

CASE 2743: Application of PAN AMER. for creation of TUBB GAS POOL and approval of non-standard gas unit.

phatin, Transcript,

DRAFT

JMD/GGE

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE No. 2743

Order No. R- 2425-A

APPLICATION OF PAN AMERICAN PETROLEUM CORPORATION FOR THE CREATION OF A TUBB GAS POOL, FOR APPROVAL OF A NON-STANDARD GAS UNIT, AND FOR SPECIAL POOL RULES, LEA COUNTY, NEW MEXICO

Jon

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on

Pebruary 19, 1964, at Santa Fe, New Mexico, before Examinor Elvis A. Utg.

Examiner duly appointed by the Oil Conservation Commission of New

Mexico, hereinafter referred to as the "Commission," in accordance
with Rule 1214 of the Commission Rules and Regulations:

the record,

FINDS

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That by Order No. R-2425 dated February 13, 1963, temporary Special Rules and Regulations were promulgated for the Fowler-Tubb Gas Pool
- (3) That pursuant to the provisions of order No. R-2425, this case was reopened to allow the operators in the subject pool to appear and show cause why the Fowler-Tubb Gas Pool should not be developed on 160-acre spacing units.
- (4) That the evidence establishes that one well in the Fowler-Tubb Gas Pool ean efficiently and economically drain and develop 320 acros.

- (5) That to prevent the economic leas caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the special Aules and Augulations promulgated by order No. R-2425 should be continued in full force and effect until further order of the Commission.
- (6) That the special Rules and Regulations promulgated by order No. 8-2425 have afforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the gas in the pool.

IT IS THEREFORE ORDERED:

- (1) That the special Rules and Regulations governing the Fowler-Tubb Gas Pool promulgated by Order No. R-2425 are hereby continued in full force and effect until further order of the commission.
- (2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DOEB at santa Fo, New Moxico, on the day and year hereinabove designated.

DRAFT

JMD/esr February 5, 1963

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

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CASE No. 2743

Order No. R-2425

GAS UNI RULES

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 23, 196%, at Santa Fe, New Mexico, before Elvis A. Utz Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this <u>day of <u>February</u>, 1961, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, <u>Elvis A.Utz</u>, and being fully advised in the premises,</u>

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Pan American Petroleum Corporation, seeks the creation of a new pool for Tubb production and the promulgation of temporary special rules and regulations governing withdraw from said pool to provide for 320-acre spacing units.
- created and designated the Fowler-Tubb Gas Pool. This pool was discovered by the Pan American-South Mattix Unit Well No. 14, located 1980 feet from the South line and 1980 feet from the West line of Section 15, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico. This well was completed fully 16,1962, the top of the perforations is at 5936 feet.
- (4) That the applicant further seeks approval of a non-standard gas provation unit comprising the NE/4, E/2 NW/4, and

the N/2 SE/4 of Section 22, Township 24 South, Range 37 East, NMPM, Fowler-Tubb Gas Pool, Lea County, New Mexico.

- (5) That temporary special rules and regulations establishing 320-acre spacing units should be promulgated for the subject pool in order to prevent the possibility of economic loss being the drilling of unnecessary wells and in order to allow the operators in the subject pool to gather information concerning the area that can be efficiently and feonomically drained by one well.
- (6) That/temporary special rules and regulations should provide for fixed well locations in order to assure orderly development of the pool and protect correlative rights.
- (7) That/temporary special rules and regulations for the Fowler-Tubb Gas Pool should be established for a one-year period and that during this one-year period all operators in the subject pool should gather all available information relative to drainage and recoverable reserves.
- (8) That a non-standard gas proration unit comprising the NE/4, E/2 NW/4, and the N/2 SE/4 of Section 22, Township 24 South, Range 37 East, NMPM. Fowler-Tubb Gas Pool, Lea County, New Mexico, should be approved and dedicated to the Pan American Pouth Matting should be approved and dedicated to the Pan American Pouth Matting should be approved and dedicated to the Pan American Pouth Matting Should be approved and should be reopened at an examiner hearing in February, 1964, at which time the operators in the subject pool should appear and show cause why the Fowler-Tubb Gas Pool

IT IS THEREFORE ORDERED:

should not be developed on 160-acre spacing units.

(1) That a new pool in Lea County, New Mexico, classified as a gas pool for Tubb production is hereby created and designated the Fowler-Tubb Gas Pool, consisting of the following-described area:

Downship 29 Douth, Range 37 East, NMPM Section 15: all (2) That temporary special rules and regulations for the Fowler-Tubb Gas Pool are hereby promulgated as follows, effective **Yearth**, 1963.

SPECIAL RULES AND REGULATIONS FOR THE FOWLER-TUBB GAS POOL

- RULE 1. Each well completed or recompleted in the Fowler-Tubb Gas Pool or in the Tubb formation within one mile of the Fowler-Tubb Gas Pool, and not nearer to or within the limits of another designated Tubb pool shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.
- RULE 2. (a) Each well completed or recompleted in the standard unit fowler-Tubb Gas Pool shall be located on a tract consisting containing of approximately 320 acres, more or less, and compassing any two S/2 F/2 on 19/2 The contiguous quarter sections of a single governmental section, being a legal subdivision (half section) of the United States Public Lands Survey.
- the 3 (b) The Secretary-Director shall have authority the Aguirements to grant an exception to/Rule 2(a) without notice and hearing for a non-darked unit and the where an application has been filed in due form and where the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Lands Survey, or or is necessitated by the recompletion of a well previously completed in another formation, or where the following facts exist and the following provisions are complied with:
- quarter-quarter sections or lots That are Contiguous by a Common beautiful side.

 (b) The non-standard unit lies wholly within a single governmental section and Contains less acreage Than a Stanland within a single contains and contains less acreage Than a Stanland within a single contains and contains less acreage Than a Stanland within a single contains and contains less acreage Than a stanland within a single contains and contains acreage than a stanland within the contains and contains are contained to the contained contains and contains are contained to the contained contains and contains are contained to the contained contained contained to the contained contained contained to the contained contained
- (3) The entire non-standard unit may reas/onably be presumed to be productive of gas from the Fowler-Tubb Gas Pool.
- (CX) (4) The applicant presents written consent in the form of waivers from all offset operators and from all operator

owning interests in the section in which any part of the non-standard unit is situated and which acreage is not included in said non-standard unit.

In lieu of Paragraph of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if, after a period of 30 days, no such operator has entered an objection to the formation of such non-standard unit.

RULE 24 Each well completed or recompleted in the Fowlermo means than 910 feet to the outer hamfang
Tubb Gas Pool shall be located within 150 feet of the center of
of the quarter section line.

RULE: The Secretary-Director may grant an exception to the requirements of Rule without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed unorthodox location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the unorthodox location within 20 days after the Secretary-Director has received the application.

(D(3)) That a non-standard gas proration unit comprising the NE/4, E/2 NW/4, and N/2 SE/4 of Section 22, Township 24 South, Range 37 East, NMPM, Fowler-Tubb Gas Pool, Lea County, New Mexico, is hereby approved Provided however, that this non-standard unit shall be dedicated to the Pan American-South Mattix Unit Well

No. 3, located in Unit B of said Section 22. in the Tubb formation of the state of the state of the said of the sa

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CASE No. 2743

That any well presently drilling to or completed in the Tubb formation within the Fowler-Tubb Gas Pool or within one mile of the Fowler-Tubb Gas Pool that will not comply with the well location requirements of Rule is hereby granted an exception to the requirements of Rule

ing in February, 1964, at which time the operators in the subject pool may appear and show cause why the Fowler-Tubb Gas Pool should not be developed on 160-acre spacing units.

That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

CONTINENTAL OIL COMPANY

P. O. BOX 1377 ROSWELL, NEW MEXICO

WM. A. MRAD
Division Superintendent
of Production
New Mexico Division

January 17, 1963

ille 2747

825 PETROLEUM BUILDING TELEPHONE: MAIN 2-4202

New Mexico Oil Conservation Commission (3) P. O. Box 871 Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Jr., Secretary-Director

Gentlemen:

Re: CASES NO. 2742, 2743,

AND 2744

Continental Oil Company is a working interest owner in the South Mattix Unit and, as such, is interested in Cases No. 2742, 2743 and 2744 which appear on the docket for hearing January 23, 1963.

Normally, Continental Oil Company favors uniform spacing between wells when field rules are considered. In the present case, however, it is recognized that many locations in the Fowler area will be developed by plug back recompletions or dual completions of existing wells. Such a situation must invariably result in non-uniform locations, so that if well locations are specified on a uniform pattern in the field rules many exceptions requiring hearings would be required. In the light of this situation, Continental Oil Company urges the Commission to establish field rules granting 80-acre spacing in the Blinebry, 320-acre spacing in the Tubb and Pacdock and allowing flexibility of well locations so that existing wells can be utilized wherever possible in developing these reservoirs.

In regard to the non-standard gas provation units requested in Cases 2743 and 2744, Continental Oil Company urges that the proposed units be approved. The proposed units comprise the reasonably proven productive area of the Tubb and Paddock Gas pools underlying the South Mattix Unit in Section 22, T245, R37E.

Yours very truly,

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VTL-bm

cc: RGP, JRP

Pan American Petrolean Corp., f. O. Nox 268, Lublock, Texas



THE ATLANTIC REFINING COMPANY

INCORPORATED - 1870

PETROLEUM PRODUCTS

Filed CHERRY app

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MAILING ADDRESS P. O. BOX 1978 ROSWELL, NEW MEXICO

DOMESTIC PRODUCING DEPARTMENT NEW MEXICO DISTRICT

BOONE MACAULAY, DISTRICT MANAGER
R. F. CHAMPION, DISTRICT LANDMAN
W. T. EASTES, DISTRICT GEOPHYSICIST
E. R. DOUGLAS, DISTRICT GEOLOGIST
A. D. KLOXIN, DISTRICT DRLG. & PROD. SUP'T.
W. P. TOMLINSON, DISTRICT ENGINEER
B. R. WARE, ADMINISTRATIVE SUPERVISOR

January 15, 1963



New Mexico Oil Conservation Commission Post Office Box 871 Santa Fe, New Mexico

ATTENTION: Mr. A. L. Porter

Re: Case No. 2743: Application of Pan American for Creation of Tubb Gas Pool and Temporary Pool Rules, Fowler Area

Gentlemen:

In Case No. 2743 scheduled for hearing by a Commission examiner on January 23, 1963, Pan American Petroleum Corporation will propose creation of a Tubb gas pool in the Fowler area, the establishment of temporary pool rules, and will seek establishment of a nonstandard gas proration unit in exception to the proposed rules. We have reviewed the proposed rules and the need for the nonstandard proration unit and are in accord with these requests. As a working-interest owner in the South Nattix Unit, we therefore recommend adoption of the proposed rules and granting of the nonstandard gas proration unit. We believe these matters are in the interest of conservation and will protect correlative rights.

Yours very truly,

W. P. Tomlinson

pam

PAN AMERICAN PETROLEUM CORPORATION

P. O. Box 268 Lubbock, Texas December 17, 1962

Pile:

JET-4470-986.510.1

Subject: Application for Temporary Rules And Approval of a Non-Standard Proration Unit - Undesignated Tubb Gas Pool, Section 15 & 22, T-24-S, R-37-E, Lea County,

Par 276 3

New Mexico

Mr. A. L. Porter, Jr. Secretary-Director New Mexico Oil Conservation Commission P. O. Box 871 Santa Fe. New Mexico

Dear Sir,

FORM 470 2-57

Pan American Petroleum Corporation respectfully requests that a hearing be docketed to consider its application for adoption of temporary rules for the Undesignated Tubb Gas Pool located in Sections 15 and 22, T-24-S, R-37-E, Lea County, New Mexico, and to designate this field as the Fowler-Tubb Gas Pool.

In our opinion, the information available to date regarding this field indicates the necessity for, and we plan to request, the following temporary rules: (1) 320-acre well spacing; (2) all wells drilled or recompleted in the field subsequent to the effective date of the rules to be located no closer than 660' to any outer boundary of the 320-acre proration unit; and (3) optional provation units to consist of either the N/2, S/2, E/2, or W/2 of a governmental section.

At the present time the subject field contains one producing gas well, Pan American's South Mattix Unit No. 14, and we plan to recomplete in the immediate future the South Mattix Unit No. 3 to the Tubb Formation. In our opinion, the establishment of the above rules on a temporary basis will be in the interest of conservation and protection of correlative rights.

In regard to the above discussed planned recompletion of our South Mattix Unit No. 3, it is respectfully requested that the notice of hearing be sufficiently broad to allow consideration of our request for a non-standard proration unit under the above requested field rules for Well No. 3 to consist of the NE/4, E/2 of the NW/4, and the N/2 of the SE/4 of Section 22, T-24-S, R-37-E. Pan American is the operator of the South Mattix Unit, and because of the unit outline in the vicinity of Well No. 3, the above requested nonstandard unit for this well will allow utilization of acreage within the larger South Mattix Unit.

Yours very truly,

Mill S. Whitmore

Neil S. Whitmore

JTR/dp

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 23, 1963

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, as alternate examiner:

CASE 2729: (Continued)
Application of Scanlon-Shepard for a waterflood project, Chaco
Wash Oil Pool, McKinley County, New Mexico. Applicant, in the
above-styled cause, seeks authority to inject water into the
Mesaverde formation through certain wells in Sections 21, 22,
27 and 28, Township 20 North, Range 9 West, McKinley County,

New Mexico.

- CASE 2731: Application of Texaco, Inc., for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its State of New Mexico "O" NCT-1 Well No.12, located in Unit J of Section 36, Township 17 South, Range 34 East, as a dual completion (tubingless) to produce oil from the Glorieta and Blinebry formations, Lea County, New Mexico.
- CASE 2732: Application of Sinclair Oil & Gas Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its Mahaffey-Federal (ARC) Well No. 1 located in Unit C of Section 14, Township 20 South, Range 33 East, Lea County, New Mexico, to produce Bone Springs oil and Pennsylvanian gas through parallel strings of tubing.
- CASE 2733: Application of Charles B. Read for a non-standard oil proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 48.99-acre non-standard oil proration unit in an undesignated Delaware pool consisting of Locs 4 and 5 of Section 31, Township 26 South, Range 32 East, Lea County, New Mexico.
- CASE 2734: Application of Aztec Oil & Gas Company for approval of a unit agreement, Lea and Eddy Counties, New Mexico. Applicant, in the above-styled cause, seeks approval of the Aztec-Robinson Waterflood Unit, comprising approximately 682 acres of State and Federal Lands in the E/2 SE/4 and SW/4 SE/4 of Section 36, Township 16 South, Range 31 East, the SW/4 SE/4 of Section 30, the W/2, W/2 E/2 and SE/4 SE/4 of Section 31, Township 16 South, Range 32 East Lea and Eddy Counties, New Mexico.
- CASE 2735: Application of Amerada Petroleum Corporation for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its State BT "G" Well No. 2 located in Unit P, Section 27, Township 12 South, Range 33 East, Hightower Field, Lea County, New Mexico, in such a manner as to dispose of produced salt water into the Pennsylvanian formation.

- CASE 2736: Application of Gulf Oil Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 120-acre non-standard gas proration unit in the Blinebry Gas Pool, comprising the N/2 SW/4 and SE/4 NW/4 of Section 31, Township 22 South, Range 38 East, Lea County, New Mexico, said unit to be dedicated to the Scarborough Estate Well No. 4 located in Unit F of Section 31.
- CASE 2737: Application of Gulf Oil Corporation for special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of special pool rules for the White City-Pennsylvanian Gas Pool, Eddy County, New Mexico, including provisions for 640-acre spacing therein.
- CASE 2738: Application of BCO, Inc. for a no-flare exception, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the no-flare provisions of Order No. R-2267 for its Campos Well No. 1-10 located in Unit J of Section 10, Township 23 North, Range 7 West, Lybrook-Gallup Pool, Rio Arriba County, New Mexico.
- CASE 2739: Application of Socony Mobil Oil Company, Inc., to create a new pool for Abo production, and for special pool rules, Lea County, New Mexico, Applicant, in the above-styled cause, seeks the creation of a new pool for Abo production in Section 26, Township 17 South, Range 34 East, Lea County, New Mexico, and the establishment of temporary special pool rules therefor, including a provision for 80-acre spacing units.
- CASE 2740: Application of Socony Mobil Oil Company, Inc., for temporary special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of temporary special pool rules for the Vacuum-Wolfcamp Pool in Section 26, Township 17 South, Range 34 East, Lea County, New Mexico, including a provision for 80-acre spacing units.
- CASE 2741: Application of Socony Mobil Oil Company, Inc., for temporary special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of temporary special pool rules for the Vacuum-Devonian Pool in Section 26, Township 17 South, Range 34 East, Lea County, New Mexico, including a provision for 80-acre spacing units.
- CASE 2742: Application of Pan American Petroleum Corporation for special temporary pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of temporary special pool rules for the Fowler-Blinebry Oil Pool, Lea County, New Mexico, including a provision for 80-acre proration units.
- CASE 2743: Application of Pan American Petroleum Corporation for the creation of a Tubb Gas Pool, for approval of a non-standard gas unit, and for special temporary pool rules. Applicant, in the above-styled cause, seeks the creation of a new Tubb gas pool, and the establishment of temporary special pool rules therefor, Lea County, New Mexico, including a provision for 320-acre spacing units. Applicant further seeks establishment of a non-standard unit in said pool, comprising the NE/4, E/2 NW/4, and the N/2 SE/4 of Section 22, Township 24 South, Range 37 East.

CASE 2744: Application of Pan American Petroleum Corporation for special pool rules and approval of a non-standard gas unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of temporary special pool rules for the Fowler-Paddock Gas Pool, Lea County, New Mexico, including a provision for 320-acre spacing units. Applicant further seeks establishment of a non-standard unit in said pool, comprising the NE/4, E/2 NW/4, and the N/2 SE/4 of Section 22, Township 24 South, Range 37 East.

Case 2743, Keard. 1-23-63 Rec. 1-28-63 1. Seant fan Cem. temperary/yr. spacing 3 20 Acin the Dowler - Luth Har Pool. Z. Dle Dowler- Jult - Las Pool should be cereated to include: 245-376, Sec. 15 - A11, B. Use Order R-1839 for, a Suide,

Peige 97, Lee. 2. Byrooms.

4. Lant a NSP for the Buttzone consisting of 245-37E, sec. 22. NE/4, Els NW/4, N/2,5E/4. Lo he effective if + when the area is proven to be jacolutine 5. The deriony, well for the pool is Pam anis - Si Haddis buil #14, 1880/5,1880/w Line 15-24-37. Depopular. over 5936. De provation factor would be 2.33 for 88 ac. With.

Thurster H

GOVERNOR JACK M. CAMPBELL CHAIRMAN

State of New Mexico

Bil Conserbation Commission

LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER



P. D. BOX 871 SANTA FE

February 14, 1963

STATE GEGLOGIST A. L. PORTER, JR. SECRETARY - DIRECTOR

Mr. Guy Buell Pan American Petroleum Corporation Post Office Box 1410 Fort Worth, Texas DOCKET MARLED Done	2742 2743 and Case No. 2744
	Order No. R-2424, R-2425, & R-2426 Applicant:
	Pan American Petroleum Corp.
Diate	

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

A. L. PORTER, Jr.
Secretary-Director

Carbon copy of order also sent to:

Hobbs OCC ____X

Artesia OCC____
Astec OCC ____
OTHER___Mr. Bill Kastler

PAN AMERICAN PETROLEUM CORPORATION

P. O. Box 268 Lubbock, Texas December 17, 1962

File:

JET-4467-986.510.1

Subject: Application for Adoption of Field Rules - Fowler-Paddock, Fowler-Blinebry, and Undesignated Tubb Pools

Lea County, New Mexico

Ease 2743

Mr. A. L. Porter, Jr. Secretary-Director New Mexico Oil Conservation Commission P. O. Box 871 Santa Pe, New Mexico

Dear Sir,

Attached are letters whereby we request that hearings be docketed to consider our application for rules for the Fowler-Paddock, Fowler-Blinebry, and an Undesignated Tubb Pool in the Fowler Area, Lea County, New Mexico. It would be appreciated if all three of these hearings can be included on the same docket.

Also attached is a map showing ownership in the area of the subject fields.

Yours very truly,

Neil S. Whitmore

District Superintendent

DOCKE: M. HED

JTR/dp

Attachments

cc: All Working Interest Owners

DOCKET MAILED

CLASS OF SERVICE This is a fast message unless its deferred chate occer to Indicated by the proper symbol.

WESTERN UNION

TELEGRAM

DL = Day Lettet NL=Night Letter LT = International

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ATTE OR A L PORTER JR

STANDARD OIL COMPANY OF TEXAS, A DIVISION OF CALIFORNIA OIL COMPANY, CONCURS IN PAR AMERICAN PETROLEUM CORPORATIONS PROPOSALS IN CASE 2743, APPLICATION FOR TEMPORARY SPECIAL POOL RULES AND MONSTANDARD GAS UNIT IN THE FOWLER (TUBB) POOL, LEA COUNTY: NEW MEXICO, SET FOR HEARING JANUARY 23, 1963c

. 9 AS OWNER OF LEASEHOLD INTERESTS IN THE AREA, WE RESPECTFULLY RECOMMEND APPROVAL OF THIS APPLICATION=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM LTS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE

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VESTERN UNIC

TELEGRAM W. P. MARSHALL, PRESIDENT

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RWAOO6 PD=ROSWELL NMEX 18 820A MST= NEW MEXICO OIL CONSERVATION COMMISSION= ATTN A L PORTER SANTA FE NMEX=

REGARDING CASE 2743 FOWLER TUBB GAS

AS AN INTEREST OWNER IN FOWLER TUBBS GAS POOL WE SUPPORT PAN AMERICAN REQUEST FOR ADOPTION OF PRESENT TEMPORARY RULES OF ORDER R2425 AS PERMANENT RULE= VAN CAMMACK ATLANTIC REFINING CO=

CLASS OF SERVICE

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WESTERN UNION

TELEGRAM

1201 (1-60)

SYMBOLS

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WE RESPECTFULLY RECOMMEND APPROVAL OF PAN AMERICAN'S REQUESTS=

C N SEGNAR CHIEF ENGINEER STANDARD OIL CO OF TEXAS

=2742 2743 2744 19 **1**964=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE

This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION

TELEGRAM (15).

1201 (4-60)

SYMBOLS

DL=Day Letter

NL=Night Letter

LT=International

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D HSB374 PD=FAX HOUSTON TEX 20 205P CST= NEW MEXICO OIL CONSERVATION COMMISSION= SANTA FE NMEX=

ATTN: MR. A. L. PORTER, JR.

A STANDARD OIL COMPANY OF TEXAS, A DIVISION OF THE CALIFORNIA OIL COMPANY, CONCURS IN PAN AMERICAN PETROLEUM CORPORATION'S PROPOSALS IN CASES 2742, 2743, AND 2744, REOPENED FOR HEARING FEBRUARY 19, 1964, TO REVIEW TEMPORARY FIELD RULES IN THE FOWLER-BLINEBRY, FOWLER-TUBB, AND FOWLER-PADDOCK POOLS, LEA COUNTY, NEW MEXICO.

9 AS OWNER OF LEASEHOLD INTERESTS IN THE AREA,

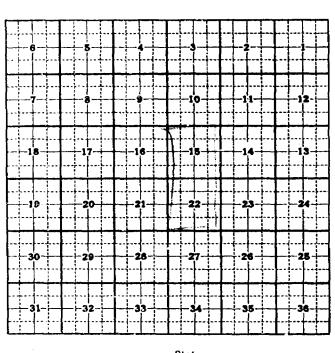
THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

Name

Address

Remarks:

Ph



T R or County

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 19, 1964

9 A. M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

- CASE 2991: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Dwight L. Smith and all other interested parties to appear and show cause why the Walker Well No. 1, located 2290 feet from the South line and 500 feet from the East line of Section 21, Township 15 South, Range 11 East, Otero County, New Mexico, should not be plugged in accordance with a Commission-approved plugging program.
- CASE 2992: Application of Co solidated Oil & Gas, Inc., for an unorthodox location, Rio Arrioa County, New Mexico. Applicant, in the above-styled cause, seeks approval of the unorthodox location of their Hoyt Well No. 3-5, located 1850 feet from the North line and 11 O feet from the West line of Section 5, Township 26 North, Range 4 West, Blanco Me averde Pool, Rio Arriba County, New Mexico.
- CASE 2993: Application of Sinclair Oil & Gas Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Southwest Jal Unit Area comprising 6401 acres, more or less, of State, Federal and fee lands in Townships 25 and 26 South, Range 36 East, Lea County, New Mexico.
- CASE 2994: Application of Skelly Oil Company for a pressure maintenance project, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project in the Gallup formation underlying its Navajo "P" and "M" leases in Sections 25, 26, 33, 34, 35, and 36, Township 32 North, Range 17 West, Many Rocks-Gallup Oil Pool, San Juan County, New Mexico. Initial injection will be through applicant's Navajo "P" Well No.6 located in Unit P of said Section 35. Applicant further seeks the promulgation of special rules governing the operation of said project.
- CASE 2995: Application of Deane H. Stoltz for two non-standard oil proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of two 80-acre non-standard oil proration units in the North Bagley-Upper Pennsylvanian Pool, Lea County, New Mexico, the first to comprise the SE/4 NE/4 and NE/4 SE/4 of Section 22, Township 11 South, Range 33 East, to be dedicated to a well completed in the SE/4 NE/4 of Section 22; the second to comprise the SW/4 NE/4 and the NW/4 SE/4 of

CASE 2995: said Section 22 to be dedicated to a well to be re-entered in the SW/4 NE/4 of said Section 22.

CASE 2984: (Continued from the February 5th Examiner Hearing)

Application of The Pure Oil Company and Continental Carbon Company to utilize natural gas in a carbon black plant, Lea County, New Mexico. Applicants, in the above-styled cause, seek authority to utilize approximately 7 million cubic feet of Morrow gas per day in the Continental Carbon Company carbon black plant near Eunice, New Mexico, said gas to be produced from The Pure Oil Company Wilson Deep Unit Well No. 1, located in the SE/4 NW/4 of Section 13, Township 21 South, Range 34 East, Lea County, New Mexico.

CASE 2996: Application of Nearburg & Ingram for the creation of a new gas pool and for special temporary pool rules, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new gas pool for San Andres production in Sections 10, 11, 12, 13, 14 and 15, Township 8 South, Range 37 East, Roosevelt County, New Mexico, and for the establishment of temporary rules therefor, including provisions for 320 acre spacing.

CASE 2739: (Reopened)

In the matter of Case No. 2739 being reopened pursuant to the provisions of Order No. R-2421, which order established temporary 80-acre proration units for the North Vacuum-Abo Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 40-acre proration units.

CASE 2740: (Reopened)

In the matter of Case No. 2740 being reopened pursuant to the provisions of Order No. R-2422, which order established temporary 80-acre proration units for the Vacuum-Wolfcamp Oil Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 40-acre proration units.

CASE 2741: (Reopened)

In the matter of Case No. 2741 being reopened pursuant to the provisions of Order No. R-2423, which order established temporary 80-acre proation units for the Vacuum-Devonian Oil Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 40-acre proration units.

CASE 2742: (Reopened)

In the matter of Case No. 2742 being reopened pursuant to the provisions of Order No. R-2424, which order established temporary 80-acre oil proration units for the Fowler-Blinebry Gil Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 40-acre proration units.

CASE 2743: (Reopened)

In the matter of Case No. 2743 being reopened pursuant to the provisions of Order No. R-2425, which order established temporary 320-acre spacing units for the Fowler-Tubb Gas Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 160-acre spacing units.

CASE 2744: (Reopened)

In the matter of Case No. 2744 being reopened pursuant to the provisions of Order No. R-2426, which order established temporary 320-acre spacing units for the Fowler-Paddock Gas Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 160-acre spacing units.

CASE 2997: Application of Socony Mobil Oil Company, Inc., for the abolishment of an existing pool and the creation of two new oil pools, and for special temporary pool rules, Lea County, New Mexico, Applicant, in the above-styled cause, seeks the creation of a new oil pool for lower Pennsylvanian production in Section 26, Township 17 South, Range 34 East, Lea County, New Mexico, and for the establishment of temporary rules therefor, including provisions for 80-acre units and for the establishment of a gas-oil ratio limitation of 6000 cubic feet of gas per barrel of oil produced. Said pool would be created by the abolishment of the Vacuum-Pennsylvanian Pool in Township 17 South, Range 34 East, and the subsequent creation of the Vacuum Upper Pennsylvanian and Vacuum Lower Pennsylvanian Pools.

CASE 2998: Application of Tenneco Oil Company for a gas well-water injection well, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its Central Totah Unit Well No. 24 located in Unit O of Section 11, Township 28 North, Range 13 West, San Juan County, New Mexico, to produce gas from the Basin-Dakota Gas Pool through 1 ½ inch tubing and to inject water into the Gallup formation, Totah-Gallup Oil Pool, through 2 1/16 inch tubing with separation of the zones by a packer set at 5766 feet.

CASE 2999: Application of Phillips Petroleum Company for two non-standard oil proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the approval of an 80-acre non-standard oil proration unit for each of two pools, the Vacuum Wolfcamp Pool and the North Vacuum Abo Pool, said units to comprise the NW/4 SW/4 and the SW/4 NW/4 of Section 31, Township 17 South, Range 35 East, Lea County, New Mexico, to be dedicated to applicant's Santa Fe Well No. 87, located 2310 feet from the South line and 660 feet from the West line of said Section 31.

CASE 3000: Application of Franklin, Aston & Fair Inc. for the creation of a San Andres Gas Pool and for special pool rules. Roosevelt County, New Mexico. Applicant, in the abovestyled cause, seeks the creation of a new San Andres Gas Pool comprising all or portions of Sections 22, 23, 25, 26, 27 and 28, Township 7 South, Range 35 East, and the establishment of special pool rules, including 320 acre spacing and fixed well locations, Roosevelt County, New Mexico.

CASE 2979: (Continued from February 5, 1964, Examiner Hearing)

Application of Pan American Petroleum Corporation for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Abo formation through its U.S.A. Malco Refineries 'G' Well No. 13, located 2302 feet from the South line and 1650 feet from the West line of Section 10, Township 18 South, Range 27 East, Empire Abo Pool, Eddy County, New Mexico.

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IN THE MARKER OF THE MEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONCIDENZED:

> CASH NO. 2743 Order No. R-2425 HOMENCLATURE

APPLICATION OF PAN AMERICAN PETROLICS CORPORATION FOR THE CREATION OF A TUES GAS POOL, MOR APPROVAL OF A MON-STANDARD GAS UNIT, AND FOR SPECIAL POOL RULES, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 23, 1963, at santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

MOW, on this 13th day of February, 1963, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Pan American Petroleum Corporation, seeks the creation of a new pool for Tubb production and the promulgation of temporary special rules and regulations governing said pool, including a provision for 320-acre specing units.
- (3) That a new gas pool for Tubb production should be created and designated the Mowler-Mubb Gas Pool. This pool was discovered by the Pan American South Nattix Unit Well No. 14, located 1980 feet from the South line and 1980 feet from the West line of Section 15, Township 24 South, Range 37 East, MOPM, Lea County, New Mexico. The well was completed July 16, 1962; the top of the perforations is at 5936 feet.
- (4) That the applicant further seeks approval of a non-standard unit comprising the NE/4, E/2 NW/4, and the N/2 38/4 of Section 22, Township 24 south, Range 37 East, NMPM, Fowler-Table Gas Pool, Lea County, New Mexico.

-x-CASE Vo. 2743 Order Mo. R-2425

- (5) That temposary special rules and regulations establishing 320-acre spacing units should be promulgated for the subject pool in order to prevent the possibility of economic loss resulting from the drilling of unnecessary wells and in order to allow the operators in the subject pool to gather information concerning the reservoir characteristics of the pool.
- (6) That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.
- (7) That the temporary special rules and regulations should be established for a one-year period and that during this one-year period all operators in the subject pool should gather all available information relative to drainage and recoverable reserves.
- (8) That the proposed non-standard unit should be approved and dedicated to the Fan American South Mettix Unit Well No. 3, located in Unit E of said Section 22.
- (9) That this case should be reopened at an examiner hearing in February, 1964, at which time the operators in the subject pool should appear and show cause why the Fowler-Tubb Gas Pool should not be developed on 160-acre spacing units.

IT IS THEREFORE ORDERED:

(1) That a new pool in Lea County, New Mexico, classified as a gas pool for Tubb production is hereby created and designated the Fowler-Tubb Gas pool, consisting of the Following-described area:

TOWNSHIP 24 SOUTH, RADION 37 HAST, SMPM Section 15: All

(2) That special rules and regulations for the Fowler-Tubb Gas Pool are hereby promulgated as follows, effective March 1, 1963.

SPECIAL RULES AND RECULATIONS FOR THE FOWLER-TUBB GAS POOL

RULE 1. Each well completed or recompleted in the Powler-Tubb Gas Pool or in the Tubb formation within one mile of the Fowler-Tubb Gas Pool, and not nearer to or within the limits of another designated Tubb pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

-3+ CASH No. 2743 Ordon No. 3-2425

- EULS 2. Mach well completed or recompleted in the Fowler-Tubb Gas Pool shall be located on a standard unit containing 320 acres, more or less, consisting of the M/2, S/2, B/2, or M/2 of a single governmental section.
- RULE 3. The secretary-Director may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Lands Survey, or the following facts exist and the following provisions are complied with:
 - (a) The non-standard unit consists of quarterquarter sections or lots that are contiguous by a common bordering side.
 - (b) The non-standard unit lies wholly within a single governmental section and contains less acreage than a standard unit.
 - (c) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning interests in the section in which any part of the non-standard unit is situated and which acreage is not included in said non-standard unit.
 - (d) In lieu of Paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The secretary-Director may approve the application if, after a period of 30 days, no such operator has entered an objection to the formation of such non-standard unit.
- RULE 4. Sach well completed or recompleted in the Fowler-Tubb Gas Pool shall be located no nearer than 990 feet to the outer boundary of the quarter section and no nearer than 330 feet to any governmental quarter-quarter section line.
- RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed unorthodox location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection

-4-CASE 60. 2743 Oxder Co. X-2625

to the unorthodox location within 20 days after the Secretary-Director has received the application.

IT IS FURTHER ORDERED:

- (1) That a non-standard unit comprising the NE/4, E/2 NE/4, and the N/2 SE/4 of section 22. Township 24 south, Range 37 East, NMPM, Fowler-Tubb Gas Pool, Lea County, New Mexico, is hereby approved and dedicated to the Pan American South Mattix Unit Well No. 3, located in Unit E of said Section 22. The operator shall file a Form C-128 showing the dedication of acreage with the Hobbs District Office on or before March 1, 1963.
- (2) That any well presently drilling to or completed in the Tubb Cormation within the Powler-Tubb Gas Pool or within one mile of the Fowler-Tubb Gas Pool that will not comply with the well location requirements of Rule 4 is hereby granted an exception to the requirements of Rule 4. The operator shall notify the Hobbs District Office in writing of the name and location of the well on or before March 1, 1963.
- (3) That any operator desiring to dedicate 320-acres to a well presently drilling or completed in the Fowler-Tubb Gas Pool shall file a new Form C-128 with the Commission on or before March 1, 1963.
- (4) That this case shall be reopened at an examiner hearing in February, 1964, at which time the operators in the subject pool may appear and show cause why the Fowler-Tubb Gas Fool should not be developed on 160-acre spacing units.
- (5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF MEN MEXICO
OLL CONSERVATION COMMISSION

JAK M. CAMPERLL, Chairman

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E. S. WALKER, Member

A. L. PORTER, Gr., Lember & Secretary

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GOVERNOR JACK M. CAMPBELL CHAIRMAN

State of New Mexico

Gil Conserbation Commission

LAND COMMISSIONER E. S. JUHNNY WALKER MEMBER



STATE GEGLOGIST A L PORTER JR. SECRETARY - DIRECTOR

March 13, 1964

Case No.

Order No. __R-2424-A; R-2425-A, &

Applicant: R-2426-A

-PAN AMERICAN PETROLEUM CORP.

Dear Sirs

Box 700

Mr. Paul Cooter

Atwood & Malone

Attorneys at Law

Roswell, New Mexico

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

A. L. PORTER, Jr. Secretary-Director

ir/ Carbon copy of order also sent to: Hobbs OCC Artesia OCC____ Astec OCC ____ No. Pon Jacobs

DEFORE THE OIL CONSERVATION COMMISSION OF THE STAME OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE No. 2743 Order No. R-2425-A

APPLICATION OF PAN AMERICAN PETROLEUM CORPORATION FOR THE CREATION OF A TUBB GAS POOL, FOR APPROVAL OF A NON-STANDARD GAS UNIT, AND FOR SPECIAL POOL RULES, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on February 19, 1964, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 13th day of March, 1964, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That by Order No. R-2425 dated February 13, 1963, temporary Special Rules and Regulations were promulgated for the Fowler-Tubb Gas Pool.
- (3) That pursuant to the provisions of Order No. R-2425, this case was reopened to allow the operators in the subject pool to appear and show cause why the Fowler-Tubb Gas Pool should not be developed on 160-acre spacing units.
- (4) That the evidence establishes that one well in the Fowler-Tubb Gas Pool can efficiently and economically drain and develop 320 acres.
- (5) That to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of

-2-CASE No. 2743 Order No. R-2425-A

too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Order No. R-2425 should be continued in full force and effect until further order of the Commission.

(6) That the special Rules and Regulations promulgated by Order No. R-2425 have afforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the gas in the pool.

IT IS THEREFORE ORDERED:

- (1) That the Special Rules and Regulations governing the Fowler-Tubb Gas Pool promulgated by Order No. R-2425 are hereby continued in full force and effect until further order of the Commission.
- (2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

JACK M. CAMPBELL, Chairman

E.S. WALKER, Member

A. L. PORTER, Jr., Member & Secretary

DEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico February 19, 1964

EXAMINER HEARING

PHONE 325.

IN THE MATTER OF:

Case No. 2742 being reopened pursuant to the provisions of Order No. R-2424, Lea County,)
New Mexico; and
Case No. 2743 being reopened pursuant to the provisions of Order No. R-2425, Lea County,)
New Mexico; and
Case No. 2744 being reopened pursuant to the provisions of Order No. R-2426, Lea
County, New Mexico.

Case No. <u>2742.</u> 2743 and 2744

BEFORE: ELVIS A. UTZ, EXAMINER

TRANSCRIPT OF HEARING

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DEARNLEY-MEIER REPORTING SERVICE, Inc.

MANTA FE, N. M.



DEARNLEY, MEIER, WILKINS and CROWNOVER General Court Reporting Service

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 19, 1964.

EXAMINER HEARING

IN THE MATTER OF:

Case No. 2742 being reopened pursuant to the provisions of Order No. R-2424, Lea County, New Mexico; and Case No. 2743 being reopened pursuant to the provisions of Order No. R-2425, Lea County, New Mexico; and Case No. 2744 being reopened pursuant to the provisions of Order No. R-2426, Lea County, New Mexico.

CASE NOS. 2742, 2743

and 2744

BEFORE: ELVIS A. UTZ: EXAMINER

TRANSCRIPT OF HEARING

MR. UTZ: Case 2742.

MR. DURRETT: In the matter of Case No. 2742 being reopened pursuant to the provisions of Order No. R-2424, which order established temporary 80-acre oil provation units for the Fowler-Blinebry Oil Pool, Lea County, New Mexico, for a period of one year.

MR. COOTER: Paul Cooter of Atwood and Malone, appearing for Pan American. Mr. Examiner, for the taking of testimony, we would ask that Cases 2742, 43 and 44 be consolidated. They were

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in the original hearing.

MR. UTZ: Cases 2742, 43 and 44 are all pertaining to the Fowler-Blinebry, Tubb and Paddock area and will be consolidated for the purposes of testimony and separate orders will be written.

MR. COOTER: We have one witness, Mr. Rogers.

(Witness sworn)

MR. UTZ: Are there other appearances in this case?

MR. JACOBS: Ronald Jacobs for Skelly Oil Company.

MR. UTZ: Are there other appearances in these cases?

JAMES T. ROGERS,

called as a witness herein, having been first duly sworn on oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. COOTER:

- Would you state your name, please?
- James Turner Rogers.
- And by whom are you employed and in what capacity?
- I am employed by Pan American Petroleum Corporation as Petroleum Engineer in the Lubbock District Office.
- Mr. Rogers, have you previously testified before the Oil Conservation Commission?
 - Yes, sir.
 - First, I will direct your attention to what has been

marked as

nms Building Albuquerque, New Mexico Phone 24.

MR. COOTER: Before proceeding, may I first state the position of Pan American in all three cases? It might be a help.

In Case Number 2743, the Fowler-Tubb Gas Pool, Pan American is asking that the temporary rules be continued. In Cases 2742 and 2744, Pan American is requesting that the temporary rules be made permanent.

MR. UTZ: All right, sir.

(By Mr. Cooter) Now, Mr. Rogers, directing your attention to Exhibit Number One, would you please tell the Examiner what that is?

A Exhibit Number One - - I would like to add here that I have got these Number 1-R to distinguish them from the numbering system we used at the initial cases. We had some 15 exhibits, and they are numbered numerically. I have got six and all of these have an "R" after them to stand for "reopen", I suppose. Exhibit Number One-R is a base map of the Fowler area. The dark blue line represents the boundary of the South Mattix Unit, which is operated by Pan American. We have shown on here all the wells completed in the various formations in this area. They are color coded to indicate the zone or zones of completion. The zones of interest here, of course, are the Paddock, Blinebry and Tubb. The Paddock is colored light blue, the Blinebry in orange and the Tubb is colored in brown. Also on this exhibit, we have a trace of a cross section which will be introduced as a later exhibit.

Q I next direct your attention to Exhibit Two-R and ask you to discuss that with the Examiner?

A Exhibit 2-R is a tabulation of the production data showing the production of all the water and gas for the month of November, 1963, for all of the wells completed in the subject formation. Also, we have shown on here the status of the wells and the accumulative recovery of either oil or gas, depending on the well, as of December 1, 1963.

Q Would you please relate and discuss Exhibit 3-R?

A Exhibit 3-R is a cross section, AA prime, the trace of which is shown on Exhibit One. This cross section runs from the South Mattix Unit Well Number Six through a number of key wells in the unit, ending with the Gulf Plains Knight Well Number Two, located down in Section 23.

Q Has this exhibit been previously presented to the Oil Conservation Commission?

A Yes, sir, this exhibit was presented in this identical form at the NNOCC Case 2974, which was held last month, which was actually on January 22nd. That was the case of the approval of a triple completion of the South Mattix Unit Number 16.

In addition, this cross section is almost identical as presented in the initial subject hearing as Exhibit Number Three, except that we have added the South Mattix Number 16 well to the cross section. It was completed since the prior hearing. This Number 16 is only - - the only new well drilled in the subject



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formations.

Q The original hearing to which you refer is January 23, 1963, which established the temporary rules?

A That's correct.

Q All right. Mr. Rogers, would you please next turn your attention to Exhibit Four-R and discuss that with the Examiner?

A Exhibit Four-R is very similar to the Exhibit Number 1-R

It is the same base map, except on this exhibit, we have shown the pertinent bottom hole pressure data obtained on the wells in this area, completed in the subject formations. Again, this is color coded using the same coloring system as in Exhibit One, with the Paddock shown to be light blue, the Blinebry as orange and the Tubb in brown. The pressures are underlined by a colored line to indicate which zone or which formation they represent in the subject wells.

Q Now, your attention is directed next to Exhibit Five-R, would you please discuss that with the Examiner?

A Exhibit 5-R is a supplemental exhibit to the hearing last year that we have shown here pertinent data on the wells completed in these formations since the last hearing. This same data was given on each of the completions last year, and as I said, this just supplements that data. The pertinent data on the wells are shown in the order that we will discuss them, as we go through the case.

Q Mr. Rogers, Pan American is requesting a continuation of



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the temporary rules in the Fowler-Tubb Gas Pool. For how long a period does Pan American request the continuation of this and why is a continuation asked for?

We are asking for a continuation in the Tubb, or Fowler Tubb Gas Pool, due to the fact that we have only three months production from this field, and only one bottom hole pressure obtained to date. We were delayed in getting a gas connection, and essentially, we are at a stage of production of sales you might call it, we expected to be at eight to ten months ago. For that reason, we feel that we do not have enough data and we would like to have it continued for a period of one year to 18 months. We are giving a range here because we are coming back next month. We have scheduled a hearing, or requested a hearing be docketed, for temporary field rules for the Lower Paddock Gas, which is a separate one from being heard here today. If granted, we would like to have the Fowler-Tubb reopened at the same time as the Fowler-Lower Paddock, so anywhere in the range of a year and a year and a half, we feel that we would have sufficient data to support the other requests.

Q How many wells have been completed in this pool since the previous hearing?

Since the previous hearing, we have completed the South Mattix Unit Wells Numbers 3 and 16, or two wells in the Tubb formation.

All right. Refer to the exhibits and discuss the data

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thus far obtained on the Fowler-Tubb Gas Fool.

As shown by our Exhibit Number 2-R, the tabulation of production, we have had produced, as of the first of December, only approximately 25 million cubic feet of gas. You can also note here that the first month on production was November of '63, and that the November production is the accumulative recovery to December first. Since that time, we have produced two or three times that much gas, which is still a very small volume of gas. We have only obtained one bottom pressure in the Tubb. It is shown on Exhibit Number 4-R, the pressure map. That pressure is initial pressure obtained on the discovery well in the Fowler-Tubb Pool, South Mattix Unit Number 14, located in the Northeast Quarter of the Southwest Quarter of Section 15, and the pressure is 2618 PSI, obtained on October 2, 1962. After completing Number 14 in the Tubb, it was shut in. We have subsequently completed the South Mattix Unit Well Number Three. Number Three is located down in the Northwest of the Northeast of Section 22, and also have completed the South Mattix Number 16, which is located in the Southwest of the Southeast of 15, in the Tubb. This Number 16 is still shut in awaiting a pipeline connection. Number Three was placed on production and produced only a small amount of gas, as shown by Exhibit 2-R, produced only 2,000 MCF during November of '63. This well is currently shut in and equipment has been pulled for repairs, and expected to be back on the line shortly.

We plan to obtain bottom hole pressure on the South Mattix



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Wells Three and 16 as soon as we can obtain them. or economics of development in the Tubb were presented at the hearings last year and the reserves were shown as Exhibit Number Ten in the previous hearing, whereby we showed that on 160 acre spacing, we could expect a pay out of 35 months and return on the investment of 1.2. On 320 acre spacing, we would expect pay out of 17 and a half months and return on the investment of These reserves and economics now appear to us to be somewhat optimistic due to the apparent low capacity of the South Mattix Unit Number Three well in the Tubb. This well did not perform as well as we expected it to and we are somewhat concerned now about our economics. Even under the reserves as presented with our poor volume, it is essentially unchanged this year. The minimum reserves for Pan American to develope were not met by the 160 acre economics presented. I might add here that one reason we were delayed in obtaining a gas sales contract, we had a contract, or have one in existence, for the east half of Section 15, which is New Mexico Federal Unit acreage. That was under a general contract that would apply to the Tubb. Our discovery well, the Number 14 well, was located in the West Half, and that section did not fall in that contract. We negotiated for some months to obtain a contract on the Number 14 with the same minimum take clause in the contract we had in the East Half of 15. The only thing we could get was a ratable clause, and in some cases, a less favorable minimum take. So, we decided we would wait until we completed



Number 16 in the Tubb and it would fall under the minimum take clause of the current contract, the ratable take clause would force the remaining minimum takes in the field to be equal to the one in the East Half of 15. This minimum take clause we have is based strictly on acreage, and the minimum take is 550 MCF per day on 160 acres as opposed to 1100 MCF on 320, so that the drilling of additional wells, or you might say wells, on 160 acre spacing would not result in any increase in gas sales from the field.

Q Mr. Rogers, being in the initial phases of production, do you believe additional time is needed to support any request for permanent rules?

A Yes, sir, I do.

Q Mr. Examiner, this completes our testimony on this phase, this particular case, $27^{1/3}$. Do you have any questions before proceeding?

MR. UTZ: Do you intend to run any interference tests in this Tubb zone in this field, or what type of data do you intend to gather within the next 12 or 18 months that you are requesting?

A We don't intend to run any interference tests as you normally think of a normal, or prolonged test. We intend to periodic bottom hole pressure and compare with that accumulative recoveries from the well. Essentially, the same day --

MR. UTZ: Then, you would base your rate of recovery on calculation?

A Yes, sir.

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(By Mr. Cooter) Mr. Rogers, Pan American is requesting Q. that the temporary rules in the Fowler-Paddock Gas Pool, being Case Number 2744, be adopted as the permanent rules. What is Pan American offering in support of this request?

MR. UTZ:

proceed.

I would like to again refer to Exhibit 4-R, the pressure Α map, on which we show the pertinent bottom hole pressure data obtained in the Paddock Gas zone. These pressures are all underlined by light blue, as presented at last year's hearing. initial pressure in the Paddock has been taken to be 2,000 PSI, as determined on drillstem test run in 1949 in the South Mattix Unit Well Number One. This well is located in the Northwest of the Southeast of Section 15.

Are there any other questions?

The first completion in the Paddock was in South Mattix Number 10 in the Southeast Quarter of the Northeast Quarter of Section 15. On initial completion in this well, we recorded an initial bottom hole pressure of 1930 PSI. This 1930 is less than the initial field pressure that we have taken as 2,000, as obtained on DST. The reason we felt that the 2,000 was more representative, as we stated last year, in the difficulty in completing Number Ten, and the fact that Number Ten, or in Well Number Ten, we were unsuccessful in obtaining built up or static pressures within reasonable shut in times. This is further shown by the low pressure of this well run in August of '62

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MexicoBuilding January of 164, of fourteen two PSI and thirteen and four PSI respectively.

In completing Number Ten, as we stated last year, we perforated at the, or near the water-oil contact or gas-water contact in the Paddock and the well made - waterlogged up, and required swabbing several times to get it flowing back and finally went and squeezed it off and reperforated at the top of the original perforated interval, but stayed as far from the water as we felt we could. After that, we could not get good pressure data. We were afraid to stimulate the well with any large volume treatment because of communicating again with the water. So, in effect, this well, we don't consider it representative. As a matter of fact, we have drilled and completed the South Mattix Unit Number 16, located also in the East Half of 15, to be a replacement well for Number Ten. We feel we are going to disconnect Number Ten after - - from the Paddock and connect Number 16 and assign the East Half of Section 15 to 16.

Going on down chronologically, we completed the South Mattix Unit Number 11 as a second well, and 5-18-61, a little over a year after completing Number Ten, we recorded initial pressure of 1876 PSI in 11. This pressure is 124 pounds less than the original pool pressure of 2,000 PSI. This initial pressure recorded in Number 11 is subject to question. As You can see in August of 162, we got a bomb pressure of this well of 1925 PSI, which indicates a pressure build up. Obviously one of these pressures

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are in error. We, of course, reviewed cur bottom hole pressure data obtained from the field and can find nothing wrong as far as arithmatic is concerned or calculations, so anything we did to try to justify one or the other of the pressures would be speculation. The latest pressure obtained in this well Number 11 was on January 23, of '64, measured a pressure of 1821 PSI. The distance from Well Number Ten to Well Number Eleven is some five thousand, six hundred feet. The low pressure measured in Number 11- by low, I mean less than the original pool pressure, indicates that Number 11 had been drained to some extent by production from Number Ten. If we assume that well could drain a radius of 5600 feet, it would drain 3,200 acres.

Going to the next completion, the South Mattix Number 14, which is in the Northeast of the Southwest Quarter of Section 15 in the Paddock and recorded on October 7, 1962 a pressure of 1876 PSI. This pressure is again some 120 or 24 pounds less than the original pool pressure, and indicated drainage at this, or in this vicinity by production from both wells, Number Ten and Number 11. Little over a year later, then, we completed the South Mattix 16 in the Paddock. This well also had a pressure of 124 pounds less than the initial pool pressure. All of these pressures are bomb pressure, bomb measured bottom hole pressures, with the exception of those shown for Well Number 14. These are extrapolated surface pressures, as we have discussed last year. We have plastic coated tubing in the Paddock, as Paddock was is



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sour. We have preferred thus far not to run instruments in that tubing and chance damage to the internal lining. This is a dry gas. We have little or no distillate production. Consequently, extrapolation or extrapolating the surface shut in pressures would be expected to yield fairly reasonable value.

MR. UTZ: You have no liquids in the hole?

No, sir. On all of these bomb pressures, we have never obtained a liquid level. We have always had gas to the bottom depth.

Going further with this, if you will refer back to Exhibit Number Two, we have had a considerable amount of production from the Paddock, relatively speaking. We have, as you can see here, three wells or four wells that have actually produced from the Paddock, three of them within the South Mattix Unit area, 10, 11 and 14 and also Gulf has the Gulf Plains Knight Number Three completed as a Paddock gas well.

(By Mr. Cooter) Okay. Would you now state what is shown by Pan American's Exhibit Number 6-R?

Exhibit 6-R is a calculation of the ultimate gas recovery anticipated or expected or shown to be present in the Paddock based on pressure accumulative performance to today, utilizing three pressures in the calculation, 2,000 PSI, the pressure on January 1, 1964 of 1818 PSI, and this 1818 is an average of three wells completed in the Faddock in the South Mattix Unit, wells Numbers 11, 14 and 16. I did not use the

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pressure on South Mattix Number Ten. They are not representative. Using a gas material balance, which is the equation essentially of a straight line plot of gas accumulative versus pressures over permeability factor, we come up with an ultimate gas recovery factor of twelve billion eight hundred million cubic feet.

On Exhibit 14 of the case last year, we presented pool volume reserves, which are unchanged. They were based on log calculations of 8.75 million cubic feet per acre, utilizing this pool volume reserve number and dividing it into the ultimate pool gas recovery as shown as the material gas balance, we have a total acreage represented of 1460 acres with four completions, all on 320 acre spacing. This includes the Gulf well. This results in an average acreage per well of 365 acres, which indicates positively that the current completions in this Paddock zone are capable of draining at least 320 acres.

The reserves shown by the pressure accumulative data are very nearly the same as calculated by pool volume. If they had been exactly the same, the acres per well would have come out to be exactly 320. Either the ultimate gas recovery of twelve billion eight hundred million or our value of 8.75 MCF per acre as determined by pool volume is slightly in error. We have an increase actually shown in reserves by pressure performance of about 14% over the reserves that we have previously shown by pool volume. This slight increase does not essentially change our economics of development in this zone.



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What are the economics of development on 160 acres versus 320 acre spacing for this pool?

We presented the economics of the Paddock development Α on 160 versus 320 as Exhibit 15 in our previous hearing last year and as I have stated, they are essentially unchanged from our comments then.

Well, in addition to the border line reserves for economic development on 160 acre spacing, what is the primary reason Pan American prefers the development on 320 acre pool basis

Again, in the Fowler-Paddock as in the Fowler-Tubb we discussed a few minutes ago, we have a gas contract with minimum take rate based on acreage, 550 MCF minimum take per day per well of 160 acre spacing and 1100 MCF per day for each well for 320 acre spacing. Historically, from the Paddock, we have sold gas at a minimum take rate, and unless there was some change or increase in the demands in the future, development on 160 acre spacing would not result in any increased gas sales. Based on this, our economics on 160 versus 320, you might say really is outdated, that essentially there is no pay out on wells on 160. We can't increase the gas rate.

Do you have any further testimony to offer on the Fowler €. Paddock Gas Pool?

No, sir. А

MR. COOTER: That completes our testimony on this case.

MR. UTZ: Are there questions of the witness?

MR. DURRETT: Yes, sir, I have a question.

CROSS EXAMINATION

BY MR. DURRETT:

- Mr. Rogers, the minimum take contract that you are speaking of or contracts that you are speaking of, were entered into voluntarily by the operators, were they not?
 - A Yes, sir, they were.
- Q So, if you cannot increase your gas sales by drilling additional wells, it is strictly because it is the way the operators contracted to do business?
 - A Yes, sir, that is right.
- Q Also, along that same line, don't you feel that the Commission should be extremely cautious in letting its decision be influenced by whether, or not there is a certain type of a contract in the area on gas takes; in connection with that, don't you think that the Commission should be much more concerned with the area that can be efficiently and economically drained and very little concerned with the contracts that have been made in the area for takes of gas?
- A Yes, sir, I do. We offer this knowledge, you might say, the fact of this minimum take strictly as a supplemental to economic data. We certainly consider our pressure data as proof of the communication would be much more important from the standpoint of the Commission's decision.



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MR. DURRETT: Thank you.

CROSS EXAMINATION

BY MR. UTZ:

Q Do you know when the Gulf Plains Knight Number Three was completed?

A Yes, sir, I can get it here. It was- - There is a pertinent data sheet on that well attached to Exhibit Number 13 of the initial hearing. The completion date on that well was 4-24-62 and it was connected to sales in December of '62, so it was shut in for eight months prior to being connected. I have no pressure data on that well at all.

Q When was your Number 11 connected?

A Again, referring to the same exhibit, ll was connected in March of '61.

What is the initial potential or ability to produce of the Number 11 and the Number Three, Plains Knight Number Three; are they about the same size well?

A All right. The South Mattix 11 had a calculated absolute open flow of two million one hundred thousand. The South Mattix 14 had a calculated absolute open flow of eight million. I don't have a calculated open flow on the Gulf well. However, I have a test on it, indicating that it flowed 366 MCF per day on a 15/64ths inch choke, with a flowing tubing pressure of 360 PSI. I am not



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familiar with what Gulf has done to that well recently, however, I have noticed in the last couple of months there production has jumped up over a million a day. So, apparently, they are making close to 11 MCF. I would assume they have performed some work on this well, because it was low capacity.

- They have the same purchaser as you?
- Yes, sir. Referring to this minimum take, I don't know that they have this minimum take in this contract, but I am sure they have a ratable take, which would essentially put them in the same place or on the same basis.
- This newer well has produced more than any other Paddock well in the field, correct?
 - The Gulf well?
 - Yes, sir.
- No, sir. Referring to Exhibit Two-R, last column on accumulative, to December it has produced less than any other well. The largest production has been from our Number 11. The second largest is our Number ten and our Number --
 - This is just for one month?
- You might notice in that month there they average about a million and a half a day out of that Gulf well. Obviously, it is a better well than that test I gave you awhile ago.
- Yes, sir. And then, the sum and substance of your 0 testimony here regarding the radius of drainage is pressure drop versus reserves in production calculated; is that correct?

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That and the fact that as we subsequently completed wells Λ in the Paddock, we had pressures less than initial indicating that those, vicinity of those wells had been dained previously.

0 Except for one pressure which you were not able to explain?

Yes, sir. Either one of those pressures are less than initial pool pressure, so if we average them or take either one of them, we still possibly indicate, or do indicate that some drainage had occurred. The 1925 is still 75 pounds less than original because- of course, it was also taken a year later.

- This initial pool pressure was taken on DST in 1949?
- Yes, sir.
- Do you have any opinion as to how accurate that pressure might have been?

No, sir, I don't. In answer to that, I would say that the initial pressure could be somewhere between 1930 and 2,000, actually. On Number Ten we produced that well and tested it prior to obtaining that initial pressure and then, the subsequent history on the failure to get a build up, we just feel the 1930 was too low. We had nothing else to go on. Even with the one drillstem test, even if we use 1930 as the initial pressure, that is the second highest pressure we have recorded. So, as you can see, that every pressure after that was still less than that, would still indicate the same thing that the 2,000 does, but not quite as large a magnitude.



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6 Would you agree that many DST pressures are not within the realm of accuracy?

A Yes, sir.

Q For this type of study?

A Yes, sir.

 $$\operatorname{MR}.$$ UTZ: Are there other questions of the witness? You may proceed.

REDIRECT EXAMINATION

BY MR. COOTER:

Q Mr. Rogers, Pan American is requesting permanent field rules in the Fowler-Blinebry Oil Pool identical to the temporary rules. What data do you have in support of this request?

A I don't want to wear you out on Exhibit 4-R, but I will refer back to it. I have the pressure shown on here also for the Blinebry. They are again essentially showing the same thing here as we have completed a couple of wells in this field. We have recorded lower pressures. The initial completion in the Fowler-Blinebry Pool was the Gulf Plains Knight Well Number Two, which is located down in Section 23. We have no pressure information on it. And as stated last year, it is a low capacity marginal producer. Referring to Exhibit Number 2-R, the Gulf well has accumulative recovery of only 30,000 barrels. That well is approximately ten years old. Whereas, our Number 14 in the neighborhood of two years old has recovered 32,000 barrels. So,



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with no other information than this, just --

Our first completion was the Number 14 well in the Northeast Quarter of the Southwest Quarter of Section 15. In this well, we recorded an initial pressure of 2241 PSI, on October 4, 1962. After producing this well for - - well, to the day, one year, we completed the South Mattix Unit Number Three well in the Blinebry. This Number Three is located in the Northwest Cuarter of the Northeast Quarter of Section 22. This initial pressure in the South Mattix Number Three, on October 4, 1963 was recorded as 1996 PSI. This is some 245 pounds less than the initial pressure recorded in Number 14. As a matter of interest, all of these pressures are at a common datum for each formation. The distance from Number 14 to Number Three is about 3,000 feet, and with a circle with a radius of 3,000 feet, 650 acres certainly is in excess of 80 acres for drainage.

The next completion in the Blinebry was our South Mattix Number 11. This was an existing Ellenburger well in the- that we dualed in the Blinebry, located in the Northwest Quarter of the Southeast Quarter of Section 15. We have a pressure anomaly here that all we can do is speculate. The initial pressure in this well is 2295 PSI, on November 7, 1963. This is 54 pounds greater than what we previously thought was initial pressure of the reservoir. If we refer back to our Exhibit Number Three, a cross section through this area, the third well from the left on the cross section is the South Mattix Unit Number One well, which



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the center of the cross section there. If you notice right immediately below the top of the Blinebry pay, we have a section of ten to eleven feet in thickness indicating very good porosity. This was what we had initially considered the main Blinebry pay zone. It was essentially to lead us to perforate Number 14 in the Blinebry. The log to the left of the Number One well is the Number 14 well. This well is completed in that upper, or high porosity Blinebry pay, along with other lower intervals. When we got to the number One, we didn't perforate that top, higher pay zone, and by that time, we were getting concerned about high GORs and subsequent allowable penalties in the Fowler-Blinebry Pool, and we hesitated to perforate at the top. We don't know if this has anything to do with our pressure recorded in Number One being higher. We feel that Number 14 is probably drained, or has received a large percentage of its production from that upper zone. we didn't complete in the Number One. We think we would have possibly recorded a low pressure in Number One had we been perforating in this zone. As I said, this is strictly speculation. I would like to call your attention to the 4th well from your right, South Mattix Unit Number 16. We attempted a Blinebry completion in this well. This well is one of the highest structural wells in the area. We certainly anticipated a good Blinebry completion and we got a dry hole. If you notice on that log, upper pay interval is not present in that well. This is a

recorded the high pressure. The Blinebry zone is essentially in



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sonic log, whereas the other logs are nuetron, which has lead us to believe - But, nevertheless, we could not make a well on Number 16. Referring back now to Exhibit 4-R, the pressure map.

there is another interesting observation we can make on these pressures were respect to Well Number One and Well Number 14 in this so-called anomaly. We are concerned about that pressure in Number One and two months later, on January 13, 1964, we bombed again and got a pressure of 2065 PSI. This is a decrease in a two month period of 230 PSI. During that period of time, production from Number One was approximately 4,000 barrels of oil, so that we had a production during that period, that two months, from that well of about 17 and a half percent PSI drop in pressure. We go well of about 17 and a half percent PSI drop in pressure. We go right to the direct offset, Number 14, we have a drop in pressure over almost two years, October '62 to January of '64, little in excess of one year, 2241 down to 1735, or 506 PSI. During that period of time, this well produced in excess of 30,000 barrels of oil and recovered about 69 barrels of oil per PSI drop in pressure We have recovered 69 barrels of oil for every pound. In the Number One we have a recovery of 17 barrels of oil. This leads me to suspect that the pressure in Number One, referring to this initial pressure of 2295, was probably an erroneous pressure. Unfortunately, the well was placed back on production before the chart was interpreted on the bomb and we couldn't rebomb it to That is all we can offer in explanation for this



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In summing this pressure data then, the rapid decrease in one during that two months period of time, and even more important the low pressure, or lower than initial pressure, recorded on initial completion of the South Mattix Unit Number Three, indicates that we are effectively draining that Blinebry zone.

The economics of development in the Blinebry were very poor as presented in Exhibit Six last year for 40 acres. We had a 25 month pay out and return on investment of only 0.62. far from meeting Pan American's minimum requirement. Our economics now are apparently much worse than this, as evidenced by failure to complete Number 16. It was high structurally, and as I had said, we anticipated a completion there and we couldn't make a well. We now feel that the Blinebry will be economical only as a zone for dual or multiple completion, or salvage zone in a well that is currently completed at a greater depth. doubt very seriously we will be drilling to the Blinebry. have only drilled one new well in the area since last year. was Number 16, and it was a triple completion.

- Does that complete your testimony on the Fowler-Blinebry or do you have other evidence to offer?
 - Yes, ir, that completes my testimony.
- Were all of these exhibits, being marked One through Six, either prepared by you or at your direction and request?
 - Yes, sir, they were.



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MR. COOTER: We offer Exhibits One through Six into evidence, Mr. Examiner, and that completes our direct testimony on this case.

MR. UTZ: Without objection, Exhibits One through Six, that is, 1-R through 6-R, will be accepted into the record of this case. Are there questions of the witness?

RECROSS EXAMINATION

BY MR. UTZ:

Q In the Paddock zone as in the Blinebry zone, you have resorted to time pressure points- - Well, you didn't actually calculate your reserves versus pressure drop on this radius of drainage?

A No, sir. This being oil reserves, we didn't have the necessary data to perform that type of calculation.

Q Just your pressure drop versus production is basically your proof of drainage?

A Yes, sir, plus the lower pressure on Number Three, indicating drainage at that location.

Q Now, the Tubb zone is a gas zone, is it not?

A Yes, sir.

Q The other two are oil zones?

A No, sir, the Paddock is a gas, also.

Q The Paddeck is also a gas?

A Tubb and Paddock are both gas.



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MR. UTZ: Any further questions of the wliness? witness may be excused. Statements to be made in this case?

MR. JACOBS: Skelly Oil Company, as an interest owner in the area concurs in the recommendations of Pan American for permanent 80 acre spacing for the Blinebry, temporary 320 for the Tubb and permanent 320 for the Paddock.

MR. UTZ: Are there other statements?

MR. DURRETT: It the Examiner please, the Commission has received telegrams from Delhi-Taylor, Atlantic Refining Company and Continental Oil Company stating that they support Pan American's application and requests in these cases.

MR. UTZ: Other statements? The case will be taken under advisement.

STATE OF NEW MEXICO COUNTY OF BERNALILLO

I, ROY D. WILKINS, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill, and ability.

WITNESS my Hand and Seal of Office, this 28th day of My Commission Expires: 100 hereby certify that the forecome in September 6, 1967

New Mexico Oil Conservation Commission

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BEFORE:

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TRANSCRIPT OF REARING

The hearing will come to order, please. Before proceeding with the Gocket Class. But them some changes. I will call the dock to for you if you want to make notes of it. We will take Case 182, 3743, 2743 1996, and then Case 2134 fourth. We will take dame 2742.

MR. Diks OFF: Applicables or Pan Castycan keep Manm Corporation for any int temperaty post rules, and donaty, Now Mexico.

Mr. Billion boy it of our on mandaer, for can american Corporation, Gry Small. with the average 's permission I would like to consolidate, only for suggested of testimony and the record, Cases 2742 and The see 2770. The three of these esses weights to a formation that is on a common structural feature. They have other items in common, and I believe that we can save time by consolidating those three cases.

MR. UTT: Those will be some testimony in all three cases that will be come to all three

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separate onders written on each case.

Mk. BUELL: Also, Mr. Examiner, with your permission we would like to, in our testimony, cover them in the order that they are numbered, 2742 relating to Blinebry; 2743 relating to the Tubb; and 2744 relating to the Paddock formation.

MR. UTZ: That will be all right.

MR. BUELL: We have one witness, Mr. Rogers, who has not been sworn.

(Witness sworn.)

MR. UTZ: Are there any other appearances to appear in any of these three cases?

JAMES TURNER ROGERS

called as a witness, having been first duly sworn, testified 's follows:

DIRECT EXAMINATION

BY MR. BUELL:

Will you state your complete name, by whom you are employed, in what capacity and at what location, please?

James Turner Rogers; employed by Pan American Petroleum Corporation in Lubbock as a reservoir engineer.

You testified at a prior Commission hearing and your qualifications as a petroleum engineer are a matter of record, are they not?

A. Yes, six.



Mat. BUEGG: As our Exhibit Number 1, Mr. Examiner, it is a brochure containing pertinent factual data on the Blinebry formation. Also included in this brochure are pertinent completion data on the wells completed in this formation. We won't attempt to cover each and every item in this brochure in our testimony, but we will cover the more important phases.

> (Whereupon, Applicant's Exhibits 1 and 2 were marked for identification.)

- (By Mr. Buell) In connection with the Blinebry formation, I wish you would look at what has been marked Pan American's Exhibit Number 2, and state for the record what that exhibit reflacts.
- It is a structural map, contoured on top of the Blinebry marker. It reflects a symmetrical anticlinal structure with a northwest-southeast trend and a pay closure of approximately 150 feet.
- At the present time how many wells are completed in and Q producing from the Blinebry Oil Pool?
 - There are two walls completed in this pool now.
 - How have you designated them on Exhibit 27
 - These are designated by the orange triangles. A
- Q What is the significance of the area on Exhibit 2 that's outlined in the solid blue line?
- That's the unit boundary of the South Mattix Unit operated by Pan American.



This formation and the other formations which are the subject matter of this consolidated hearing, they're all in a multi-pay area, are they not?

Yes, sir.

The conventional blue dots that show up on this exhibit, as well as others, simply relate to wells that are completed in other formations on this same structural feature, is that correct?

Yes, six, that's right.

(Whereupon, Applicant's Exhibit No. 3 was marked for identification.)

I wish you would look at Exhibit Number 3, it's the exhibit over here behind the Examiner, and state for the record what that exhibit reflects?

Exhibit 3 is a cross section through six wells in the Fowler area. We have shown on this the correlation of the top of each of the three subject formations here today, the Paddock, Blinebry and Tubb formations. This cross section runs from Pan American's South Mattix Well Number 6 to Gulf Plains Knight Number 2 Well.

There's an insert and the surface trace of the cross section is shown on the insert?

Yes, sir, it is.

With respect to the Blinebry formation, what does this cross section reveal, Mr. Rogers?

The main point of interest here in the Blinebry is this



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from the walts in the subject fields, for the month of October, 1962 and accumulative recovery for the same wells. In the Blinebry we have two wells presently completed and producing, the Gulf Plains Knight Number 2 and the South Mattir Unit Number 14. The Gulf Well had recovered a commulative, as of November 1, 1960, of 27,000 barrels. The South Matrix recovered approximately 3,000.

- For a total reservoir communities of approximately 30,000 barrels?
 - Λ Yes, sir.
- When was this Blinebry Cil Pool first discovered, Mr. Ω Rogers, do you recall?
- Yes, sir, this field was discovered by Gulf with their Plain's Knight Number 2 in 1994.
- So we've known it was there for about nine years, but as of this time there are only two wells completed in this reservoir?
 - Yes, sir.

(Whereupon, Applicant's Exhibit No. 5 was marked for identification.)

- Would you look now at what has been marked as our Exhibit Number 5 and state what that exhibit reflects for the record?
- Exhibit 5 reports a reserve data summary of the values for the Blinebry in used to arrive at oore volume reserves the vicinity of our South Mattix Number 14. These data indicate an ultimate recovery of 1,375 barrels per acre, based on solution



gas drive.

O Mr. Rogers, I see we refer to the data on Exhibit 5
more or less as average data for the reservoir, but let me ask
you this; from which well did you use data, principally, in making
your pore volume calculation?

A From the South Mattix Well Number 14, our present completion.

Q Looking back at Exhibit 2, it's obvious that that well is in the better portion of this Blinebry reservoir?

A Yes, sir.

Q Still looking at that exhibit, Exhibit 2 and to the Gulf well down at the southeastern end which is on the edge of the field, do you feel that that Gulf well would have the same magnitude of reserves as you show on your Exhibit 57

A No, the Gulf well, based on the current decline has an approximate recovery of 39,000 barrols.

Q So its reserves in that portion of the pool are not any where near 1,375 barrels per acre?

A No, sir.

Q In looking at your reserves as set out on Exhibit 5 we could certainly say that they are optimistic reserves and that in all probabilities wells outside of the better postion of the reservoir will not have that magnitude of reserve?

A That's right.



(Whereupon, Applicant's Exhibit No. 6 was marked for identification.)

Go now to your Exhibit 6 and state for the record what Q that axhibit reflects,

Exhibit 6 is an economic comparison of development on 40 acres versus 80 acres, based on the reserve data presented in Exhibit 5.

You have all date on ashibit a which are necessary to make a complete economic evaluation of 40's and 60's, but in the interest of time, and whom the exhibit is wors on less self explanatory, would you just brissly, for the record, summarize the comparison of 40-acro development varsus 80-acro development?

£. Yes, sir. On 40 acres the profit per well is \$43,450.00, with an investment of \$70,000.00, pay out of 25 months and a return on investment of .6%. For 90-acre development we would have a profit per well of \$168,400.00, requiring a 13-month pay out, with 2.4 return on investment.

Based on these data, in your opinion would development to a density of 40 acres in this Blinebry formation be economic?

- No, sir, it would not.
- Do you feel that development on 30 acres would be an economic venture?
 - Yes, gir.
- So then, solely from an appearate stundpoint, 80-acre development about is adopted the this Blinebry Oil Fool?



ł, i

REPORTING SERVICE,

Yes, sir, it should.

(Whereupon, Applicant's Exhibit No. 7 was marked for identification.)

O Now, go to what has been marked as Exhibit Number 7. What is that exhibit?

A Exhibit 7 is a list, or group of cules, proposed rules for this pool.

Q You are recommending at this time that only temporary rules be adopted for the Fowton-William by Oak Pool?

A Yes, sir, I am.

Q Now, with respect to these water again in the interest of time, let's don't read them word for word, but would you just briefly summarize them? Would you summarize Rule 1?

A Rule 1 dofines the limits covered by those vules as being wells completed in the Forter-Blinebry Pool, or within one mile of the pool, unless the well is in another designated field.

Q Now, Rule 27

A Rule 2 defines a standard provetion unit as being 79-81 acres composed of either the morth half, south half or east half or west half of a single governmental quarter section.

Q Now, with regard to your Rule 3, the well spacing or well location rule, are you making two recommendations to the Commission in that regard?

A. Yes, sir, we have two proposate for Gulo 3.

2 Would you summeries four first proposal?



The first proposal provides for wells to be drilled or completed in the Fowler-Blinebry Pool within 150 feet of the center of a quarter-quarter section. It grants an exception to this location for wells currently drilled to or through the subject formation or existing location or existing well bores. Could we summarize that it provides for rigid spacing with a "grandfather" clause that excepts wells now completed in, or wells that have penetrated the Blinebry and later on may be re-

Yes, that's correct.

completed in the Blinebry?

- What is your alternative proposal?
- The alternative proposal provides that any well projected or completed in this pool shall be located no nearer than 330 feet from an outer boundary line.
 - Could we summarize that is a flexible well spacing rule?
 - Yes, sir,
- This is a multi-pay area, Mr. Rogers, would you anticipate that quite a few of the ultimate completions in this formation will be recompletions from wells that are now completed at a deeper depth?
 - Yes, sir.
- Would you also anticipate that some new wells will have to be drilled to fully develop this Blinebry formation?
 - Yes, sir.
 - Do you feel that the adoption of either of your proposed

Rules 3, will avoid numerous unnecessary unorthodox well location hearings?

- Yes, sir, I do.
- What is your Rule 4, Mr. Rogers?
- Rule 4 provides for administrative approval of nonstandard proration units due to variation in legal sub-division with notice and waiver of offset operators, and also provides for the allocation of allowables on an acreage basis.
- That's a rule that's common to many of the pools that the Commission has adopted rules for?
- Again in the interest of saving unnecessary hearings. What about Rule 5?
- Rule 5 states that the proportional factor for allowable purposes shall be 2.33 for the 80-acre spacing and also that if an operator has more than one well on any 80-acre proration unit that he can produce his allowable in any proportion from the wells.
- Again that's a common rule for oil pools where the Commission has adopted 80-acres.
 - Α Yes.
- Hasn't the Commission recently adopted 80-acre unit Rules for a Blinebry formation in the Southeast New Mexico?
 - Yes, sir, in the Oil Center Blinebry Pool.
 - Do you have anything also you would care to present at



this time with respect to the Blinebry portion of this consolidated hearing?

A No, sir.

MR. BUELL: Mr. Examiner, would you care to ask any questions now with regard to the Blinebry, or would you like for us to go through all of them and then ask all questions?

MR. UTZ: I think it might be well to have cross examination after each pool.

MR. BUELL: That's all we have in the way of direct on the Blinebry.

CROSS EXAMINATION

BY MR. UTZ:

- O This is a designated pool at the present time, is it not?
 - A Yes, sir.
- The discovery well was between five and six thousand feet?
 - A Yes, sir.
- Q Do you have any permeabilities on your South Mattix
 Number 14?
 - A No, sir, we do not have any core data at all.
 - 9 You didn't take a microlog either?
 - A No, sir.
 - Do you have any idea what the permeabilities are?
 - No, sir, I don't. I might add on that that the initial



potential on our Number 14 was 144 barrels per day, flowing with 400 pound tubing pressure, which would indicate to me that we have good permeability.

- Q In regard to your Exhibit 6, this double asterisk on your net income column --
 - A Yes, sir.
- Q I note that you are charging off \$125.00 a month per well for operating costs.
 - A Yes, sir.
 - Does that include the estimated work-over, or not?
 - A No, sir, it does not.
 - Q That's just for operating costs?
 - A Just for operating costs.
 - O These are flowing wells?
 - A Well, the Gulf wells on pump and our wells flow.
 - Q Is this an estimate for a flowing or a pump?
- A This is estimated for the average between a flowing well and a pumping well over the respective life of the field, in order to arrive at economics based on ultimate recovery. I would say here we range from a hundred to one hundred fifty from flowing to pumping status.
- Do you have any idea how many wells are now drilled in the Fowler-Blinebry Pool that are as close as 330 feet from the proration boundary, 80-acre boundary?
- A- No, sir, I haven't counted them. I believe we can



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arrive at a figure pretty quick. On 330 locations, we have two wells on the South Mattix Unit, and apparently Gulf has two wells on their acreage I'w assuming it has this because the map shows all the wells in this field.

- That would be five wells to the best of your knowledge that would be drilled 330 on the 30-acre unit boundary?
 - Yes, sir.
- Q Under your first proposed Rule 3, these five wells would receive the so-called "grandfather" clause permit?
 - Yes, sir.
- All other wells would be drilled then within 150 feet of the center of either 40-acre tract?
 - A That's right.
- Referring to your Exhibit 3, I note that this Number 14 Well is the second well from the left, is it not?
 - Yes, sir.
- I note that you have perforations through the probably upper two-thirds of the Blinebry zone; no perforations in the lower third of the Blinebry zone. Is it your opinion that this zone below the perforations is approximable enough to prevent vertical migration from the Tubb to the Blinebry?
- Yes, six. I don't think wo'll have any vertical migration. Our Tubb completion in that well is a gas well. Right now we have a thousand to one gas ont recan on that Blanebry well. I certainly don't anticipate any problems, -



It's highly unlakely since the Tubb is a gas producer.

A Bight.

MR. UNY: Any other questions of the witness?

CROSS EXAMINATION

BY MR. KASTLER:

- O I would like to ask Mr. Rogers to please read his proposed Rule Number 3.
 - A All right.
 - 3 Number 3.
 - A Do you want both Number 38?
 - Q Yes, the proposal as he has offered it.
- A The first one that was given awhile ago for Rule 3, each well projected to or completed in the Fowler-Blinebry Pool shall be located within 150 feet of the center of the quarter-quarter section in the 80-acre unit. Any well that was drilling or completed in the Fowler-Blinebry at the date of this order is granted the -- from a deeper formation, on the date of this

order, is granted a similar exception when being completed into the Blinebry.

- Q Now, your alternate?
- A Alternate, each well projected or completed in the Fowler-Blinebry shall be located no nearer than 330 feet to the outer boundary of the proration unit.
- Q Are you offering either of these rules, or stating a preference of Pan American for either of these rules, or simply



offering it to the Commission to plak the rule that it finds most suitable?

We are offering it to the Commission to pick the one most suitable. They are equally recommended.

MR. BUELL: Let me say this on behalf of Pan American. Pan American would recommend the move flexible spacing rule which is the second Rule 3 in that exhibit, Mr. Examiner, as an engineer might have a different recommendation, but that is the one that Pan American would prefer. Do you agree with Pan American, Mr. Rogers?

Λ Yes, I agree with Pan American.

MR. UTZ: Are you testifying that you agree with management?

I am testifying that I would.

MR. KASTLER: That's all.

MR. BUELL: We feel that aither rule will avoid a lot of unnecessary hearings.

MR. UTZ: Are there any other questions? You may proceed.

MR. BUELL: Mr. Examiner, Exhibit Number 8 is a brochure on the Tubb formation, similar to the brochuze on the Blinebry, and we give it to you simply as a codification of factual data.

> (Whereupon, Applicant's Exhibit 8 was marked for identification.)



5-1

DIRECT EXAMINATION

BY MR. BUELL:

- the many and the threshold and the consor, who dogst , the soften grang and , and many a grange part of a contract consignation of the Commission.
 - The state of the same
- O and this gas good.
- We recalled that absolfied as the fowler-Tubb Gas Fool.
- O That would correspond to the summer bool designs that on this common supercure and two as a conformed?
 - A Yes, San.

(dastungas, Applicant's Calibbio - ... - was turked for identifi-- cation.)

- O Would you took now as here some most made for the second while said and state and the second when said and the second in the second when said and the second in the second when said and the second in the second when said and the second when said
- of the Tubb in the Fowter area. Again this is very station to the one we were tooking at in the Blackbry. It's an assymblished anti-clima perform one nonembers, minimum. Again to have tooking at in the Blackbry. It's an assymblished anti-clima perform one nonembers, minimum. Again to have took to choose the manual anti-clima performance one again.
 - of the war again are our cauty theated in the This date



A our wall

O How have you shown at on this exhibit?

A By the backer criangle.

O is at producing as of this minute?

A No six, it's shut in.

Q You expect a connection shortly, and the opportunity to produce, market and sell gas from the Euch Sormation?

A Yes, sir, we do.

Q Again is the South Mattix Unit designated by acavy blue checkered line to show the axes of the unit?

A Yes, six.

Q Let's go back to exhibit 3 abs, Nr. Rogers, and describe for the record what that exhibit reveals with regard to this Tubb gas formation?

A Again Exhibit 3 is this cross section. As with the Blinebry we can correlate our pay intervals in the Tubb through the wells represented by this cross section. Again we get to the Gulf Plains Knight Number 2. We have what appears to be a poor development of pay.

Q Again you are getting with that well on the southeastern extremity of the reservoir?

A Yes, sir.

Q All right. Now, with regard to the Tubb, based on your sub-surface evaluation of this formation, do you feel that the geological opportunity exists for one well completed in this



FARMINGTON, N. M. PHONE 325-1182

SANTA FE, N, M. PHONE 983-3971

reservoir to

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- Example 1 to a second to be a to been been as prove À volume reserves (on the Tobb. Disse these data the altreate gas reserves are 7.6 : Allion cubic from new acre, with an altreade condensate reserve of all barrees and Acres
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compared to 320-agre development.

on the agre development we would have a profit per well of 395,300.01. Anado on an investment of 20,000, we have a 35month pay out and 1.2 return on may streak; for 320-acres, profit \$292,600.00, pay one 17 and a maif souths, return on investment of 3.66.

- In your ominion, do these data reyeal that it would be uneconomical to develop this wash that took on 160-more specing?
 - . Yes, sir, they co.
- Do you feet that development on 525-acre spacing would Qbe aconomical?
 - A Yes, sir.
- So, again, as was the case wite the Blinebry, from an economic standpoint, well, not the case with the Blinebry because that was oil on 80. Again from an economic standpoint this cool should be developed to a density of not greater than 320 acres;
 - Ã Yes, sir.

(When Jupon, Applicant's Exhibit No. 12 was marked for identification.)

Q Would you look now at Exhibit 12?

MR. BUELL: Let me state here, Exhibit 12 contains the pool rules that we are recommending for what we will call the Fowler-Tubb Gas Pool. We will recommend identical rules for Fowler-Paddock Ges Fool, since this Fowler Gas Pool was already designated by the Colmission, we used that bomencleture in these



rules so that we could have a pool name in the rules, but we will recommend identical rutes for the Tubb and the Paddock.

- (by Mr. Bueil) What is your Rule 1, on Exhibit 12?
- Again Rule 1 defines the limits as covered by the rules A as being wells completed in the sub-formation, or within one mile of the limits, if not in another designated pool.
 - All right, sule 27
- Rule 2 defines a proration unit as being composed of 316 to 324 acres of any two contiguous quarter sections.
- With respect to Rule 3, the well location rule, or well spacing rule, are you making the identical recommendation for these two gas pools that you made for the Blinebry?
 - Yes. We have two proposals.
- One of your proposed bate 3 is more or less rigid spacing with a grandfather clause, and your alternate rule is straight 330 foot, or flexible well location?
 - Ā Yes, sir.
- Again, let me ask you this, with respect to both the Paddock and the Tubb, do you anticipate with regard to these two reservoirs, that many of the altimate completions in these zones will be recompletions from deeper wells?
 - Yes, sir, we do. A
 - What is your Rule 47
 - Rule 4 provides for administrative approval of non-

etandaro proration units, compristing less than



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UQUERQUE, N. M.

unti shall bear the same ratio to a standard acreage factor in the rowler-Pagoock same ratio to a standard acreage factor in the unit hears to the 320 acres.

- o It's a common rule in gas pools that have rules?
- A Yes, sir.
- 9 What he your recommended twic 5?
- A Rule i states that in the event of subsequent proration, that the acreage factor, or allowable should be based on acreage factors.
- this time, but in the event it is ultimately prorated, you wish to get on the record that you would recommend one hundred percent acreage allocation?
 - A Yes, sir.
- temporary request for pool rules, which you have just covered, we are also requesting at this nearing a non-standard Tubb gas unit, are we not?
 - A les, sir, we are.
- g would you go mack to exhibit sumber 9, which is your structure map of the Fubb, and would you state for the record the acreage that we are asking to be tachuáed in this non-standard unit? Come over here, and as you describe this acreage would you outline in red on the Examiner's copy of Exhibit 9 this



proposed non-standard putt:

we are proposing the 320-here non-standard unit be comprised of the northeast quarter and the east ... Excuse me, the north hair of the southeast quarter, and the east half of the northwest quarter of Section 22.

- And you ago now outlining on the official copy of Exhibit Number 9 the outline of this bon-scandard unit?
 - Yes, sir.
 - It has 320 acres in it, does it not?
 - Yes, ext, it does.
- So, it's non-standard solely from the standpoint of shape?
 - Yes.
- Why is Pan American requesting a non-standard unit for this particular area?
- We are requesting this non-standard unit strictly as a matter of convenience and simplicity in accounting procedures for the operators in South Mattix Unit. By adopting this unit we can include 320 acres within the South Mattix Unit boundary.
- And to some a standard many you would have to obstagle South Mattix Unice ectamon with normage unicated the South Anthre Unit?
 - You, cer, that's right.
 - be you feet that the granting of the son-sending unit



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a last the last problem as taken that questions is subtraced inmediately as the the to commenty a typer owned by sinclair, it appears to be paralled and the contract of actair would origon and read wait on one of there cracts

a contractionally that they would, considering the structural position of the same type. If they die we would mayoutate with them on the things dever,

Basec on the nethrodists for yearsave now, you don't anticipate Sinckets orreland to the accommodate.

Wey syry

White the keeps on it is not to be a common to the other acreage that which was not place were dimension unit, is the ownership in that acrosse common when one acrosse immediately adjacent to it is the unit

Yes, see, at as.

Do you ... : dow, so was have about our that You myour condi- \circ tions that exist, coreadured raging made an any way we becomed by the approval of the mon-scanowing motion

do you all a may having es you seem to and, an into to me, with respect to an LAS ZEL CHERRING CAC LAND SIL FORMATION?

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LOSS TRAMINATION

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- colors of come anticher common 9, the well which was see the Section 22, was that a dry The Charles and the note in the tor stop and, or how a new to in got
 - Age your derring here to take well dumber 127
 - Kabi in the est which in human has
- Tase that was written to do allegourger, and to my knowledge it may now tested, or it is the lested then I am sure it was dry in all formations. I have a provide hid percent water from the allemourger, one will be then blue, I think that was in 1954, all the act attocales, we agree that we acce how ing at these shallow pays, and the country to any whether it was tested or not.
- 0 And the mana question with raderance to the well in the northwest of the northwest of her same addition.
- I'm nat formhang with to the ver-. From the toolah copinhere, 19800 feet, it was an alleganger projection, and as to what it showed in cosir pays, I now to room, a might ald merc, is we had run chalast a benes in the whole, I coubt seriously we would have obtained any combinity ones. The lamb historically vives poor show on drill come test. In respectors standibation for produce tion.



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and a Tubil Zone

Wes, sir, Strictly based on its structural location, I would conor than it waste per.

is setting your recommended that the pool be named the Fowler-Tubic Policy of the Satisfactor to manendation as no the hori-Zontal liane,

wa, whe, subtanit have me ready.

Firm out with a control of the finite 2006 on the tink of the operation particle afterwarting a non-scandard?

Ro, arry the summand the condition of the south Mattix Unit Well warmen a, which is the Unit of M described 22. That well is presently complicated in the name of the contraction, and has reached the economic limit, and upon massing grassamy, or approval, we plan to recomplake that in the follow.

MR. SOCIET With regard to norizontal Landes, Mr. Examiner, this is as unusual as constions, to const stave one well completed in the Coran Late, and the face face realizable to be on the deeper tester, or more and store control and date than you normally have on a two wall again or as

the same of your executive draws a. which is marked for any more host ordered by the form opinion as the frob zone productive.

Yes, sir,

at the time so used as that well, but based on the completion now we have in applier 14, I feel certain that it would be proquetive from the tens. I tend that's promuly a real good example there of the type of rather walten we chestians on drillstem testing this particular cons.

- With a ference to your sublide number 11, again 1 ask if the operating costs of florene Auctide work-over costs?
 - NO. 231, the Gaush't.
- The Photolog, about he we the most if it were a single completion, or dead this another and disple completions
- Ă This plot we applied to a section resplation as to all of these economics.
- then are tanders in door course on the discovery well on this pool that you are recommending!
 - P_{\bullet} Tos, dir.
 - be you have available the top of the perforations:
- They wast of on the year an ear west data shows attached to the brochure, which is similar assemble . The top of the porforations are 5,936 (eet.
 - Mr. Uday was those whose questions of the withese? Mr. DU star Yes, sir, a neve a question.

BY MR. DURKETT:

Mr. Rogers, or wels accovery well, what day was that completed, do you make a gay on that:



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FARMINGTON, N. M. PHONE 325-1182

the first flow thety this is a criple completion, by think it was the way, the Tooker M., and it was sometime after that that we ran packer and term of the advancer one supersing on production.

- and a real fally lo, lead for the method complation way
- Part the temporal of along the beat, ist me has you wais grants to the companies, which was the question, on su tion of the built
 - What he was some a section to the contract Mile Milescone Toronto as the representation.

E , bur. Ace there and center questions? You may proceed.

last formation harmonymous a filter of a weather hearing, and our Exhibit 13 again in a brachur to be accepted asotubl data with the partinent well over a flight autoryman, a a above.

> inches con a language to a house 13, was marked for identification.)

and with a sign of the budden, the third and

DIRECT CARMEDS FOR

BY MR. BUELLE

- with removed to the Paddock, hr. Rogers, I wish you would go now to the tenerth each on Exhalat Common 3, and state for the record what that tweere map reflects.
- The insert were on this exclusion is a structure map, contoured on top of the Predock. Them, to in the other two forms



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were the with a application tions, be have an experien southoust broken or appropriately too foot may closure.

- tow later the explanation the market by placeous in the Q Paddock das kork
 - Problem Bereit and the control of antiquated by red circles.
- especiel that care teach actio completed in this reservoir?
 - 3.02. BET.
- Aguin and their consecutives to a spent our truck with a dashed heavy little
- Lit right, attack on married as a country you go up to the Ä cross section paradon of elds success of a radio out the record that this cress section reveals, after respect to the Reddock
- Again we daye a samitar down through the che kaddock as formation? we do in the other followed case. Here to be processed on the South Mattix Unit Tradeout 14. The contract of the cheditar zones throughout the same. Again then he got to the dult Whight Dumber A, the materials and room get, development.
 - as there is supplicating their term action, and the cross section then's different of the knowledge to compute of the other TWO? DOSE IT THEY IN A MON-OLD MINER OF SOME OFFICE AND what we probber contact did not?

at manns that he see loss was virilind to the En. Assite parker in Unit 'E' of Section 18, which pro-Line of and was not successfully completed.

- try space in that it occountined the kardock formation bakes the guardener contact?
 - North Land
- with respect to the factock, from a sub-surface stancpoint, do you feel here that the consequent opportunity extres for one well is the streament to order in occasion of 320 acros?
- Tes, arr. Again structurally we have so indications of barriers or anything else that would prohibit orainage in excess of 320 acres.
- to would you go back to italiate dusper I and otate which that exhibit reflects production again-uses for the beddock former tion?
- A On Exhibit 4 we have listed two of the roar completions in this field. This exhibit reports immutative production and recovery, as of Novamber 1, 156%, and at that time there were only two wolls completed, the loath Methry Unit 12 and the bulf Plains Knight well Wombar 3; with both completed in the Fedoud after November 1, 1962. At that came as You'll have to forgive no, I couldn't find by exhibit.
 - das you find twhists temper 17
 - toward about the state of the value of callegan has

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FARMINGTON, N. M. PHONE 325-1182

Ma, No. 8 of the second as well amount models 2, and amountained from a state of second second with the second sec

was marked for identification.)

womber you go now to stable till What does it reflect?

The Padoock, is increased an ultimate asserve of 3.75 million curve fact per acre. The Padoock as a Siry gas and has no distillate received.

(Thereugen, Applicant's Exhibit So. Lives marked for Livetification.)

- Company of the second contract the second contract of the second con
- versus 320 nores, he far as commontes as concerned, for two acres, development show a profix per well of \$23,000.00; at month payout, 1.55 return on investment. On \$25-8000 spaces,
- O With respect to the reserves you detectated and you flooted on Exhibit 14 and were used to author to, what did you contemplate as eigh utilizate processes are related to contemplate as eigh utilizate processes are related to cook que formation when you errived it your resource coloubation?
- type reservoir.
- a de la germana de la composition della composit



reserves work, be recalled trailly reduced, would they not

- Yes, Act, they would.
- and succeedly, it your reserves would be respected, it would adversely effect your economics both with regard to loss and 320s?
 - .*\ Yes, er
- So can an say then in tooking at Exhibit to and 15 that we may be tooking at what are obtimistic reserves and what are optimistic economics;
 - Mas, sir; i baink we are.
- Regardless of that, or these possibly optimistic reserves show that you can devoter the Abddock to a density of 160 on an economical Dasis?
 - No. sir.
 - What about 320s?
 - Yes, sir.
- Now, with respect to the other formations, wa've had few completions, two in one, one in the other; not soo much grow duction from the slinebry and none from the Twie. Have you have sufficient production from this reconvoir that you have been able to obtain pressures that unally show to you, as a resurvoir engineer, than in addition to the gaslogical expectation for drainage, you have whit algat be considered as profit, paysical proof of Grainage



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SANTA FE, N. M. PHONE 983-3971

mente and har elly, very briefly state for the record what cheso massage dain reflect?

E'LE refer back to Exhibit Mumber 13, the brochard on the Powler-Paudock, in the section entitled: Performance Data, original bottom hole pressure in the Paddock of 2,000 PSI, as determined in Critiatem testing the douth Mattix Well Number 10. The most record pressure on the South Eastly Vurber 11 is 1,925 pounds. This well is located cown in section 22. South Mattix Unit Well Bumber 10, the most record pressure on it is 1,402 PSI. Now then, South Mattix to we have had considerable difficulty there in obtaining pressure build-up, due to wellbore dawage associated with squeeze comenting the failiel perforations in that well. That well was perforated in a larger interval than the present interval, although it included the present interval and we had water production; we squeezed the entire interval and reperforated in the same zone at the top, so we had wellhore damage that we can't correct by stimulation and to the possibility of again bringing in water.

The pressures on that well are non-representative, you mentioned them because you got them am wanked to esse has Commission everything you has?

That's right. Now, the moves tedeer completion, the South Mattix Number 14, we had a similar surface bressure of that well, taken in conjugation with our madage realty and the aud by extrapulating the surface pressure to the decomposition for



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TA THE SERVICE SHOP SHEET SHEET SHEET, Country Mai 12 to the continuer this extrapulated to a portion-hole pressure of 1, 144 person. bottomenous, i, for periods of the of the entire his many and 1,925 pomos.

- . O . . Now, at the time the twiller is reasoned in a country Mattix Unit Sumbour 14 which a view same that present of a region pressure, at that to be what this the Decidence promisely well to Sumber 14?
- The nearest proceeds with a man of at that time was Well Number 10.
 - it applies by both wastern on the profits
 - Yea, Sr.
 - Route the commence of



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BY MI. UTZ:

O Mr. Angers, i believe you should cont the lower past of the Faddock was weter bearings

A Yes, sir.

the Man comment by without the conditions as an expensive



SANTA FE. N. M. PHONE 983-3971 communication, which is one exercises and the Blinchey pay.

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- o instruction of the value of your vision for pelieving so, the vact that you had solder as the lower Pedisonk would be pain of your veason to colline of the
 - A Kus, Jak
- I progress you already are raised for the Powlers which, if I communion darkers is a that.
 - A Yes, ob.
 - G Phose rates -
- A food your perdos, he rubes on ab, it's a continuited -
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ME. Uthe Are there of the questions of the witness? The witness may be excused. Are there may be excused. Are there may be excused.

Mil. Example: Will Knobler, Appearing on France of Gulf Oil Jorporation. Gets Dil Jorporation, species, species



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- A Yes, ser, a solitave there was none.
- That you had make a law lower Paddock would be pare of your reason ion politically so.
 - A Yes, at.
- $r_{ij} = 1$ policy you already bay, rules for the Fowler spaceout, if i remains receive in that.
 - is Sura, ush .
 - C Bloss into m
- A tody your pardon, he released at all, it's a configurated -
 No. abbling on are requestionable, the identical rules.

 It's a designated gas pool, here at one so inless.

Ma. Uiz; and there other questions of the witness? The witness may be excused. And there has other statements in this case:

Mic. RASTER: will Knother, appearing on bonate of Gulf Oil Corporation. Sold Oil Corporation posture with Pan American's application for because specing in the Powlet whiteheat which Pan American's and for 320-acre specing is the Powlet on tachock has route, and with to state its professore for the Powlet Florities appearing tules. It is Gulf's opinion that florities well aparing rules enable at operator to make his well completion plane is the hight of practical consideration results than having to contain the hight of practical consideration results than having to contain the hight of practical



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The second is a Larger from the activation terinory Jampany, received by the december on January willy reads as follows: yd hoteum dialk Unit meneted by Pan Americae, we are a the broadener. proposed by Ran overkone for the Facker-Waternay Oak Fool. have raviewed the proposed rate, and bettere team with provont waste and protect correctory of outil ter bit green, coacerbei. This case is achieved to for bearing Commission Examiner, a Signed by the Commission Examiner.

र्वेट हो। अर्थ १ एक ए एक एको स्ट १७०० है। Figure Cognition of the contract of a contract the Courtesion, intorest owner in the south much a Oaka and an auch is interpated



FARMINGTON, N. M. PHONE 325-1182

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In request be the sepection for the production deletered whet in Cases 2743 and 2754, Conditions of the Company arged Part the proposed units be approved. The eventure onthe demortse the reasonably proves amongstve arms or has done and Padenck Gas Pools underlying the domain Matter one one control by, downship 26 south, Sange 37 East." They better to signer or he All Meste.

We have rocal was a textor of so parabase that Oil Corporation, thought their in to advice a peakly set received on January Lapk. you of Delhi-Favior's sureme of Few aderical's request for astablishment of temperary sometal races in the footer-Blindbry, Fowler-Tubb and Forter-Radooca Stains. The terms understanding that these rules will allow the equipment to the second will all the cellur

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FARMINGTON, N. M. PHONE 325-11182

ALBUQUEROUE, N. M. PHONE 243.6591 Then the second of the Court of the Court of the State of the support the request to end the Court of the Cou

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SANTA FE. N. M. PHONE 983.3971

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STATE OF MEN NEST 10) COUNTY OF BERNAL (LALC)

I, ADA DEARANCE, Jourt separter, to hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at a make Fe, New Mexico, is a true and correct record to the best of a knowledge, skill and ability.

IN WITHESS WEEDSOF I have attended by band and notarial seal this 13th day of Fooresty, 1963.

My Commission Days to the June 19, 1963

I do haveby certify that the foregoing is

Alla Alan Legan

New Maxico Cil Conservation Consission