

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. 24
Location: Unit M Sec. 32 Twp. 17-S Rng. 29-E Cty. Eddy

III.
THE DIVISION FINDS:

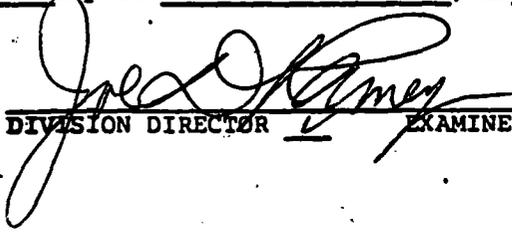
- (1) That Section 271.305(b) of the Federal Energy Regulatory Commission Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find that the infill 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 (SR-Qn-Grbg-SA) Pool, and the standard spacing unit in said pool is 40 acres.
- (4) That a 40-acre proration unit comprising the SW/4 SW/4 of Sec. 32, Twp. 17-S, Rng. 29-E, is currently dedicated to the Old Loco Unit Well No. 13 located in Unit M 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 6,710 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 24th day of November, 1982.


DIVISION DIRECTOR EXAMINER

Received: July 15, 1982
Signature Date: Today

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

ADMINISTRATIVE ORDER
NFL 64

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 Marathon Energy Corporation Well Name and No. Old Loco Unit Well No. 24
Location: Unit M 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 Grazburg Jackson (SR-Qn. - Gaha-SA) Pool, and the standard spacing unit in said pool is 40 acres.
- (4) That a 40-acre proration unit comprising the SW¹/₄ SW¹/₄ of Sec. 32, Twp. 17S, Rng. 29E, is currently dedicated to the Old Loco Unit Well No. 13 located in Unit M 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 6,710 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 Artesia
NMO 466L Hobbs

DIVISION DIRECTOR _____ EXAMINER _____

Request for Infill Finding on
Old Loco Unit #24
in accordance with Administrative
Procedures amended February 8, 1980

M- 32-175-32E

Eddy



11/11/77

Dear Sirs

I am writing to you in connection with the above mentioned matter.

I am enclosing herewith a copy of the report of the investigation conducted by me on the above mentioned matter.

I am sure that you will find the report of interest.

Yours faithfully

Yours faithfully

NO. COPIES RECEIVED

DISTRIBUTION

SANTA FE

FILE

U.S.G.S.

LAND OFFICE

OPERATOR

OCT 2 1981

5A. Indicate Type of Lease
 STATE FEDERAL

5. State Oil & Gas Lease No.
 B-2023

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

Type of Work

Type of Well
 DRILL DEEPEN PLUG BACK

Well CAS OTHER SINGLE MULTIPLE

Name of Operator
 Marbob Energy Corporation

7. Unit Agreement Name
 Old Loco Unit

8. Form of Lease Name
 Old Loco Unit

9. Well No.
 24

Name of Operator
 P.O. Drawer 217, Artesia, N.M. 88210

Location of Well
 M 330 South

450 West 32 17S 29E

10. Field and Pool, or Unit
 SA Grbg Jackson SR Qn Grbg

11. County
 Eddy

19. Total Depth
 2900'

20. Formation
 Grayburg, Lovington Rotary

21A. Kind & Status of Log Bond
 Statewide active

21B. Drilling Contractor
 Stewart Bros Drlg. Co.

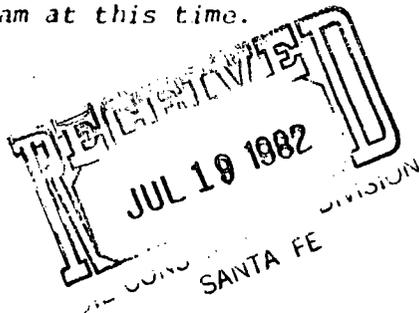
22. Approx. Date Work will start

3585' GR

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTERS DEPTH	SACKS OF CEMENT	EST. TOP
12 1/4"	8 5/8"	24#	275'	Circ.	
7 7/8"	4 1/2"	10.50#	2900'	250	

We propose to drill to approximately 2900' to test the Grayburg & Lovington formations. We do not anticipate gas at these depths and will not set up a blowout preventer program at this time.



180 DAYS
 1-8-82
 UNDERWAY

OVER 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.

Carolee Davis Title: Production Clerk Date: 10/5/81

(This space for State Use)

APPROVED BY: *W.A. Gessitt* TITLE: DATE: OCT 9 1981

CONDITIONS OF APPROVAL, IF ANY:

RULE #5

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W 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

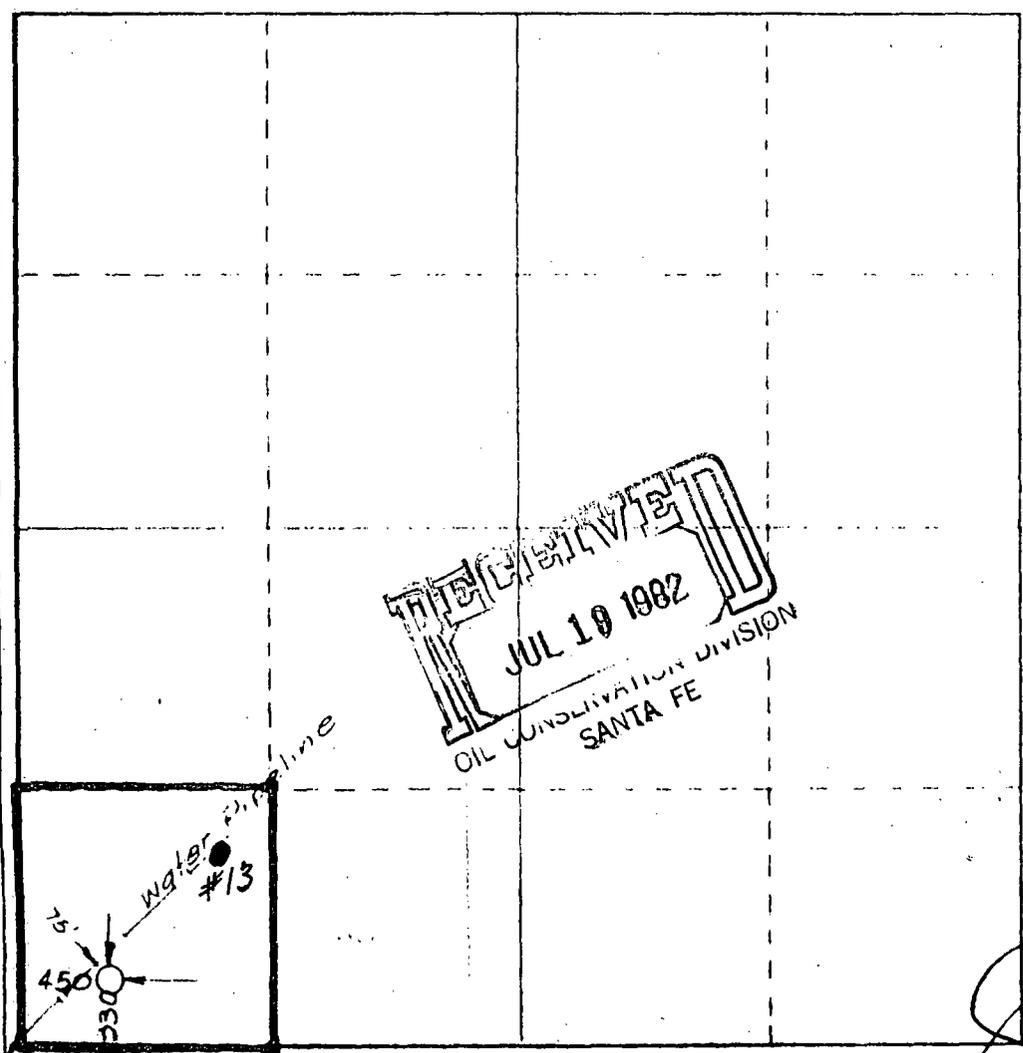
Operator MARBOB ENERGY CORPORATION		Lease OLD LOCO UNIT		Well No. 24
Unit Letter H	Section 32	Township 17 South	Range 29 East	County EDDY
Actual Footage Location of Well:				
330 feet from the South		450 feet from the West		
Ground Level Elev. 3585	Producing Formation Grayburg, Lovington	Pool Grbg Jackson SR Qn Grbg SA	Section Acres 40	

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.

Carolyn Orris
Carolyn Orris

Production Clerk

Marbob Energy Corp.

10/5/81

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 23, 1980

Registered Professional Engineer

John W. Shearn

THE UNIVERSITY OF CHICAGO
LIBRARY
540 EAST 57TH STREET
CHICAGO, ILL. 60637

16

Rule 6:

Old Loco Unit #24

Pool: Grayburg Jackson Seven Rivers Queen Grayburg San Andres

Standard spacing unit: 40 acres

Rule 7:

NA

Rule 8:

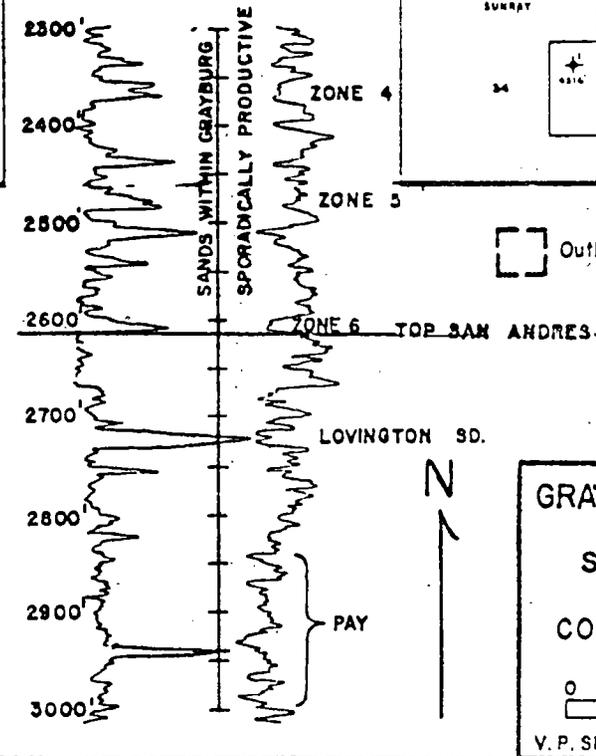
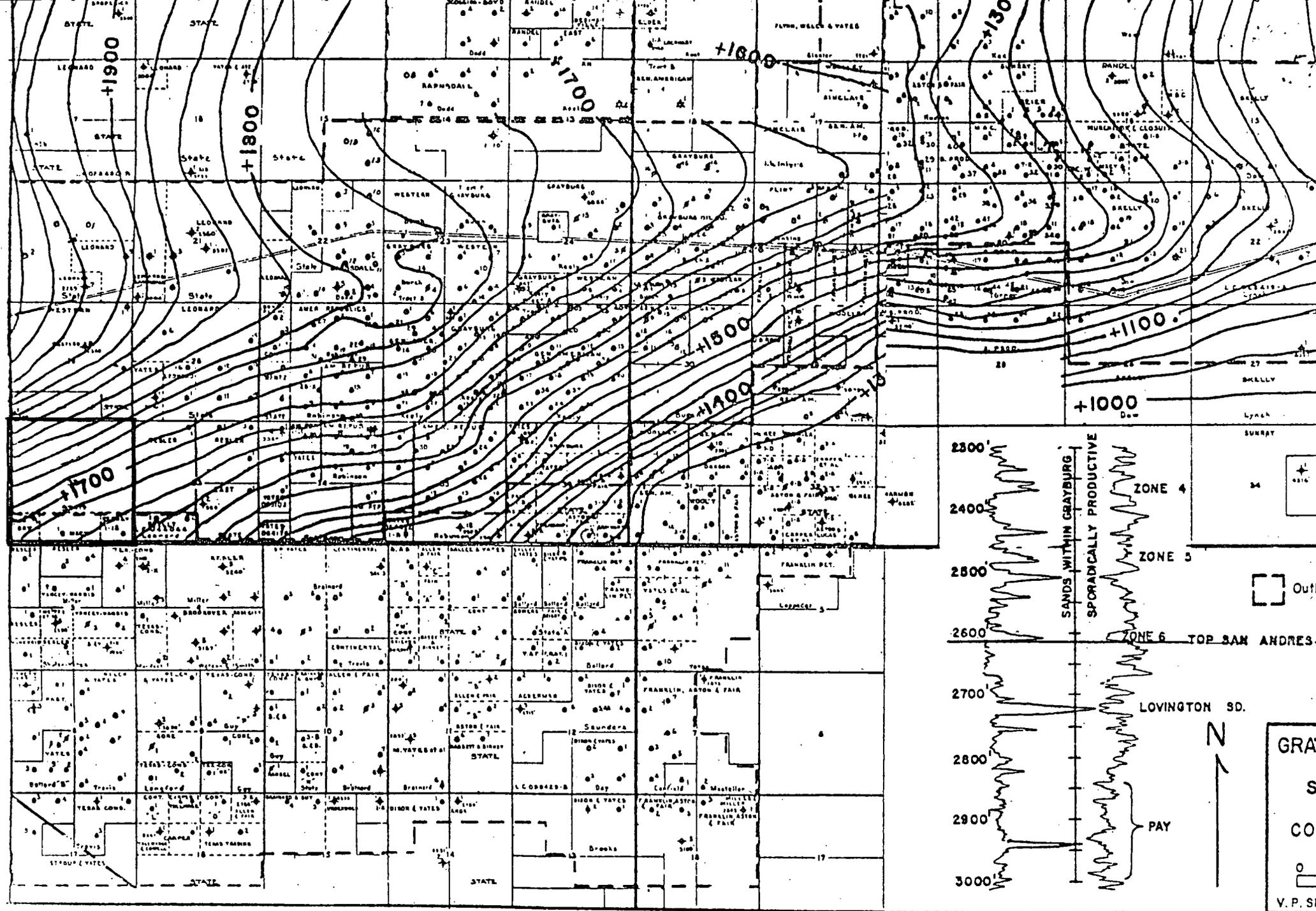
- a. Old Loco Unit #13-990 FSL 990 FWL Sec. 32-T17S-R29E
Old Loco Unit #24-330 FSL 450 FWL Sec. 32-T17S-R29E
- b. #13 - 5/16/44
#24 - 11/7/81
- c. #13 - 9/44
#24 - 12/1/81
- d. None
- e. #13 - injection
#24 - 21 bbl. oil, 14 mcf gas/day
- f. NA
- g. Well #13 was drilled as a producing well, converted to injection in 1967, tried to convert back to production unsuccessfully in 1977, well is now TA. Since no production is currently obtainable from the #13 and due to the age of this well major reworking is not feasible, the new well is needed to adequately drain this reservoir.

T 17 S

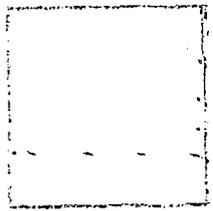
T 18 S

R 29 E

RULE # 9-A



1944



Marbob Energy Corporation
Old Loco Unit, Well #24
Grayburg Jackson Seven Rivers Queen
Grayburg San Andres
Eddy County, New Mexico

Pertinent Engineering Data and Conclusions:

Well #24 was completed in the Grayburg Jackson pool in December 1981. This is an infill well located as per the attached plat.

Effective July 1, 1982, oil reserves recoverable will be 11,184 barrels and gas reserves recoverable will be 6,710 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 #24 in May 1982 was 21 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

RULE # 9-B

Marbob Energy Corp.
Old Loco Unit, Well #24
330 FSL 450 FWL Sec. 32-T17S-R29E
Eddy County, N.M.

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

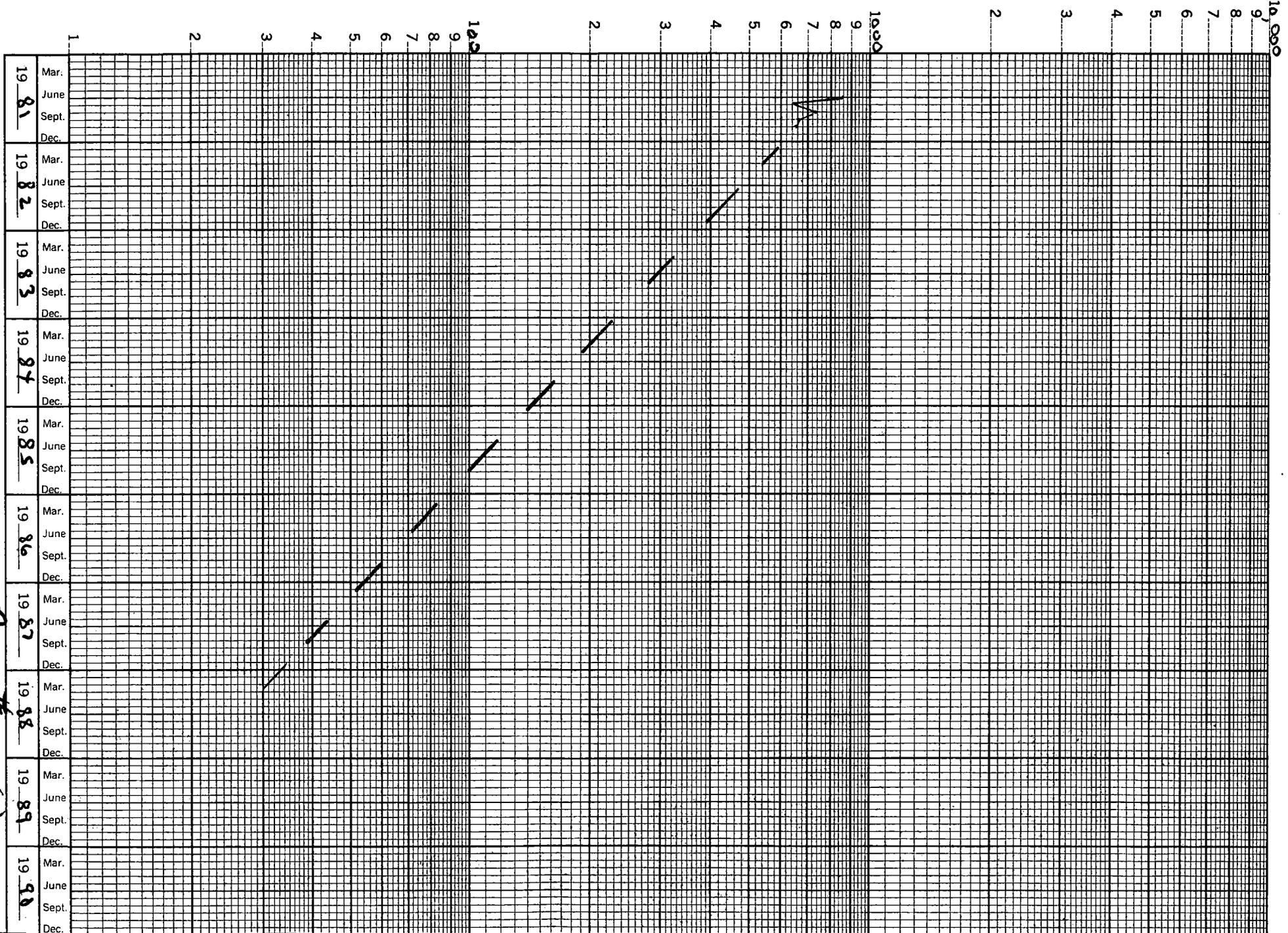
<u>Year</u>	<u>Gross monthly Oil - bbls.</u>	<u>Gross yearly Oil - bbls.</u>
1982 (6 mos.)	440	2,640
1983	295	3,540
1984	180	2,160
1985	125	1,500
1986	70	840
1987	42	504
Total oil remaining:		11,184
Cumulative to 1/1/82		<u>846</u>
Total ultimate reserves:		12,030

Gas-oil ratio average - 600 to 1

Remaining gas reserves - 6,710 mcf

RULE # 9-B

OIL/Bbls/month



OLD LOGS UNIT
WELL NO. 24

RULE #9- (12)

Rule 11:

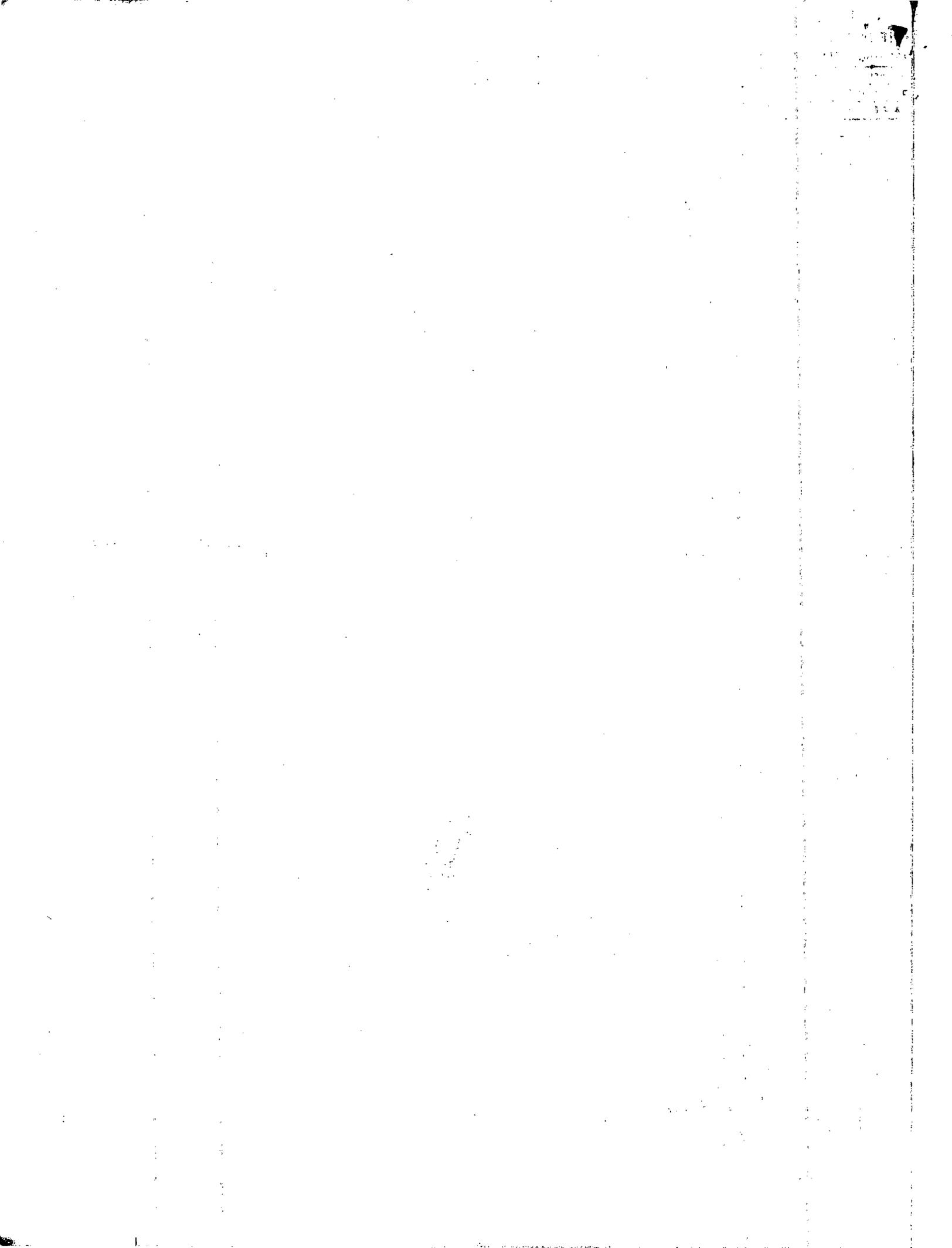
Notice of this infill request has been sent to Anadarko Production Co., Box 2497, Midland, Texas 79702; Yates Petroleum Corp., 207 So. 4th St., Artesia, N.M. 88210; and General American Oil Co., Box 3306, Odessa, Texas 79760, as the offset operators.

Request for Infill Finding on

Old Loco Unit #24

in accordance with Administrative

Procedures amended February 8, 1980



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DISTRIBUTION
STATE
COUNTY
OFFICE
OPERATOR

P. O. BOX 2000
SANTA FE, NEW MEXICO 87501

OCT 1981

3A. Indicate Type of Lease
STATE FEDERAL

5. State Oil & Gas Lease No.
B-2023

7. Unit Agreement Name
Old Loco Unit

8. Term of Lease Name
Old Loco Unit

9. Well No.
24

10. Field and Loc. of Well SA
Grbg Jackson SR Qn Grbg

11. County
Eddy

12. Depth
2900'

13. Location
Grayburg, Lovington Rotary

14. Operator
Stewart Bros Drlg. Co.

15. Status
Statewide active

16. Depth
3585' GR

17. Status
Statewide active

18. Operator
Stewart Bros Drlg. Co.

19. Status
Statewide active

20. Operator
Stewart Bros Drlg. Co.

21. Status
Statewide active

22. Operator
Stewart Bros Drlg. Co.

23. Status
Statewide active

24. Operator
Stewart Bros Drlg. Co.

25. Status
Statewide active

26. Operator
Stewart Bros Drlg. Co.

27. Status
Statewide active

28. Operator
Stewart Bros Drlg. Co.

29. Status
Statewide active

30. Operator
Stewart Bros Drlg. Co.

31. Status
Statewide active

32. Operator
Stewart Bros Drlg. Co.

33. Status
Statewide active

34. Operator
Stewart Bros Drlg. Co.

35. Status
Statewide active

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. Kind of Work
DRILL DEEPEN PLUG BACK

2. Kind of Well
SINGLE MULTIPLE

3. Name of Operator
Marbob Energy Corporation

4. Address of Operator
P.O. Drawer 217, Artesia, N.M. 88210

5. Location of Well
M 330 South

6. Section, Township, Range
150 West 32 T. 17S R. 29E

7. Depth of Well
2900'

8. Location of Well
Grayburg, Lovington Rotary

9. Operator
Stewart Bros Drlg. Co.

10. Status
Statewide active

11. Depth
3585' GR

12. Status
Statewide active

13. Operator
Stewart Bros Drlg. Co.

14. Status
Statewide active

15. Operator
Stewart Bros Drlg. Co.

16. Status
Statewide active

17. Operator
Stewart Bros Drlg. Co.

18. Status
Statewide active

19. Operator
Stewart Bros Drlg. Co.

20. Status
Statewide active

21. Operator
Stewart Bros Drlg. Co.

22. Status
Statewide active

23. Operator
Stewart Bros Drlg. Co.

24. Status
Statewide active

25. Operator
Stewart Bros Drlg. Co.

26. Status
Statewide active

27. Operator
Stewart Bros Drlg. Co.

REGISTERED
JUL 19 1982
SANTA FE

180 DAYS
8-82
HIGHWAY

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

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

Teresa Quinn Title Production Clerk Date 10/5/81

BY *W.A. Gessert* TITLE GENERAL MANAGER DATE OCT 5 1981

DATE OF APPROVAL, IF ANY: RULE #5

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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

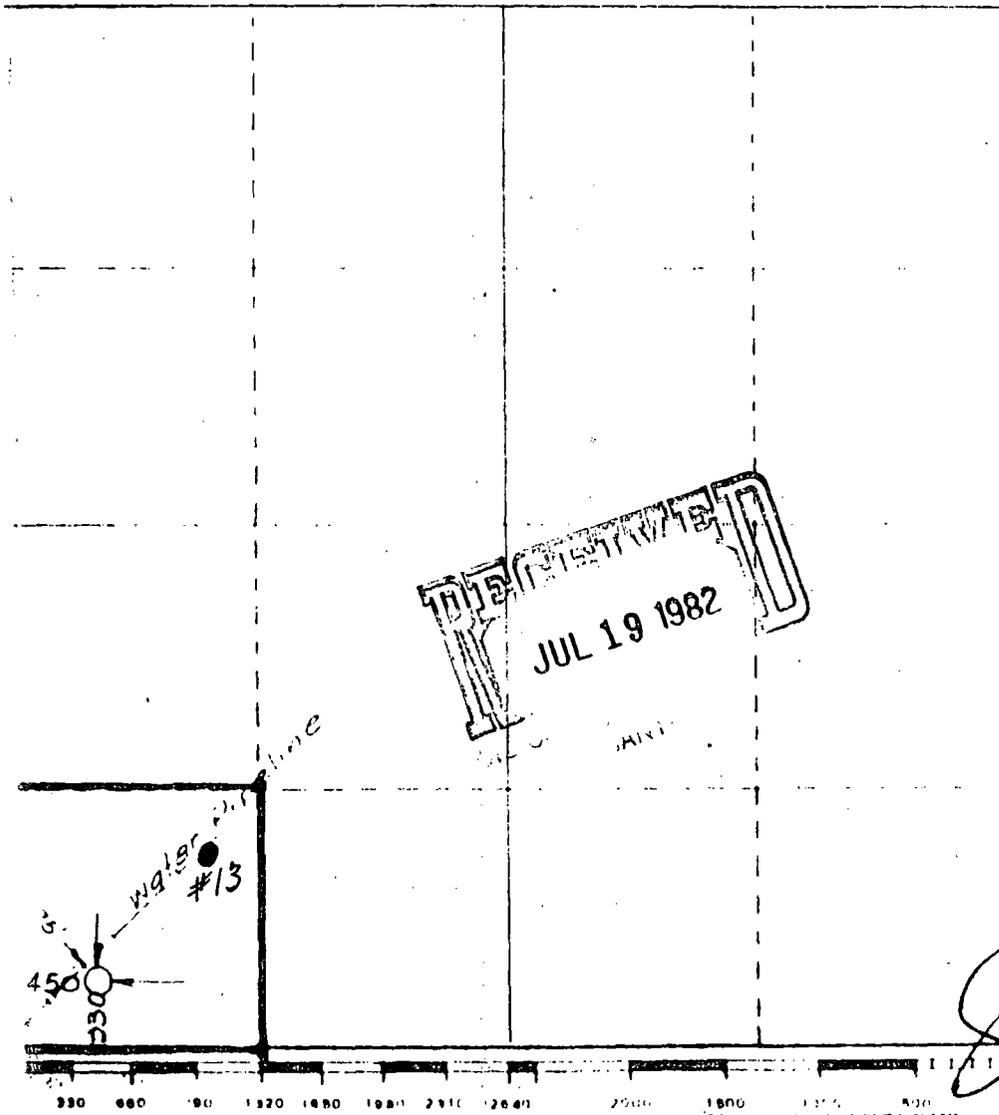
Operator MARBOB ENERGY CORPORATION		Lease OLD LOCO UNIT		Well No. 24
Int. Letter M	Section 32	Township 17 South	Range 29 East	County EDDY
Actual Footage Location of Well:				
330	feet from the South	450	feet from the West	
Ground Level Elev. 3585	Producing Formation Grayburg, Lovington	Pool Grbg Jackson SR Qn Grbg SA	Section Area (acres) 40	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, force-pooling, or otherwise or until a nonstandard 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.

Carolyn Orris
Carolyn Orris

Production Clerk

Marbob Energy Corp.

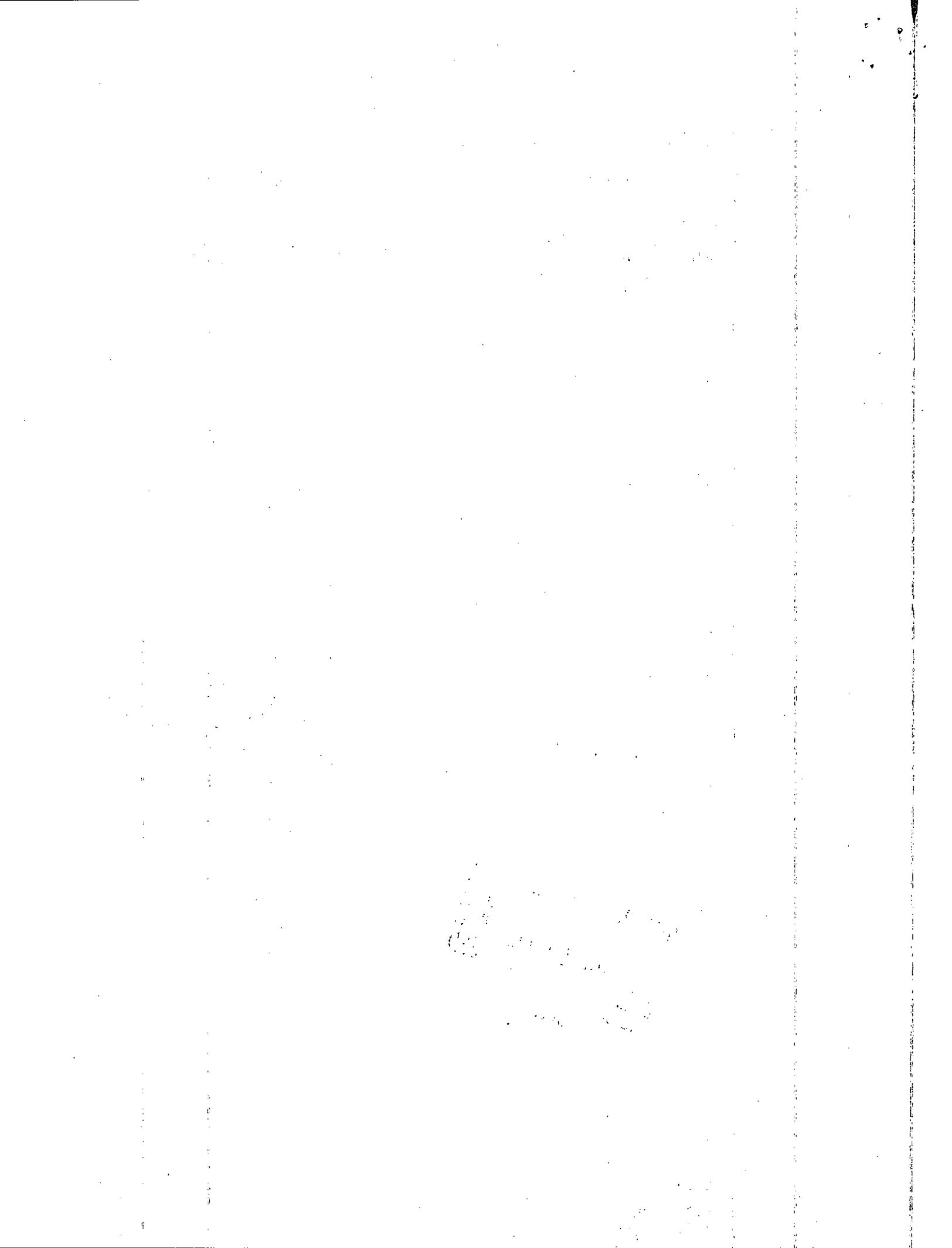
10/5/81

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 23, 1980

John W. Shear



Rule 6:

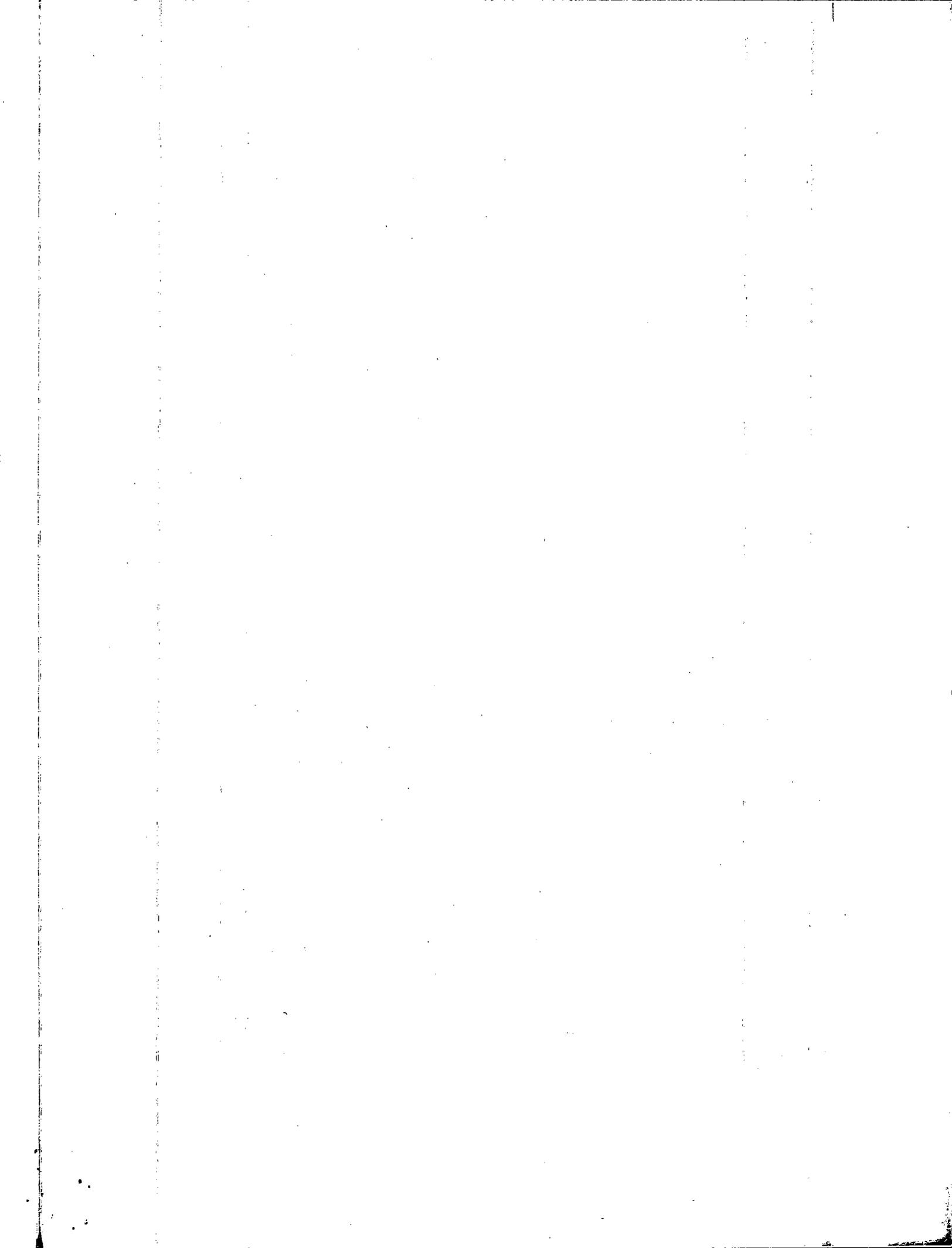
Old Loco Unit #24

Pool: Grayburg Jackson Seven Rivers Queen Grayburg San Andres

Standard spacing unit: 40 acres

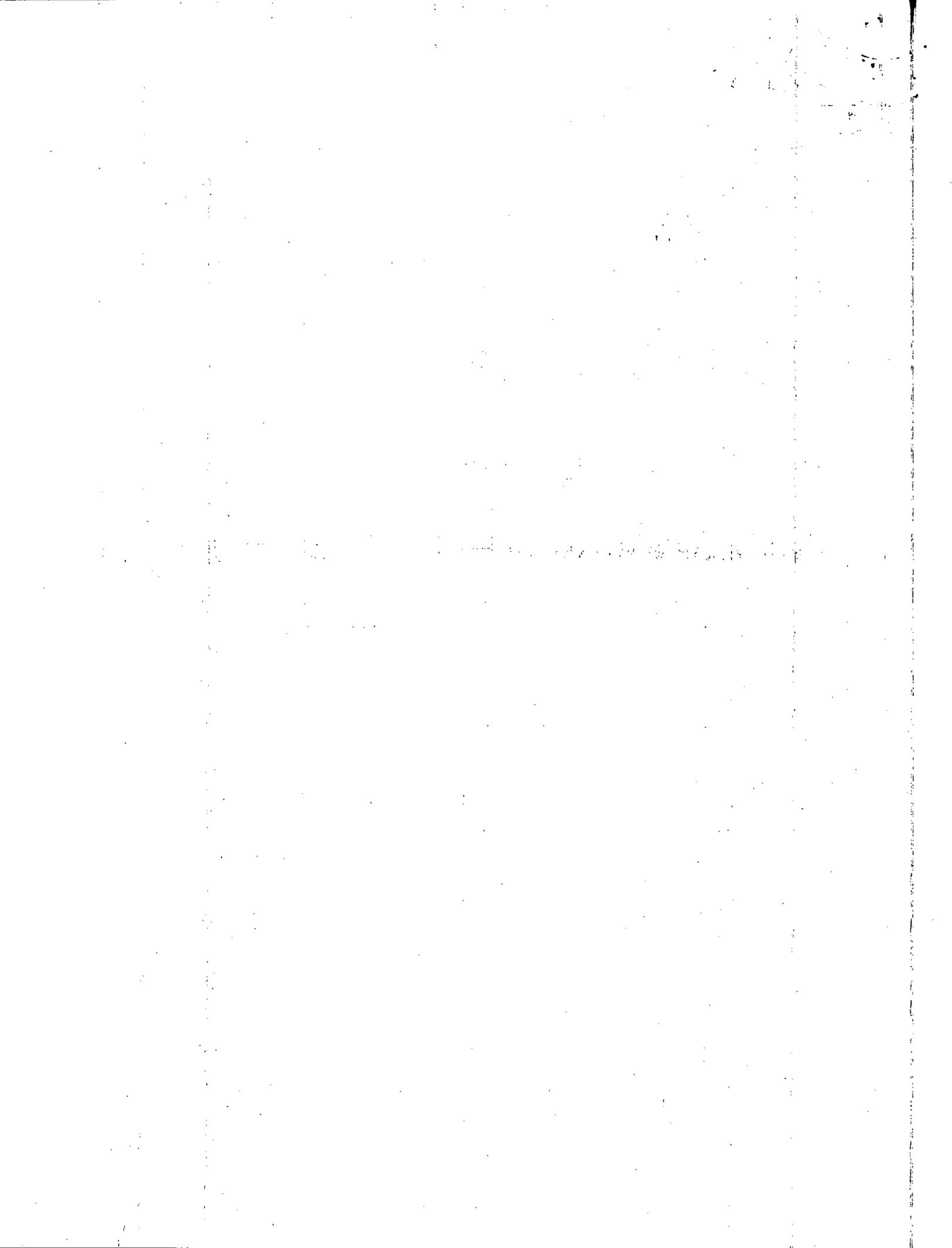
Rule 7:

NA



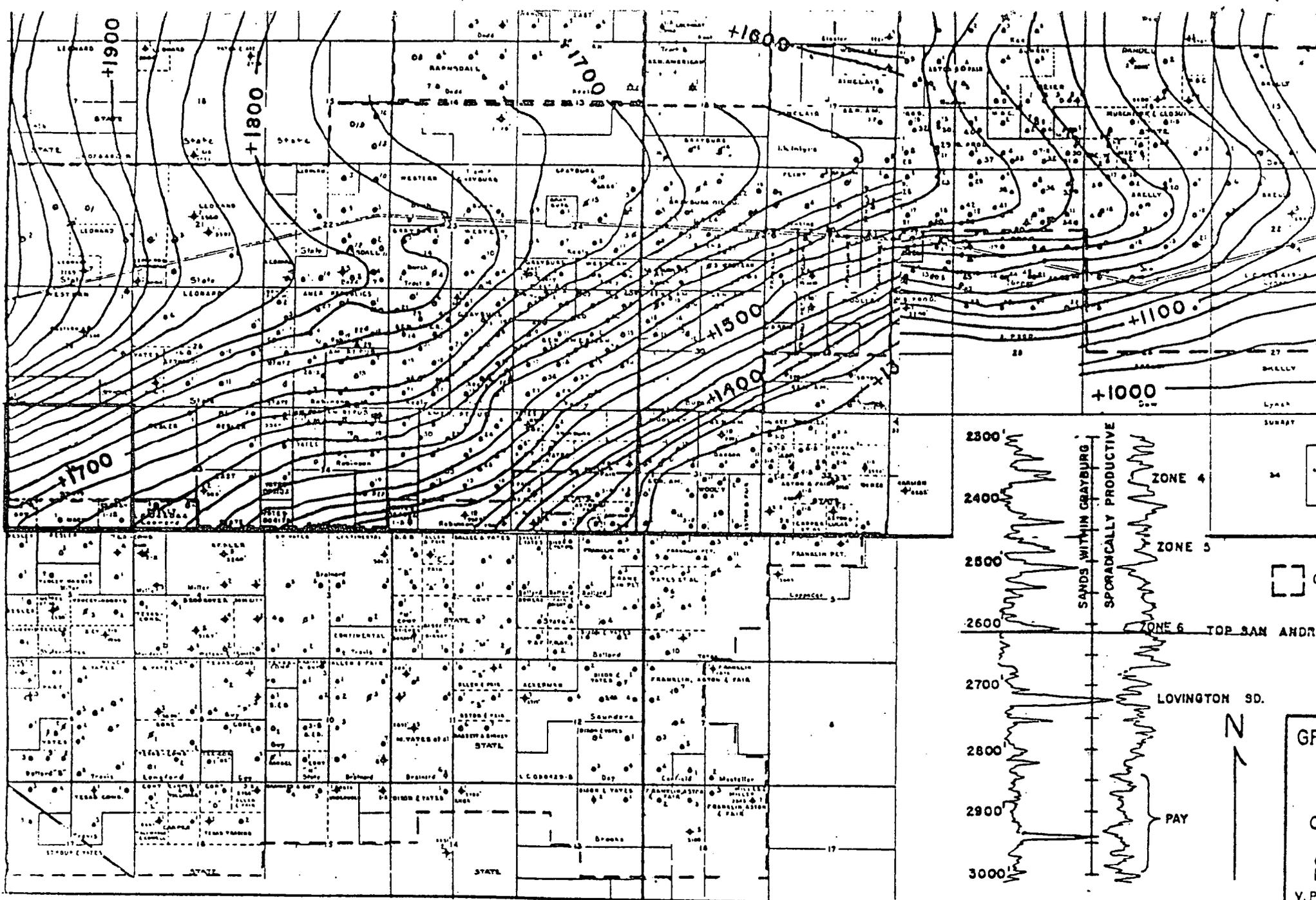
Rule 8:

- a. Old Loco Unit #13-990 FSL 990 FWL Sec. 32-T17S-R29E
Old Loco Unit #24-330 FSL 450 FWL Sec. 32-T17S-R29E
- b. #13 - 5/16/44
#24 - 11/7/81
- c. #13 - 9/44
#24 - 12/1/81
- d. None
- e. #13 - injection
#24 - 21 bbl. oil, 14 mcf gas/day
- f. NA
- g. Well #13 was drilled as a producing well, converted to injection in 1967, tried to convert back to production unsuccessfully in 1977, well is now TA. Since no production is currently obtainable from the #13 and due to the age of this well major reworking is not feasible, the new well is needed to adequately drain this reservoir.



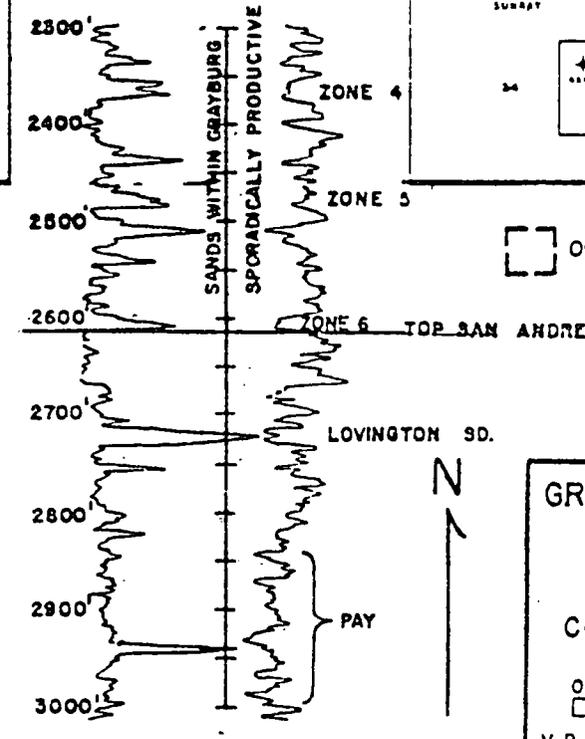
T 17 S

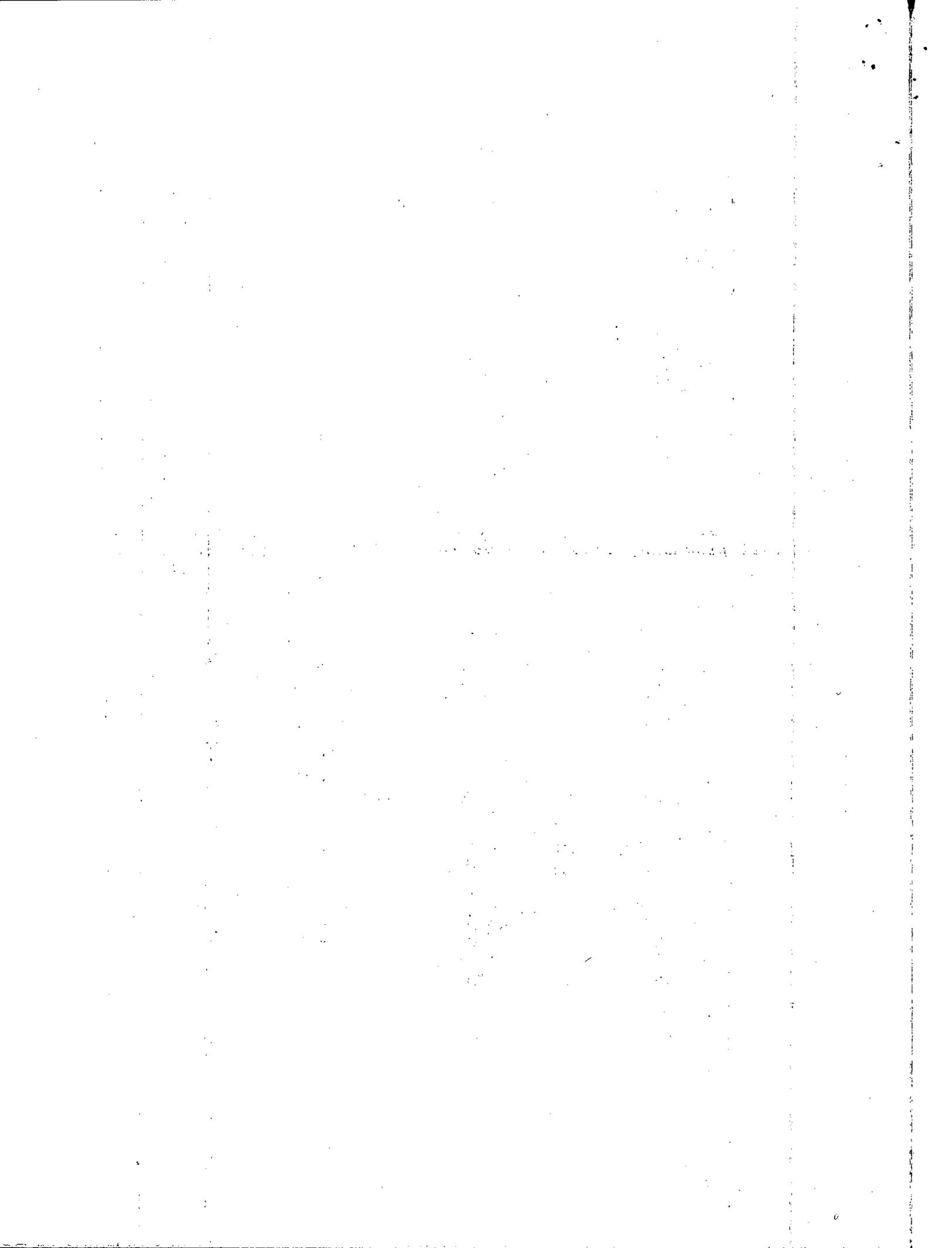
T 18 S



R 29 E

RULE # 9-A





Marbob Energy Corporation
Old Loco Unit, Well #24
Grayburg Jackson Seven Rivers Queen
Grayburg San Andres
Eddy County, New Mexico

Pertinent Engineering Data and Conclusions:

Well #24 was completed in the Grayburg Jackson pool in December 1981. This is an infill well located as per the attached plat.

Effective July 1, 1982, oil reserves recoverable will be 11,184 barrels and gas reserves recoverable will be 6,710 mcf.

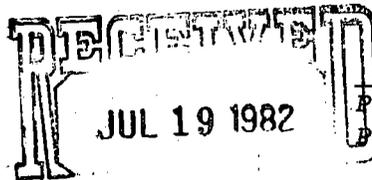
Oil reserves were calculated from the attached time/rate curve to an economic limit of approximately 1 BOPD (see table). Gas reserves were estimated using a study of the gas oil ratio performance not only on the specific well but on the pool history.

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 #24 in May 1982 was 21 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.

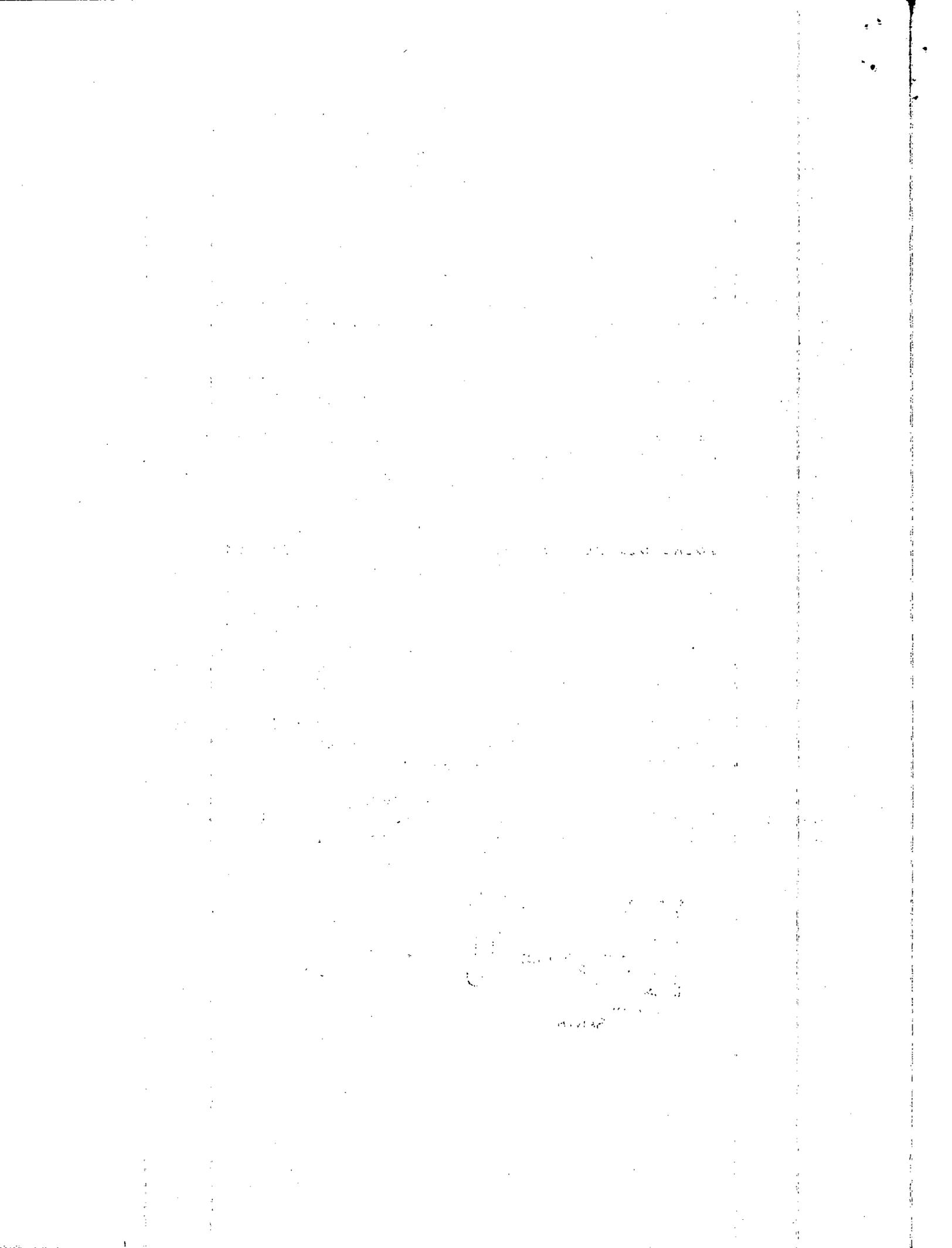


Paul G. White
Paul G. White
Petroleum Engineer

SANTA

7-15-82
Date

RULE # 9-B



Marbob Energy Corp.
Old Loco Unit, Well #24
330 FSL 450 FWL Sec. 32-T17S-R29E
Eddy County, N.M.

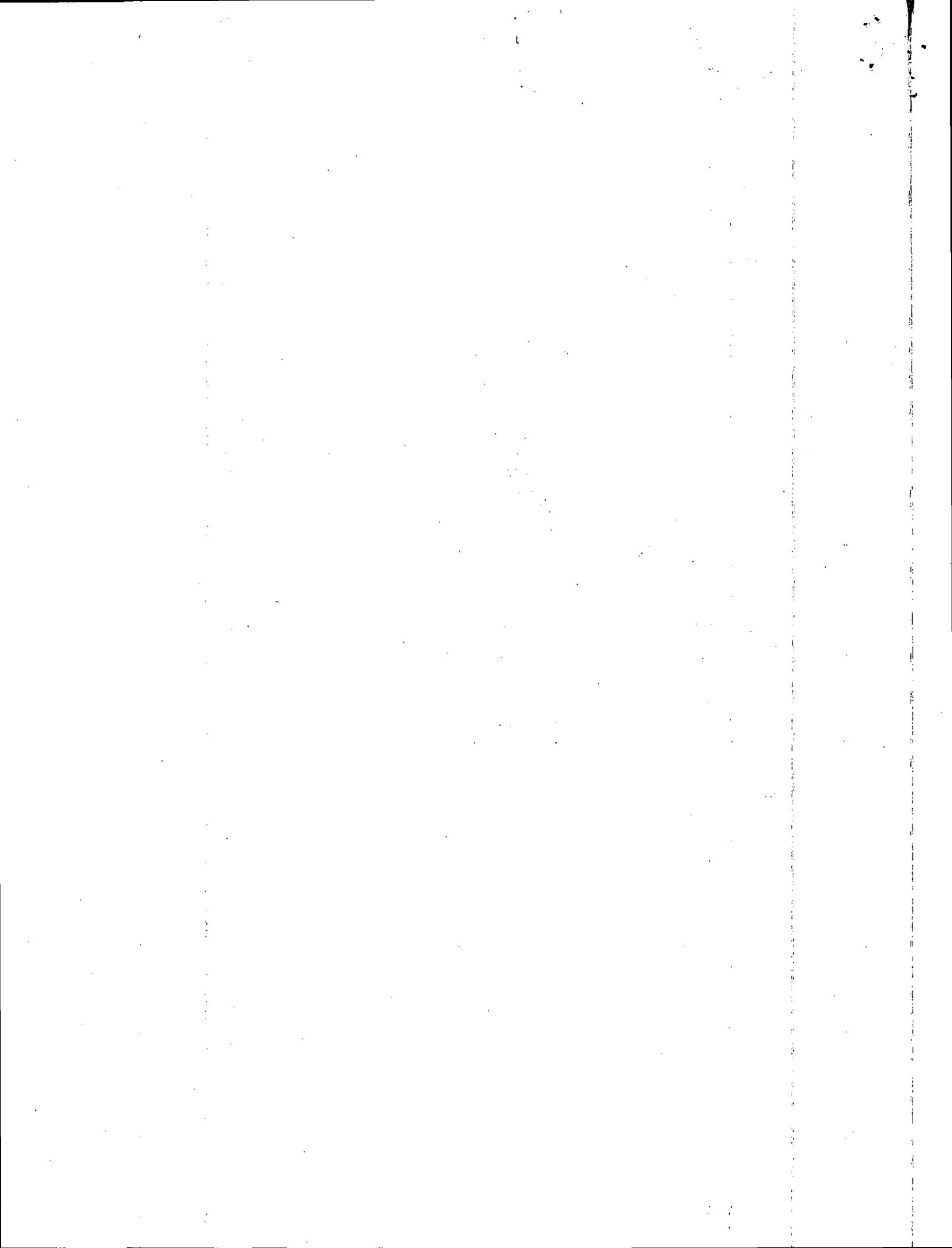
Calculation of oil reserves - refer to rate/time curves:

<u>Year</u>	<u>Gross monthly Oil - bbls:</u>	<u>Gross yearly Oil - bbls.</u>
1982 (6 mos.)	440	2,640
1983	295	3,540
1984	180	2,160
1985	125	1,500
1986	70	840
1987	42	<u>504</u>
Total oil remaining:		11,184
Cumulative to 1/1/82		<u>846</u>
Total ultimate reserves:		12,030

Gas-oil ratio average - 600 to 1

Remaining gas reserves - 6,710 mcf

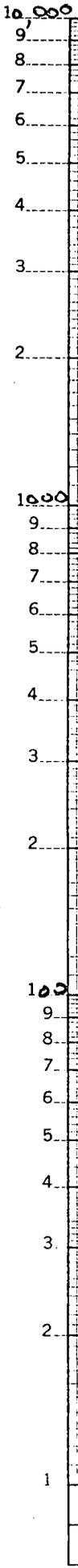
RULE # 9-B



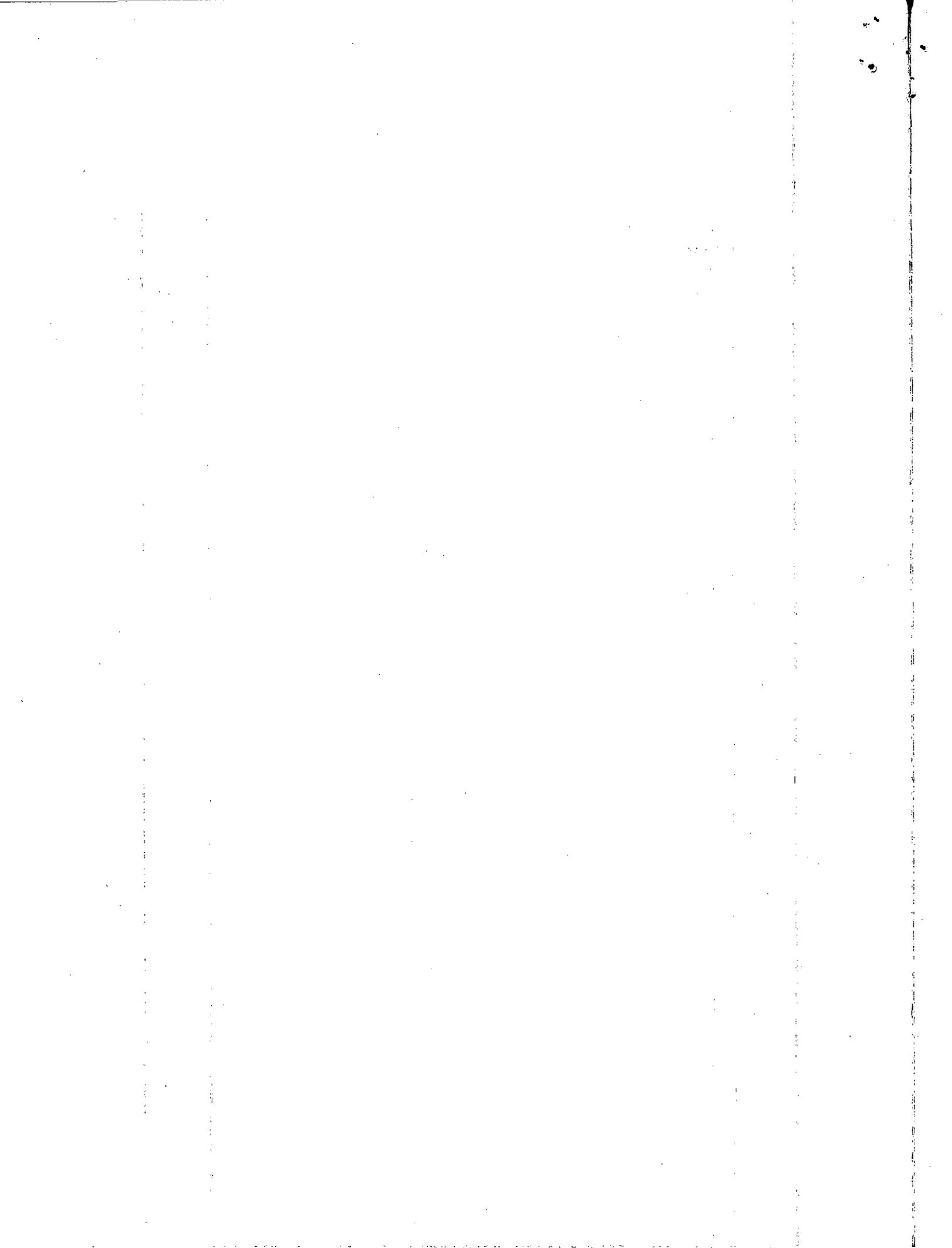
OLD LOGS UNIT
WELL NO. 24

K-2 20 YEARS BY MONTHS X 3 LOG CYCLES
KEUFFEL & ESSER CO. MADE IN U.S.A. 47 6843

oil/Bws/month



RULE #9-C(2)



Rule 11:

Notice of this infill request has been sent to Anadarko Production Co., Box 2497, Midland, Texas 79702; Yates Petroleum Corp., 207 So. 4th St., Artesia, N.M. 88210; and General American Oil Co., Box 3306, Odessa, Texas 79760, as the offset operators.

