

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. West Artesia Grayburg Unit, Tr. 5 #22
Location: Unit L Sec. 8 Twp. 18S Rng. 28E 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 Artesia Queen Brayburg San Andres Pool, and the standard spacing unit in said pool is 40 acres.
- (4) That a 40 -acre proration unit comprising the NW/4 SW/4 of Sec. 8, Twp. 18S, Rng. 28E, is currently dedicated to the West Artesia Grayburg Tr. 5 Well #12 located in Unit L of said section.
- (5) That this proration unit is standard () nonstandard; if nonstandard, said unit was previously approved by Order No. .
- (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 12,823 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 21st day of May, 1982.

DIVISION DIRECTOR _____ EXAMINER _____

Marbob Energy Corporation

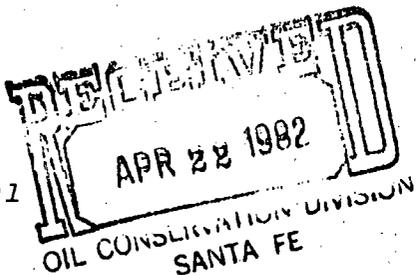
P. O. DRAWER 217
ARTESIA, NEW MEXICO 88210

April 20, 1982

— OFFICE PHONE —
(505) 748-3303
(505) 746-2422

— NIGHT PHONES —
(505) 746-6197
(505) 746-6500

Mr. Michael Stogner
Oil Conservation Div.
P.O. Box 2088
Santa Fe, N.M. 87501



Dear Mike:

We are enclosing three infill finding requests on The West Artesia Grayburg Unit #22, 24, and 25. We feel these are in order but if there are questions, please let us know. Thank you.

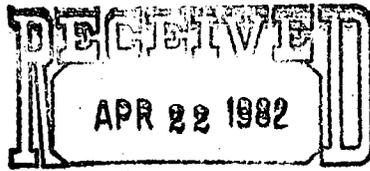
Very truly yours,

Raye Miller

Raye Miller
Land Department

RPM/co

Encl.



OIL CONSERVATION DIVISION
SANTA FE

Request for Infill Finding on
West Artesia Grayburg Unit, Tr. 5, Well #22
in accordance with Administrative
Procedures amended February 8, 1980

015-23639

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LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

DECLINATED
 APR 22 1982
 JAN 28 1981

Form C-101
 Revised 1-1-65
 5A. Indicate Type of Lease
 STATE FEE
 State Oil & Gas Lease No.
E-7179

OIL CONSERVATION DIVISION
 SANTA FE
 ARTESIA, OFFICE

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		West Artesia Grbg. Ut.	
2. Name of Operator Marbob Energy Corporation		8. Farm or Lease Name Tr. 5 West Artesia Grbg. Ut.	
3. Address of Operator P.O. Box 304, Artesia, N.M. 88210		9. Well No. 22	
4. Location of Well UNIT LETTER <u>L</u> LOCATED <u>2269</u> FEET FROM THE <u>South</u> LINE AND <u>330</u> FEET FROM THE <u>West</u> LINE OF SEC. <u>8</u> TWP. <u>18S</u> RGE. <u>28E</u> NMPM		10. Field and Pool, or Wildcat Artesia Qn. Grbg. SA	
11. Elevations (Show whether DF, RT, etc.) 3621.1'		12. County Eddy	
21A. Kind & Status Plug. Bond Statewide Active		19. Proposed Depth 2500'	19A. Formation Grayburg
21B. Drilling Contractor Stewart Bros. Drlg. Co.		20. Rotary or C.T. 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
12 1/2"	8 5/8"	24#	500'	Circ.	
7 7/8"	4 1/2"	10.50#	2500'	Attempt to Circ.	

We propose to drill to 500', set 8 5/8" 24# casing, drill on to 2500', test the Grayburg formation, and set 4 1/2" 10.50# casing.

APPROVAL VALID FOR 180 DAYS
 PERMIT EXPIRES 7-29-81
 UNLESS DRILLING UNDERWAY

IN 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 Carolee Lewis Title Production Clerk Date 1/27/81

(This space for State Use)

APPROVED BY W. A. Gressett TITLE SUPERVISOR, DISTRICT II DATE JAN 29 1981

CONDITIONS OF APPROVAL, IF ANY:

MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

REGISTRATION
APR 22 1982
Form C-102
Supersedes C-128
Effective 1-1-85

All distances must be from the outer boundaries of the Section

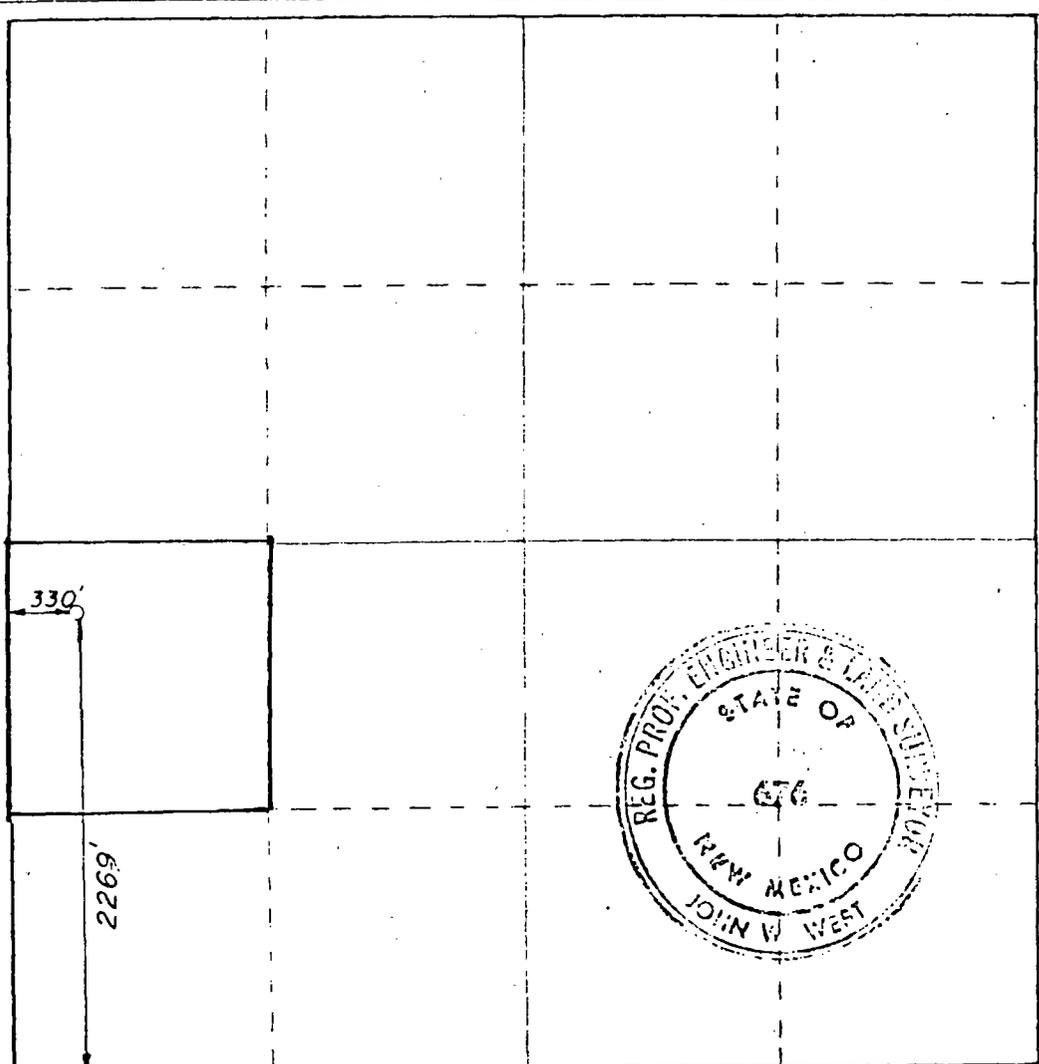
Lessor MARBOB ENERGY CORP.		Lease WEST ARTESIA GRAYBURG UNIT TRACT 5			Well No. WV-22
Tract Letter L	Section 8	Township 18 SOUTH	Range 28 EAST	County SANTA FE EDDY COUNTY, NEW MEXICO	
Annual Footage Location of Well: 2269 feet from the SOUTH line and 330 feet from the WEST line					
Ground Level Elev 3621.1	Producing Formation Grayburg		Pool Artesia Qn. Grbg. SA	Dedicated Acreage: 40 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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

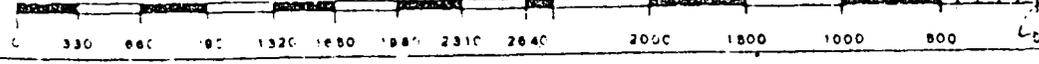
Name
Carolyn Orris
Position
Production Clerk
Company
Marbob Energy Corporation
Date
1/27/81

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.

Date Surveyed
JANUARY 15, 1981
Registered Professional Engineer and/or Land Surveyor

John W. West

Certificate No. **JOHN W. WEST 676**
PATRICK A. ROMERO 6668
Ronald J. Eidson 3239



Rule 6:

West Artesia Grayburg Unit, Tr. 5, Well #22

Pool: Artesia Queen Grayburg San Andres

Standard spacing unit - 40 acres

Rule 7:

NA

Rule 8:

- a. West Artesia Grayburg Unit, Tr. 5, Well #22-2269 FSL
330 FWL Sec. 8-18S-28E

West Artesia Grayburg Unit, Tr. 5, Well #12-1650 FSL
990 FWL Sec. 8-18S-28E

West Artesia Grayburg Unit, Tr. 5, Well #23-2269 FSL
971 FWL Sec. 8-18S-28E
- b. #22 - 2/12/81

#12 - 9/7/57

#23 - 3/4/81
- c. #22 - 3/23/81

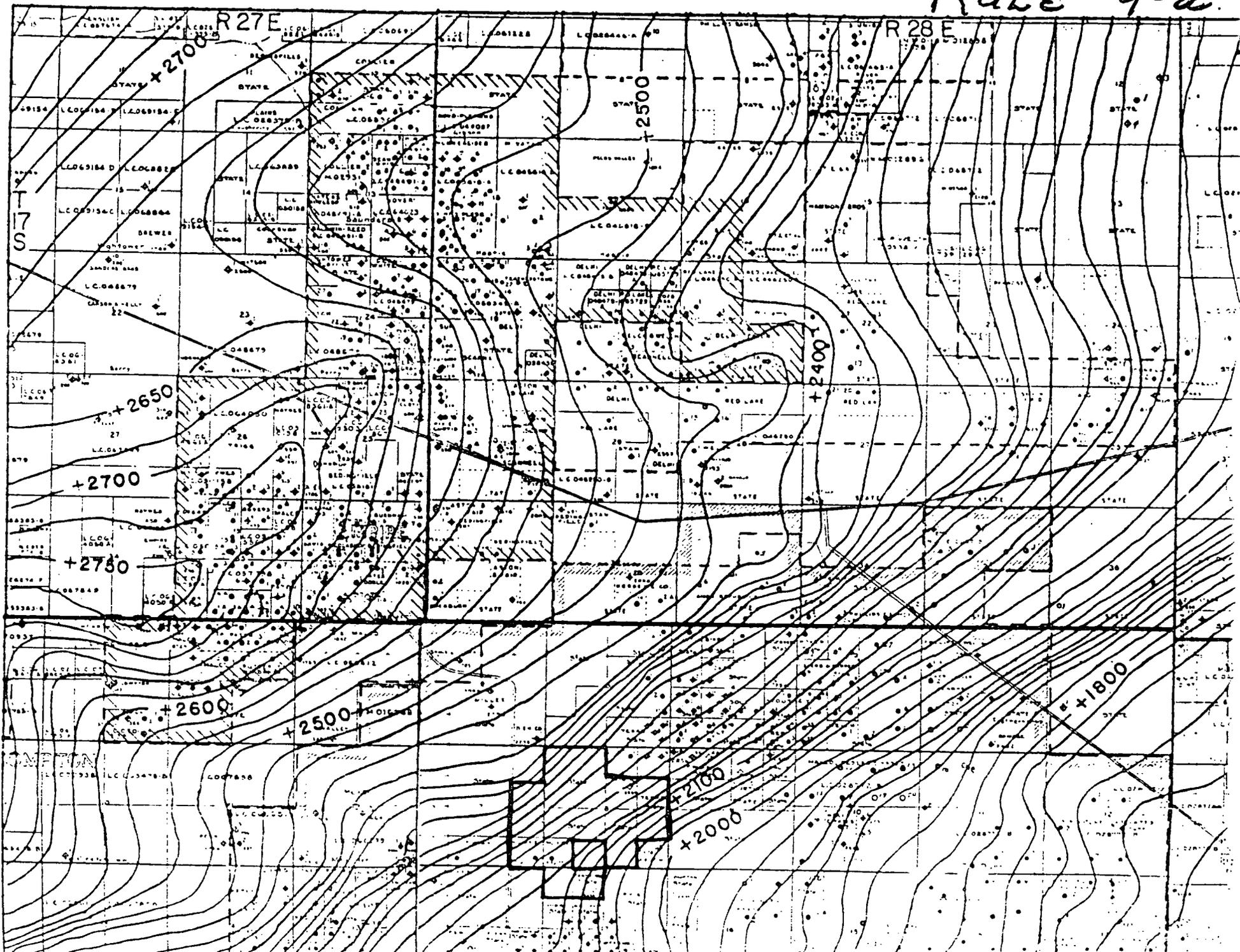
#12 - 10/11/57

#23 - 3/25/81
- d. None
- e. #22 - 10 bbl. oil, 12.5 mcf gas/day

#12 - Injection

#23 - SI
- f. NA
- g. Well #12 was placed on injection in April 1971 and needs to remain on injection for proper flooding of this unit. Well #22 was opened in 1 additional zone in the Grayburg formation that had not been treated in well #12, and that possibly could not be properly treated in #12 due to the age of the casing and the old cementing techniques.

RULE 9-a.



Marbob Energy Corporation
Artesia Queen Grayburg San Andres
West Artesia Grayburg Unit
Well No. 22

Pertinent Engineering Data and Conclusions:

Well No. 22 was completed in the Artesia Queen Grayburg pool in April 1981. This is an infill well located as per the attached plat.

Effective March 1, 1982, oil reserves recoverable will be 21,408 barrels and gas reserves recoverable will be 12,823 mcf.

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

My study reveals that as early as 1964 the producing well rate was 3.6 barrels of oil per day per well. The wells in the pool have remained on 40 acre spacing up until the past two years.

From infill well performance it is obvious that well density in this pool has to be increased to recover remaining reserves. The low permeability and low quality solution gas recovery mechanism will require reduced spacing to efficiently produce the reserves.

The daily producing rate for Well No. 22 was 10 BOPD in February 1982. This, of course, indicates that no interference has as yet been experienced from offset wells.

In my opinion the infill wells which increase the density of pattern will produce an amount of oil and gas reserves equal to the older wells in the field.

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

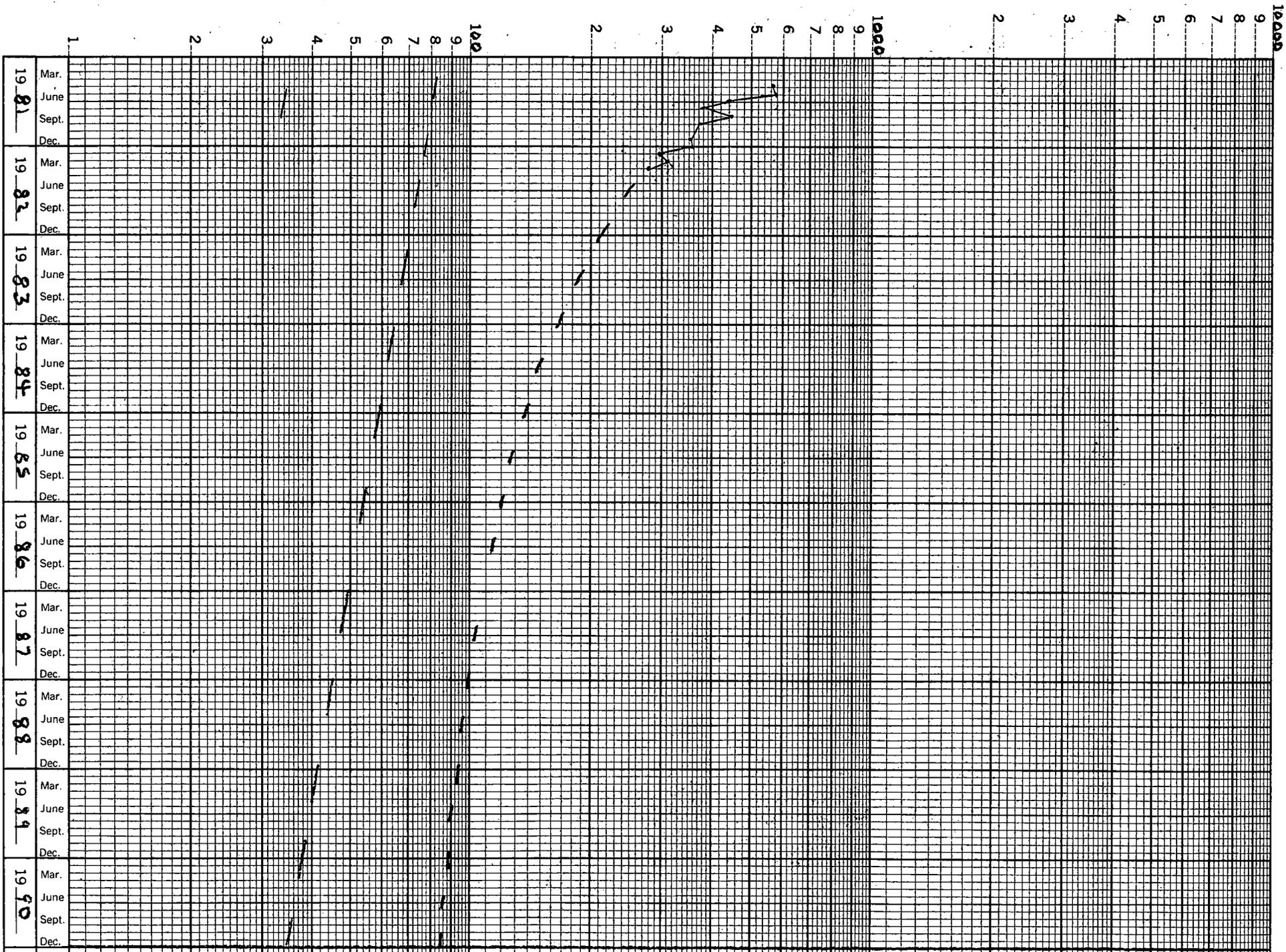
Paul G. White
Paul G. White
Petroleum Engineer

4-13-82
Date

PGW/co
Encl.

Rule 9-b.

8bls / oil / month



WEST ARTESIAN QUEEN GRAYBUC
 WELL NO 22

Rules 9-B

Rule 11:

Notice of this infill request has been sent to Donnelly Drilling Co., P.O. Box 433, Artesia, New Mexico 88210, by certified mail, as the only offset operator.



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

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

Mr. Raye Miller
Marbob Energy Corporation
P.O. Drawer 217
Artesia, NM 88210

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

State Well Nos. 25, 27, 28, 29 and

West Artesia Grayburg Unit Well

Nos. (22) 24, and 25.

Dear Raye:

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.

The geologic and reservoir data is incomplete or insufficient.

All of Paul G. White's reports refer in paragraph three to calculated oil reserves, please include this calculations.

Other:

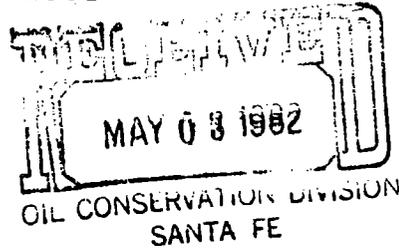
Marbob Energy Corporation

P. O. DRAWER 217
ARTESIA, NEW MEXICO 88210

— OFFICE PHONE —
(505) 748-3303
(505) 746-2422

April 29, 1982

— NIGHT PHONES —
(505) 746-6197
(505) 746-6500



Mr. Michael Stogner
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Dear Mike:

Per your request, we are enclosing Paul G. White's calculations on the oil reserves for the NG Phillips St. #25, 27, 28 and 29 and the West Artesia Grayburg Unit #22, 24, 21 and 25.

Let us know if you need further information.

Very truly yours,

Carolyn Orris
Carolyn Orris
Production Clerk

CO

Encl.

Marbob Energy Corp.
West Artesia Grayburg Unit, Tr. 5, Well #22
2269 FSL 330 FWLSec. 8-T18S-R28E

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	250	3,000
1983	185	2,220
1984	146	1,752
1985	128	1,536
1986	114	1,368
1987	103	1,236
1988	95	1,140
1989	90	1,080
1990	85	1,020
1991	80	960
1992	74	888
1993	67	804
1994	61	732
1995	56	672
1996	51	612
1997	47	564
1998	43	516
1999	40	480
2000	36	432
2001	33	396
		<hr/>
Total Oil Remaining:		21,408
Cumulative to 1/1/82		<u>4,366</u>
Total Ultimate Reserves		25,774

Gas-Oil Ratio Average - 599 to 1

Remaining Gas Reserves - 12,823 MCF