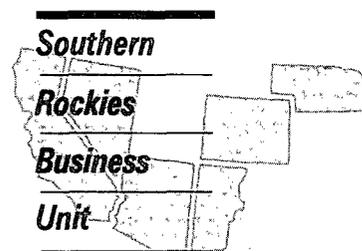


YES NO - 6 AM 8 52



November 2, 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
Hughes B #7A Well
1450' FNL & 1750' FWL, Unit F Section 29-T29N-R8W
Blanco Mesaverde and Blanco Pictured Cliffs Pools
San Juan County, New Mexico

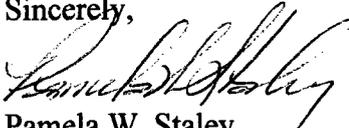
Amoco Production Company hereby requests administrative approval to downhole commingle production from the Blanco Mesaverde and Blanco Pictured Cliffs Pools in the Hughes B #7A well referenced above. The Hughes B #7A is currently a dual completion in the Mesaverde and Pictured Cliffs formations. We plan to complete the well with both the Mesaverde and Pictured Cliffs formations being downhole commingled in the wellbore. The Pictured Cliffs zone has been producing against line pressure while the Mesaverde has been on compression. This commingling will allow both the Mesaverde and the Pictured Cliffs formations to be produced through the compressor and should result in additional Pictured Cliffs production. The two zones are expected to produce at a total commingled rate of about 300 MCFD with a very small amount of condensate (less than 1 BCPD) from each formation. 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. Since the Mesaverde formation has been producing on compression for some time and the Pictured Cliffs formation has not, we recommend that once total commingled production rates are established that the Pictured Cliffs be allocated the percent difference between the stabilized Mesaverde producing rate and total stabilized commingled production. The Mesaverde is currently producing 40 MCFD. The allocation percentages would then be set as a percentage of the total rate attributing 40 MCFD as the rate from the Mesaverde and the rest to the Pictured Cliffs. We would notify your Aztec District office when the testing was complete and report the allocation percentages for gas at that time for approval. The well has produced negligible amounts of condensate in the past and we recommend allocating 50% of condensate to each 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 formation, a historical and recent production plot and a C-102 for each formation. This spacing unit is located on a federal lease (SF-078046) 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: Stan Kolodzie
Lois Raeburn

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: Hughes B

Well Number: 7A
Well Location: 1450' FNL & 1750' FWL
Unit F Section 29-T29N-R8W
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 40 MCFD and less than 1 BCPD. The Blanco Pictured Cliffs zone produced at an average rate of about 27 MCFD and less than 1 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.

Blanco Pictured Cliffs 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 72 hour shut-in pressures during a packer leakage test for the well. Estimated bottomhole pressure in the Pictured Cliffs formation is 450 PSI while the estimated bottomhole pressure in the Mesaverde is 798 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 fluids that, when combined, 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. Since the Mesaverde formation has been producing on compression for some time and the Pictured Cliffs formation has not, we recommend that once total commingled production rates are established that the Pictured Cliffs be allocated the percent difference between the stabilized Mesaverde producing rate and total stabilized commingled production. The Mesaverde is currently producing 40 MCFD. The allocation percentages would then be set as a percentage of the total rate attributing 40 MCFD as the rate from the Mesaverde and the rest to the Pictured Cliffs. We would notify your Aztec District office when the testing was complete and report the allocation percentages for gas at that time for approval. The well has produced negligible amounts of condensate in the past and we recommend allocating 50% of condensate to each 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.

1A HUGHES LS TENNECO OIL 300452271500

2 HUGHES J F THREE STATES NATURL GAS 300450808900

3 HUGHES EL PASO NATURAL GAS 300450809000

3 MESAVERDE STRAT EL PASO NATURAL GAS 300450804600

8 HUGHES EL PASO NATURAL GAS 300450804400

4-A HUGHES EL PASO NATURAL GAS 300452271700

5A HUGHES LS TENNECO OIL 300452683700

6-A HUGHES EL PASO NATURAL GAS 300452271900

1 HUGHES EL PASO NATURAL GAS 300450795000

4 HUGHES EL PASO NATURAL GAS 300450794300

5 HUGHES EL PASO NATURAL GAS 300450794500

2A HUGHES LS TENNECO OIL 300452271600

3-A HUGHES EL PASO NATURAL GAS 300452271800

99 HUGHES LS AMOCO PROD 300452461800

1 BDLIN EL PASO NATURAL GAS 300450788900

1-A HARDIE-B EL PASO NATURAL GAS 300452283000

7A HUGHES LS TENNECO OIL 300452283100

8 HUGHES EL PASO NATURAL GAS 300450786000

5 HUGHES A EL PASO NAT 3004507850

1-A BDLIN EL PASO NATURAL GAS 300452337300

7 HUGHES EL PASO NATURAL GAS 300450778000

8-A HUGHES EL PASO NATURAL GAS 300452283200

1 HARDIE B EL PASO NATURAL GAS 300450780400

5-A HUGHES-A EL PASO NAT 300452288600

4-A PRITCHARD TENNECO OIL 300452249700

1-3 PRITCHARD DELHI TAYLOR OIL 300450770200

3-A STATE MESA PET 300452163200

3 STATE PUBCO PET 300450768900

1-A HUGHES EL PASO NATU 300450771300

6-A HUGHES-A EL PASO NATURAL GAS 300452311000

2 STATE PUBCO PET 300450764700

2-A STATE COM-G MESA PET 300452163300

6-A HUGHES EL PASO NATURAL GAS 300450762300

3-A PRITCHARD TENNECO OIL 300452234500

1A HUGHES A LS TENNECO OIL 300452315000

28N-8W

36° 40' 31" N



AMOCO PRODUCTION COMPANY
PLAT MAP
Hughes B 7A
Mesaverde

SCALE 1 IN. = 2,000 FT. MAY 16, 1995

HORIZONTAL DATUM NAD27

PJH13433--RUN#95136145912

DD M

1A HUGHES LS
TENNECO OIL
300452271500

2 HUGHES J F
THREE STATES NATURL GAS
300450808900

3 HUGHES
EL PASO NATURAL GAS
300450809000

3 MESAVARDE STRAT
EL PASO NATURAL GAS
300450804600

6 HUGHES
EL PASO NATURAL
300450804100

4-A HUGHES
EL PASO NATURAL GAS
300452271700

5A HUGHES LS
TENNECO OIL
300452683700

6-A HUGHES
EL PASO NATURAL
300452271900

1 HUGHES
EL PASO NATURAL GAS
300450795000

4 HUGHES
EL PASO NATURAL GAS
300450794300

5 HUGHES
EL PASO NATURAL GAS
300450794500

2A HUGHES LS
TENNECO OIL
300452271600

3-A HUGHES
EL PASO NATURAL GAS
300452271800

99 HUGHES LS
AMOCO PROD
300452464800

1 BOLIN
EL PASO NATURAL GAS
300450788900

7A HUGHES LS
TENNECO OIL
300452283100

8 HUGHES
EL PASO NATURAL GAS
300450786000

1-A HARDIE-B
EL PASO NATURAL GAS
300452283000

5 HUGHES A
EL PASO NF
3004507850

1-A BOLIN
EL PASO NATURAL GAS
300452337300

7 HUGHES
EL PASO NATURAL GAS
300450778000

8-A HUGHES
EL PASO NATURAL GAS
300452283200

1 HARDIE B
EL PASO NATURAL GAS
300450780400

5-A HUGHES-A
EL PASO NAT
30045228860

4-A PRITCHARD
TENNECO OIL
300452249700

1-3 PRITCHARD
DELMI TAYLOR OIL
300450770200

3-A STATE
MESA PET
300452163200

3 STATE
PUBCO PET
300450768900

1-A HUGHES
EL PASO NATU
300450771300

6-A HUGHES-A
EL PASO NATURAL GAS
300452311000

2 STATE
PUBCO PET
300450764700

2-A STATE COM-G
MESA PET
300452163300

6-A HUGHES
EL PASO NATURAL GAS
300450762300

3-A PRITCHARD
TENNECO OIL
300452234500

1A HUGHES A LS
TENNECO OIL
3004523015000



AMOCO PRODUCTION COMPANY
PLAT MAP
Hughes B 7A
Mesaverde
SCALE 1 IN. = 2,000 FT. MAY 16, 1995

HORIZONTAL DATUM NAD27

P JH13433--RUN#95136145912

DO M

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

Operator El Paso Natural Gas Company		Lease Hughes (SF-078046)		Well No. 7A
Unit Letter F	Section 29	Township 29N	Range 8W	County San Juan

Actual Footage Location of Well:

1450 feet from the **North** line and **1750** feet from the **West** line

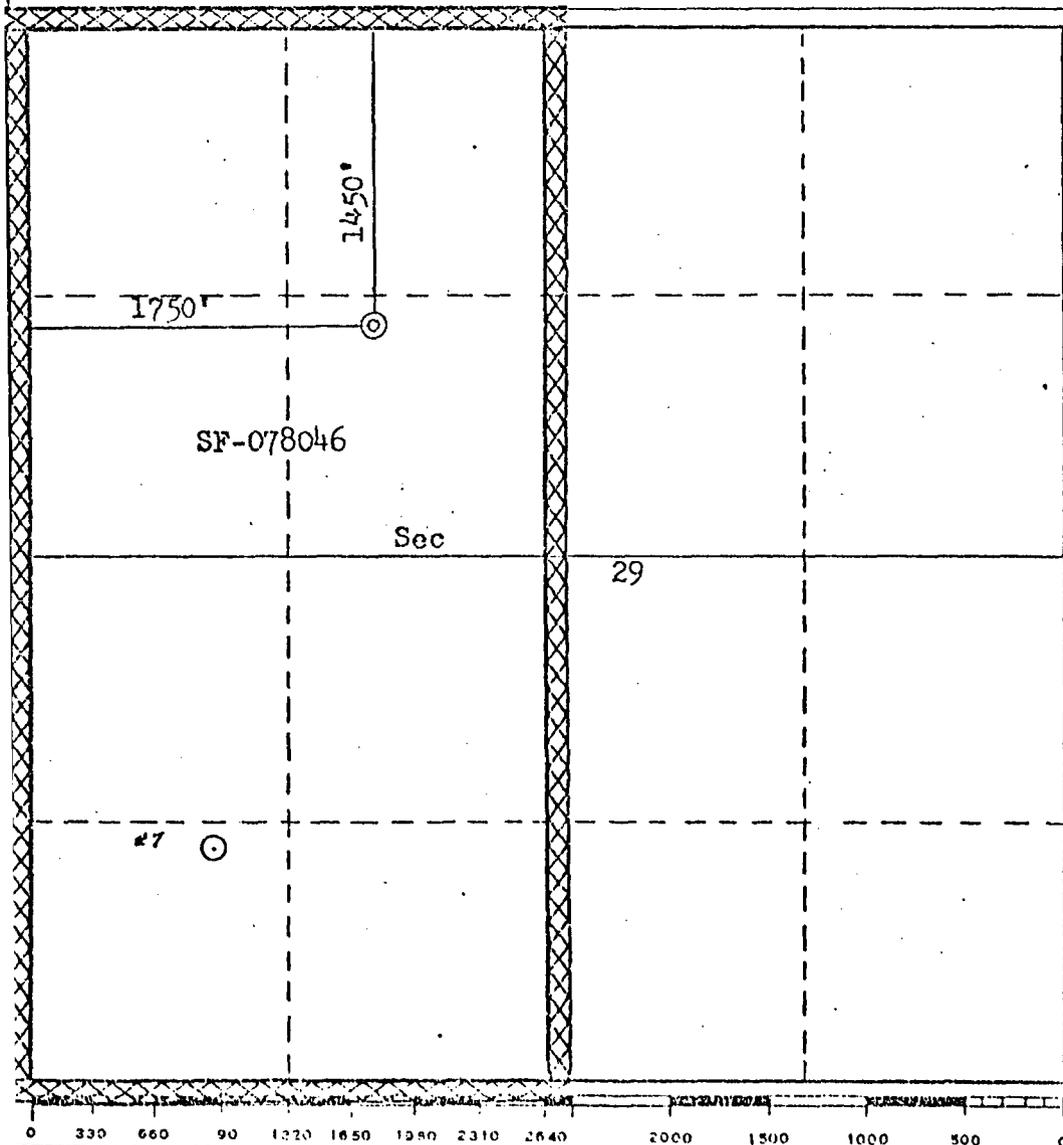
Ground Level Elev. 6445	Producing Formation Mesa Verde	Pool Blanco Mesa Verde	Dedicated Acreage: 320.00 Acres
-----------------------------------	--	----------------------------------	---

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>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i>	
<i>D. P. Busico</i>	
Name	Drilling Clerk
Position	El Paso Natural Gas Co.
Company	12-14-77
Date	
<i>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.</i>	
Date Surveyed	November 14, 1977
Registered Professional Engineer and/or Land Surveyor	<i>Fred W. Kerr, Jr.</i>
Certificate No.	3950

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

OCT 21 1985
Form C-102
Supersedes C-128
Effective 1-1-85

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

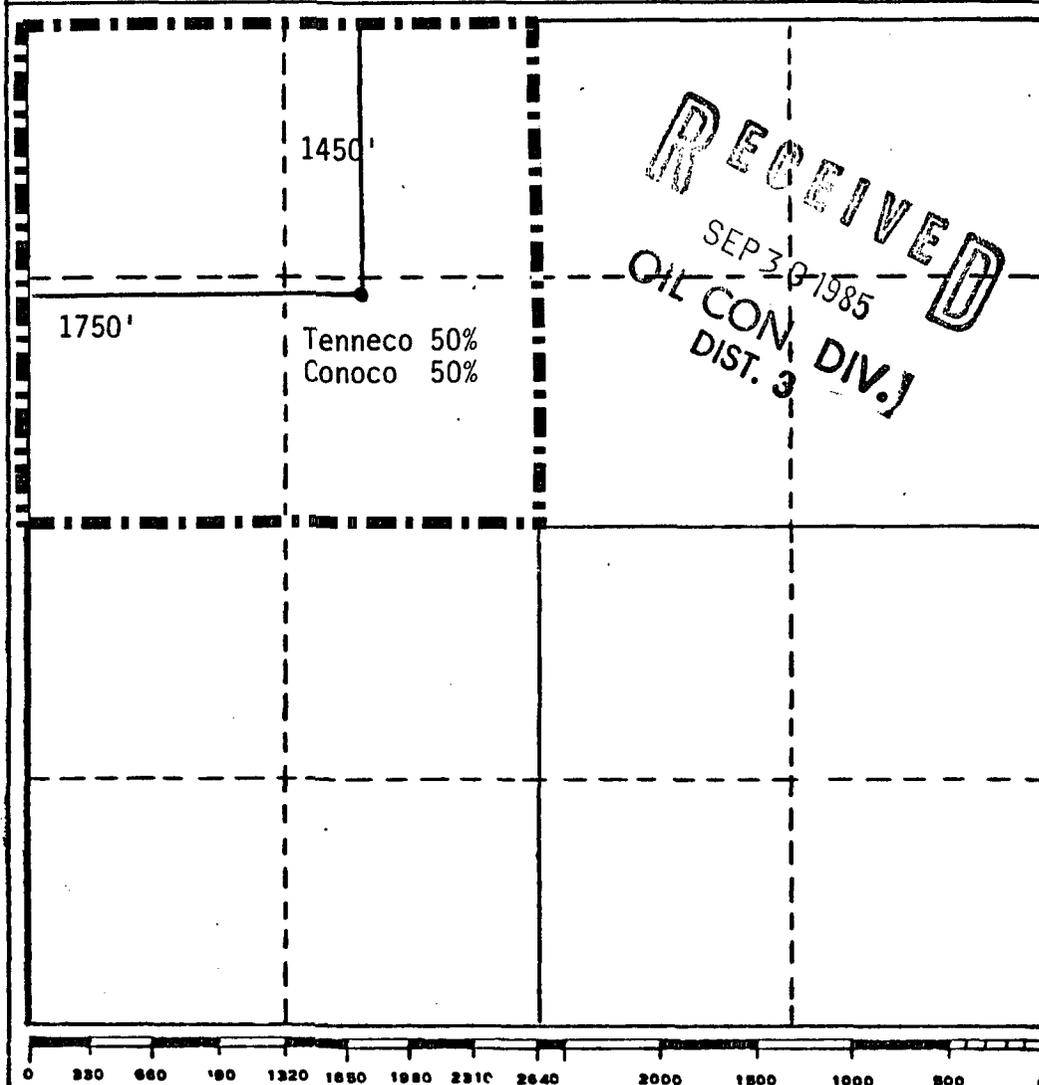
Operator Tenneco Oil Company		Lease Hughes LS			Well No. 7A
Unit Letter F	Section 29	Township 29N	Range 8W	County San Juan	
Actual Footage Location of Well: 1450 feet from the North line and 1750 feet from the West line					
Ground Level Elev. 6445	Producing Formation Pictured Cliffs		Pool Blanco PC	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.



CERTIFICATION

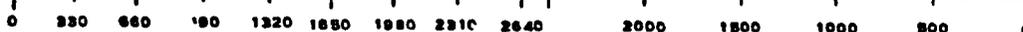
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Scott McKinney
Name
Scott McKinney
Position
Senior Regulatory Analyst
Company
Tenneco Oil Company
Date
September 1, 1985

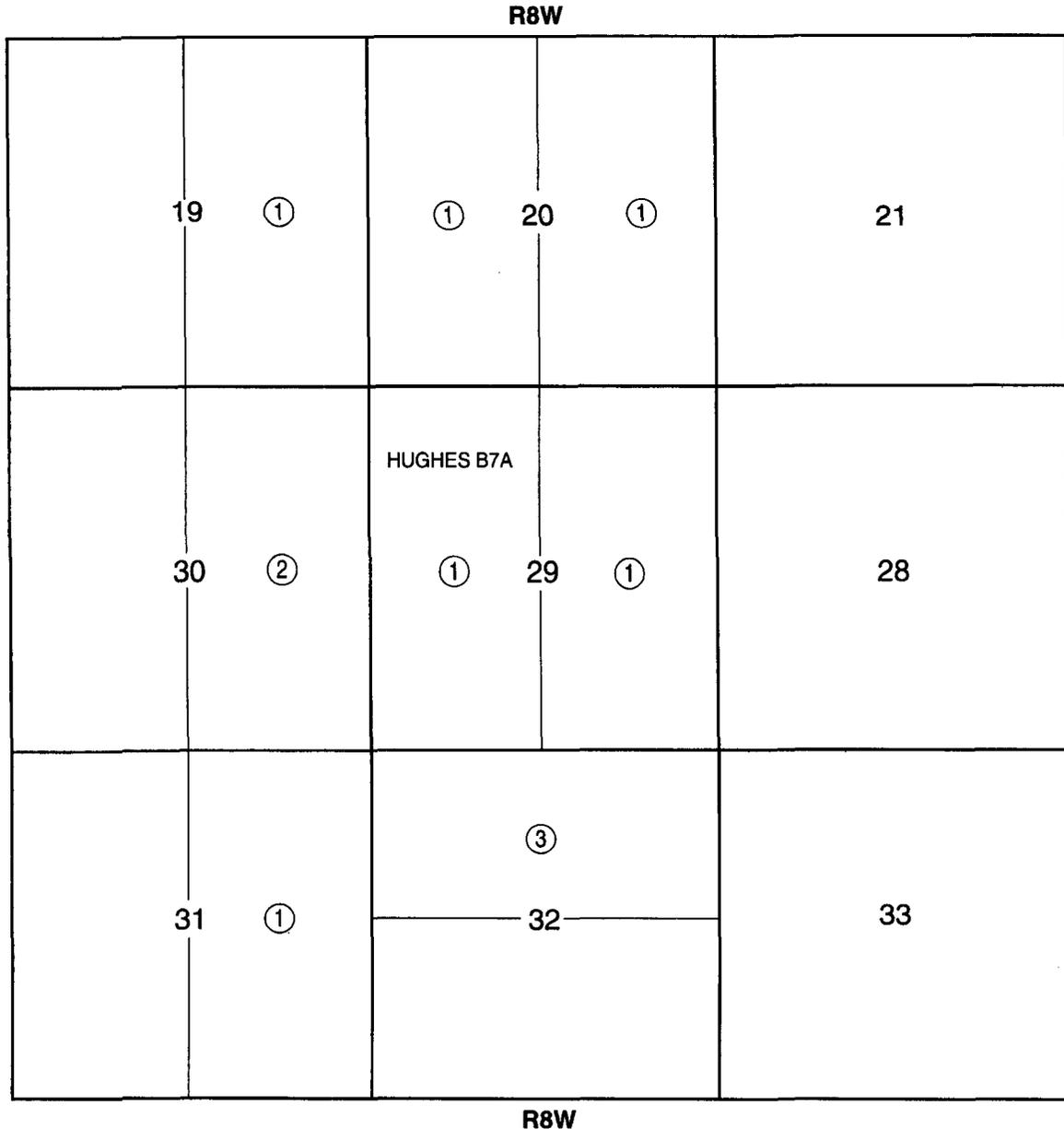
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
Registered Professional Engineer and/or Land Surveyor

Certificate No.

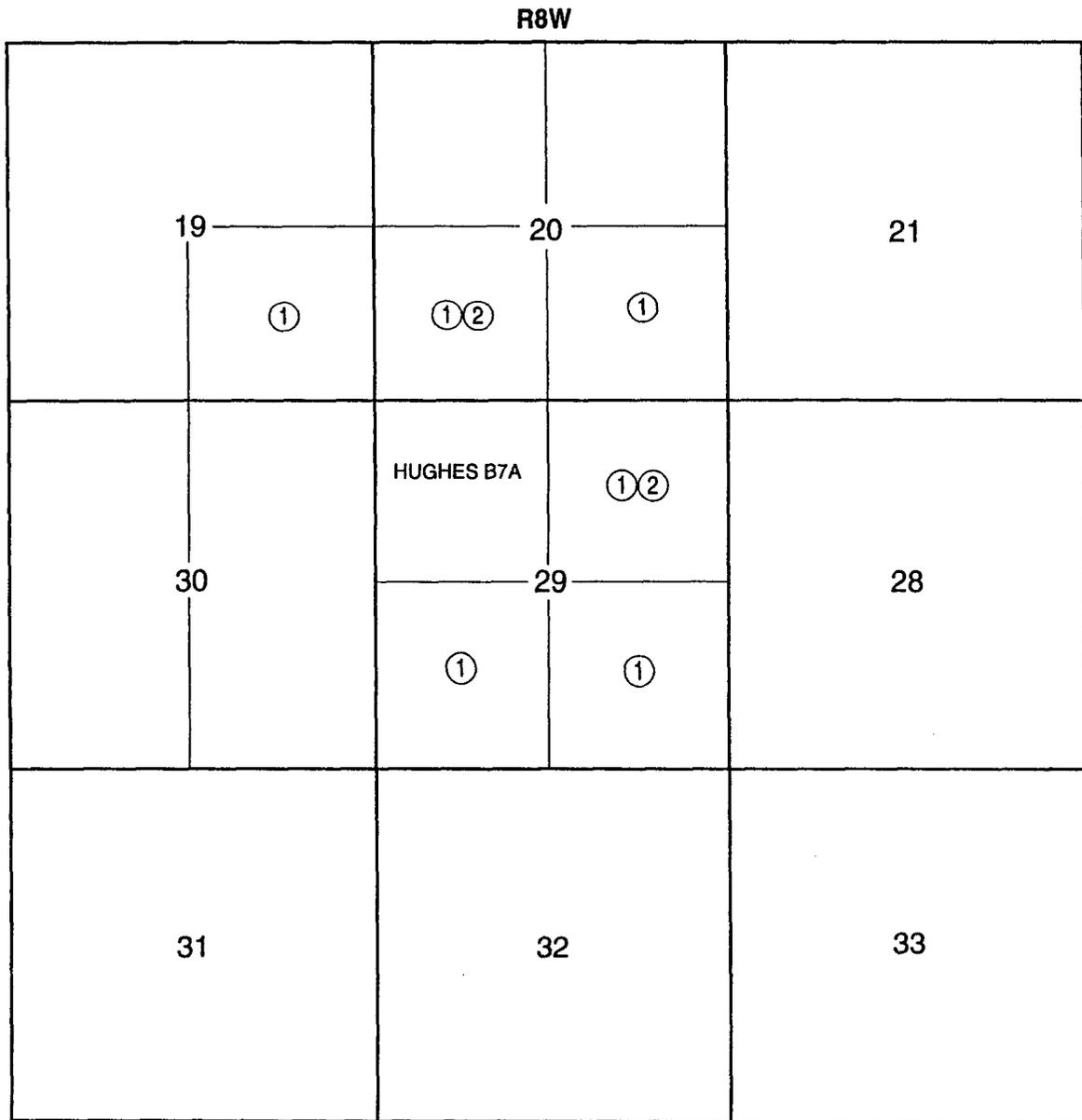


Amoco Production Company
 Offset Operator Plat
 Hughes B7A
 T29N-R8W Sec. 29
 Blanco Mesaverde Formation



- ① Amoco Production Company
- ② Meridian Oil Production Inc.
- ③ Conoco Inc.

Amoco Production Company
 Offset Operator Plat
 Hughes B7A
 T29N-R8W Sec. 29
 Pictured Cliffs Formation



- ① Amoco Production Company
- ② Meridian Oil Production Inc.
- ③ Conoco Inc.

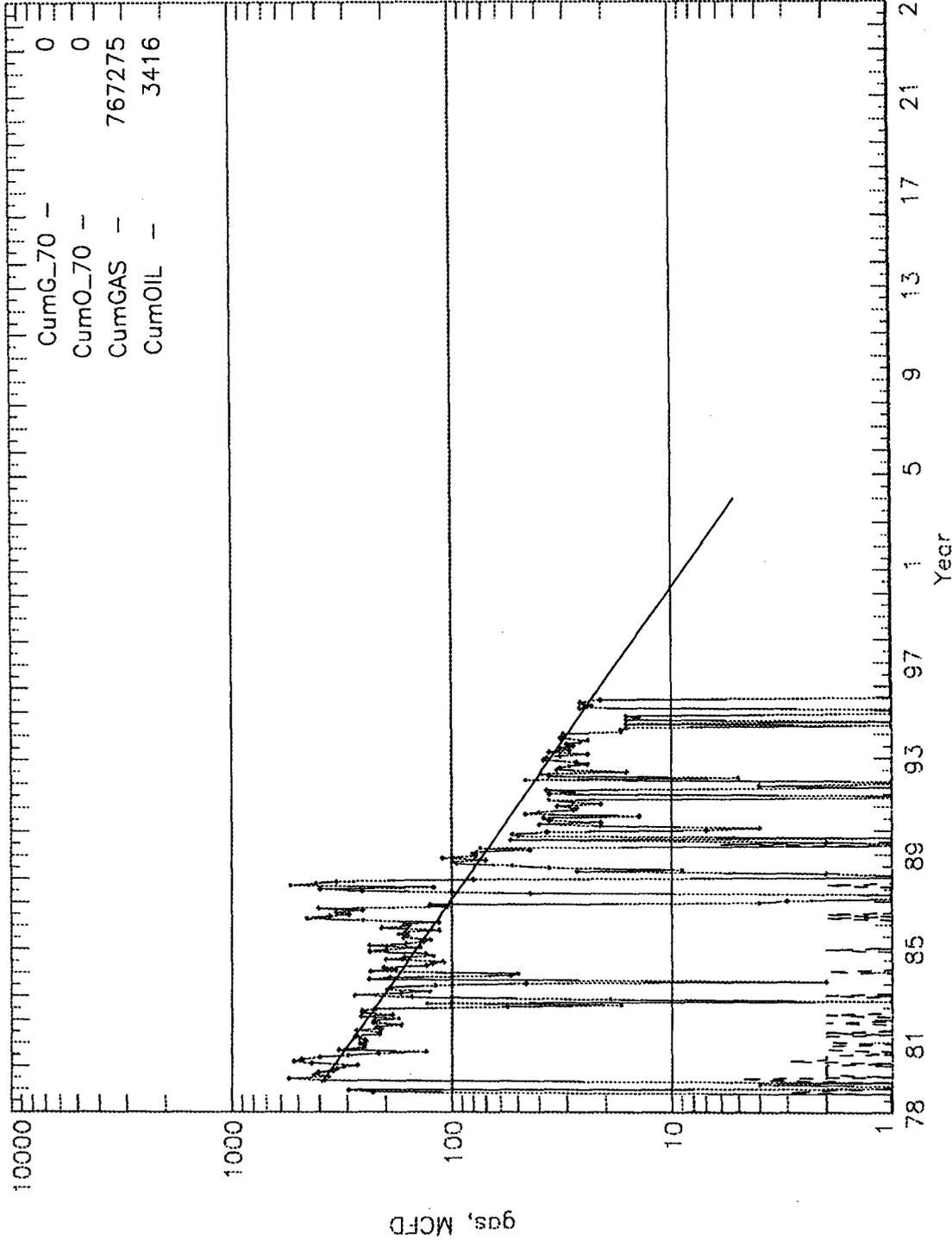
LIST OF ADDRESSES FOR OFFSET OPERATORS
Hughes B # 7A

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

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

For: zmrfl4
 Engr: zmrfl4

HUGHES B 7A
 300452283100MV F292908-007AMV
 Operator- AMOCO PRODUCTION CO
 APC_WI - 0.50000000



CumG_70 - 0
 CumO_70 - 0
 CumGAS - 767275
 CumOIL - 3416

DCLN
 CurrQ
 RemRes
 EUR
 Fit_date

For: zmr14
Engr: zmr14

HUGHES B 7A
300452283100PC F292908-007APC
Operator- AMOCO PRODUCTION CO
APC_WI - 0.50000000

CumG_70 - 0
CumO_70 - 0
CumGAS - 120031
CumOIL - 314

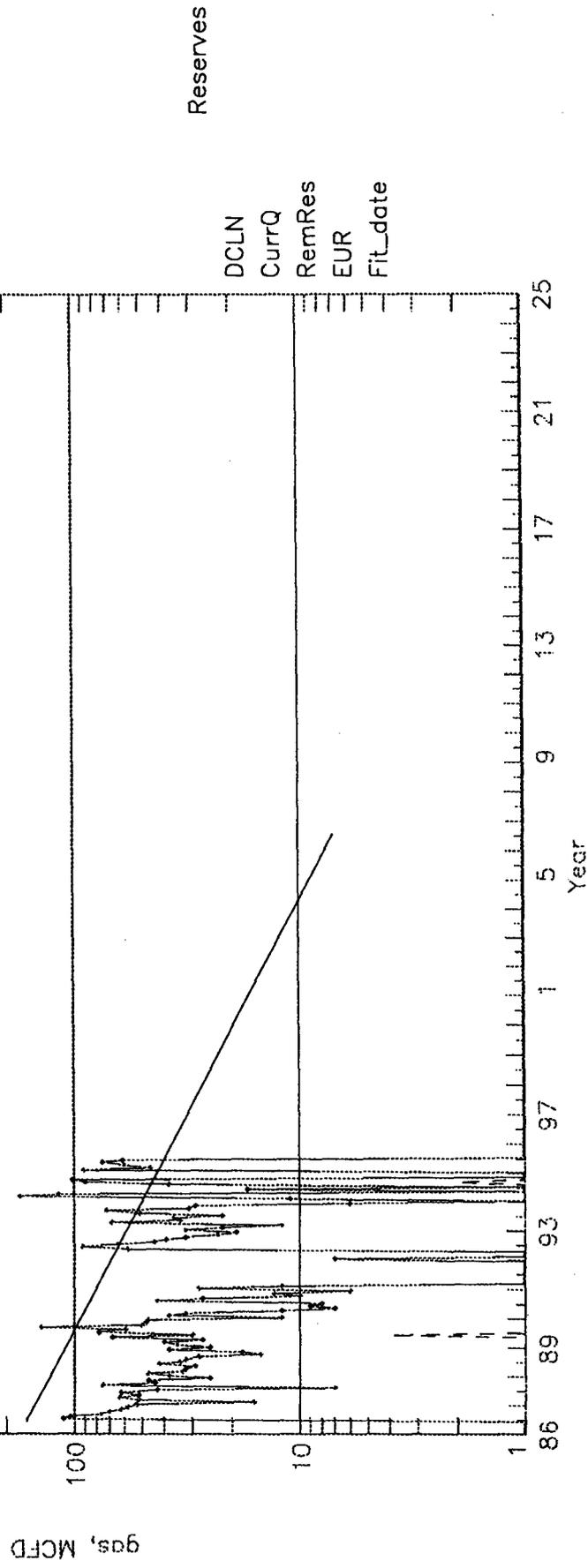


Chart1

Well: HUGHES B 007A-MV (97941901)

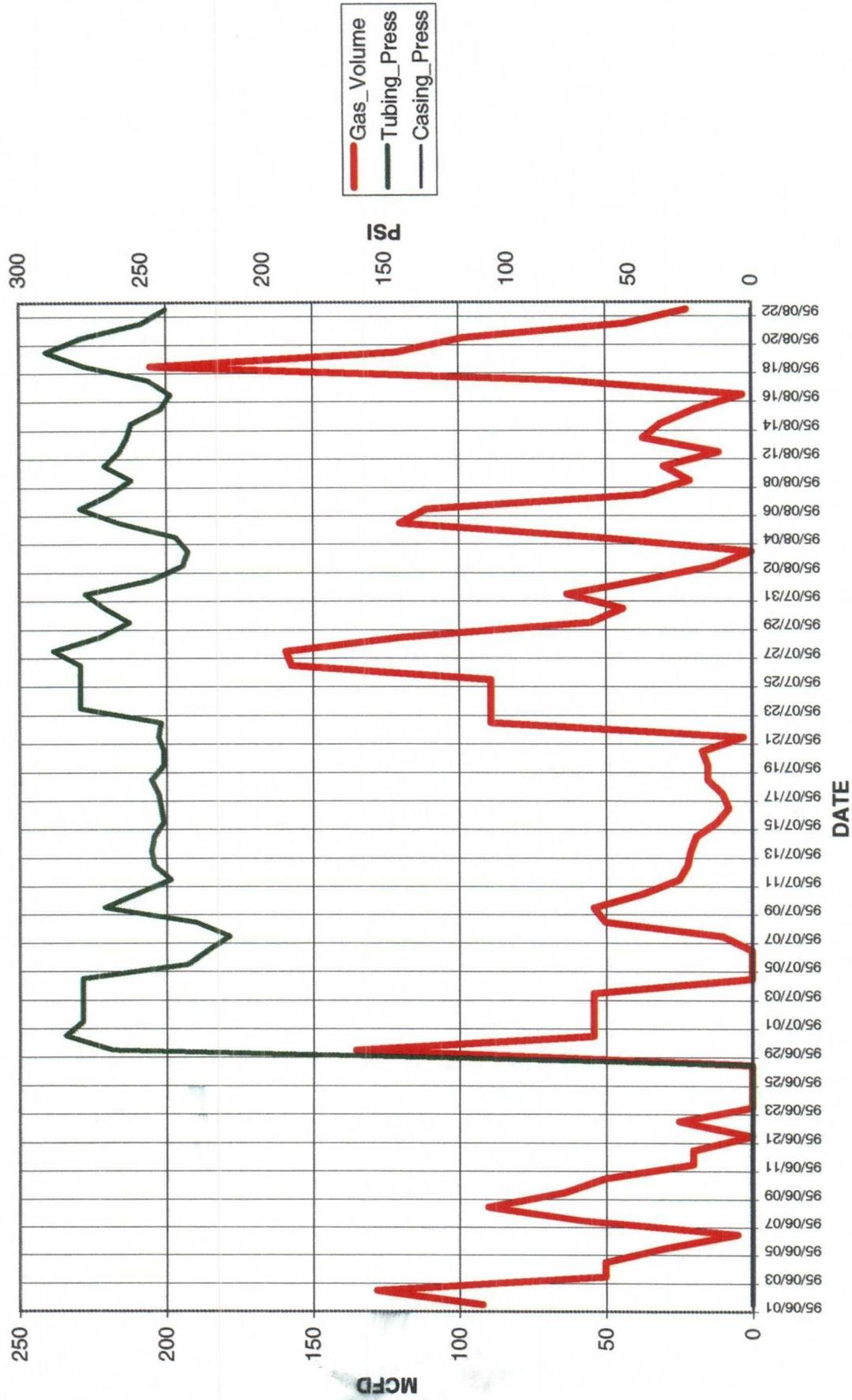
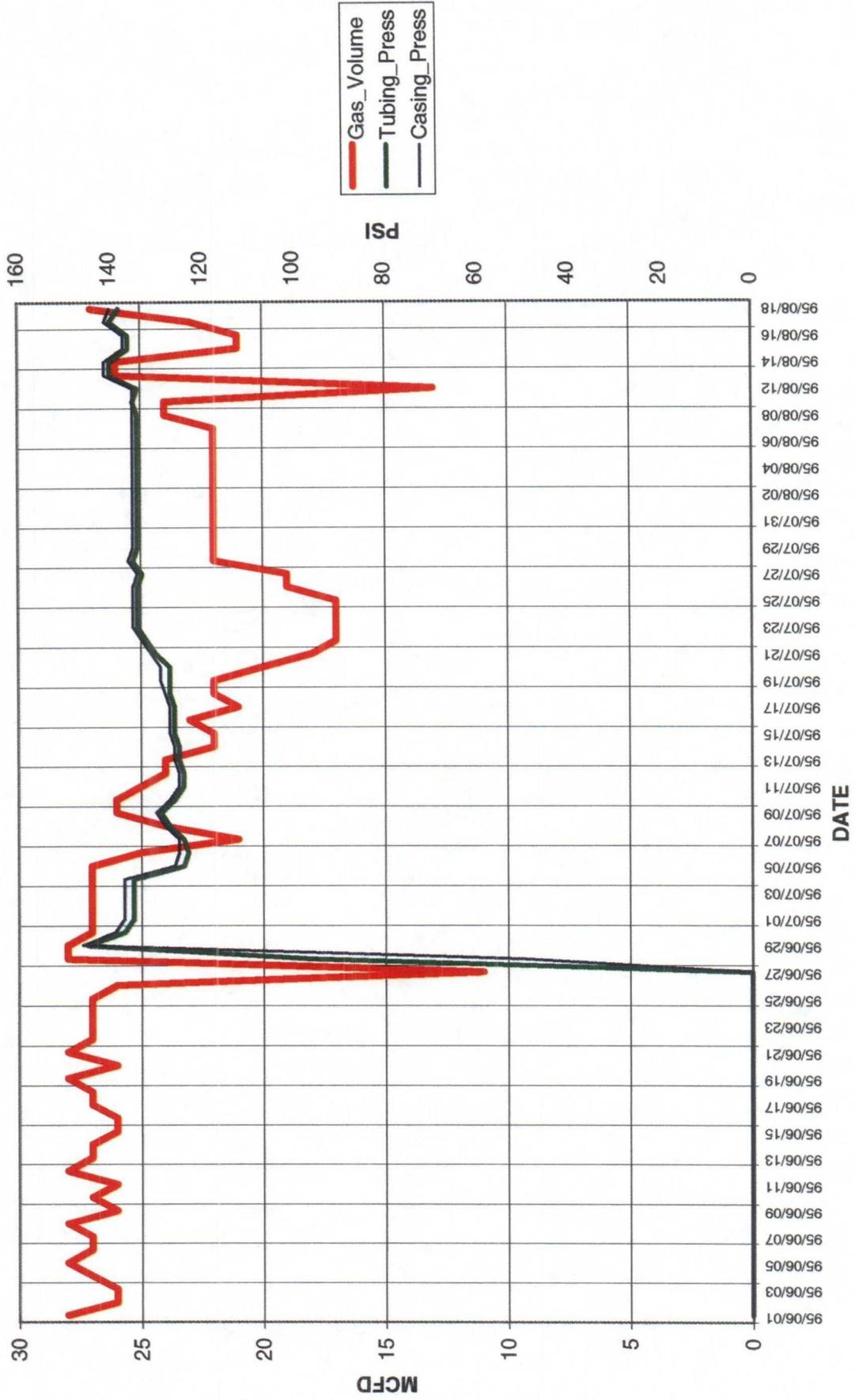


Chart1

Well: HUGHES B 007A-PC (97941902)



F-29-29-8

STATE OF NEW MEXICO
ENERGY and MINERALS DEPARTMENT

Location of Well: F292908 Page 1

OIL CONSERVATION DIVISION
NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator: AMOCO PRODUCTION COMPANY Lease/Well #: HUGHES B 007A
Meter #: 95797 RTU: 1-238-04 County: SAN JUAN

RECEIVED
JUL 14 1994

	NAME RESERVOIR OR POOL	TYPE PROD	METHOD PROD	MEDIUM PROD
UPR COMP	HUGHES B 007A PC 95797	GAS	FLOW	TBG
LWR COMP	HUGHES B 007A MV 90187	GAS	FLOW	TBG

WORTH CO. DIST. 3

PRE-FLOW SHUT-IN PRESSURE DATA

	Hour/Date Shut-In	Length of Time Shut-In	SI Press. PSIG	Stabilized
UPR COMP	06/25/94 25	72 hrs	211	yes
LWR COMP	06/25/94 25	72 hrs	388	yes

FLOW TEST DATE NO. 1

Commenced at (hour, date)*

Zone Producing (Up/Lwr)

TIME (hour, date)	LAPSED TIME SINCE*	PRESSURE		Prod Temp.	REMARKS
		Upper	Lower		
06/25/94	Day 1	178	385		Both Zones SI
06/26/94	Day 2	195	388		Both Zones SI
06/27/94	Day 3	198	388		Both Zones SI
06/28/94	Day 4	211	388		flow upper zone
06/29/94	Day 5	146	388		" " "
06/30/94	Day 6	150	389		" " "

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)

ESTIMATED BOTTOMHOLE PRESSURES BY FORMATION
Hughes B # 7A

MV Perforations at 4618 - 5640' midperf at 5129'
PC Perforations at 2990'

6/94 shut in pressures --- MV = 388 PSIG
PC = 211 PSIG

GRADIENT = 0.08 PSI/FT

PC BHP = 211 PSIG + 2990' X 0.08 PSIG
= 450 PSIG

MV BHP = 388 psig + 5129' X 0.08 PSIG
= 798 PSIG



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

RECEIVED
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

'95 NOV 13 11:08 AM

DHC-1173
New Mexico
DRUG FREE
It's a State of Mind!

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 FAX: (505) 334-6170

Date: Nov 9, 1995

Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87504-2088

RE: Proposed MC _____ Proposed DHC X _____
Proposed NSL _____ Proposed SWD _____
Proposed WFX _____ Proposed PMX _____
Proposed NSP _____ Proposed DD _____

Gentlemen:

I have examined the application received on Nov. 6, 1995
for the Omow OPERATOR Single B #7A LEASE & WELL NO.

F-29-29N-8W and my recommendations are as follows:
UL-S-T-R

Omow

Yours truly,

J. J.