DHC 4/3/00

SPIRIT ENERGY 76

New Name. Same Spirit.

A Business Unit of Unocal



March 2, 2000

New Mexico Oil Conservation Division
Attn.: David Catanach
2040 S. Pacheco Street
Santa Fe, NM 87505-6429

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

Gentlemen,

Union Oil Company of California (UNOCAL) requests approval to down hole commingle production from the Blanco Mesaverde, the Largo Gallup and the Basin Dakota formations in the following Rincon Unit well, Rio Arriba County, New Mexico.

| Well | Lease | Legal Location |
|---|---|---|
| 201E | State | 1765' FSL, 1705' FEL, SE Sec 2, T26N, R7W |

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

Form C-107-A with supporting data is attached.

If you have any questions please contact Ted Paul at (915) 685-6889.

Sincerely,

**Union Oil Company of California**
*dba UNOCAL*

Ted Paul

Ted Paul
Production Engineer

1004 North Big Spring • Post Office Box 3100 • Midland, Texas 79702

March 2, 2000

**Supplemental Data for C-107-A, Rincon Unit Well No. 201E**

**Well History:** The Rincon Unit well no 201E was drilled and completed as a Dakota & Gallup dual gas producer in 1992. The wellbore was downhole commingled in 1998 with the DHC application approved on 3/6/98 per DHC permit no. 1841. Unocal proposes to add a Mesaverde completion and seeks approval to DHC the Mesaverde, Gallup, and Dakota. This well would be completed and operated most economically with a triple commingled completion. An estimated completion date is May 2000.

**Production History:** Current gas production is 400 mcfd + 2 Bopd from the Dakota and Gallup. The current fixed allocation percentage for the well is 67% Dakota and 33% Gallup for both the oil and gas streams. An estimated initial rate for the first 30 days of Mesaverde production is 300 mcfd and 4 Bopd, an average of actual production from recent Mesaverde recompletions.

**Pressure data:** Original bottom hole pressures for the Dakota and Gallup were recorded with bombs after extended shutins. The current Dk-Gl BHP was calculated from the commingled surface shut-in casing pressure. Pressure data from the offset Mesaverde well 101 was used for the proposed Mesaverde recompletion. Current pressures are based on a 4 day shut-in in July of 1999. Please refer to attachment for bottom hole pressure data.

**Allocation of Production:** Unocal proposes to use an allocation based on an established annual decline rate of 8% for the previously DHC formations (Dk & Gallup). This production will be extrapolated monthly using BLM recommended allocation methods with the remainder of the commingled production being allocated to the Gallup formation. Please see attachments for the Dk-Gl forecast. Initial flush production volumes have been added to the Dk-Gl due to the anticipated extended shut-in during the workover. While tabular data has been provided for the first three years of the Dk-Gl forecast, we anticipate being able to convert to a fixed allocation factor for the Mesaverde within 12 to 24 months. Unocal proposes using a yield factor for allocation liquid production. This factor is based on the average oil and water yield for 1998.

DISTRICT I
1625 n. French Dr., Hobbs NM 88240
DISTRICT II
811 South First St, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410
DISTRICT IV
2040 S. Pacheco, Sante Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

**OIL CONSERVATION DIVISION**
**2040 S. Pacheco**
**Sante Fe, New Mexico 87505-6429**

Form C-102
Revised October 18, 1994
Instructions on back
Submit to Appropriate District office
State Lease - 4 copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

| 1 API Number | 2 Pool Code | 3 Pool Name |
|---|---|---|
| 30-039-25174 | 72319 | Blanco Mesa Verde |

| 4 Property Code | 5 Property Name | 6 Well Number |
|---|---|---|
| 011510 | RINCON UNIT | 201E |

| 7 OGRID No. | 8 Operator Name | 9 Elevation |
|---|---|---|
| 23708 | UNION OIL COMPANY OF CALIFORNIA (UNOCAL) | 6663' |

**10 Surface Location**

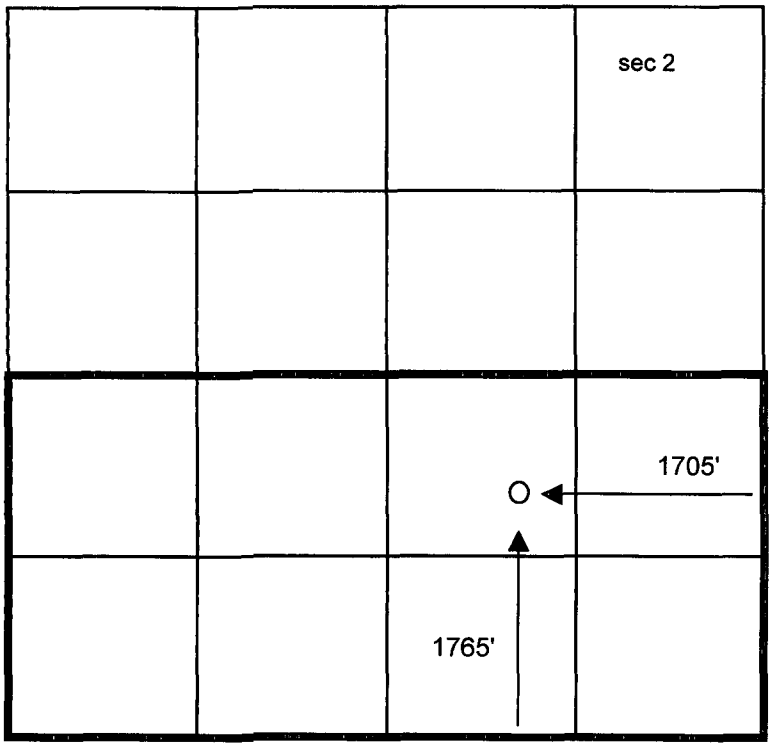
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| J | 2 | 26N | 7W | | 1765 | S | 1705 | E | Rio Arriba |

**11 Bottom Hole Location if Different From Surface**

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| 12 Dedicated Acres | 13 Joint or Infill | 14 Consolidation Code | 15 Order No. |
|---|---|---|---|
| 314.12 | Y | U | Unitization |

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION




### 17 OPERATOR CERTIFICATION

*I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief*

Signature: Ted Paul

Printed name: Ted Paul
Title: Production Engineer
Date: 3/1/2000

### 18 SURVEYOR CERTIFICATION

*I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true to the best of my knowledge and belief.*

Date of survey

Signature and Seal of Professional Surveyor:

Certificate Number

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

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-102
Revised 1-1-89

## WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

| Operator | Lease | Well No. |
|---|---|---|
| UNOCAL | RINCON | 201 E |

| Unit Letter | Section | Township | Range | County |
|---|---|---|---|---|
| J | 2 | 26 N | 7 W NMPM | Rio Arriba |

Actual Footage Location of Well:
1765 feet from the South line and 1705 feet from the East line

| Ground level Elev. | Producing Formation | Pool | Dedicated Acreage: |
|---|---|---|---|
| 6663 | Gallup/Dakota | Largo/Basin | SE/4 160<br>E/2 320 Acres |

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

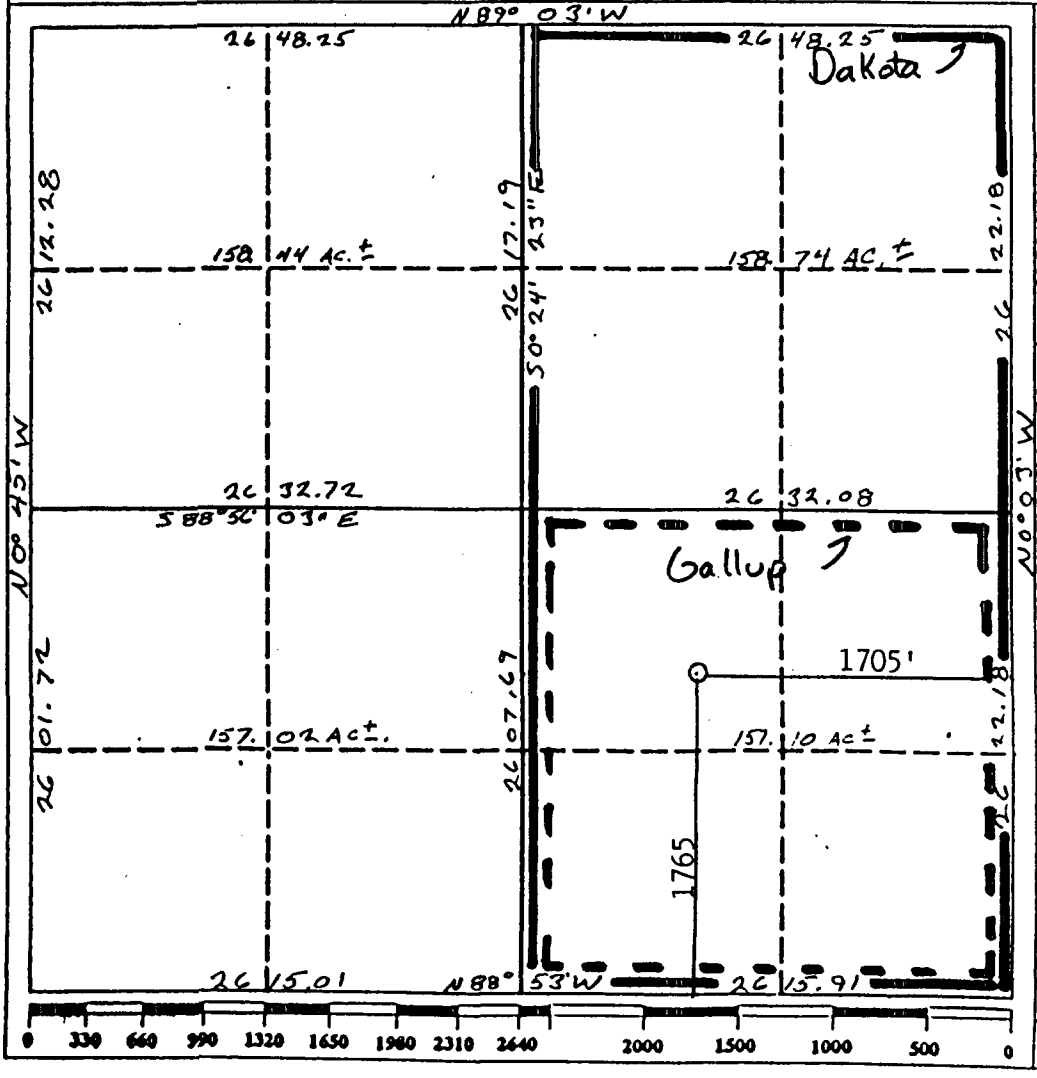
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?

☐ Yes ☐ No If answer is "yes" type of consolidation _____

If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary. _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.




### OPERATOR CERTIFICATION

*I hereby certify that the information contained herein in true and complete to the best of my knowledge and belief.*

Signature: Robert C. Frank
Printed Name: Robert C. Frank
Position: Agent
Company: Union Oil Company of California
Date: March 24, 1992

### SURVEYOR CERTIFICATION

*I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my knowledge and belief.*

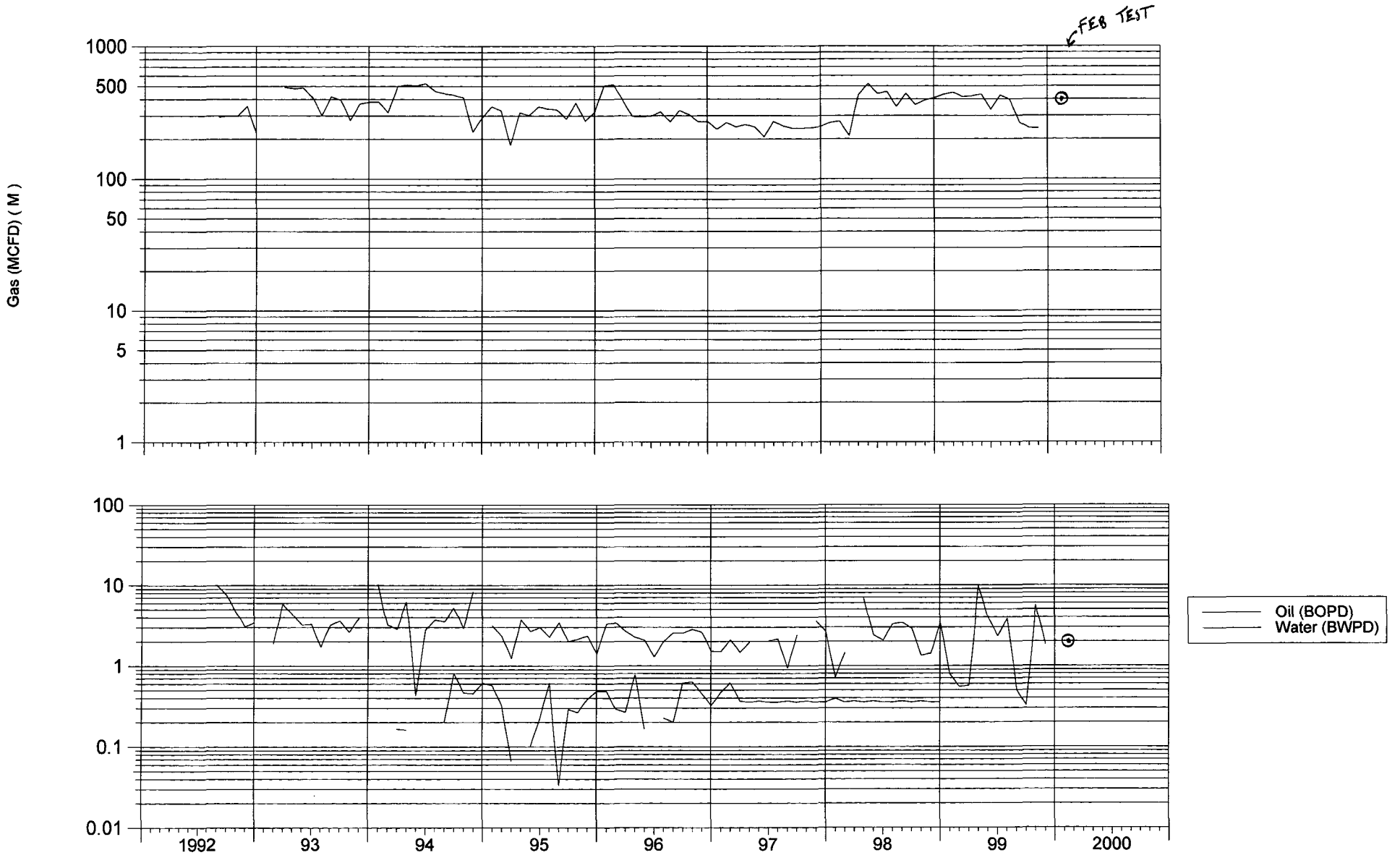
Date Surveyed: December 27, 1991
Signature & Seal of Professional Surveyor: Cecil B. Tullis
NEW MEXICO 9672 REGISTERED PROFESSIONAL LAND SURVEYOR
Certificate No. 9672

# Rincon Unit

## WELL: 201E - Dk/Gl commingle

Cumulative Production
thru DEC, 1999

Oil: 7644 bbls
Gas: 908921 Mscf
Water: 599 bbls




03/03/00 10:01:41

# Rincon 201E Dk/Gl commingle

| DATE | GAS VOL PROD Mcf | OIL VOL PROD bbl | Water Vol Prod bbl | Gas Rate (CD) Mcf | Oil Rate (CD) bbl/d | Water Rate (CD) bbl/d | Cum Gas Prod MMcf | Cum Oil Prod bbl |
|---|---|---|---|---|---|---|---|---|
| 19970101 | 8374 | 47 | 10 | 270 | 1.5 | 0.3 | 557.2 | 5198 |
| 19970201 | 6632 | 42 | 13 | 237 | 1.5 | 0.5 | 563.9 | 5240 |
| 19970301 | 8234 | 65 | 19 | 266 | 2.1 | 0.6 | 572.1 | 5305 |
| 19970401 | 7410 | 44 | 11 | 247 | 1.5 | 0.4 | 579.5 | 5349 |
| 19970501 | 7963 | 61 | 11 | 257 | 2.0 | 0.4 | 587.5 | 5410 |
| 19970601 | 7407 | 0 | 11 | 247 | 0.0 | 0.4 | 594.9 | 5410 |
| 19970701 | 6428 | 63 | 11 | 207 | 2.0 | 0.4 | 601.3 | 5473 |
| 19970801 | 8407 | 67 | 11 | 271 | 2.2 | 0.4 | 609.7 | 5540 |
| 19970901 | 7530 | 28 | 11 | 251 | 0.9 | 0.4 | 617.2 | 5568 |
| 19971001 | 7454 | 74 | 11 | 240 | 2.4 | 0.4 | 624.7 | 5642 |
| 19971101 | 7239 | 0 | 11 | 241 | 0.0 | 0.4 | 631.9 | 5642 |
| 19971201 | 7521 | 111 | 11 | 243 | 3.6 | 0.4 | 639.5 | 5753 |
| 19980101 | 7729 | 82 | 11 | 249 | 2.6 | 0.4 | 647.2 | 5835 |
| 19980201 | 7433 | 20 | 11 | 265 | 0.7 | 0.4 | 654.6 | 5855 |
| 19980301 | 8428 | 45 | 11 | 272 | 1.5 | 0.4 | 663.0 | 5900 |
| 19980401 | 6352 | 0 | 11 | 212 | 0.0 | 0.4 | 669.4 | 5900 |
| 19980501 | 13312 | 210 | 11 | 429 | 6.8 | 0.4 | 682.7 | 6110 |
| 19980601 | 15642 | 72 | 11 | 521 | 2.4 | 0.4 | 698.4 | 6182 |
| 19980701 | 13587 | 64 | 11 | 438 | 2.1 | 0.4 | 711.9 | 6246 |
| 19980801 | 14093 | 102 | 11 | 455 | 3.3 | 0.4 | 726.0 | 6348 |
| 19980901 | 10539 | 103 | 11 | 351 | 3.4 | 0.4 | 736.6 | 6451 |
| 19981001 | 13655 | 90 | 11 | 440 | 2.9 | 0.4 | 750.2 | 6541 |
| 19981101 | 10870 | 40 | 11 | 362 | 1.3 | 0.4 | 761.1 | 6581 |
| 19981201 | 12116 | 44 | 11 | 391 | 1.4 | 0.4 | 773.2 | 6625 |
| 19990101 | 12633 | 104 | 11 | 408 | 3.4 | 0.4 | 785.8 | 6729 |
| 19990201 | 12113 | 22 | 0 | 433 | 0.8 | 0.0 | 798.0 | 6751 |
| 19990301 | 13937 | 17 | 0 | 450 | 0.5 | 0.0 | 811.9 | 6768 |
| 19990401 | 12471 | 17 | 0 | 416 | 0.6 | 0.0 | 824.4 | 6785 |
| 19990501 | 13073 | 299 | 0 | 422 | 9.6 | 0.0 | 837.4 | 7084 |
| 19990601 | 13066 | 119 | 0 | 436 | 4.0 | 0.0 | 850.5 | 7203 |
| 19990701 | 10341 | 72 | 0 | 334 | 2.3 | 0.0 | 860.8 | 7275 |
| 19990801 | 13244 | 119 | 0 | 427 | 3.8 | 0.0 | 874.1 | 7394 |
| 19990901 | 11823 | 15 | 0 | 394 | 0.5 | 0.0 | 885.9 | 7409 |
| 19991001 | 8265 | 10 | 0 | 267 | 0.3 | 0.0 | 894.2 | 7419 |
| 19991101 | 7273 | 168 | 0 | 242 | 5.6 | 0.0 | 901.4 | 7587 |
| 19991201 | 7472 | 57 | 0 | 241 | 1.8 | 0.0 | 908.9 | 7644 |

## WELL NAME : RINCON UNIT 101 Mesaverde offset

| | ORIGINAL | | | CURRENT | |
|---|---|---|---|---|---|
| Test Date: | 5/58 | | Test Date: | Jul-99 | |
| GAS GRAVITY: | 0.77 | | GAS GRAVITY: | 0.77 | |
| CONDENSATE (YES=1): | 1 | | CONDENSATE (YES=1): | 1 | |
| RESERVOIR TEMP: | 150 | F | RESERVOIR TEMP: | 150 | F |
| SURFACE TEMP: | 60 | F | SURFACE TEMP: | 60 | F |
| DEPTH OF ZONE: | 5089 | ft | DEPTH OF ZONE: | 5089 | ft |
| % N2 | 0.86 | | % N2 | 0.86 | |
| % CO2 | 0.58 | | % CO2 | 0.58 | |
| % H2S | 0.00 | | % H2S | 0.00 | |
| Pc = | 661 | | Pc = | 661 | |
| Tc = | 397 | | Tc = | 397 | |
| SURFACE PRESS | 1,097 | psia | SURFACE SITP | 231 | psia |
| BHP (16 day shut-in) | 1,293 | psia | BHP | 265 | psia |
| Z | 0.841 | | Z | 0.964 | |
| BHP/Z | 1,538 | psia | BHP/Z | 275 | psia |

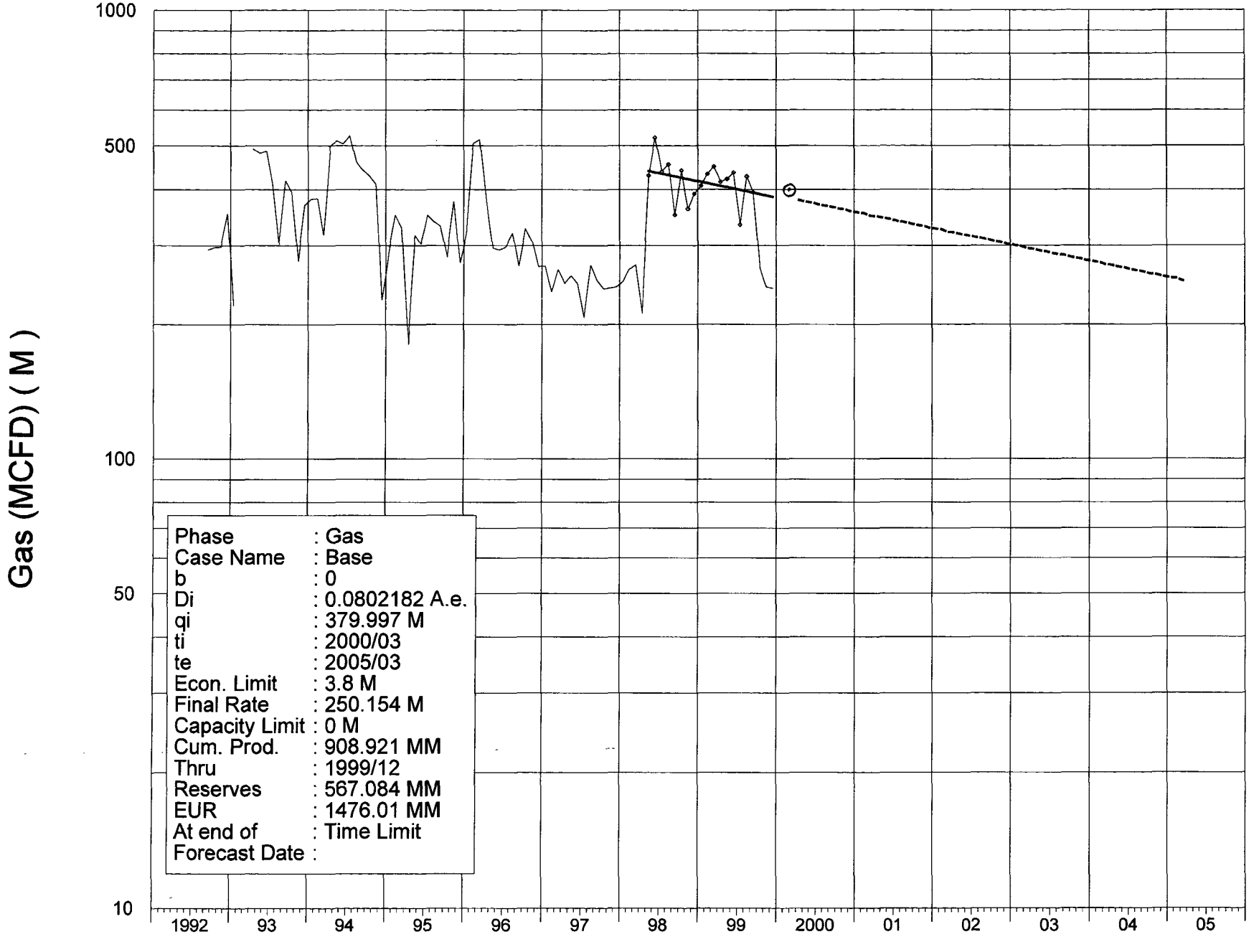
## WELL NAME : RINCON UNIT 201E - Gallup

| | ORIGINAL | | | CURRENT | |
|---|---|---|---|---|---|
| Test Date: | 8/92 | | Test Date: | Jul-99 | |
| GAS GRAVITY: | 0.72 | | GAS GRAVITY: | 0.72 | |
| CONDENSATE (YES=1): | 1 | | CONDENSATE (YES=1): | 1 | |
| RESERVOIR TEMP: | 175 | F | RESERVOIR TEMP: | 175 | F |
| SURFACE TEMP: | 60 | F | SURFACE TEMP: | 60 | F |
| DEPTH OF ZONE: | 6629 | ft | DEPTH OF ZONE: | 6629 | ft |
| % N2 | 0.38 | | % N2 | 0.38 | |
| % CO2 | 0.65 | | % CO2 | 0.65 | |
| % H2S | 0.00 | | % H2S | 0.00 | |
| Pc = | 664 | | Pc = | 664 | |
| Tc = | 391 | | Tc = | 391 | |
| SURFACE PRESS | 586 | psia | SURFACE SITP | note: DHC with the Dakota | |
| BHP (dip-in after 7 day SI) | 700 | psia | BHP | | |

## WELL NAME : RINCON UNIT 201E DAKOTA

| | ORIGINAL | | | CURRENT | |
|---|---|---|---|---|---|
| Test Date: | 07/28/92 | | Test Date: | Jul-99 | |
| GAS GRAVITY: | 0.72 | | GAS GRAVITY: | 0.72 | |
| CONDENSATE (YES=1): | 1 | | CONDENSATE (YES=1): | 1 | |
| RESERVOIR TEMP: | 186 | F | RESERVOIR TEMP: | 186 | F |
| SURFACE TEMP: | 60 | F | SURFACE TEMP: | 60 | F |
| DEPTH OF ZONE: | 7312 | ft | DEPTH OF ZONE: | 7312 | ft |
| % N2 | 0.35 | | % N2 | 0.35 | |
| % CO2 | 1.22 | | % CO2 | 1.22 | |
| % H2S | 0.00 | | % H2S | 0.00 | |
| Pc = | 668 | | Pc = | 668 | |
| Tc = | 387 | | Tc = | 387 | |
| SURFACE PRESS | | psia | SURFACE SITP | 291 | psia |
| BHP (12 day build-up) | 2,381 | psia | BHP | 348 | psia |
| Z | | | Z | 0.965 | |
| BHP/Z | | psia | BHP/Z | 360 | psia |

# Rincon 201E - Dk/Gl commingle



| | | |
|---|---|---|
| **Well** | RU 201E | |
| **Existing Completion Prior to proposed DHC** | DK-Gal | |
| **Annual Decline** | 8.02% | |
| **Monthly Decline Factor (Annual / 12)** | 0.6683 | |
| **Average Monthly volume (Mcf) prior to DHC** | 11308 | 1999 production data |
| **Average Monthly volume (BO) prior to DHC** | 85 | 1999 production data |
| **Average Yield (bbls/mcf) Oil** | 0.008 | 1999 production data |
| **Average Yield (bbls/mcf) Water** | 0.000 | 1999 production data |
| **Est. Volume Prior to DHC (Mcf) - May 2000** | 11248 | |

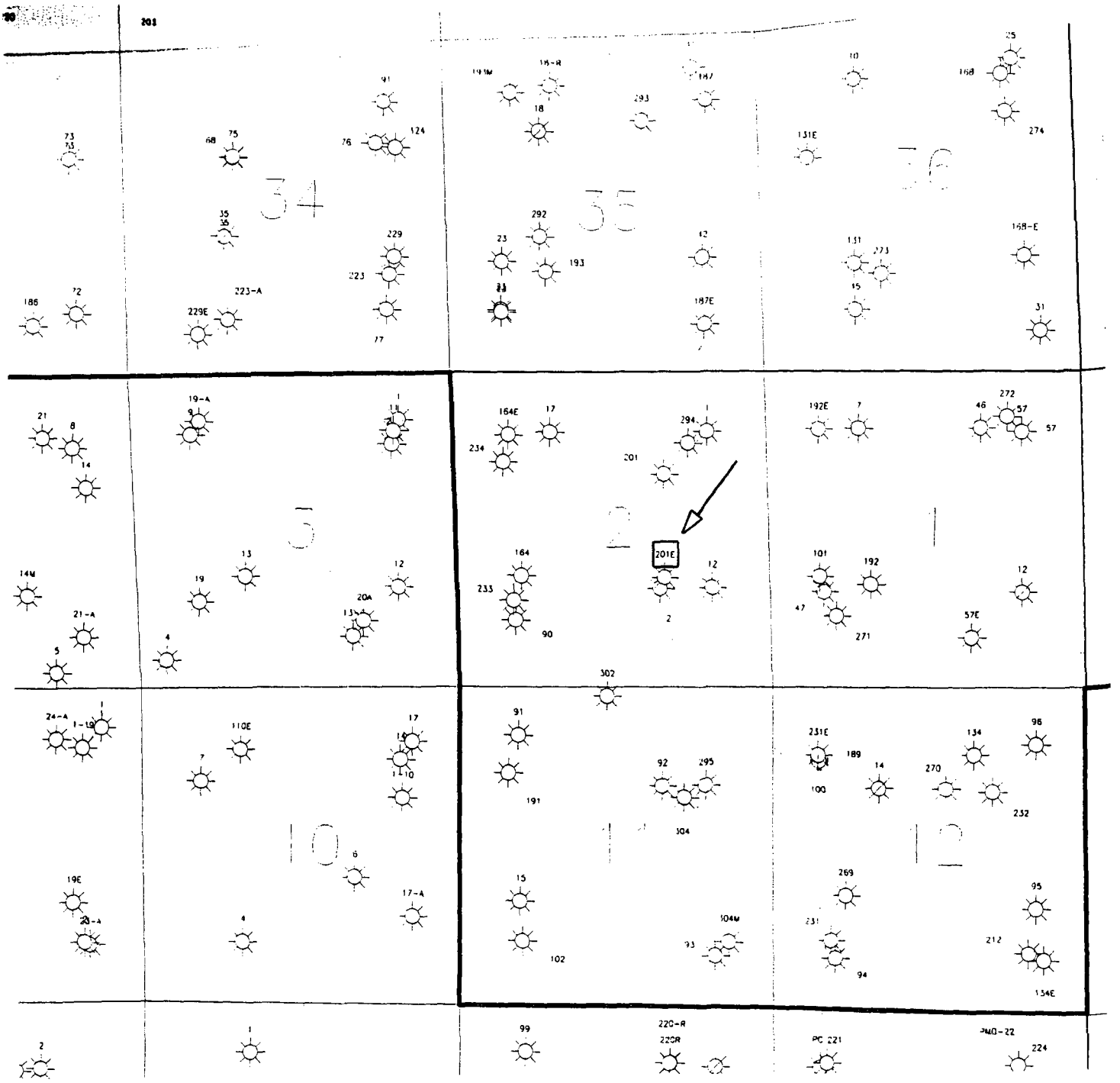
* Forecasted volumes to be adjusted for actual days on production & actual volume prior to commingling

**DK-Gallup Forecast**

| Month | (Mcfd) | (Mcf/mo) | Bopm | Bwpm |
|---|---|---|---|---|
| 1 | 425 | 12935 | 97.1 | 0.0 |
| 2 | 404 | 12290 | 92.3 | 0.0 |
| 3 | 370 | 11248 | 84.5 | 0.0 |
| 4 | 367 | 11173 | 83.9 | 0.0 |
| 5 | 365 | 11098 | 83.3 | 0.0 |
| 6 | 362 | 11024 | 82.8 | 0.0 |
| 7 | 360 | 10950 | 82.2 | 0.0 |
| 8 | 358 | 10877 | 81.7 | 0.0 |
| 9 | 355 | 10804 | 81.1 | 0.0 |
| 10 | 353 | 10732 | 80.6 | 0.0 |
| 11 | 350 | 10660 | 80.1 | 0.0 |
| 12 | 348 | 10589 | 79.5 | 0.0 |
| 13 | 346 | 10518 | 79.0 | 0.0 |
| 14 | 343 | 10448 | 78.5 | 0.0 |
| 15 | 341 | 10378 | 77.9 | 0.0 |
| 16 | 339 | 10309 | 77.4 | 0.0 |
| 17 | 337 | 10240 | 76.9 | 0.0 |
| 18 | 334 | 10172 | 76.4 | 0.0 |
| 19 | 332 | 10104 | 75.9 | 0.0 |
| 20 | 330 | 10036 | 75.4 | 0.0 |
| 21 | 328 | 9969 | 74.9 | 0.0 |
| 22 | 326 | 9902 | 74.4 | 0.0 |
| 23 | 323 | 9836 | 73.9 | 0.0 |
| 24 | 321 | 9771 | 73.4 | 0.0 |
| 25 | 319 | 9705 | 72.9 | 0.0 |
| 26 | 317 | 9640 | 72.4 | 0.0 |
| 27 | 315 | 9576 | 71.9 | 0.0 |
| 28 | 313 | 9512 | 71.4 | 0.0 |
| 29 | 311 | 9448 | 70.9 | 0.0 |
| 30 | 309 | 9385 | 70.5 | 0.0 |
| 31 | 306 | 9322 | 70.0 | 0.0 |
| 32 | 304 | 9260 | 69.5 | 0.0 |
| 33 | 302 | 9198 | 69.1 | 0.0 |
| 34 | 300 | 9137 | 68.6 | 0.0 |
| 35 | 298 | 9076 | 68.2 | 0.0 |
| 36 | 296 | 9015 | 67.7 | 0.0 |

| | factor |
|---|---|
| + DK flush volume @ 15% | 0.15 |
| + DK flush volume @ 10% | 0.1 |

Note: per DHC permit 1841 the Dk / Gallup are already on a fixed allocation percentage of 67% / 33% respectively for both oil and gas.




1000. 0. 1000. 2000. 3000. 4000. 5000. feet

0.1 0. 0.1 0.2 0.3 0.4 0.5 miles

n

Lease Map
Rincon Unit No. 201E
Rio Arriba County, NM
Operator: Union Oil Company of California

scale: 1" = 2428'

| T Paul | 3/2/2000 | |
|---|---|---|

DISTRICT I
1625 n. French Dr., Hobbs NM 88240
DISTRICT II
811 South First St, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410
DISTRICT IV
2040 S. Pacheco, Sante Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department
**OIL CONSERVATION DIVISION**

2040 S. Pacheco
Sante Fe, New Mexico 87505-6429

APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107-A
Revised August 1999

APPROVAL PROCESS:
_x_ Administrative
____ Hearing

EXISTING WELLBORE
_x_ Yes ____ No

UNION OIL COMPANY OF CALIFORNIA (UNOCAL) — Operator
1004 N. Big Spring, Midland, Tx 79702 — Address

| Rincon Unit | 201E | J 2-26N-7W | Rio Arriba |
|---|---|---|---|
| Lease | Well No. | Unit Ltr. - Sec - Twp - Rge | County |

OGRID No. 023708 Property Code 011510 API No 30-039-25174

Spacing Unit Lease Types: (check one or more)
Federal ____ State _x_ and/or Fee ____

| The following facts are submitted in support of downhole commingling | Upper Zone | Intermediate Zone | Lower Zone |
|---|---|---|---|
| 1. Pool name and Pool code | Blanco MesaVerde - 72319 | Largo Gallup - 80000 | Basin Dakota - 71599 |
| 2. Top and bottom of Pay section (perforations) | to be determined | 6518 - 6740 | 7222 - 7402 |
| 3. Type of production (oil or gas) | Gas | Gas | Gas |
| 4. Method of production (flowing or artificial lift) | Flowing | Flowing | Flowing |
| 5. Bottomhole Pressure<br>Oil zones - Artificial lift:<br>Estimated current<br>Gas & Oil - Flowing:<br>Measured current<br>All Gas zones:<br>Estimated or measured original | a) current<br>265 psia<br>b) original<br>1293 psia | 348 psia<br>700 psia | 348 psia<br>2381 psia |
| 6. Oil gravity (deg API) or Gas BTU Content | 1328 BTU | 1253 BTU | 1214 BTU |
| 7. Producing or Shut-in | Not completed. Shut-in | Producing | Producing |
| Production Marginal? (yes or no)<br>* If shut-in, give date and oil/gas/ water rates of last production<br>Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data<br>* If producing, give date and oil/gas/ water rates of recent test (within 60 days) | Yes<br>date:<br>rates:<br>date:<br>rates: | Yes<br>date:<br>rates:<br>date:<br>rates: DHC w/ Dakota | Yes<br>date:<br>rates:<br>date: Feb, 2000<br>rates: 400 mcfd + 2 bopd + 0 bwpd |
| 8. Fixed percentage allocation Formula-% for each zone (total of %'s to equal 100%) | see attached<br>Oil: ___ % Gas: ___ % | see attached<br>Oil: ___ % Gas: ___ % | see attached<br>Oil: ___ % Gas: ___ % |

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? ___ Yes _X_ No
If not, have all working, overriding, and royalty interests been notified by certified mail? R-9893 _X_ Yes ___ No

11. Will cross-flow occur? ___ Yes _X_ No If yes, are fluids compatible, will the formations not be damaged, will any cross flowed production be recovered, and will the allocation formula be reliable. ___ Yes ___ No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each other? _X_ Yes ___ No

13. Will the value of production be decreased by commingling? ___ Yes _X_ No (If Yes, attach explanation)

14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. _X_ Yes ___ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). _____

16. ATTACHMENTS:
* C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
* Production curve for each zone for at least one year. (If not available, attach explanation.)
* For zones with no production history, estimated production rates and supporting data.
* Data to support allocation method or formula.
* Notification list of working, overriding, and royalty interests for uncommon interest cases.
* Any additional statements, data, or documents required to support commingling.

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

SIGNATURE Ted Paul TITLE: Production Engineer DATE: 3-2-00

TYPE OR PRINT NAME: Ted Paul TELEPHONE NO. (915) 685-6889

DHC 1841

COMMERCIAL RESOURCES
(505)-827-5724

SURFACE RESOURCES
(505)-827-5793

MINERAL RESOURCES
(505)-827-5744

ROYALTY
(505)-827-5772

State of New Mexico
Commissioner of Public Lands
Ray Powell, M.S., D.V.M.
310 Old Santa Fe Trail, P. O. Box 1148
Santa Fe, New Mexico 87504-1148
Phone (505)-827-5760, Fax (505)-827-5766

PUBLIC AFFAIRS
(505)-827-5765

ADMINISTRATIVE MGMT.
(505)-827-5700

LEGAL
(505)-827-5713

PLANNING
(505)-827-5752

February 18, 1998

Union Oil Company of California (UNOCAL)
1004 North Big Spring
Midland, Texas 79702

Attn: Ms. Heather Dahlgren

Re: Downhole Commingling Application
Rincon Unit Well No. 201E
Unit Letter J, Section 2-26N-07W
Largo Gallup and Basin Dakota Pools
Rio Arriba County, New Mexico

Dear Ms. Dahlgren:

This office is in receipt of your application of February 6, 1998, requesting our approval to downhole commingle the production from the above subject well from the Largo Gallup and Basin Dakota Pools in Rio Arriba County, New Mexico.

It is our understanding that production from the subject well will be allocated as follows:

| POOL | ALLOCATION | |
|---|---|---|
| | Oil % | Gas % |
| Largo Gallup | 33 % | 33% |
| Basin Dakota | 67 % | 67 % |
| | 100 | 100 |

Since it appears that there will be no loss of revenue to the State of New Mexico as a result of your proposed operation, your request for downhole commingling the production from the above-mentioned well is hereby approved. Any deviation from the substance of your request will be sufficient grounds for rescinding our approval. Our approval is subject to like approval by the New Mexico Oil Conservation Division.

Please submit your filing fee in the amount of $30.00.

Pleae submit a copy of the Oil Conservation Division's approval order.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M.
COMMISSIONER OF PUBLIC LANDS

BY:
JAMI BAILEY, Director
Oil, Gas and Minerals Division
(505) 827-5744

RP/JB/cpm
Enclosure
pc: Reader File OCD–Santa Fe–Attention: David Catanach, Ben Stone