

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

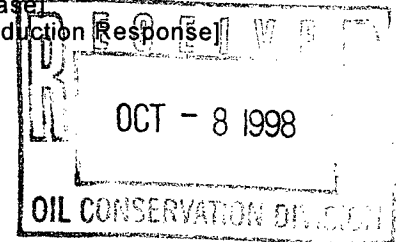
- Engineering Bureau -

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.

Kay Maddox
 Print or Type Name

Signature

Kay Maddox

Title

Regulatory Agent

Date

10/5/98

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 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

Operator

Address

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 ☐ (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)	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.	a. 786
Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	b. (Original) 1155	b.	b. 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 Note For new zones with no production history applicant should be required to attach production estimates and supporting data	Date Rates	Date Rates	Date Rates
• If Producing, date and oil/gas/water rates of recent test (within 60 days)	6/98 67 MCFD, 1 BOPD	Date Rates	6/98 69 MCFD, 1 BOPD
8. Fixed Percentage Allocation Formula - % for each zone	oil: 42 % Gas 42 %	oil: % Gas %	oil: 58 % Gas 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 ☐ 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

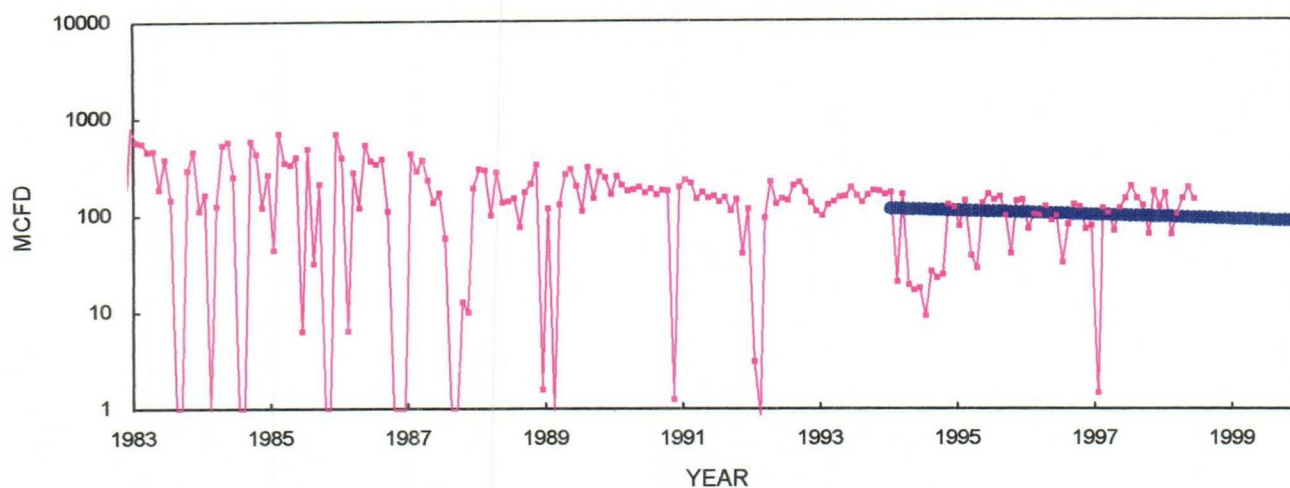
- * C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- * Production curve for each zone for at least one year. (If not available, attach explanation.)
- * For zones with no production history, estimated production rates and supporting data.
- * Data to support allocation 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 10/5/98

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

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



—●— FIT MCFD —●— DAKOTA MCFD

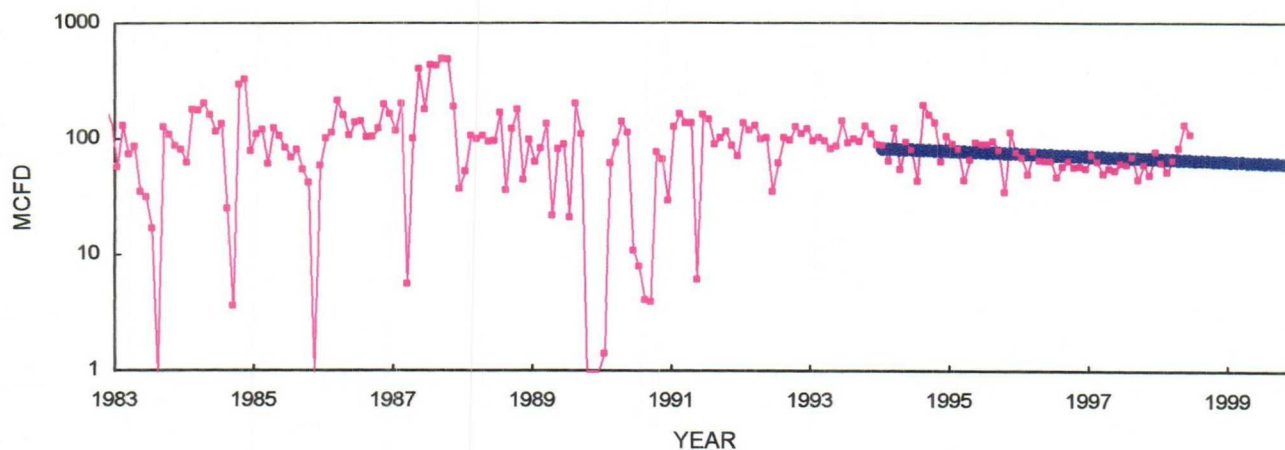
DAKOTA HISTORICAL DATA: 1ST PRD: 04/80

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



—●— FIT MCFD —●— MESAVERDE MCFD

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

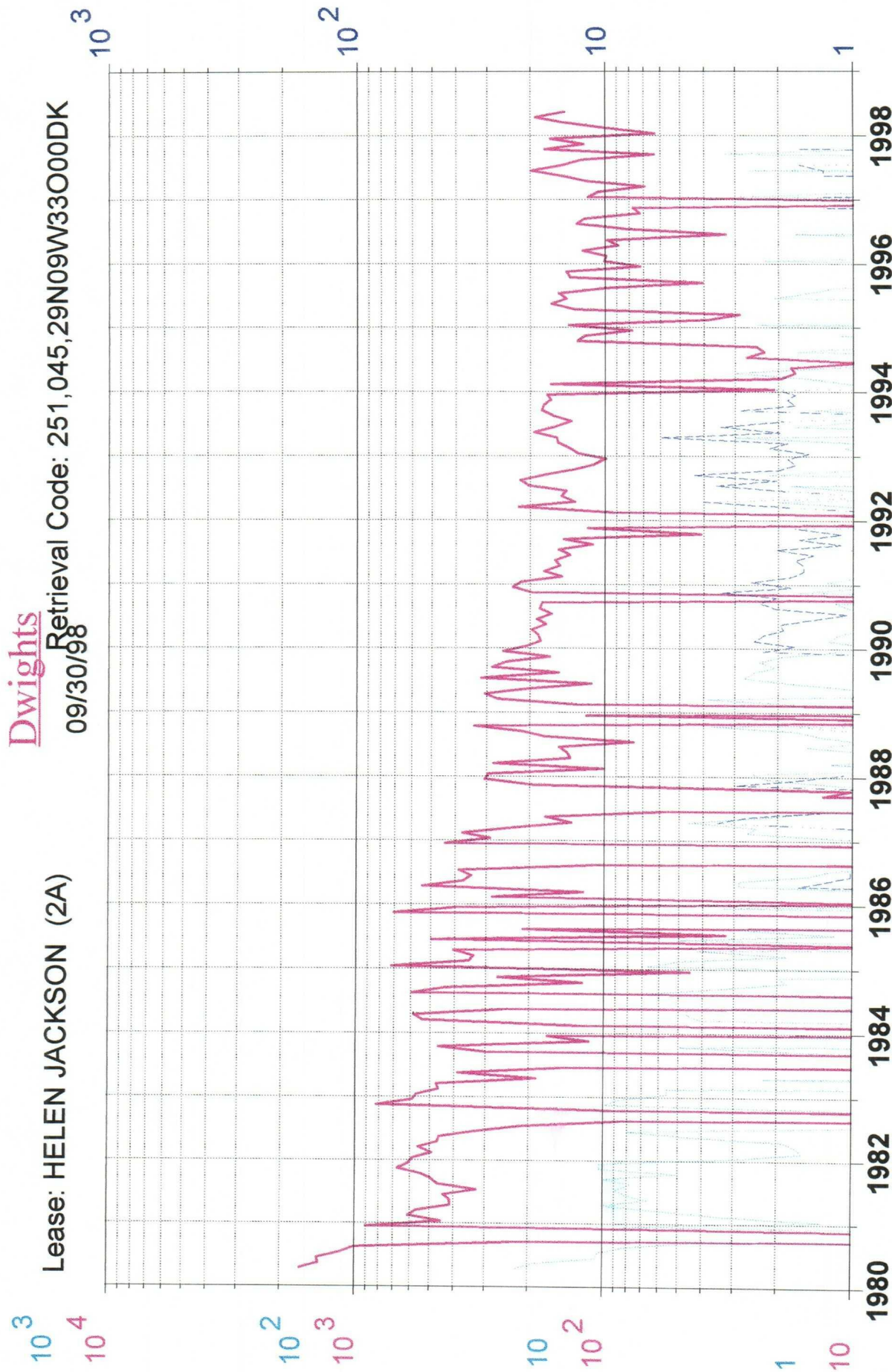
OIL ALLOCATION BASED ON WEIGHTED CUM OIL YIELDS

NOTE: ALL PRODUCTION DATA FROM DWIGHTS ENERGYDATA

Dwights

Lease: HELEN JACKSON (2A)

Retrieval Code: 251,045,29N09W33O00DK
09/30/98



Gas (mcf/day)

Oil (bbl/day)

Water (bbl/day)

F.P. Date: 04/80

County: SAN JUAN, NM

Field: BASIN (DAKOTA) DK Oil Cum: 13.27 mbbl

Reservoir: DAKOTA Gas Cum: 1508 mmcf

Operator: CONOCO INC Location: 33O 29N 9W

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10³
10³

10²
10²

10
10

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1

Dwights

Lease: HELEN JACKSON (2A)

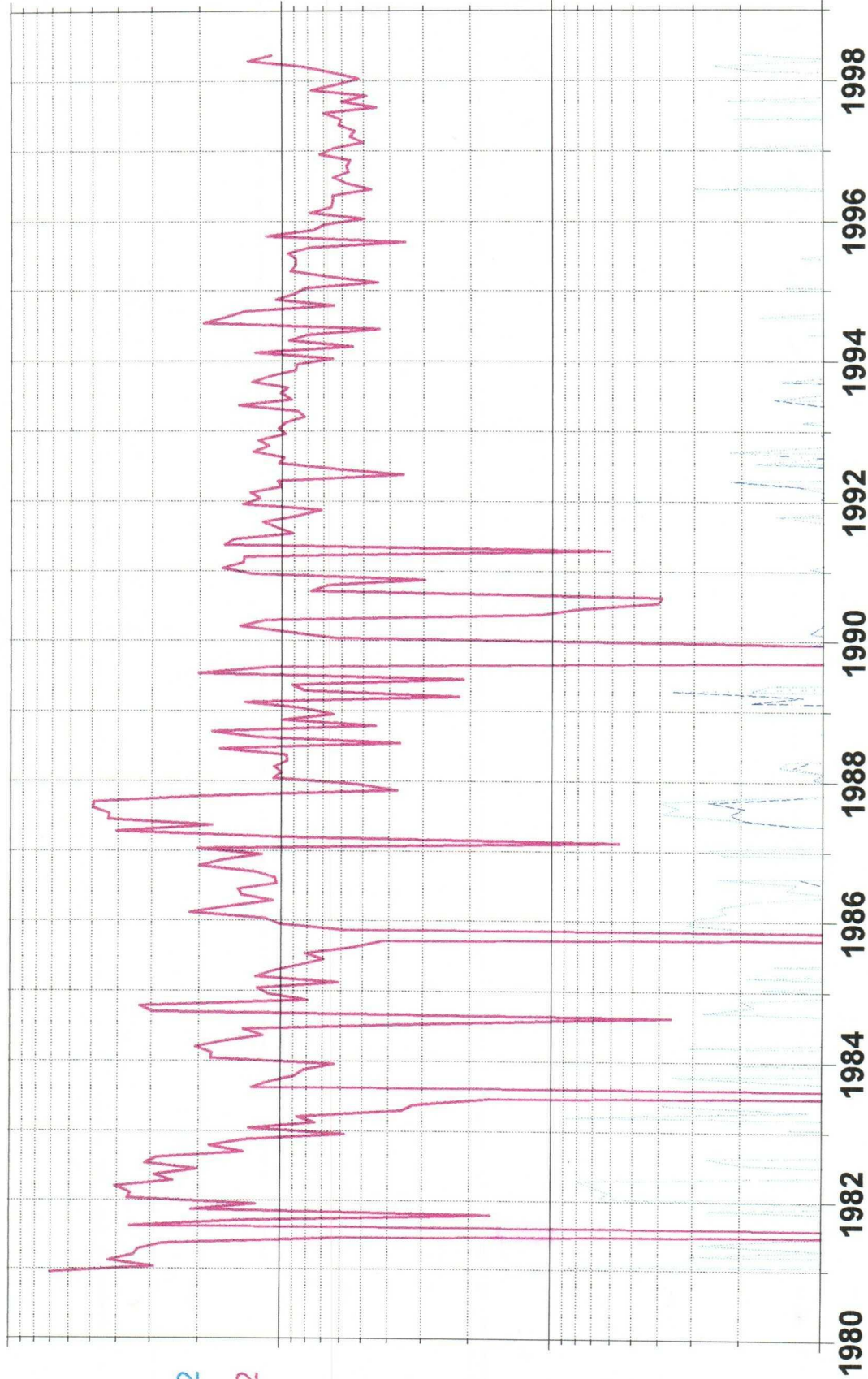
Retrieval Code: 251,045,29N09W33O00MV
09/30/98

10³

10²

10

1



Gas (mcf/day)

Oil (bbl/day)

Water (bbl/day)

F.P. Date: 12/80

County: SAN JUAN, NM

Field: BLANCO (MESAVERDE) Oil Cum: 6871 bbl

Reservoir: MESAVERDE 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-107
Supersedes C-126
Effective 1-1-77

All distances must be from the outer boundaries of the Section

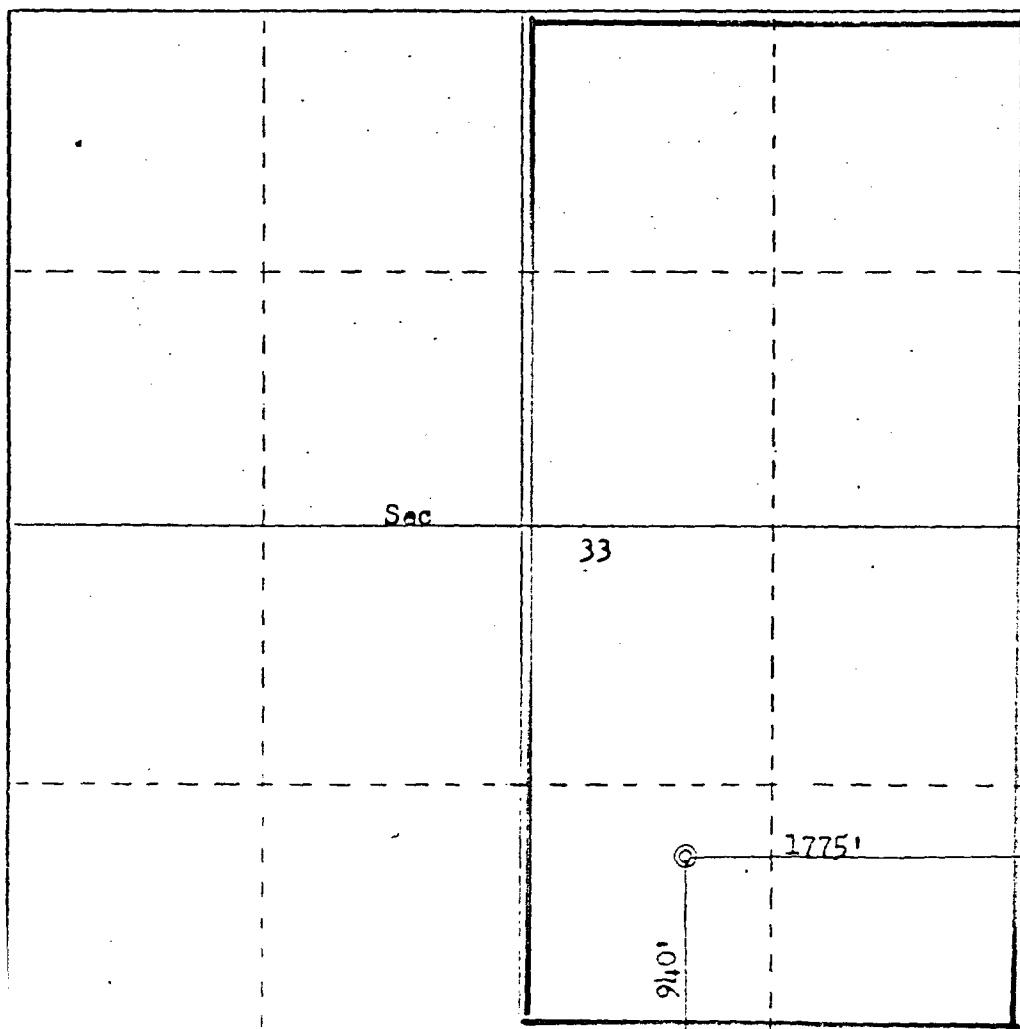
Operator TENNECO OIL COMPANY		Lease JACKSON "A"		Well No. 1
Unit Letter 0	Section 33	Township 29N	Range 9W	County SAN JUAN
Actual Footage Location of Well:				
940	feet from the South	line and 1775	feet from the East	line
Ground Level Elev. 5903	Producing Formation Dakota	Pool Basin Dakota	Dedicated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

September 23, 1978

By *Fred B. Kerr, Jr.*
Fred B. Kerr, Jr.
3950

District I
PO Box 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

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Revised February 21, 1994
instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

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'

10 Surface Location

UL or lot no. O	Section 33	Township 29N	Range 9W	Lot Idn	Feet from the 940	North/South line South	Feet from the 1775	East/West line East	County San Juan
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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 320	13 Joint or Infill	14 Consolidation Code		15 Order No.					

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

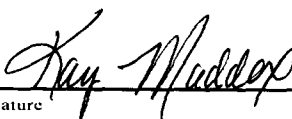
16					17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief  Signature Kay Maddox Printed Name Regulatory Agent Title September 30, 1998 Date 18 SURVEYOR CERTIFICATION I hereby certify that the well location shown 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	

Diagram showing well location with dimensions: 940' (vertical) and 1775' (horizontal).