

INFILL DRILLING FINDINGS PURSUANT TO  
SECTION 271.305(b) OF THE FEDERAL ENERGY REGULATORY  
COMMISSION REGULATIONS, NATURAL GAS POLICY ACT OF 1978  
AND OIL CONSERVATION DIVISION ORDER NO. R-6013-A

I.

Operator Marbob Energy Corporation Well Name and No. Old Loco Unit Well No. 18

Location: Unit N Sec. 32 Twp. 17S Rng. 29E Cty. Eddy

II.

THE DIVISION FINDS:

(1) That Section 271.305(b) of the Federal Energy Regulatory Commission Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find that the infill well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit.

(2) That by Order No. R-6013-A, dated February 8, 1980, the Division established an administrative procedure whereby the Division Director and the Division Examiners are empowered to act for the Division and find that an infill well is necessary.

(3) That the well for which a finding is sought is completed in the Grayburg Jackson-Seven Rivers, Queen Grayburg Pool, and the standard spacing unit in said pool is 40 acres.

(4) That a San Andres 40 -acre proration unit comprising the SE/4 SW/4 of Sec. 32, Twp. 17S, Rng. 29E, is currently dedicated to the Old Loco Unit Well No. 14 located in Unit N of said section.

(5) That this proration unit is  standard ( ) nonstandard; if nonstandard, said unit was previously approved by Order No. N/A.

(6) That said proration unit is not being effectively and efficiently drained by the existing well(s) on the unit.

(7) That the drilling and completion of the well for which a finding is sought should result in the production of an additional 4,222 MCF of gas from the proration unit which would not otherwise be recovered.

(8) That all the requirements of Order No. R-6013-A have been complied with, and that the well for which a finding is sought is necessary to effectively and efficiently drain a portion of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.

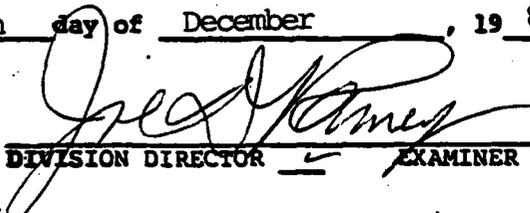
(9) That in order to permit effective and efficient drainage of said proration unit, the subject application should be approved.

IT IS THEREFORE ORDERED:

(1) That the applicant is hereby authorized to drill the well described in Section I above as an infill well on the existing proration unit described in Section II(4) above. The authorization for infill drilling granted by this order is necessary to permit the drainage of a portion of the reservoir covered by said proration unit which cannot be effectively and efficiently drained by any existing well thereon.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on this 15th day of December, 19 82.

  
DIVISION DIRECTOR  EXAMINER

cc: OCD Artesia  
NMO&GEC Hobbs

Received July 17, 1982  
Signature 12/15/82  
ADMINISTRATIVE ORDER  
NFL 67

OIL CONSERVATION DIVISION  
P. O. Box 2088  
SANTA FE, NEW MEXICO  
87501

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

INFILL DRILLING FINDINGS PURSUANT TO  
SECTION 271.305(b) OF THE FEDERAL ENERGY REGULATORY  
COMMISSION REGULATIONS, NATURAL GAS POLICY ACT OF 1978  
AND OIL CONSERVATION DIVISION ORDER NO. R-6013-A

I.  
Operator Marbob Energy Corporation Well Name and No. Old Loco Unit Well No. 18  
Location: Unit N Sec. 32 Twp. 17S Rng. 29E Cty. Eddy

II.  
THE DIVISION FINDS:

- (1) That Section 271.305(b) of the Federal Energy Regulatory Commission Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find that the infill well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit.
- (2) That by Order No. R-6013-A, dated February 8, 1980, the Division established an administrative procedure whereby the Division Director and the Division Examiners are empowered to act for the Division and find that an infill well is necessary.
- (3) That the well for which a finding is sought is completed in the Grayburg Jackson-Seven Rivers ~~Queen Grayburg~~ San Pool, and the standard spacing unit in said pool is 40 acres.
- (4) That a 40 ~~Acres~~ -acre proration unit comprising the SE/4 SW/4 of Sec. 32, Twp. 17S, Rng. 29E, is currently dedicated to the Old Loco Unit ~~Well No. 14~~ located in Unit N of said section.
- (5) That this proration unit is (X) standard ( ) nonstandard; if nonstandard, said unit was previously approved by Order No. N/A.
- (6) That said proration unit is not being effectively and efficiently drained by the existing well(s) on the unit.
- (7) That the drilling and completion of the well for which a finding is sought should result in the production of an additional 4,222 MCF of gas from the proration unit which would not otherwise be recovered.
- (8) That all the requirements of Order No. R-6013-A have been complied with, and that the well for which a finding is sought is necessary to effectively and efficiently drain a portion of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.
- (9) That in order to permit effective and efficient drainage of said proration unit, the subject application should be approved.

IT IS THEREFORE ORDERED:

- (1) That the applicant is hereby authorized to drill the well described in Section I above as an infill well on the existing proration unit described in Section II(4) above. The authorization for infill drilling granted by this order is necessary to permit the drainage of a portion of the reservoir covered by said proration unit which cannot be effectively and efficiently drained by any existing well thereon.
- (2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_.

cc - Old Intesia  
NMO+BEL-Habbe

\_\_\_\_\_  
DIVISION DIRECTOR                      EXAMINER

*Request for Infill Finding on  
Old Loco Unit #18  
in accordance with Administrative  
Procedures amended February 8, 1980*



NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
EL PASO	
S.G.S.	
LAND OFFICE	
OPERATOR	

**RECEIVED**  
 NEW MEXICO OIL CONSERVATION COMMISSION  
 OCT 22 1979  
 O. O. O.  
 ARTESIA, OFFICE

20-078-23093  
 Form C-101  
 Revised 1-1-65

5A. Indicate Type of Lease  
 STATE  FEE   
 5. State Oil & Gas Lease No.  
**B-4918**

**APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK**

Type of Work  
 Type of Well DRILL  DEEPEN  PLUG BACK   
 OIL WELL  GAS WELL  OTHER  SINGLE ZONE  MULTIPLE ZONE

7. Unit Agreement Name  
*Old Loco Unit*  
 8. Name of Lease Mine  
**Old Loco Unit**

Name of Operator  
**Marbob Energy Corporation**

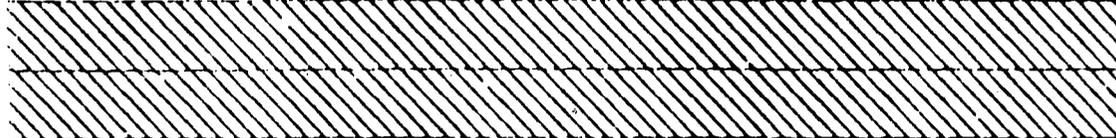
9. Well No.  
**18**

Address of Operator  
**P.O. Box 304, Artesia, N.M. 88210**

10. Field and Pool, or Willcut: **SA Grbg. Jackson Queen Grbg.**

Location of Well UNIT LETTER **N** LOCATED **990** FEET FROM THE **South** LINE  
**2310** FEET FROM THE **West** LINE OF SEC. **32** TWP. **17S** RGE. **29E** NEPHEE

12. County  
**Eddy**

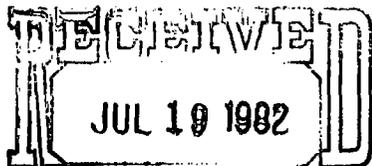


13. Proposed Depth <b>2850'</b>	14A. Formation <b>Grayburg &amp; Lovington</b>	14B. Kind of C.T. <b>Rotary</b>
15. Kind & Status of Log Bond <b>3590 GL</b>	21B. Drilling Contractor <b>Statewide Active</b>	22. Approx. Date Work will start <b>10/27/79</b>
21A. Drilling Contractor <b>Alta-West Drilling Co.</b>		

**PROPOSED CASING AND CEMENT PROGRAM**

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
11"	8 5/8"	28#	250'	Circ.	
7 7/8"	4 1/2"	10.50#	2850'	225	

We propose to drill to approximately 2850' to test Grayburg and Lovington formations. We do not anticipate gas at these depths & will not set up a blowout preventer program at this time.



OIL CONSERVATION DIVISION  
 SANTA FE

APPROVAL VALID  
 FOR 90 DAYS UNLESS  
 DRILLING COMMENCED,  
 EXPIRES 1-23-80

PROVE SPACE DESCRIBE PROPOSED PROGRAM; IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE, GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Cecelyn Ornes Title Secretary Date 10/22/79

(This space for State Use)

APPROVED BY W.C. Gussard TITLE SUPERVISOR, DISTRICT II DATE OCT 23 1979

CONDITIONS OF APPROVAL, IF ANY: Rule #5

SAINT PAUL  
MAY 19 1904  
OIL COMPANY DIVISION  
SAINT PAUL

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form O-155  
Supersedes O-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section

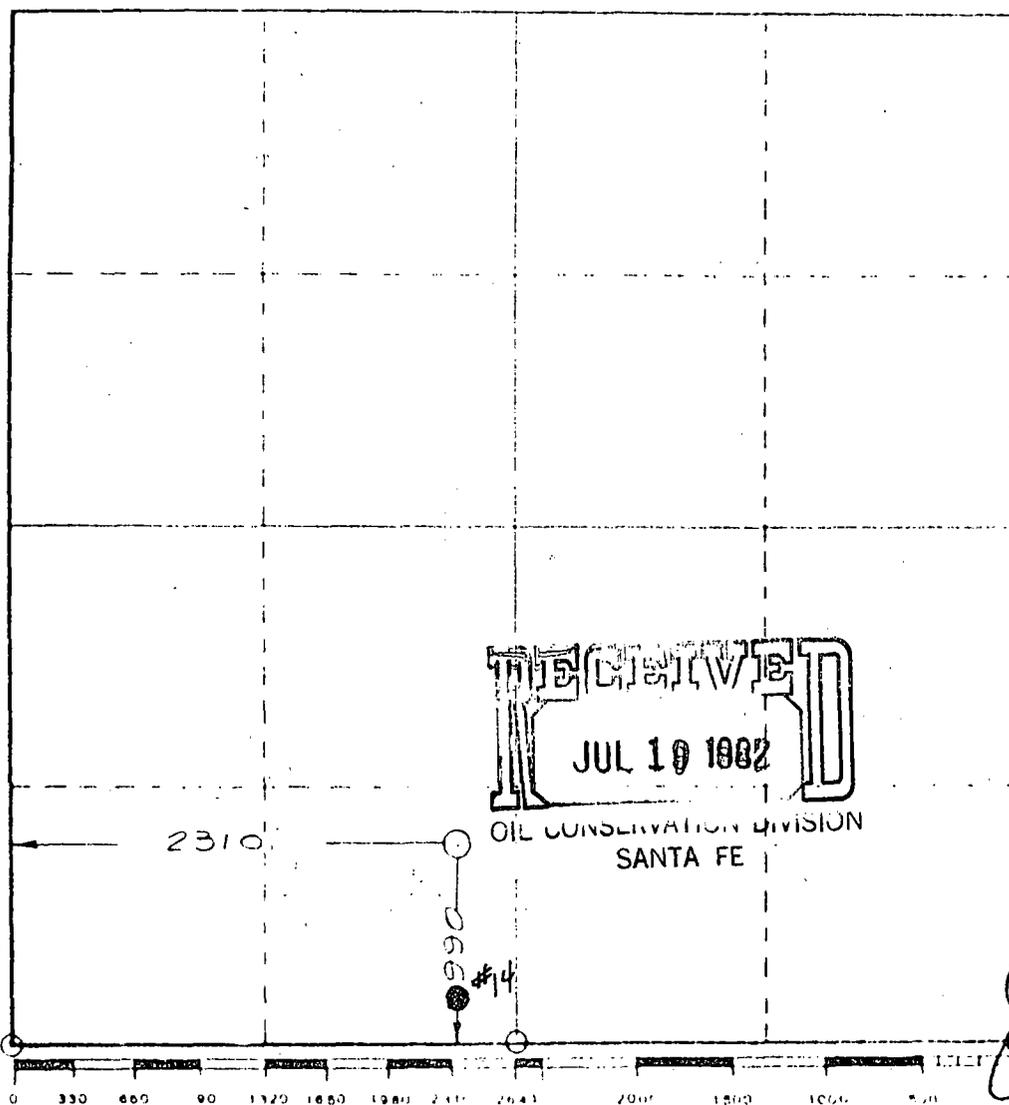
Operator <b>MARBOB ENERGY CORPORATION</b>		Location <b>OLD LOCO UNIT</b>			Well No. <b>18</b>
Unit Letter <b>N</b>	Section <b>32</b>	Township <b>17 South</b>	Range <b>29 East</b>	County <b>EDDY</b>	
Actual Footage Location of Well:					
<b>990</b>	feet from the	<b>South</b>	line of	<b>2310</b>	feet from the
Ground Level Elev. <b>3590</b>		Producing Formation <b>Grayburg &amp; Lovington</b>		Tract <b>Grbg. Jackson Queen Grbg. SA</b>	Acres <b>40</b>

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-staked 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.

Secretary

Marbob Energy Corp.

10/22/79

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.

*Rube #5*

October 9, 1979

*John W. Shearn*

1559

1944  
The  
of the  
is  
is  
is

Rule 6:

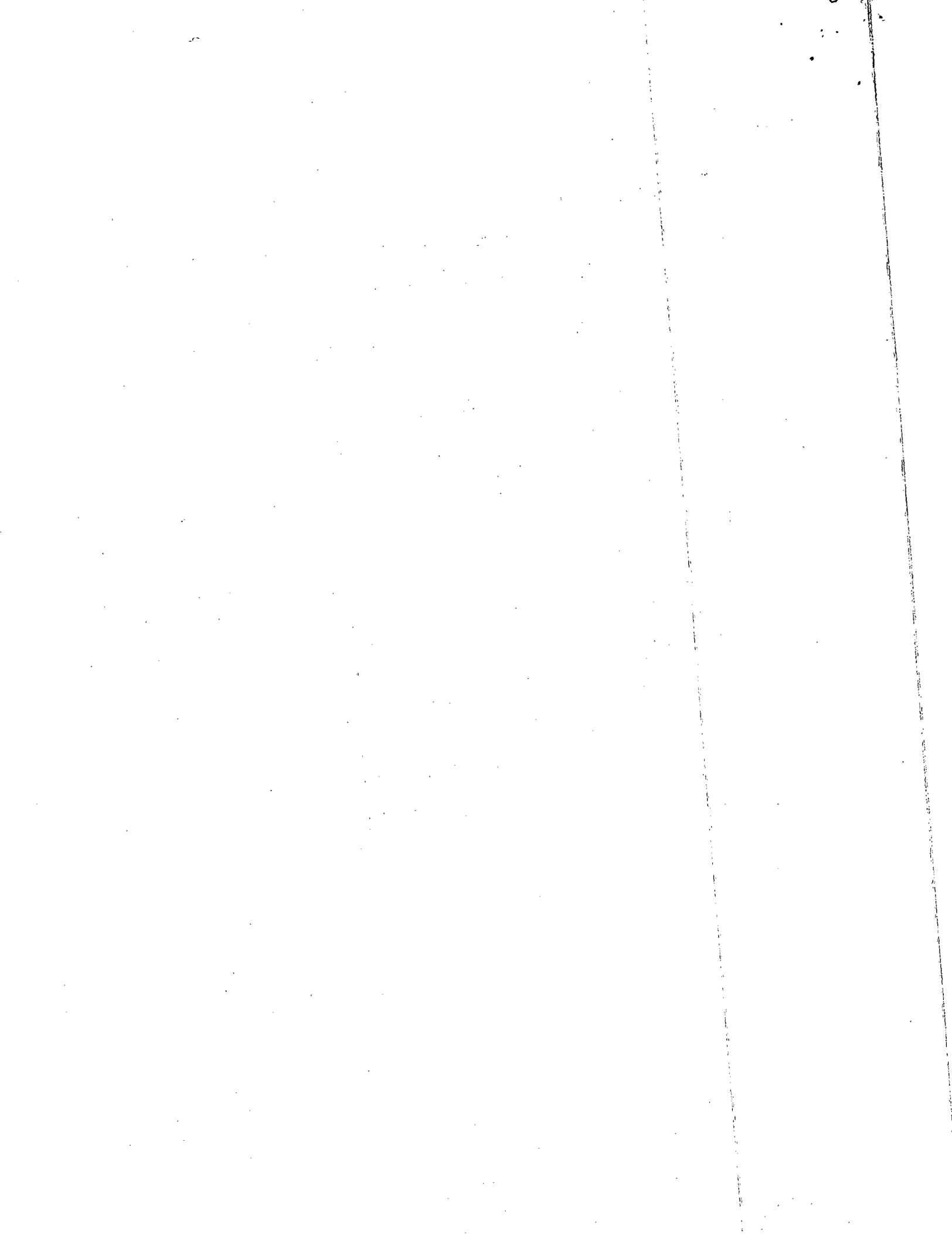
Old Loco Unit #18

Pool: Grayburg Jackson Seven Rivers Queen Grayburg San Andres

Standard spacing unit: 40 acres

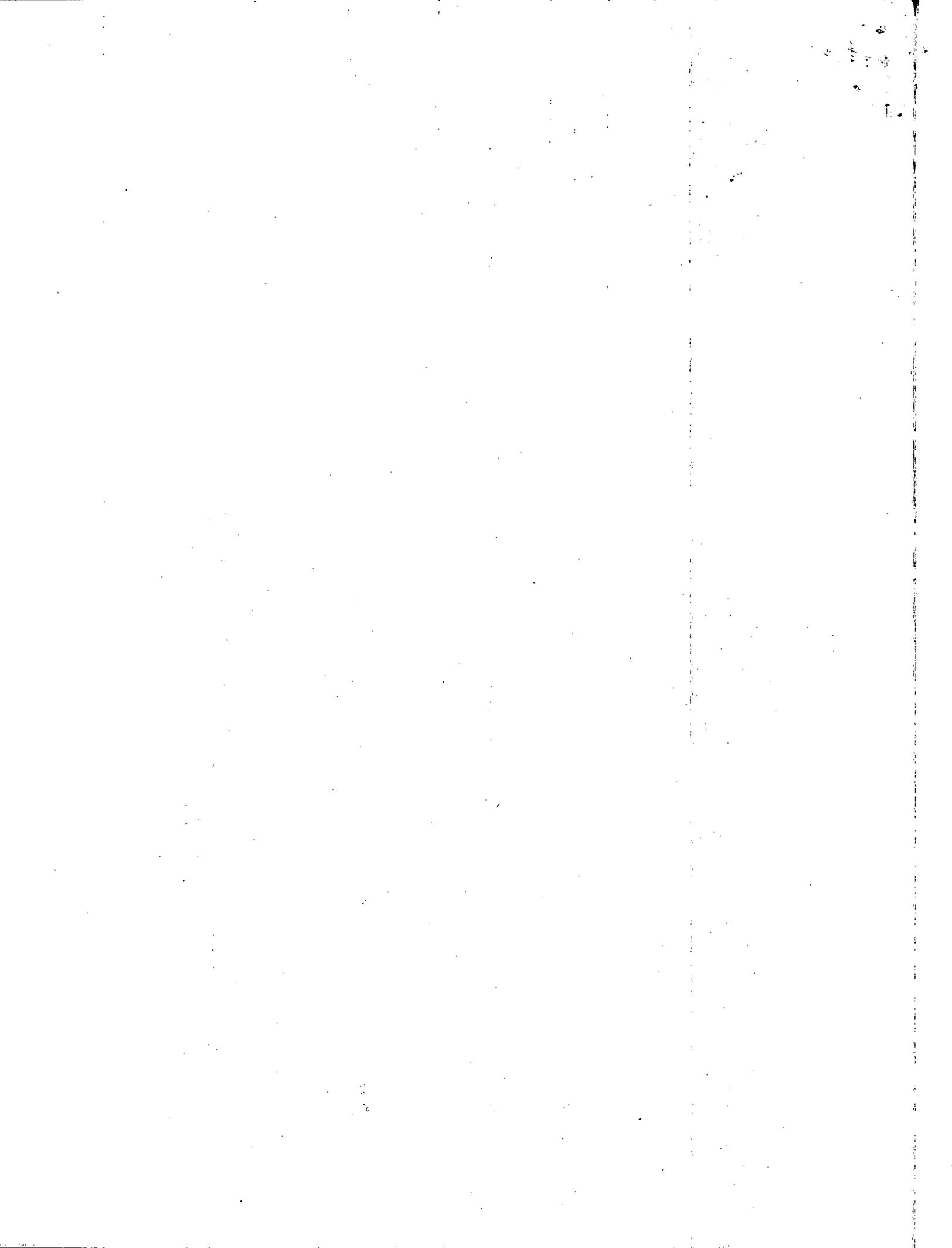
Rule 7:

NA



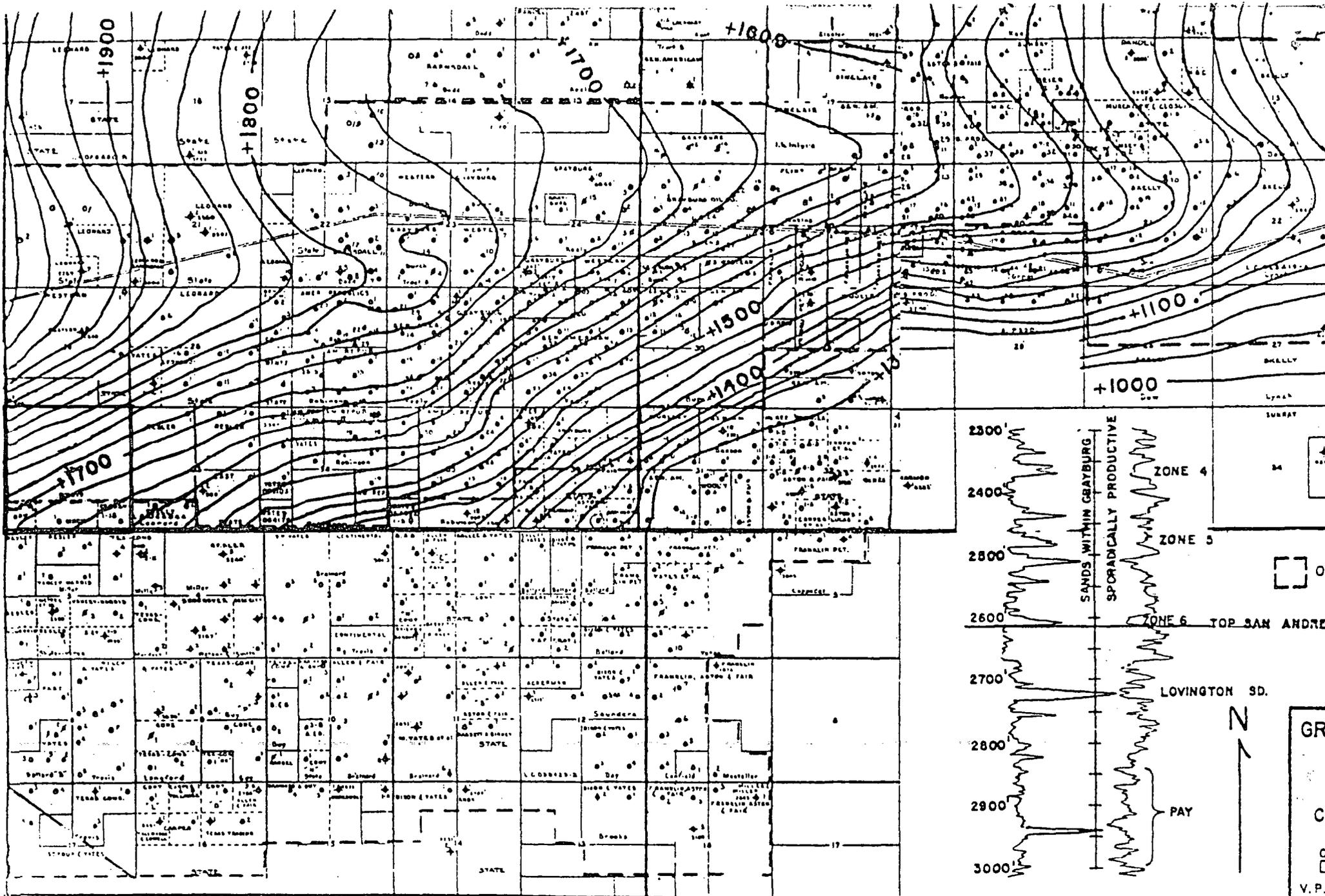
Rule 8:

- a. Old Loco Unit #14 - 330 FSL 2310 FWL Sec. 32-T17S-R29E  
Old Loco Unit #18 - 990 FSL 2310 FWL Sec. 32-T17S-R29E
- b. #14 - 3/4/40  
#18 - 11/13/79
- c. #14 - 4/9/40  
#18 - 12/13/79
- d. None
- e. #14 - 2 bbl. oil, 1/3 mcf gas/day  
#18 - 9 bbl. oil, 4 mcf gas/day
- f. NA
- g. Well #14 is producing very little gas. The migration of oil and gas through waterflooding coupled with new reservoir conditions type production rates on the new well make the drilling of a new well necessary to drain the reservoir.



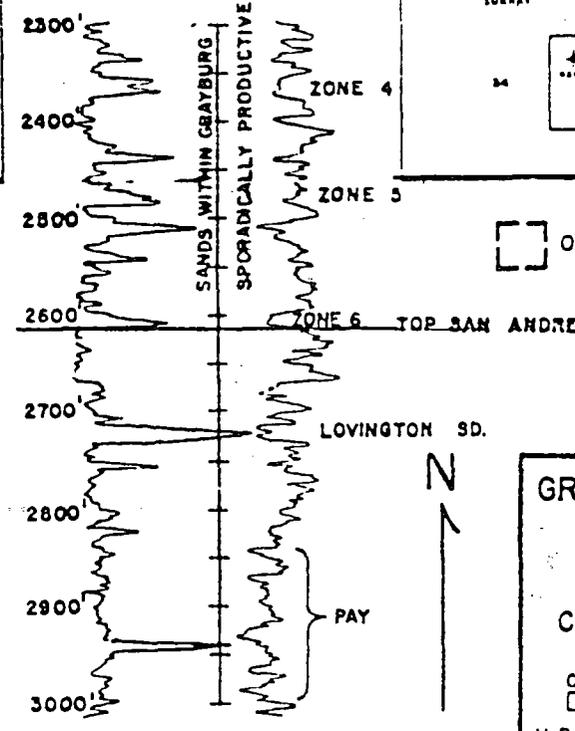
T 17 S

T 18 S

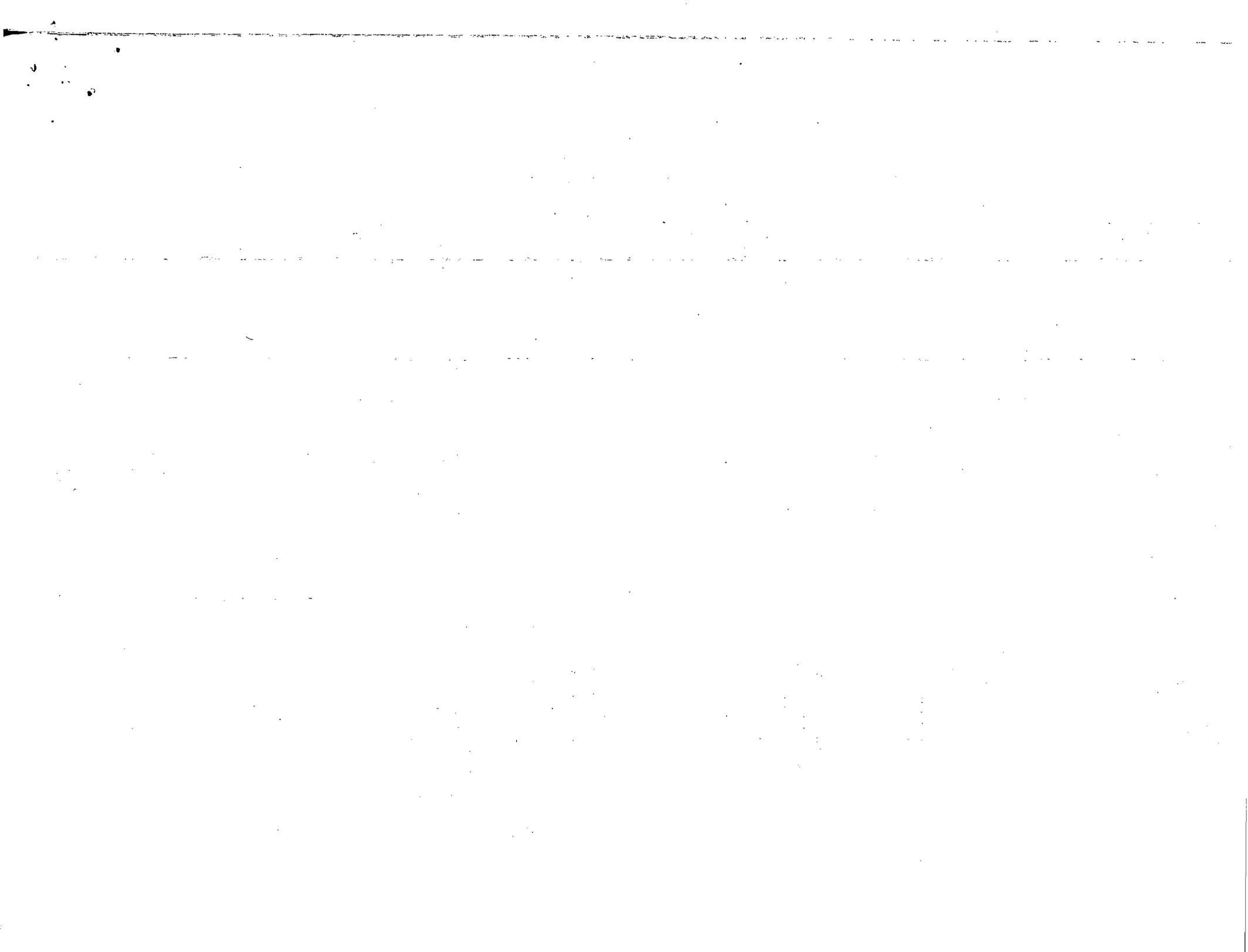


R 29 E

Rule #9-A



GRA  
CO  
V. P.



Marbob Energy Corporation  
Old Loco Unit, Well #18  
Grayburg Jackson Seven Rivers Queen  
Grayburg San Andres  
Eddy County, New Mexico

**Pertinent Engineering Data and Conclusions:**

Well #18 was completed in the Grayburg Jackson pool in December 1979. This is an infill well located as per the attached plat.

Effective July 1, 1982, oil reserves recoverable will be 8,796 barrels and gas reserves recoverable will be 4,222 mcf.

Oil reserves were calculated from the attached time/rate curve to an economic limit of approximately 1 BOPD (see table). Gas reserves were estimated using a study of the gas oil ratio performance not only on the specific well but on the pool history.

From a study of this immediate area in this pool I find per well producing rates in 1970 below what the rates are for the newly drilled infill wells. The daily producing rate of oil for well #18 in May 1982 was 9 BOPD. In 1970 the average daily producing rate per well on this property was 7 BOPD.

Due to extensive waterflooding in the area there has been significant oil migration into areas between injection wells or between injection and producing wells.

It is evident from the rate of production and from oil reserves remaining that pattern density has to be increased to recover additional oil and gas reserves.

Therefore, it is my recommendation that well density be increased by drilling infill wells. It is my conclusion that many infill wells will experience new reservoir conditions.



Paul G. White  
Paul G. White  
Petroleum Engineer

7-15-82  
Date

Rubs #9-B

THE UNIVERSITY OF CHICAGO  
LIBRARY  
11 APR 1962

Marbob Energy Corp.  
Old Loco Unit, Well #18  
330 FSL 2310 FEL Sec. 32-T17S-R29E  
Eddy County, N.M.

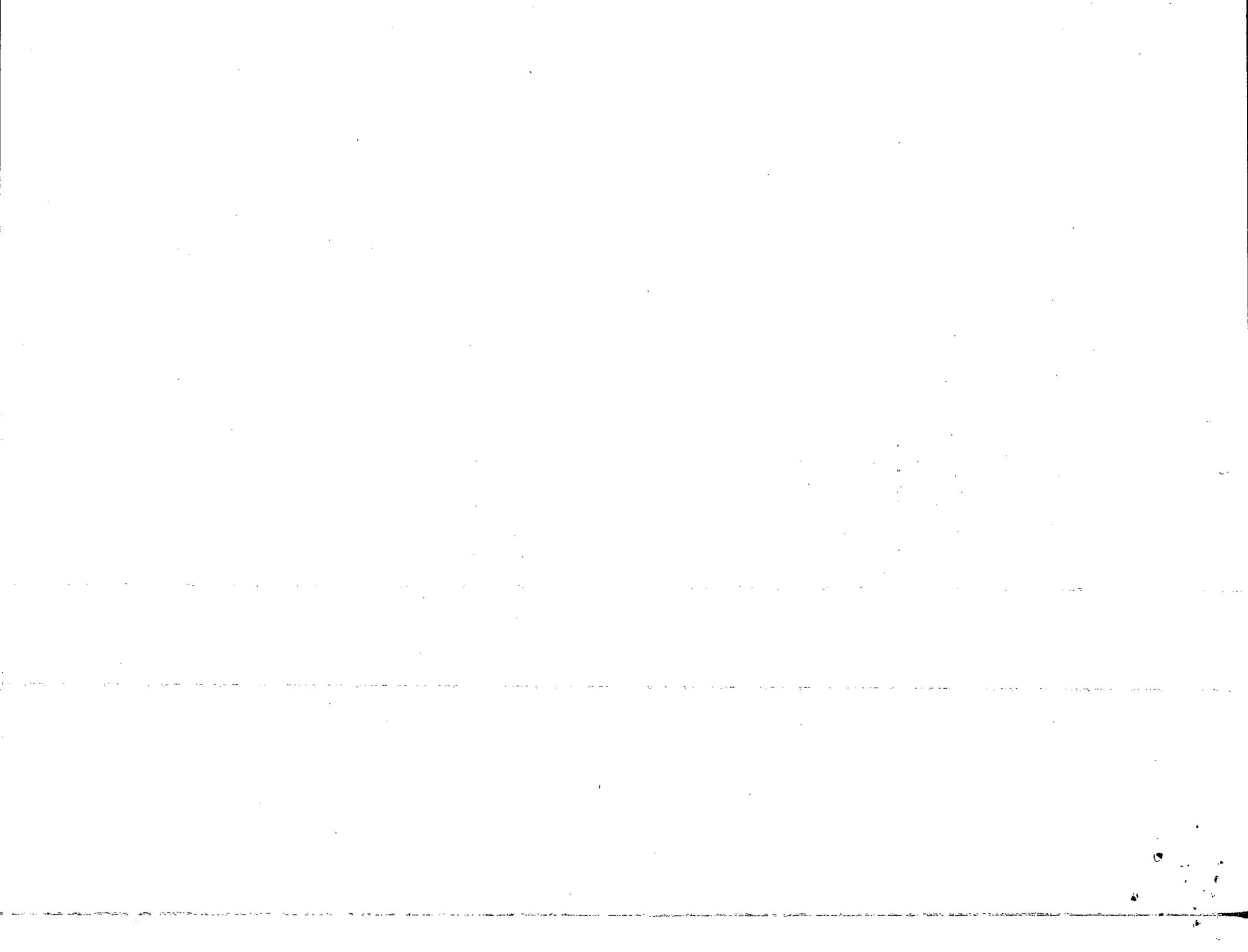
Calculation of oil reserves - refer to rate/time curve:

<u>Year</u>	<u>Gross monthly Oil - bbls.</u>	<u>Gross Yearly Oil - bbls.</u>
1982 (6 mos.)	270	1,620
1983	195	2,340
1984	140	1,680
1985	100	1,200
1986	73	876
1987	52	624
1988	38	456
		<hr/>
Total oil remaining:		8,796
Cumulative to 1/1/82		<u>14,360</u>
Total ultimate reserves:		23,156

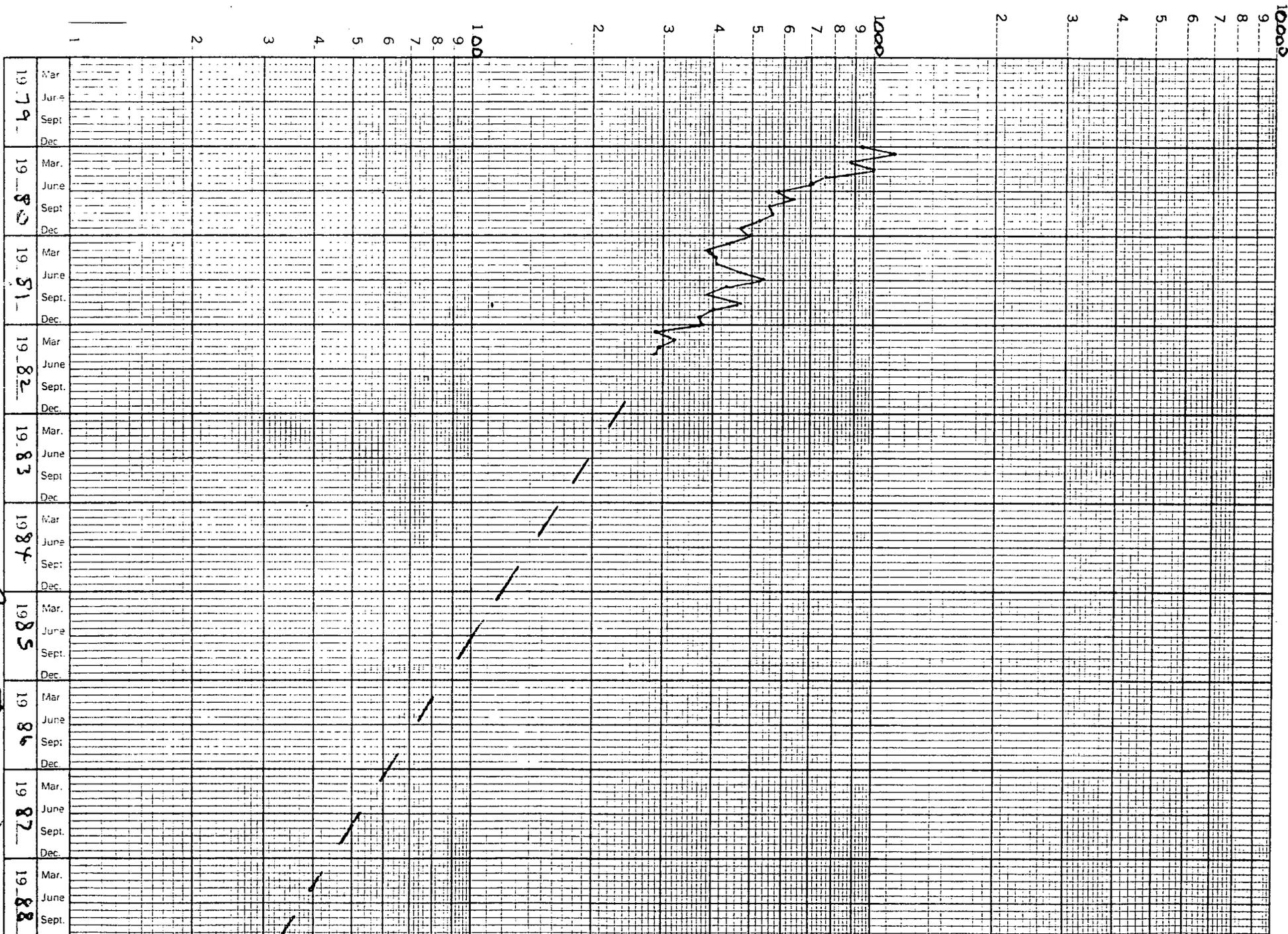
Gas-oil ratio average - 480 to 1

Remaining gas reserves - 4,222 mcf

RULE # 9-B

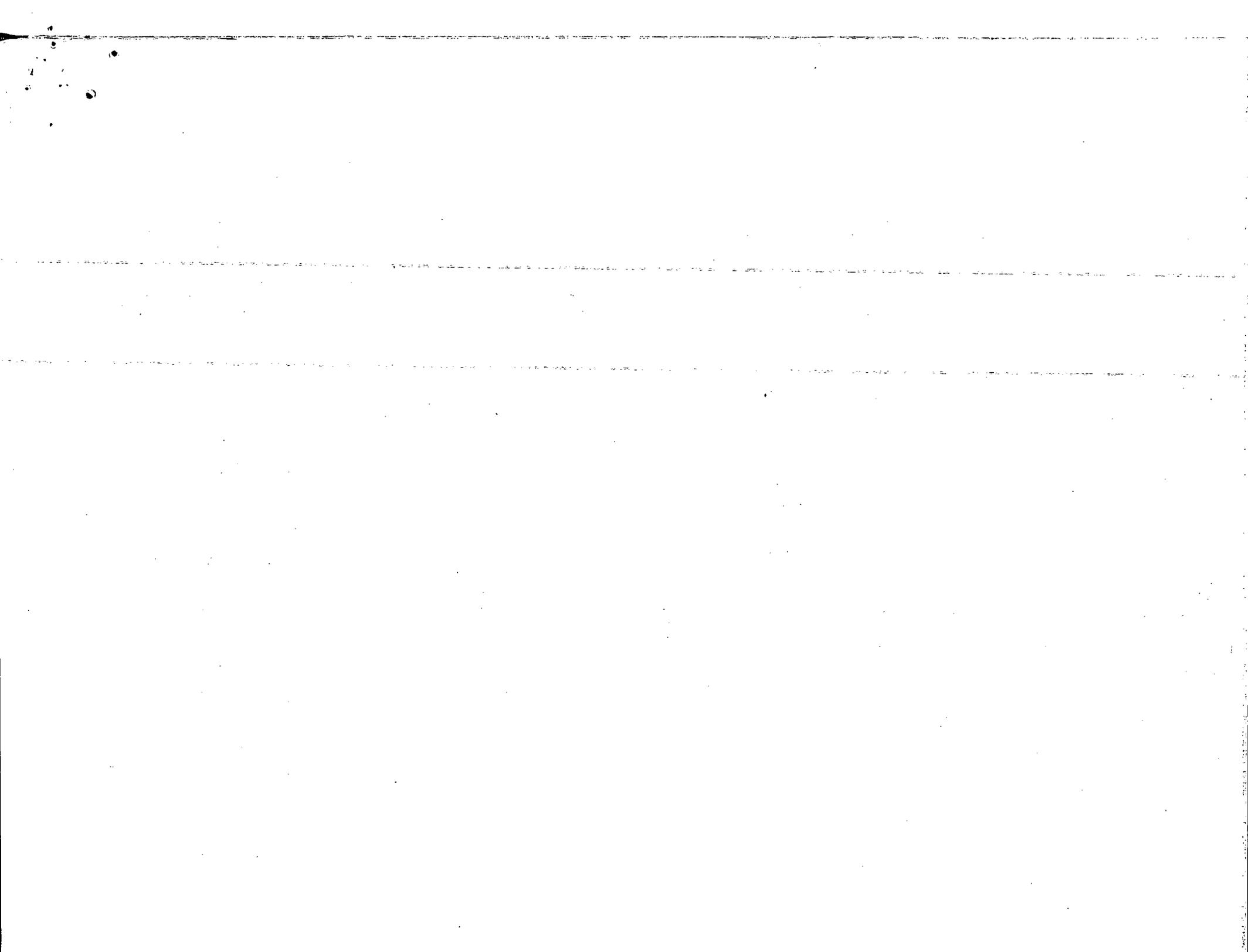


BBLs / OIL / MONTH



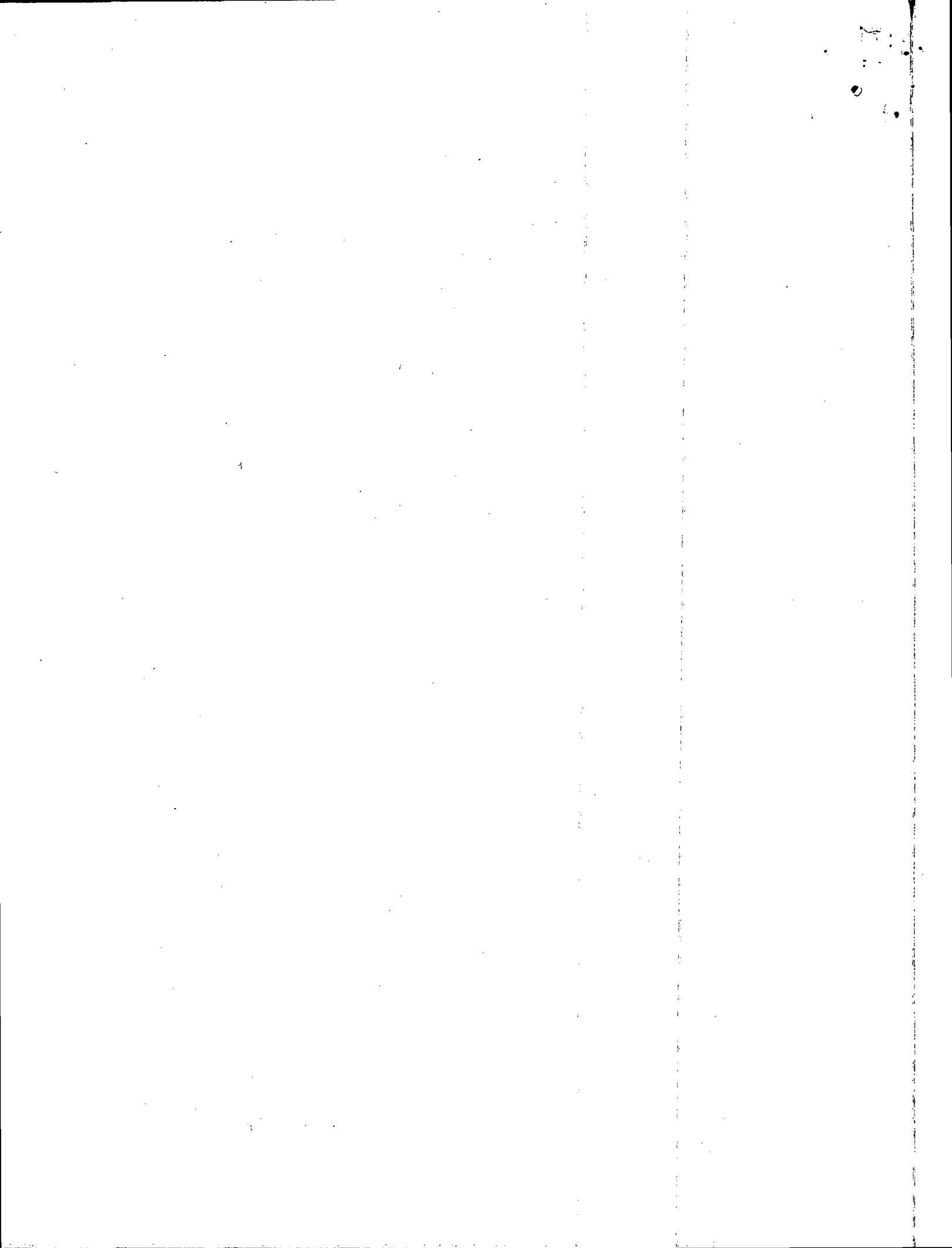
OLD LOGS UNIT  
 WELL NO 18

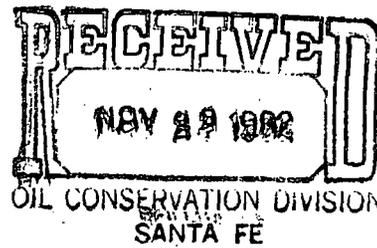
Rule #9. (2)



Rule 11:

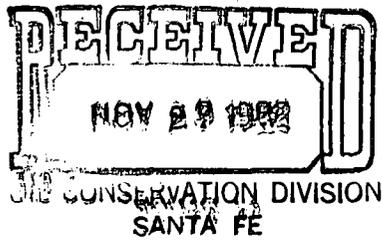
Notice of this infill request has been sent to Depco, Inc., 1000 Petroleum Bldg., Denver, Colorado 80202; and Anadardo Production Co., P.O. Box 2497, Midland, Texas 79702, as the offset operators.





Rule 8:

- a. Old Loco Unit #14 - 330 FSL 2310 FWL Sec. 32-T17S-R29E  
Old Loco Unit #18 - 990 FSL 2310 FWL Sec. 32-T17S-R29E  
Old Loco Unit #19 - 990 FSL 1650 FWL Sec. 32-T17S-R29E
- b. #14 - 3/4/40  
#18 - 11/13/79  
#19 - 2/4/80
- c. #14 - 4/9/40  
#18 - 12/13/79  
#19 - 3/12/80
- d. None
- e. #14 - 2 bbl. oil, 1/3 mcf gas/day  
#18 - 9 bbl. oil, 4 mcf gas/day  
#19 - 12 bbl. oil, 4 mcf gas/day
- f. NA
- g. Well #14 is producing very little gas. Well #19 was drilled because of the low permeability and low quality solution gas recovery mechanism require reduced spacing to efficiently drain the reservoir. The #18 and 19 wells have experienced new reservoir type conditions.



Rule 8:

- a. Old Loco Unit #14 - 330 FSL 2310 FWL Sec. 32-T17S-R29E  
Old Loco Unit #18 - 990 FSL 2310 FWL Sec. 32-T17S-R29E  
Old Loco Unit #19 - 990 FSL 1650 FWL Sec. 32-T17S-R29E
- b. #14 - 3/4/40  
#18 - 11/13/79  
#19 - 2/4/80
- c. #14 - 4/9/40  
#18 - 12/13/79  
#19 - 3/12/80
- d. None
- e. #14 - 2 bbl. oil, 1/3 mcf gas/day  
#18 - 9 bbl. oil, 4 mcf gas/day  
#19 - 12 bbl. oil, 4 mcf gas/day
- f. NA
- g. Well #14 is producing very little gas. Well #19 was drilled because of the low permeability and low quality solution gas recovery mechanism require reduced spacing to efficiently drain the reservoir. The #18 and 19 wells have experienced new reservoir type conditions.



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

BRUCE KING  
GOVERNOR

LARRY KEHOE  
SECRETARY

November 19, 1982

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-2434

Marbob Energy Corporation  
P.O. Box 304  
Artesia, NM 88210

Re: Application for NGPA Infill Well  
Findings Under Provisions of  
Order No. R-6013-A Old Loco

Unit Well No. 18, Unit N, Sec.

32, Township 17 South, Range 29

East, Eddy County, NM

Gentlemen:

We may not process the subject application for infill findings until the required information, forms, or plats checked on the reverse side of this letter are submitted.

Sincerely,

Michael E. Stogner,  
Petroleum Engineer

MES/dp

- A copy of Form C-101 must be submitted.
- A copy of Form C-102 must be submitted.
- The pool name must be shown.
- The standard spacing unit size for the pool must be shown.
- Give the Division Order No. which granted the non-standard proration unit.
- Please state whether or not the well has been spudded and give the spud date, if any.

Information relative to other wells on the proration unit is incomplete. Please submit data on the Old Loco Unit Well No. 19  
(Rule 8)  
\_\_\_\_\_  
\_\_\_\_\_

The geologic and reservoir data is incomplete or insufficient.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Other:  
\_\_\_\_\_  
\_\_\_\_\_



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

BRUCE KING  
GOVERNOR

LARRY KEHOE  
SECRETARY

November 19, 1982

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-2434

Marbob Energy Corporation  
P.O. Box 304  
Artesia, NM 88210

Re: Application for NGPA Infill Well  
Findings Under Provisions of  
Order No. R-6013-A Old Loco

Unit Well No. 18, Unit N, Sec.

32, Township 17 South, Range 29

East, Eddy County, NM

Gentlemen:

We may not process the subject application for infill findings until the required information, forms, or plats checked on the reverse side of this letter are submitted.

Sincerely,

A handwritten signature in cursive script that reads "Michael E. Stogner".

Michael E. Stogner,  
Petroleum Engineer

MES/dp

- A copy of Form C-101 must be submitted.
- A copy of Form C-102 must be submitted.
- The pool name must be shown.
- The standard spacing unit size for the pool must be shown.
- Give the Division Order No. which granted the non-standard proration unit.
- Please state whether or not the well has been spudded and give the spud date, if any.

Information relative to other wells on the proration unit is incomplete. Please submit data on the Old Loco Unit Well No. 19  
(Rule 8)

---

---

---

The geologic and reservoir data is incomplete or insufficient.

---

---

---

Other:

---

---



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

BRUCE KING  
GOVERNOR

LARRY KEHOE  
SECRETARY

November 19, 1982

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-2434

Marbob Energy Corporation  
P.O. Box 304  
Artesia, NM 88210

Re: Application for NGPA Infill Well  
Findings Under Provisions of  
Order No. R-6013-A Old Loco

Unit Well No. 18, Unit N, Sec.

32, Township 17 South, Range 29

East, Eddy County, NM

Gentlemen:

We may not process the subject application for infill findings until the required information, forms, or plats checked on the reverse side of this letter are submitted.

Sincerely,

Michael E. Stogner,  
Petroleum Engineer

MES/dp

- A copy of Form C-101 must be submitted.
- A copy of Form C-102 must be submitted.
- The pool name must be shown.
- The standard spacing unit size for the pool must be shown.
- Give the Division Order No. which granted the non-standard proration unit.
- Please state whether or not the well has been spudded and give the spud date, if any.

Information relative to other wells on the proration unit is incomplete. Please submit data on the Old Loco Unit Well No. 19  
(Rule 8)  
\_\_\_\_\_  
\_\_\_\_\_

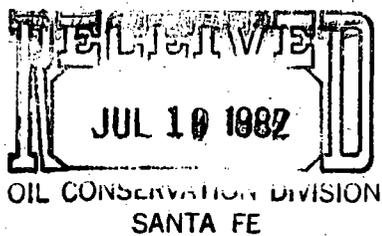
The geologic and reservoir data is incomplete or insufficient.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Other:  
\_\_\_\_\_  
\_\_\_\_\_

Request for Infill Finding on  
Old Loco Unit #18  
in accordance with Administrative  
Procedures amended February 8, 1980

N - 32-175-29E

Eddy



NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
S.G.S.	
AND OFFICE	
OPERATOR	✓

**RECEIVED**  
NEW MEXICO OIL CONSERVATION COMMISSION

OCT 22 1979

O. C. C.  
ARTESIA, OFFICE

30-013-23093

Form C-101  
Revised 1-1-65

5A. Indicate Type of Lease  
STATE  FEE

5. State Oil & Gas Lease No.  
**B-4918**

**APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK**

Type of Work

Type of Well DRILL  DEEPEN  PLUG BACK

OIL WELL  GAS WELL  OTHER  SINGLE ZONE  MULTIPLE ZONE

7. Unit Agreement Name  
*old loco unit*

8. Farm or Lease Name  
**Old Loco Unit**

Name of Operator  
**Marbob Energy Corporation**

9. Well No.  
**18**

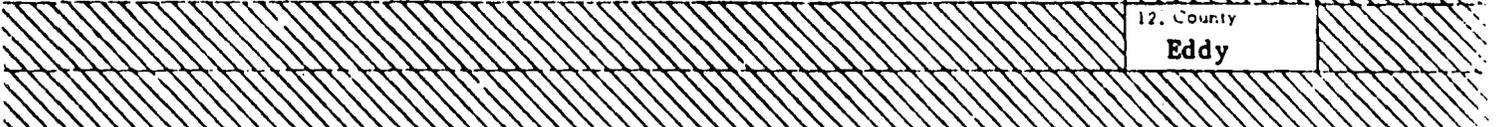
Address of Operator  
**P.O. Box 304, Artesia, N.M. 88210**

10. Field and Pool, or Willcut SA  
**Grbg. Jackson Queen Grbg.**

Location of Well UNIT LETTER **N** LOCATED **990** FEET FROM THE **South** LINE

**2310** FEET FROM THE **West** LINE OF SEC. **32** TWP. **17S** RGE. **29E** MAPS

12. County  
**Eddy**



11. Proposed Depth <b>2850'</b>	13. Formation <b>Grayburg &amp; Lovington</b>	20. Rotary or C.T. <b>Rotary</b>
Elevations (Show whether D.F., R.F., etc.) <b>3590 GL</b>	21A. Kind & Status of Bond <b>Statewide Active</b>	21B. Drilling Contractor <b>Alta-West Drilling Co.</b>
		22. Approx. Date Work will start <b>10/27/79</b>

**PROPOSED CASING AND CEMENT PROGRAM**

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
11"	8 5/8"	28#	250'	Circ.	
7 7/8"	4 1/2"	10.50#	2850'	225	

We propose to drill to approximately 2850' to test Grayburg and Lovington formations. We do not anticipate gas at these depths & will not set up a blowout preventer program at this time.

**RECEIVED**  
**JUL 10 1982**  
OIL CONSERVATION DIVISION  
SANTA FE

APPROVAL VALID FOR 90 DAYS UNLESS DRILLING COMMENCED.  
EXPIRES 1-23-80

ABOVE SPACE DESCRIBE PROPOSED PROGRAM; IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

by Carolyn Davis Title Secretary Date 10/22/79

(This space for State Use)

APPROVED BY W.A. Gussert TITLE SUPERVISOR, DISTRICT II DATE OCT 23 1979

CONDITIONS OF APPROVAL, IF ANY:

**RULE #5**

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

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

All distances must be from the outer boundaries of the Section

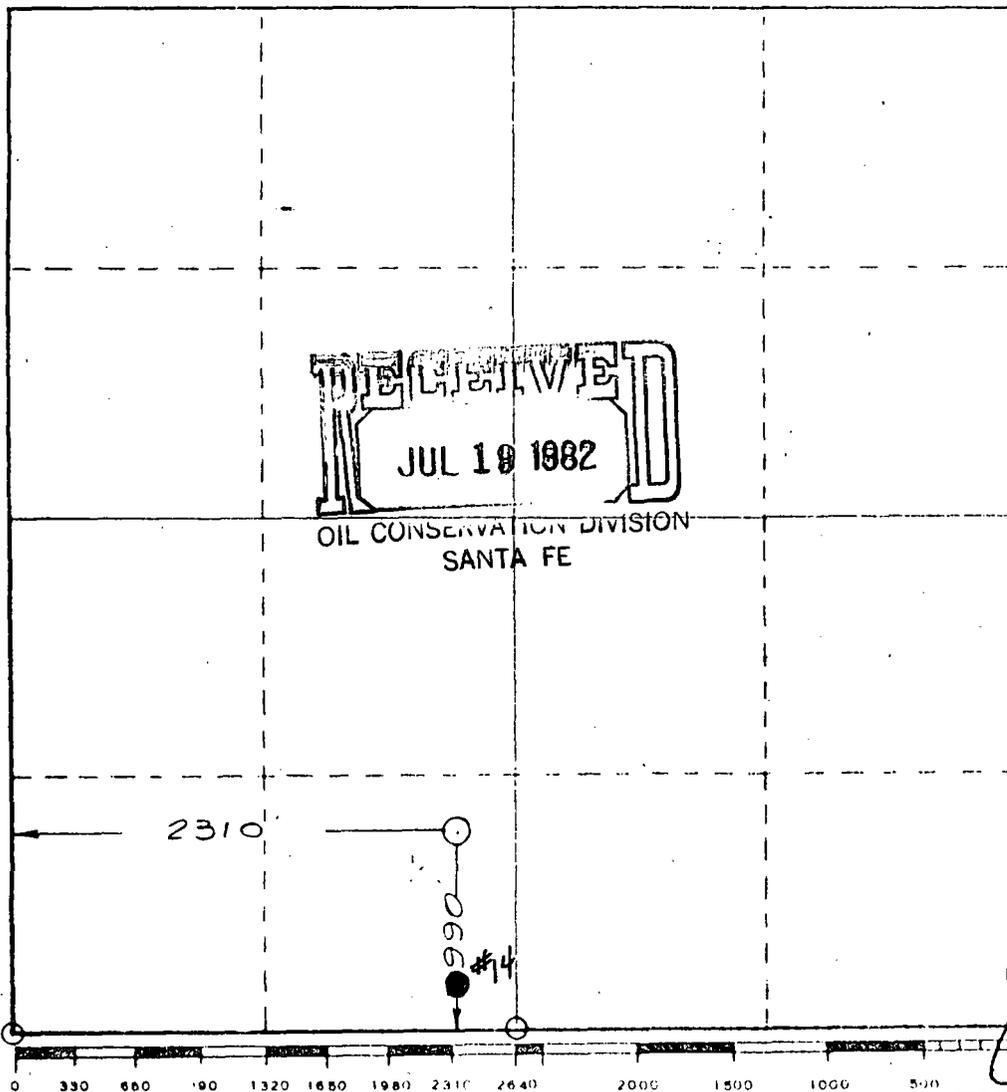
Operator <b>MARBOB ENERGY CORPORATION</b>		Lease <b>OLD LOCO UNIT</b>		Well No. <b>18</b>
Unit Letter <b>N</b>	Section <b>32</b>	Township <b>17 South</b>	Range <b>29 East</b>	County <b>EDDY</b>
Actual Footage Location of Well: <b>990</b> feet from the <b>South</b> line of <b>2310</b> feet from the <b>West</b> line				
Ground Level Elev. <b>3590</b>	Producing Formation <b>Grayburg &amp; Lovington</b>	Block <b>Grbg. Jackson Queen Grbg. SA</b>	Produced Acreage <b>40</b> 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.

Name \_\_\_\_\_

Position \_\_\_\_\_

**Secretary**

Company \_\_\_\_\_

**Marbob Energy Corp.**

Date \_\_\_\_\_

**10/22/79**

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.

*Rule #5*

Date Surveyed \_\_\_\_\_

**October 9, 1979**

Registered Professional Engineer  
and Licensed Surveyor

*John W. Shearn*

1559

SECRET  
1950  
U.S. GOVERNMENT PRINTING OFFICE  
WASHINGTON, D. C.

Rule 6:

Old Loco Unit #18

Pool: Grayburg Jackson Seven Rivers Queen Grayburg San Andres

Standard spacing unit: 40 acres

Rule 7:

NA

Rule 8:

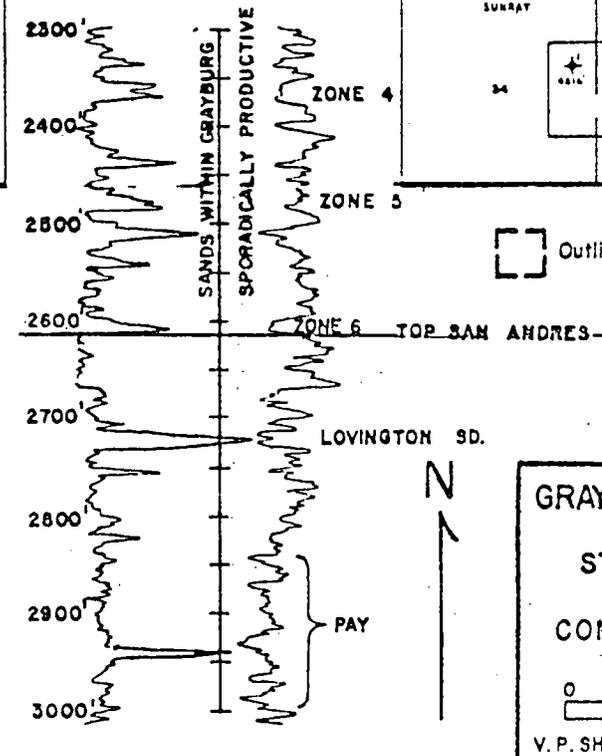
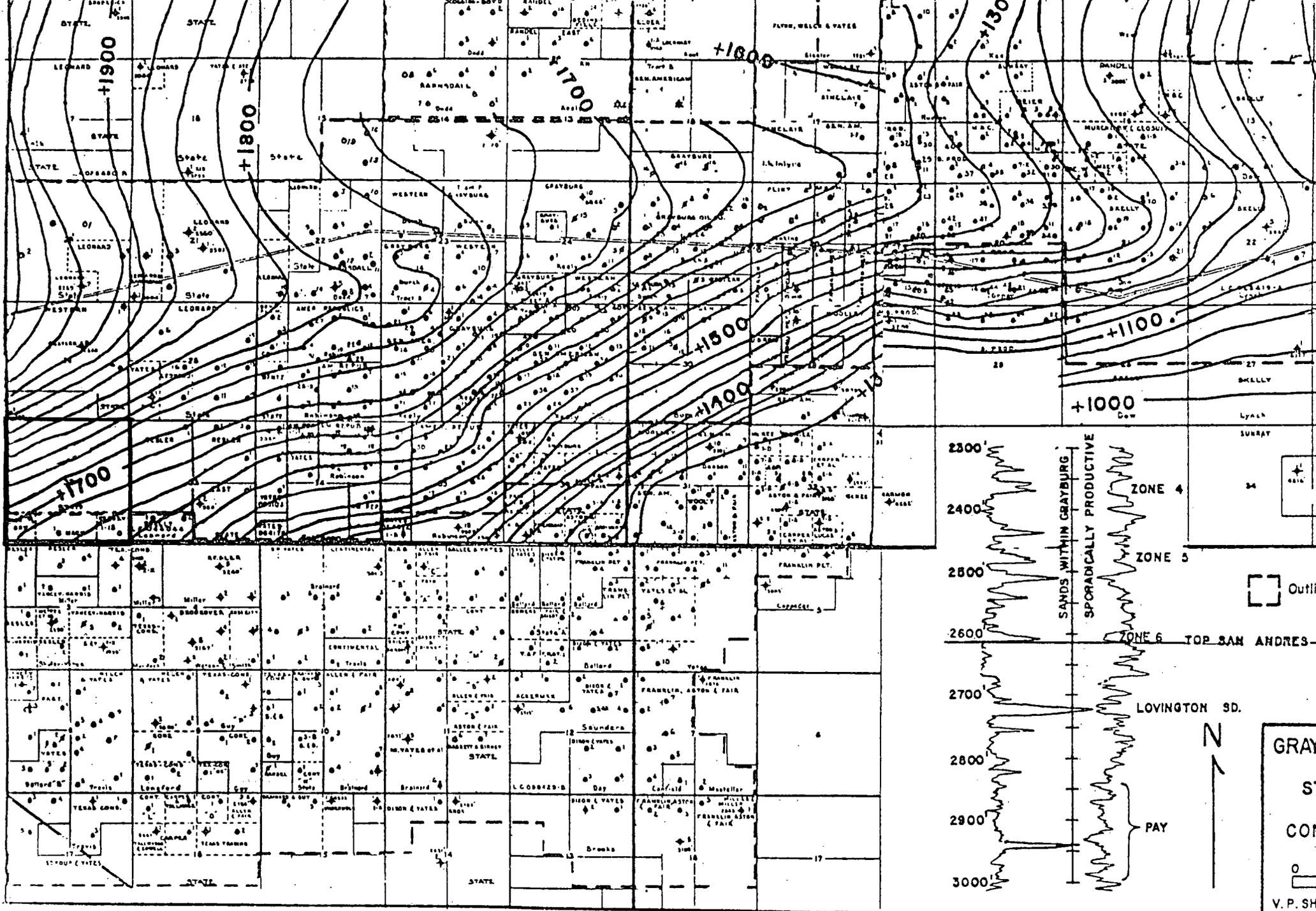
- a. Old Loco Unit #14 - 330 FSL 2310 FWL Sec. 32-T17S-R29E  
Old Loco Unit #18 - 990 FSL 2310 FWL Sec. 32-T17S-R29E
- b. #14 - 3/4/40  
#18 - 11/13/79
- c. #14 - 4/9/40  
#18 - 12/13/79
- d. None
- e. #14 - 2 bbl. oil, 1/3 mcf gas/day  
#18 - 9 bbl. oil, 4 mcf gas/day
- f. NA
- g. Well #14 is producing very little gas. The migration of oil and gas through waterflooding coupled with new reservoir conditions type production rates on the new well make the drilling of a new well necessary to drain the reservoir.

T 17 S

T 18 S

R 29 E

Rule #9-A





Marbob Energy Corporation  
Old Loco Unit, Well #18  
Grayburg Jackson Seven Rivers Queen  
Grayburg San Andres  
Eddy County, New Mexico

**Pertinent Engineering Data and Conclusions:**

Well #18 was completed in the Grayburg Jackson pool in December 1979. This is an infill well located as per the attached plat.

Effective July 1, 1982, oil reserves recoverable will be 8,796 barrels and gas reserves recoverable will be 4,222 mcf.

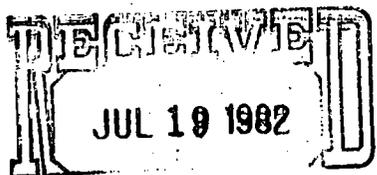
Oil reserves were calculated from the attached time/rate curve to an economic limit of approximately 1 BOPD (see table). Gas reserves were estimated using a study of the gas oil ratio performance not only on the specific well but on the pool history.

From a study of this immediate area in this pool I find per well producing rates in 1970 below what the rates are for the newly drilled infill wells. The daily producing rate of oil for well #18 in May 1982 was 9 BOPD. In 1970 the average daily producing rate per well on this property was 7 BOPD.

Due to extensive waterflooding in the area there has been significant oil migration into areas between injection wells or between injection and producing wells.

It is evident from the rate of production and from oil reserves remaining that pattern density has to be increased to recover additional oil and gas reserves.

Therefore, it is my recommendation that well density be increased by drilling infill wells. It is my conclusion that many infill wells will experience new reservoir conditions.



OIL CONSERVATION DIVISION  
SANTA FE

Paul G. White  
Paul G. White  
Petroleum Engineer

7-15-82  
Date

Refs # 9-B

Marbob Energy Corp.  
Old Loco Unit, Well #18  
330 FSL 2310 FEL Sec. 32-T17S-R29E  
Eddy County, N.M.

Calculation of oil reserves - refer to rate/time curve:

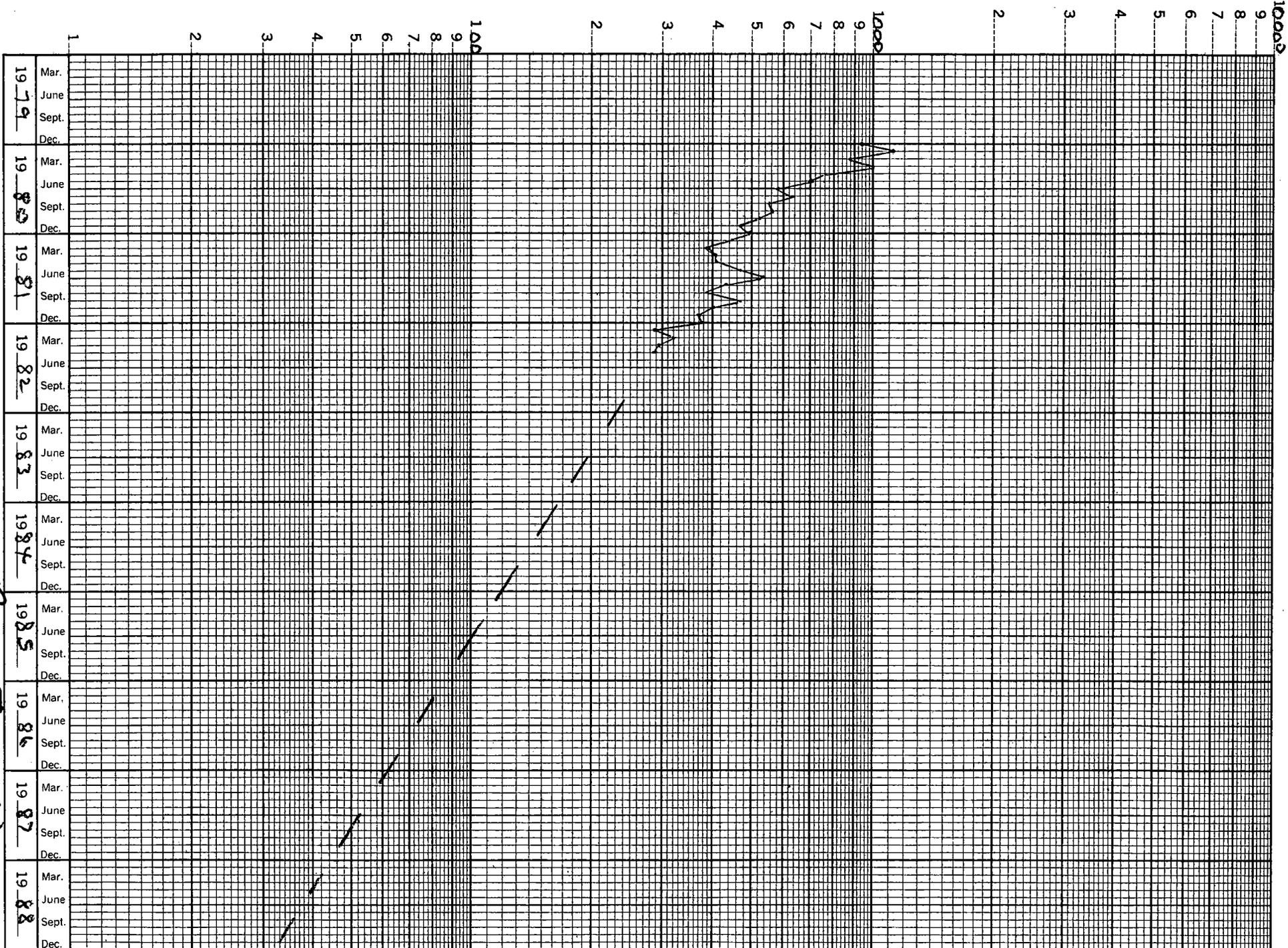
<u>Year</u>	<u>Gross monthly Oil - bbls.</u>	<u>Gross Yearly Oil - bbls.</u>
1982 (6 mos.)	270	1,620
1983	195	2,340
1984	140	1,680
1985	100	1,200
1986	73	876
1987	52	624
1988	38	456
		<hr/>
Total oil remaining:		8,796
Cumulative to 1/1/82		<u>14,360</u>
Total ultimate reserves:		23,156

Gas-oil ratio average - 480 to 1

Remaining gas reserves - 4,222 mcf

RULE # 9-B

BBLs / OIL / MONTH



OLD LOGO UNIT  
 WELL NO 18

PUCE #9-0(2)

Rule 11:

Notice of this infill request has been sent to Depco, Inc., 1000 Petroleum Bldg., Denver, Colorado 80202; and Anadardo Production Co., P.O. Box 2497, Midland, Texas 79702, as the offset operators.