

Western Natural Gas Company

823 MIDLAND TOWER BLDG.

Midland, Texas

June 23, 1958

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

Gentlemen:

Western Natural Gas Company respectfully requests a hearing to consider this application for permission to dually complete applicant's Wimberly #2 as an oil-oil dual producer in such a manner that the Fusselman and Drinkard reservoirs will be produced through parallel strings of two inch tubing inside seven inch casing and in support thereof states as follows:

- I. Western Natural Gas Company's Wimberly #2 is located 660 feet from the North line and 1980 feet from the West line of Section 24, T-25-S, R-37-E, Lea County, New Mexico.
- II. This well has 13 3/8" surface casing set at 544' with cement circulated to surface, 9 5/8" intermediate casing set at 2393' with cement back to 1010', and 7" production casing set at 8235'. Top of cement behind the 7" casing is at 3400'.
- III. This well is now producing through 2 3/8" OD tubing string at 6774' from the Fusselman formation perforated in the 7" casing at 6736-6756'. A Baker Model "D" Retainer Production packer is at 6595' set off of wire-line. The 7" casing was perforated at 5874-5924', opposite the Drinkard zone and 2 3/8" OD tubing string is landed at 6069'. The Drinkard formation is shut-in.

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- IV. On June 19, 1958 a packer leakage test was conducted by Coleman Petroleum Engineering Company of Hobbs, New Mexico. The results indicate that the two producing zones are separated properly. Accompanying this letter of application are properly executed packer leakage forms.
- V. Subject well has been completed and equipped as indicated on the attached schematic diagram.
- VI. The manner and method of dual completing this well is mechanically sound and practical and is in the interest of conservation and the protection of correlative rights.
- VII. The applicant will comply with all rules and regulations of the New Mexico Oil Conservation Commission to maintain separation of production from the two pay zones.
- VIII. A plat is attached showing the location of the well and offset operators.
- IX. By copy of this letter and attachments all offset operators are hereby notified.

Respectfully submitted,

WESTERN NATURAL GAS COMPANY

R. H. McKoy

R. H. McKoy
Division Superintendent

STATE OF TEXAS

COUNTY OF MIDLAND

On this 23rd day of June, 1958, before me personally appeared R. H. McKoy, to me known to be the person who executed the foregoing letter and states that the foregoing statements are true to the best of his knowledge and belief.

In Witness Whereof, I have set my hand and seal on the day and year first above written.

Clara Jean Hyatt
Notary Public in and for Midland
County, State of Texas

My Commission Expires
June 1, 1959

CLARA JEAN HYATT—NOTARY PUBLIC
in and for Midland County, Texas
MY COMMISSION EXPIRES JUNE 1, 1959

THE
OFFICE OF THE
ATTORNEY GENERAL
STATE OF NEW YORK
ALBANY

IN SENATE,
JANUARY 1, 1901.

REPORT
OF THE
COMMISSIONER OF THE LAND OFFICE
IN RESPONSE TO A RESOLUTION
PASSED BY THE SENATE
MAY 1, 1899.

ALBANY:
J. B. LEECH, PRINTERS,
1899.

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MAILING LIST

Gulf Oil Corporation
P. O. Box 2167
Hobbs, New Mexico

Anderson-Prichard Oil Corporation
P. O. Box 196
Midland, Texas

R. Olsen Oil Company
Drawer 2
Jal, New Mexico

Amerada Petroleum Corporation
P. O. Box 312
Midland, Texas

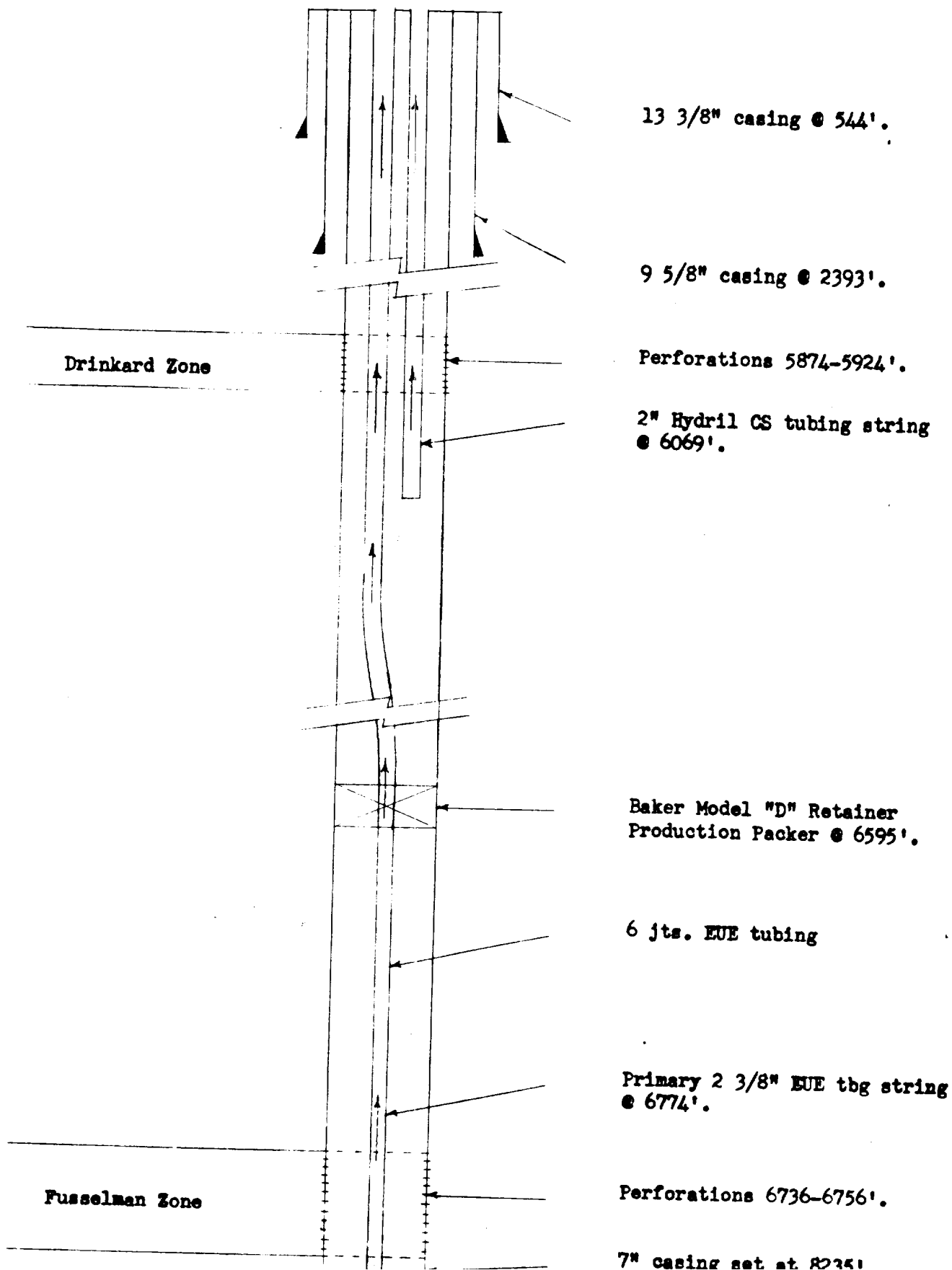
Tidewater Oil Company
P. O. Box 547
Hobbs, New Mexico

Atlantic Refining Company
P. O. Box 871
Midland, Texas

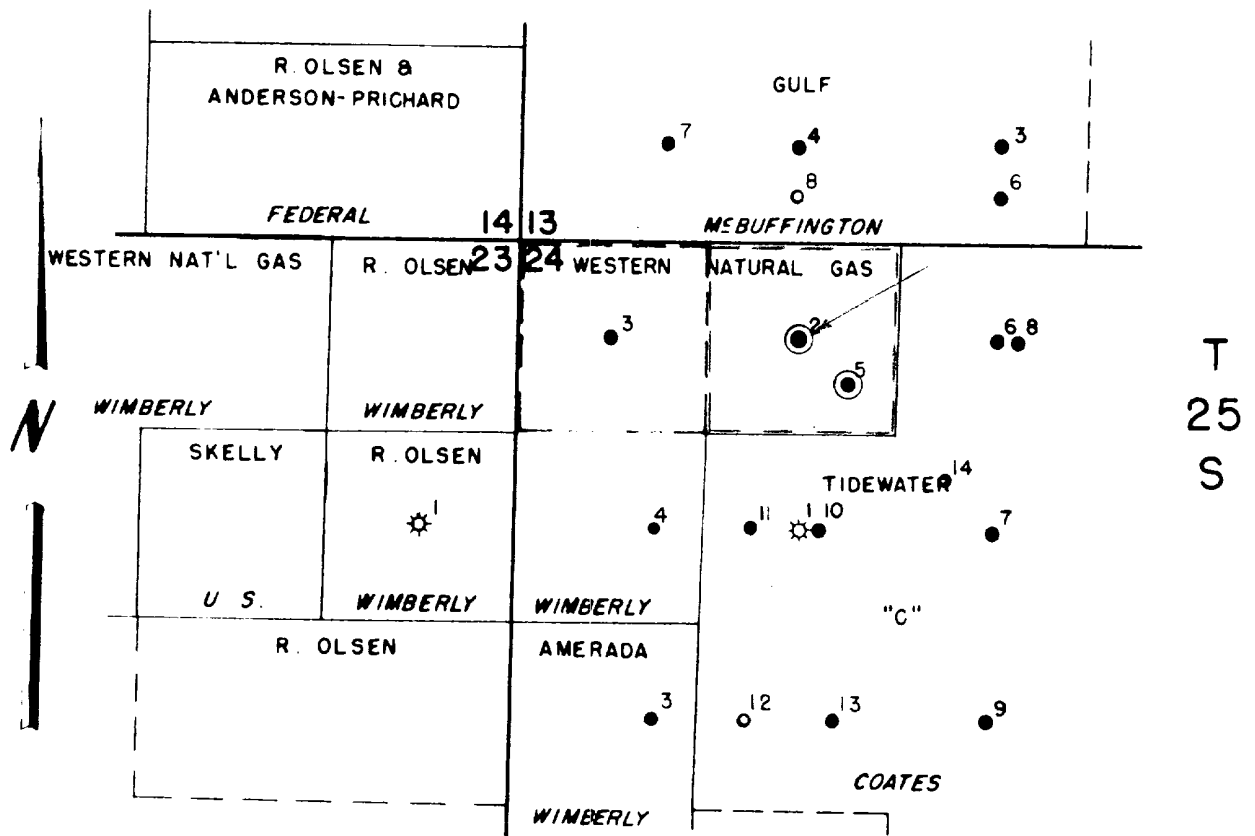
WESTERN NATURAL GAS COMPANY
WIMBERLEY #2

Dual completion showing single-packer,
Full-Opening parallel string hookup.

Oil - Oil Dual



R 37 E



LEA COUNTY
NEW MEXICO

NEW MEXICO
OIL CONSERVATION COMMISSION

4-1-56

PACKER LEAKAGE TEST

Operator WESTERN NATURAL GAS CO. Pool (Upper Completion) DRINKARD
Lease WIMBERLEY Well 2 Pool (Lower Completion) FUSSELMAN
Location: Unit C, S. 24, T 25S, R 37E, LEA County, N. M.

Pre-Test Shut-In

| | Upper Completion | Lower Completion |
|---|--------------------------|--------------------------|
| Shut-in at (hour, date)..... | <u>6:00 AM (6-16-58)</u> | <u>6:00 AM (6-16-58)</u> |
| Pressure stabilized at (hour, date)..... | <u>UNKNOWN</u> | <u>UNKNOWN</u> |
| Length of time required to stabilize (hours)..... | <u>2 Hr. Min.</u> | <u>2 Hr. Min.</u> |

Flow Test No. 1

Test commenced at (hour, date) 1:45 PM (JUNE 19, 1958) Choke size 20/64"
Completion producing FUSSELMAN Completion shut-in DRINKARD

| | Upper Completion | Lower Completion |
|--|----------------------|----------------------|
| Stabilized pressure at beginning of test..... | <u>800 CHART</u> psi | <u>700 CHART</u> psi |
| Maximum pressure during test..... | <u>800</u> psi | <u>700</u> psi |
| Minimum pressure during test..... | <u>800</u> psi | <u>200</u> psi |
| Pressure at end of test..... | <u>800</u> psi | <u>450</u> psi |
| Maximum pressure change during test..... | <u>NONE</u> psi | <u>500</u> psi |
| Oil flow rate during test: <u>750.72</u> BOPD based on <u>93.84</u> BO in | | <u>3</u> hours. |
| Gas flow rate during test: <u>245.00</u> MCFPD based on <u>30.624</u> MCF in | | <u>3</u> hours. |

Mid-Test Shut-In

| | Upper Completion | Lower Completion |
|---|--------------------------|--------------------------|
| Shut-in at (hour, date)..... | <u>6:00 AM (6-16-58)</u> | <u>4:45 PM (6-19-58)</u> |
| Pressure stabilized at (hour, date)..... | <u>UNKNOWN</u> | <u>8:00 AM (6-20-58)</u> |
| Length of time required to stabilize (hours)..... | <u>2 Hr. Min.</u> | <u>13 1/4</u> |

Flow Test No. 2

Test commenced at (hour, date) 10:00 AM (JUNE 20, 1958) Choke size 24/64"
Completion producing DRINKARD Completion shut-in FUSSELMAN

| | Upper Completion | Lower Completion |
|--|----------------------|----------------------|
| Stabilized pressure at beginning of test..... | <u>700 CHART</u> psi | <u>560 CHART</u> psi |
| Maximum pressure during test..... | <u>740</u> psi | <u>560</u> psi |
| Minimum pressure during test..... | <u>200</u> psi | <u>550</u> psi |
| Pressure at end of test..... | <u>210</u> psi | <u>550</u> psi |
| Maximum pressure change during test..... | <u>540</u> psi | <u>10</u> psi |
| Oil flow rate during test: <u>563.04</u> BOPD based on <u>70.38</u> BO in | | <u>3</u> hours. |
| Gas flow rate during test: <u>1076.97</u> MCFPD based on <u>134.622</u> MCF in | | <u>3</u> hours. |

Test performed by COLEMAN PETR. ENGR. CO. Title AGENT

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 | WESTERN NATURAL GAS COMPANY | WELL NO. | No. 2 |
| LEASE NAME | WIMBERLEY | COUNTY | LEA |
| LOCATION | UNIT C, SEC. 24, T25S, R37E | | |

TEST DATA SHEET

| <u>Time</u> | <u>DRINKARD</u> XXXX <u>Pressure</u> | <u>FUSSELMAN</u> XXXX <u>Pressure</u> | <u>Remarks</u> |
|-------------|---|--|--|
| | (6-16-58) | | |
| 6:00 AM | - | - | BOTH SIDES SHUT IN FOR PACKER LEAKAGE TEST |
| | (6-19-58) | | |
| 11:45 AM | 781 DWT | 766 DWT | HOOKEED UP DUAL PEN RECORDER AND SET PENS TO GIVE GREATER SEPARATION AND STARTED 2 HOUR MINIMUM STABILIZED SHUT IN PERIOD. |
| 12:45 PM | 781 | 766 | |
| 1:45 | 781 | 766 | OPENED FUSSELMAN SIDE FOR FLOW TEST |
| 2:45 | 781 | 503 | STARTED 2 HOUR STABILIZED FLOW PERIOD |
| 3:45 | 781 | 503 | |
| 4:45 | 781 | 503 | FINISHED 2 HOUR STABILIZED FLOW PERIOD AND SHUT FUSSELMAN SIDE IN FOR BUILD UP |
| | (6-20-58) | | |

WESTERN NATURAL GAS COMPANY
 WIMBERLEY, WELL NO. 2
 JUSTICE - DRINKARD - FUSSELMAN (DUAL)
 SURFACE PRESSURE VS. TIME CURVE

