	20 Us work Loop	IL SUIDINATIVE ORDER
STATE OF NEW MEXICO	SANTA FE, NEW MEXICO	· · · · · · · · · · · · · · · · · · ·
ENERGY AND MINERALS DEPARTMENT	87501	NFL 63

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 _	Marbo	b Ene	rgy C	orpora	ation	 Well Nam	ne and No.	Old I	Loco Unit V	Well No.	20	
Location:	_Unit_	P	Sec.	32	_Twp1		29-е	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) T	hat the	e well f	for whi	ich a find	ling is so	ught i	s con	pleted in	the	Gray	burg	Jackson		IN-
rbg-SI	A)	Pool	, and t	the standa	ard spacin	g unit	in s	aid pool :	is	40				acres.
(4) T	hat a _	40			proration		compr	ising the	5	E/4 S	E/4			
of Sec			rp	17-S	Rng. 29-1	E	, is	currently	dedi	cated	to th	e Old	Loco	Unit
Well	no. 16	<u></u>		loca	ated in Un	it P		of said	d sec	tion.	•			

(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 3,508 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 2	Ath day of, 19,
•	
	he tames
	DIVISION DIRECTOR EXAMINER

Received: 7/19/82
OIL CONSERVATION DIVISION Surface Parte: Today
P. O. Box 2088 ADMINISTRATIVE ORDER
STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT SANTA FE, NEW MEXICO 87501
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
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Operator Marbob Energy Corporation Well Name and No. Old Low Unit Well No. 20
Location: Unit <u>P</u> Sec. <u>32</u> Twp. <u>175</u> Rng. <u>29E</u> Cty. <u>Eddy</u>
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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 Gravburg Jackson (SR-Qn
(rrbg - 5A) Pool, and the standard spacing unit in said pool is 40 acres.
(4) That a <u>40</u> -acre protation unit comprising the $5E/4$ $5E/4$
of Sec. 32, Twp. 325-5, Rng. 29E, is currently dedicated to the Old Loco Unit
Well No. 16 located in Unit 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 <u>3,5608</u> 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 thisday of, 19
CC-OLD Artena NMOTFEC Holls DIVISION DIRECTOR EXAMINER
NMOTEC Holls DIVISION DIRECTOR EXAMINER

Request for Infill Finding on

Old Loco Unit #20

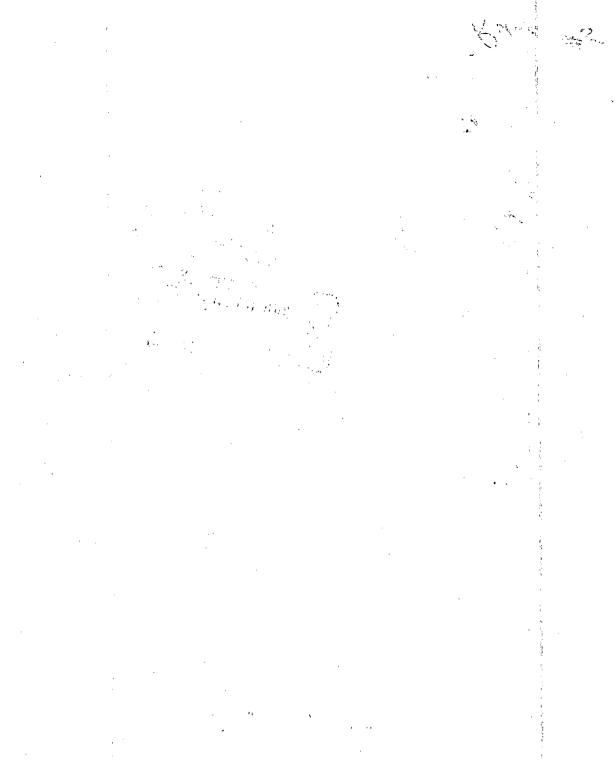
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in accordance with Administrative Procedures amended February 8, 1980

P- 32-175-29E Eddy Co.

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TIVE ZONE. GIVE BLOWOUT PREVENT	ER PROGRAM,	IF ANY.				·	·····	
I hereby certify that the informati	on above is t	rue and com	plete to the Le nt of m	y knowledge and b	ellef.			
Signed Carolyn	Ani	6	Tiele	Secretary			Date	2/8/80
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WELL LOCATION AND ACREAGE DEDICATION PLAT

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In. Type of Work			7. Unit A pre-ment llang
DRILL	DEEPEN	PLUG BACK	Old Loco Unit
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	-HCR 81		Old Loco Unit
To Marie of Cpreator			9. Well Re.
Marbob Energy Corp.			20
3. Addiese of Operator			10. Field on t Feel, or Grbg" SA
P.O. Box 304, Artes	ia, N.M. 88210		Grbg Jackson SR Queen
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	<u>, ((((((((((((())))))))))))))))))))))))</u>	Frojesed Depth ISA. Fernation Grayburg	E LANDERY OF CATA
		2850' Lovingto	
21. Elevations (Show whether DE, KI, etc.)	• •	B. Drilling Contractor	22. Approx. Date Work will start
3561.5' GR	Statewide Active A	lta-West Drilling Co.	2/11/80
23.	PROPOSED CASING AND C	CEMENT PROGRAM	,
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SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
11"	8 5/8"	20#	250'	Circ.	
7 7/8"	4 1/2"	10.50#	2850'	225	
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We propose to drill to approximately 2850' to test Grayburg & Lovington formations. We do not anticipate gas at these depths & will not set up a blowout preventer program at this time.

41 JUL 19 1982 SANTA FE

APPROVAL VIND FOR 90 DAYS UNLESS DRILLING COMMENCED,

EXPIRES 5-11-90

PACE DESCRIBE PROPOSED PROGRAM 0.

l hereby a	entity that the information	above is true and c	omplete to the l	boot of my knowledge and bollof.		
Signed	Carolyn	Oris_	Title	Secretary	Date	2/8/80
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WELL LOCATION AND ACREAGE DEDICATION PLAT

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Rule 6:

Old Loco Unit #20

Pool: Grayburg Jackson Seven Rivers Queen Grayburg San Andres Standard spacing unit: 40 acres

Rule 7:

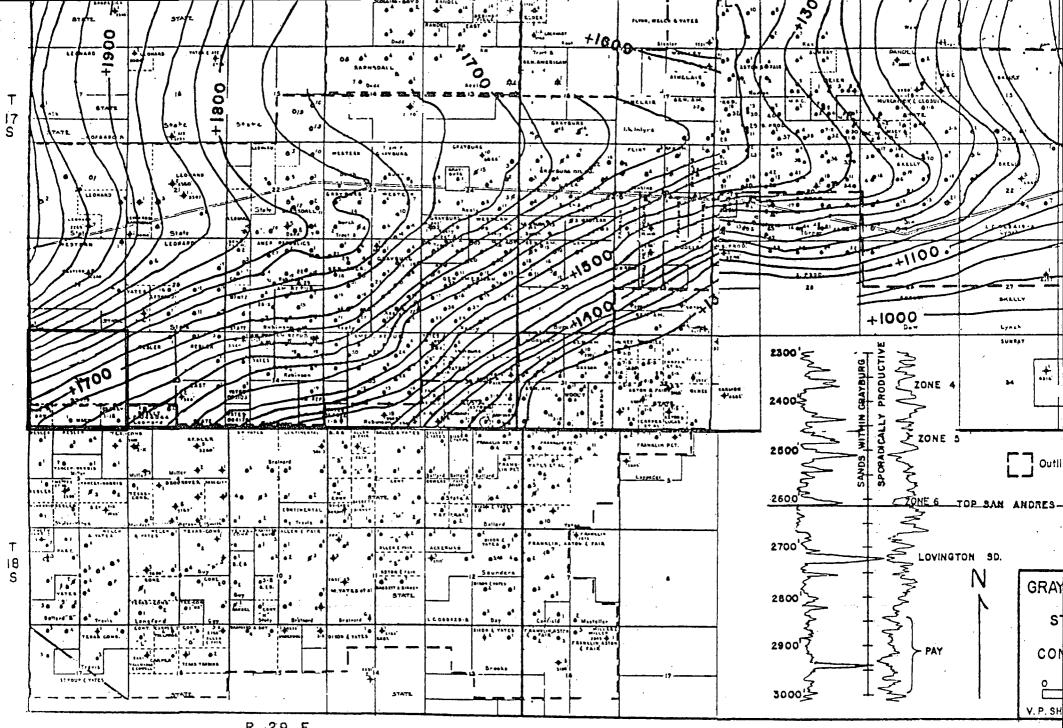
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Sec. 1. National Action

Rule 8:

a. Old Loco Unit #16 - 330 FSL 330 FEL Sec. 32-T17S-R29E Old Loco Unit #20 - 990 FSL 990 FEL Sec. 32-T17S-R29E
b. #16 - 10/6/52 #20 - 2/13/80
c. #16 - 1/26/53 #20 - 3/15/80
d. None

- e. #16 3 bbl. oil, 1/3 mcf gas/day
 #20 12 bbl. oil, 5 mcf gas/day
 f. NA
- g. Well #16 is producing very little gas. The migration of oil and gas through waterflooding coupled with new reservoir condition type production rates on the new well make the drilling of a new well necessary to drain the reservoir.



R 29 E R46E # 9-A

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100 mm

Marbob Energy Corporation Old Loco Unit, Well #20 Grayburg Jackson Seven Rivers Queen Grayburg San Andres Eddy County, New Mexico

Pertinent Engineering Data and Conclusions:

Well #20 was completed in the Grayburg Jackson pool in March 1980. This is an infill well located as per the attached plat.

Effective July 1, 1982, oil reserves recoverable will be 11,694 barrels and gas reserves recoverable will be 3,508 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 #20 in May 1982 was 12 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.

111 1 9 1982 SANIA 1

Paul G. White

Petroleum Engineer

7-15-82

RULE # 9-B

Marbob Energy Corp. Old Loco Unit, Well #20 990 FSL 990 FEL Sec. 32-T17S-R29E Eddy County, N.M.

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

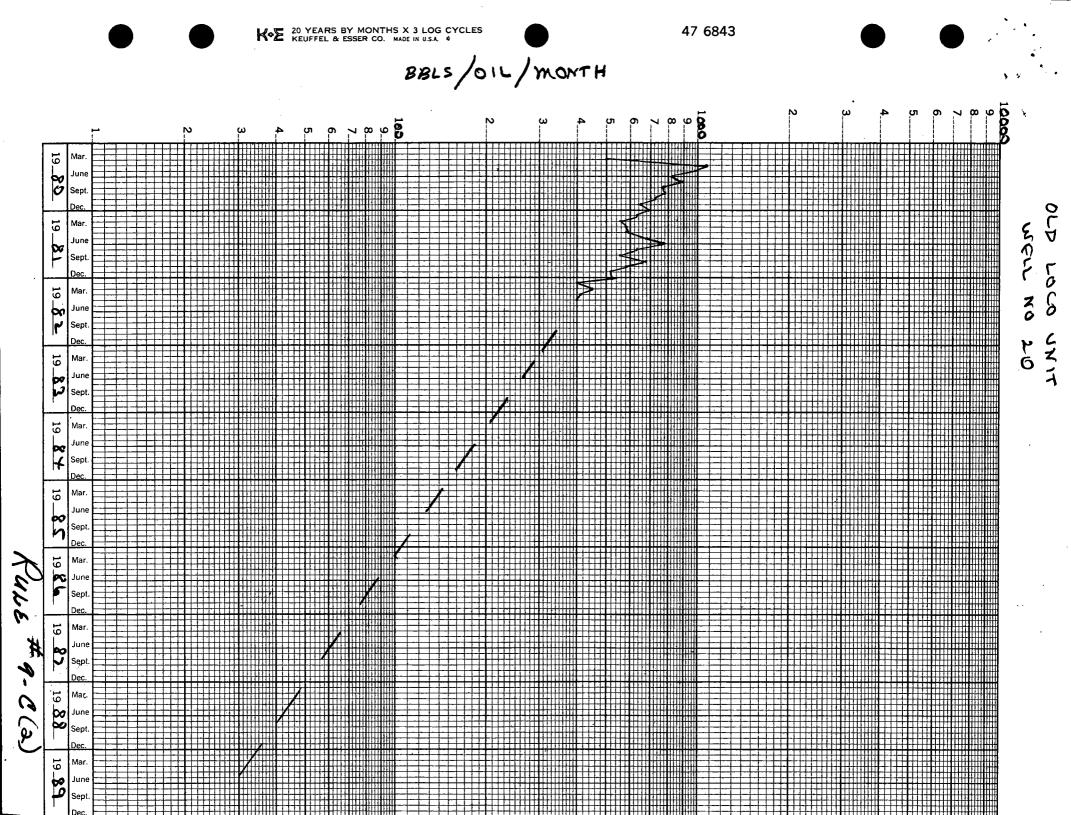
And Andrews

Year		Gross monthly Oil - bbls.	Gross Yearly Oil - bbls.
1982	(6 mos.	345	2,070
1983		275	3,300
1984	• •	180	2,160
1985		128	1,536
1986		87	1,044
1987		60	720
1988		42	504
1989		30	360
	Total oil	remaining:	11,694
	Cumulative	e to 1/1/82	15,207
۱	Total ult:	imate reserves:	26,901

Gas-oil ratio average - 300 to 1

Remaining gas reserves - 3,508 mcf.

Rule #9-B



Rule ll:

Notice of this infill request has been sent to Anādarko Production Co., Box 2497, Midland, Texas 79702; Depco, Inc., 1000 Petroleum Bldg., Denver, Colorado 80202; and Amoco Production Co., Box 3092, Houston, Texas 77001, as the offset operators.



Request for Infill Finding on

Old Loco Unit #20

JUL 19 1982

in accordance with Administrative Procedures amended February 8, 1980

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Marbob Energy Co Harbob Cheritar P.O. Box 304, Ar pocation of Well	tesia, N.M. 88210		G	20 D. Field and Loci, of Grög' SA rbg Jackson SR Queen
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				Eddy
Llovationu (Skow & Arther Hr, K), c 3561.5' GR	(c.) 21A. Rind & Status Flug. Bond Statewide Active	2850 ¹ 2850 ¹ 21H. Drilling Contracto Alta-West Dri		

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
8 5/8"	20#	250'	Circ.	
4 1/2"	10.500	2850'	225	
	8 5/8"	8 5/8'' 20 #	<u>8 5/8"</u> 20 # 250'	

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

JUL 19 1982

EOR 90 DAYS UNLESS ; DRILLING COMMENDED,

EXPIRES 5-11-90

y certify that the information above is true and	l complete to the L	ere of my hypelage and bellef.	
Carolyn Oris	Title	Secretary	Date 2/8/80
(This space for State Use)	<u>i ta anti area e a area i</u>		
AVED BY W. a. Susce		SUPERVISOR, DISTRICT II	FEB 1 1 1380

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				Eddy
	21A. Eind & Statys Flug. Bond Statewide Active	2850' 2850' 218. Drilling Contractor Alta-West Dril		Rotary 22. Approx. Date Work will start 2/11/80

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"	20#	250'	Circ.	
7 7/8"	4 1/2"	10.50#	2850'	225	
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We propose to drill to approximately 2850' to test Grayburg & Lovington formations. We do not anticipate gas at these depths & will not set up a blowout preventer program at this time.

JUL 19 OIL CONSERVATION DIVISION SANTA FE

APPROVAL MAUD FOR 90 DAYS UNLESS (DRILLING COMMENCED,

5-11-80 EXPIRES .

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Rule 6:

Old Loco Unit #20

Pool: Grayburg Jackson Seven Rivers Queen Grayburg San Andres Standard spacing unit: 40 acres

Rule 7:

NA

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Rule 8:

а.	Old Loco Unit #16 - 330 FSL 330 FEL Sec. 32-T17S-R29E Old Loco Unit #20 - 990 FSL 990 FEL Sec. 32-T17S-R29E
b.	#16 - 10/6/52 #20 - 2/13/80
с.	#16 - 1/26/53 #20 - 3/15/80
	None
е.	#16 - 3 bbl. oil, 1/3 mcf gas/day #20 - 12 bbl. oil, 5 mcf gas/day
f.	NA
g.	Well #16 is producing very little gas. The migration of oil and gas through waterflooding coupled with new reservoir condition type production rates on the new

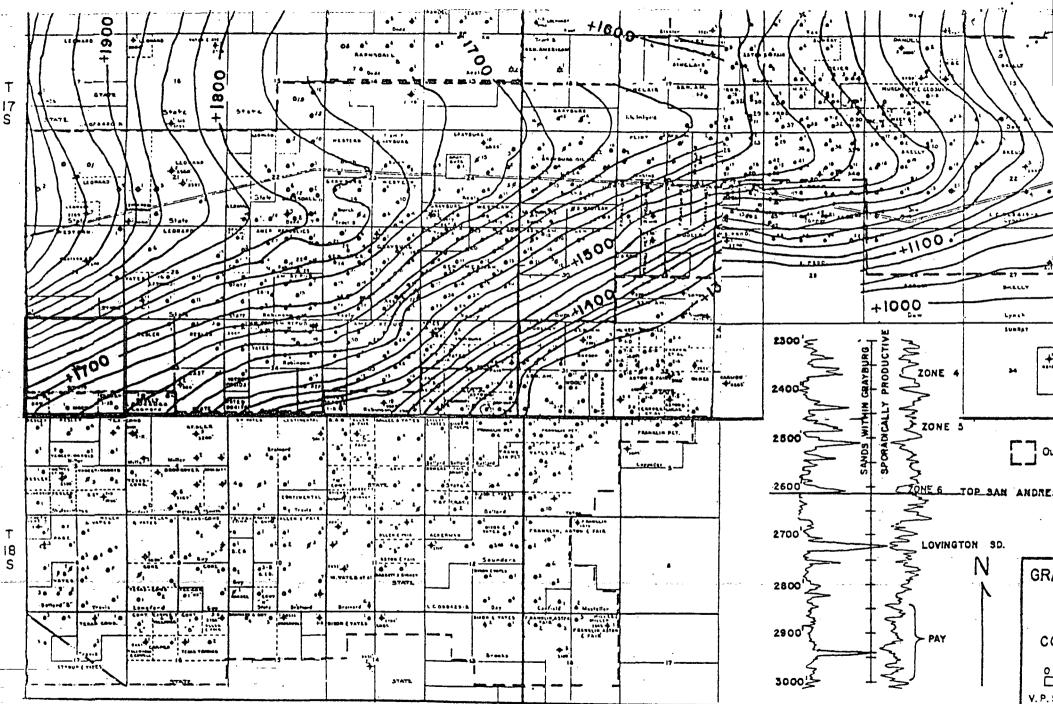
reservoir condition type production rates on the new well make the drilling of a new well necessary to drain the reservoir.

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R 29:E R4LE # 9-A

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Marbob Energy Corporation Old Loco Unit, Well #20 Grayburg Jackson Seven Rivers Queen Grayburg San Andres Eddy County, New Mexico

Pertinent Engineering Data and Conclusions:

Well #20 was completed in the Grayburg Jackson pool in March 1980. This is an infill well located as per the attached plat.

Effective July 1, 1982, oil reserves recoverable will be 11,694 barrels and gas reserves recoverable will be 3,508 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 #20 in May 1982 was 12 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.

JUL 19 1982 OIL CONSERVATION SANTA FE UNISION

Paul G. White

Petroleum Engineer

7-15-82

Date

RULE #9-B

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.Marbob Energy Corp. Old Loco Unit, Well #20 990 FSL 990 FEL Sec. 32-T17S-R29E Eddy County, N.M.

Calculation of oil reserves - refer to rate/time curve: 12.1 •1.

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Vorn		Gross monthly	Gross Yearly
Year		<u>Oil - bbls.</u>	<u>Oil - bbls.</u>
1982 (6 mos.	245	
•	•	345	2,070
1983		275	3,300
1984		180	2,160
1985		128	1,536
1986		87	1,044
1987		60	720
1988		42	504
1989		30	360
	•		, ; - (;
	Total oil :	remaining:	11,694
	Cumulative	to 1/1/82	15,207
1	Total ultin	nate reserves:	26,901

Gas-oil ratio average - 300 to 1 Remaining gas reserves - 3,508 mcf.

RULE #9-B

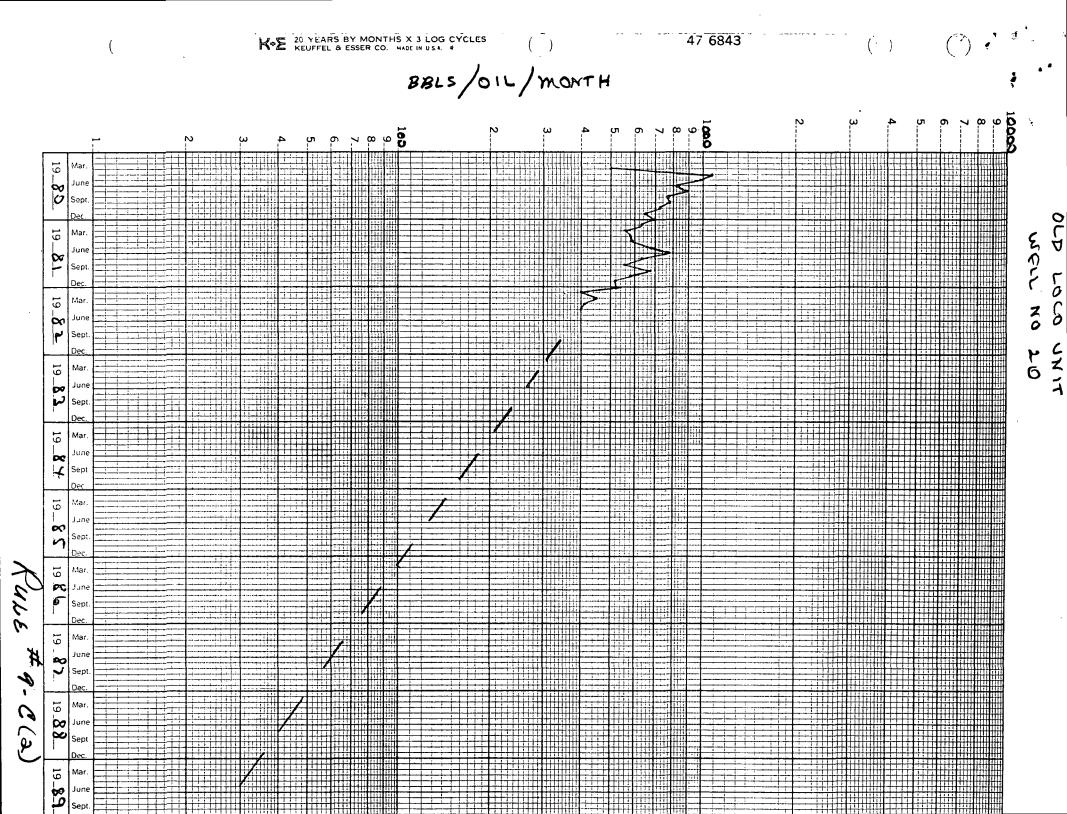
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Rule 11:

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Notice of this infill request has been sent to Anādarko Production Co., Box 2497, Midland, Texas 79702; Depco, Inc., 1000 Petroleum Bldg., Denver, Colorado 80202; and Amoco Production Co., Box 3092, Houston, Texas 77001, as the offset operators.

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