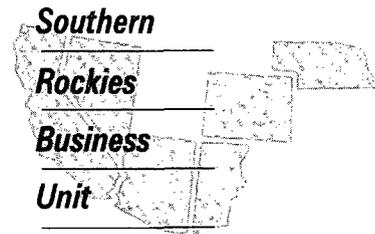




RC'D 3-18-96

DNC 4.8.96



March 4, 1996

Mr. William J. LeMay, Director
New Mexico Oil Conservation Division
2040 S. Pacheco Street
P. O. Box 6429
Santa Fe, NM 87505

Application for Exception to Rule 303-C
Downhole Commingling
Case B #4A Well
1450' FNL & 1175' FEL, Unit H Section 18-T31N-R11W
Blanco Pictured Cliffs (Pool IDN 72359) and Blanco Mesaverde (Pool IDN 72319) Pools
San Juan County, New Mexico

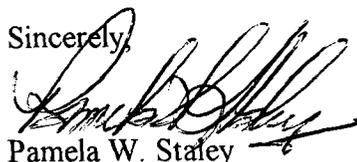
Amoco Production Company hereby requests administrative approval to downhole commingle production from the Blanco Pictured Cliffs and Blanco Mesaverde Pools in the Case B #4A well referenced above. The Case B #4A is currently a dual completion in the Pictured Cliffs and Mesaverde formations. We plan to complete the well with both the Pictured Cliffs and Mesaverde formations being downhole commingled in the wellbore. This well will benefit from downhole commingling because of the reduced costs of operation offered by commingling. The two zones are expected to produce at a total commingled rate of about 204 MCFD with less than 1 BCPD. The ownership (WI, RI, ORI) of these pools is common in this wellbore. Downhole commingling will offer an economical method of production while protecting against reservoir damage, waste of reserves and violation of correlative rights. Offset operators to this well will receive a copy of this application by certified mail.

The allocation method that we plan to use for this commingled well is as follows. Both formations have been producing at stabilized rates for some time. We recommend that the Mesaverde and Pictured Cliffs formations gas and condensate be allocated based on current rates. The Mesaverde is currently producing at 170 MCFD with 0.83 BCPD while the Pictured Cliffs is currently producing 34 MCFD with no condensate. The recommended allocation percentages after downhole commingling would be set as a percentage of the total rate with the Mesaverde attributing 83% of gas production and 100% of condensate production. The Pictured Cliffs would be allocated at 16% of gas production and no condensate production. The actual commercial value of the commingled production will not be less than the sum of the values of the production from each of the common sources of supply.

Attached to aid in your review are plats showing the location of the well and offset wells in the same formation, a historical and recent production plot and a C-102 for each formation. This spacing unit

is located on a federal lease (SF-078095) and we will send a copy of the application to the BLM as their notice. Should you have questions concerning this matter, please contact me at (303) 830-5344.

Sincerely,



Pamela W. Staley

Enclosures

cc: Khanh Vu
Gail Jefferson

Frank Chavez, Supervisor
NMOCD District III
1000 Rio Brazos Road
Aztec, NM 87410

Duane Spencer
Bureau of Land Management
1235 La Plata Hwy.
Farmington, NM 87401

Application for Exception to Rule 303: SEGREGATION OF PRODUCTION FROM POOLS

Requirements

- (1) Name and address of the operator:

Amoco Production Company
P.O. Box 800
Denver, CO 80201

- (2) Lease name, well number, well location, name of the pools to be commingled:

Lease Name: Case B

Well Number: 4A
Well Location: 1450' FNL & 1175' FEL
Unit H Section 18-T31N-R11W
San Juan County, New Mexico

Pools Commingled: Blanco Mesaverde Pool
Blanco Pictured Cliffs Pool

- (3) A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases.

Attached

- (4) A current (within 30 days) 24-hour productivity test on Division Form C-116 showing the amount of oil, gas and water produced from each zone.

The Blanco Mesaverde produced an average stabilized rate of 170 MCFD and 0.82 BCPD. The Blanco Pictured Cliffs zone produced at an average rate of about 34 MCFD and no condensate.

- (5) A production decline curve for both zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes.

Blanco Mesaverde Completion: Historical production curve attached.
Blanco Pictured Cliffs Completion: Historical production curve attached.

- (6) Estimated bottomhole pressure for each zone. A current (within 30 days) measured bottom hole pressure for each zone capable of flowing.

Bottomhole pressures were estimated from 72 hour shut-in pressures during a packer leakage test for the well. Estimated bottomhole pressure in the Pictured Cliffs formation is 512 PSI while the estimated bottomhole pressure in the Mesaverde is 667 PSI. See attached calculations.

- (7) A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the wellbore.

The two formations do not produce any measurable amount of fluids and therefore are not expected to any effect that would prohibit commingling, or promote the creation of emulsions or scale .

- (8) A computation showing that the value of the commingled production will not be less than the sum of the values of the individual streams:

Since the BTU content of the produced gasses are very similar, we would expect the commingled production to have a similar value as the sum of the individual streams.

- (9) A formula for the allocation of production to each of the commingled zones and a description of the factors or data used in determining such formula:

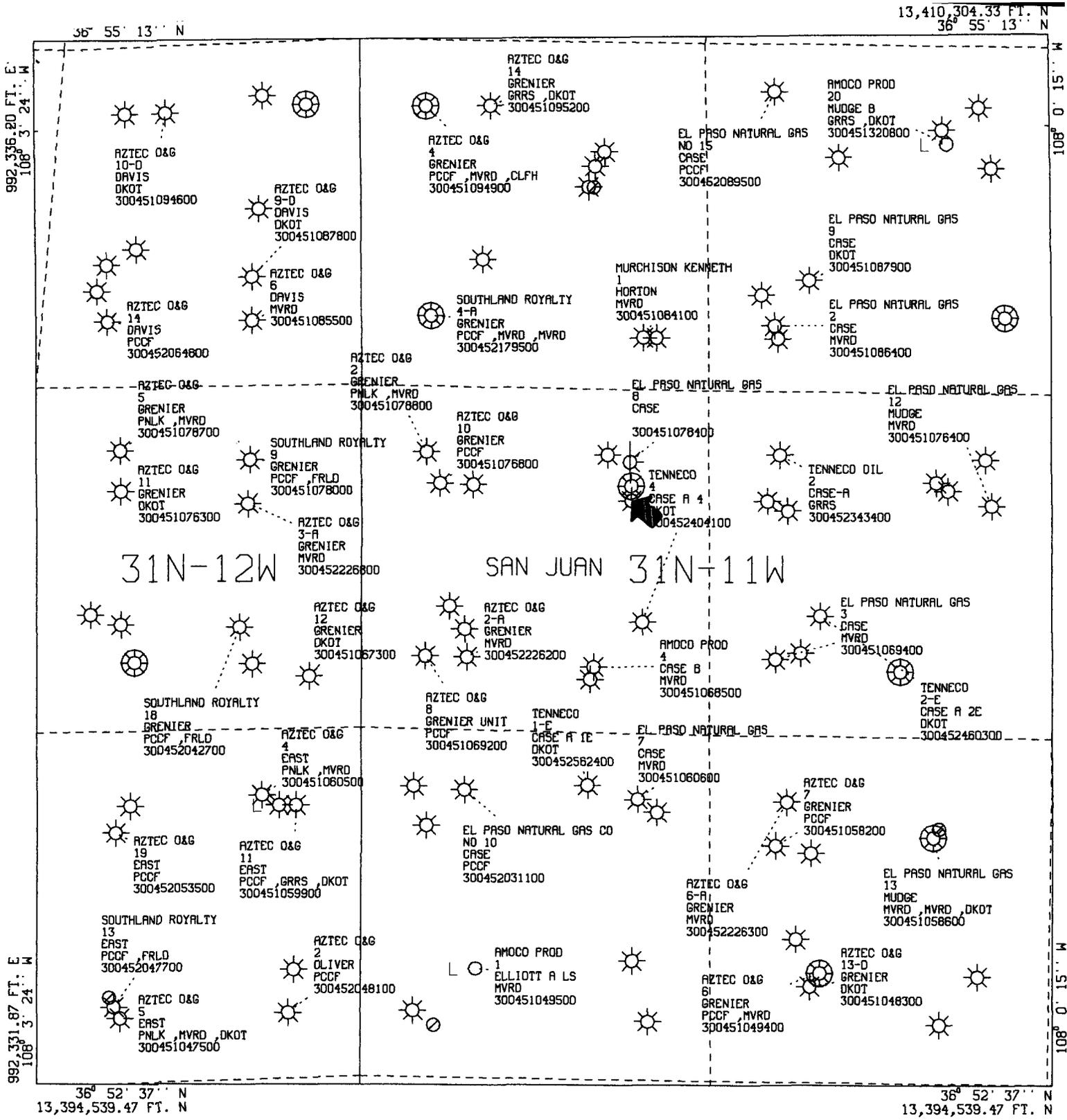
The allocation method that we plan to use for this commingled well is as follows. Both formations have been producing at stabilized rates for some time. We recommend that the Mesaverde and Pictured Cliffs formations gas and condensate be allocated based on current rates. The Mesaverde is currently producing at 170 MCFD with 0.83 BCPD while the Pictured Cliffs is currently producing 34 MCFD with no condensate. The recommended allocation percentages after downhole commingling would be set as a percentage of the total rate with the Mesaverde attributing 83% of gas production and 100% of condensate production. The Pictured Cliffs would be allocated at 16% of gas production and no condensate production. The actual commercial value of the commingled production will not be less than the sum of the values of the production from each of the common sources of supply.

- (10) A statement that all offset operators and, in the case of a well on federal land, the United States Bureau of Land Management, have been notified in writing of the proposed commingling.

BLM will receive a copy of this application by certified mail. The offsetting operators listed on the attached sheet will receive a copy of this application by certified mail.

- (11) Referencing NMOCD Order No. 10470 Rule 303 (D) (11): In a case where there is diversity of ownership between the zones to be commingled (including working royalty, or overriding royalty interest), the applicant shall submit a statement that all such interest owners have been notified in writing of the proposed commingling.

All interest owners in the two formations are common.



All geological and geophysical data, including the interpretation thereof, appearing on this map is the private and confidential property of Amoco Production Company. The publication or reproduction thereof without the written permission of said Company is strictly prohibited.

AMOCO PRODUCTION COMPANY
 PLAT MAP
 Case B 4A
 Offset Wells

SCALE 1 IN. = 2,000 FT. APR 28, 1995

POLYCONIC CENTRAL MERIDIAN - 108° 1' 49" W LON
 SPHEROID - 6

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102
Supersedes C-121
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

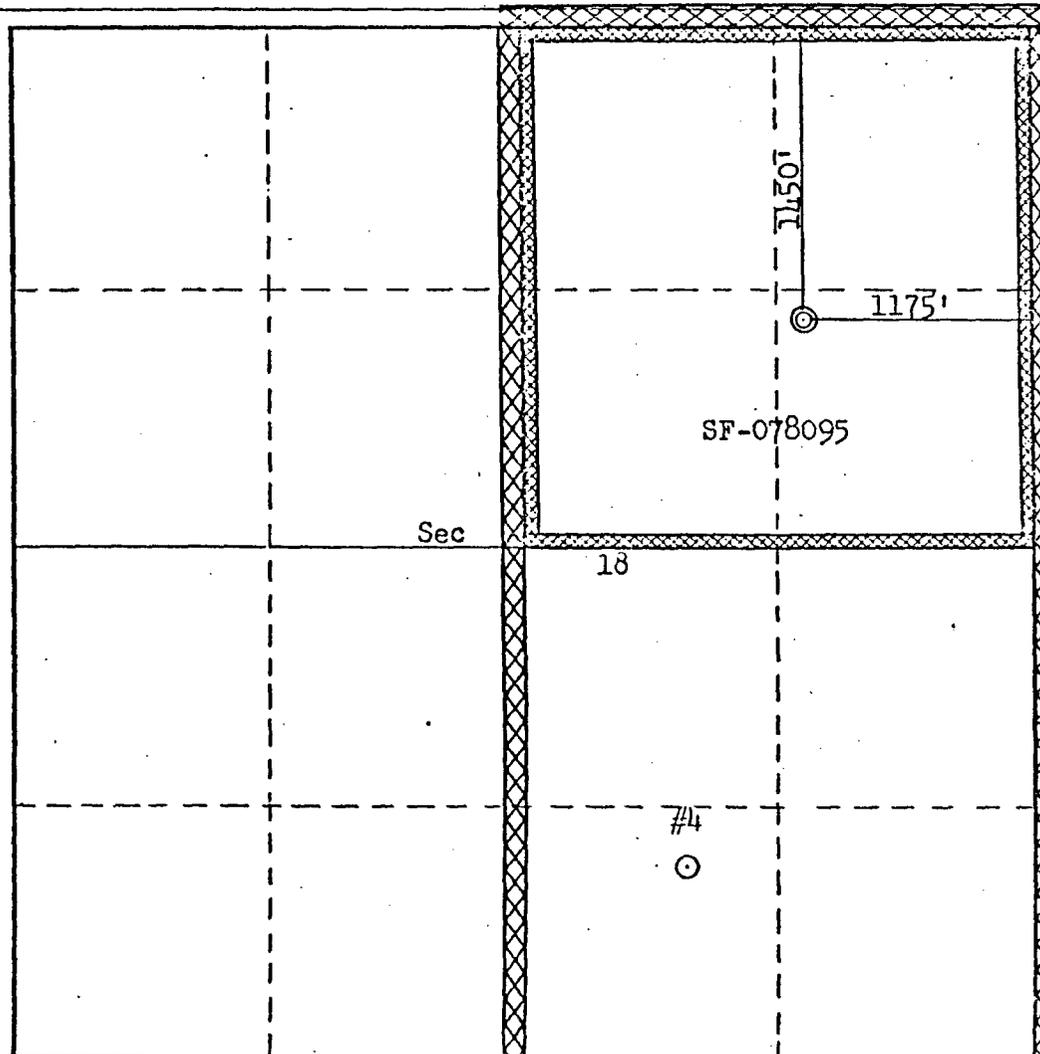
Operator EL PASO NATURAL GAS COMPANY			Lease CASE (SF078095)		Well No. LA
Unit Letter H	Section 18	Township 31N	Range 11W	County San Juan	
Actual Footage Location of Well:					
1150 feet from the North line and		1175 feet from the East line			
Ground Level Elev. 6225	Producing Formation Pictured Cliffs Mesa Verde	Pool Blanco Pictured Cliffs Ext. Blanco Mesa Verde	Dedicated Acreage: 160.00 & 320.00 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.

A. G. Duval

Name
Drilling Clerk

Position
El Paso Natural Gas Co.

Company
July 25, 1978

Date

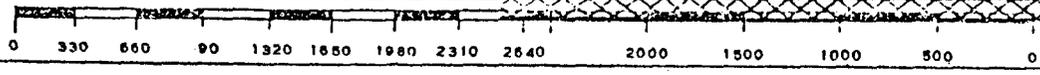
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed,
June 20, 1978

Registered Professional Engineer
and/or Land Surveyor

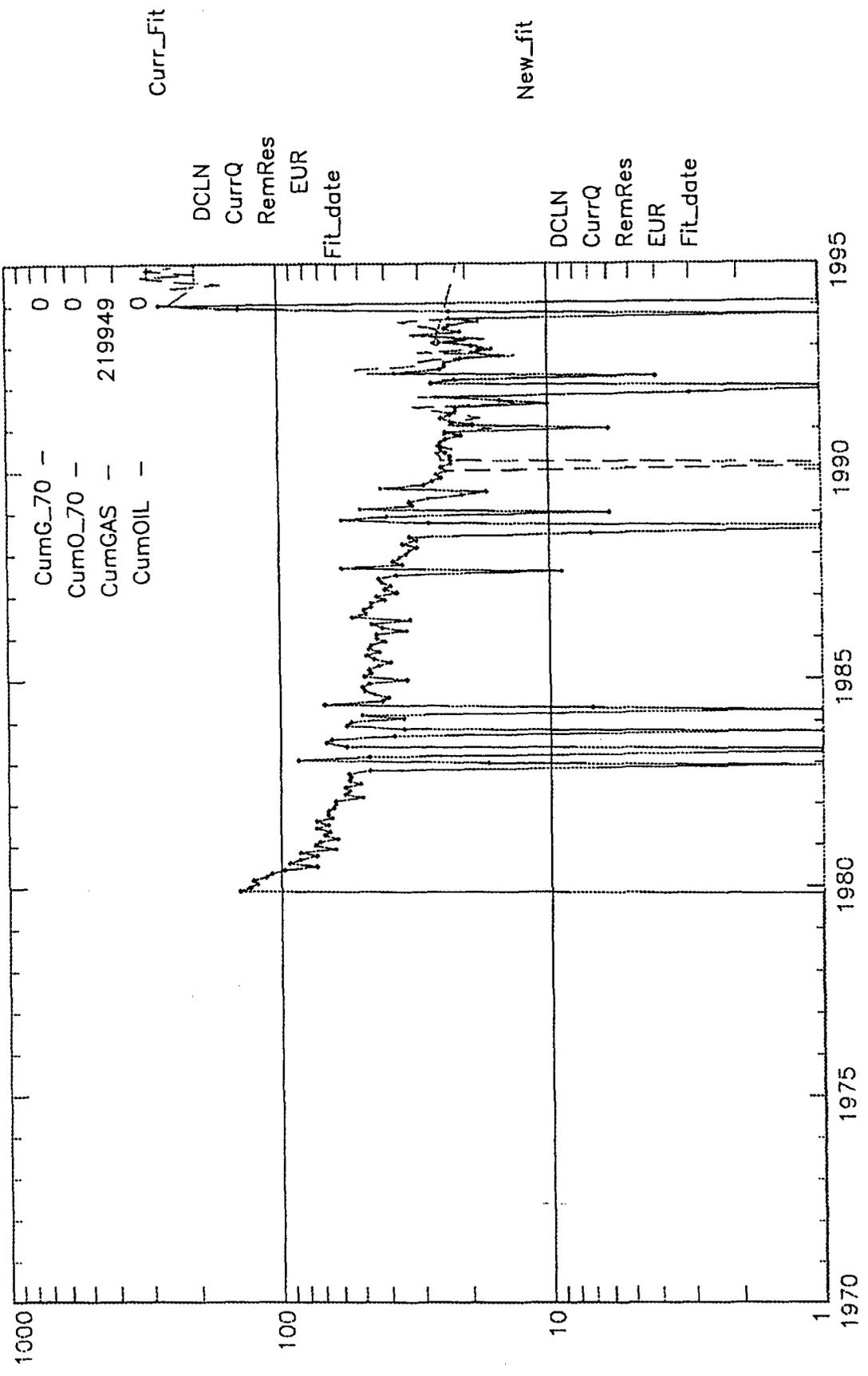
Fred B. ...
Fred B. ...

Certificate
3950



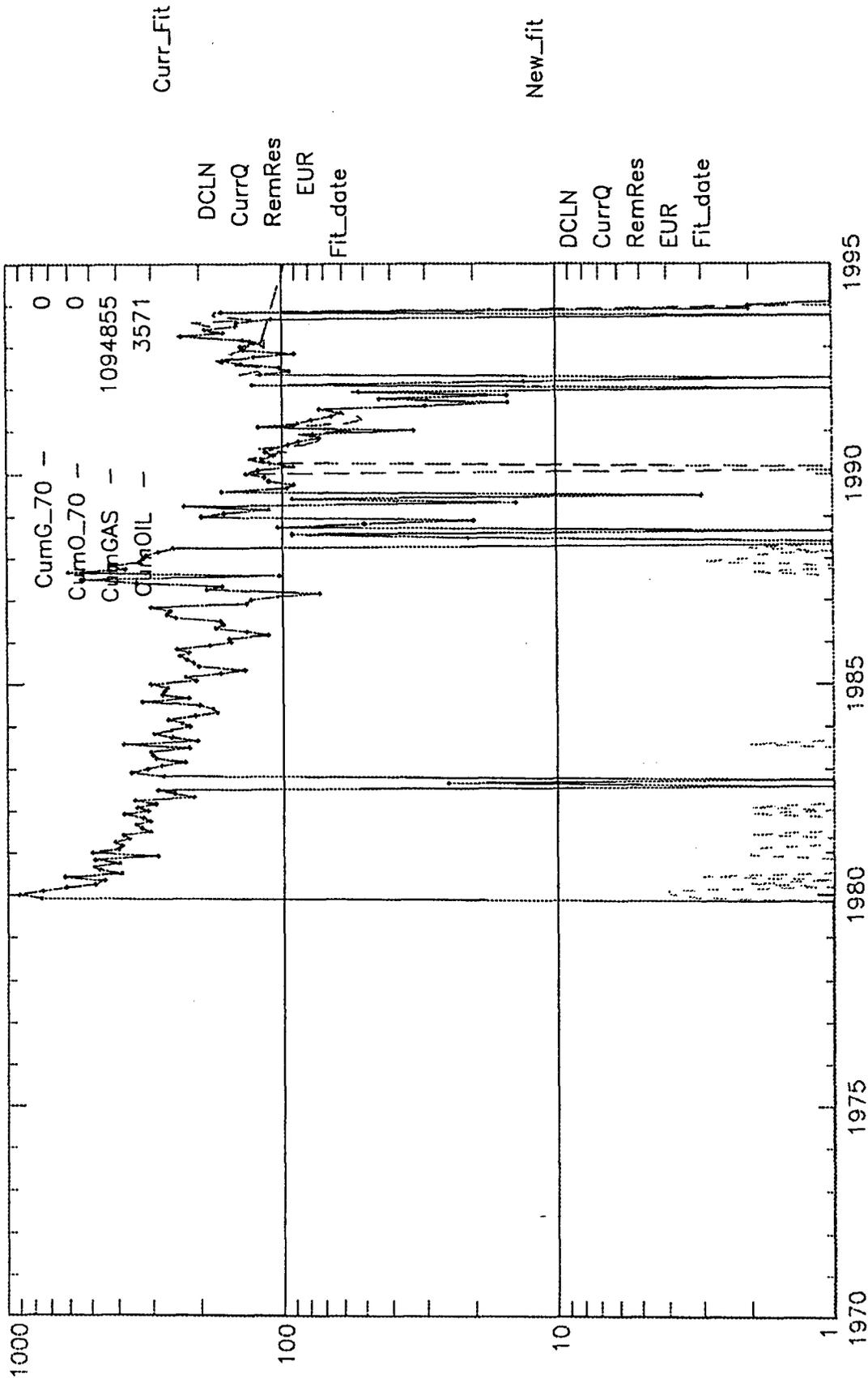
Engr: zdws22

CASE B 4A
300452319100PC H183111-004APC Operator-- AMOCO PRODUCTION CO
APC_WI - 0.50000000



Engr: zdws22

CASE B 4A
300452319100MV H183111-004AMV
Operator-- AMOCO PRODUCTION CO
APC_WI - 0.50000000



ESTIMATED BOTTOMHOLE PRESSURES BY FORMATION
Case B #4A

PC Perforations at 2826-2914' midperf at 2870'
MV Perforations at 5430-5302' midperf at 5494'

10/95 shut in pressures --- MV =228 PSIG
PC =282 PSIG

GRADIENT = 0.08 PSI/FT

MV BHP = 228 PSIG + 5494' X 0.08 PSIG
= 667 PSIG

PC BHP = 282 PSIG +2870' X 0.08 PSIG
=512 PSIG

OIL CONSERVATION DIVISION
NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator: AMOCO PRODUCTION COMPANY Lease/Well #: CASE B 004A
Meter #: 90761 RTU: 0-000-00 County: SAN JUAN E11

	NAME RESERVOIR OR POOL	TYPE PROD	METHOD PROD	MEDIUM PROD
UPR COMP	CASE B 004A BPC 90760	GAS	FLOW	TBG
LWR COMP	CASE B 004A BMV 90761	GAS	FLOW	TBG

PRE-FLOW SHUT-IN PRESSURE DATA

	Hour/Date Shut-In	Length of Time Shut-In	SI Press. PSIG	Stabilized
UPR COMP	10/07/95			
LWR COMP	10/07/95			

FLOW TEST DATE NO. 1

Commenced at (hour, date) *				Zone Producing (Upr/Lwr)	
TIME (hour, date)	LAPSED TIME SINCE*	PRESSURE		Prod Temp.	REMARKS
		Upper P.C.	Lower M.V.		
10/08/95	Day 1	282#	228#		Both Zones SI
10/09/95	Day 2	282#	228#		Both Zones SI
10/10/95	Day 3	282#	228#		Both Zones SI
10/11/95	Day 4	282#	228#		TURN ON M.V.
10/12/95	Day 5	282#	161#		
10/13/95	Day 6	282#	157#		

Production rate during test
 Oil: _____ BOPD based on _____ BBLs in _____ Hrs _____ Grav _____ GOR _____
 Gas: _____ MFCPD: Tested thru (Orifice or Meter): METER
 MID-TEST SHUT-IN PRESSURE DATA

	Hour, Date SI	Length of Time SI	SI Press. PSIG	Stabilized (yes/no)
UPR COMP				
LWR COMP				

(Continue on reverse side)

Amoco Production Company

Offset Operator Plat

Case /B/ 4A

T31N-R11W Sec. 18

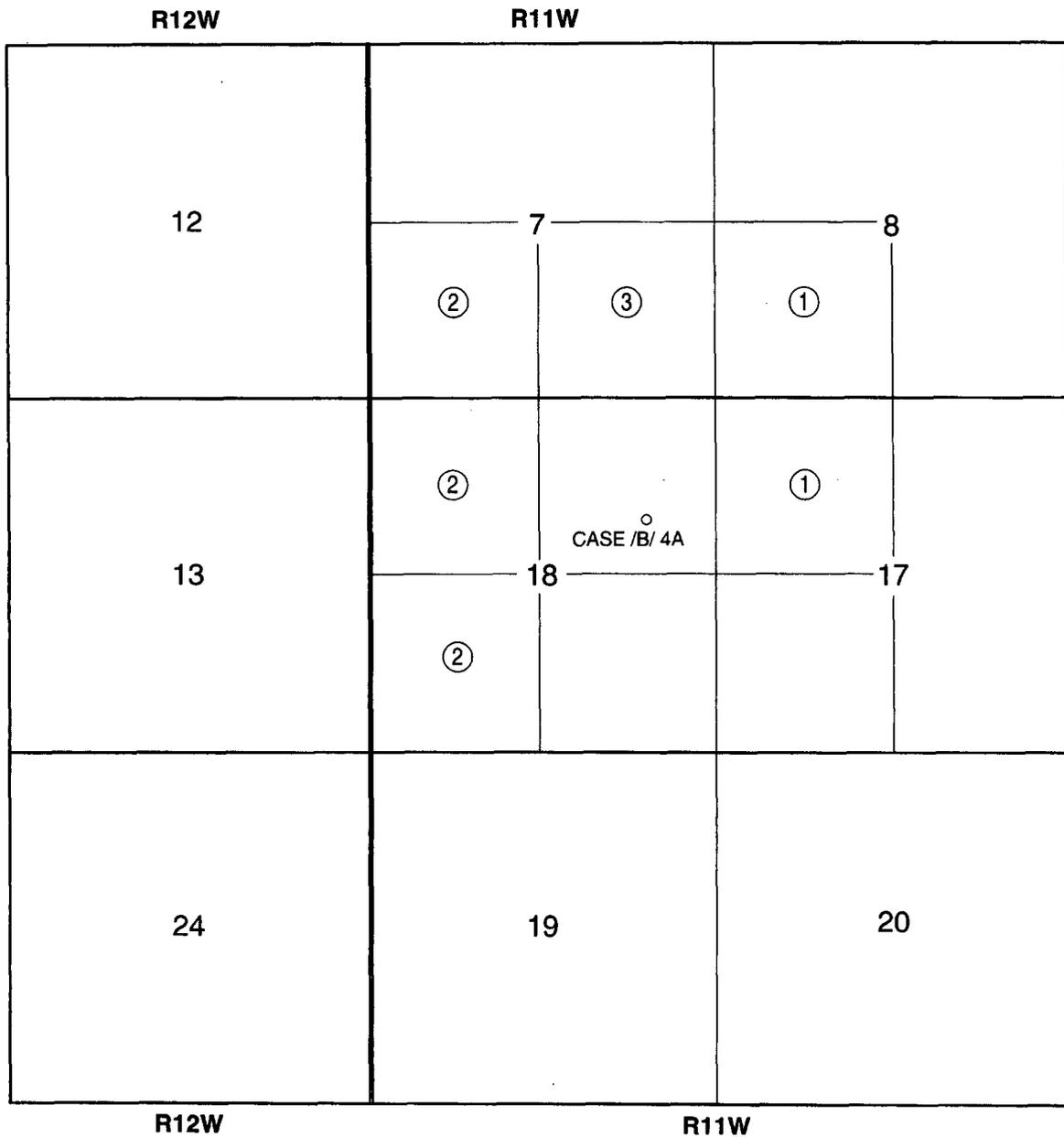
Blanco Mesaverde Formation

R12W		R11W			
12	②	7	③	①	8
13	②	18	CASE /B/ 4A	①	17
24	①	19	④	②	20
R12W		R11W			

T
31
N

- ① Amoco Production Company
- ② Southland Royalty Company
- ③ Kimbark Oil & Gas Co.
- ④ Meridian Oil Production Inc.

Amoco Production Company
 Offset Operator Plat
 Case /B/ 4A
 T31N-R11W Sec. 18
 Blanco Pictured Cliffs Formation



- ① Amoco Production Company
- ② Southland Royalty Company
- ③ Kimbark Oil & Gas Co.

LIST OF ADDRESSES FOR OFFSET OPERATORS

Case B #4A

Meridian Oil, Inc.
P.O. Box 4289
Farmington, NM 87499

Kimbark Oil and Gas Co.
1660 Lincoln Street, Suite 2700
Denver, CO 80202