

CASE 2424: Application of THE
OHIO OIL COMPANY for a 160-acre
non-standard gas proration unit.

-asa//o.

2424

plication, Transcript,
all Exhibits, Etc.

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. 2424
Order No. R-2126

APPLICATION OF THE OHIO OIL COMPANY
FOR A DUAL COMPLETION AND AN 80-ACRE
NON-STANDARD GAS PRORATION UNIT, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on November 8, 1961, 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 17th day of November, 1961, 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, The Ohio Oil Company, is the owner and operator of the N/2 SW/4 of Section 5, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico.

(3) That the applicant proposes the establishment of an 80-acre non-standard gas proration unit in the Monument-McKee Gas Pool consisting of the above-described acreage, said unit to be dedicated to the Bertha Barber Well No. 12 located 1650 feet from the South line and 330 feet from the West line of said Section 5.

(4) That the applicant seeks permission to complete said Bertha Barber Well No. 12 as a dual completion (conventional) in such a manner as to permit the production of oil from the Monument-Paddock Pool and the production of gas from the Monument-McKee Gas Pool through parallel strings of 2 3/8-inch tubing.

(5) That the proposed 80-acre non-standard gas proration unit may reasonably be presumed to be productive of gas from the Monument-McKee Gas Pool.

(6) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

(7) That approval of the subject application will neither cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

(1) That an 80-acre non-standard gas proration unit in the Monument-McKee Gas Pool consisting of the N/2 SW/4 of Section 5, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico, is hereby established, said unit to be dedicated to the Bertha Barber Well No. 12 located 1650 feet from the South line and 330 feet from the West line of said Section 5.

(2) That the applicant, The Ohio Oil Company, is hereby authorized to complete said Bertha Barber Well No. 12 as a dual completion (conventional) in such a manner as to permit the production of oil from the Monument-Paddock Pool and the production of gas from the Monument-McKee Gas Pool through parallel strings of 2 3/8-inch tubing.

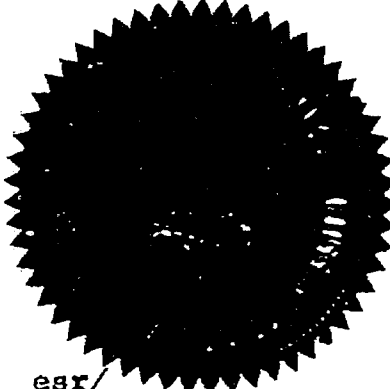
PROVIDED HOWEVER, That the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations.

PROVIDED FURTHER HOWEVER, That packer-leakage tests shall be taken upon completion and annually thereafter during the Deliverability Test Period for the Monument-McKee Gas Pool, and at such other times as the Secretary-Director of the Commission may prescribe.

(3) That the acreage factor for allowable purposes assigned to the above-described 80-acre non-standard gas proration unit shall bear the same ratio to a standard acreage factor as the acreage in said unit bears to the acreage in a standard gas proration unit in the Monument-McKee Gas Pool.

(4) 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

E. L. Mechem
EDWIN L. MECHEM, Chairman

E. S. Walker
E. S. WALKER, Member

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

GOVERNOR
EDWIN L. MECHEM
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER

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

P. O. BOX 871
SANTA FE

November 20, 1961

2424

Re: Case No. R-2126
Order No. _____
Applicant:
The Ohio Oil Company

Mr. Warren B. Leach, Jr.
The Ohio Oil Company
P. O. Box 3128
Houston 1, Texas

Dear Sir:

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

Very truly yours,

A handwritten signature in cursive script that reads "A. L. Porter, Jr.".

A. L. PORTER, Jr.
Secretary-Director

ir/

Carbon copy of order also sent to:

Hobbs OCC _____

Artesia OCC _____

Aztec OCC _____

OTHER _____

The Ohio Oil Co.

P. O. BOX 3128
HOUSTON 1, TEXAS

October 11, 1961

Case = 920

NEW MEXICO OIL CONSERVATION COMMISSION
Box 871
Santa Fe, New Mexico

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

- Re: (a) Application for authority to dually complete The Ohio Oil Company's Bertha Barber Well No. 12 located in the NW/4 of the SW/4 of Sec. 5, Township 20 South, Range 37 East, Lea County, New Mexico, for production of oil in the Monument-Paddock Pool and gas in the Monument-McKee Gas Pool, and
- (b) Application for designation and formation of a non-standard gas proration unit in the Monument-McKee Gas Pool consisting of the N/2 of the SW/4 and the S/2 of the NW/4 of said Section 5.

Gentlemen:

The Ohio Oil Company respectfully requests that the Commission grant this application for authority to dually complete The Ohio Oil Company's Bertha Barber Well No. 12 for production of oil from the Monument-Paddock Pool, and for production of gas from the Monument-McKee Gas Pool. Attached hereto is the New Mexico Oil Conservation Commission form APPLICATION FOR DUAL COMPLETION, properly executed, together with diagrammatic sketch reflecting the proposed method of dual completion of the well and plat indicating the location of all wells on The Ohio Oil Company's lease and all offset wells on offset leases. Ohio's Bertha Barber Well No. 12 is located 330' from the West line and 1650' from the South line of Section 5, Township 20 South, Range 37 East, Lea County, New Mexico. The oil and gas leasehold estate covering the S/2 of the SW/4 of Sec. 32, Township 19 South, Range 37 East, and the NW/4 of Sec. 5 and the N/2 of the SW/4 of Sec. 5, Township 20 South, Range 37 East, is owned by The Ohio Oil Company.

Ohio's Bertha Barber Well No. 12 was originally completed on February 14, 1955, and is now producing through perforations in the interval from 5174' to 5207' in the Monument-Paddock Pool as defined by the Commission. Ohio intends to continue to produce the well as an oil well from the Monument-Paddock perforations and proposes to dually complete the well so as to produce as a gas well from the Monument-McKee Gas Pool through perforations to be made at the interval from approximately 9746' to 9812'.

The drilling of a new well for production from the Monument-McKee Gas Pool involves substantial risk and hazard which will not be encountered in the dual

October 11, 1961

completion requested herein. The estimated cost of drilling and completing a new well to the Monument-McKee formation exceeds considerably the estimated cost of the proposed dual completion.

The Ohio Oil Company also applies to the Conservation Commission for the designation and formation of a 160-acre non-standard gas proration unit in the Monument-McKee Gas Pool consisting of the N/2 of the SW/4 and the S/2 of the NW/4 of Sec. 5, Township 20 South, Range 37 East, Lea County, New Mexico. The plat attached hereto indicates the location of the proposed unit and the surrounding tracts. The Ohio Oil Company owns the oil and gas leasehold estate on the entire 160 acres within the proposed unit.

According to The Ohio Oil Company's records, Amerada Petroleum Corporation is the owner of an oil and gas lease covering the SW/4 of the SW/4 of Sec. 5, and Anderson-Prichard Oil Corporation is the owner of an oil and gas lease covering the SE/4 of the SW/4 of Sec. 5, both in Township 20 South, Range 37 East, Lea County, New Mexico. The Ohio Oil Company is requesting that such lease owners consent to the formation of the non-standard gas proration unit herein applied for.

The approval of the dual completion in the manner proposed and outlined in the attached APPLICATION FOR DUAL COMPLETION and the designation and formation of the non-standard gas proration unit herein requested will afford The Ohio Oil Company a reasonable opportunity to recover its just and equitable share of the natural gas in the Monument-McKee Gas Pool. The approval of the proposed dual completion and the proposed gas proration unit will not cause waste but will prevent waste and will protect the correlative rights of The Ohio Oil Company without infringing upon the correlative rights of the other operators in either of the Pools.

The Ohio Oil Company requests that the above applications for dual completion and for designation and formation of a non-standard gas proration unit be set for hearing at the same time and at the earliest convenient date; that due notice of these applications and hearing thereon be issued and published as required by law, and that the Hearing be held before an Examiner. The Ohio Oil Company further requests that these applications be granted and that the Commission enter its Order authorizing the dual completion described herein and designating and establishing the non-standard gas proration unit herein requested.

The names and addresses of all interested parties known to The Ohio Oil Company are set forth in the attached list and a copy of this application, together with all attachments thereto, is being mailed this date to each of such parties.

Very truly yours,

THE OHIO OIL COMPANY

By

Warren B. Leach, Jr.

Warren B. Leach, Jr.

J. C. Terrell Couch

Encls.

October 11, 1961

completion requested herein. The estimated cost of drilling and completing a new well to the Monument-McKee formation exceeds considerably the estimated cost of the proposed dual completion.

The Ohio Oil Company also applies to the Conservation Commission for the designation and formation of a 160-acre non-standard gas proration unit in the Monument-McKee Gas Pool consisting of the N/2 of the SW/4 and the S/2 of the NW/4 of Sec. 5, Township 20 South, Range 37 East, Lea County, New Mexico. The plat attached hereto indicates the location of the proposed unit and the surrounding tracts. The Ohio Oil Company owns the oil and gas leasehold estate on the entire 160 acres within the proposed unit.

According to The Ohio Oil Company's records, Amerada Petroleum Corporation is the owner of an oil and gas lease covering the SW/4 of the SW/4 of Sec. 5, and Anderson-Prichard Oil Corporation is the owner of an oil and gas lease covering the SE/4 of the SW/4 of Sec. 5, both in Township 20 South, Range 37 East, Lea County, New Mexico. The Ohio Oil Company is requesting that such lease owners consent to the formation of the non-standard gas proration unit herein applied for.

The approval of the dual completion in the manner proposed and outlined in the attached APPLICATION FOR DUAL COMPLETION and the designation and formation of the non-standard gas proration unit herein requested will afford The Ohio Oil Company a reasonable opportunity to recover its just and equitable share of the natural gas in the Monument-McKee Gas Pool. The approval of the proposed dual completion and the proposed gas proration unit will not cause waste but will prevent waste and will protect the correlative rights of The Ohio Oil Company without infringing upon the correlative rights of the other operators in either of the Pools.

The Ohio Oil Company requests that the above applications for dual completion and for designation and formation of a non-standard gas proration unit be set for hearing at the same time and at the earliest convenient date; that due notice of these applications and hearing thereon be issued and published as required by law, and that the Hearing be held before an Examiner. The Ohio Oil Company further requests that these applications be granted and that the Commission enter its Order authorizing the dual completion described herein and designating and establishing the non-standard gas proration unit herein requested.

The names and addresses of all interested parties known to The Ohio Oil Company are set forth in the attached list and a copy of this application, together with all attachments thereto, is being mailed this date to each of such parties.

Very truly yours,

THE OHIO OIL COMPANY

By Warren B. Leach, Jr.
Warren B. Leach, Jr.
J. O. Terrell Couch

Encls.

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

APPLICATION FOR DUAL COMPLETION

| | | | |
|---|------------------|-------------------------------|---------------------------------|
| Field Name Monument-Paddock, Monument-McKee | | County Lea | Date October 11, 1961 |
| Operator The Ohio Oil Company | | Lease Bertha Barber | Well No. 12 |
| Location of Well | Unit L | Section 5 | Township 208 |
| | | | Range 37E |

1. Has the New Mexico Oil Conservation Commission heretofore authorized the dual completion of a well in these same pools or in the same zones within one mile of the subject well? YES _____ NO X
2. If answer is yes, identify one such instance: Order No. _____ ; Operator, Lease, and Well No.:

3. The following facts are submitted:

| | Upper Zone | Lower Zone |
|--|-------------------------|--|
| a. Name of reservoir | Monument-Paddock | Monument-McKee |
| b. Top and Bottom of Pay Section (Perforations) | 5174'-5207' | Proposed Perforations 9746'-9812' |
| c. Type of production (Oil or Gas) | Oil | Gas |
| d. Method of Production (Flowing or Artificial Lift) | Flowing | Flowing |

4. The following are attached. (Please mark YES or NO)

- Yes a. Diagrammatic Sketch of the Dual Completion, showing all casing strings, including size and setting, top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
- Yes b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
- No c. Waivers consenting to such dual completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
- No** d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

List of interested parties known to applicant is attached hereto.

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES X NO ____ . If answer is yes, give date of such notification October 11, 1961

CERTIFICATE: I, the undersigned, state that I am the Ass't Divn. Petr. Engr. of the Ohio Oil Company (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

**Log will be submitted in accordance with Rule 112-A when it becomes available.

D. K. Appell
Signature

* Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed dual completion will result in an unorthodox well location and/or a non-standard perforation unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

Names and addresses of all interested parties known to The Ohio Oil Company in connection with Ohio's application dated October 11, 1961 for dual completion and designation of non-standard gas proration unit in the Monument-McKee Gas Pool, Lea County, New Mexico

AMERADA PETROLEUM CORPORATION
P. O. Drawer D
Monument, New Mexico

ANDERSON-PRICHARD OIL CORPORATION
Box 196
Midland, Texas

TIDEWATER OIL COMPANY
Box 547
Hobbs, New Mexico

GULF OIL CORPORATION
Box 2167
Hobbs, New Mexico

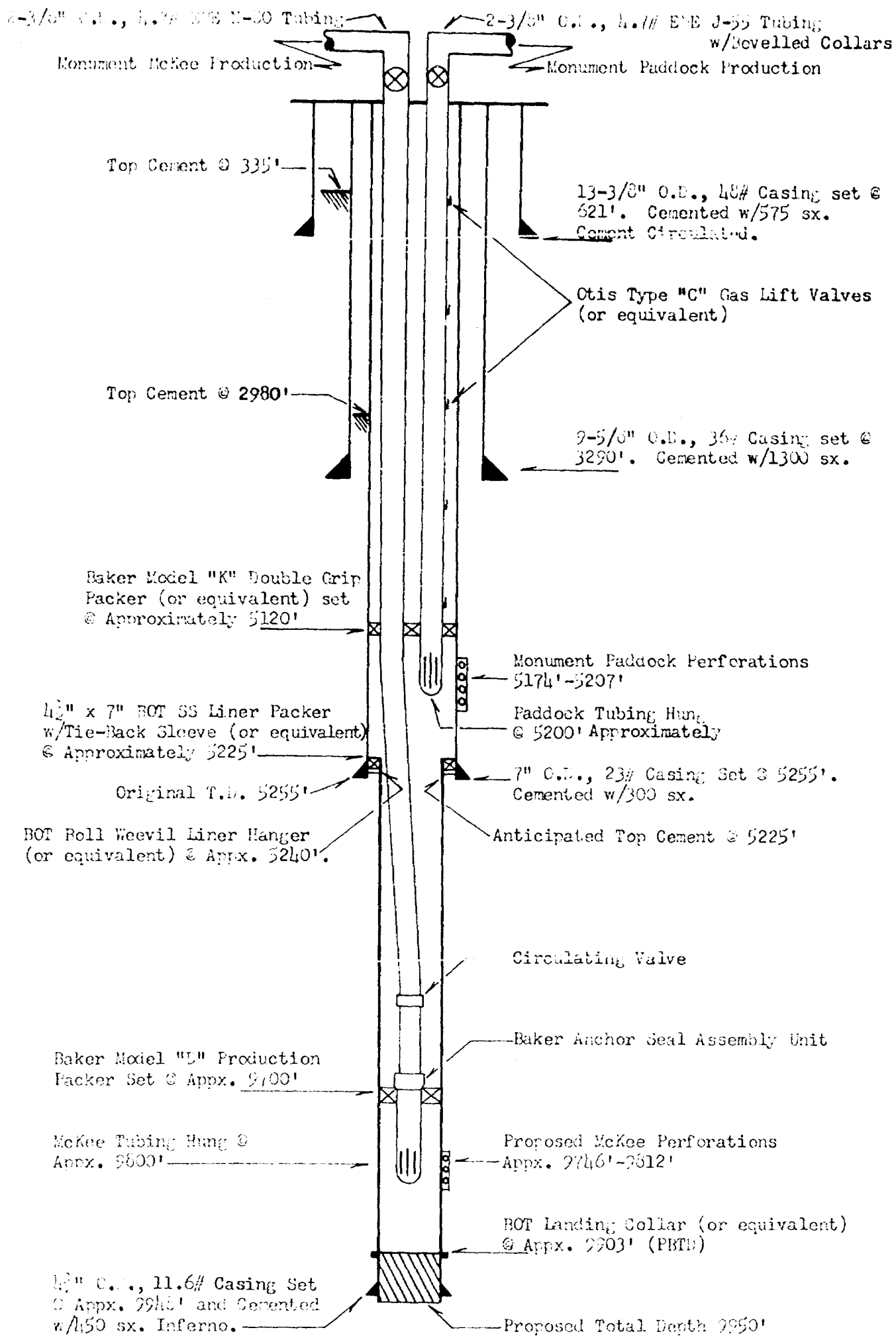
TEXACO, INC.
Box 352
Midland, Texas

CITIES SERVICE OIL COMPANY
Box 97
Hobbs, New Mexico

SINCLAIR OIL & GAS COMPANY
520 E. Broadway
Hobbs, New Mexico

CONTINENTAL OIL COMPANY
Box 427
Hobbs, New Mexico

THE CHIO OIL COMPANY
 "Diagrammatic Sketch of Proposed Dual Completion"
 Bertha Harber, Well No. 12
 Unit L, Sec. 5, T-20-S, R-37-E
 Lea County, New Mexico



Case 2424

Case 2424

Heard. 11-8-61

Rev. 1-9-61

1. Grant Ohio's request for a dual completion for its Beitha Barber #12, 1650/5 + 330/w. lines of sec. ⁵⁻²⁰⁵ ~~22-125~~-37 E. Well to be completed in Monument Paddock and Monument-McKee and shall be a conventional, 2 string dual.

2. Usual dual requirements.

3. Also grant WSP for 80 Ac. consisting of N/2 SW/4 Quad section 5. for the Monument-McKee pool.

Grant. W

DOCKET: EXAMINER HEARING - WEDNESDAY - NOVEMBER 8, 1961

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 2421: Application of Texaco Inc. for approval of a unit agreement and for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Northeast Caprock (Queen) Unit Agreement, covering 1360 acres, more or less, in Township 12 South, Range 32 East, Caprock Queen Pool, Lea County, New Mexico. Applicant further seeks authority to institute a unit-wide waterflood by the injection of water into the Queen formation through 19 wells located within said unit.
- CASE 2422: Application of Texaco Inc. for an oil-gas dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its J. C. Estlack Well No. 1, located in Unit T of Section 3, Township 21 South, Range 37 East, Lea County, New Mexico, as an oil-gas dual completion (conventional) in the Blinebry Oil and Tubb Gas Pools, with the production of oil from the Blinebry zone and the production of gas from the Tubb zone to be through parallel strings of 2 1/16-inch tubing.
- CASE 2423: Application of Skelly Oil Company for authority to inject water into the Horseshoe-Gallup Oil Pool, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authorization to inject water into the Gallup formation underlying the Navajo "M" lease, comprising all of Sections 33 and 34, Township 32 North, Range 17 West, Horseshoe-Gallup Oil Pool, San Juan County, New Mexico, through the Navajo "M" Well No. 2, located 1980 feet from the South and West lines of said Section 33, for the purpose of secondary recovery.
- CASE 2424: Application of The Ohio Oil Company for a 160-acre non-standard gas proration unit, an unorthodox well location and an oil-gas dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 160-acre non-standard gas proration unit in the Monument-McKee Gas Pool, comprising the N/2 SW/4 and S/2 NW/4 of Section 5, Township 20 South, Range 37 East, Lea County, New Mexico,

CASE 2424: (Cont.)

said unit to be dedicated to the Bertha Barber Well No. 12, located at an unorthodox location 1650 feet from the South line and 330 feet from the West line of said Section 5. Applicant further seeks permission to complete said Bertha Barber Well No. 12 as an oil-gas dual completion (conventional) in the Monument-Paddock Pool and in the Monument-McKee Gas Pool, with the production of oil from the Monument-Paddock zone and the production of gas from the Monument-McKee zone to be through parallel strings of 2 3/8-inch tubing.

CASE 2425:

Application of Iverson & Welch for an order extending the limits of the Shugart and the North Shugart Pools and abolishing the Culwin & Culwin-Yates Pools, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order abolishing the Culwin and Culwin-Yates Pools both of which are located in Townships 18 and 19 South, Ranges 30 and 31 East, Eddy County, New Mexico. Applicant further seeks an order extending the vertical limits of the Shugart and North Shugart Pools to include the Yates, Seven Rivers, Queen and Grayburg formations and establishing the horizontal limits of said pools as follows:

NORTH SHUGART POOL:

TOWNSHIP 18 SOUTH, RANGE 31 EAST

Section 8: S/2
Section 9: S/2, NE/4
Section 10: S/2, S/2 NE/4
Section 11: S/2, NE/4
Section 12: All
Section 13: N/2, SE/4
Section 14, 15, 16, 17, and 18: All
Section 22: N/2 N/2
Section 24: N/2 N/2 NE/4

SHUGART POOL: Remaining portion of the North Shugart Pool, as presently defined, plus that acreage contained in the Shugart, Culwin and Culwin-Yates Pools, as presently defined.

- CASE 2426: Application of Cities Service Petroleum Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its Hodges B Well No. 2, located in Unit L of Section 1, Township 25 South, Range 37 East, Lea County, New Mexico, as a dual completion (conventional) in undesignated Drinkard and undesignated Fusselman Pools, with the production of oil from both zones to be through parallel strings of 2 inch tubing.
- CASE 2427: Application of J. C. Williamson for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its Westates-Federal Well No. 5, located in Unit E of Section 1, Township 25 South, Range 37 East, Lea County, New Mexico, as a dual completion (conventional) in undesignated Blinebry and undesignated Drinkard pools, with the production of oil from both zones to be through parallel strings of 2 3/8 inch tubing.
- CASE 2428: Application of Texas Pacific Coal & Oil Company for a 320-acre non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 320-acre non-standard gas proration unit in the Jalmat Gas Pool, comprising the N/2 of Section 8, Township 22 South, Range 36 East, Lea County, New Mexico; said unit is to be dedicated to the State "A" A/c-2 Well No. 43, located 1650 feet from the North line and 990 feet from the East line of said Section 8.
- CASE 2429: Application of Standard Oil Company of Texas for approval of the Jurnegan Point Unit Agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Jurnegan Point Unit Agreement embracing 10,240.84 acres, more or less, of State and fee lands in Township 24 South, Ranges 24 and 25 East, Eddy County, New Mexico.
- CASE 2430: Application of Royal Development Company for seven unorthodox oil well locations, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of seven unorthodox oil well locations in the Shiprock-Gallup Oil Pool, San Juan County, New Mexico, for the following-described wells in Section 17, Township 29 North, Range 18 West:
- Well No. 17-I-A located 2475 feet from the South line and 10 feet from the East line;

CASE 2430: (Cont.)

Well No. 17-I-B located 2475 feet from the South line and 1310 feet from the East line;

Well No. 17-I-D located 1650 feet from the South line and 10 feet from the East line;

Well No. 17-I-E located 1650 feet from the South line and 1310 feet from the East line;

Well No. 17-I-A-1 located 2475 feet from the South line and 660 feet from the East line;

Well No. 17-J-C located 2475 feet from the South line and 2630 feet from the East line;

Well No. 17-J-C-1 located 2475 feet from the South line and 1980 feet from the East line;

CASE 2431:

Application of H. F. Sears for an exception to Rule 107, San Juan, County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 107 authorizing the completion of the Navajo 1-5 well located in the NE/4 NE/4 of Section 5, Township 24 North, Range 10 West, Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico, as a 2 7/8-inch tubingless completion below the depth of 5,000 feet.

ATWOOD & MALONE
LAWYERS

JEFF D. ATWOOD (1883-1960)
ROSS L. MALONE
CHARLES F. MALONE
RUSSELL D. MANN
PAULA A. COOTER
BOB F. TURNER

P. O. DRAWER 700
TELEPHONE MAIN 2-6221
ROSWELL PETROLEUM BUILDING
ROSWELL, NEW MEXICO

October 30, 1961

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

Re: Case No. 2424, Before the Oil Conservation Commission
of the State of New Mexico, Wednesday, November 8, 1961.

Gentlemen:

We are local counsel for The Ohio Oil Company, and as such wish to enter our appearance in the captioned case. The Ohio Oil Company will also be represented by Warren B. Leach, Jr., and J. O. Terrell Couch, members of the Texas Bar and company employees. The actual presentation for Ohio will be made by Messrs. Leach and Couch.

Very truly yours,

ATWOOD & MALONE

By: *Bob F. Turner*

BFT/bl

cc: Warren B. Leach, Jr., Esquire
Legal Department
The Ohio Oil Company
Post Office Box 3128
Houston, Texas

2476



AMERADA PETROLEUM CORPORATION

P. O. BOX 2040

TULSA 2, OKLA.

October 25, 1961

The Ohio Oil Company
P. O. Box 3126
Houston 1, Texas

Re: The Ohio Oil Company's
(a) Application for authority
to finally complete The Ohio
Oil Company's Bertha Barber
Well No. 12 located in the NW/4
of the SW/4 of Sec. 5, Township
20 South, Range 37 East, Lea
County, New Mexico, for produc-
tion of oil in the Monument-
Paddock Pool and gas in the
Monument-McKee Gas Pool, and
(b) Application for designation
and formation of a non-standard
gas proration unit in the
Monument-McKee Gas Pool consist-
ing of the E/2 of the SW/4 and
the S/2 of the NW/4 of said
Section 5.

ATTN: Mr. Warren B. Leach, Jr.

Gentlemen:

We have your request for a waiver applicable to subject well. This
is to advise we think it premature to approve a non-standard gas
proration unit prior to the completion of the unit well.

Yours very truly,

AMERADA PETROLEUM CORPORATION

ORIGINAL SIGNED
BY R. S. CHRISTIE

R. S. Christie

*Robert
Mason
10-27-61*

RSC:dv

cc: Mr. A. L. Porter, Jr.

The Ohio Oil Co.

Legal Department

Case 2426

W. Hume Everett
Division Attorney

October 11, 1961

P.O. Box 3128
Houston, Texas

J. O. Terrell Couch
Warren B. Leach, Jr.
Attorneys

NEW MEXICO OIL CONSERVATION COMMISSION
Box 871
Santa Fe, New Mexico

Re: Ohio's application for dual completion
of its Bertha Barber Well No. 12
and for non-standard gas proration unit
in the Monument-McKee Gas Pool

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

Gentlemen:

By application dated October 10, 1961, I requested administrative approval by the Secretary-Director of the Conservation Commission of an unorthodox location for the recompletion of The Ohio Oil Company's Bertha Barber Well No. 12 in the Monument-McKee Gas Pool in Lea County, New Mexico. We do not expect that any of the operators or owners of leases within 1980 feet of the proposed location will object thereto; however, in the event an objection to the approval of such unorthodox location is received by the Commission and the application must be set for hearing, please set the hearing at the same time as the hearing on Ohio's application for dual completion of its Bertha Barber Well No. 12 and application for non-standard gas proration unit in the Monument-McKee Gas Pool.

Very truly yours,

Warren B. Leach, Jr.

Warren B. Leach, Jr.

WBL:FM

*Rec'd
Mailed
10-27-61*

UNION TEXAS NATURAL GAS CORPORATION
A-P DIVISION

P. O. Box 1859 MIDLAND, TEXAS

November 3, 1961

GENERAL OFFICE
LIBERTY BANK BUILDING
OKLAHOMA CITY 2, OKLAHOMA

Wm. M. BRODRICK
Exploration Manager

J. DON WIET
Landman

Re: 1709-I
Britt "B" Lease
SW/4 SE/4 of Section 5,
T-20-S, R-37-E,
Lea County, New Mexico

Mr. Warren B. Leach, Jr.
The Ohio Oil Company
P. O. Box 3128
Houston 1, Texas

Dear Mr. Leach:

This letter will confirm our telegram of November 3, 1961, wherein Union Texas Natural Gas Corporation is in agreement with the course of action outlined in your letter dated October 31, 1961, with regard to the non-standard proration unit in the Monument-McKee gas pool. It is our understanding that Ohio will request a non-standard 80-acre unit for their Bertha Barber #12 well consisting of the N/2 of the SW/4 of Section 5. Ohio will also advise the Commission that they and other owners of oil and gas leases covering the SW/4 of Section 5 are negotiating the formation of a standard 160-acre gas proration unit.

Yours very truly,



Wm. M. Brodrick
District Manager

WMB/mb

NOV 10 1961
LEGAL DEPT.

AMERADA PETROLEUM CORPORATION

P. O. BOX 2040

TULSA 2, OKLA.

November 2, 1961

LEGAL DEPT.

The Ohio Oil Co.
P. O. Box 3128
Houston 1, Texas

- Re: (a) Application for authority to dually complete The Ohio Oil Company's Bertha Barber Well No. 12 located in the NW/4 of the SW/4 of Sec. 5, Township 20 South, Range 37 East, Lea County, New Mexico, for production of oil in the Monument-Paddock Pool and gas in the Monument-McKee Gas Pool, and
- (b) Application for designation and formation of a non-standard gas proration unit in the Monument-McKee Gas Pool consisting of the N/2 of the SW/4 and S/2 of the NW/4 of said Sec. 5

ATTN: Mr. Warren B. Leach, Jr.

Gentlemen:

This is in reply to your letter of October 31, 1961 reference captioned application.

Amerada Petroleum Corporation has no objection to your request for an 80-acre non-standard gas proration unit in the Monument-McKee gas pool. In the event of a producing well in the McKee zone, we have no objection to your application for a dual completion in the Paddock and McKee zones.

We also are agreeable to negotiations in an effort to form a standard gas proration unit consisting of the SW/4 of Section 5, T 20 S, R 37 E. Please contact Mr. J. E. Lynch, Box 2040, Tulsa, Oklahoma, when you desire to commence negotiations.

Yours very truly,

R. S. Christie
R. S. Christie

RSC:dw

cc: Mr. J. E. Lynch

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WESTERN UNION TELEGRAM

W. P. MARSHALL, PRESIDENT

SYMBOLS
DL = Day Letter
NL = Night Letter
LT = International Letter Telegram

1290
R-4-00

The filing time shown in the date line on domestic telegrams is LOCAL TIME at point of origin. Time of receipt is LOCAL TIME at point of destination

1961 NOV 7 PM 1 35

D MDA127 LONG PD=FAX MIDLAND TEX 7 220P EST=
ELVIS A UTZ, EXAMINER, OIL CONSERVATION COMM=
MORGAN HALL SANTA FE NMEX=

RE CASE NO 2424, APPLICATION OF OHIO OIL COMPANY FOR
NON-STANDARD UNIT, SET FOR HEARING NOVEMBER 8.
UNFORESEEN DEVELOPMENTS MAY PREVENT PHILLIPS PETROLEUM
COMPANY HAVING REPRESENTATIVE PRESENT.

PHILLIPS HAS BEEN INFORMED BY OHIO THAT IT WILL NOT
ASK FOR 160-ACRE NON-STANDARD UNIT IN MONUMENT-MCKEE GAS
POOL, BUT FOR 80-ACRE NON-STANDARD UNIT CONSISTING OF
NORTH HALF SOUTHWEST QUARTER OF SECTION 5, AND WILL
ADVISE COMMISSION THAT IT WILL ENTER INTO PROMPT
NEGOTIATIONS WITH OTHER OWNERS TO FORM STANDARD 160-ACRE
UNIT COVERING SOUTHWEST QUARTER OF SECTION 5.

PHILLIPS HAS ONE-HALF INTEREST IN SOUTHEAST QUARTER
SOUTHWEST QUARTER OF SECTION 5 WHICH IT WISHES TO
CONTRIBUTE TO STANDARD UNIT CONSISTING OF SOUTHWEST
QUARTER AND IT LIKewise WILL NEGOTIATE IN GOOD FAITH
WITH OHIO AND OTHERS TO FORM SUCH STANDARD UNIT. ON THIS

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

Case 2422

November 2, 1961

The Ohio Oil Company
P. O. Box 3128
Houston 1, Texas

Attention: Mr. Warren B. Leach, Jr.

Administrative Order NSL-278

Gentlemen:

Reference is made to your application for approval of an unorthodox well location for your Bertha Barber Well No. 12 to be located 330 feet from the West line and 1650 feet from the South line of Section 5, Township 20 South, Range 37 East, Monument-McKee Gas Pool, Lea County, New Mexico.

By authority granted me under the provisions of the Special Rules and Regulations of the Monument-McKee Gas Pool, you are hereby granted an exception for the above-described unorthodox well location.

Very truly yours,

A. L. PORTER, JR.,
Secretary-Director

ALP/JEW/cnr

cc: Oil Conservation Commission - Hobbs
Oil & Gas Engineering Committee - Hobbs
United States Geological Survey - Roswell

C
O
P
Y

County, _____

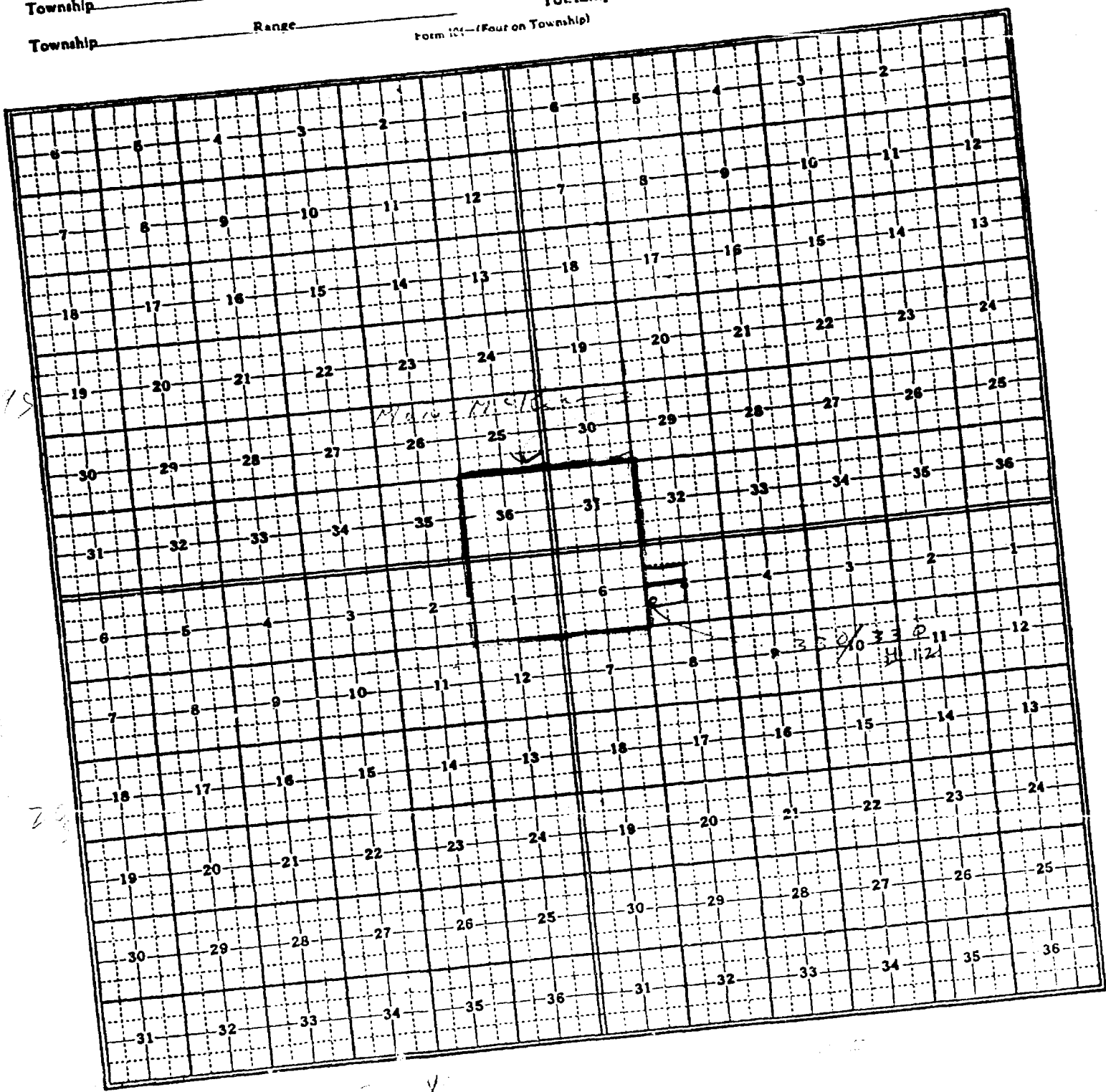
Township _____ Range _____

Township _____ Range _____

Township _____ Range _____

Form 101—(Four on Township)

178



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WESTERN UNION TELEGRAM

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W. P. MARSHALL, President

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DE415

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WARREN B LEACH JR, OHIO OIL CO=
TEXAS EASTERN BLDG BOX 3128 HOU=
1961 NOV 5 PM 4 38

Delivered 1, 8th

UNION TEXAS NATURAL GAS CORP IS AGREEABLE TO THE
PROCEDURE OUTLINED IN YOUR LETTER DATED OCT 31, 1961
REGARDING THE PRORATION UNIT IN THE MONUMENT MCKEE
GAS POOL=

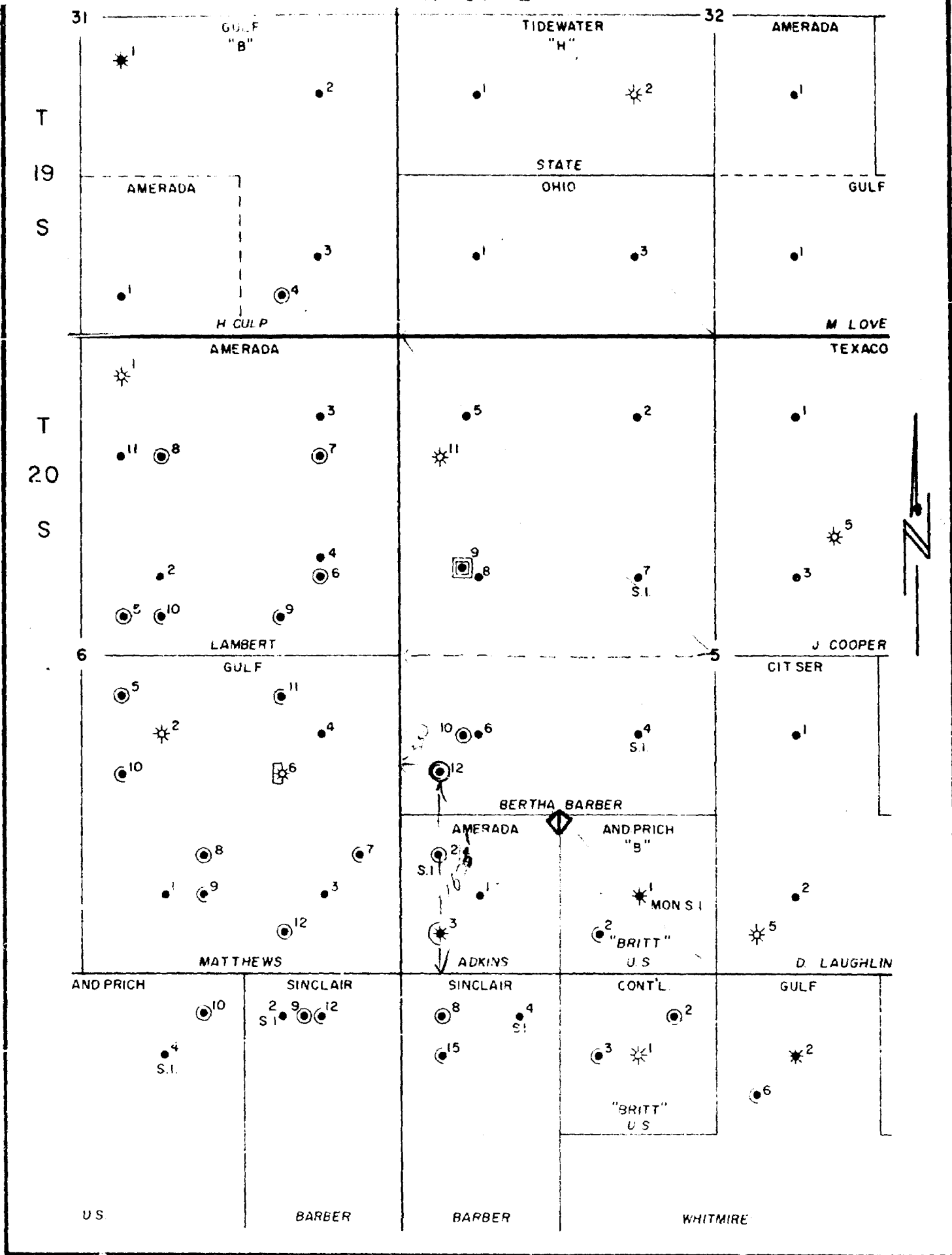
WILLIAM M BRODRICK.

Retired ch 743P

*Graves
Ch 744P
Dram*

*Graves
Ch 26289*

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE



LEGEND

- MONUMENT OIL
- ⊙ PADDOCK OIL
- ⊕ BLINEBRY OIL
- ⊗ BLINEBRY OIL - PADDOCK OIL
- ★ EUMONT GAS
- ★ MONUMENT OIL - EUMONT GAS
- ★ PADDOCK OIL - EUMONT GAS
- ★ MCKEE GAS

THE OHIO OIL COMPANY

"Plot of Bertha Barber Lease"

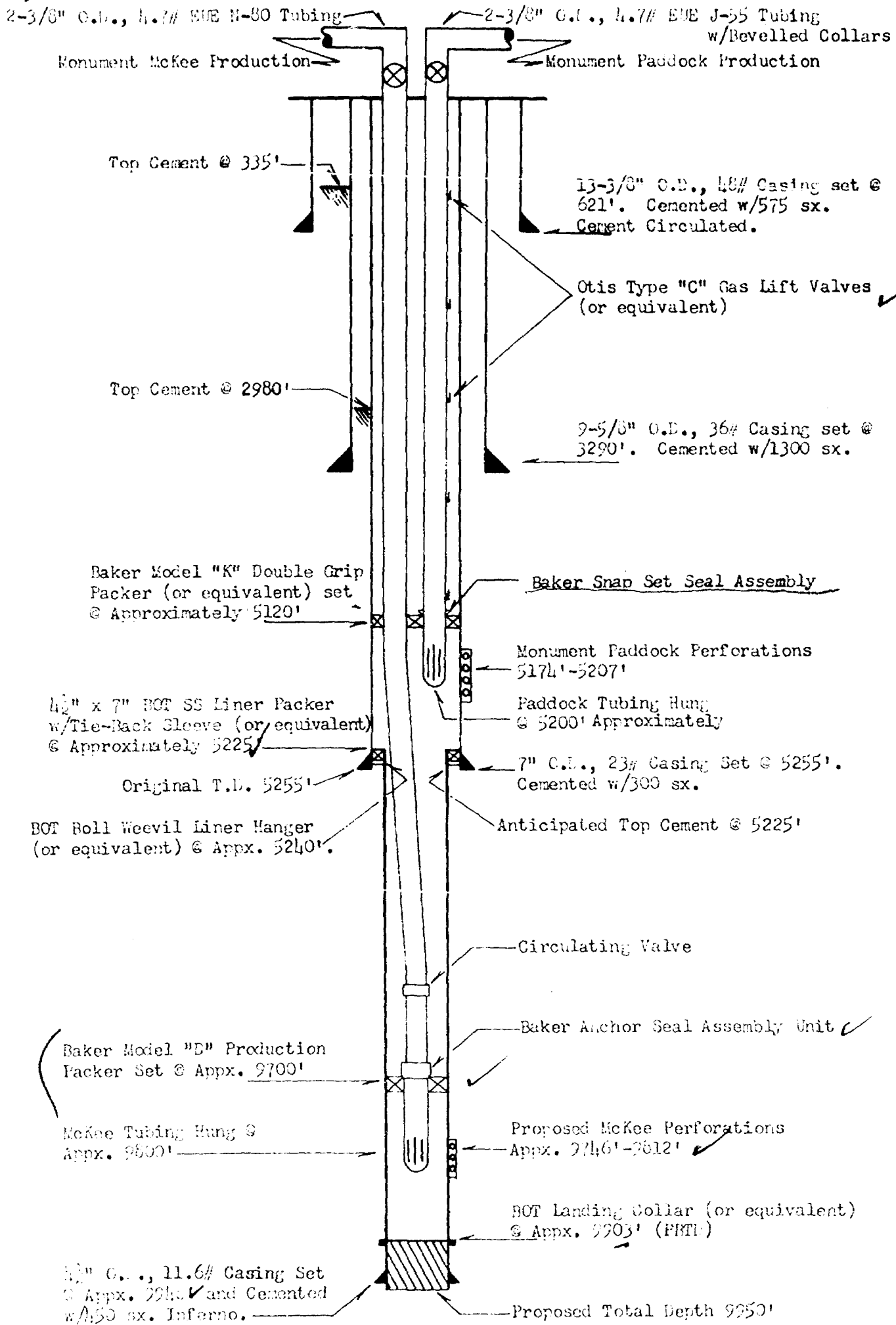
Scale: 1" = 1000'

Oct. 3, 1961

LEA COUNTY, NEW MEXICO

BEFORE EXAMINER UTZ
 OIL CONSERVATION COMMISSION
 EXHIBIT NO. _____
 CASE NO. 2424

THE OHIO OIL COMPANY
 "Diagrammatic Sketch of Proposed Dual Completion"
 Bertha Barber, Well No. 12
 Unit L, Sec. 5, T-20-S, R-37-E
 Lea County, New Mexico



CASE NO. 10724
 EXHIBIT NO. 2

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

PHONE CH 3-1691

DEARNLEY-MEIER REPORTING SERVICE, Inc.

ALBUQUERQUE, NEW MEXICO

IN THE MATTER OF:

Application of the Ohio Oil Company for a
160-acre non-standard gas proration unit,
an unorthodox well location and an oil-gas
dual completion, Lea County, New Mexico.

CASE NO. 2424

EXAMINER HEARING

November 8, 1961



BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

November 8, 1961

EXAMINER HEARING

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON N. M.
PHONE 325.1182

ALBUQUENQUE N. M.
PHONE 243.6531

IN THE MATTER OF:

Application of the Ohio Oil Company for a 160-acre non-standard gas proration unit, an unorthodox well location and an oil-gas dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 160-acre non-standard gas proration unit in the Monument-McKee Gas Pool, comprising the N $\frac{1}{2}$ SW $\frac{1}{4}$ and S $\frac{1}{2}$ NW $\frac{1}{4}$ of Section 5, Township 20 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to the Bertha Barber Well No. 12, located at an unorthodox location 1650 feet from the South line and 330 feet from the West line of said Section 5. Applicant further seeks permission to complete said Bertha Barber Well No. 12 as an oil-gas dual completion (conventional) in the Monument-Paddock Pool and in the Monument-McKee Gas Pool, with the production of oil from the Monument-Paddock zone and the production of gas from the Monument-McKee zone to be through parallel strings of 2 3/8- inch tubing.

CASE NO.
2424

BEFORE: ELVIS A. UTZ, EXAMINER

TRANSCRIPT OF HEARING

EXAMINER UTZ: We will call Case No. 2424.

MR. MORRIS: Application of the Ohio Oil Company for a



160-acre non-standard gas proration unit, an unorthodox well location and an oil-gas dual completion, Lea County, New Mexico.

MR. LEACH: Warren B. Leach, Jr., attorney for the Ohio Oil Company. Mr. J. O. Terrell Couch is also here representing the Ohio Oil Company. We are both members of the Texas bar.

Our local counsel, Atwood & Malone, on October 30, made an appearance for us in this case.

EXAMINER UTZ: That letter is a matter of record.

MR. LEACH: Before we commence with our evidence in the case, I would like to make a short statement.

On October 10 of this year, I filed an application for administrative approval of an unorthodox location for the Bertha Barber Well No. 12 for completion for gas production in the Monument-McKee zone. This well is situated on the north half of the Southwest quarter of Section 5, Township 20 South, Range 37 East, in Lea County, New Mexico. This application for administrative approval of the location was granted by the Commission on November 2 by Administrative Order 278.

We feel the hearing on this particular application is unnecessary at this time and we would request that the notice for this hearing be withdrawn.

EXAMINER UTZ: It will be so withdrawn.

MR. LEACH: In connection with our remaining applications, I wish to call this to the attention of the Examiner also: Ohio filed on October 11 a request for the approval of a 160-acre

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non-standard gas proration unit for the Bertha Barber Well No. 12 in the McKee formation. This non-standard unit was described in our application as composing the north half of the southwest quarter and the south half of the northwest quarter of Section 5. Since the filing of the application, we have learned that the owners of the oil-gas leases covering land in the south half of the southwest quarter desire to negotiate for the formation of a standard 160-acre gas proration unit for the Ohio Bertha Barber Well No. 12 in the McKee formation.

Under these circumstances, Ohio has agreed with the owners of the leases in the south half of the southwest quarter that we will request at this hearing a non-standard eighty-acre unit for its Bertha Barber Well No. 12, that eighty consisting of the north half of the southwest quarter, the eighty acres upon which the well is situated.

We have also agreed with the owners of the lease in the south half of the southwest quarter that we would advise the Commission that we would commence negotiations for the formation of a standard 160-acre unit but that in the event that for some reason we were unable to agree upon terms mutually satisfactory to all parties that Ohio's request at this time for an eighty-acre non-standard unit will be prejudiced to its rights to apply for a standard 160- or such other unit as may be deemed appropriate at that time.

Subject to these alterations in our application,



changes in our applicatio, I would like to call our witness, Mr. Thomas Webb.

EXAMINER UTZ: Are there other appearances to be made in this case?

You may proceed.

(Witness sworn.)

MR. LEACH: Mr. Examiner, before proceeding with the testimony of our witness, I would like to present for the record the letters which I have received from the Union Texas Natural Gas Corporation, one of the owners of an interest in the lease in the south half of the southwest quarter together with a telegram received from Mr. William M. Broderick of that company and a letter from Amerada Petroleum Corporation addressed to the Ohio Oil Company under date of November 2. These letters state that these operators have no objection to Ohio's application for a non-standard eighty-acre unit at this time. It's my understanding that Phillips Petroleum Company has sent a telegram to the Commission advising the Commission that it has no objection to our request for the non-standard eighty-acre unit.

MR. NUTTER: Where is the Phillips property here?

MR. LEACH: On our plat we have shown the Anderson Pritchard Oil Company as owning a quarter section. It's our understanding that quarter section was assigned to the Union Texas Natural Gas Corporation and in some manner Phillips has acquired an interest in what is shown on our plat as the Anderson-Pritchard

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lease. The Frankfort Oil Company owns some sort of an interest in that quarter section. We have not received any communication from Frankfort Oil Company in connection with this eighty-acre non-standard proration unit, but from discussing the matter with the owners of the other undivided interest in that quarter quarter section, it's my understanding that Frankfort has no objection to our application for a non-standard proration unit.

MR. MORRIS: In the telegram that the Commission has received from Phillips they state they own one-half interest in the southeast quarter of the southwest quarter of this Section 5 and the telegram that you refer to has been received by the Commission and it will be made part of the record in this case.

MR. LEACH: Thank you, sir.

THOMAS WEBB

called as a witness, by and on behalf of applicant, having been first duly sworn on oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. LEACH:

Q Will you state your name, please, sir.

A Thomas O. Webb.

Q Have you ever testified before the Commission before?

A Yes, sir, I have.

Q Will you state what your present employment is, sir, and in what capacity you are employed.

A I am employed by the Ohio Oil Company in the capacity



of area petroleum engineer in Hobbs, New Mexico.

Q In connection with your duties as area petroleum engineer, do you have under your supervision Ohio's leases in Lea County, in that portion of Lea County where Ohio's Bertha Barber Well No. 12 is situated?

A Yes, sir, I do.

Q I hand you a plat which has been marked Exhibit No. 1. Will you state whether or not this exhibit was prepared under your supervision and direction?

A Yes, sir, it was.

Q Will you explain what this Exhibit No. 1 purports to be?

A Exhibit No. 1 is a plat of the Ohio Oil Company Bertha Barber lease and the surrounding area. The lease has been outlined in yellow and consists of three hundred twenty contiguous acres in which the Ohio Oil Company owns 100% working interest, all lease ownership and existing wells which are shown on this exhibit, to the best of my knowledge. The Bertha Barber Well No. 12, the subject of this application, has been circled in red on the exhibit and is located 1653 feet from the south line and 330 feet from the west line of Section 5, Township 20 South, Range 37 East, Lea County, New Mexico.

The proposed eighty-acre non-standard gas proration unit has been outlined in red on this plat and consists of the north half of the southwest quarter of Section 5.

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Q Mr. Webb, is this an identical plat with the one that you filed or attached to Ohio's application in this case?

A No, sir, it is not.

Q Wherein does this plat differ from the one attached to the application?

A The plat which was attached to our application in this case indicated a 160-acre non-standard gas proration unit consisting of the north half of the southwest quarter and the south half of the northwest quarter of Section 5.

Q Is this the only change in the exhibit?

A Yes, sir, it is.

Q Will you state, Mr. Webb, what formation Ohio Oil Company's Bertha Barber Well No. 12 is now completed in?

A This well is now completed in the Monument-Paddock Pool.

Q I hand you a document marked Exhibit No. 2 and ask you to state what this document purports to be, sir.

A Exhibit No. 2 is a gamma ray neutron log run in the Bertha Barber Well No. 12 at the time of completion in the Monument.

Q What is reflected in this exhibit, sir?

A The top of the Paddock formation and the perforated interval are indicated thereon along with the original total depth and the original plug back total depth.

Q The Paddock zones are also shown on here?



A Yes, sir, they are.

Q Mr. Webb, will you describe briefly the manner in which the Ohio Oil Company's Bertha Barber Well No. 12 was completed in the Paddock formation?

A Yes, sir. The subject well was drilled to a total depth of 5255 feet with 7 inch OD 23-pound casing set at 5255 and cemented with 300 sacks of Trinity inferno cement. The 7-inch casing was then perforated in Paddock pay at 5174 to 5207 and after treatment with 500 gallons mud acid and 2,000 gallons of regular acid the well's potential on February 14, 1955, was 66½ barrels oil, 5.18 barrels water in six hours flowing with a GOR of 713 to 1.

The well was assigned top allowable immediately following completion and has remained on top allowable since that time.

Q What is the current top allowable for a Paddock well, Mr. Webb?

A Current top allowable in the Paddock is 46 barrels oil per day.

Q Can the Bertha Barber Well No. 12 make a top allowable at this time?

A Yes, sir. On this last survey conducted on August 29, 1961, the well flowed 53.46 barrels oil, 9.433 barrels water in twenty-four hours with a GOR of 5 to 1. It indicates the well's current ability to produce top allowable. Also, it indicates that the water percentage has increased very slightly as of the

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initial well completion.

Q What is the gravity from the crude?

A Gravity of the Monument-Paddock crude is 37 degrees API, 63 Farenheit.

Q Would you describe briefly the Paddock formation in which this well is completed?

A The Monument-Paddock Pool is anticlinal structure trending northwest, southeast. The pay section is a finely crystal dolomite containing pinpoint to small sugular porosity.

Q Do you have the bottomhole pressure in this well?

A The initial static bottomhole pressure of the Paddock zone in the Bertha Barber Well No. 12 was 1842 pounds psi gauge measured on February 28, 1955, or 14 days after the well completion and measured at the pool datum minus 1600 feet. Since that time we have experienced a gradual decline in reservoir pressure and on March 28, 1961, the stat bottomhole pressure in this well was found to be 1598 psig.

It's my opinion based upon the available data that the primary reservoir mechanism for the well is a water drive.

Q Mr. Webb, does Ohio propose to dually complete this Bertha Barber Well No. 12 for oil production in the Paddock formation and gas production from the McKee formation?

A Yes, sir, we do.

Q To your knowledge, are there any other dual completions of these formations in this area?

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A Not to my knowledge.

Q Will you describe briefly the McKee formation based upon the information you have available to you, sir?

A Yes, sir. Based upon the available information, the production from the Monument-McKee gas reservoir is also structurally controlled, this structure being an elongated anticline which trends northwest, southeast. The production is from the McKee sands which are described as very very friable consisting of clear well-rounded medium-sized coarse grains.

Q What type of production is obtained from completions in this formation?

A Based on the information available to us, reference condensate recovery, the condensate recovery from this reservoir is approximately 25 barrels of condensate per MCF of gas with an average ratio of 40,000 cubic feet gas for condensate produced. The initial bottomhole pressure of the McKee reservoir was 3543 pounds. This was measured at a pool datum of minus 6290 feet.

Q What is the gravity of the liquid recovered from this formation, Mr. Webb?

A The gravity of the condensate recovered from the Monument-McKee is zero degrees API at sixty degrees Fahrenheit.

Q Is this liquid distinguishable from the crude produced from the Paddock zone?

A Yes, sir, it is. It's my understanding the condensate produced from the McKee reservoir is relatively clear in color



whereas the crude produced from the Monument-Paddock Pool is greenish brown in color.

Q Is the McKee formation in a prorationing gas pool?

A Yes, sir. Prorationing in the Monument-McKee Gas Pool has been in effect since March 1st, 1961, and since that time the average allowable for a standard gas proration unit in the Monument-McKee pool has averaged approximately one MCF per day.

Q In your opinion, at what depth in the Bertha Barber Well No. 12 will the top of the McKee formation be encountered?

A It is my understanding that the top of the McKee sands will be encountered in the Bertha Barber Well No. 12 at a depth of approximately 9736 feet.

Q In your opinion, will a well completed in the McKee formation at the location of Ohio's Bertha Barber Well No. 12 be capable of producing a top allowable for a well on a standard proration unit in the McKee pool?

A Yes, sir. The Bertha Barber Well No. 12 will be capable of top allowable production from the McKee reservoir.

Q In your opinion, may all the lands within the north half of the northwest quarter and the north half of the southwest quarter of Section 5 be reasonable deemed to be productive of gas from the McKee formation?

A Yes, sir.

Q Mr. Webb, I hand you a document which has been marked Exhibit No. 3 and ask you whether this instrument was prepared

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FARMINGTON N. H.
PHONE 325-1182

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by you or under your supervision and direction?

A Yes, sir, it was.

Q Will you explain what this exhibit is, please, sir.

A Exhibit 3 is a diagrammatic sketch of the proposed dual completion illustrating the down-hole equipment which we plan to employ in the dualing of this well. The casing program which was utilized in the Paddock completion is illustrated on this exhibit.

Q Let me ask you this, Mr. Webb: Is this diagrammatic sketch the exact same diagrammatic sketch as was attached to Ohio's application in this case?

A Yes, sir, it is with the exception of one addition to this exhibit. This addition is a Baker snap set seal assembly which has been indicated on the Monument-Paddock tubing string and which has been underlined in red on the exhibit.

Q Will you described, please, sir, referring to Exhibit 3, the dual completion of the Bertha Barber Well No. 12, which Ohio proposes?

A Yes, sir. We propose to drill the subject well to a total depth of 9950 feet. A string of $4\frac{1}{2}$ inch OD 11.6 pound casing will then be set from approximately 5225 or 30 feet above the seven-inch casing shoe to approximately 9948 feet. We propose to cement this liner with 450 sacks of Trinity inferno cement and to circulate cement to the top of the liner.

I may also say that this liner will be pressure tested

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in accordance with the provisions of Rule 107 to ascertain if it is holding satisfactorily. We then propose to perforate the McKee zone at approximately 9746 to 9812.

A Baker Model D production packer will be set at 9700 feet in the $4\frac{1}{2}$ -inch casing. The McKee tubing string will be 2 $\frac{3}{8}$ -inch OD, 4.7 pound EUE N-80 tubing. This string will be equipped with a Baker anchor seal assembly unit and will be anchored into the Baker Model D packer.

Incidentally, the Baker Model D packer is designed to withstand a pressure differential far greater than any pressure differential we anticipate in production of this well.

A string of 2 $\frac{3}{8}$ inch OD, 4.7 pounds EUE J-55 tubing will be run to accommodate production from the Monument-Paddock zone. The 7-inch casing in this well offers ample clearance for the installation of proposed parallel tubing strings.

We anticipate that it may ultimately become necessary to artificially lift production from the Monument-Paddock reservoir. If you will note on Exhibit 3, the Paddock tubing string is equipped with gas lift valves and this string will be landed in a Baker Model K dual string packer.

Now, it is my opinion that with this equipment the production from the Paddock zone can be efficiently and effectively gas lifted. We have a sufficient supply of high pressure gas on the Bertha Barber lease for gas lift purposes. It is also my opinion that the McKee zone being productive of high pressure

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production will flow to depletion and that the installation of artificial lift facilities on this zone will never become necessary. The installation is designed and will be installed in accordance with sound engineering practices and principles.

Q Mr. Webb, if the equipment and material reflected on Exhibit 3 proposed to be used in this well is not available at the time, will Ohio substitute equipment of equivalent quality?

A Yes, sir, of equivalent quality and rating.

Q In your opinion can the dual completion be accomplished safely, efficiently and effectively in the manner outlined in Exhibit 3?

A Yes, sir.

Q In your opinion, can the Paddock and McKee formations in this well be safely, efficiently and effectively produced to depletion by this dual completion?

A Yes, sir, in my opinion they can.

Q Will the dual completion as set forth in Exhibit 3 prevent communication of the production in these two zones?

A Yes, sir. It is my opinion that this equipment will effectively prevent communication between the two zones of production.

Q Are dual completions comparable to that which Ohio proposes in common usage in the southeast portion of New Mexico?

A Yes, sir, they are.

Q When this proposed dual completion is installed, will

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Ohio be able to measure the reservoir pressure in each of the zones?

A Yes, sir. The reservoir pressure for each separate zone may be measured with a bottomhole pressure gauge and this can be done in each separate zone without the necessity of shutting in the zone which is not being bottomed.

Q Will you conduct packer leakage tests in this dual completion?

A Yes, sir. The well will be equipped with all necessary connections for conducting packer leakage tests.

Q Will Ohio be able to measure production accurately on each of the zones?

A Yes, sir. Our equipment will be sufficient that the production of oil and gas from each zone will be separately and accurately measured.

Q Will Ohio install well head equipment on this dual completion in conformance with Commission Rule 115?

A Yes, sir, we will

Q Do you anticipate any corrosion problem in connection with production from these formations?

A No, sir. We anticipate no severe corrosion problems at all. This opinion is based on the fact that in the past the Monument-Paddock zone has offered very little corrosion problems and the McKee gas is characteristic of the sweet.

Q In your opinion, how will this dual completion affect



the ultimate recovery of each of those two reservoirs in this well?

A The ultimate recovery from the proposed dual completion from each zone of production in my opinion will be just as great as the ultimate recovery which could be effected from the single wells drilled to each zone separately.

Q Have you compared the estimated cost of dually completing this well, the Bertha Barber Well No. 12, with the estimated cost of a new well to the McKee formation?

A Yes, sir. The cost of drilling a new well to the McKee zone and completing it therein is estimated at \$161,126. The cost for deepening and dually completing the Bertha Barber Well No. 12 is estimated to be \$132,467. In each case the cost of the necessary surface equipment has been included in the estimate. It may be seen that by deepening and dualing the Bertha Barber Well No. 12, a saving of \$28,662 can be realized.

Q In your opinion, is the dual completion of the Bertha Barber Well No. 12 in the interest of conservation?

A Yes, sir, it is.

Q In your opinion, is the approval of the dual completion necessary in order to afford Ohio a reasonable opportunity to recover its fair share of hydro-carbons from the McKee formation?

A In my opinion, it is.

Q In your opinion, will correlative rights be protected by the granting of this authority to dually complete the Bertha

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Barber Well No. 12?

A Yes, sir.

Q Will this dual completion cause waste?

A No, sir.

Q Will the dual completion prevent the drilling of unnecessary wells in your opinion?

A Yes, sir, it will.

Q Mr. Webb, when this well has been drilled to a total depth in the McKee formation, will you furnish to the Commission a log of the well in accordance with Commission Rule 112-A?

A Yes, sir. An acceptable log will be submitted to the Commission.

Q In your opinion, Mr. Webb, is the granting of the non-standard eighty-acre proration unit which Ohio is requesting at this hearing for its proposed completion in the McKee formation necessary to protect Ohio's correlative rights pending completion in accordance to the formation of a standard 160-acre unit?

A Yes, sir.

MR. LEACH: Mr. Examiner, at this time we will offer in evidence Exhibits 1, 2, and 3.

EXAMINER UTZ: Without objection, Exhibits 1, 2, and 3 will be entered into the record of this case.

MR. LEACH: That concludes our presentation.

EXAMINATION BY EXAMINER UTZ:

Q Mr. Webb, is the Paddock sweet crude?



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A Intermediate crude.

Q And the gas well liquid, the McKee liquids are what?

A Characteristically sweet.

Q What is the producing formation of the Number 4 and Number 6 wells on your Bertha Barber lease in the north half of the southwest quarter of Section 5?

A Well Number 4 and Well Number 6 are both completed in the San Andres zone. They are Monument Pool wells.

Q And the Number 10 is a dual completion, is it?

A No, sir; Number 10 is a Monument Blinebry well.

Q Why was it that you picked the Number 12 to dual rather than either the other three wells?

A Well No. 6 is completed to a total depth of 3890 feet. It does contain 7-inch casing set at a depth of 3820. It is producing from open hole interval, 320 to 390. The well is a pumping well. It is assigned top allowable of 34 barrels oil per day. The Bertha Barber Well No. 12 is 1345 feet deeper than Well No. 6. I have prepared a cost estimate which indicates that the additional deepening cost which would be required in the case of Well Number 6 is approximately \$18,674. Furthermore, Well Number 6 was completed in December, 1936, whereas Well Number 12 was completed in February, 1955.

The casing in Well Number 6 is more than 18 years older than the casing in Well Number 12 and presents more likelihood of failure. Furthermore, the corrosion problems which are



afforded by the San Andres crudes are considerably more severe than the corrosion problems which are afforded by the Paddock crudes.

Well Number 4 is completed to a total depth of 3895. It does contain 7-inch casing. Here again production is from open hole interval. The well is shut in so it could be possible to deepen Well 4 and affect a single well completion in the Monument-McKee reservoir. However, Well No. 12 is 1468 feet deeper than Well No. 4 and it is estimated that the additional cost which would be required to dual or deepen and single complete Well Number 4 due to the additional drilling would be \$17,632 greater than the cost required for deepening and dual completing Well Number 12.

Here again, Well Number 4 was completed in 1936, whereas Well Number 12 was completed in 1955 and the casing in Well Number 4 is again more than 18 years older than the casing in Well Number 12 and offers considerably more likelihood of failure.

Well Number 10 is a Monument Blinebry well and in itself would be in an orthodox location. It was completed in 1952 to a total depth of 5742. The casing size, however, is 5½ inch OD. We are producing Monument Blinebry oil through the casing. Perforations are 5682 to 4705 and this well is pumping. It has been assigned an allowable of 37 barrels oil per day. Top allowable for the Monument Blinebry Pool is also 46 barrels oil per day. There was a recent test on this well conducted on August 26, 1961,

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on an annual GOR survey at which time the well pumped 37 barrels oil in twenty-four hours with a GOR of 758 to 1. Well No. 12 contains 7-inch casing and a larger diameter casing is considerably more suitable for deepening and dualing operations. Furthermore, the Blinebry zone of Well 10 is limited in productivity whereas the Paddock zone of Well 10 is capable of top allowable production and in view of this, we feel that there is less likelihood of having to perform remedial work on the Paddock zone of Well No. 12 in the near future. It is also my opinion that the possibility of damaging the Blinebry zone in Well No. 10 is considerably more likely than damaging the Paddock zone of Well No. 12.

These are the reasons that Well No. 12 was chosen.

EXAMINER UTZ: Are there any other questions of the witness?

MR. MORRIS: Yes, sir.

EXAMINATION BY MR. MORRIS:

Q Mr. Webo, I will address these questions to you, but perhaps Mr. Leach will have to come to your rescue. In the telegram from Phillips which has been made part of the record in this case, Phillips takes the position that they will offer no objection to the formation of this non-standard unit provided negotiations are entered into promptly to the formation of a standard unit comprising the southwest quarter of this Section 5.

Do you foresee any problem in communitizing Ohio's

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acreage with the remainder of the southwest quarter?

A I personally foresee no problems.

MR. LEACH: I might assist our witness here some in that regard. Well No. 12, of course, is a dual completion. The pro-
ration unit would be of only one of the completions in the McKee. It is possible that the parties might have some problem in con-
nection with determining which operating cost should be borne by
which of the parties and the possibility of reaching a satisfac-
tory agreement upon what should be done with these formations in
the event one has to be shut in. Other than these matters, we
don't foresee any big difficulty in forming a 160-acre standard
unit.

Q (by Mr. Morris) Will Ohio's royalty owner, Bertha Bar-
ber, go along with communitization of her interests with the re-
mainder of the interest in the southwest quarter? Do you have a
pooling clause in your lease?

A This I can't answer, Mr. Morris.

Q Have you made preliminary negotiations with your royalty
owner to feel her out at all?

A No, sir. This has come up on such short notice we
have really made no -- have not had sufficient time to commence
any negotiations at all.

MR. COUCH: With regard to our royalty owner, one rea-
son we sought the non-standard unit was because of the fact we
feel some obligation to our royalty owner to at least make the

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attempt. We realize that the Commission rules require standard units of regular governmental quarter sections. I would anticipate that in view of this, of the objections that have come up, our own royalty owners would acquiesce.

MR. MORRIS: In communitizing the southwest quarter, how long would it take to complete those negotiations to the formation of a standard unit?

MR. LEACH: I don't think we could guess at it. We will proceed diligently. We have here four operators in the south half of the southwest quarter. We just don't know just how much difficulty we are going to encounter.

Q (by Mr. Morris) Mr. Webb, are the other wells completed in the Monument-McKee Pool in this area under or over-produced; do you know?

A I do not know.

Q The chances are they are carrying a status of either over- or under-production, though, as most gas wells do from time to time?

A That's true.

Q Do you know who the purchaser is of the gas from the Monument-McKee?

A No, sir, I do not.

Q Would the status of the well, whether it had an under- or over-produced status adversely affect the negotiations toward the finalization of the communitization agreement?



MR. LEACH: Which well do you suggest might be over-produced?

MR. MORRIS: In the event the Commission approves the eighty-acre non-standard unit and assigns a gas allowable to this well, then as it goes on the line it probably is going to be carrying over- or under-produced status at the time the communitization agreement becomes effective.

I am asking if this over- or under-produced status would adversely affect the negotiations toward the formation of a standard unit.

In other words, if it carries an under-produced status, your royalty owner is not going to want to communitize the acreage because he's going to be losing out on the amount of gas coming to him. Can you make provisions for that in your communitization agreement?

MR. LEACH: We believe the Commission's procedures will take care of that although we are not sure what the parties will agree upon.

MR. COUCH: This may be of some assistance to the Commission. We have not as yet made a sale of the gas that we hope to obtain in the Monument-McKee Pool in this well. It is very likely that negotiations could be concluded before the well is ever actually placed on production.

EXAMINER UTZ: You could overcome that by keeping the well in balance?

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MR. COUCH: That would be our effort.

MR. MORRIS: I believe that's all I have; thank you.

EXAMINATION BY MR. NUTTER:

Q Mr. Webb, how long will it take to drill this well to the depth of 9950 feet after you commence operations?

A I feel we should be able to deepen and dually complete the well within a period of approximately two and a half months.

Q Will you take any special precautions to protect the Paddock formation from damage during the two and a half months you are drilling the well?

A The Paddock formation wells in this case -- we will use oil base mud so that the Paddock formation will not be damaged due to mud loss to the formation.

Q You won't take any precautions attempting to squeeze the Paddock or anything like that during the drilling operations and perforating operations?

A No, sir.

MR. NUTTER: That's all.

EXAMINATION BY EXAMINER UTZ:

Q Mr. Webb, do you know who will be the purchaser of gas?

A No, sir, I do not.

Q Do you have any intention of completing a McKee well providing this one is successful in the northwest quarter?

A I have not been so informed, but I can assure you we will take a very close look at the northwest.

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EXAMINER UTZ: Are there any other questions of the witness?

The witness may be excused.

(Witness excused.)

EXAMINER UTZ: Are there any other statements to be made in this case?

The case will be taken under advisement.

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COUNTY OF SAN JUAN) ss.

I, THOMAS F. HORNE, NOTARY PUBLIC in and for the County of San Juan, State of New Mexico, do hereby certify that the foregoing and attached transcript of hearing was reported by me in stenotype and that the same was reduced to type-written transcript under my personal supervision and contains a true and correct record of said proceedings, to the best of my knowledge, skill and ability.

DATED this 20 day of November, 1961, in the City of Farmington, County of San Juan, State of New Mexico.

Thomas F. Horne
Notary Public

My Commission Expires:

10-2-65

I do hereby certify that the foregoing is a complete record of the proceedings in the Executive hearing of Case No. 2424, heard by me on Nov. 8, 1961.

Thomas A. [Signature], Examiner
New Mexico Oil Conservation Commission

