



OIL CONSERVATION DIVISION
RECEIVED

MAY 17 1995 PM 8 52

Southern

Rockies

Business

Unit

May 17, 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-A
Downhole Commingling
Jicarilla Contract 146 #22 Well
830' FNL, 860' FEL, Unit A Section 10-T25N-R5W
Basin Dakota and South Blanco Pictured Cliffs Pools
Rio Arriba County, New Mexico

Amoco Production Company hereby requests administrative approval to downhole commingle production from the Basin Dakota and South Blanco Pictured Cliffs Pools in the Jicarilla Contract 146 #22 well referenced above. The Jicarilla Contract 146 #22 well was originally a multiple completion in the Dakota and Pictured Cliffs formations. This well has a marginal Pictured Cliffs zone that if left as a dual completion, the marginal zone would be shut-in in the near future. We plan to complete the well with both the Dakota and Pictured Cliffs formations being downhole commingled in the wellbore. The two zones are expected to produce at a total commingled rate of about 175 MCFD with 4 BOPD. The ownership (WI, RI) 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 as a dual completion in this wellbore 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% of the gas production to the Dakota formation and 32% of the gas production to the Pictured Cliffs formation. We recommend that 100% of the liquid production be attributed to the Dakota formation as the Pictured Cliffs formation has not historically produced liquids in this well. 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 and we will send a copy of the application to the BLM requesting their consent. Should you have questions concerning this matter, please contact me at (303) 830-5344.

Sincerely,


Pamela W. Staley

Enclosures

cc: Steve Smethie
Patty Haefele

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: Jicarilla Contract 146
Well Number: 22
Well Location: 830' FNL, 860' FEL
Unit A Section 10-T25N-R5W
Rio Arriba County, New Mexico

Pools Commingled: South Blanco Pictured Cliffs
Basin Dakota

- (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 Basin Dakota produced an average stabilized rate of 65 MCFD and 0.1 BCPD. The South Blanco Pictured Cliffs zone produced at an average rate of about 30 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.

South Blanco Pictured Cliffs Completion:
Basin Dakota Completion:

Historical production curve attached.
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 24 hour bottomhole shut-in pressures in the Pictured Cliffs and Dakota formations in the Jicarilla field. Estimated bottomhole pressure in the Pictured Cliffs formation is 450 PSI while the estimated bottomhole pressure in the Dakota is 900 PSI.

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

The fluids have no abnormal components that would prohibit commingling, or promote the creation of emulsions or scale. Amoco has applied for and received several downhole commingling orders in this area including wells in which these two formations have been successfully downhole commingled with no apparent incompatibility in the commingled fluids.

- (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:

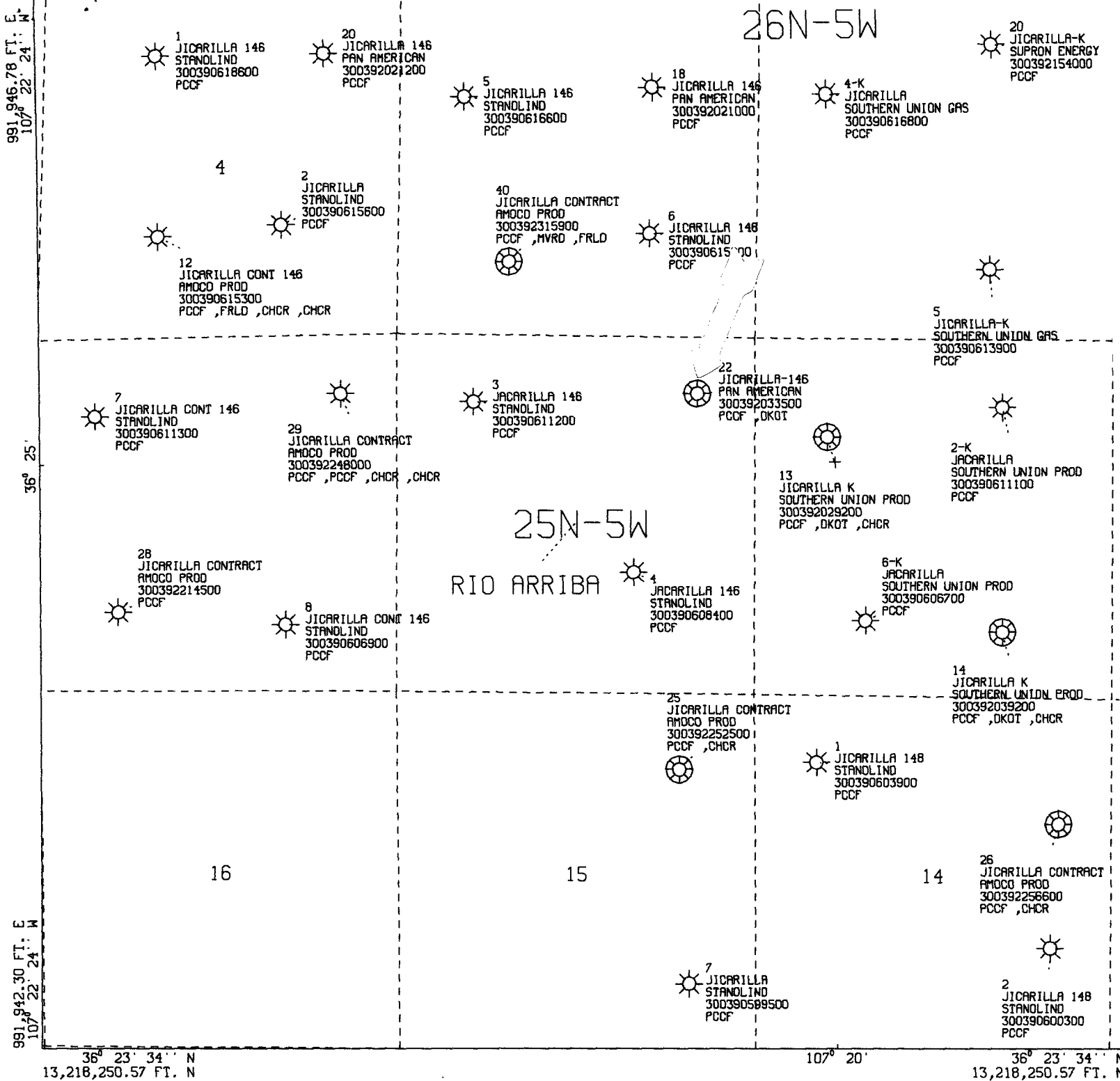
Since the BTU content of the produced fluids are very similar, we would expect the commingled production to have the same value as the sum of the individual streams.

- (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 68% of the gas production to the Dakota formation and 32% of the gas production to the Pictured Cliffs formation. We recommend that 100% of the liquid production be attributed to the Dakota formation as the Pictured Cliffs formation has not historically produced liquids in this well.

- (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.

POLYCONIC CENTRAL MERIDIAN - 107° 20' 46" W LON
SPHEROID - 6

AMOCO PRODUCTION COMPANY
PLAT MAP
Jicarilla Contract 146 #22
Pictured Cliffs

SCALE 1 IN. = 2,000 FT. MAY 11, 1995

991,946.78 FT. E
107° 22' 24" W

36° 25'

991,942.30 FT. E
107° 22' 24" W

36° 23' 34" N
13,218,250.57 FT. N

26N-5W

11E
JICARILLA K
MERIT ENERGY
300392539500
DKOT

11
JICARILLA-K
SOUTHERN UNION PROD
300392028400
DKOT

19-E
JICARILLA CONTRACT
AMOCO PROD
300392217600
DKOT

19
JICARILLA 146
PAN AMERICAN
300392021100
DKOT

21-E
JICARILLA CONTRACT
AMOCO PROD
300392217400
DKOT

NO 17
JICARILLA CONT 146
PAN AMERICAN PETRO CORP
300392020900
DKOT

21
JICARILLA-146
PAN AMERICAN
300392033400
DKOT ,CHCR

17-E
JICARILLA CONTRACT
AMOCO PROD
300392217500
DKOT

12-E
JICARILLA-K
SOUTHERN UNION EXPL
300392347400
DKOT

11
JICARILLA 146
AMOCO PROD
300390615400
PNLK ,GRRS ,DKOT

11-E
JICARILLA CONTRACT
AMOCO PROD
300392252000
PNLK ,DKOT

21R
JICARILLA CONTRACT
AMOCO PROD
300392391600
DKOT ,CHCR

12
JICARILLA-K
SOUTHERN UNION PROD
300392028600
DKOT

10-E
JICARILLA CONTRACT
AMOCO PROD
300392217900
DKOT

22-E
JICARILLA CONTRACT
AMOCO PROD
300392218000
DKOT

22
JICARILLA-146
PAN AMERICAN
300392033500
PCCF ,DKOT

13
JICARILLA K
SOUTHERN UNION PROD
300392029200
PCCF ,DKOT ,CHCR

9

25N-5W

11

RIO ARRIBA

13
JICARILLA 146
PAN AMERICAN
300390608300
DKOT

9E
JICARILLA CONTRACT
AMOCO PROD
300392372200
DKOT

NO 13R
JICARILLA CONTRACT 146
AMOCO PRODUCTION CO
300392356200
DKOT

14
JICARILLA K
SOUTHERN UNION PROD
300392039200
PCCF ,DKOT ,CHCR

10
JICARILLA-F
AMERADA PET
300398233900
GRRS ,DKOT

13
JICARILLA-148
PAN AMERICAN
300390604200
DKOT

32
JICARILLA CONTRACT
AMOCO PROD
300392365500
GLLP ,DKOT

16

14

33
JICARILLA CONTRACT
AMOCO PROD
300392369800
GLLP ,DKOT

35
JICARILLA CONTRACT
AMOCO PROD
300392367900
GLLP ,DKOT

9
JICARILLA-APACHE-F
AMERADA PET
300390599600
GRRS ,GLLP ,DKOT

17Y
JICARILLA CTCT 148
AMOCO PROD
300392371300
GRRS ,DKOT

10
JICARILLA CONTRACT
AMOCO PROD
300390597900
GRRR ,GLLP ,DKOT

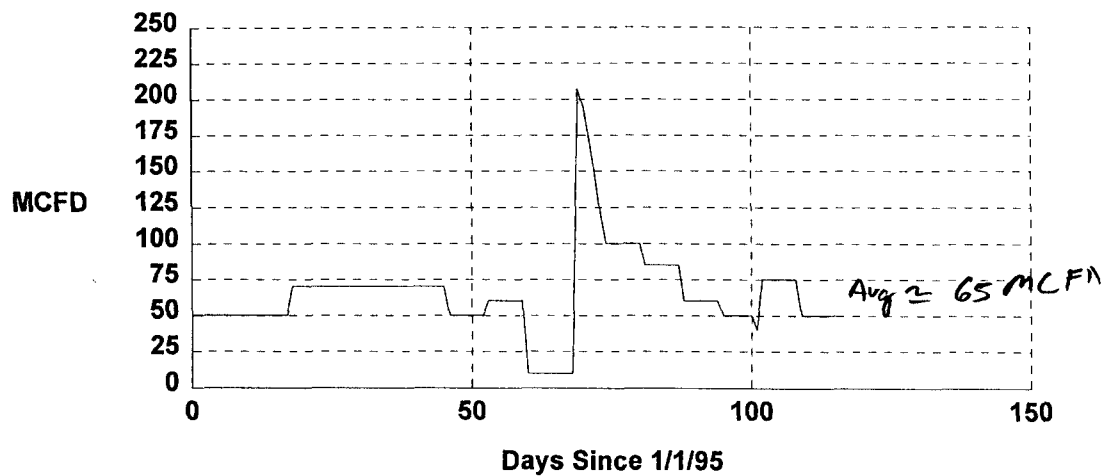
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POLYCONIC CENTRAL MERIDIAN - 107° 20' 46" W LON
SPHEROID - 6

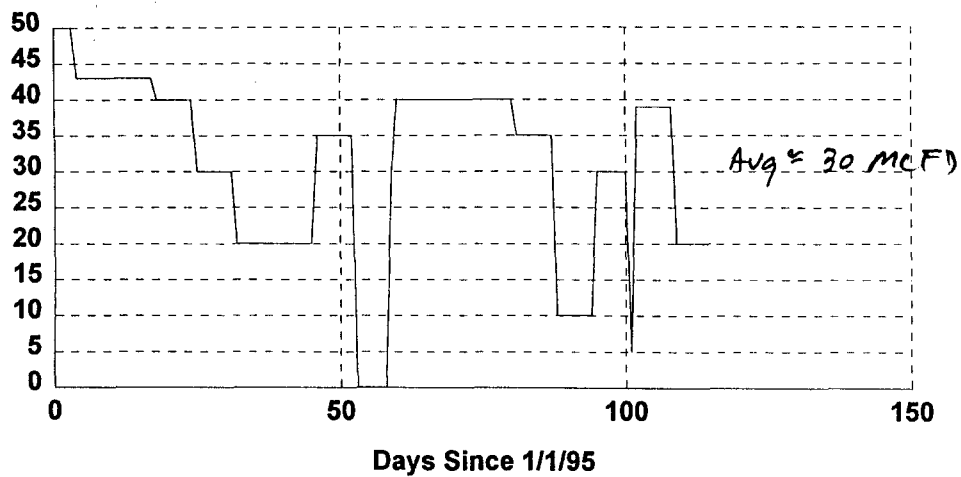
AMOCO PRODUCTION COMPANY
PLAT MAP
Jicarilla Contract 146 #22
Dakota

SCALE 1 IN. = 2,000 FT. MAY 11, 1995

San Juan O.C.
WELL: JICARILLA CONTRACT #146 022-D (98801201)
(Downtime excluded) DAKOTA



San Juan O.C.
WELL: JICARILLA CONTRACT #146 022-P (98801202)
 (Downtime excluded) PICTUREDCLIFFS

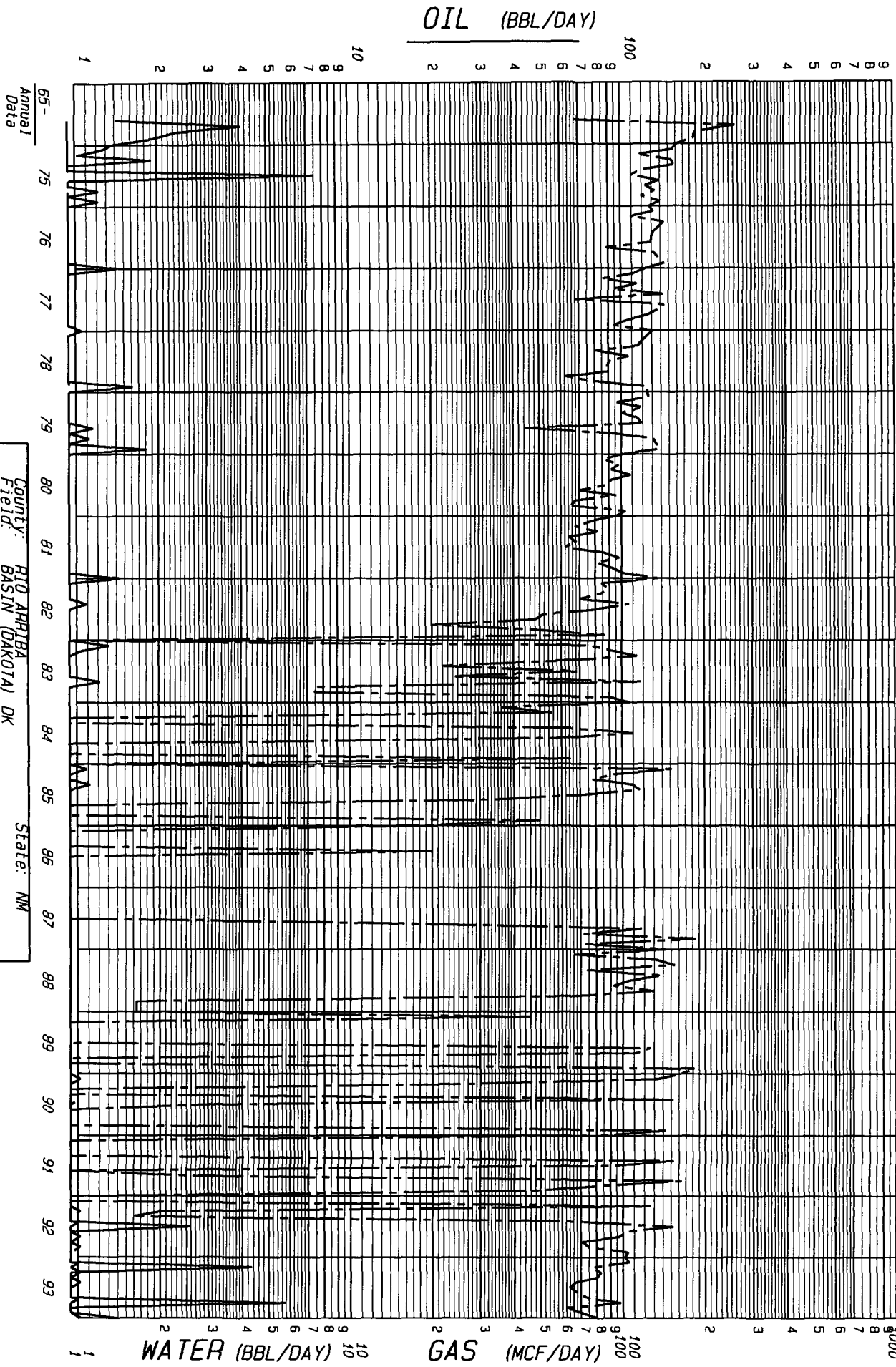


1000 Lease: JICARILLA CONTRACT 146

000022

Dwights

Retrieval Code: 251, 039, 25N05W10A00DK



Annual
Data

County: BTO ARPIBA State: NM
Field: BASIN (DAKOTA) DK
Reservoir: DAKOTA
Operator: AMOCO PRODUCTION CO
Oil Cum: 7379 Gas Cum: 830934
Location: 10A 25N 5W

F.P. Date 11-70

Date: 05-12-95

OIL (BBL/DAY)

1000 Lease: JICARILLA CONTRACT 146

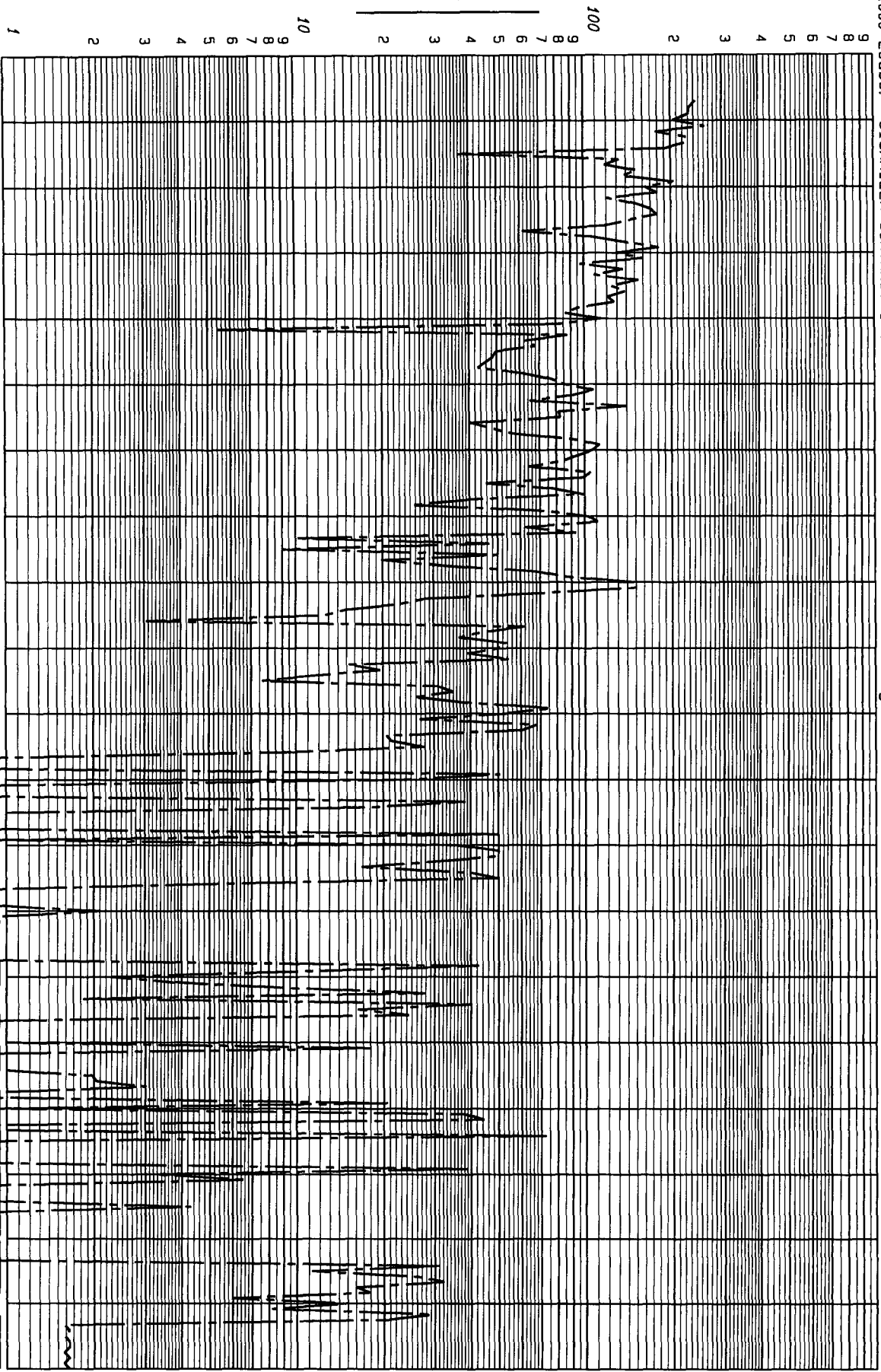
000022

Dwights

Retrieval Code: 251, 039, 25N05W10A00PC

Annual
Data

65- 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93



WATER (BBL/DAY)

GAS (MCF/DAY)

F.P. Date 01-71

County: RIO ARriba
Field: BLANCO SOUTH (PICTURE CLIFFS) PC
Reservoir: PICTURE CLIFFS
Operator: AMOCO PRODUCTION CO
Oil Cum: 0
Gas Cum: 662618
Location: 10A 25N 5W

Date: 05-12-95

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

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

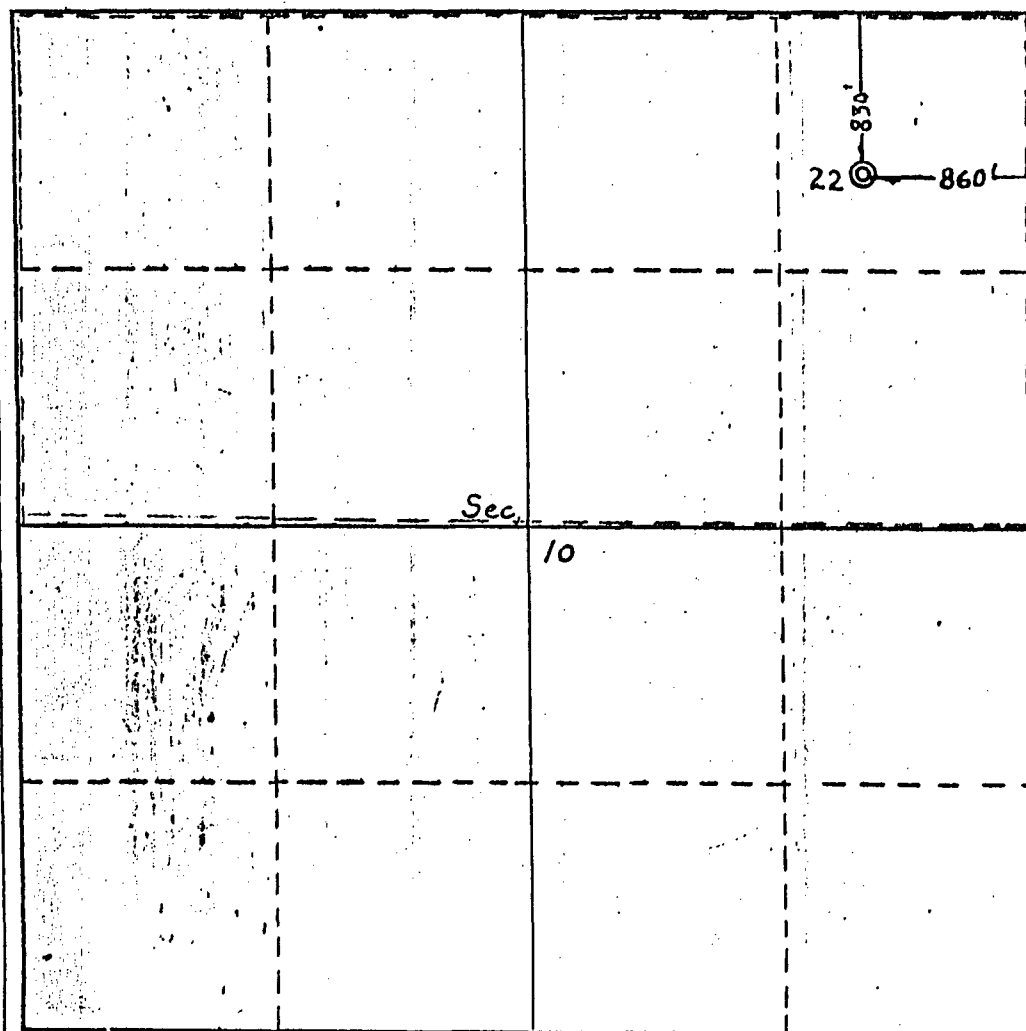
Operator Pan American Petroleum Corp.		Lease Jicarilla Contract 146		Well No. 22
Unit Letter A	Section 10	Township 25N	Range 5W	County Rio Arriba
Actual Footage Location of Well: 830 feet from the North line and 860 feet from the East line				
Ground Level Elev. 6671' (Ungraded)	Producing Formation Dakota	Pool Basin Dakota	Dedicated Acreage: N/2 320 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.

Name
G. W. Eaton, Jr.
Position
Area Engineer
Company
PAN AMERICAN PETROLEUM CORP.
Date
August 3, 1970

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 30, 1970
Registered Professional Engineer and/or Land Surveyor
Fred B. Kerr, Jr.
Certificate No.
3950

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-4-65

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

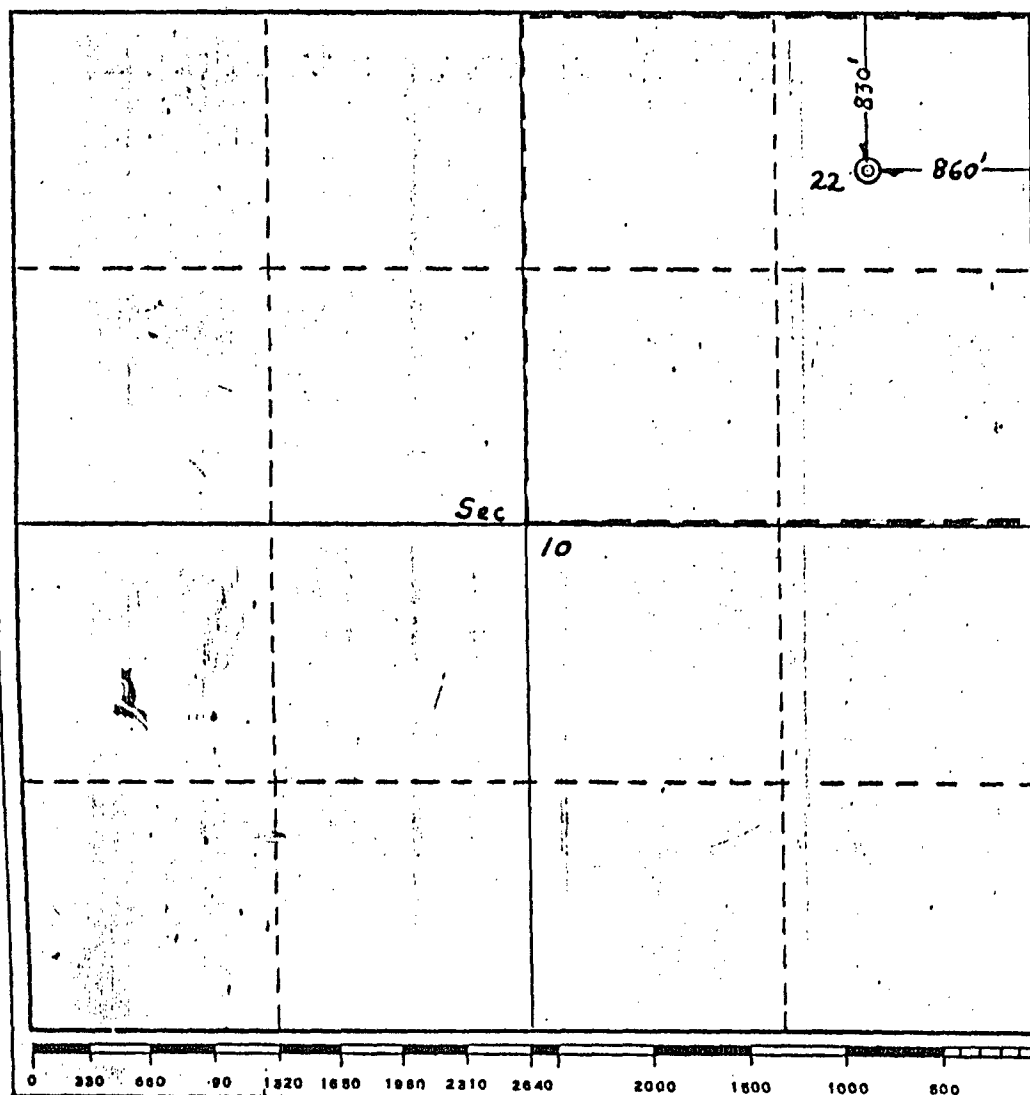
Operator Pan American Petroleum Corp.			Lease Jicarilla Contract 146		Well No. 22
Unit Letter A	Section 10	Township 25N	Range 5W	County Rio Arriba	
Actual Footage Location of Well: 830 feet from the North line and 860 feet from the East line					
Ground Level Elev. 6671' (Ungraded)	Producing Formation Pictured Cliffs		Pool So. Blanco Pictured Cliffs	Dedicated Acreage 160	NE/4 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
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Date Surveyed
July 30, 1970

Registered Professional Engineer and/or Land Surveyor
Fred B. Kern

Certificate No.
3950

LIST OF ADDRESSES FOR OFFSET OPERATORS
Jicarilla Contract 146 #22

- 1 Merit Energy Corp.
12221 Merit Drive, Suite 500
Dallas, Texas 75251