farmington, NM 87499-1469

A copy of the Downhole Commingle Application has been sent to the above listed parties.

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-100
Supersedes C-120
Effective 1-1-67

All distances must be from the outer boundaries of the Section

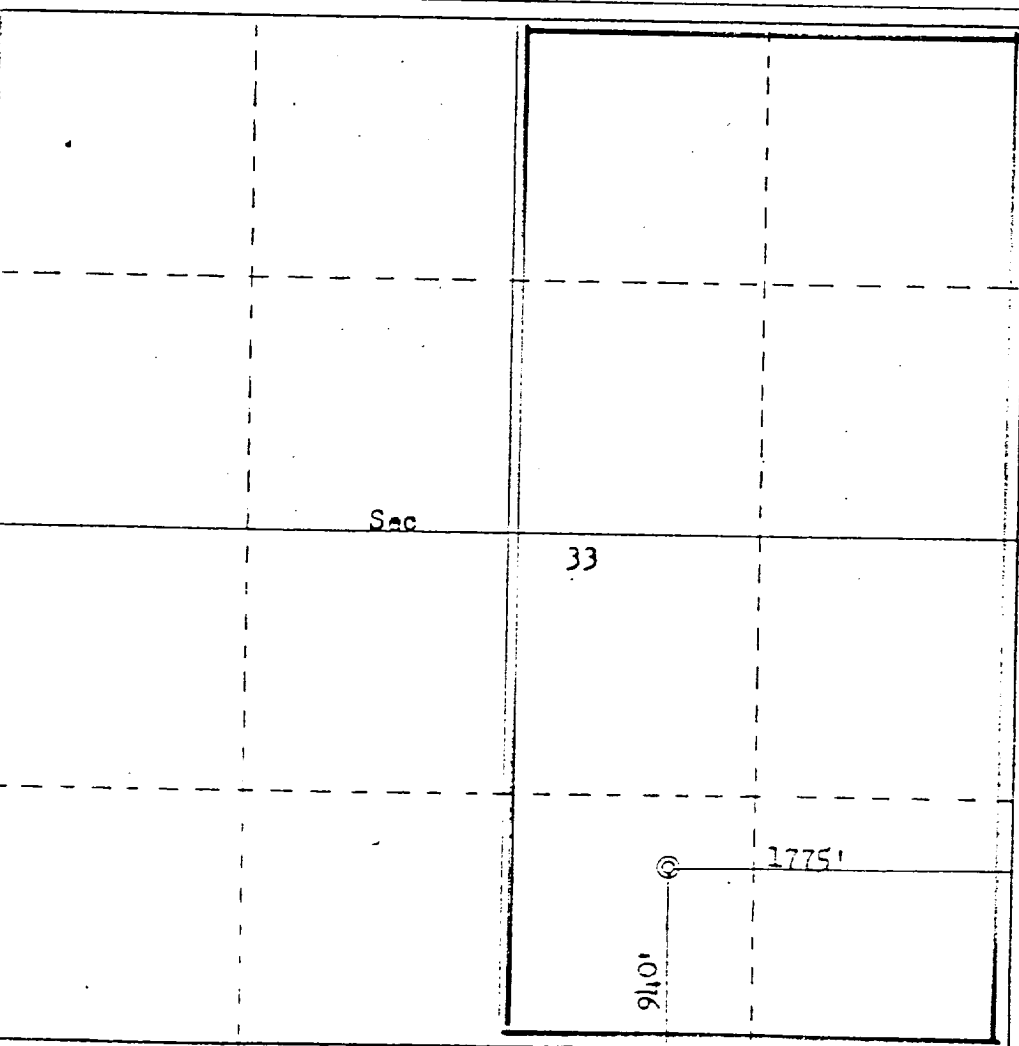
Operator TEENECO OIL COMPANY		Location JACKSON 717		Well No. 1	
East Letter 0	Section 33	Township 29N	Range 9W	County SAN JUAN	
Actual Footage Location of Well:					
940		feet from the South line and		1775	
feet from the		East line			
Ground Level Elev. 5903	Producing Formation Dakota		Pool Basin Dakota		Dedicated Acreage: Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name _____

Position _____

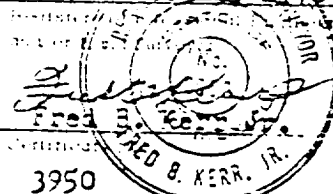
Company _____

Date _____

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 knowledge and belief.

Date Surveyed _____

September 23, 1978



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

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

Fee Lease - 3 Copies

☐ AMENDED REPORT

API Number 30-045-23294	2 Pool Code 72319	3 Pool Name Blanco Mesaverde
4 Property Code	5 Property Name Helen Jackson	6 Well Number #2A
7 OGRID No. 005073	8 Operator Name Conoco Inc., 10 Desta Drive, Ste. 100W, Midland, TX 79705-4500	9 Elevation 5903'

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	33	29N	9W		940	South	1775	East	San Juan

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 320	13 Joint or Infil	14 Consolidation Code		15 Order No.					

16				17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature Kay Maddox Printed Name Regulatory Agent Title September 30, 1998 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

940' ← 1775'