

Case No.

1537

Application, Transcript,
Small Exhibits, Etc.



DOCKET: EXAMINER HEARING OCTOBER 22, 1958

Oil Conservation Commission 9 a.m. Mabry Hall, State Capitol, Santa Fe

The following cases will be heard before Elvis A. Utz, Examiner:

- CASE 962: Application of Humble Oil & Refining Company for the amendment of a unit agreement. Applicant, in the above-styled cause, seeks an order amending the South Four Lakes Unit Agreement approved by Order E-710 to enlarge the unit area to include the N/2 SW/4 of Section 1, Township 12 South, Range 34 East, Lea County, New Mexico.
- CASE 1527: Application of Tennessee Gas Transmission Company for permission to commingle the oil produced from two separate oil pools. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the oil produced from its State A. A. Kennitz "B" Well No. 5, located in the SW/4 NW/4 of Section 25, Township 16 South, Range 33 East, Lea County, New Mexico, from the Kennitz-Wolfcamp Pool and an undesignated Pennsylvanian (Cisco) pool. Applicant proposes to separately meter the production from each zone prior to commingling.
- CASE 1528: Application of Tennessee Gas Transmission Company to commingle the production from two separate oil pools from three of its state leases. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the oil produced from the Kennitz-Wolfcamp and Kennitz-Cisco Pools from the wells on its State "B", State "C" and State "D" Leases located in Sections 21 and 28, Township 16 South, Range 34 East, Lea County, New Mexico.
- CASE 1529: Application of Kersey & Company for permission to commingle production from two separate oil pools. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the production from the Grayburg-Jackson Pool and the Fren Pool from two wells located on the SE/4 SW/4 of Section 16, Township 17 South, Range 31 East, Eddy County, New Mexico. Applicant does not propose to meter the production from each pool.
- CASE 1530: Application of Rice Engineering & Operating, Inc. for an order authorizing a salt water disposal well. Applicant, in the above-styled cause, seeks an order authorizing the disposal of produced salt water through its E-M-E SWD Well No. A-32 to be located 1320 feet from the North and East lines of Section 32, Township 21 South, Range 36 East, Lea County, New Mexico. Applicant proposes to inject the produced salt water into the San Andres formation in the interval from 4250 feet to 4600 feet.

- CASE 1531: Application of Rice Engineering & Operating, Inc. for an order authorizing a salt water disposal well. Applicant, in the above-styled cause, seeks an order authorizing the disposal of produced salt water through Amerada Petroleum Corporation's Adkins Well No. 2, located 990 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. Applicant proposes to inject the produced salt water into the San Andres formation in the interval from 4490 feet to 4950 feet.
- CASE 1532: Application of Sunray Mid-Continent Oil Company for an order authorizing a salt water disposal well. Applicant, in the above-styled cause, seeks an order authorizing the disposal of produced salt water through its Hobbs "G" Well No. 1, located 1980 feet from the North and West lines of Section 36, Township 9 South, Range 33 East, Lea County, New Mexico. Applicant proposes to inject the produced salt water through the well bore into the Pennsylvanian formation in the interval from 9834 feet to 9865 feet.
- CASE 1533: Application of El Paso Natural Gas Products Company for a dual completion. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its Frontier No. 1-B Well, located 890 feet from the South line and 890 feet from the East line of Section 9, Township 27 North, Range 11 West, San Juan County, New Mexico, in such a manner as to permit the production of oil from an undesignated Gallup oil pool and the production of gas from an undesignated Dakota gas pool through parallel strings of tubing.
- CASE 1534: Application of Zapata Petroleum Corporation for permission to commingle production from nine non-contiguous state leases. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the production from nine separate state leases in the Vacuum Pool, all in Townships 17 and 18 South, Range 35 East, Lea County, New Mexico.
- CASE 1535: Application of Carper Drilling Company for permission to commingle the oil produced from two separate oil pools. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the production from three wells completed in the Corbin Pool and one well completed in the Maljamar Pool, all on its Wyatt lease in Sections 33 and 34, Township 17 South, Range 33 East, and Section 5, Township 18 South, Range 33 East, Lea County, New Mexico, and to ascertain the production from each well by means of periodic tests.
- CASE 1536: Application of Shell Oil Company for permission to commingle the oil produced from four separate leases. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the production from four separate state leases in Sections 8 and 9, Township 16 South, Range 34 East, Hume-Queen Pool, Lea County, New Mexico.

CASE 1537:

Application of Pure Oil Company for a dual completion. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its South Vacuum Unit No. 2-35 Well, located 1980 feet from the South line and 880 feet from the East line of Section 35, Township 18 South, Range 35 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the South Vacuum-Devonian Pool and gas from an undesignated McKee gas pool through parallel strings of tubing.

CASE 1538:

Application of Aztec Oil & Gas Company for the assignment of minimum allowables to certain gas wells in the Fulcher Kutz-Pictured Cliffs Gas Pool, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order assigning minimum allowables to the following described gas wells in the Fulcher Kutz-Pictured Cliffs Gas Pool in order to prevent premature abandonment of said wells:

Cossens No. 3 and No. 4 Wells, both in Section 20, Township 29 North, Range 11 West;
Hart No. 1 Well, Section 11, Township 29 North, Range 12 West;
Holder No. 1 Well, Section 29, Township 30 North, Range 12 West;
Cornell No. 3 and No. 4 Wells, both in Section 12, Township 29 North, Range 12 West;

all in San Juan County, New Mexico.

CASE 1539:

Application of T. J. Sivley for an exception to the casing requirements for the potash-oil area in Eddy and Lea Counties, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing an exception to the casing requirements for the potash-oil area as set forth in Order R-111-A for its Federal-Silver No. 1, an exploratory well to be located 1980 feet from the South and East lines of Section 28, Township 20 South, Range 34 East, Lea County, New Mexico. Applicant proposes to drill with cable tools to the Yates formation. The casing program of applicant is as follows:

13-3/8" Casing in top of red bed at approximately 70 feet.

10-3/4" Casing as cave string to about 700 feet.

8-5/8" Casing, this being the water shutoff string to approximately 1250', but in any event below water.

5-1/2" Casing to be set at a point selected by operator above pay zone expected to be encountered at 3625', but in no event to exceed a depth greater than 600 feet below the base of salt.

That the applicant should be permitted to pull all casing except the 5-1/2" production string in the event that commercial oil or gas is found.

CASE 1540: Application of E. P. Campbell for an exception to Rule 505 of the Commission Rules and Regulations. Applicant, in the above-styled cause, seeks an order granting an exception to Rule 505 of the Commission Rules and Regulations and assigning an allowable proportional factor of 1.33 for the oil pool in the Abo formation discovered by applicant's Cockerham No. 1 Well, NE/4 NE/4 Section 34, Township 18 South, Range 26 East, Eddy County, New Mexico, even though the depth of the casing shoe is 4205 feet. The top of the Abo pay is at approximately 5280 feet in the above-described well.

CONTINUED CASE

CASE 1516: Application of El Paso Natural Gas Company for two non-standard gas proration units and for the approval of one unorthodox gas well location. Applicant, in the above-styled cause, seeks an order establishing a 120-acre non-standard gas proration unit in the Jalmat Gas Pool consisting of the N/2 SW/4 and the SW/4 SW/4 of Section 4, Township 25 South, Range 37 East, said unit to be dedicated to the applicant's Wells Federal No. 3 Well located 1980 feet from the South and West lines of said Section 4. Applicant further seeks the establishment of a 200-acre non-standard gas proration unit in the Jalmat Gas Pool consisting of the SE/4 SW/4 of Section 4 and the NW/4 of Section 9, Township 25 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to the applicant's Wells Federal No. 11 Well located 430 feet from the South line and 2317 feet from the West line of said Section 4. Applicant further seeks approval of the unorthodox gas well location of the said Wells Federal No. 11 Well.

CASE 1537

THE PURE OIL COMPANY

GENERAL OFFICES, 35 EAST WACKER DRIVE, CHICAGO.

TEXAS PRODUCING DIVISION

P. O. BOX 2107

FORT WORTH 1, TEXAS

September 26, 1958

MAILED
OFFICE OCC
1958
SEP 26 AM 8:30

New Mexico Oil Conservation Commission (2)
Santa Fe, New Mexico

New Mexico Oil Conservation Commission (2)
P. O. Box 2045
Hobbs, New Mexico

Gentlemen:

Attached is an Application for Dual Completion covering The Pure Oil Company's South Vacuum Unit #2-35 located 1980' FSL and 660' FSL of Section 35, T18S-R35E, Lea County, New Mexico. Also attached is a diagrammatic sketch of the well equipment, a plat showing the area of this well, and an electrical log of the well.

It would be appreciated if you would set a hearing to consider this application.

Yours very truly,

Harry C. Wells
Harry C. Wells
Asst. Div. Prod. Engr.

HCW:c

att.

cc: All Offset Operators

*Docketed
10-16-58
E.C.
BP*

ALL QUOTATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

ALL AGREEMENTS CONTINGENT UPON STRIKES, FIRES, ACTS OF THE GOVERNMENT AND CARRIERS, AND ALL OTHER CAUSES BEYOND OUR CONTROL

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

APPLICATION FOR DUAL COMPLETION

Field Name South Vacuum		County Lea		Date September 24, 1958
Operator The Pure Oil Company		Lease State		Well No. 2-35
Location of Well	Unit I	Section 35	Township 18 South	Range 35 East

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 ☐
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	Devonian	McKee
b. Top and Bottom of Pay Section (Perforations)	11,680' - 11,730' same	13,620' - 13,823' at intervals
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.


YES 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.

The Atlantic Refining Company, P. O. Box 871, Midland, Texas
 Cities Service Oil Company, P. O. Box 97, Hobbs, New Mexico
 Jake L. Hamon, 102 Western Building, Midland, Texas
 J. Don Hudgens, Inc., P. O. Box 1898, Hobbs, New Mexico
 Humble Oil & Refining Company, P. O. Box 1500, Midland, Texas
 Magnolia Petroleum Company, P. O. Box 633, Midland, Texas
 The Ohio Oil Company, P. O. Box 552, Midland, Texas
 Sinclair Oil & Gas Company, P. O. Box 1470, Midland, Texas
 Skelly Oil Company, P. O. Box 993, Midland, Texas
 Texas Pacific Coal and Oil Company, P. O. Box 2037, Midland, Texas
 Emmett D. White, P. O. Box 146, Roswell, New Mexico

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES ☒ NO ☐ If answer is yes, give date of such notification September 26, 1958.

CERTIFICATE: I, the undersigned, state that I am the Ass't. Div. Prod. Engr. of the The Pure 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.


 Signature Harry C. Wells

THE PURE OIL COMPANY—PROCESS CALCULATION SHEET

Surface

Perforations 11,680' - 11,730'

520 ft

351' - 13-5/8" O.D. Casing

3808' - 9-5/8" O.D. Casing

11,572' Top of Devonian

11,730' - 2" EUE Tubing
 11,791' - 2" x 7" Guiberson Packer
 11,853' - 5" Liner Top
 11,953' - 7" O.D. Casing

13,124' Top of Montoya

Perforations 13,520' - 13,323'

PBTD 13,828'
 TD 13,919'

13,615' Top of McKee
 13,622' - 2" EUE Tubing

13,873' Top of Granite
 -13,881' - 5" Liner

WELL EQUIPMENT - SOUTH VACUUM UNIT #2-35

Subject

Date

Page

9-26-58

BOS File No.

By

DOCKET: EXAMINER HEARING NOVEMBER 19, 1958

Oil Conservation Commission 9 a.m., Mabry Hall, State Capitol, Santa Fe, New Mexico

The following cases will be heard before Elvis A. Utz, Examiner:

- CASE 1237: Application of Gulf Oil Corporation for permission to commingle the production from two separate oil pools. Applicant, in the above-styled cause, seeks an order amending Order R-1093 and Order R-1093-A to authorize it to commingle the production from the Montoya formation with the production from the Ellenburger, Fusselman, and McKee formations on its Learcy Mc-Buffington Lease consisting of the S/2 of Section 13, Township 25 South, Range 37 East, Lea County, New Mexico.
- CASE 1548: Application of Shell Oil Company for an automatic custody transfer system and for permission to commingle the production from four separate leases. Applicant, in the above-styled cause, seeks an order authorizing it to install an automatic custody transfer system and to commingle the production from the Vacuum Pool on four State Leases located in Sections 29, 30, and 31, Township 17 South, Range 35 East, Lea County, New Mexico.
- CASE 1549: Application of Tidewater Oil Company for two non-standard gas proration units. Applicant, in the above-styled cause, seeks an order establishing a 120-acre non-standard gas proration unit, in both the Tubb Gas Pool and the Blinbry Gas Pool, each to comprise the S/2 SE/4 and SE/4 SW/4 of Section 26, Township 21 South, Range 37 East, Lea County, New Mexico, and to be dedicated to applicant's State "Q" Well No. 1, located in the SE/4 SW/4 of said Section 36, which well is dually completed in the aforesaid pools.
- CASE 1550: Application of Tidewater Oil Company to commingle the production from several separate oil pools. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the production from the Ellenburger, McKee, Fusselman, Montoya and any other pool or pools encountered which produces oil of similar qualities on its Coates "C" Lease comprising the E/2 and SE/4 NW/4 and NE/4 SW/4 of Section 24, Township 25 South, Range 37 East, Lea County, New Mexico. Applicant further requests permission to commingle production from the Drinkard formation on said lease with any other pool or pools encountered which produce sour crudes. Applicant proposes to separately meter production from each pool prior to being commingled. Applicant further seeks permission to produce more than sixteen wells into said common facilities.
- CASE 1551: Application of Pan American Petroleum Corporation for permission to commingle the production from three separate leases and for permission to produce more than sixteen wells into a common tank battery. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the production from the Empire-Abo Pool from the three separate Federal leases hereinafter described:

LC-065478-B N/2 NW/4, NE/4, N/2 SE/4, and E/2 SW/4
Section 3; E/2 Section 10

NM-025604 S/2 SE/4 Section 3; W/2 Section 10

LC-067858 N/2 and SW/4 Section 11

all in Township 18 South, Range 27 East, Eddy County, New Mexico. Applicant further requests authority to produce more than sixteen wells into the common tank battery for said leases. Applicant proposes to separately meter production from each of the above-described leases prior to being commingled.

CASE 1552:

Application of Pan American Petroleum Corporation for permission to commingle the production from four separate leases. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the production from the Abo formation adjacent to the Empire-Abo Pool from the four separate State leases hereinafter described:

E-5461 NW/4 NW/4 Section 2

B-7244-30 S/2 NW/4, NW/4 SW/4, and SE/4 SW/4 Section 2

B-8814-12 NE/4 SW/4 Section 2

E-7833 SW/4 SE/4 Section 2

all in Township 18 South, Range 27 East, Eddy County, New Mexico. Applicant proposes to separately meter the production from each of said leases prior to being commingled.

CASE 1553:

Application of The Texas Company for a dual completion and for permission to commingle the liquids produced from two separate pools. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its Peery-Federal (NCT-1) Well No. 1 located 1980 feet from the North and East lines of Section 29, Township 15 South, Range 30 East, Chaves County, New Mexico, in such a manner as to permit the production of oil from an undesignated Devonian oil pool and gas from an undesignated Ellenburger Gas Pool through parallel strings of tubing. Applicant further requests permission to commingle the liquids and low pressure gas produced from the Devonian and Ellenburger formations from all existing and future wells on its Peery-Federal Lease which comprises all of said Section 29.

CASE 1554:

Application of The Texas Company for an automatic custody transfer system and for permission to commingle the production from five separate leases. Applicant, in the above-styled cause, seeks an order authorizing it to install an automatic custody transfer system and to commingle the production from the Bisti-Lower Gallup Oil Pool on five Navajo Allottee Leases located in Sections 14, 15, and 23, Township 25 North, Range 11 West, San Juan County, New Mexico. Applicant proposes to separately meter the production from each lease prior to being commingled.

CASE 1555:

Application of H. K. Riddle for two non-standard oil proration units and two unorthodox oil well locations. Applicant, in the above-styled cause, seeks an order establishing a 61-acre non-standard oil proration unit consisting of Lots 1, 2, 3, and 4 of Section 18, said unit to be dedicated to a well to be drilled on an unorthodox location 1980 feet from the South line and 252 feet from the West line of said Section 18; applicant further seeks

the establishment of a 63-acre non-standard oil proration unit consisting of Lots 1, 2, 3, and 4 of Section 19, said unit to be dedicated to a well to be drilled on an unorthodox location 660 feet from the North line and 256 feet from the West line of said Section 19, all in the Bisti-Lower Gallup Oil Pool, Township 26 North, Range 13 West, San Juan County, New Mexico.

CASE 1556:

Application of Chaco Oil Company for an exception to Rule 104 of the Commission Rules and Regulations. Applicant, in the above-styled cause, seeks an order authorizing it to drill four additional oil wells in the Red Mountain-Mesaverde Oil Pool in the S4/4 SE/4 of Section 20 and the NW/4 NE/4 of Section 29, Township 20 North, Range 9 West, McKinley County, New Mexico.

CASE 1557:

Application of Cities Service Oil Company for a dual completion. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its State "P" No. 3 Well located 990 feet from the South and West lines of Section 32, Township 22 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Blinbry Oil Pool and from an undesignated Glorieta oil pool through parallel strings of tubing.

Continued Cases

CASE 1516: 21 Yaso

CASE 1537: PURE

CLASS OF SERVICE
This is a fast message
unless its deferred char-
acter is indicated by the
proper symbol.

WESTERN UNION TELEGRAM

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

W. P. MARSHALL, President

The filing time shown in the date line on domestic telegrams is STANDARD TIME at point of origin. Time of transmission is shown in the date line on international telegrams.

LA125 DA304

D FWC094 PD AR=FORT WORTH TEX 21 137PMC= *Case 1537*
NEW MEXICO OIL CONSERVATION COMMISSION=
ATTN MR ELVIS A UTZ SANTA FE NMEX=

IN REFERENCE TO CASE #1537 SCHEDULED FOR EXAMINER
HEARING OCTOBER 22, 1958: THE PURE OIL COMPANY REQUESTS
THAT THIS CASE BE POSTPONED AND CONTINUED AT SUCH TIME
AS YOU HOLD YOUR NEXT EXAMINER HEARING WHICH WE
UNDESTAND WILL BE APPROXIMATELY ONE MONTH. PLEASE
ADVISE US OF THE DATE SET FOR THIS CONTINUED CASE=
THE PURE OIL COMPANY HARRY C WELLS ASSVT DIV
PROD ENGR=

Nov. 18 sh. for each

#1537 22 1958=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 10-29-58

CASE NO. 1537

HEARING DATE 10-22-58

My recommendations for an order in the above numbered case(s) are
as follows:

*Case continued until November 19, 1958
before EA. [Signature]*

[Signature]

Staff Member

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

Case No. 1537

TRANSCRIPT OF HEARING

October 22, 1958

DEARNLEY - MEIER & ASSOCIATES
GENERAL LAW REPORTERS
ALBUQUERQUE NEW MEXICO
Phone CHapel 3-6691

BEFORE THE
OIL CONSERVATION COMMISSION
October 22, 1958

IN THE MATTER OF: :
: :
: :

Application of Pure Oil Company for a dual :
completion. Applicant, in the above-styled :
cause, seeks an order authorizing it to :
dually complete its South Vacuum Unit No. : Case 1537
2-35 Well, located 1980 feet from the South :
line and 660 feet from the East line of :
Section 35, Township 18 South, Range 35 :
East, Lea County, New Mexico, in such a :
manner as to permit the production of oil :
from the South Vacuum-Devonian Pool and gas :
from an undesignated McKee gas pool through :
parallel strings of tubing. :

Mabry Hall
Santa Fe, New Mexico

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: The next case on the docket will be 1537.

MR. PAYNE: Case 1537, "Application of Pure Oil Company
for a dual completion."

Mr. Examiner, we have received a letter from the Pure
Oil Company requesting that the case be continued until the next
examiner hearing in which you are the examiner, which will be the
19th, so I move that this case be continued until November 19.

MR. UTZ: Is there objection to the continuance of Case
1537 until November 19?

(No response).

MR. UTZ: If not, it will be continued on that date.

STATE OF NEW MEXICO)
 : SS
 COUNTY OF BERNALILLO)

I, JERRY MARTINEZ, 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 in stenotype and reduced to typewritten transcript by me, and that the same is a true and correct record, to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this 23rd day of October, 1958, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Jerry Martinez
 Notary Public

My Commission Expires:
 January 24, 1962

I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the Examiner hearing of Case No. 1537,
 heard by me on October 22, 1958.
Theresa A. [Signature]
 New Mexico Oil Conservation Commission

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

APPLICATION FOR DUAL COMPLETION

Field Name		County		Date
South Vacuum		Lea		September 24, 1958
Operator		Lease		Well No.
The Pure Oil Company		State		2-35
Location of Well	Unit	Section	Township	Range
	I	35	18 South	35 East

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	Devonian	McKee
b. Top and Bottom of Pay Section (Perforations)	11,680' - 11,730' same	13,620' - 13,823' at intervals
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.
- YES 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.*
- YES 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.

The Atlantic Refining Company, P. O. Box 871, Midland, Texas	BEFORE EXAMINER UTZ OIL CONSERVATION COMMISSION Pure Oil EXHIBIT NO. 2 CASE NO. 1537
Cities Service Oil Company, P. O. Box 97, Hobbs, New Mexico	
Jake L. Hamon, 102 Western Building, Midland, Texas	
J. Don Hudgens, Inc., P. O. Box 1898, Hobbs, New Mexico	
Humble Oil & Refining Company, P. O. Box 1600, Midland, Texas	
Magnolia Petroleum Company, P. O. Box 533, Midland, Texas	
The Ohio Oil Company, P. O. Box 552, Midland, Texas	
Sinclair Oil & Gas Company, P. O. Box 1470, Midland, Texas	
Skelly Oil Company, P. O. Box 993, Midland, Texas	
Texas Pacific Coal and Oil Company, P. O. Box 2037, Midland, Texas	

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 September 26, 1958.

CERTIFICATE: I, the undersigned, state that I am the Asst. Div. Prod. Engr. of the The Pure 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.

EXHIBIT 2

Harry C. Wells
Signature Harry C. Wells

- * 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.

BEFORE THE
OIL CONSERVATION COMMISSION
NOVEMBER 19, 1958

IN THE MATTER OF:

APPLICATION OF THE PURE OIL COMPANY, CONTINUED CASE 1537

TRANSCRIPT OF HEARING

DEARNLEY - MEIER & ASSOCIATES
GENERAL LAW REPORTERS
ALBUQUERQUE NEW MEXICO
Phone CHapel 34691

BEFORE THE
OIL CONSERVATION COMMISSION
NOVEMBER 19, 1958

IN THE MATTER OF:

Application of Pure Oil Company for a dual completion. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its South Vacuum Unit No. 2-35 Well, located 1980 feet from the South line and 660 feet from the East line of Section 35, Township 18 South, Range 35 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the South Vacuum-Devonian Pool and gas from an undesignated McKee gas pool through parallel strings of tubing.

CASE NO.

1537

BEFORE:

ELVIS UTZ, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: The next case on the Docket will be the continued case 1537.

MR. PAYNE: Case 1537, Application of Pure Oil Company for a dual completion.

MR. WELLS: H. C. Wells representing Pure Oil Company.

(Witness Sworn.)

H. C. WELLS

the witness, having first been duly sworn, testified as follows:

DIRECT EXAMINATION

MR. PAYNE: State your name and position.

A Harry C. Wells. I'm the Assistant Chief Division and Production Engineer of the Texas Division of the Pure Oil Company with offices in Fort Worth, Texas.

Q Mr. Wells, have you previously testified before this Commission as an expert witness?

A I have.

MR. PAYNE: Are the witness' qualification acceptable?

MR. UTZ: Yes, sir.

MR. PAYNE: Proceed with your application.

A The Pure Oil Company is the operator of the South Vacuum Unit in Lea County. The company proposes to dually complete the South Vacuum Unit in Lea County, New Mexico to their hole 1980 feet from the south line and 660 feet from the east line of Section 35 in Unit "I", Township 18 South, Range 35 East.

Exhibit One shows the location of this well circled in red, together with all of the offsetting leases and wells. The South Vacuum Unit is outlined in green.

Exhibit Two is an application for dual completion form. There has been no previous authorization for a dual completion in the South Vacuum Pool. This will be an oil over gas type completion.

The upper zone is the Devonian reservoir. The top of the pay is at 11,680. The base of the pay is 11,730. This is an oil zone producing by flowing. The lower zone is the McKee reservoir. The top of the pay is 13,620. The base of the pay is 13,823 feet.

There is gas production from this zone, and it also flows. A list of all offset operators is shown on this exhibit.

Exhibit Three, which I only gave you one copy of, are waivers from all ten of the offset operators to the South Vacuum Unit, stating that they have no objection to our proposal to dually complete this well.

Exhibit Four is a diagrammatic sketch of the well equipment. We propose to produce this well through parallel strings of two inch tubing. The casing program in this well consists of surface pipe of 13 5/8 inch casing cemented with 400 sacks of cement and it is circulated to the surface.

The intermediate string consists of 9 5/8 inch casing set at 3808 feet and cemented with 1220 sacks of cement. The cement is also circulated to the surface on this string. The long string consists of seven inch set at 11,953 feet below the Devonian pay and is cemented with 655 sacks of cement. The top of the cement outside the seven inch is at 7490 feet as determined by a temperature survey.

A five inch line was run inside the seven inch extending from 11,853 to 13,881 feet. It was cemented over its entire length with 320 sacks of cement.

The McKee zone is perforated through the five inch liner. The Devonian zone is perforated through the 7 inch casing. The McKee production tubing consists of 13,622 feet of two inch EUE tubing; and the Devonian production tubing consists of 11,730 feet of two inch EUE tubing. A Guiberson Hook Wall Packer was run on the key producing tubing string and set in the 7 inch casing 11,791 to isolate the zones.

Exhibit Five is composed of three Form C-103's setting out the casing cementing program and the test of the casing after it was set. It will be noted that each of the strings of casing was tested with 1,000 pounds for 30 minutes before any further operations on the well.

Exhibit Six is a Packer-setting Affidavit executed by Mr. L. M. Williams, who personally supervised the setting of the production packer. The affidavit states a Guiberson Hookwall Packer was set at a depth of 11,791 feet.

Exhibit Seven shows the results of a Packer Leakage Test conducted on this well October 27, through October 30, 1958. Would you like to have me go into the details on the Packer Leakage Test?

MR. UTZ: You might show how you feel the Packer Leakage Test showed variation..

A Neither of the shut in completions exhibited any variation in pressure whatsoever when the alternate completion was produced. There is included also a data sheet covering this test. There is

a graphical representation of the test, together with the recording pressure charts taken. This test shows that the well equipment effectively and absolutely prevents any communication between the two zones in this well.

MR. UTZ: Do you have graphs for both sides on this one?

A The Devonian is shown in red. The McKee is shown on the graph. The blue might not have shown up too well. This covers both tests, when the McKee was opened then when the McKee was shut in and likewise when the Devonian was opened.

Exhibit Eight is Form C-116 showing results of a gas-oil ratio test on the Devonian completion during which the well flowed 216 barrels of oil and 8 barrels of water in 24 hours on 6/64" choke with a gas-oil ratio of 75 cubic feet per barrel.

Gravity of the Devonian crude is 49.5 degrees API at 60 degrees, and the specific gravity of the separator gas is 0.850.

Exhibit Nine is Form C-122 showing results of a multi-point back pressure test on the McKee completion. This test indicates an absolute open flow potential of 502 thousand cubic feet of gas per day with a gas liquid hydrocarbon ratio of 22,300 cubic feet per barrel. The gravity of the McKee condensate is 56.3 API at 60 degrees Fahrenheit and the specific gravity of the separator gas is 0.688.

Exhibit 10 is Form C-124 showing the results of a bottom hole pressure test on the Devonian completion. This test indicates the bottom hole pressure of 4666 pounds per square inch at

a bottom depth of 7550 feet sub-sea.

Exhibit 11 shows the result of bottom hole pressure tests on the McKee completion. This test indicates the bottom hole pressure at a datum of 9860 feet sub-sea of 5111 pounds per square inch.

Mr. Examiner, I believe you have in your files an electric log on this well. If you need others, I'll be glad to furnish them.

MR. UTZ: You filed that?

A With the application, with the original application.

MR. UTZ: I'm sure we have that.

A with Santa Fe and with Hobbs, also. We believe the two reservoir perforations made in this well can be efficiently produced through the use of the well equipment presently installed.

It is estimated that a saving of 200 thousand dollars will be realized from the dual completion of this well as compared to the drilling and completion of two wells to serve the same purpose.

That's all the direct testimony I have. I'd like to offer Exhibits One through Eleven for incorporation.

MR. UTZ: Without objection, they will be received.

Any questions?

CROSS-EXAMINATION

BY MR. FISCHER:

Q Is that Guiberson Packer you have in there retrievable?

A Yes, sir, it is.

Q This McKee production, is that the first McKee production in that area?

A As far as I know.

Q (By Mr. Payne) Then this is not a designated pool?

A No, it's the first well in the McKee in the area. I'd like to say on the Hookwall Packer, we've exhibited considerable difficulty with this McKee completion. It's a very tight formation and highly subject to swelling, evidently from any fluids contacted, and we are not sure yet, we have not fraced this McKee completion, and for that reason we did not install a permanent production packer yet. We may. We felt that constriction of a frac with a production packer would be a little higher than we would like; and for that reason we put a retrievable Hookwall Packer in.

Q (By Mr. Fischer) You anticipate you will go in and treat the McKee?

A We may do it. All indications are that we haven't been able to do any good at all with acid or any other treatment, and we are favorable of a fracing treatment. We may have to do it.

MR. FISCHER: Thank you.

MR. UTZ: Any other questions? If there are no other questions, the witness may be excused.

(Witness excused.)

MR. UTZ: Are there any other statements or testimony to

9
be given in this case? If not, the case will be taken under advisement.

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss

I, JOHN CALVIN BEVELL, 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 in Stenotype and reduced to typewritten transcript by me; that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my hand and seal this 25th day of November, 1958, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

John Calvin Bevell
NOTARY PUBLIC

My Commission Expires:
January 24, 1962

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1537 heard by me on Nov. 19, 1958.
Glenn D. [Signature] Examiner
New Mexico Oil Conservation Commission

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

November 28, 1958

C
O
P
Y

Mr. Harry G. Wells
The Pure Oil Company
P.O. Box 2107
Fort Worth 1, Texas

Dear Mr. Wells:

We enclose two copies of Order R-1239 issued November 26, 1958, by the Oil Conservation Commission in Case 1537, which was heard on November 17th at Santa Fe before an examiner.

Very truly yours,

A. L. Porter, Jr.
Secretary - Director

bp
Encls.

**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. 1537
Order No. 2-1289**

**APPLICATION OF THE PURE OIL COMPANY
FOR AN OIL-GAS DUAL COMPLETION IN
THE SOUTH VACUUM-DEVONIAN POOL AND
IN AN UNDESIGNATED MCKEE GAS POOL IN
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 19, 1958, 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 26th day of November, 1958, 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 Pure Oil Company, is the owner and operator of the South Vacuum Unit Well No. 2-35, located 1980 feet from the South line and 660 feet from the East line of Section 35, Township 18 South, Range 35 East, NMPM, Lea County, New Mexico.

(3) That the applicant proposes to dually complete the above-described South Vacuum Unit Well No. 2-35 in such a manner as to permit the production of oil from the South Vacuum-Devonian Pool and the production of gas from an undesignated McKee gas pool through parallel strings of 2-inch KUE tubing.

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

-2-

Case No. 1537
Order No. R-1289

(5) That approval of the subject application will not cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

That the applicant, The Pure Oil Company, be and the same is hereby authorized to dually complete its South Vacuum Unit Well No. 2-35, located 1990 feet from the South line and 660 feet from the East line of Section 35, Township 18 South, Range 35 East, NMPM, Lea County, New Mexico, in such a manner as to permit the production of oil from the South Vacuum-Devonian Pool and the production of gas from an undesignated McKee gas pool through parallel strings of 2-inch EUE tubing.

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

PROVIDED FURTHER, That applicant shall take packer-leakage tests upon completion and annually thereafter during the Annual Gas-Oil Ratio Test Period for the South Vacuum-Devonian Pool commencing in 1959.


IT IS FURTHER ORDERED: That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of applicant to comply with any requirement of this order, after proper notice and hearing the Commission may terminate the authority hereby granted and require applicant or its successors and assigns to limit its activities to regular single-zone production in the interests of conservation.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


EDWIN L. MECHEM, Chairman


MURRAY E. MORGAN, Member


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



September 26, 1958

New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

As lessees of adjoining acreage to the South Vacuum Unit, we have no objection to your proposal to dually complete The Pure Oil Company's South Vacuum Unit #2-35 located 1980' FSL and 660' FEL of Section 35, T18S-R35E, Lea County, New Mexico in the Devonian formation from 11,680' to 11,730' and the McKee formation 13,620' to 13,823'.

THE ATLANTIC REFINING COMPANY

By: R. E. Howard
R. E. Howard
Regional Petroleum Engineer

Date: October 3, 1958

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMAIISSION	
<u>Pure Oil</u>	EXHIBIT NO. <u>3</u>
CASE NO. <u>1537</u>	

10 Pages.

EXHIBIT 3

September 26, 1958

New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

As lessees of adjoining acreage to the South Vacuum Unit, we have no objection to your proposal to dually complete The Pure Oil Company's South Vacuum Unit #2-35 located 1980' FSL and 660' FEL of Section 35, T18S-R35E, Lea County, New Mexico in the Devonian formation from 11,680' to 11,730' and the McKee formation 13,620' to 13,823'.

CITIES SERVICE OIL COMPANY

By: 

Date: September 29, 1958

September 26, 1958

New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

As lessees of adjoining acreage to the South Vacuum Unit, we have no objection to your proposal to dually complete The Pure Oil Company's South Vacuum Unit #2-35 located 1980' FSL and 660' FEL of Section 35, T18S-R35E, Lea County, New Mexico in the Devonian formation from 11,680' to 11,730' and the McKee formation 13,620' to 13,823'.

Jake L. Hanson

By:

J. W. Shaw
Dist. Engr.

Date: 9/29/58

September 26, 1958

New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

As lessees of adjoining acreage to the South
Vacuum Unit, we have no objection to your proposal
to dually complete The Pure Oil Company's South
Vacuum Unit #2-35 located 1980' FSL and 660' FEL of
Section 35, T18S-R35E, Lea County, New Mexico in the
Devonian formation from 11,680' to 11,730' and the
McKee formation 13,620' to 13,823'.


By: 

Date: 9/27/58

September 26, 1958

New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

As lessees of adjoining acreage to the South Vacuum Unit, we have no objection to your proposal to dually complete The Pure Oil Company's South Vacuum Unit #2-35 located 1980' FSL and 660' FEL of Section 35, T18S-R35E, Lea County, New Mexico in the Devonian formation from 11,680' to 11,730' and the McKee formation 13,620' to 13,823'.

HUMBLE OIL & REFINING CO.

W. H. Jones

By:

J. F. Jones

Date: Oct. 15, 1958

September 26, 1958

New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

As lessees of adjoining acreage to the South Vacuum Unit, we have no objection to your proposal to dually complete The Pure Oil Company's South Vacuum Unit #2-35 located 1980' FSL and 660' FEL of Section 35, T18S-R35E, Lea County, New Mexico in the Devonian formation from 11,680' to 11,730' and the McKee formation 13,620' to 13,823'.

Magnolia Petroleum Company

By: E. L. Durning

Date: October 6, 1958

September 26, 1958

New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

As lessees of adjoining acreage to the South Vacuum Unit, we have no objection to your proposal to finally complete The Pure Oil Company's South Vacuum Unit #2-35 located 1980' FSL and 660' FEL of Section 35, T18S-R35E, Lea County, New Mexico in the Devonian formation from 11,680' to 11,730' and the McKee formation 13,620' to 13,823'.

The Ohio Oil Co

By: Cox S. Mills
CSM

Date: 10-1-58

SINCLAIR OIL & GAS COMPANY

PETROLEUM LIFE BUILDING
Box 1470
MIDLAND, TEXAS

October 1, 1958

G. D. ALMEN, JR.
VICE PRES. & DIVISION MANAGER

R. L. ELSTON
ASSISTANT DIVISION MANAGER

C. S. TINKLER
DIVISION EXPLORATION SUPT.

H. F. DEFENBAUGH
DIVISION PRODUCTION SUPT.

F. C. ROGERS
DIVISION GAS & GAS PRODUCTS SUPT.

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

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

Gentlemen:

We have been advised that The Pure Oil Company has made Application for Dual Completion on their South Vacuum Unit Well #2-35 in the South Vacuum Devonian Pool and an undesignated McKee Gas Pool, Lea County, New Mexico. We understand that this well is located 1980 feet from the South line and 660 feet from the East line of Section 35-18S-35E.

Sinclair Oil & Gas Company has no objection to the dual completion of this well and hereby waives their right to notice and hearing on same.

Yours very truly,


H. F. Defenbaugh

HFD:RMA:mk

Orig. & 2 cc: The Pure Oil Company
Box 2107
Fort Worth 1, Texas

September 26, 1958

New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

As lessees of adjoining acreage to the South Vacuum Unit, we have no objection to your proposal to dually complete The Pure Oil Company's South Vacuum Unit #2-35 located 1980' FSL and 660' FEL of Section 35, T18S-R35E, Lea County, New Mexico in the Devonian formation from 11,680' to 11,730' and the McKee formation 13,620' to 13,823'.

Skelly Oil Company

By: 

Date: _____

September 26, 1958

New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

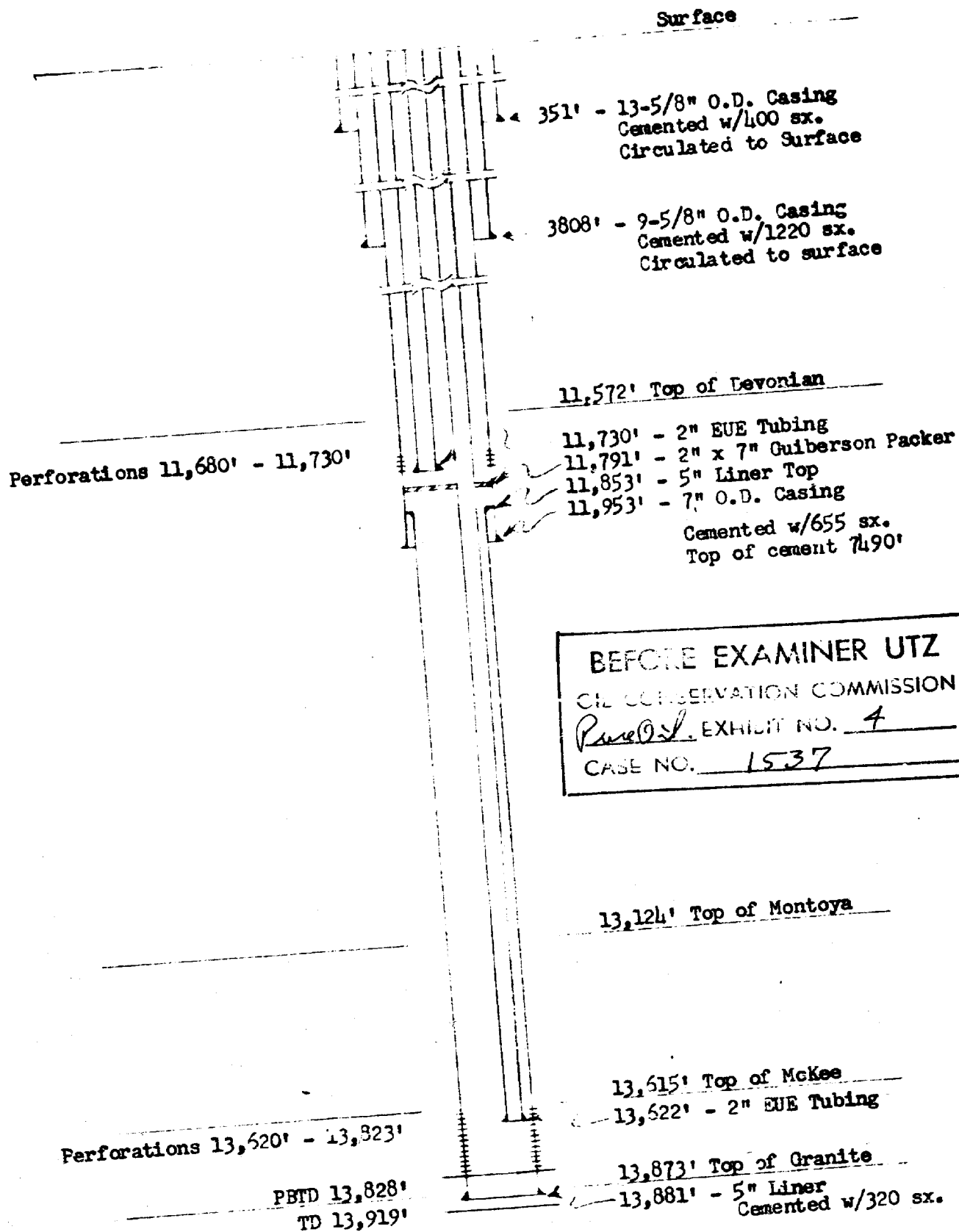
As lessees of adjoining acreage to the South Vacuum Unit, we have no objection to your proposal to dually complete The Pure Oil Company's South Vacuum Unit #2-35 located 1980' FSL and 660' FEL of Section 35, T18S-R35E, Lea County, New Mexico in the Devonian formation from 11,680' to 11,730' and the McKee formation 13,620' to 13,823'.

TEXAS PACIFIC COAL AND OIL COMPANY

By: R. W. Harris
Manager of Production

Date: September 30, 1958

THE PURE OIL COMPANY--PROCESS CALCULATION SHEET



WELL EQUIPMENT - SOUTH VACUUM UNIT #2-35

Subject **EXHIBIT 4**

Date

Page

9-26-58
HCS

File No.

By

NEW MEXICO OIL CONSERVATION COMMISSION
MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

COMPANY The Pure Oil Company - Box 2107, Fort Worth, Texas
(Address)

LEASE South Vacuum Unit WELL NO. 2-35 UNIT I 5 35 T 18-S R 35-E
DATE WORK PERFORMED 3-31-58 POOL South Vacuum

This is a Report of: (Check appropriate block) ☒ Results of Test of Casing Shut-off

☐ Beginning Drilling Operations

☐ Remedial Work

☐ Plugging

☐ Other

Detailed account of work done, nature and quantity of materials used and results obtained.

Ran 351' of 13-3/8" OD casing with Larkin shoe set at 351', cemented with 400 sacks Lonestar Portland Neat cement, maximum pressure 250#, had cement returns to surface, job complete 7:00 AM 3-22-58, 24 hours WOC, tested casing, control equipment and cement with 1000# for 30 minutes, held OK.

Ran 3808' of 9-5/8" OD casing with Larkin shoe set at 3808', float collar set at 3745', with 4 sets Centralizers installed. Cemented with 1020 sacks Lonestar Portland cement with 6% gels and 1 part Stratacrete to two parts cement added and 200 sacks Portland Neat cement, pumped plug to 3745', maximum pressure 1000#, had cement returns to surface, 24 hours WOC, tested casing, control equipment and cement for 30 minutes with 1000#, held OK.

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

Original Well Data:

DF Elev. _____ TD _____ PBD _____ Prod. Int. _____ Compl Date _____

Tbng. Dia _____ Tbng Depth _____ Oil String Dia _____ Oil String Depth _____

Perf Interval (s) _____

Open Hole Interval _____ Producing Formation (s) _____

RESULTS OF WORKOVER:

BEFORE

AFTER

Date of Test

Oil Production, bbls. per day

Gas Production, Mcf per day

Water Production, bbls. per day

Gas-Oil Ratio, cu. ft. per bbl.

Gas Well Potential, Mcf per day

Witnessed by _____

(Company)

OIL CONSERVATION COMMISSION

Name _____

Title _____

Date _____

I hereby certify that the information given above is true and complete to the best of my knowledge.

Name _____

Position Asst. Chief Division Prod. Engineer

Company The Pure Oil Company

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

Pure Oil EXAMINER NO. 5

CASE NO. 1537

EXHIBIT 5

NEW MEXICO OIL CONSERVATION COMMISSION
MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

COMPANY The Pure Oil Company - Box 2107, Fort Worth, Texas
(Address)

LEASE South Vacuum Unit WELL NO. 2-35 UNIT I S 35 T 18-S R 35-2
DATE WORK PERFORMED 7-24-58 POOL South Vacuum

This is a Report of: (Check appropriate block) ☒ Results of Test of Casing Shut-off

☐ Beginning Drilling Operations

☐ Remedial Work

☐ Plugging

☐ Other _____

Detailed account of work done, nature and quantity of materials used and results obtained.

Ran 11953' of 7"OD casing with Howco guide shoe set at 11953', TIW formation packer at 11788', float collar at 11753' and 11685', Howco DV tool at 11296', cemented with 875 Cu. Ft. ~~Pozmix~~ Incor cement with 4% gels added, two stages. Ran Temperature survey, top cement outside 7" casing at 7490' from surface. Set model "K" cement retainer at 11911', cemented with 75 sacks Incor Neat cement, 48 hours WOC, tested casing, control equipment and cement with 1000# for 30 minutes, held OK.

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

Original Well Data:

DF Elev. _____ TD _____ PBD _____ Prod. Int. _____ Compl Date _____

Tbng. Dia _____ Tbng Depth _____ Oil String Dia _____ Oil String Depth _____

Perf Interval (s) _____

Open Hole Interval _____ Producing Formation (s) _____

RESULTS OF WORKOVER:

BEFORE

AFTER

Date of Test

Oil Production, bbls. per day

Gas Production, Mcf per day

Water Production, bbls. per day

Gas-Oil Ratio, cu. ft. per bbl.

Gas Well Potential, Mcf per day

Witnessed by _____

(Company)

OIL CONSERVATION COMMISSION

I hereby certify that the information given above is true and complete to the best of my knowledge.

Name _____

Name Ray C Wells

Title _____

Position Asst. Chief Division Prod. Engineer

Date _____

Company The Pure Oil Company

NEW MEXICO OIL CONSERVATION COMMISSION
MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

COMPANY The Pure Oil Company - Box 2107 - Fort Worth, Texas

(Address)

LEASE South Vacuum Unit WELL NO. 2-35 UNIT I S 35 T 18-S R 35-E

DATE WORK PERFORMED 10-2-58 POOL South Vacuum

This is a Report of: (Check appropriate block) ☒ Results of Test of Casing Shut-off

☐ Beginning Drilling Operations

☐ Remedial Work

☐ Plugging

☐ Other _____

Detailed account of work done, nature and quantity of materials used and results obtained.

Ran 2028' of 5" OD Hydril flush joint casing with float and guide shoe at 13881' with plug latch collar at 13840', 5" x 6" casing hanger set in 7" casing at 11564', collapsible packer at 11553', Cemented 5" liner with 205 sacks, maximum pressure 2200#, 2nd stage: ran Baker retrievable cementing tool to 11753', cemented 5" liner with 115 sacks maximum pressure 400#, job complete 6:00 AM 9-9-58. 36 hours WOC. Tested casing, cement and control equipment with 1000# for 30 minutes, held OK.

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

Original Well Data:

DF Elev. _____ TD _____ PBD _____ Prod. Int. _____ Compl Date _____

Tbng. Dia _____ Tbng Depth _____ Oil String Dia _____ Oil String Depth _____

Perf Interval (s) _____

Open Hole Interval _____ Producing Formation (s) _____

RESULTS OF WORKOVER:

BEFORE

AFTER

Date of Test _____

Oil Production, bbls. per day _____

Gas Production, Mcf per day _____

Water Production, bbls. per day _____

Gas-Oil Ratio, cu. ft. per bbl. _____

Gas Well Potential, Mcf per day _____

Witnessed by _____

(Company)

OIL CONSERVATION COMMISSION

I hereby certify that the information given above is true and complete to the best of my knowledge

Name _____

Name _____

Title _____

Position Asst. Chief Division Prod. Engineer

Date _____

Company The Pure Oil Company

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

6-1-56

PACKER-SETTING AFFIDAVIT
(Dual Completions)

STATE OF New Mexico)
County of Lea) ss

L. M. Williams, being first duly sworn according to law, upon his oath deposes and says:

That he is of lawful age and has full knowledge of the facts herein below set out.

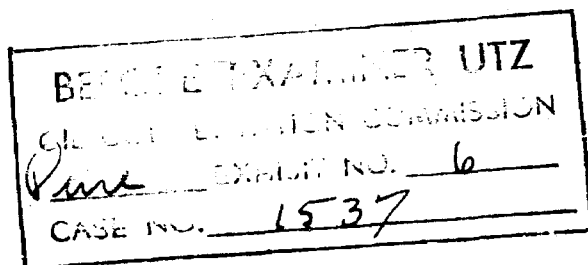
That he is employed by The Pure Oil Company in the capacity of Production Engineer and as such is its authorized agent.

That on 9-20, 1958, he personally supervised the setting of a Guiberson Hookwall in The Pure Oil Company's
(Make and Type of Packer) (Operator)

South Vacuum Unit Well No. 2-35, located in Unit
(lease)
Letter I, Section 35, Township 18-S, Range 35-E, NMPM,
Lea County, New Mexico.

That said packer was set at a subsurface depth of 11791 feet, said depth measurement having been furnished by District Office.

That the purpose of setting this packer was to effect a seal in the annular space between the two strings of pipe where the packer was set so as to prevent the commingling, within the well-bore, of fluids produced from a stratum below the packer with fluids produced from a stratum above the packer. That this packer was properly set and that it did, when set, effectively and absolutely seal off the annular space between the two strings of pipe where it was set in such manner as that it prevented any movement of fluids across the packer.



The Pure Oil Company
(Company)

L. M. Williams
(its Agent)

Subscribed and sworn to before me this the 18th day of Nov., AD, 1958.

John E. Smith
Notary Public in and for the County of Tarrant

My Commission Expires June 1, 1959.

EXHIBIT 6

NEW MEXICO
OIL CONSERVATION COMMISSION

4-1-56

PACKER LEAKAGE TEST

Operator The Pure Oil Company Pool (Upper Completion) Devonian
Lease South Vacuum Unit Well 2-35 Pool (Lower Completion) McKee
Location: Unit I, S. 35, T 18-S R 35-E Lea County, N. M.

Pre-Test Shut-In

	Upper Completion	Lower Completion
Shut-in at (hour, date).....	7:00 AM 10-26-58	7:00 AM 10-26-58
Pressure stabilized at (hour, date).....	10:00 AM 10-26-58	7:00 AM 10-25-58
Length of time required to stabilize (hours).....	3	24

Flow Test No. 1

Test commenced at (hour, date) 10:00 PM 10-27-58 Choke size 32/64
Completion producing McKee Completion shut-in Devonian

	Upper Completion	Lower Completion
Stabilized pressure at beginning of test.....	778 DWT psi	3498 DWT psi
Maximum pressure during test.....	778 DWT psi	3498 psi
Minimum pressure during test.....	778 DWT psi	80 psi
Pressure at end of test.....	778 DWT psi	80 psi
Maximum pressure change during test.....	0 psi	3418 psi
Oil flow rate during test: <u>22.9</u> BOPD based on <u>13.37</u> BO in <u>14</u> hours.		
Gas flow rate during test: <u>511</u> MCFPD based on <u>298</u> MCF in <u>14</u> hours.		

Mid-Test Shut-In

	Upper Completion	Lower Completion
Shut-in at (hour, date).....	7:00 AM 10-26-58	10:00 AM 10-29-58
Pressure stabilized at (hour, date).....	10:00 AM 10-26-58	10:00 AM 10-30-58
Length of time required to stabilize (hours).....	2	24

Flow Test No. 2

Test commenced at (hour, date) 1:00 PM 10-30-58 Choke size 7/64"
Completion producing Devonian Completion shut-in McKee

	Upper Completion	Lower Completion
Stabilized pressure at beginning of test.....	778 DWT psi	3280 DWT psi
Maximum pressure during test.....	778 psi	3280 psi
Minimum pressure during test.....	647 DWT psi	3280 psi
Pressure at end of test.....	647 DWT psi	3280 psi
Maximum pressure change during test.....	131 psi	0 psi
Oil flow rate during test: <u>180</u> BOPD based on <u>30</u> BO in <u>4</u> hours.		
Gas flow rate during test: <u>13.5</u> MCFPD based on <u>3.38</u> MCF in <u>4</u> hours.		

Test performed by L. M. Williams Title Production Engineer

Witnessed by N. J. Littlejohn Title Production Foreman

REMARKS: Elements in recorder were 4000 psi; chart range was 0-500 psi. Therefore true pressure = chart pressure x 8.0
Blue curve is McKee - Red curve is Devonian

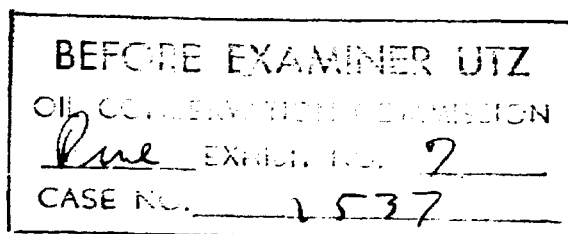
NOTE: Recording gauge pressure charts, test data sheet, and a graphic depiction of all phases of the test shall be submitted with this report.

AFFIDAVIT:

I HEREBY CERTIFY that all conditions prescribed by Oil Conservation Commission of the State of New Mexico for this packer leakage test were complied with and carried out in full, and that all dates and facts set forth in this form and all attached material are true and correct.

L. M. Williams For The Pure Oil Company
(Representative of Company Making Test) (Company Making Test)

SWORN TO AND SUBSCRIBED before me this the 13th day of November, 19 58



John D. Miller
Notary Public in and for the County of Tarrant
State of Texas

(OVER)

EXHIBIT 7

INSTRUCTIONS
(SOUTHEAST NEW MEXICO ONLY)

1. At least 24 hours prior to the commencement of this test, the operator shall notify the District Office of the Oil Conservation Commission in writing of the exact time said test is to be commenced.
2. The packer leakage test shall commence with both sides of the completion shut-in. Both sides of the completion must be shut-in a sufficient length of time to allow for complete stabilization of both wellhead pressures, and for a minimum of 2 hours thereafter- this minimum of 2 hours shut-in must show on the charts of the pressure recorder and also must appear on the data sheet.
3. For Flow Test No. 1, one side of the dual completion shall be produced with the other side shut-in. Such test shall be continued until the flowing wellhead pressure has become stabilized and for a minimum of 2 hours thereafter, and shall be at a rate of flow approximating the normal rate of flow for the zone being produced.
4. Following the completion of flow test No. 1, the well will again be shut-in, and remain so until the wellhead pressures have again become stabilized and for a minimum of 2 hours thereafter.
5. Flow Test No. 2 shall be performed with the previously shut-in side of the dual completion flowing and with the flowing side of the completion used in test number 1 remaining shut-in. This test shall be conducted exactly as outlined under Flow Test No. 1, and must be performed even though no leak was indicated by Flow Test No. 1.
6. All pressures, throughout the entire test, must be continuously measured and recorded with recording pressure gauges.
7. The accuracy of the recording gauges shall be checked at regular intervals throughout the test with a dead weight test gauge, and such readings shall be recorded on the test data sheet provided.
8. For any well on which the wellhead pressures will not stabilize in (24) twenty four hours or less, the minimum producing or shut-in time allowed for stabilization shall be (24) twenty-four hours.
9. This form must be completed and filed in duplicate with the District Office of the Oil Conservation Commission within 15 days following the completion of the testing, and must be accompanied by:
 - a. all of the charts, or copies thereof, used on the pressure Recorders during the test.
 - b. the test data-sheet (s), or copies thereof, required under paragraph 7 above.
 - c. a graph depicting the pressures and their changes, for both sides of the completion over the entire test.
10. This packer leakage test shall be performed upon dual completion of any new wells so approved by the Commission. This test shall also be required each year during the annual GOR test for the lowermost oil zone or oil pool so concerned. The Commission may also request packer leakage tests at any time they feel that a new test is desirable.

NEW MEXICO
OIL CONSERVATION COMMISSION

PACKER LEAKAGE TEST

OPERATOR	The Pure Oil Company		
LEASE NAME	South Vacuum Unit	WELL NO.	2-35
LOCATION	660' FEL & 1980' FSL, S-35, T-18-S, R-35-E	COUNTY	Lea

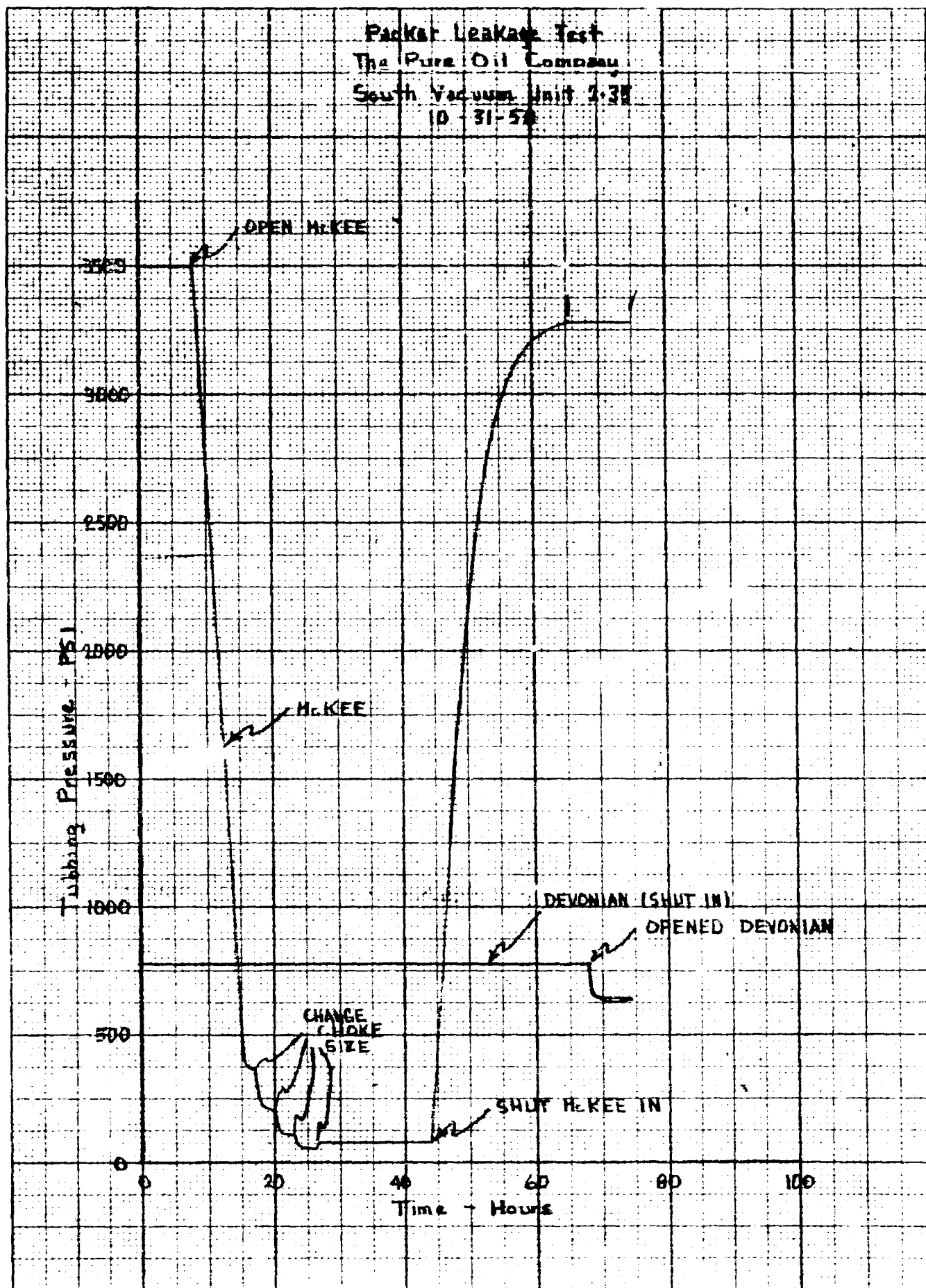
TEST DATA SHEET

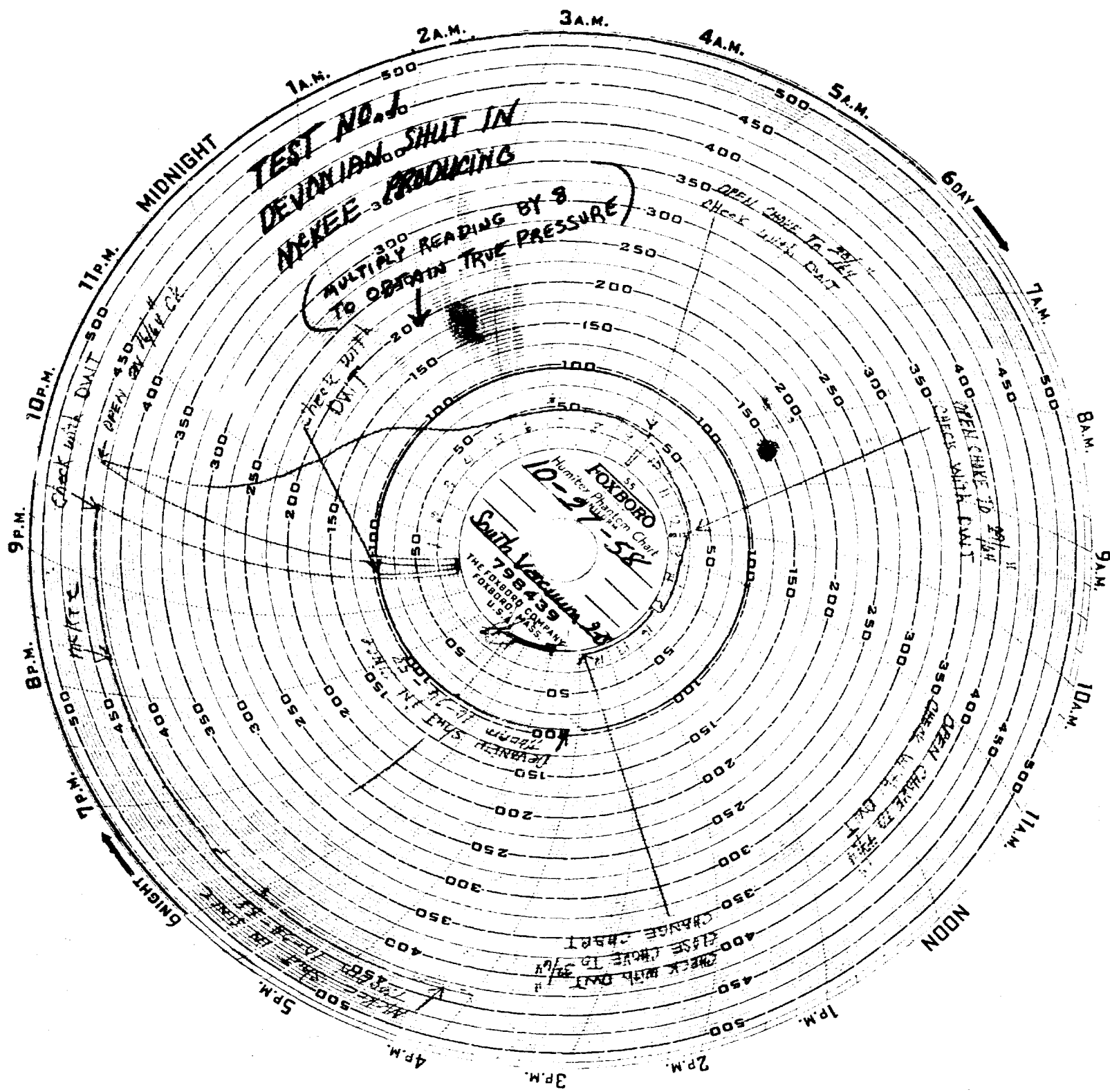
[illegible]

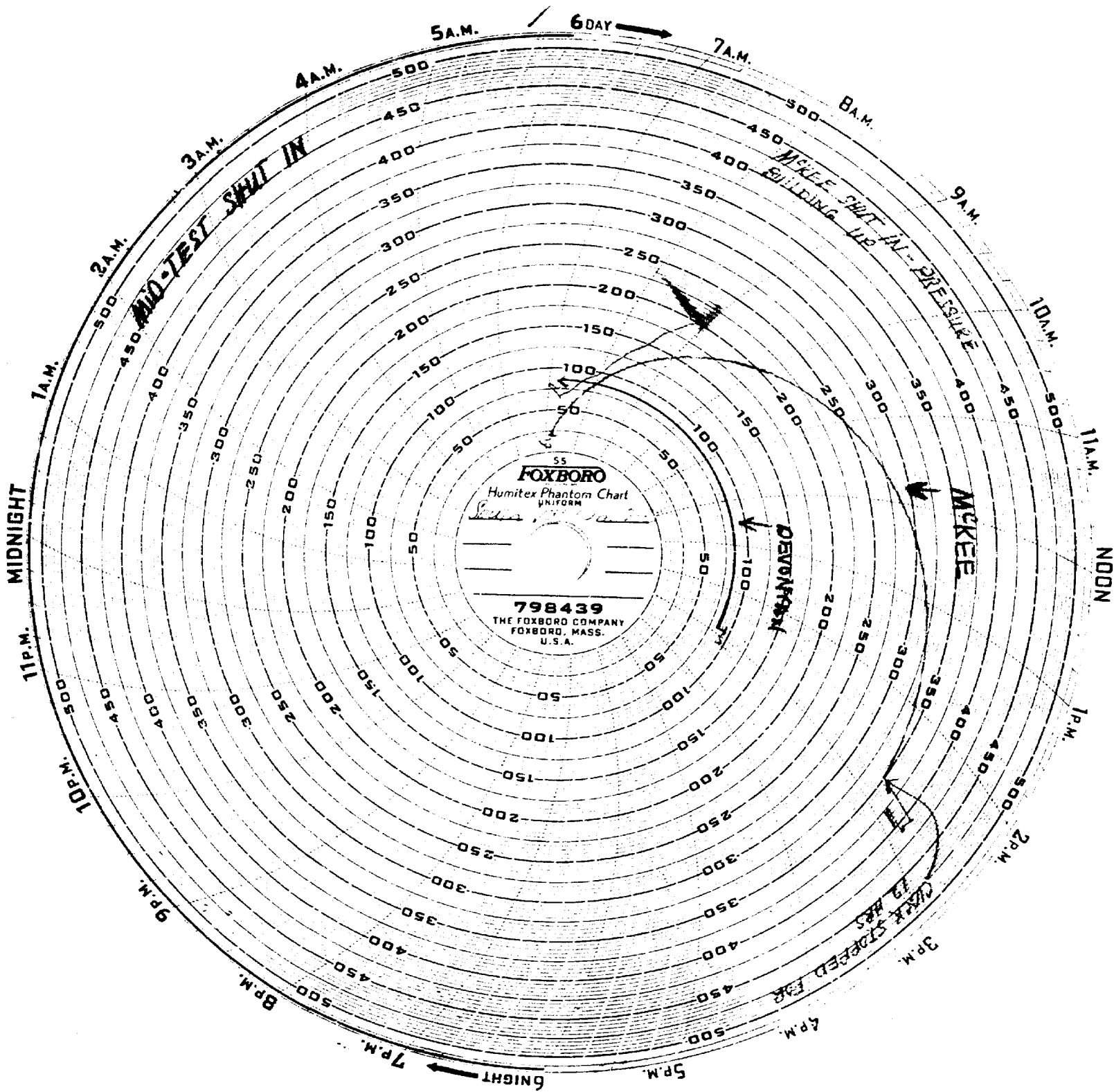
EXHIBIT 7

EUGENE DIETZGEN CO.
MADE IN U. S. A.

O. 310 20 DIETZGEN GRAPH PAPER
20 x 20 PER INCH







NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO REPORT

OPERATOR The Pure Oil Company POOL South Vacuum Devonian
ADDRESS Box 2107, Fort Worth, Texas MONTH OF November, 1958
SCHEDULED TEST _____ COMPLETION TEST X SPECIAL TEST _____ (Check One)
(See Instructions on Reverse Side)

Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Daily Allowable Bbls.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbls.	Oil Bbls.	Gas MCF	
South Vacuum Unit	2-35	11/3/58	F	6/64	24	193	8	216	16.2	75
<div><div>Note: Gravity of crude 49.5° API @ 60° F Specific Gravity of Separator Gas 0.850</div><div>BEFORE EXAMINER UTZ OIL CONSERVATION COMMISSION Pure EXHIBIT NO. 8 CASE NO. 1537</div></div>										

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60 degrees F. Specific gravity base will be 0.60.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission. In accordance with Rule 301 and Appropriate Pool Rules.

(I certify that the information given is true and complete to the best of my knowledge.)

Date November 18, 1958

The Pure Oil Company
By *Harry C. Wells*
Ass't. Div. Production Engineer
Title

EXHIBIT 8

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool South Vacuum Formation McKee County Lea
 Initial X Annual _____ Special _____ Date of Test 10-27-58
 Company The Pure Oil Company Lease South Vacuum Unit Well No. 2-35
 Unit I Sec. 35 Twp. 18-S Rge. 35-E Purchaser Phillips Petroleum Company
 Liner 5" Wt. 17.93 I.D. 4.276 Set at 13881 Perf. 13620 To 13823
 Tubing 2 Wt. 4.70 I.D. 1.995 Set at 13622 Perf. Open Ended To _____
 Gas Pay: From 13620 To 13823 L 13721 xG 0.801 -GL 11000 Bar.Press. 30.18" Hg.
 Producing Thru: Casing _____ Tubing X Type Well G. O. Dual
 Date of Completion: 9-26-58 Packer Guiberson Hookwall Reservoir Temp. 200°F 165°F

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						3498	78	Packer		64
1.	4.026	2.000	26	11	44	368	76			9
2.	4.026	2.000	26	11	44	211	76			3
3.	4.026	2.000	26	11	45	110	75			3
4.	4.026	2.000	26	11	45	82	75			3
5.	4.026	2.000	26	11	44	53	75			24

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	25.580	20.8	26	1.0157	0.9325		502.0
2.	25.580	20.8	26	1.0157	0.9325		502.0
3.	25.580	20.8	26	1.0157	0.9325		502.0
4.	25.580	20.8	26	1.0157	0.9325		502.0
5.	25.580	20.8	26	1.0157	0.9325		502.0

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 22,300 cf/bbl.
 Gravity of Liquid Hydrocarbons 56.3 @ 60 deg.
 ρ_c 2.936 (1-e⁻⁸) 0.570

Specific Gravity Separator Gas 0.688
 Specific Gravity Flowing Fluid 0.801
 P_c 3498 P_c^2 12236004

No.	P_w P _t (psia)	P_c^2	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ⁻⁸)	P_w^2	$P_c^2 - P_w^2$	Cal. P _w	$\frac{P_w}{P_c}$
1.	368	135.2	4975	24.75	13.10	148.3	12088	384.5	10.72
2.	211	44.5	4975	24.75	13.10	57.6	12178	240.0	6.85
3.	110	12.1	4975	24.75	13.10	25.2	12211	158.0	4.51
4.	82	6.72	4975	24.75	13.10	19.84	12216	141.0	4.04
5.	53	2.81	4975	24.75	13.10	15.91	12220	126.0	3.61

Absolute Potential: 502 MCFPD; n = 00

COMPANY The Pure Oil Company
 ADDRESS Box 2107, Fort Worth, Texas
 AGENT and TITLE E. M. Williams Production Engineer
 WITNESSED N. J. Littlejohn
 COMPANY The Pure Oil Company

REMARKS

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

EXHIBIT NO. 9CASE NO. 1537

EXHIBIT 9

INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w).
MCF/da. @ 15.025 psia and 60° F.

P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.
psia

P_w = Static wellhead working pressure as determined at the end of flow period.
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia

P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if
flowing through casing.) psia

P_f = Meter pressure, psia.

h_w = Differential meter pressure, inches water.

F_g = Gravity correction factor.

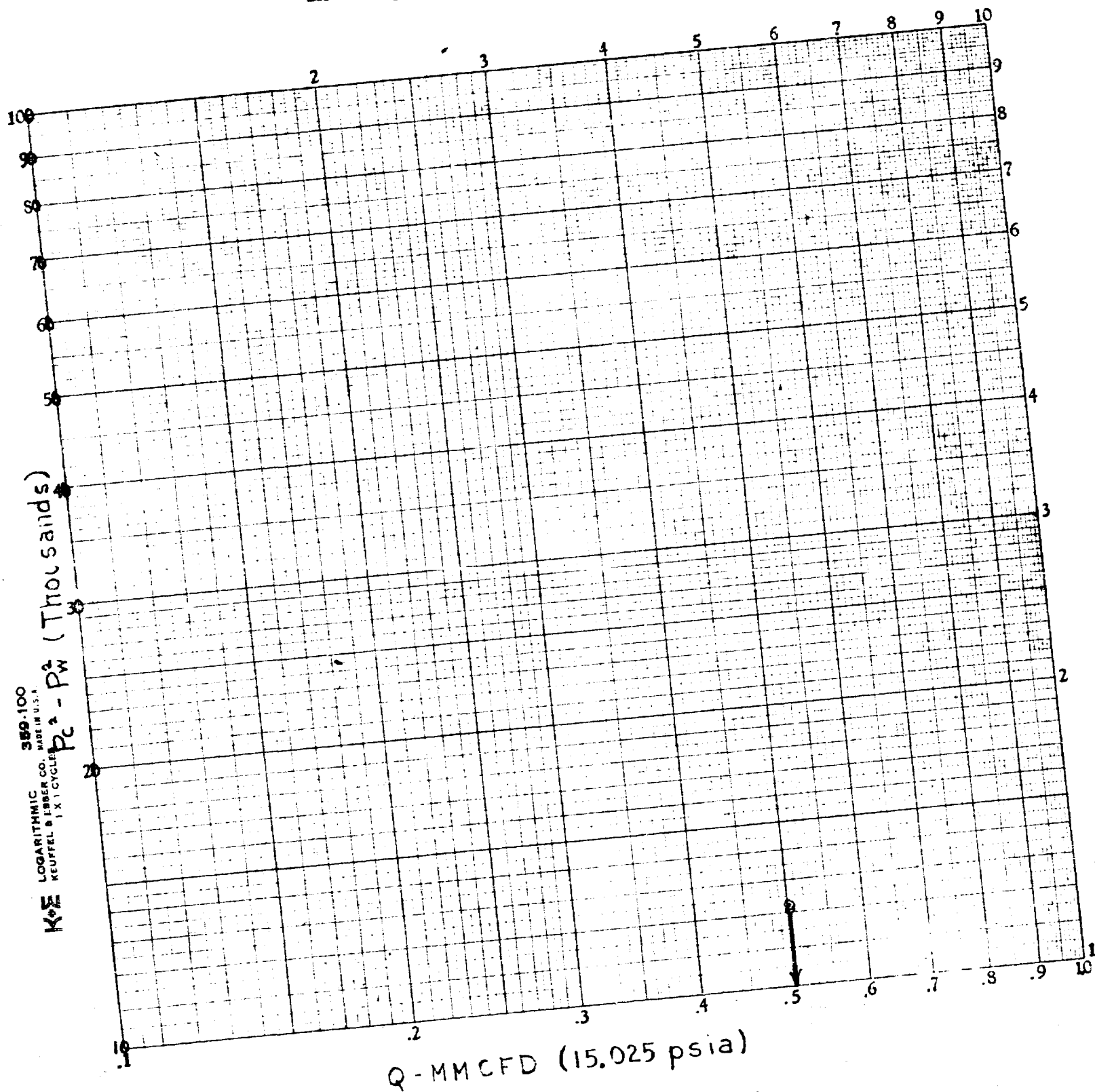
F_t = Flowing temperature correction factor.

F_{pv} = Supercompressibility factor.

n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .

COMPANY The Pure Oil Company
 WELL South Vacuum Unit 2-35
 LOCATION 1-35-18S-35E
 COUNTY Lea
 DATE 10-31-58



NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-124
(Rev. 9-53)COMPANY The Pure Oil Company

BOTTOM HOLE PRESSURES

South Vacuum - Devonian

POOL

POOL DATUM - 7550'NOMINAL SHUT-IN TIME 26HRS: AVERAGE POOL TEMPERATURE 150

F°

LEASE	WELL			DATE PRESS. RUN	TIME S.I. HRS./MINS.	S.C.F. XXX ELEV.	GAUGE DEPTH	GRADIENT TBG.	B.H.P. @ GAUGE DEPTH	B.H.P. @ POOL DATUM	PREVIOUS TEST	
	NO.	UNIT	S-T-R								@ DATUM PRESS.	DATE
South Vacuum Unit	2-35	I	35-188- 35E	10/27/58	26/0	3860'	-7842'	0.505	4808	4666	none	—

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
Pure. EXHIBIT NO. 10
CASE NO. 1537

EXHIBIT 10

NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-124
(Rev. 9-53)COMPANY The Pure Oil Company

BOTTOM HOLE PRESSURES

South Vacuum - McKee

POOL

POOL DATUM -9860 *NOMINAL SHUT-IN TIME 34HRS: AVERAGE POOL TEMPERATURE 165

°F

LEASE	WELL NO.	UNIT	S-T-R	DATE PRESS. RUN	TIME S.I. HRS./MINS.	S.G.F. SGF ELEV.	GAUGE DEPTH	GRADIENT TBG.	B.H.P. ● GAUGE DEPTH	B.H.P. ● POOL DATUM	PREVIOUS TEST ● DATUM PRESS.	TEST DATE
Vacuum	2-35	I	35-18S-35E	10/27/58	34/0	3860'	-9640	0.142	5080	5111	none	_____

* Approximate mid-point of perforation.

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

Pace EXHIBIT NO. 11

CASE NO. 1537

EXHIBIT 11

* Approximate mid-point of perforation.

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 11
CASE NO. 1537

EXHIBIT 11