

# SPIRIT ENERGY 76

New Name. Same Spirit.  
A Business Unit of Unocal

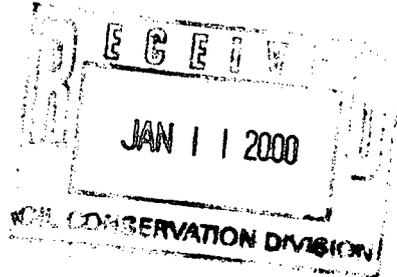
DHC 1/31/00

2586

January 6, 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 and Basin Dakota formations in the following Rincon Unit well, Rio Arriba County, New Mexico.

Well	Lease	Legal Location
158R	Fee	2425' FSL, 2425' FWL, NW Sec 22, T27N, R6W

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 Heather Dahlgren at (915) 685-7665.

Sincerely,

**Spirit Energy 76**  
A Business Unit of UNOCAL

Heather Dahlgren  
Senior Engineering Technician

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, Santa Fe, NM 87505

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

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

Form C-107-A  
Revised August 1999

APPROVAL PROCESS:

Administrative  Hearing

EXISTING WELLBORE

YES  NO

APPLICATION FOR DOWNHOLE COMMINGLING

UNION OIL COMPANY OF CALIFORNIA (UNOCAL)

1004 N. BIG SPRING, MIDLAND, TX 79702

Operator

Address

RINCON UNIT

158R

22-27N-6W

RIO ARRIBA

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 023708 Property Code 011510 API NO. 30-039-26207 Federal  State  (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		BASIN DAKOTA 71599
2. Top and Bottom of Pay Section (Perforations)	4722-5318		7290-7486
3. Type of production (Oil or Gas)	GAS		GAS
4. Method of Production (Flowing or Artificial Lift)	FLOWING		FLOWING
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) 550	a.	a. 802
	b. (Original) 1545	b.	b. 2860
6. Oil Gravity (EAPI) or Gas BTU Content	1167		1112
7. Producing or Shut-In?	Shut in		Shut in
Production Marginal? (yes or no)  * If Shut-In, give date and oil/gas/water rates of last production  Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data  * If Producing, give date and oil/gas/water rates of recent test (within 60 days)	yes		yes
	Date: Rates:	Date: Rates:	Date: Rates:
	Date: Rates: to be provided pending test	Date: Rates:	Date: Rates: to be provided pending test
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	To be determined see attachments Oil: % Gas: %	Oil: % Gas: %	To be determined see attachments 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  No   
If not, have all working, overriding, and royalty interests been notified by certified mail? R-9893  Yes  No

11. Will cross-flow occur?  Yes  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?  Yes  No

13. Will the value of production be decreased by commingling?  Yes  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.  Yes  No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). DHC-2557 & DHC-2556

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 Heather Dahlgren TITLE Engineering Asst. DATE 1-7-2000

TYPE OR PRINT NAME Heather Dahlgren TELEPHONE NO. (915) 685-7665

January 6, 2000

**Supplemental Data in Support of Downhole Commingling Application**  
**Rincon Unit Well 158R**

In 1992, Union Oil Company of California (UNOCAL) began developing Infill Dakota/Mesaverde locations on the Rincon Unit. Since that time, 40 Dakota/Mesaverde wells have been approved for Downhole Commingling. As spacing rules change, commingling continues to be the most economic method of developing reserves on the Rincon Unit.

The last seven years of new development have provided us with an ever increasing database of production histories, pressure data and geologic data. In support of this application, UNOCAL feels that this database provides an equitable and accurate means for allocating production between the commingled pools. Production allocation factors for the above well will use the following data:

- A) Initial production flow tests.
- B) Offset well production history.
- C) Production profile models.
- D) Net pay.

While differences of production allocation do occur on the Rincon Unit, the average allocation is 65% Dakota, 35% Mesaverde. Wide variances from these averages can be attributed to geology. Through out most of the unit, the Dakota formation provides less geologic and production variability than does the Mesaverde. To determine the contribution of the Mesaverde in a given area, flow tests, offset production, model decline comparisons and net pay must be considered. Examples of the above supporting data have been enclosed in previous submissions and can be readily supplied if so needed.

Unocal is in the process of completing pressure and production tests. We would request that the application be approved based on the above with allocation factors to be provided within the first 60 days of commingled production.

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
PO Drawer DD, Artesia, NM 88211-0719  
District III  
1000 Ilia Irazua Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 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

API Number <b>30-039-26207</b>		Pool Code <b>71599</b>	Pool Name <b>Basin Dakota</b>
Property Code <b>011510</b>	Property Name <b>RINCON UNIT</b>		Well Number <b>158R</b>
OCRIID No. <b>23708 023710</b>	Operator Name <b>UNION OIL COMPANY OF CALIFORNIA</b>		Elevation <b>6395</b>

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
<b>K</b>	<b>22</b>	<b>27 N</b>	<b>6 W</b>		<b>2425</b>	<b>South</b>	<b>2425</b>	<b>West</b>	<b>Rio Arriba</b>

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

"Dedicated Acres <b>B. Dak 320ac.</b>	"Joint or Infill	"Consolidation Code	"Order No.
--	------------------	---------------------	------------

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

	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Michael C. Phillips</i> Signature <b>Michael C. Phillips</b> Printed Name <b>Rocky Mt. Drilling Foreman</b> Title <b>June 22, 1999</b> Date</p>	
	<p>18 SURVEYOR CERTIFICATION</p> <p>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 and correct to the best of my belief.</p> <p>Date of Survey: <b>June 22, 1999</b> Signature: <i>William J. ...</i>    <b>William J. ...</b>            Certificate Number <b>8466</b></p>	

District I  
 PO Box 1930, Hobbs, NM 88241-1930  
 District II  
 PO Drawer DD, Artesia, NM 88211-0719  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
 Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
 PO Box 2088  
 Santa Fe, NM 87504-2088

Form C-102  
 Revised February 21, 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 ATI Number 30-039-26207		2 Pool Code 72319		3 Pool Name Blanco Mesa Verde	
4 Property Code 011510		5 Property Name RINCON UNIT			6 Well Number 158R
7 OGRID No. 23708 023710		8 Operator Name UNION OIL COMPANY OF CALIFORNIA			9 Elevation 6395

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
K	22	27 N	6 W		2425	South	2425	West	Rio Arriba

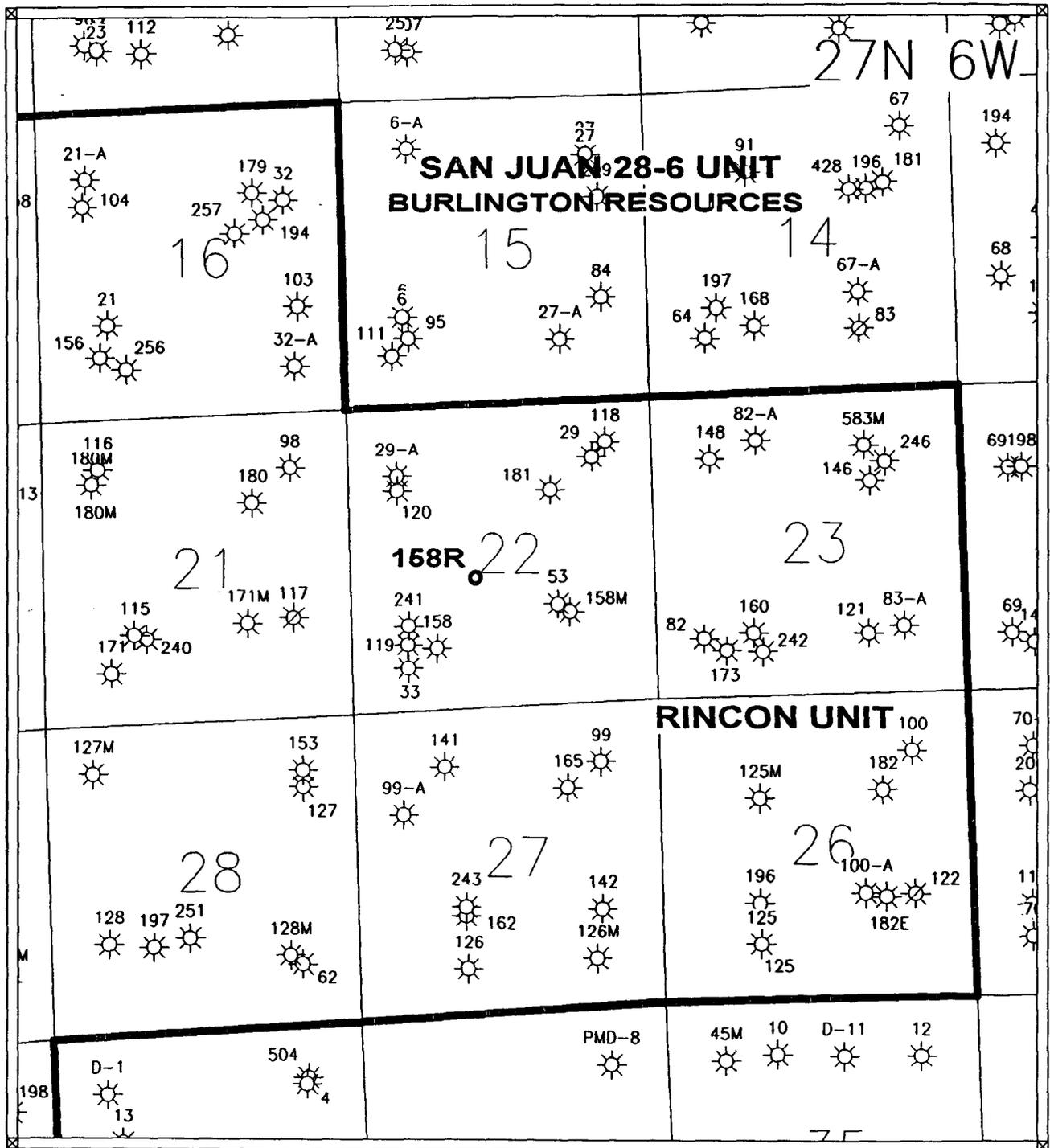
11 Bottom Hole Location If Different From Surface

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

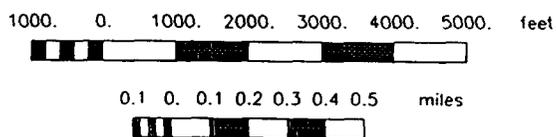
12 Dedicated Acres 320 ac	13 Joint or Infill	14 Consolidation Code	15 Order No.
------------------------------	--------------------	-----------------------	--------------

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

	<p>16 BC 589' 56\" W</p> <p>79.70 ch.</p> <p>BC</p> <p>RECEIVED JUL 23 1999 OIL CON. DIV. DIST. 3</p>	17 OPERATOR CERTIFICATION
		<p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Michael C. Phillips</i>        Signature        Micheal C. Phillips        Printed Name        Rocky Mt. Drilling Foreman        Title        June 22, 1999        Date</p>
<p>2425'</p> <p>22</p> <p>589' 15\" W</p> <p>80.05 ch.</p>	<p>18 SURVEYOR CERTIFICATION</p> <p>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 and correct to the best of my belief.</p> <p>Date of Survey: June 22, 1999        Signature: <i>William J. Estess</i>        WILLIAM J. ESTESS        REGISTERED PROFESSIONAL SURVEYOR        NEW MEXICO        #8466        William J. Estess II        Certificate Number 8466</p>	



Scale 1:31844.67



LOCATOR MAP RINCON UNIT NO. 158R OPERATOR: UNION OIL CO. OF CALIFORNIA		
Scale 1:31844.67		
MORFLOREN	1/7/19100	158R.DRF