

Ernie Busch

From: Ernie Busch
To: David Catanach
Cc: Ben Stone
Subject: AMOCC (DHC)
Date: Friday, October 13, 1995 2:31PM
Priority: High

JICARILLA 146 #32
A-10-25N-05W
RECOMMEND: APPROVAL

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
P O 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

Form C-104

Revised February 21, 1994

Instructions on back

Submit to Appropriate District Office

5 Copies

OIL CONSERVATION DIVISION

PO Box 2088

Santa Fe, NM 87504-2088

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator Name and Address Meridian Oil, Inc. PO Box 4289 Farmington, NM 87499		² OGRID Number 14568
DHC-1009		³ Reason for Filing Code CG
⁴ API Number 30-0-2172700	⁵ Pool Name Blanco Pictured Cliffs South	⁶ Pool Code 72439
⁷ Property Code	⁸ Property Name JICARILLA 152 W	⁹ Well Number #4

II. ¹⁰Surface Location

UI or lot no. K	Section 5	Township 026N	Range 005W	Lot Idn	Feet from the 1480'	North/South Line S	Feet from the 1665'	East/West Line W	County Rio Arriba
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III. Bottom Hole Location

UI or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West Line	County
¹² Use Code	¹³ Producing Method Code	¹⁴ Gas Connection Date	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID 25244	¹⁹ Transporter Name and Address Williams Field Svcs. Box 58900 SLC, UT 84158	²⁰ POD	²¹ O/G G	²² POD ULSTR Location and Description K-5-T026N-R005W

IV. Produced Water

²³ POD	²⁴ POD ULSTR Location and Description
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V. Well Completion Data

²⁵ Spud Date	²⁶ Ready Date	²⁷ TD	²⁸ PBTD	²⁹ Perforations
³⁰ Hole Size	³¹ Casing & Tubing Size	³² Depth Set	³³ Sacks Cement	

VI. Well Test Data

³⁴ Date New Oil	³⁵ Gas Delivery Date	³⁶ Test Date	³⁷ Test Length	³⁸ Tbg. Pressure	³⁹ Csg. Pressure
⁴⁰ Choke Size	⁴¹ Oil	⁴² Water	⁴³ Gas	⁴⁴ AOF	⁴⁵ Test Method

"I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: *Tanya Atcity*

Printed Name:
Tanya Atcity

Title:
Production Assistant

Date:
22 November 1994

Phone:
(505) 326-9700

OIL CONSERVATION DIVISION

Approved by:

Title:

Approved Date:

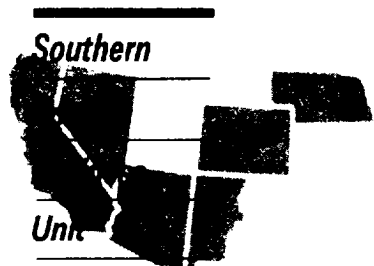
"If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature

Printed Name

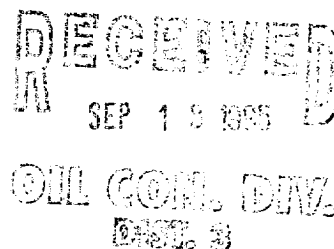
Title

Date



September 4, 1995

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
Jicarilla 146 #32 Well
1110' FNL & 810' FEL, Unit A Section 10-T25N-R5W
Blanco Mesaverde and Otero Chacra 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 #32 Well referenced above. The Jicarilla 146 #32 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 53 MCFD with 0.1 BCPD. 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 30% from the Mesaverde formation and 70% 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 a C-102 for each formation. This spacing unit is on a federal lease 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". The signature is fluid and cursive, with the first name being the most prominent.

Pamela W. Staley

Enclosures

cc: Steve Smethie
Patty Haefele

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: 32
Well Location: 1110' FNL & 810' FEL
Unit A Section 10-T25-R5W
Rio Arriba County, New Mexico

Pools Commingled: Otero Chacra
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 8 MCFD and 0.1 BCPD. The Chacra zone produced at an average rate of about 45 MCFD and 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 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 Pictured Cliffs formation is calculated to be 668 PSIG while estimated bottomhole pressure in the Mesaverde formation is 1300 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:

Based on historical production we recommend that the allocation for gas production be 30% from the Mesaverde formation and 70% 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.

992,017.38 FT. E
107° 22' 25" W

36° 25'

992,012.92 FT. E
107° 22' 25" W

36° 23' 33" N
13,218,144.98 FT. N

26N-5W

2

11

14

RIO ARRIBA
25N-5W

WELL: 37
LEASE: JICARILLA CONTRACT
OPERATOR: AMOCO PROD
API: 300382252300
PROD. FORM:HVRO ,CHCR

WELL: 36
LEASE: JICARILLA CONTRACT
OPERATOR: AMOCO PROD
API: 300392248600
PROD. FORM:HVRO ,CHCR

WELL: 34
LEASE: JICARILLA CONTRACT
OPERATOR: AMOCO PROD
API: 300392256000
PROD. FORM:HVRO ,CHCR

WELL: 12
LEASE: JICARILLA CONT 146
OPERATOR: AMOCO PROD
API: 300390515300
PROD. FORM:PCCF ,FRLO ,CHCR ,CHCR

WELL: 21
LEASE: JICARILLA-146
OPERATOR: PAN AMERICAN
API: 300392033400
PROD. FORM:DKOT ,CHCR

WELL: 39
LEASE: JICARILLA CONTRACT
OPERATOR: AMOCO PROD
API: 300392252200
PROD. FORM:CHCR

WELL: 12-E
LEASE: JICARILLA-K
OPERATOR: SOUTHERN UNION EXPL
API: 300392241500
PROD. FORM:HVRO

WELL: 23
LEASE: JICARILLA CONTRACT
OPERATOR: AMOCO PROD
API: 300392058800
PROD. FORM:HVRO

WELL: 29
LEASE: JICARILLA CONTRACT
OPERATOR: AMOCO PROD
API: 300392248000
PROD. FORM:PCCF ,PCCF ,CHCR ,CHCR

WELL: 32
LEASE: JICARILLA CONTRACT
OPERATOR: AMOCO PROD
API: 300392248500
PROD. FORM:HVRO ,CHCR

WELL: 30
LEASE: JICARILLA CONTRACT
OPERATOR: AMOCO PROD
API: 300382248100
PROD. FORM:CHCR

WELL: 13
LEASE: JICARILLA K
OPERATOR: SOUTHERN UNION PROD
API: 300392029200
PROD. FORM:PCCF ,DKOT ,CHCR

WELL: 14
LEASE: JICARILLA
OPERATOR: PAN AMERICAN
API: 300390608200
PROD. FORM:CHCR

WELL: 18
LEASE: JICARILLA-146
OPERATOR: PAN AMERICAN
API: 300390606500
PROD. FORM:CHCR

WELL: 33
LEASE: JICARILLA CONTRACT
OPERATOR: AMOCO PROD
API: 300392252100
PROD. FORM:HVRO ,CHCR

WELL: 15
LEASE: JICARILLA-C-146
OPERATOR: PAN AMERICAN
API: 300398233600
PROD. FORM:CHCR

WELL: 14
LEASE: JICARILLA K
OPERATOR: SOUTHERN UNION PROD
API: 300392039200
PROD. FORM:PCCF ,DKOT ,CHCR

WELL: 8
LEASE: JICARILLA APACHE F
OPERATOR: AMERADA HESS CORP
API: 300398233800
PROD. FORM:CHCR

WELL: 25
LEASE: JICARILLA CONTRACT
OPERATOR: AMOCO PROD
API: 300392252500
PROD. FORM:PCCF ,CHCR

WELL: 24
LEASE: JICARILLA CONTRACT
OPERATOR: AMOCO PROD
API: 300392252400
PROD. FORM:CHCR

WELL: 14
LEASE: JICARILLA 148
OPERATOR: PAN AMERICAN
API: 300398233700
PROD. FORM:CHCR

WELL: 17
LEASE: JICARILLA CONTRACT
OPERATOR: AMOCO PROD
API: 300392198900
PROD. FORM:GLUP ,CHCR

WELL: 16
LEASE: JICARILLA-148
OPERATOR: PAN AMERICAN
API: 300390597500
PROD. FORM:CHCR

WELL: 15
LEASE: JICARILLA-148
OPERATOR: PAN AMERICAN
API: 300390598900
PROD. FORM:CHCR

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 146-32 Sec. 10-T25N-R05W
Rio Arriba New Mexico

SCALE 1 IN. = 2,000 FT. JUL 14, 1995

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

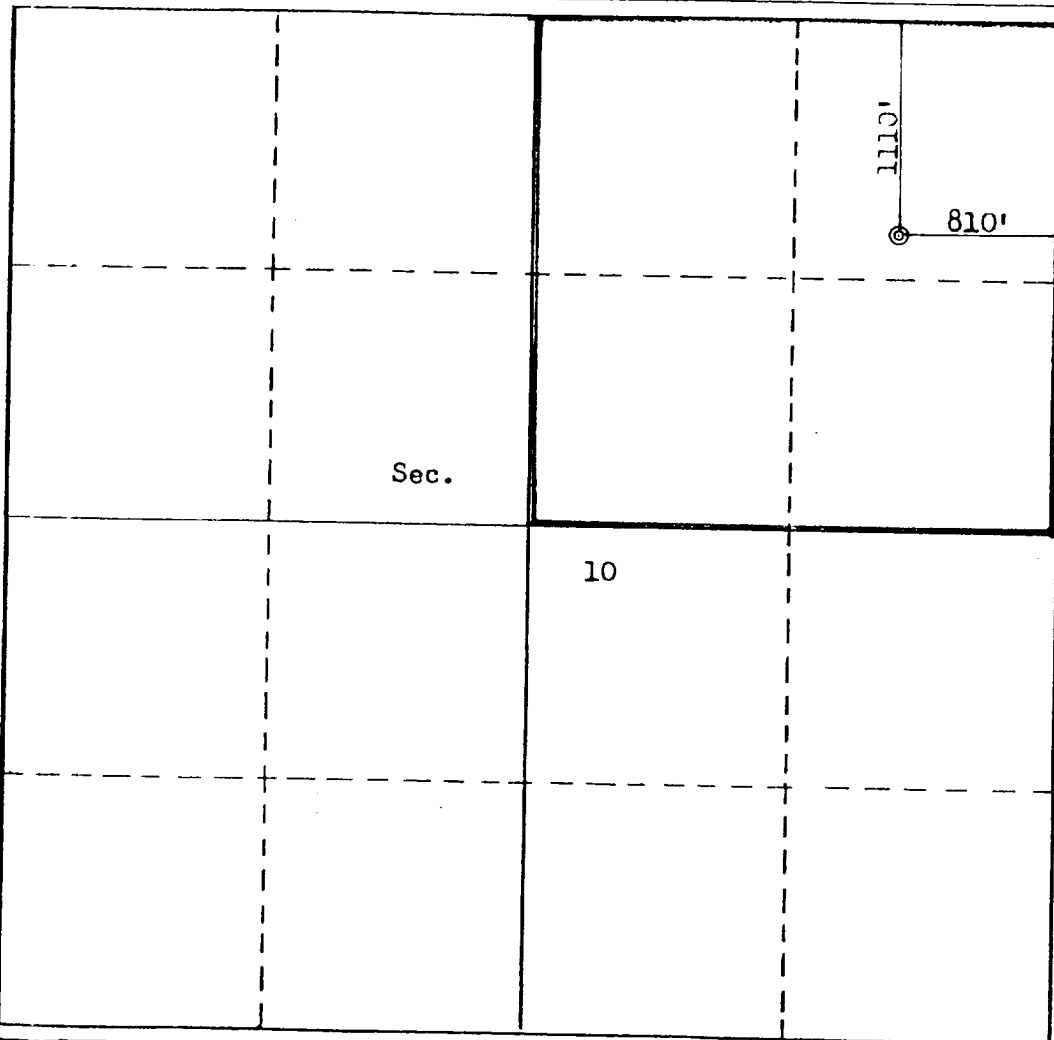
Operator AMOCO PRODUCTION COMPANY			Lease JICARILLA CONTRACT 146		Well No. 32
Unit Letter A	Section 10	Township 25N	Range 5W	County Rio Arriba	
Actual Footage Location of Well: 1110 feet from the North line and 810 feet from the East line					
Ground Level Elev. 6672	Producing Formation Chacra		Pool Otero Chacra		Dedicated Acreage: 160 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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.

R. A. Downey

Name

R.A. DOWNEY

Position

DISTRICT ENGINEER

Company

AMOCO PRODUCTION COMPANY

Date

MAY 28, 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

May 21, 1980

Registered Professional Engineer
and/or Land Surveyor

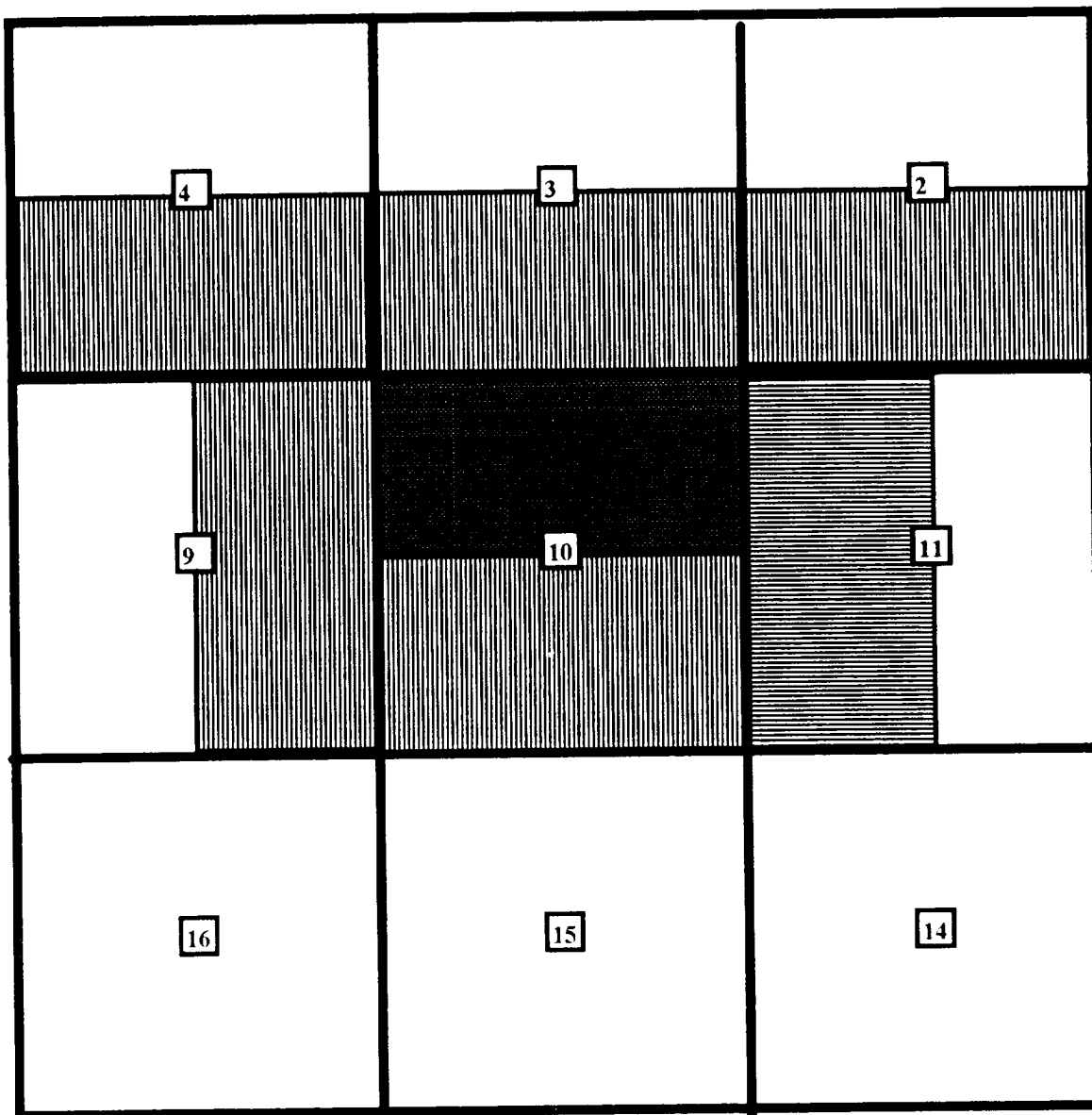
Fred B. Kerner Jr.
Fred B. Kerner Jr.




Certificate No. N.E.R.

2050

AMOCO PRODUCTION COMPANY OFFSET OPERATOR PLAT

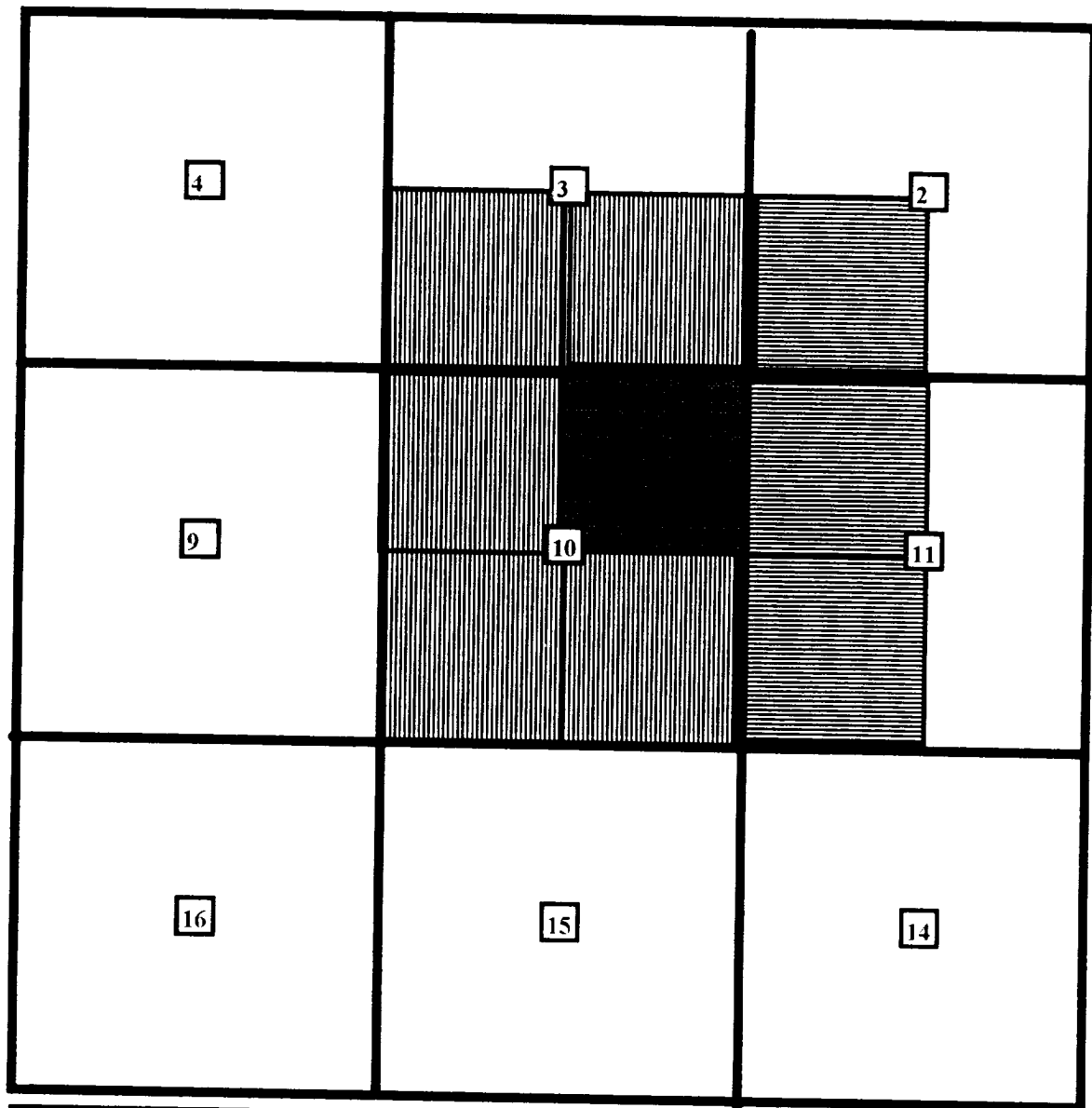
Jicarilla 146 #32 Well
1110' FNL & 810' FEL
Unit A Section 10-T25N-R5W
Blanco Mesaverde



-  SPACING UNIT TO BE DOWNHOLE COMMINGLED
-  AMOCO PRODUCTION COMPANY
-  MERIT ENERGY CORP.

AMOCO PRODUCTION COMPANY OFFSET OPERATOR PLAT

Jicarilla 146 #32 Well
1110' FNL & 810' FEL
Unit A Section 10-T25N-R5W
Otero Chacra



SPACING UNIT TO BE DOWNHOLE COMMINGLED



AMOCO PRODUCTION COMPANY



MERIT ENERGY CORP.

LIST OF ADDRESSES FOR OFFSET OPERATORS
Jicarilla 146 #32 Well

1 Merit Energy Corp.
12221 Merit Dr. Ste 500
Dallas, TX 75251

Engr: zhab0b

JICARILLA CONTRACT 146 32

Operator- AMOCO PRODUCTION CO

300392248500MV A102505-032 MV

APC_WI - 1.0000000

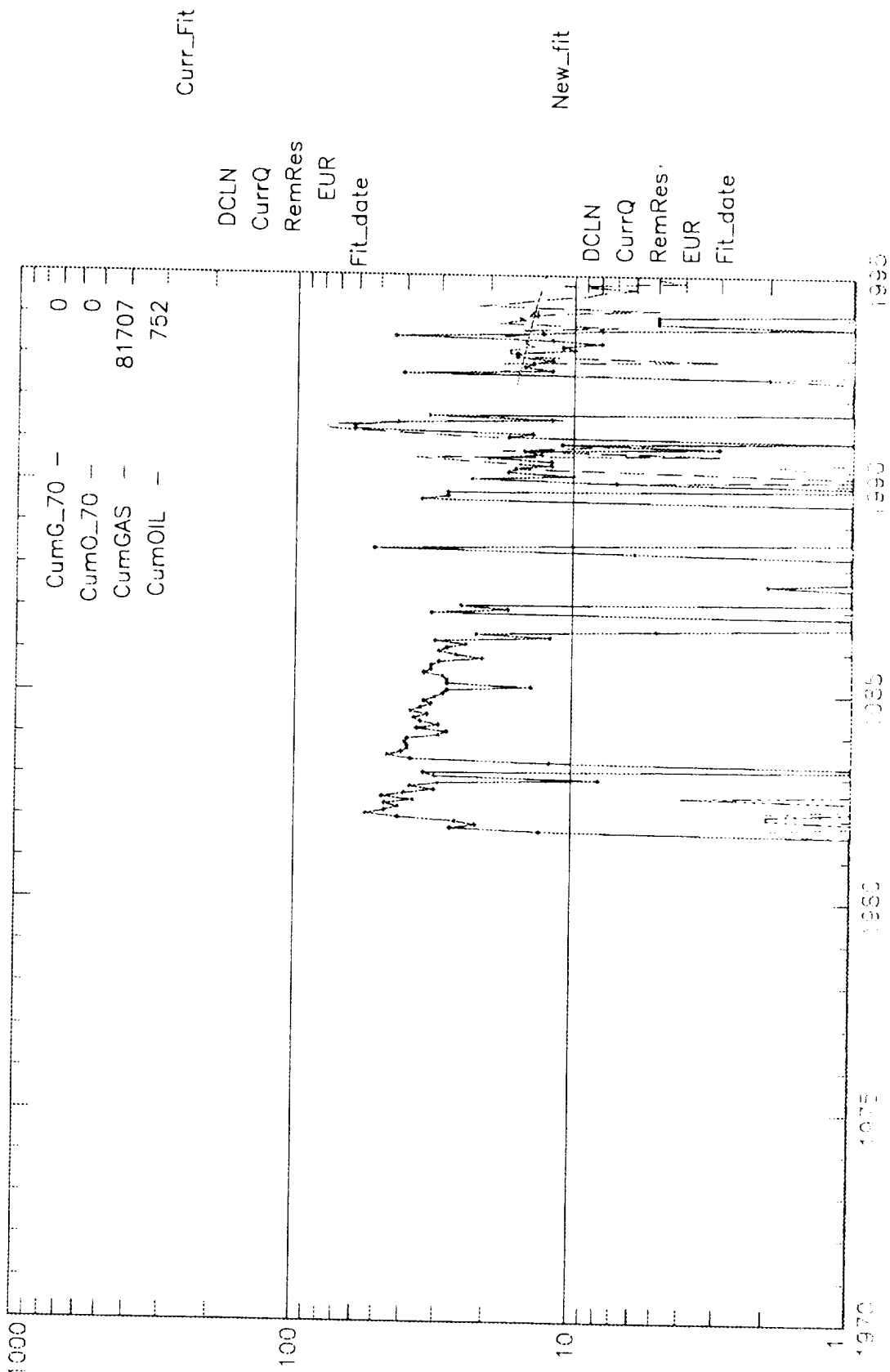
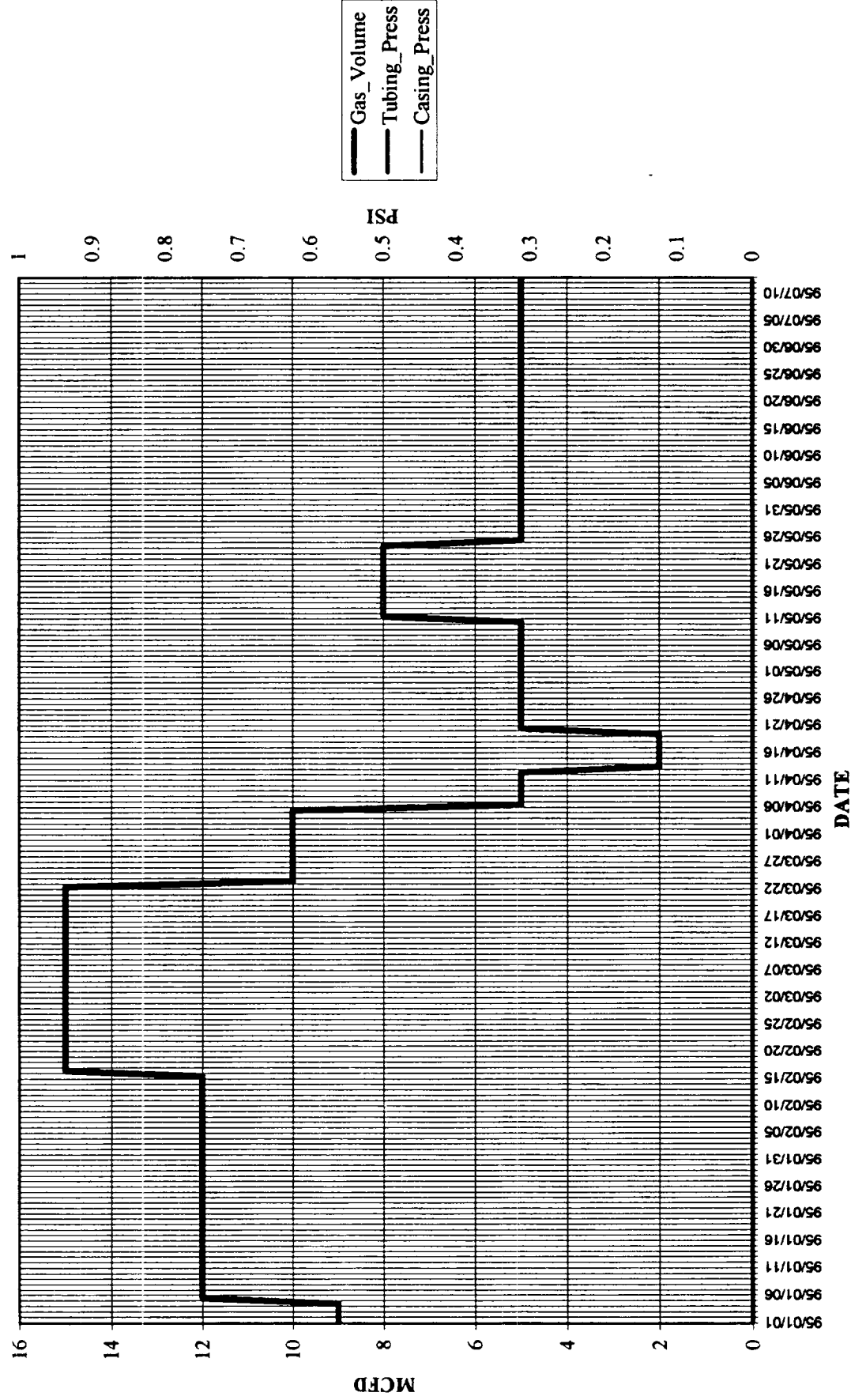


Chart1

Well: JICARILLA CONT 146 032-MV (84233302)



Engr: zhab0b

JICARILLA CONTRACT 146 32

Operator-- AMOCO PRODUCTION CO

300392248500CK A102505-032 CK

APC_WI - 1.00000000

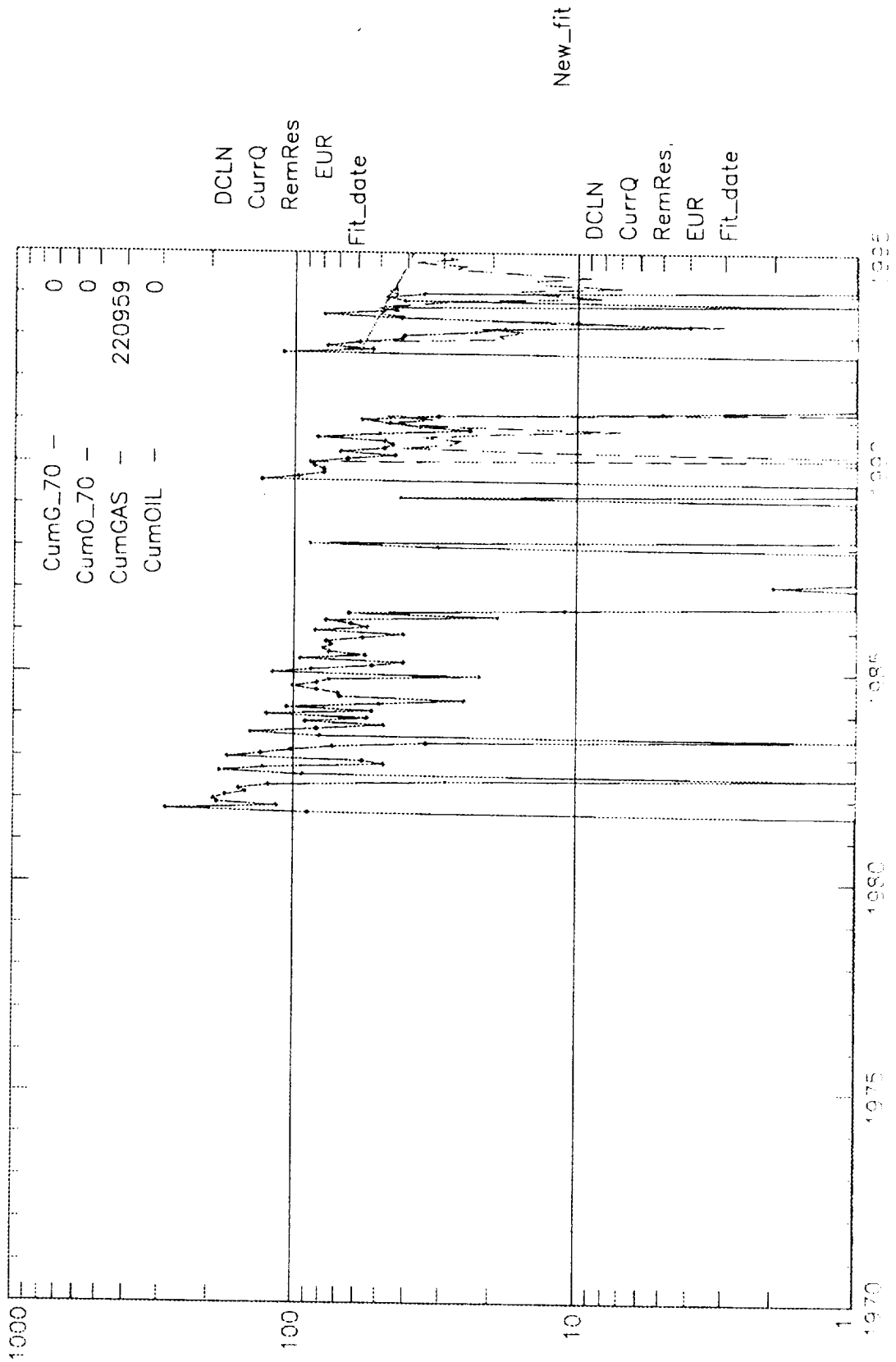
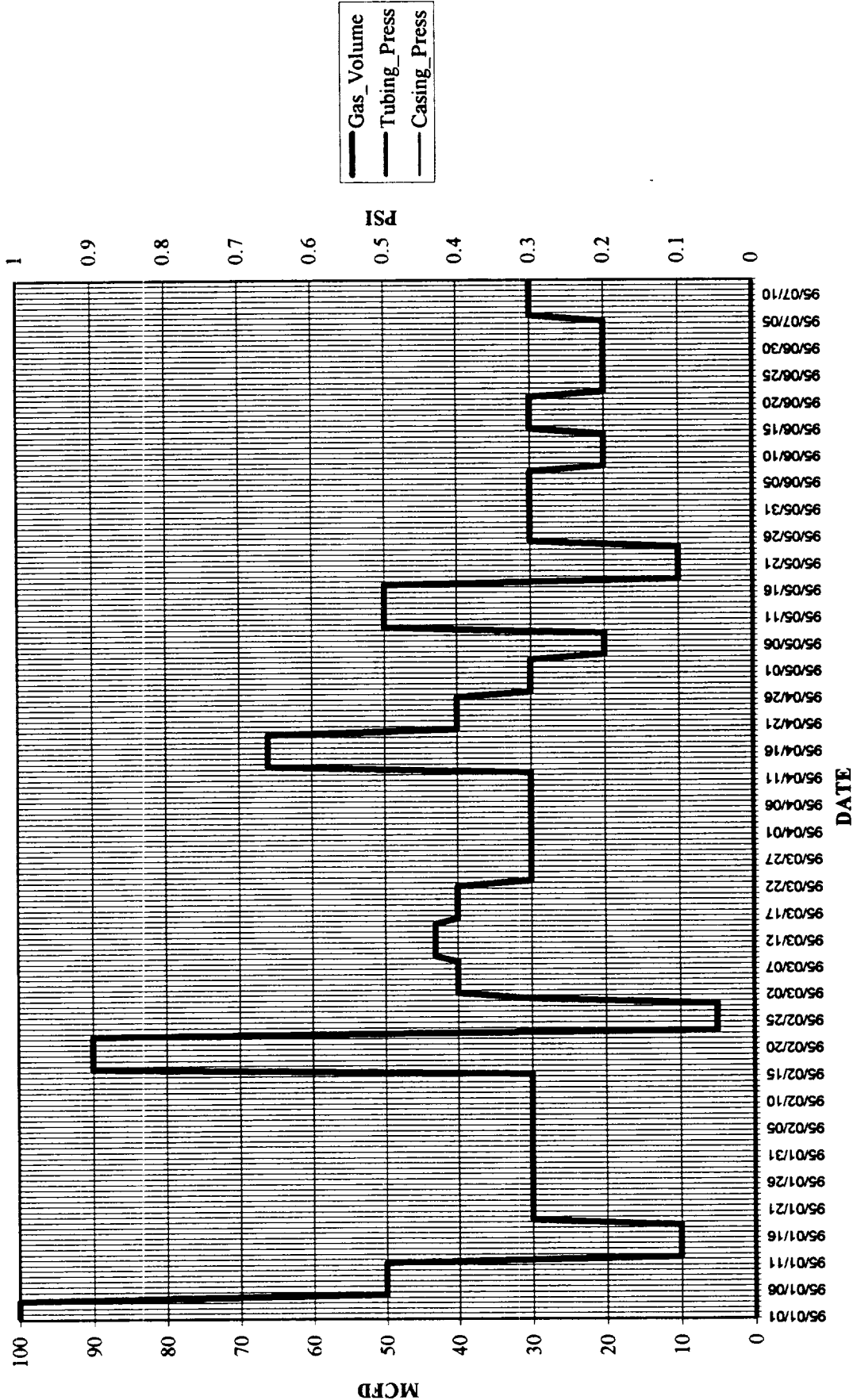


Chart1

Well: JICARILLA CONT 146 032-CK (84233301)



ESTIMATED BOTTOMHOLE PRESSURES BY FORMATION
JICARILLA CONTRACT #146-32

CK Perforations at 3840-3956' midperf at 3898'
MV Perforations at 4951-5386' midperf at 5169'

9/93 shut in pressures --- CK = 356 PSIG
MV = 887 PSIG

GRADIENT = 0.08 PSI/FT

CK BHP = 356 PSIG + 3898' X 0.08 PSIG
= 668 PSIG

MV BHP = 887 PSIG + 5169' X 0.08 PSIG
= 1300 PSIG

668 PSIG / 1300 PSIG = 51% WHICH MEETS THE >50% RULE

OIL CONSERVATION DIVISION
NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator: AMOCO PRODUCTION COMPANY Lease/Well #: JIC CONTRACT 146 32
Meter #: 93871 RTU: 1-127-01 County: RIO ARRIBA

	NAME RESERVOIR OR POOL	TYPE PROD	METHOD PROD	MEDIUM PROD
UPR COMP	JIC CONTRACT 146 32 CH 93871 1-127-1	GAS /	FLOW /	TBG /
LWR COMP	JIC CONTRACT 146 32 MV 93870 1-128-1	GAS /	FLOW /	TBG /

PRE-FLOW SHUT-IN PRESSURE DATA

	Hour/Date Shut-In	Length of Time Shut-In	SI Press. PSIG	Stabilized
UPR COMP	09/28/93	220 # PSI 302 # PSI	220 # PSI	
LWR COMP	09/28/93	222 # PSI	222 # PSI	

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		
9/29/93 29	Day 1	258 TEG 352 TEG	757 TEG		Both Zones SI
9/30/93	Day 2	258 TEG 356 C	856 TEG		Both Zones SI
10/1/93	Day 3	242 352	887 TEG		Both Zones SI
10/2/93	Day 4	242 356	435		<div style="border: 1px solid black; padding: 5px; text-align: center;"> REGISTERED OCT 21 1993 OIL CON. DIV. </div>
10/3/93	Day 5	242 367	188		
10/4/93	Day 6	242 362	191		

Production rate during test

Oil: 0 BOPD based on BBLs in Hrs Grav GOR
Gas: 15 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	10:00 AM 9/28/93	73 Hours	242 356	Yes
LWR COMP	10:00 AM 9/28/93	13 Hours	887	Yes

(Continue on reverse side)