

Midland Division Exploration and Production Conloco Inc. N DIVISION
10 Desta Drive, Suite 100W
Midland, TX 79705-4500
(915) 686-5400 10 26

January 21, 1993

State of New Mexico Energy & Minerals Department Oil Conservation Division P.O. Box 2088 Santa Fe, NM 87504-2088

Gentlemen:

Application to Downhole Commingle the Dakota and Mesaverde Gas Producing zones in State Com AF #28E, 1460' FSL & 1100' FEL, Sec. 36, T-29N, R-10W, San Juan County, New Mexico

It is proposed to downhole commingle the Dakota and Mesaverde Gas zones in this well to maintain economic operation and to maximize the efficient and effective recovery of Gas at this location. Economic evaluation of the continued operation of this well as a dual completion has shown that it can only be economically maintained if it can be downhole commingled and operated as a single completion.

The Dakota and Mesaverde producing rates have declined to marginal levels of 20 MCFGPD and 44 MCFGPD respectively. Elimination of excess operational equipment and operating expense associated with dual operation would contribute to the maximization of the producing lives and recoveries from each pool. Downhole commingling would permit the elimination of one tubing string, one separator and one tank now required for the operation of this dual completion and would eliminate maintenance costs with maintaining isolation of the two completions.

The following attachments are submitted in support of this application:

- 1. EXHIBIT A is a plat (a) showing Dakota wells in the area, (b) identifying the subject well, and (c) outlining the Dakota proration unit.
- 2. EXHIBIT B is a plat (a) showing Mesaverde wells in the area, (b) identifying the subject well, and (c) outlining the Mesaverde proration unit.
- 3. EXHIBIT C is the most recently filed GOR test (C-116) and documents the producing rates for each completion as recently as 11/24/92.
- 4. EXHIBITS D and E are current decline curves for Dakota and Mesaverde, showing production through December, 1992.
- 5. EXHIBIT F is a plot of shut-in tubing pressures for both zones. The last recorded surface pressures can be converted to estimated bottom hole pressures of 701 psia for the Dakota and 596 psia for the Mesaverde.

- 6. WI, RI, AND ORRI ownerships are identical for both formations.
- 7. EXHIBITS G & H are respectively Dakota and Mesaverde gas analyses. BTU values are very similar for both and since sales are based on a \$/BTU rate, revenue for the combined gas stream will be the same as for the separated sales streams of the dual completion. Therefore, there would be no revenue or royalty loss due to commingling.
- 8. Allocation percentages based on the last reported C-116 tests are suggested as follows:

<u>Oil Gas Water</u>

Basin Dakota 0% 31% 0%

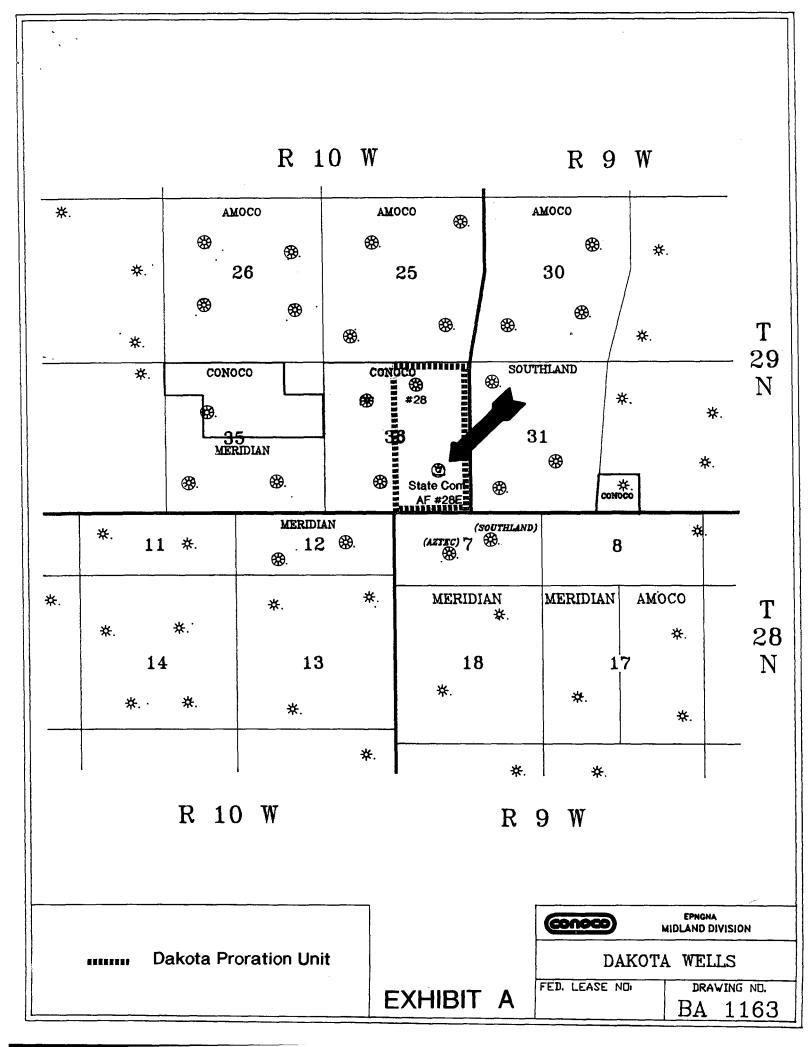
Blanco Mesaverde 0% 69% 0%

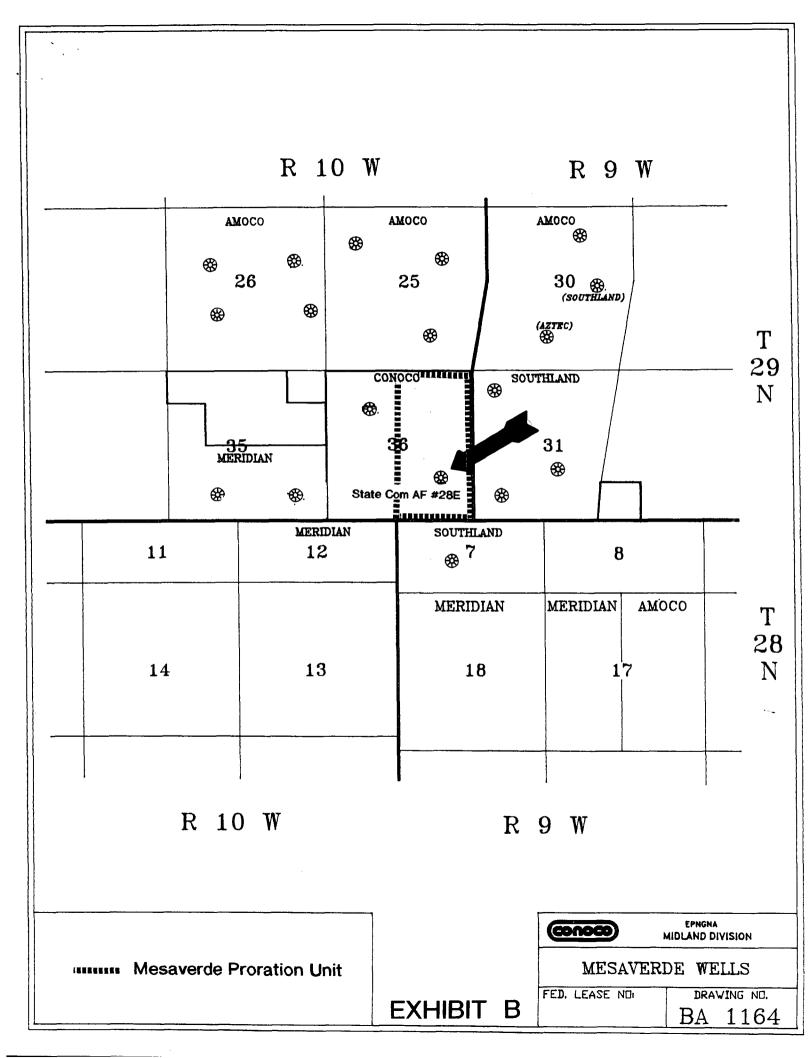
9. Additional interest owners in both completions of this well are: Amoco Production Company, Meredian, and Southland Royalty. Copies of this application were sent by certified mail to each and EXHIBIT I includes copies of each certified mail receipt to them.

Very truly yours,

Derry W. Hoover

Senior Conservation Coordinator





Form C-116. Revised 1/1/89

State of New Mexico Energy, Minerals and Natural Resources Department

## **OIL CONSERVATION DIVISION**

DISTRICT III 1000 Rio Brizos Rd., Aztec, NM 87410

P.O. Drawer DD, Artesia, NM 88210

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

Submit 2 copies to Appropriate

District Office.

DISTRICT

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

GAS - OIL RATIO TEST

### RATIO CU.FT/88L GAS-04 ! l MCF. \$ 20 San Juan PROD. DURING TEST SES. ! ! <u>8</u> 8 Completon WATER BBLS. 1 2 2 2 3 3 3 3 3 3 3 24 24 Basin Dakota Shared COM AF State PAILOW-ABLE with #28 Scheduled X PRESS. Ð ! | | STOKE SIZE ŀ 1 TEST - (X) Blanco Mesaverde TYPEOF SUTATE দ 11-24-92 F 10W 11-24-92 DATEOF TEST 79705 10M Œ 29N 29N ĭ LOCATION Midland, 36 36 0) **-** $\vdash$ H Suite 100W 28E **및 9** 28E #10 Desta Drive. LEASE NAME State Com AF State Com AF (Mesaverde) Conoco Inc. (Dakota) Operator Address

### Instructions.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.

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

Sr. Conservation

Coordinator

Jerry W. Hoover Printed name and title

Signature

1/19/93

Date

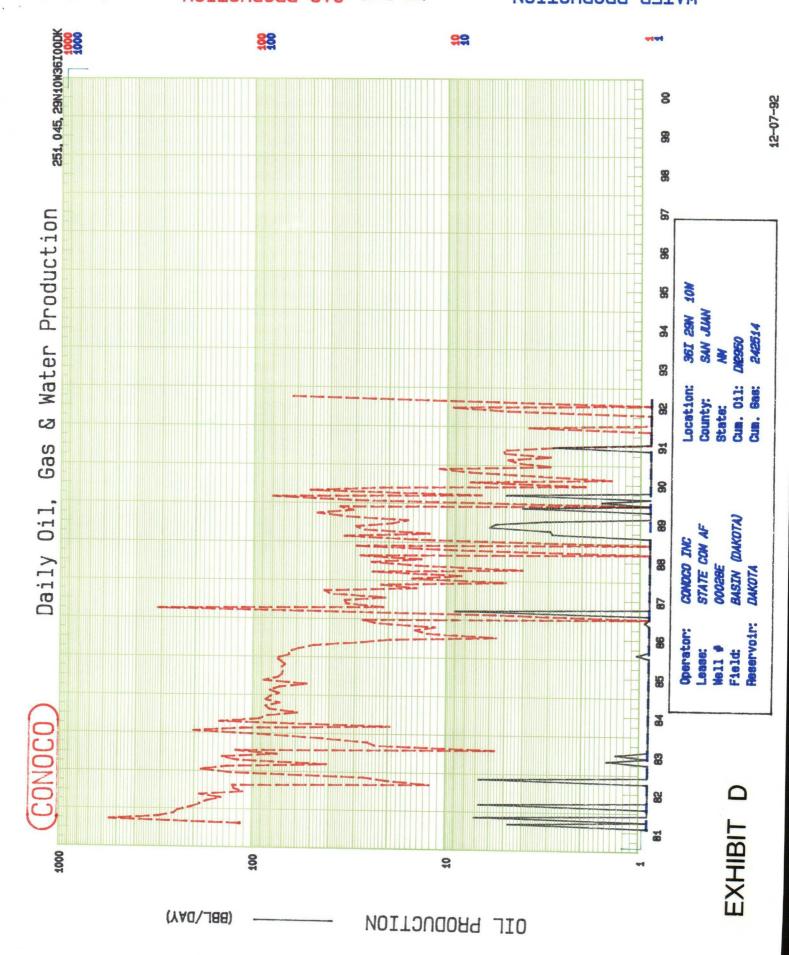
Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Report casing pressure in lieu of tubing pressure for any well producing through casing. Specific gravity base will be 0.60.

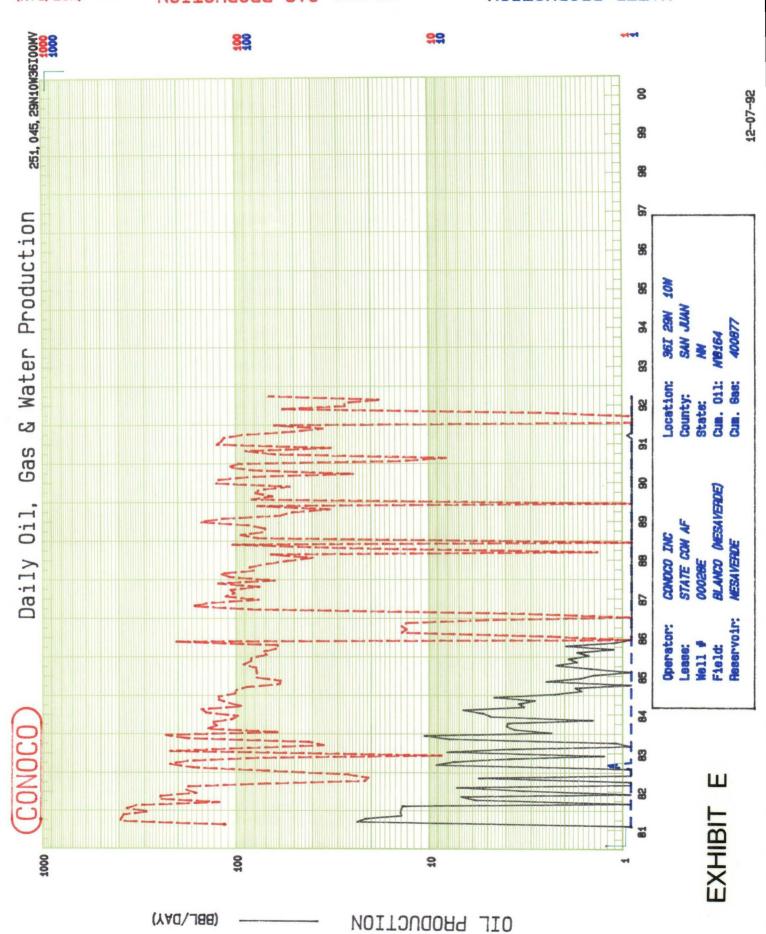
(See Rule 301, Rule 1116 & appropriate pool rules.)

EXHIBIT C

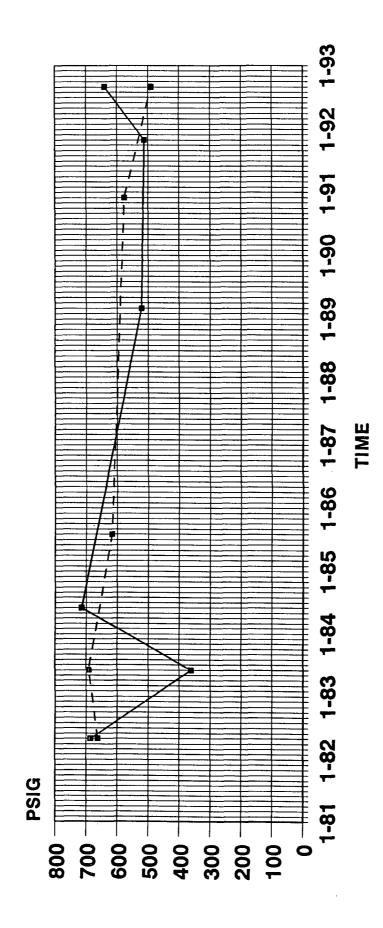
Telephone No.

(915) 686-6548





# SAN JUAN OPERATIONAL UNIT STATE COM AF #28E SHUT-IN TUBING PRESSURE



→ MESAVERDE → DAKOTA

WELL DELIVERABILITY TEST REPORT (FORM C-122A)
WELL COMPLETED MARCH 16, 1981

### EXHIBIT F



1115 FARMINGTON AVE. - FARMINGTON, NM 87401

(505) 325-6622

ANALYSIS NO. CON10037

### WELL/LEASE INFORMATION

COMPANY: CONOCO, INC.

WELL NAME: STATE COM AF 20

LINE PRESSURE:

LOCATION:

SAMPLE TEMP .:

LEASE:

WELL FLOWING: YES

FORMATION: Dakota

DATE SAMPLED: 11/91

METER NO .:

SAMPLED BY: CONOCO

REMARKS:

### ANALYSIS

COMPONENT	MOLE %	GPM	*B.T.U.	*SP. GR.
NITROGEN	0.833	0.0000	0.00	0.0081
C02	1.578	0.0000	0.00	0.0240
METHANE	81.052	0.0000	820.49	0.4489
ETHANE	9.315	2.5417	165.22	0.0967
PROPANE	3.450	0.9700	87.02	0.0525
I-BUTANE	0.691	0.2304	22.51	0.0139
N-BUTANE	1.105	0.3553	36.12	0.0222
I-PENTANE	0.638	0.2381	25.58	0.0159
N-PENTANE	0.570	0.2107	22.91	0.0142
HEXANE	0.768	0.3418	39.50	0.0247
TOTAL	100.000	4.8880	1219.35	0.7211
* 0 14.730 PSIA D	RY & UNCORRECT	TED FOR COM	PRESSIBILITY	

COMPRESSIBILITY FACTOR	(1/Z)	1.0036
BTU/CU.FT. (DRY) CORRECTED FOR	(1/Z)	1248.2
BTU/CU.FT. (WET) CORRECTED FOR	(1/Z)	1226.5
REAL SPECIFIC GRAVITY		0.7233

### ANALYSIS RUN AT 15.025 PSIA & 60 DEGREES F

CYLINDER PRESSURE: 117 PSIG

DATE RUN:

11/26/91

ANALYSIS RUN BY: CHELLE DURBIN

**08-11-87** 

EL PASO NATURAL GAS COMPANY MEASUREMENT DEPARTMENT POST OFFICE BOX 1492 EL PASO, TEXAS 79978

MAILEE 04515 CHROMATOGRAPHIC GAS ANALYSIS REPORT

MESA OPERATING LTD PARTNERSHIP
P. O. BOX 2009

P. O. BOX 2009 AMARILLO, TX 79189

### Mesaverde Formation

ANAL DATE 00-00	HOD METER STATION NAME STATE COM AR #28E MY	METER STA 93761 OPER 6014
TYPE CODE SAMPL	E DATE EFF. DATE USE MOS	H2S GRAINS LOCATION
OO ### 07-	31-87 08-01-87 06	O 4 F 13
	NORMAL MOLX	GPN
CO2	. 62	. 000
H2S	. 00	. 000
N2	. 43	. 000
METHANE	75.40	. 000
ETHANE	12.94	3.481
PROPANE	6.77	1.866
ISO-BUTANE	1.06	. 347
NORM-BUTANE	1.62	. 511
ISO-PENTANE	.49	.179
NORM-PENTANE	.38	.138
HEXANE PLUS	. 29	.126
	100.00	6.828
SPECIFIC GRA	AVITY	.758
MIXTURE HEAT (BTU/CF 014.	TING YALUE 73 PSIA, 80 DEGREES,DRY)	1308
RATIO OF SPE	CCIFIC HEATS	1.272
NO TEST SECU	JRED FOR H2S CONTENT	
MER TYPE CODE EXP	PLANATION: SINGLE METER ANALYSIS	,
GXC		DATE 11-4-87 REGULATORY MARKETING

### P 451 210 212

### RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL

	(See neverse)		
U.S.G.P.O. 1989-234-555	Sent Meredian		
1989-	Street and No. Box 4289		
s.G.P.0	P.O. Farming Code NM 87499		
Ö,	Postage	S	
	Certified Fee XX		
	Special Delivery Fee		
PS Form 3800, June 1985	Restricted Delivery Fee		
	Return Receipt showing to whom and Date Delivered		
	Return Receipt showing to whom, Date, and Address of Delivery		
Jun'	TOTAL Postage and Fees	\$	
800	Postmark or Date		
E =	1/21/93		
For			
PS			

### P 451 210 214

### RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL (See Reverse)

8 [	Cartito		
34.5	Sent Amoco Production Co.		
1989-7	Street and No. Box 800		
: U.S.G.P.O. 1989-234-555	P.O. State and ZIP Code 80201		
US	Postage	\$	
İ	Certifi <b>agy</b> ee		
	Special Delivery Fee		
S Form 3800, June 1985	Restricted Delivery Fee		
	Return Receipt showing to whom and Date Delivered		
	Return Receipt showing to whom, Date, and Address of Delivery		
June	TOTAL Postage and Fees	S	
3800,	Postmark or Date		
E o	1/21/93		
Ñ			

### P 451 210 213

### RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL (See Reverse)

234-55	Sent to Southland Royalty c/o Meredian			
1989-	Street and No. P. O. Box 4289 P.O. State and ZIP Code Farmington, NM 87499			
ം U.S.G.P.O. 1989-234-55(				
υ u.s	Postage	S		
	Certified Fee			
	Special Delivery Fee			
	Restricted Delivery Fee			
	Return Receipt showing to whom and Date Delivered			
PS Form 3800, June 1985	Return Receipt showing to whom, Date, and Address of Delivery			
Jen.	TOTAL Postage and Fees	S		
3800	Postmark or Date			
Form	1/21/93			
<u>s</u>				