

Unocal Oil & Gas Division
Unocal Corporation
3300 North Butler Avenue
Suite 200
Farmington, New Mexico 87401
Telephone (505) 326-7600
Fax: (505) 326-6145

RELEASE 6-15-93

OIL CONSERVATION DIVISION
RECEIVED

'93 MAY 25 AM 9 16



May 21, 1993

CERTIFIED RETURN RECEIPT REQUESTED

Farmington District

New Mexico Oil Conservation Division
Attn: Mr. William J. LeMay
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

New Mexico Oil Conservation Division
Attn: Mr. Frank Chavez
1000 Rio Brazos Road
Aztec, New Mexico 87410

Dear Sirs:

Union Oil Company of California (UNOCAL) requests permission to downhole commingle production from the Blanco Mesaverde and Basin Dakota formations in the following well:

Rincon Unit No. 1 E
1615' FNL, 1830' FEL
Section 30, T27N, R6W
Rio Arriba County, New Mexico

As provided by Order No. R-9893, administrative approval may be granted without notice and hearing.

As required for an exception to rule 303-A, the following information is attached:

1. An acreage dedication plat showing offset lease ownership.
2. A Form C-116 showing current productivity from each zone.
3. A wellbore diagram with completion detail.
4. A measured bottomhole pressure from each zone and a calculated adjustment to a common datum.
5. Gas analyses from each zone.
6. An allocation formula for commingled production.
7. A copy of the notification letter sent to all offset operators and the Bureau of Land Management.

The Blanco Mesaverde formation is uneconomic to drill as a stand alone well. To develop these reserves, a dual or commingled completion is required. We estimate an ultimate recovery of approximately 750 MMCF from the Mesaverde horizon, which would otherwise remain undeveloped.

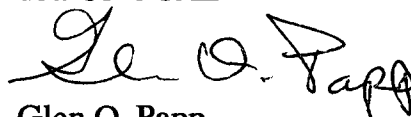
Although the Basin Dakota horizon produced at a rate of 748 MCFD and the Blanco Mesaverde horizon produced at a rate of 457 MCFD during flow tests to atmosphere, the current sales rates at line pressure are 400 MCFD for the Dakota horizon and 20 MCFD for the Mesaverde horizon. Commingling will allow for better lift of condensate production and benefits from compression.

Both zones produce essentially dry gas. Therefore, the respective formation fluids are compatible. Also, no crossflow will occur between the commingled zones.

If you have any questions, please contact Dana Delventhal at (505)326-7600. Thank you for your consideration in this matter.

Sincerely,

Union Oil Company of California
dba UNOCAL

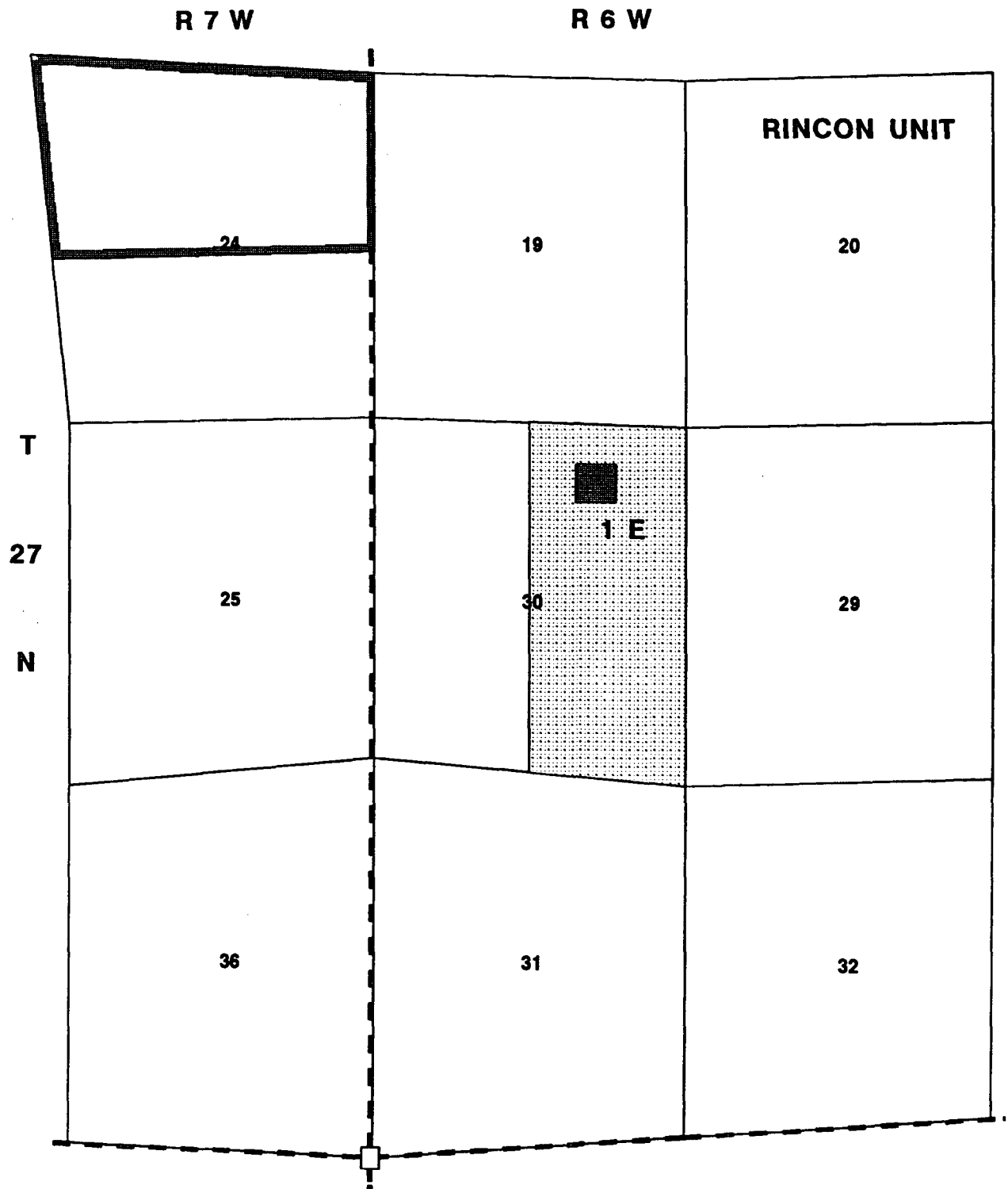
A handwritten signature in black ink, appearing to read "Glen O. Papp", is written over the typed name.

Glen O. Papp
Field Superintendent

Attachments

GOP/DLD/df

OFFSET LEASE OWNERSHIP



Submit 2 copies to Appropriate District Office.

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

Form C-116
Revised 1/1/89

GAS - OIL RATIO TEST

| Operator | | Pool | | County | | | | | | | | | |
|---|----------|-------------------------------|----|---|--------------|------------|-------------|------------------|----------------------|-------------------|-------------|-----------|----------------------------|
| Union Oil Company of California | | Blanco Mesaverde/Basin Dakota | | Rio Arriba | | | | | | | | | |
| Address | | TYPE OF TEST - (X) | | Completion <input checked="" type="checkbox"/> x Special <input type="checkbox"/> | | | | | | | | | |
| 3300 N. Butler, Suite 200, Farmington, NM 87401 | | SCHEDULED | | | | | | | | | | | |
| LEASE NAME | WELL NO. | LOCATION | | | DATE OF TEST | CHOKE SIZE | TBG. PRESS. | DAILY ALLOW-ABLE | LENGTH OF TEST HOURS | PROD. DURING TEST | | | GAS - OIL RATIO CU.FT/88L. |
| | | U | S | T | | | | | | R | WATER BBLs. | GRAV. OIL | |
| Rincon Unit | 1E | G | 30 | 27 | 6 | | | | | | | | |
| Blanco Mesaverde | | | | | | 9/21/92 | F | 48/64" | 300 | 24 | 4 | 0 | 457 |
| Basin Dakota | | | | | | 9/14/92 | F | 48/64" | 280 | 24 | 16 | 0 | 748 |

Instructions:

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 Division.

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

Report casing pressure in lieu of tubing pressure for any well producing through casing.

(See Rule 301, Rule 1116 & appropriate pool rules.)

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

Signature

W.L. Irwin District Petroleum Engineer

Printed name and title

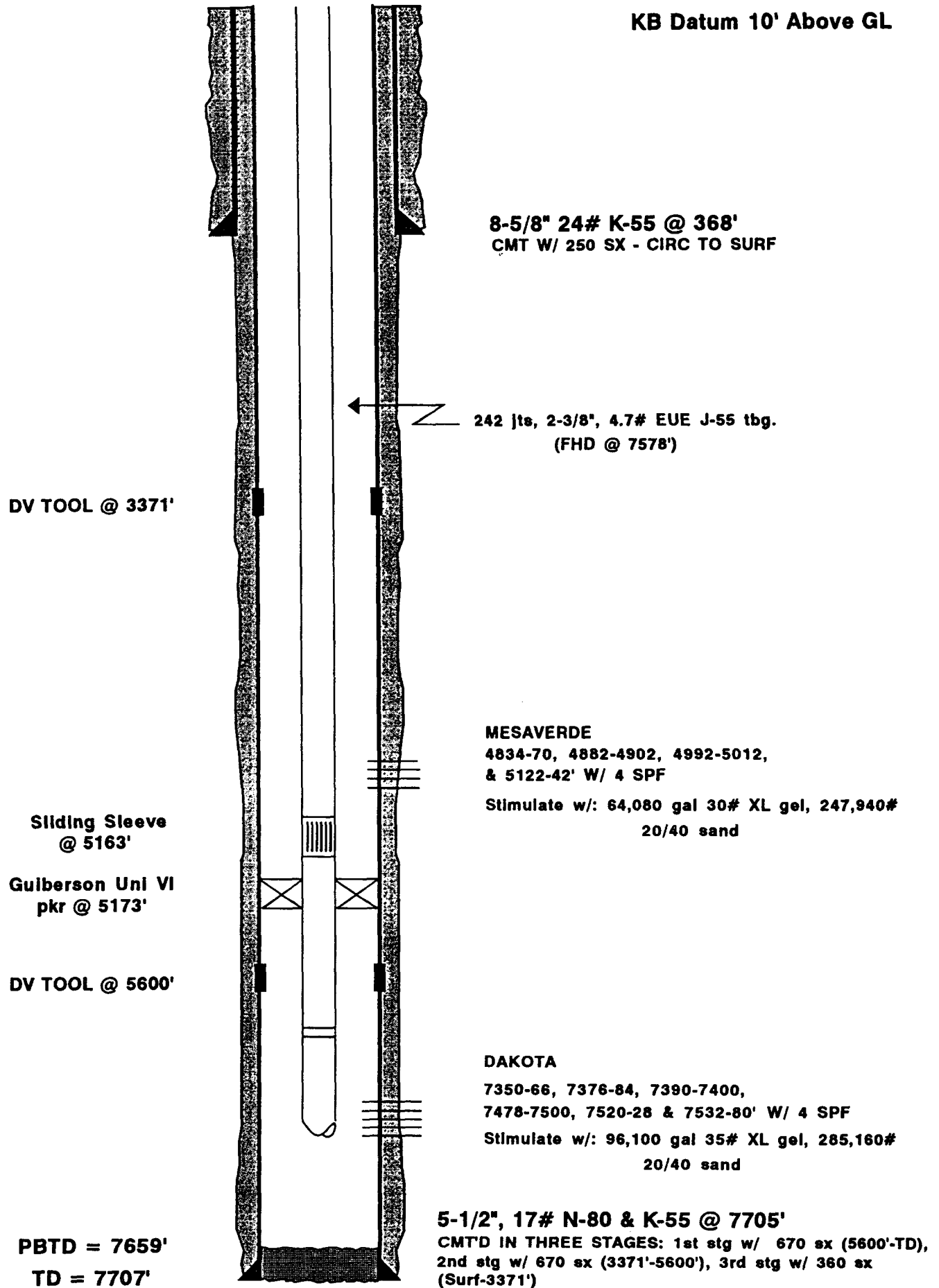
10/29/92

Date

(505) 326-7600
Telephone No.

RINCON UNIT NO. 1-E
1615' FNL, 1830' FEL, SEC 30, T27N-R6W
RIO ARriba COUNTY, NM

KB Datum 10' Above GL



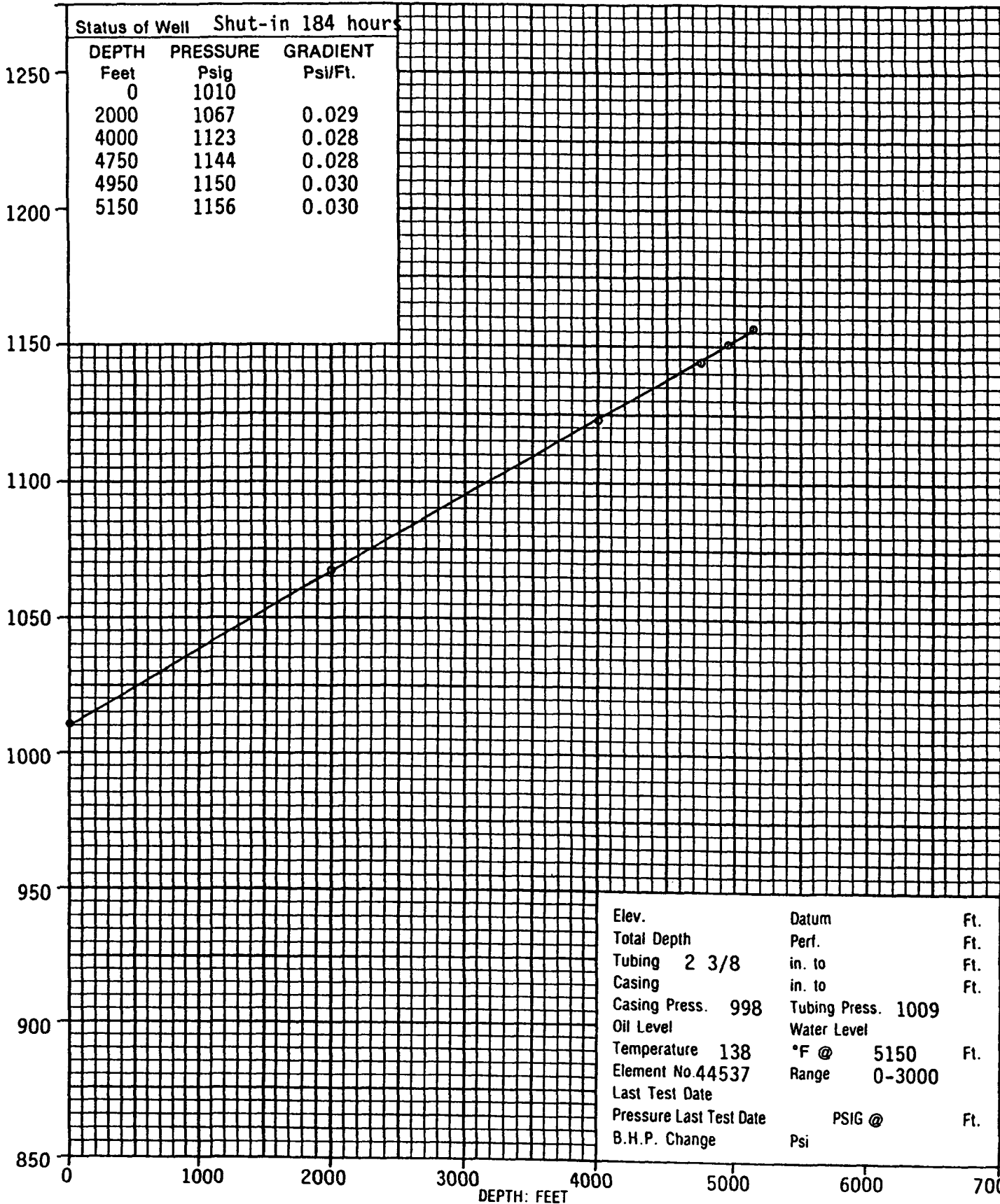


Company UNOCAL CORPORATION Lease RINCON UNIT Well No. 1-E
Field RINCON County RIO ARRIBA State NEW MEXICO
Formation MESA VERDE Test Date OCTOBER 3, 1992

Status of Well Shut-in 184 hours

| DEPTH | PRESSURE | GRADIENT |
|-------|----------|----------|
| Feet | Psig | Psi/Ft. |
| 0 | 1010 | |
| 2000 | 1067 | 0.029 |
| 4000 | 1123 | 0.028 |
| 4750 | 1144 | 0.028 |
| 4950 | 1150 | 0.030 |
| 5150 | 1156 | 0.030 |

PRESSURE POUNDS PER SQUARE INCH GAUGE



| | | |
|-------------------------|--------------------|-----|
| Elev. | Datum | Ft. |
| Total Depth | Perf. | Ft. |
| Tubing 2 3/8 | in. to | Ft. |
| Casing | in. to | Ft. |
| Casing Press. 998 | Tubing Press. 1009 | |
| Oil Level | Water Level | |
| Temperature 138 | °F @ 5150 | Ft. |
| Element No. 44537 | Range 0-3000 | |
| Last Test Date | | |
| Pressure Last Test Date | PSIG @ | Ft. |
| B.H.P. Change | Psi | |

TEFTELLER, INC.

RESERVOIR ENGINEERING DATA AND PRODUCTIVITY ENHANCEMENT SERVICES
MIDLAND, TEXAS • FARMINGTON, NEW MEXICO • GRAND JUNCTION, COLORADO

CHRONOLOGICAL PRESSURE AND PRODUCTION DATA

| 1992 DATE | STATUS OF WELL | TIME | ELAPSED TIME | | WELLHEAD PRESSURE | | BHP @ 7581' PSIG |
|--------------|---|-------|-----------------|-----|----------------------|-----|------------------------|
| | | | HRS | MIN | TBG | CSG | |
| 9-18 | Arrived on location, well flowing 3/4" choke | 11:00 | | | 270 | 878 | |
| | Release tandem instruments @ 7581' | 12:30 | | | | | 527 |
| | | 13:30 | | | | | 521 |
| | | 14:30 | | | | | 523 |
| | Shut-in | 14:30 | 0 | 00 | | | |
| | Set 1.78 FWG blanking plug | 15:00 | 0 | 30 | | | 670 |
| | Open sliding sleeve | 15:30 | 1 | 00 | | | 844 |
| | Open Mesa Verde to test | 16:00 | 1 | 30 | | | 962 |
| | Dakota shut-in | | | | | | |
| | Mesa Verde flowing | 16:15 | 1 | 45 | | | 1009 |
| | | 16:30 | 2 | 00 | | | 1044 |
| | | 16:45 | 2 | 15 | | | 1065 |
| | | 17:00 | 2 | 30 | | | 1071 |
| | | 17:15 | 2 | 45 | | | 1078 |
| | | 17:30 | 3 | 00 | | | 1082 |
| | | 17:45 | 3 | 15 | | | 1086 |
| | | 18:00 | 3 | 30 | | | 1096 |
| | | 18:15 | 3 | 45 | | | 1106 |
| | | 18:30 | 4 | 00 | | | 1123 |
| | | 19:00 | 4 | 30 | | | 1152 |
| | | 19:30 | 5 | 00 | | | 1177 |
| | | 20:30 | 6 | 00 | | | 1220 |
| | | 21:30 | 7 | 00 | | | 1251 |
| | | 22:30 | 8 | 00 | | | 1280 |
| | | 23:30 | 9 | 00 | | | 1303 |
| 9-19 | | 00:30 | 10 | 00 | | | 1324 |
| | | 01:30 | 11 | 00 | | | 1342 |

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CHRONOLOGICAL PRESSURE AND PRODUCTION DATA

| 1992 DATE | STATUS OF WELL | TIME | ELAPSED TIME | | WELLHEAD PRESSURE | | BHP @ 7581' PSIG |
|--------------|----------------|-------|-----------------|-----|----------------------|-----|------------------------|
| | | | HRS | MIN | TBG | CSG | |
| 9-19 | | 02:30 | 12 | 00 | | | 1360 |
| | | 03:30 | 13 | 00 | | | 1375 |
| | | 04:30 | 14 | 00 | | | 1390 |
| | | 05:30 | 15 | 00 | | | 1402 |
| | | 06:30 | 16 | 00 | | | 1413 |
| | | 07:30 | 17 | 00 | | | 1424 |
| | | 08:30 | 18 | 00 | | | 1433 |
| | | 09:30 | 19 | 00 | | | 1442 |
| | | 10:30 | 20 | 00 | | | 1452 |
| | | 11:30 | 21 | 00 | | | 1461 |
| | | 12:30 | 22 | 00 | | | 1470 |
| | | 13:30 | 23 | 00 | | | 1479 |
| | | 14:30 | 24 | 00 | | | 1487 |
| | | 16:30 | 26 | 00 | | | 1502 |
| | | 18:30 | 28 | 00 | | | 1514 |
| | | 20:30 | 30 | 00 | | | 1528 |
| | | 22:30 | 32 | 00 | | | 1539 |
| 9-20 | | 00:30 | 34 | 00 | | | 1549 |
| | | 02:30 | 36 | 00 | | | 1557 |
| | | 04:30 | 38 | 00 | | | 1566 |
| | | 06:30 | 40 | 00 | | | 1574 |
| | | 10:30 | 44 | 00 | | | 1593 |
| | | 14:30 | 48 | 00 | | | 1607 |
| | | 18:30 | 52 | 00 | | | 1619 |
| 9-21 | | 22:30 | 56 | 00 | | | 1632 |
| | | 02:30 | 60 | 00 | | | 1642 |
| | | 06:30 | 64 | 00 | | | 1650 |
| | | 10:30 | 68 | 00 | | | 1659 |

TEFTELLER, INC.

RESERVOIR ENGINEERING DATA AND PRODUCTIVITY ENHANCEMENT SERVICES
MIDLAND, TEXAS • FARMINGTON, NEW MEXICO • GRAND JUNCTION, COLORADO

CHRONOLOGICAL PRESSURE AND PRODUCTION DATA

| 1992 DATE | STATUS OF WELL | TIME | ELAPSED TIME | | WELLHEAD PRESSURE | | BHP @ 7581' PSIG |
|--------------|---------------------------------------|-------|-----------------|-----|----------------------|-----|------------------------|
| | | | HRS | MIN | TBG | CSG | |
| 9-21 | | 14:30 | 72 | 00 | | | 1667 |
| | | 18:30 | 76 | 00 | | | 1675 |
| | | 22:30 | 80 | 00 | | | 1684 |
| 9-22 | | 02:30 | 84 | 00 | | | 1691 |
| | | 06:30 | 88 | 00 | | | 1698 |
| | | 10:30 | 92 | 00 | | | 1703 |
| | | 14:30 | 96 | 00 | | | 1708 |
| | | 16:30 | 100 | 00 | | | 1712 |
| 9-23 | | 02:30 | 110 | 00 | | | 1723 |
| | | 14:30 | 120 | 00 | | | 1733 |
| 9-24 | | 00:30 | 130 | 00 | | | 1742 |
| | | 10:30 | 140 | 00 | | | 1752 |
| | | 20:30 | 150 | 00 | | | 1759 |
| 9-25 | | 06:30 | 160 | 00 | | | 1766 |
| | | 14:30 | 168 | 00 | | | 1773 |
| | Dakota shut-in, shut-in Mesa Verde | 16:00 | 169 | 30 | | | 1776 |
| | | 16:30 | 170 | 00 | | | 1777 |
| | | 21:30 | 175 | 00 | | | 1797 |
| 9-26 | | 02:30 | 180 | 00 | | | 1812 |
| | | 12:30 | 190 | 00 | | | 1834 |
| | | 22:30 | 200 | 00 | | | 1855 |
| 9-27 | | 08:30 | 210 | 00 | | | 1869 |
| | | 18:30 | 220 | 00 | | | 1882 |
| 9-28 | | 04:30 | 230 | 00 | | | 1893 |
| | | 14:30 | 240 | 00 | | | 1905 |
| 9-29 | | 00:30 | 250 | 00 | | | 1915 |
| | | 10:30 | 260 | 00 | | | 1925 |
| | | 20:30 | 270 | 00 | | | 1936 |

RINCON UNIT NO. 1 E

After a 7 day SI period:

$$\text{Mesaverde BHP} = 1156 \text{ psi @ } 5150'$$

$$\text{Dakota BHP} = 1812 \text{ psi @ } 7581'$$

$$\text{Gas Gradient} = \frac{(0.01875)(0.65)(2500)}{(0.88)(655)} = 0.05 \text{ psi/ft}$$

Adjusting to a common datum of 5150':

$$\text{Mesaverde BHP} = 1156 \text{ psi}$$

$$\text{Dakota BHP} = 1812 - [(0.05)(7581 - 5150)] = 1690 \text{ psi}$$

Therefore the reservoir pressures fall within the 50% requirement.

RINCON UNIT NO. 1 E
ALLOCATION FORMULA
(BASED ON C-116)

| | | |
|------------------------|----------------|------------------|
| <u>GAS PRODUCTION:</u> | Mesaverde Rate | 457 MCFD |
| | Dakota Rate | <u>748</u> MCFD |
| | Total Rate | <u>1205</u> MCFD |

| | | |
|------------|-----------|-----|
| Therefore, | Mesaverde | 38% |
| | Dakota | 62% |

| | | |
|------------------------|----------------|---------------|
| <u>OIL PRODUCTION:</u> | Mesaverde Rate | 0 BOPD |
| | Dakota Rate | <u>0</u> BOPD |
| | Total Rate | <u>0</u> BOPD |

| | | |
|------------|-----------|-----|
| Therefore, | Mesaverde | 50% |
| | Dakota | 50% |



WELL ANALYSIS COMPARISON

LEASE: RINCON #1E

SEPTEMBER 30, 1992

| | | |
|-----------|---------|-----------|
| DATE: | 9/18/92 | 9/25/92 |
| NO.: | 20022 | 20023 |
| | DAKOTA | MESAVERDE |
| | MOLE % | MOLE % |
| NITROGEN | 0.206 | 0.413 |
| CO2 | 1.186 | 1.104 |
| METHANE | 90.732 | 87.977 |
| ETHANE | 5.709 | 6.411 |
| PROPANE | 1.283 | 2.466 |
| I-BUTANE | 0.209 | 0.439 |
| N-BUTANE | 0.323 | 0.602 |
| I-PENTANE | 0.124 | 0.210 |
| N-PENTANE | 0.093 | 0.156 |
| HEXANE+ | 0.135 | 0.222 |
| BTU'S | 1087.8 | 1129.7 |
| GPM | 2.1889 | 2.9582 |
| SPEC GRAV | 0.6231 | 0.6509 |

Unocal Oil & Gas Division
Unocal Corporation
3300 North Butler Avenue
Suite 200
Farmington, New Mexico 87401
Telephone (505) 326-7600
Fax: (505) 326-6145



October 29, 1992

Farmington District

United States Department of the Interior
Bureau of Land Management
1235 La Plata Highway
Farmington, New Mexico 87401

Dear Sirs:

Union Oil Company of California (UNOCAL) has requested permission from the New Mexico Oil Conservation Division to downhole commingle production from the Blanco Mesaverde and Basin Dakota formations in the following well:

Rincon Unit No. 1 E
1615' FNL, 1830' FEL
Section 30, T27N, R6W
Rio Arriba County, New Mexico

If you have any objections to this proposal, please notify the NMOCD within twenty (20) days. If you have any questions about this application, please contact Dana Delventhal at (505)326-7600.

Sincerely,

Union Oil Company of California
dba UNOCAL

A handwritten signature in dark ink, appearing to read "W. L. Irwin".

William L. Irwin
District Petroleum Engineer

WLI/DLD/df