

OIL CONSERVATION DIVISION

P. O. Box 2088

SANTA FE, NEW MEXICO

87501

ADMINISTRATIVE ORDER

NFL 74

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTINFILL 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. 17
Location: Unit 0 Sec. 32 Twp. 17-S Rng. 29-E 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 (SR-Q-G-SA) Pool, and the standard spacing unit in said pool is 40 acres.
- (4) That a 40 -acre proration unit comprising the SW/4 SE/4 of Sec. 32, Twp. 17-S, Rng. 29-E, is currently dedicated to the Old Loco Unit Well No. 15 located in Unit 0 of said section.
- (5) That this proration unit is (X) standard () nonstandard; if nonstandard, said unit was previously approved by Order No. NA.
- (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 4,149 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 20th day of May, 19 83.
DIVISION DIRECTOR

EXAMINER

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

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

ADMINISTRATIVE ORDER

NFL 74

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 Marbub Energy Corporation Well Name and No. Old Loco Unit Well No. 17
Location: Unit 0 Sec. 32 Twp. 17-S Rng. 29-E 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
(SR-Q-6-SA) Pool, and the standard spacing unit in said pool is 40 acres.

(4) That a 40-acre proration unit comprising the SW 1/4 SE 1/4
of Sec. 32, Twp. 17-S, Rng. 29-E, is currently dedicated to the Old Loco
Unit Well No. 15 located in Unit 0 of said section.

(5) That this proration unit is (☒ standard) (☐ nonstandard; if nonstandard, said unit was previously approved by Order No. NA).

(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 4,149 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____.

DIVISION DIRECTOR _____

EXAMINER _____

Request for Infill Finding on

Old Loco Unit #17

*in accordance with Administrative
Procedures amended February 8, 1980*

NO. OF COPIES RECEIVED	
DISTRIBUTION	
STATE	
NO. 8.	
NO. OFFICE	
ORATOR	✓

NEW MEXICO OIL CONSERVATION COMMISSION

RECEIVED

OCT 19 1979

O. C. C.

30-015-23042

Form C-101
Revised 1-1-65

5A. Indicate Type of Lease	
STATE <input checked="" type="checkbox"/>	FEE <input type="checkbox"/>
5. State Oil & Gas Lease No.	
B-5084	

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

Type of Work		7. Unit Agreement Name	
Type of Well		Old Loco Unit	
DRILL <input checked="" type="checkbox"/>	DEEPEN <input type="checkbox"/>	8. Firm or Lease Name	
PLUG BACK <input type="checkbox"/>		Old Loco Unit	
ALL <input checked="" type="checkbox"/>	CAS WELL <input type="checkbox"/>	9. Well No.	
SINGLE ZONE <input type="checkbox"/>	MULTIPLE ZONE <input type="checkbox"/>	17	
Name of Operator		10. Field and Pool, or Wildcat	
Marbob Energy Corporation		SA	
Address of Operator		Grbg. Jackson Queen Grbg.	
Box 304, Artesia, N.M. 88210			
Location of Well		12. County	
UNIT LETTER 0	LOCATED 330	Eddy	
FEET FROM THE South	LINE		
2310	FEET FROM THE East		
LINE OF SEC. 32	TWP. 17S		
RGE. 29E	NMPM		
11. Proposed Depth		13A. Formation	
2850'		Grayburg & Lovington	
11A. Kind & Status Plug. Bond		20. Rotary or C.L.	
Statewide active		Rotary	
21B. Drilling Contractor		22. Approx. Date Work will start	
Alta-West Drilling Co.		10/23/79	
21A. Kind & Status Plug. Bond			
3564 GL			

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'	25	

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

APPROVAL VALID
FOR 12 MONTHS
EXPIRES 1-23-80

OVER SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTION. 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.

Signature: <u>Carolyn Jones</u>		Title: <u>Secretary</u>	Date: <u>10/18/79</u>
(This space for State Use)			
Signature: <u>W. A. Givens</u>		Title: <u>SUPERVISOR, DISTRICT II</u>	Date: <u>OCT 23 1979</u>
REVISIONS OF APPROVAL, IF ANY:		DATE: <u>RULE #5</u>	

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

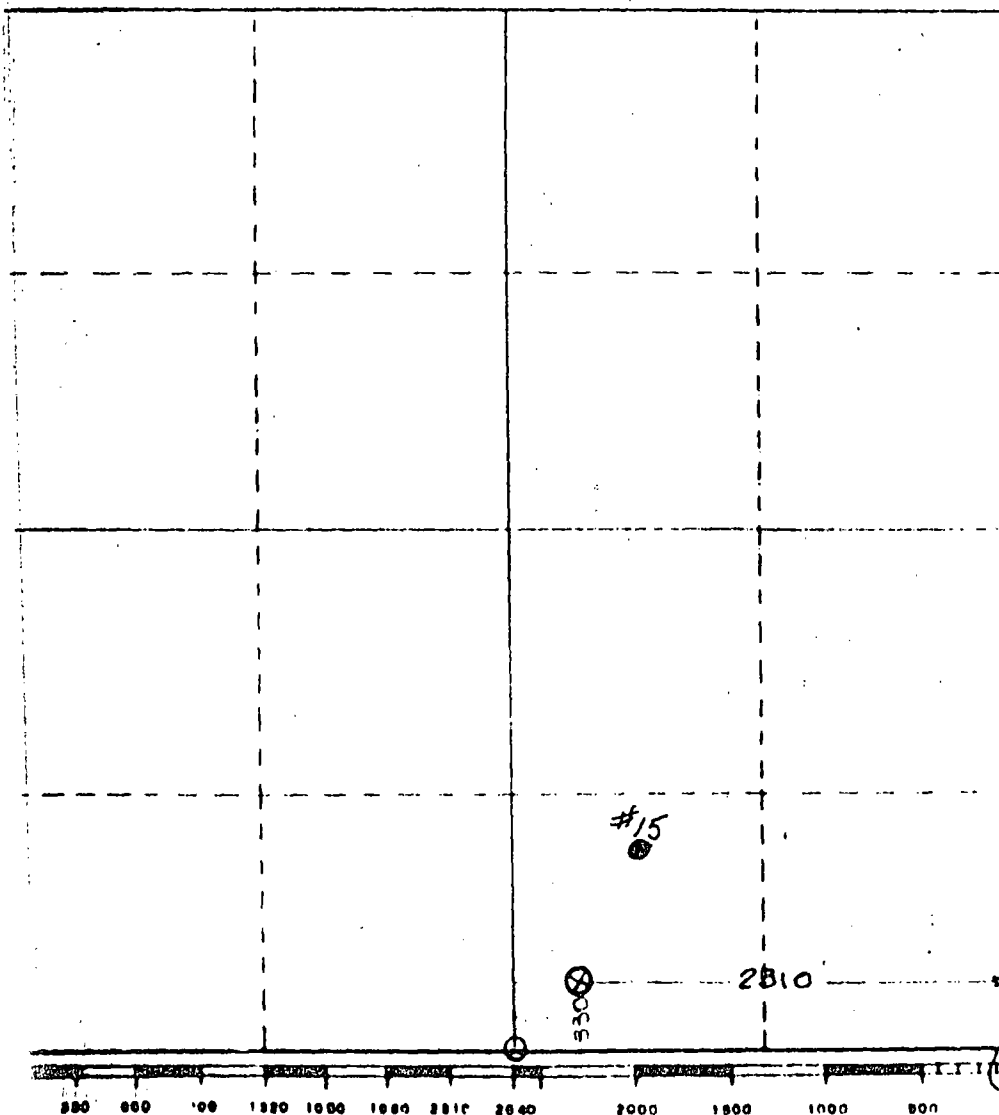
Operator MARBOB ENERGY CORPORATION		Lease OLD LOCO UNIT		Well No. 17
Unit Letter 0	Section 32	Township 17 South	Range 29 East	County EDDY
Actual Footage Location of Well: 330 feet from the South line and 2310 feet from the East line				
Ground Level Elev. 3564	Producing Formation GRAYBUCC + LIVINGSTON		Drill GRAB THICKEN QUEEN GRAB SA	Indicated Acreage 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, 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	Sec
Company	Marbob Energy
Date	10-18-79
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.	
Date Surveyed	September 25, 1979
Registered Professional Engineer and Land Surveyor	Rule #5
Signature	1559

Rule 6:

Old Loco Unit #17

Pool: Grayburg Jackson Seven Rivers Queen Grayburg San Andres

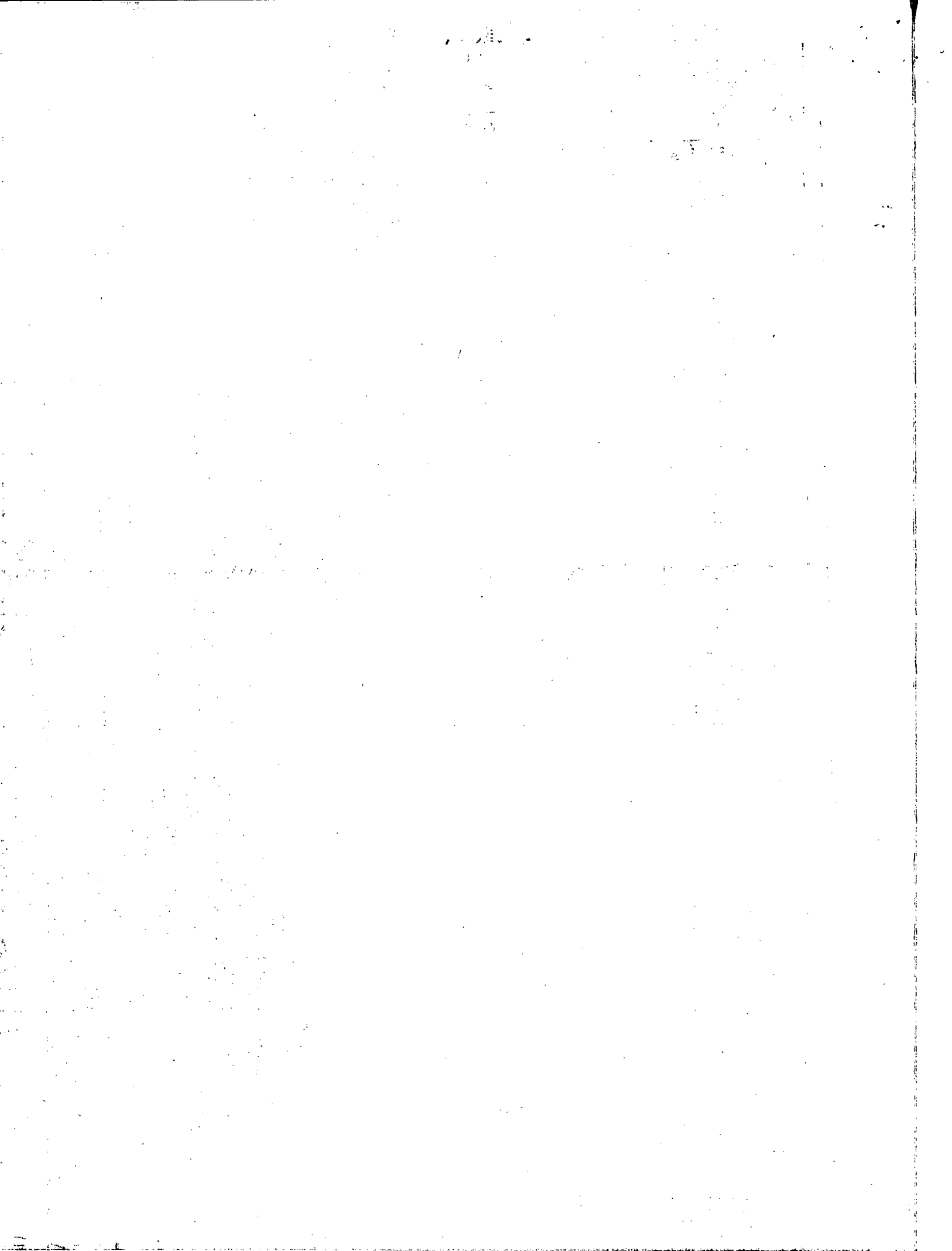
Standard spacing unit: 40 acres

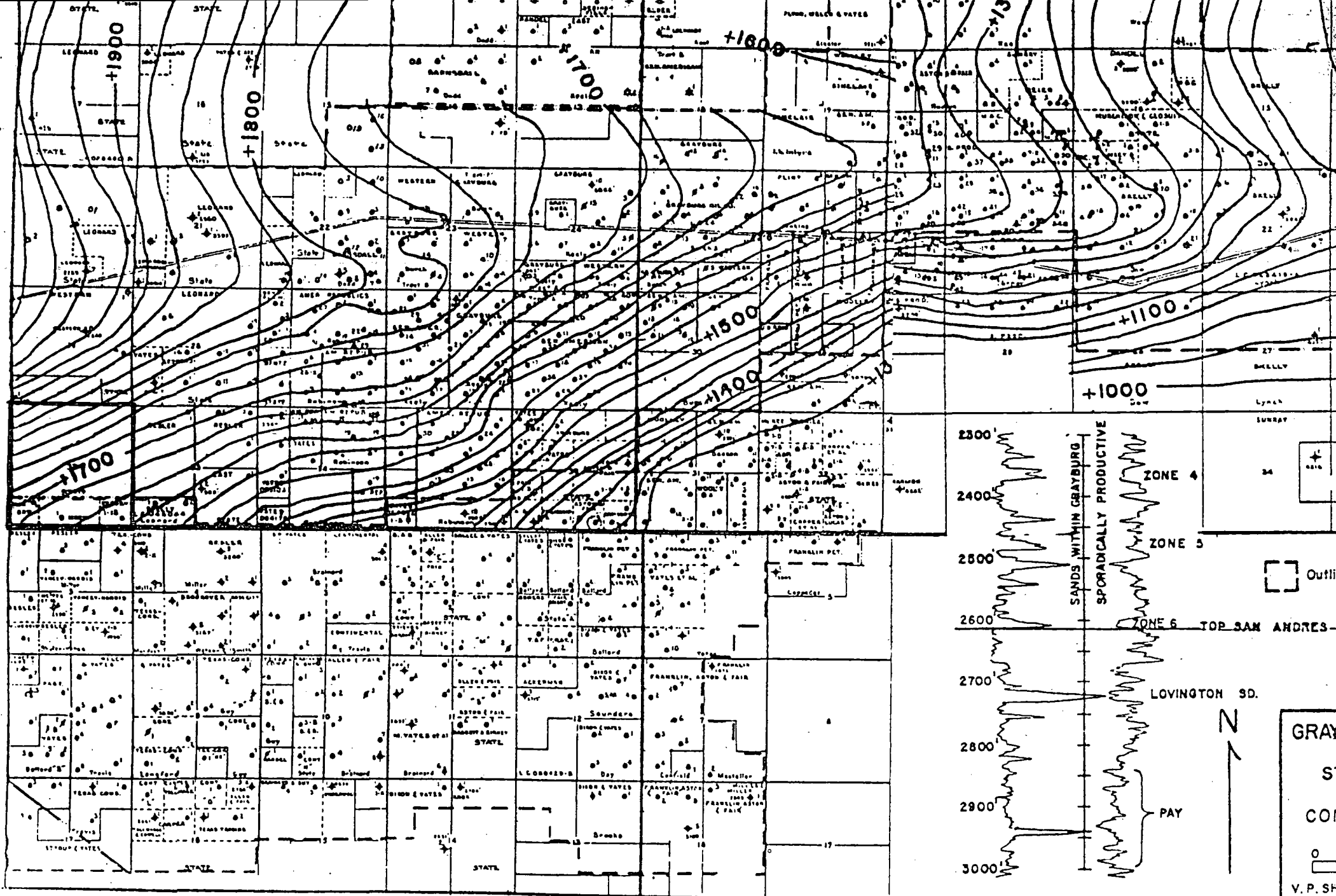
Rule 7:

NA

Rule 8:

- a. Old Loco Unit #15-990 FSL 1980 FEL Sec. 32-T17S-R29E
Old Loco Unit #17 - 330 FSL 2310 FEL Sec. 32-T17S-R29E
- b. #15 - 3/4/58
#17 - 11/5/79
- c. #15 - 4/7/58
#17 - 12/10/79
- d. None
- e. #15 - Injection
#17 - 9 bbl. oil, 5 mcf gas/day
- f. NA
- g. Well #15 was placed on injection in 1966 and needs to remain on injection for proper flooding of this unit.



T
17
ST
18
S

R 29 E

Rule # 9-A

Marbob Energy Corporation
Old Loco Unit, Well #17
Grayburg Jackson Seven Rivers Queen
Grayburg San Andres
Eddy County, New Mexico

Pertinent Engineering Data and Conclusions:

Well #17 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 8,136 barrels and gas reserves recoverable will be 4,149 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 #17 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 reservoir conditions.

Paul G. White
Petroleum Engineer

Date

Rule # 9-B

Marbob Energy Corp.
Old Loco Unit, Well #17
330 FSL 2310 FEL 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.)	240	1,440
1983 185	185	2,220
1984 130	130	1,560
1985	94	1,128
1986	66	792
1987	48	576
1988	35	420
Total oil remaining:		8,136
Cumulative to 1/1/82		14,286
Total ultimate reserves:		22,422

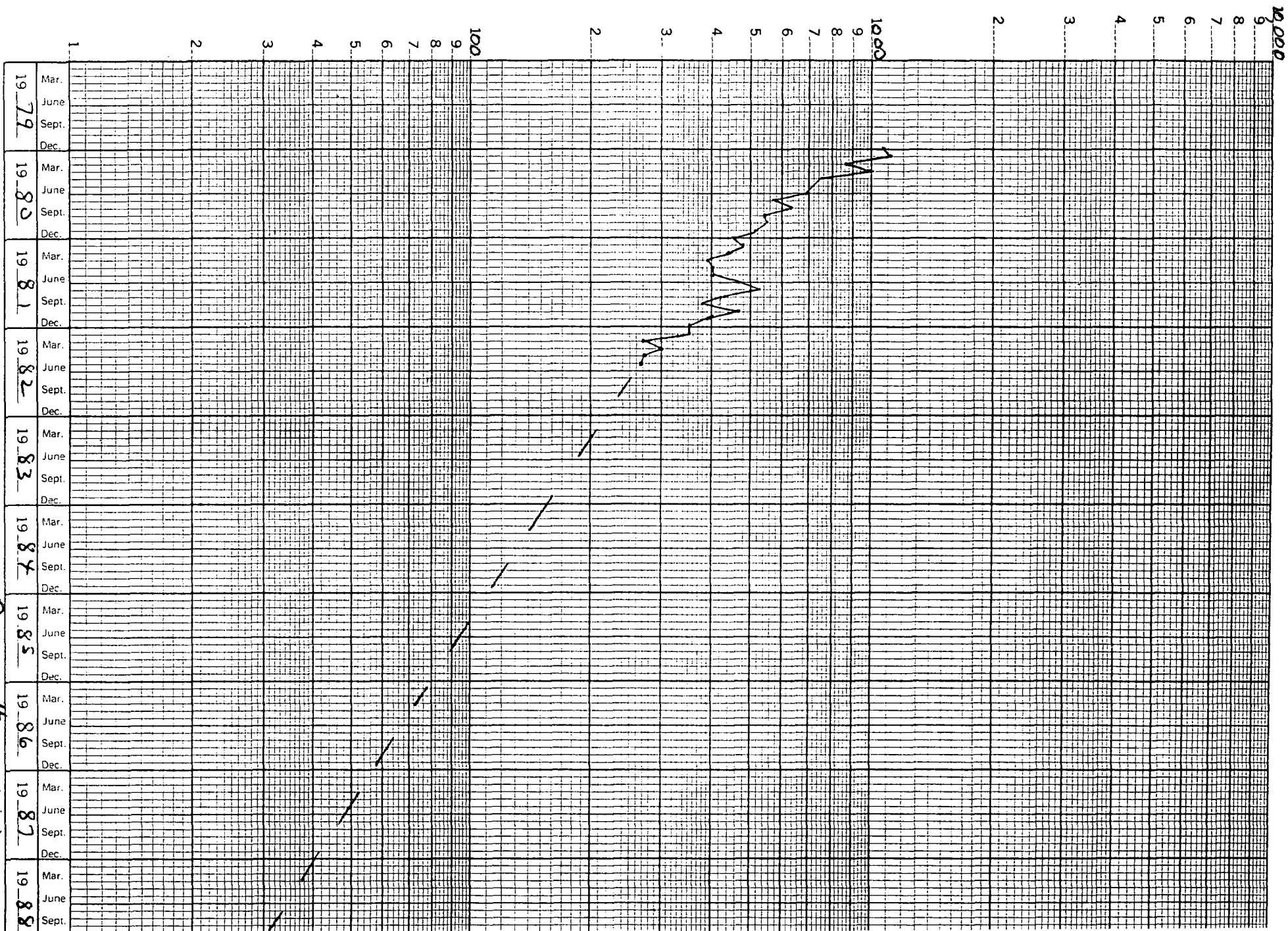
Gas-oil ratio average - 510 to 1

Remaining gas reserves - 4,149 mcf

RULE #9-B

Bbls / Oil / month

OLD LOGO UNIT
WELL NO 17



Rule #9-C(2)

Rule 11:

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

Request for Infill Finding on

Old Loco Unit #17

in accordance with Administrative
Procedures amended February 8, 1980.

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

NEW MEXICO OIL CONSERVATION COMMISSION RECEIVED

OCT 19 1979

O. C. C.

ARTESIA OFFICE

30-015-23042

Form C-101
Revised 1-1-65

5A. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
5. State Oil & Gas Lease No. B-5084
7. Unit Agreement Name Old Loco Unit
8. Firm or Lease Name Old Loco Unit
9. Well No. 17
10. Field and Pool, or Wildcat SA Grbg. Jackson Queen Grb
12. County Eddy

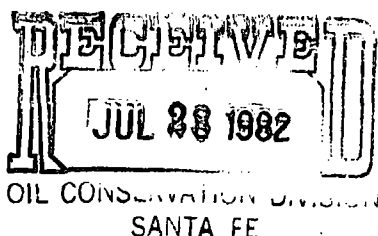
APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

a. Type of Work DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>
b. Type of Well OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>
2. Name of Operator Marbob Energy Corporation
3. Address of Operator Box 304, Artesia, N.M. 88210
4. Location of Well UNIT LETTER 0 LOCATED 330 FEET FROM THE South LINE AND 2310 FEET FROM THE East LINE OF SEC. 32 TWP. 17S RGE. 29E NMPM

19. Proposed Depth 2850'	19A. Formation Grayburg & Lovington	20. Rotary or C.T. Rotary
21. Elevations (Show whether D.F., R.I., etc.) 3564 GL	21A. Kind & Status Plug. Bond Statewide active	21B. Drilling Contractor Alta-West Drilling Co.
		22. Approx. Date Work will start 10/23/79

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 formation. We do not anticipate gas at these depths & will not set up a blowout preventer program at this time.



APPROVAL VALID
FOR 90 DAYS UNLESS
DRILLING IS FINISHED,
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.

Signed Carolyn Cross Title Secretary Date 10/18/79

(This space for State Use)

APPROVED BY W. A. Gressitt TITLE SUPERVISOR, DISTRICT 11 DATE OCT 23 1979

CONDITIONS OF APPROVAL, IF ANY:

RULE #5

1941
JAN 10
1941

1941
JAN 10
1941

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

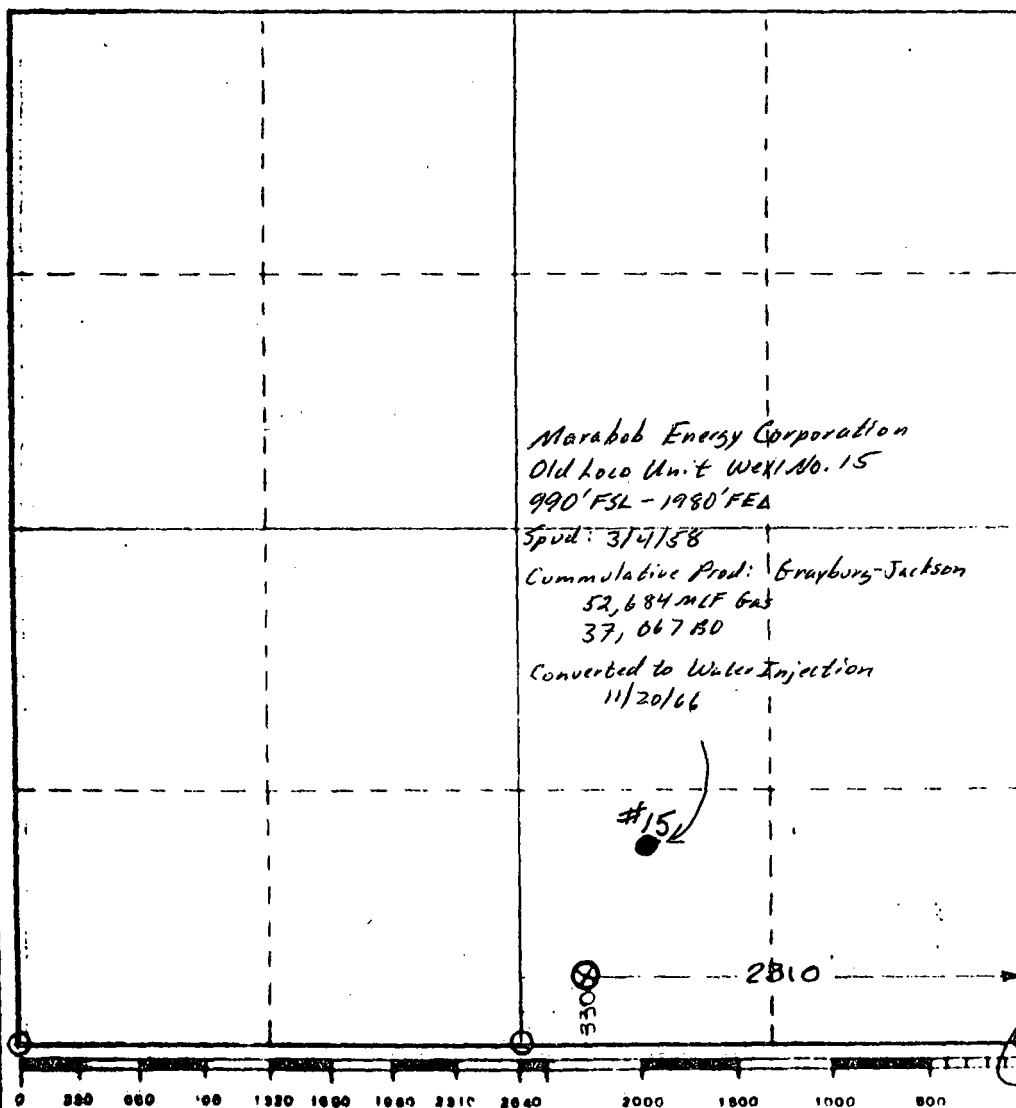
Operator MARBOB ENERGY CORPORATION			Lease OLD LOCO UNIT		Well No. 17
Unit Letter 0	Section 32	Township 17 South	Range 29 East	County EDDY	
Actual Footage Location of Well: 330 feet from the South line and 2310 feet from the East line					
Ground Level Elev. 3564	Producing Formation GRAYBURG + LOVINGTON		Depth GRAB JACKSON QUEEN CREEK SA		Dedicated Acreage 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, 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 **Sec**
Company **Marabob Energy**
Date **10-18-79**

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.

Date Surveyed
September 25, 1979
Registered Professional Engineer
and/or Land Surveyor
Shu W. Shuan
Certificate No. **1559**

RULE #5

2000
1/2

Rule 6:

Old Loco Unit #17

Pool: Grayburg Jackson Seven Rivers Queen Grayburg San Andres

Standard spacing unit: 40 acres

Rule 7:

NA

Rule 8:

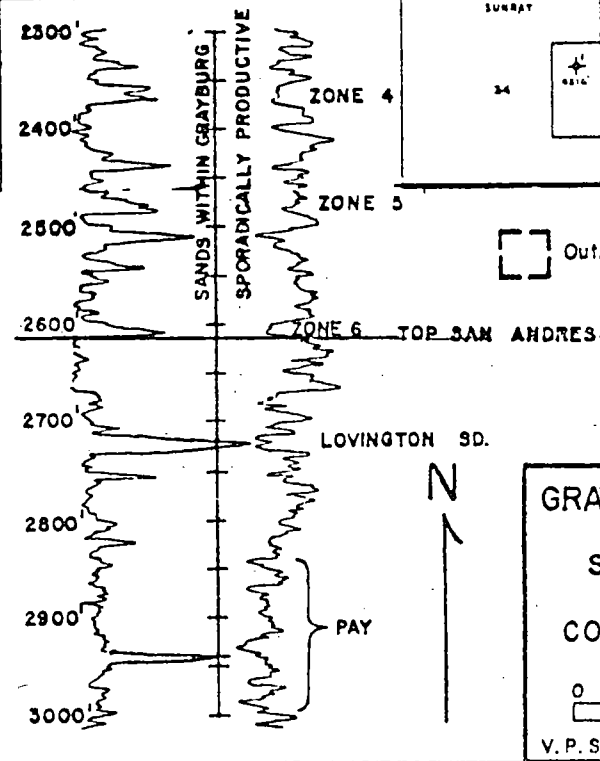
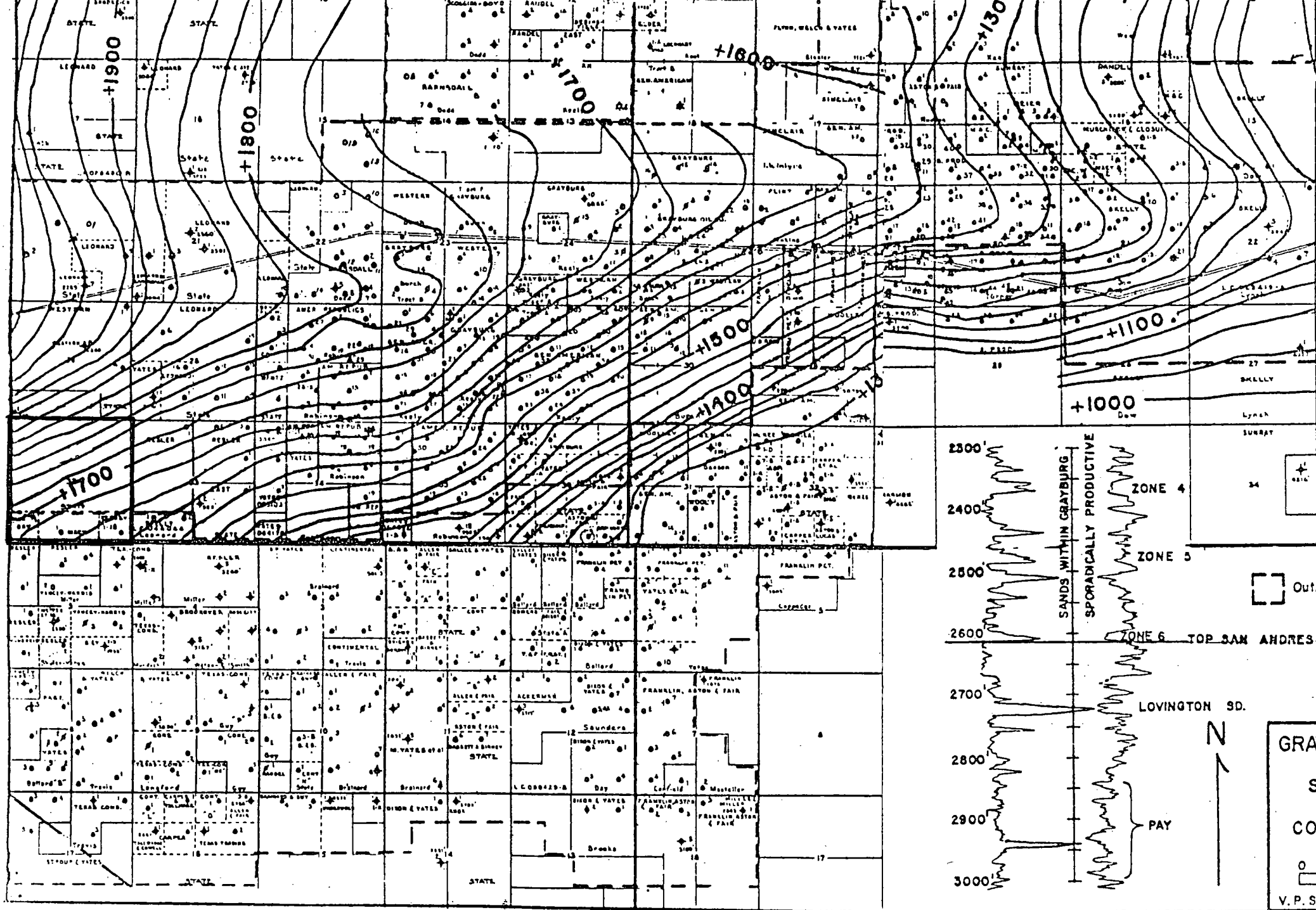
- a. Old Loco Unit #15-990 FSL 1980 FEL Sec. 32-T17S-R29E
Old Loco Unit #17 - 330 FSL 2310 FEL Sec. 32-T17S-R29E
- b. #15 - 3/4/58
#17 - 11/5/79
- c. #15 - 4/7/58
#17 - 12/10/79
- d. None
- e. #15 - Injection
#17 - 9 bbl. oil, 5 mcf gas/day
- f. NA
- g. Well #15 was placed on injection in 1966 and needs to remain on injection for proper flooding of this unit.

T 17 S

T 18 S

R 29 E

RULE # 9-A





Marbob Energy Corporation
Old Loco Unit, Well #17
Grayburg Jackson Seven Rivers Queen
Grayburg San Andres
Eddy County, New Mexico

Pertinent Engineering Data and Conclusions:

Well #17 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 8,136 barrels and gas reserves recoverable will be 4,149 mcf.

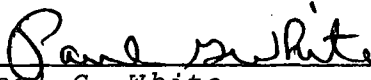
Oil reserves were calculated from the attached time/rate curve to an economic limit of approximately 1 BOPD (see table). Gas reserves were estimated using a study of the gas oil ratio performance not only on the specific well but on the pool history.

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 #17 in May 1982 was 9 BOPD. In 1970 the average daily producing rate per well on this property was 7 BOPD.

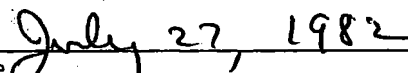
Due to extensive waterflooding in the area there has been significant oil migration into areas between injection wells or between injection and producing wells.

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 reservoir conditions.



Paul G. White
Petroleum Engineer



Date

RULE # 9-B

Marbob Energy Corp.
Old Loco Unit, Well #17
330 FSL 2310 FEL 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.)	240	1,440
1983 185	185	2,220
1984 130	130	1,560
1985	94	1,128
1986	66	792
1987	48	576
1988	35	420
Total oil remaining:		8,136
Cumulative to 1/1/82		14,286
Total ultimate reserves:		22,422

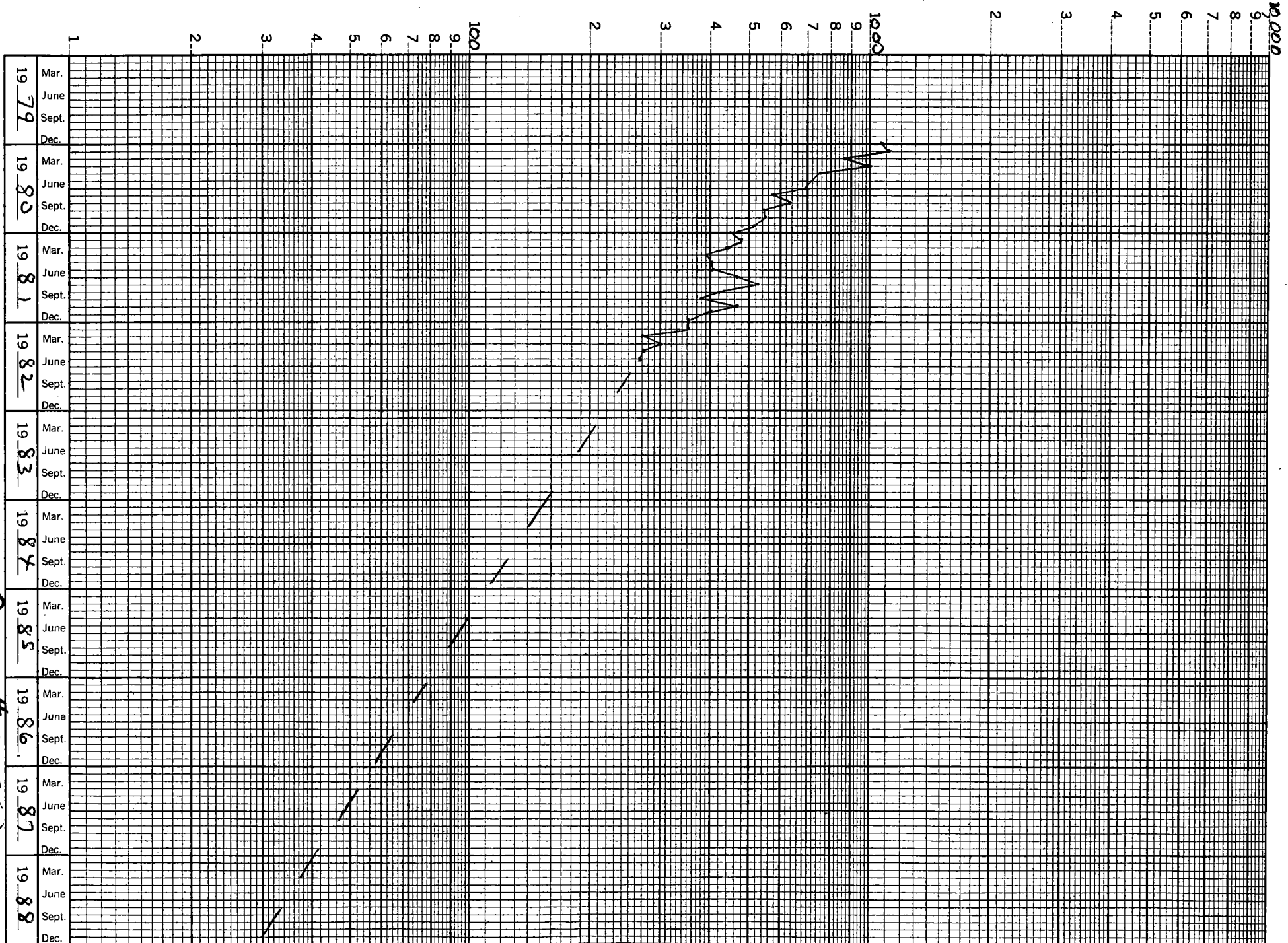
Gas-oil ratio average - 510 to 1

Remaining gas reserves - 4,149 mcf

RULE #9-B

Bbls / Oil / Month

OLD LOGO UNIT
WELL NO 17



RULE #9-2(a)

Rule 11:

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