

Ernie Busch

From: Ernie Busch
To: Ben Stone
Subject: AMOCO JICARILLA 146#37(DHC)
Date: Thursday, March 21, 1996 1:42PM
Priority: High

C-04-25N-05W
RECOMMEND: APPROVAL

7		INJECTION			PRODUCTION				DISPOSITION OF OIL, GAS, AND WATER								
POOL NO. AND NAME	PROPERTY NO. AND NAME	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
WELL NO. AND U-L-S-T-R	API NUMBER	C	D	E	C	D	E	C	D	E	C	D	E	C	D	E	C
		VOLUME	PRESSURE		BBL'S OF OIL/COND-ENSATE PRODUCED	BBL'S OF WATER PRODUCED	GAS PRODUCED (MCF)	DAYS PRODUCED	POINT OF DISPOSITION	GAS BTU OR OIL API GRAV	OIL ON HAND AT BEGINNING OF MONTH	VOLUME (BBL'S/MCF)	TRANS-PORTER OR GRID	OIL ON HAND AT END OF MONTH			
78960 HAPPY VALLEY MORRIS (GAS)																	
016387 J.A. TOMALINO FEDERAL COM																	
001	L-27-22S-26E	F			0	0	3676	31	0	07624.10		43	3558	025773			43
30-015-2575																	
016396 SHEEP DRAW FEDERAL COM																	
001	B-33-22S-26E	F			0	0	2332	31	0	2805925		75	2257	025773			75
30-015-26847																	
016397 HAPPY VALLEY "B" FEDERAL COM																	
001	K-28-22S-26E	F			14	0	8297	31	0	0761910	98		8030	025773			112
30-015-25395																	
78990 ILLINOIS CAMP MORRIS, NORTH (GAS)																	
016540 ARTESIA 21 STATE																	
001	C-21-18S-28E	F			220	18	12105	31	0	2814944	42.9	111	286	017643			35
30-015-27803																	



Southern

Rockies

Business

Unit

February 23, 1996

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

RECEIVED
MAR 4 1996
OIL CON. DIV.
DIST. 3

Application for Exception to Rule 303-C
Downhole Commingling
Jicarilla 146 #37 Well
1070' FNL & 1750' FWL, Unit C Section 4-T25N-R5W
Blanco Mesaverde (Pool IDN 72319) and Otero Chacra Ext. (Pool IDN 82329) Pools
Rio Arriba County, New Mexico

Amoco Production Company hereby requests administrative approval to downhole commingle production from the Blanco Mesaverde and Otero Chacra Pools in the Jicarilla 146 #37 Well referenced above. The Jicarilla 146 #37 well was originally a dual completion in the Mesaverde and Chacra formations. This well has a marginal Chacra formation which is being produced dually with a marginal Mesaverde. If this well is left as a dual completion, the marginal zones will not be economic much longer. We plan to complete the well with both the Mesaverde and Chacra formations being downhole commingled in the wellbore. The two zones are expected to produce at a total commingled rate of about 294 MCFD with 4.4 BCPD due to the increased efficiencies of lifting liquids. The ownership (WI, RI, ORI) of these pools is identical 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. Since these formations have been producing for some time, we have a good historical representation of the production by formation. Based on historical production we recommend that the allocation for gas production be 68% from the Mesaverde formation and 32% from the Chacra formation. The Chacra has not historically produced liquids in this well. Based on that fact, we propose to allocate 100% of the liquid production to the Mesaverde formation. 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

formations, a historical production plot and recent production information for each formation. This spacing unit is on a federal lease (Jicarilla Contract 146) and a copy of the application will be sent to the BLM as required.

Should you have questions concerning this matter, please contact me at (303) 830-5344.

Sincerely,

A handwritten signature in black ink, appearing to read 'Pamela W. Staley', written in a cursive style.

Pamela W. Staley

Enclosures

cc: Steve Smethie
Patty Haefele
Wellfile
Proration Files

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

Robert Kent
Bureau of Land Management
435 Montano NE
Albuquerque, NM 87107

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: Jicarilla 146
Well Number: 37
Well Location: 1070' FNL & 1750' FWL
Unit C Section 4-T25N-R5W
Rio Arriba County, New Mexico

Pools Commingled: Otero Chacra Ext.
Blanco Mesaverde

- (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 Mesaverde produced an average stabilized rate of 98 MCFD and 3.89 BCPD. The Chacra zone produced at an average rate of about 46 MCFD and 0.0 BCPD.

- (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.

Otero Chacra Ext. Completion:	Historical production curve attached.
Blanco Mesaverde 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 OCD Packer Leakage Tests. Shut-in bottomhole pressure in the Chacra formation is calculated to be 787 PSIG while estimated bottomhole pressure in the Mesaverde formation is 600 PSIG. Therefore these pressures meet the pressure differential rule under article 303-C (b)(vi). See attached calculation and packer leakage test results.

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

The fluids in the Mesaverde have no abnormal components that would prohibit commingling, or promote the creation of emulsions or scale when commingled with the Chacra formation.

- (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:

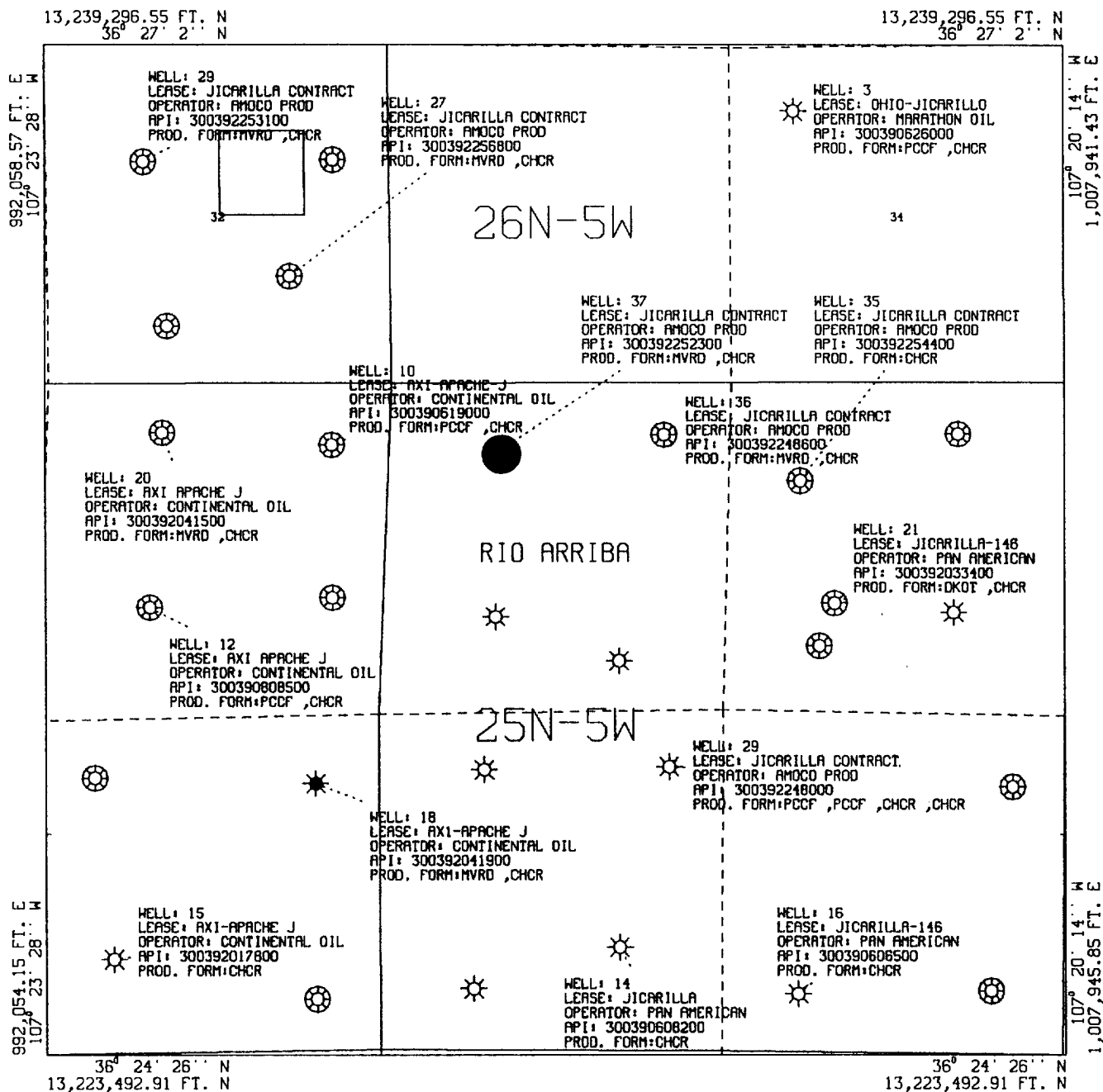
The BTU content of the produced streams are very similar and as such, we would expect the commingled production to have the same value as the sum of the individual streams.

- (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. Since these formations have been producing for some time, we have a good historical representation of the production by formation. Based on historical production we recommend that the allocation for gas production be 68% from the Mesaverde formation and 32% from the Chacra formation. The Chacra has not historically produced liquids in this well. Based on that fact, we propose to allocate 100% of the liquid production to the Mesaverde formation. 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.



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
Jicarilla Contract 146-37 Sec 04-T25N-R05W CK
Rio Arriba New Mexico
SCALE 1 IN. = 2,500 FT. NOV 3, 1995

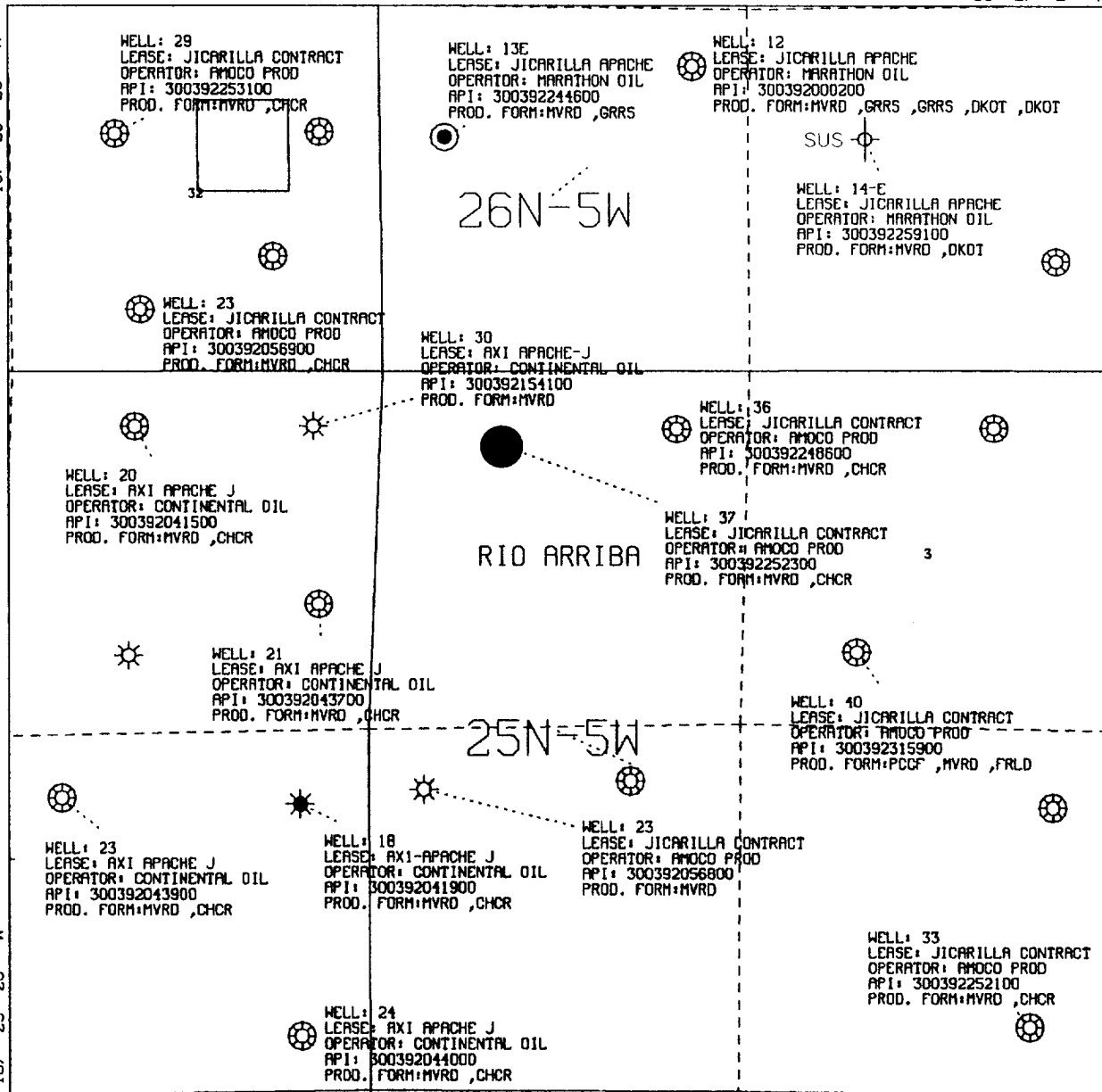
HORIZONTAL DATUM NAD27

13,239,296.55 FT. N
36° 27' 2" N

13,239,296.55 FT. N
36° 27' 2" N

992,058.57 FT. E
107° 23' 28" W

107° 20' 14" W
1,007,941.43 FT. E



36° 24' 26" N
13,223,492.91 FT. N

36° 24' 26" N
13,223,492.91 FT. N

992,054.15 FT. E
107° 23' 28" W

107° 20' 14" W
1,007,945.85 FT. E

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AMOCO PRODUCTION COMPANY PLAT MAP

Jicarilla Contract 146-37 Sec 04-T25N-R05W MV
Rio Arriba New Mexico

SCALE 1 IN. = 2,500 FT. NOV 3, 1995

HORIZONTAL DATUM NAD27

HAB13184---RUN#95307062618

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

Operator AMOCO PRODUCTION COMPANY			Lease JICARTILLA CONTRACT 146		Well No. 37
Unit Letter C	Section 4	Township 25N	Range 5W	County Rio Arriba	
Actual Footage Location of Well: 1070 feet from the North line and 1750 feet from the West line					
Ground Level Elev: 6601	Producing Formation Chacra/ Mesaverde		Pool Otero Chacra/ Gonzales Mesaverde		Dedicated Acreage: 160 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.

1070'			
1750'	⊙		
Sec.		4	

Scale: 1"=1000'

CERTIFICATION

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

R.A. Downey

Name

R.A. DOWNEY

Position

DISTRICT ENGINEER

Company

AMOCO PRODUCTION COMPANY

Date

SEPTEMBER 5, 1980

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

July 29, 1980

Registered Professional Engineer
and Land Surveyor*Fred B. Kery Jr.*

Certificate No.

39503, 12

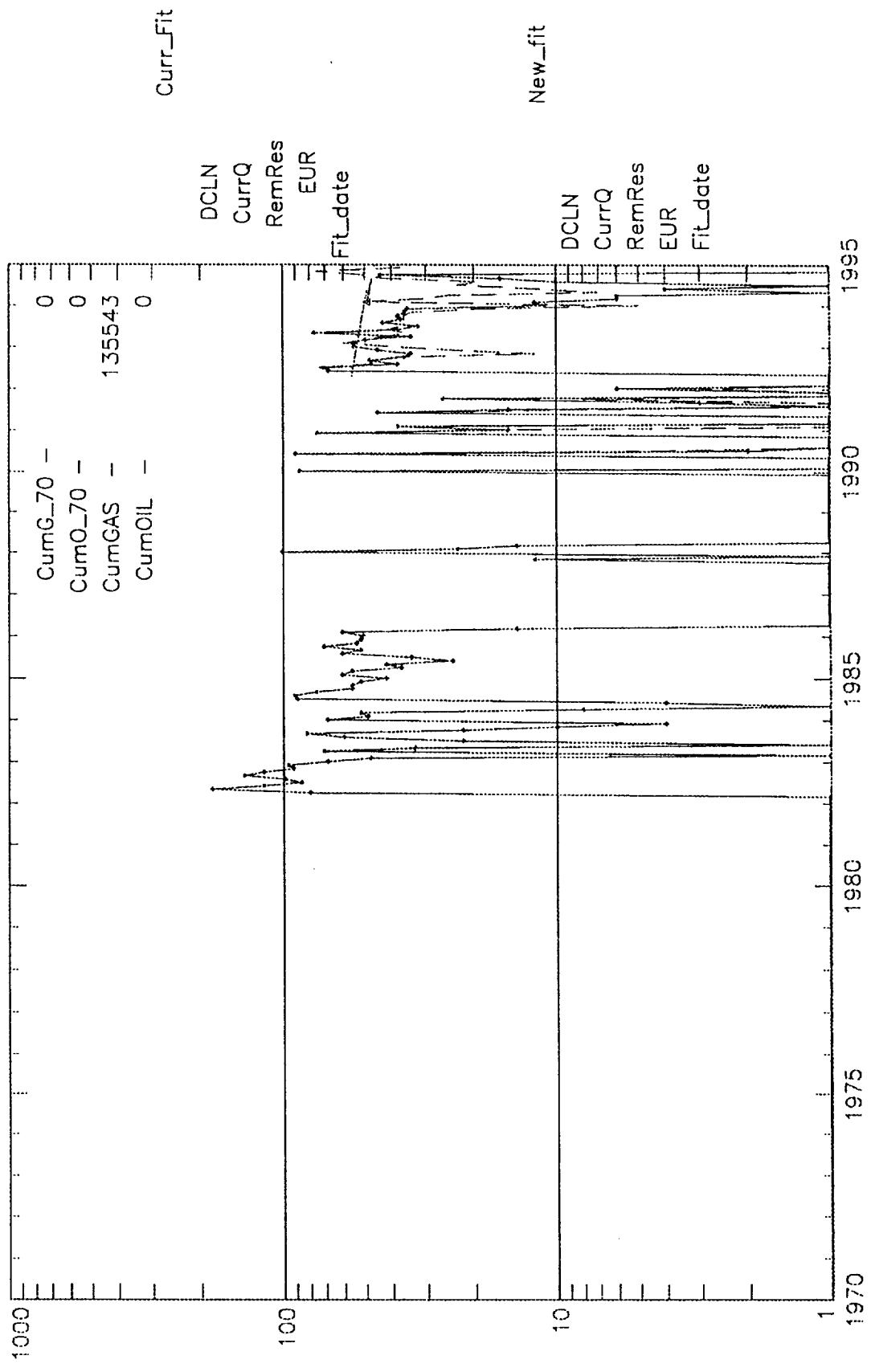
Engr: zhab0b

JICARILLA CONTRACT 146 37

Operator-- AMOCO PRODUCTION CO

300392252300CK C042505-037 CK

APC_WI - 1.0000000



Engr: zhab0b

JICARILLA CONTRACT 146 37

Operator-- AMOCO PRODUCTION CO

300392252300MV C042505-037 MV

APC_WI - 1.0000000

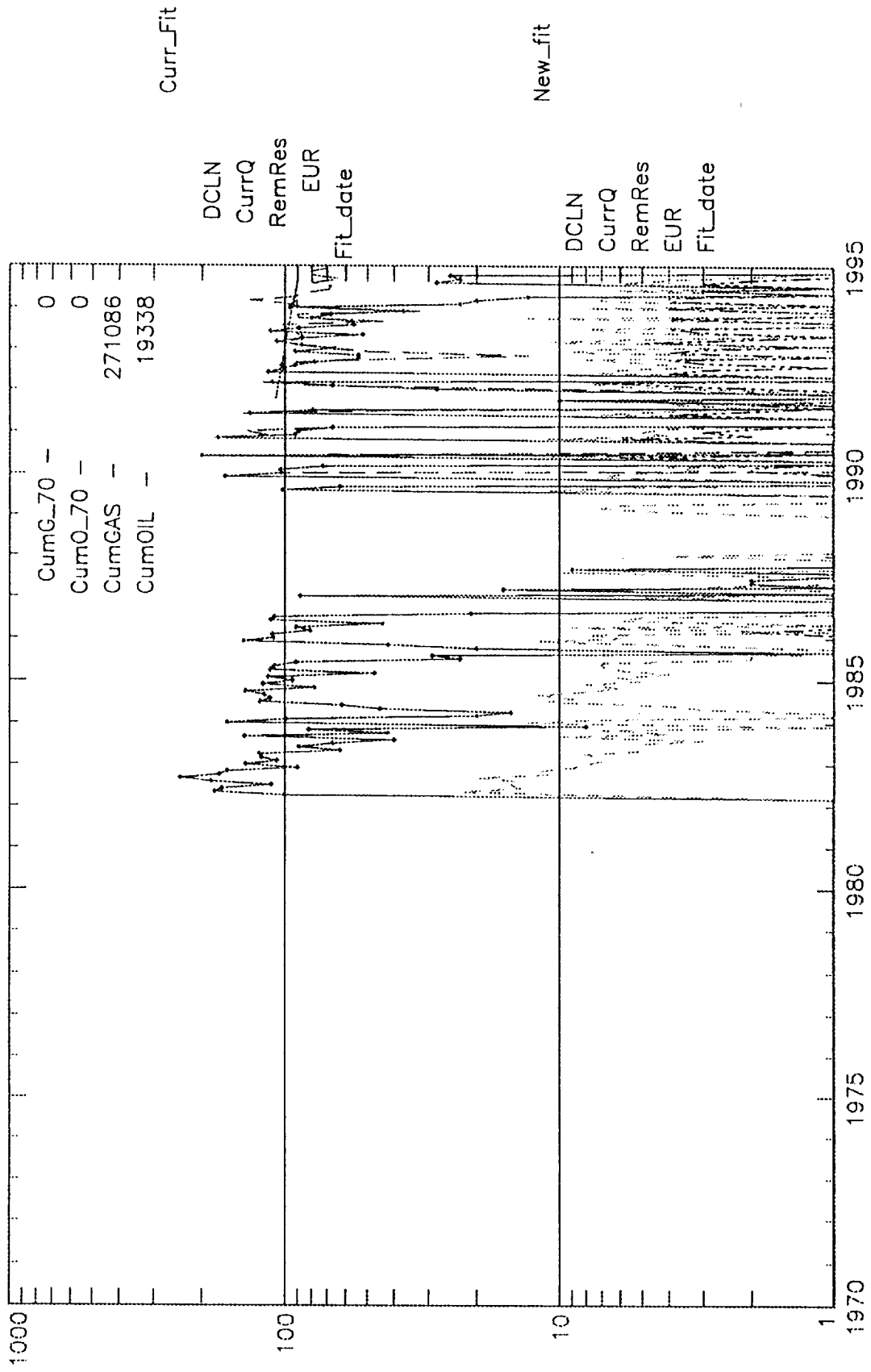


Chart1

Well: JICARILLA CONT 146 037-C (84237301)

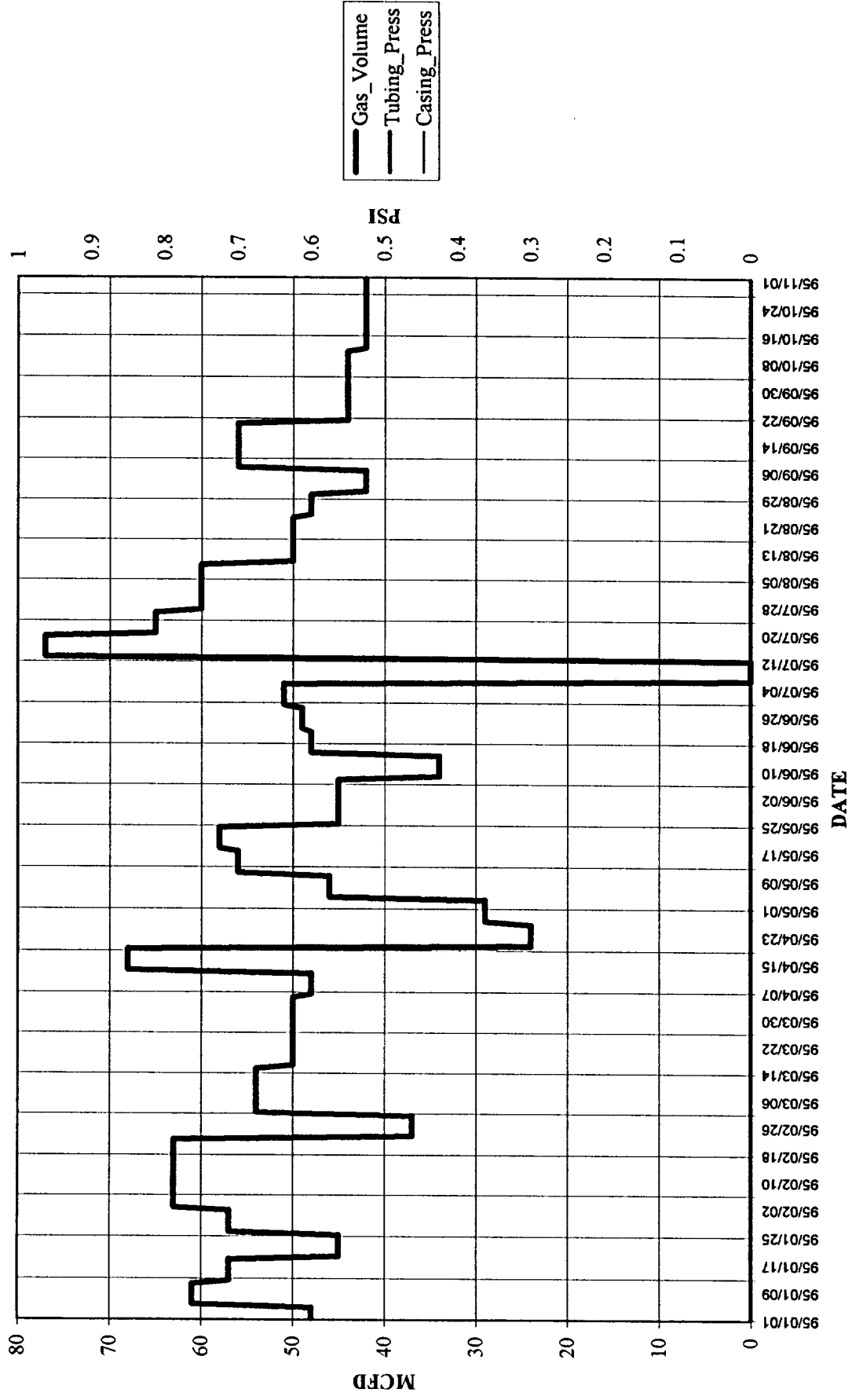
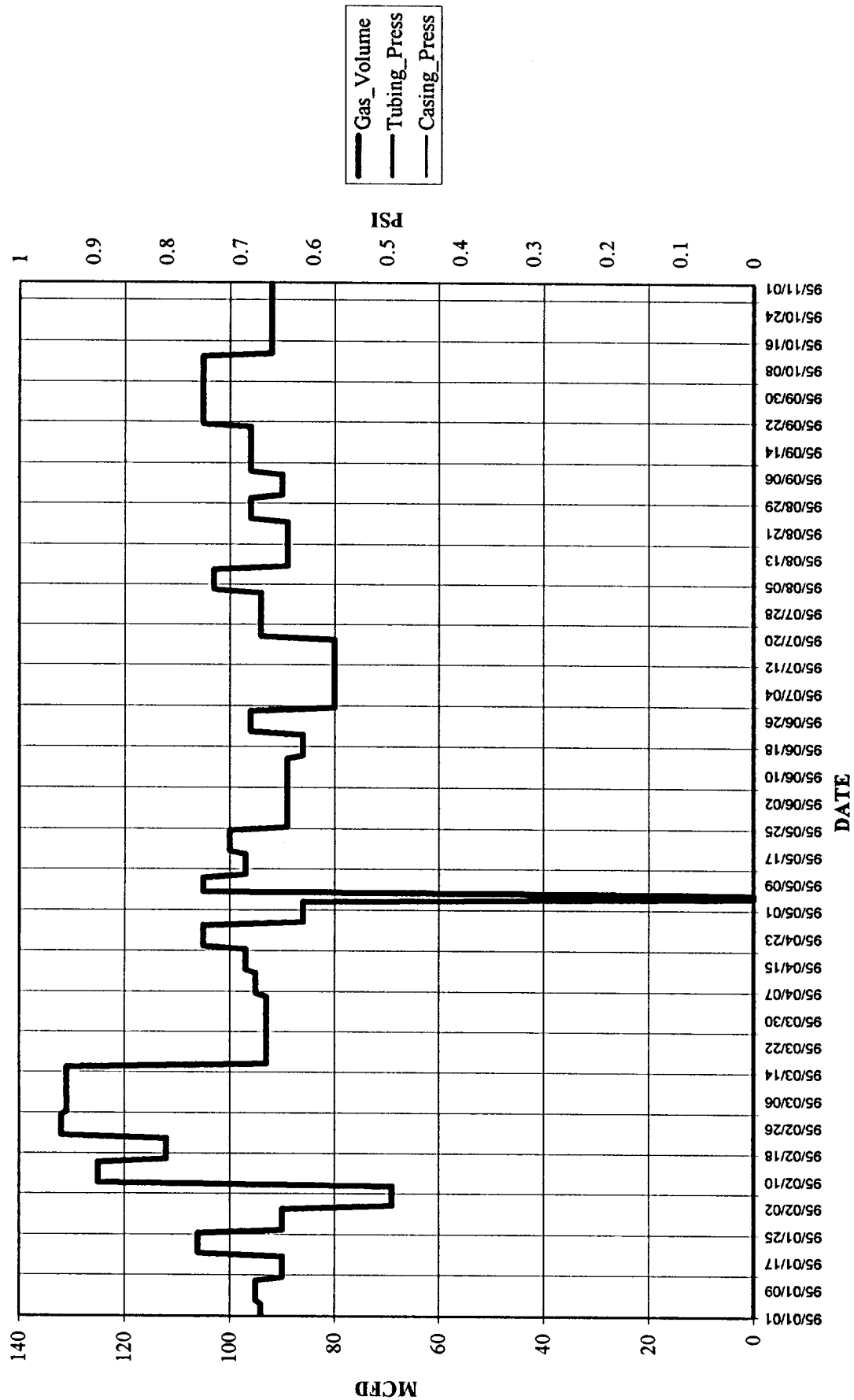


Chart1

Well: JICARILLA CONT 146 037-M (84237302)



OIL CONSERVATION DIVISION
NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator: AMOCO PRODUCTION COMPANY Lease/Well #: JIC CONTRACT 146 37
Meter #: 85518 RTU: 1-132-01 County: RIO ARRIBA

	NAME RESERVOIR OR POOL		TYPE PROD	METHOD PROD	MEDIUM PROD
UPR COMP	OTERO CHACRA 85528 131-1		GAS	FLOW	TBG
LWR COMP	BLANCO MESAVERDE 85518 132-1		GAS	FLOW	TBG

PRE-FLOW SHUT-IN PRESSURE DATA

	Hour/Date Shut-In	Length of Time Shut-In	SI Press. PSIG	Stabilized
UPR COMP	11/19/90	72 Hours	486	yes
LWR COMP	11/19/90	72 Hours	187	yes

FLOW TEST DATE NO.1

Commenced at (hour,date)*

				Zone Producing (Upr/Lwr)	
TIME (hour, date)	LAPSED TIME SINCE*	PRESSURE		Prod Temp.	REMARKS
		Upper	Lower		
11/19/90	Day 1				Both Zones SI
11/20/90	Day 2				Both Zones SI
11/21/90	Day 3				Both Zones SI
11/22/90	Day 4				Both Zones SI
11/23/90	Day 5				Both Zones SI
11/24/90	Day 6				Both Zones SI

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)

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DEC 13 1990

OIL CON. DIV
DIST. 2

OFFSET OPERATORS AND LIST OF ADDRESSES

Jicarilla 146 #37 Well

CHACRA OFFSET OPERATORS

SE SEC 33-T26N-R5W - NO CHACRA WELL
SW SEC 33-T26N-R5W - NO CHACRA WELL
SE SEC 32-T26N-R5W - AMOCO PRODUCTION COMPANY
NE SEC 4-T25N-R5W - AMOCO PRODUCTION COMPANY
SW SEC 4-T25N-R5W - AMOCO PRODUCTION COMPANY
SE SEC 4-T25N-R5W - AMOCO PRODUCTION COMPANY
NE SEC 5-T25N-R5W - CONOCO, INC.
SE SEC 4-T25N-R5W - CONOCO, INC.

MESAVERDE OFFSET OPERATORS

SE SEC 33-T26N-R5W - NO CHACRA WELL
SW SEC 33-T26N-R5W - NO CHACRA WELL
SE SEC 32-T26N-R5W - AMOCO PRODUCTION COMPANY
NE SEC 4-T25N-R5W - AMOCO PRODUCTION COMPANY
SW SEC 4-T25N-R5W - AMOCO PRODUCTION COMPANY
SE SEC 4-T25N-R5W - AMOCO PRODUCTION COMPANY
NE SEC 5-T25N-R5W - CONOCO, INC.
SE SEC 4-T25N-R5W - CONOCO, INC.

ADDRESSES

I Conoco, Inc.
10 Desta Drive West
Midland, Texas 79705