

**Unocal Oil & Gas Division**  
Unocal Corporation  
913 West Broadway, P.O. Box 850  
Bloomfield, New Mexico 87413  
Telephone (505) 632-1811

*DHC N/R*  
*1101*

OIL CONSERVATION DIVISION  
RECEIVED

1995 FEB 10 AM 8 52



February 8, 1995

New Mexico Oil Conservation Division  
Attn.: Mr. William J. LeMay  
PO Box 2088  
Santa Fe, New Mexico 87504-2088  
(Certified Return Receipt No.: P909423600)

New Mexico Oil Conservation Division  
Attn.: Mr. Frank Chavez  
1000 Rio Brazos Road  
Aztec, New Mexico 87410  
(Certified Return Receipt No.: P909423601)

Dear Sirs:

Union Oil Company of California d.b.a. UNOCAL requests permission to downhole commingle commonly owned production from the Blanco Mesa Verde and Basin Dakota formations in the following Rincon Unit wells, Rio Arriba County, New Mexico.

<u>Well</u>	<u>Legal Location</u>
171M	1645' FSL, 1775' FEL, S21, T27N, R6W

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

This well was spud in July, 1992 and 5-1/2", 15# production casing was set to TD at 7706'. The well was then completed in the Blanco Mesa Verde and Basin Dakota horizons. The production equipment consists of a concentric string of 2-3/8", 4.7#, J-55, 8rd tubing and 1-1/2" x 0.087" wt coiled tubing with both zones isolated by a production packer. This completion was designed to flow the Mesa Verde gas up the tubing by coiled tubing annulus and the Dakota gas up the coiled tubing. Shortly after the well was put on production the tubing by coiled tubing annulus plugged off with sand and paraffin. The Mesa Verde horizon was then produced up the casing by tubing annulus. Production is minimal because the Mesa Verde is logged off with liquids and frac sand.

UNOCAL intends to pull the coiled tubing string and production packer and produce the Dakota and Mesa Verde, downhole commingled, up one string of 2-3/8" tubing. To date the Dakota has produced approximately 180 MMcf of gas as opposed to 30 MMcf by the Mesa Verde. Downhole commingle will allow the economical recovery of an estimated 530 MMcf of gas from the Mesa Verde horizon without cross flow from the Dakota horizon.

UNOCAL will calculate an allocation factor for each horizon based on individual production tests as requested by BLM letter "Rincon Unit (GC) 3162.3-2 (07327)".

In 1993, UNOCAL tested twenty two Blanco Mesa Verde / Basin Dakota wells for downhole commingling potential in the Rincon Unit. Each well qualified for an administrative downhole commingle; UNOCAL requested and received approval for thirteen of these wells. In 1994, UNOCAL received, prior to spud, administrative approval to downhole commingle nine Blanco Mesa Verde / Basin Dakota wells based on bottom hole pressure data obtained from the twenty two wells tested in 1993. Four of these wells were drilled and completed downhole commingled.

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

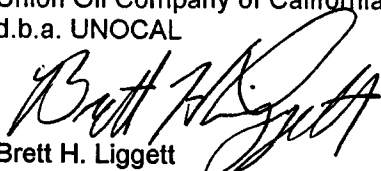
1. Acreage dedication plat showing offset lease ownership.
2. Proposed wellbore schematic with completion detail and production curves.
3. Bottomhole pressure data, for twenty two wells tested in 1993 and nine new wells tested in 1994, adjusted to datum.
4. Gas analysis summary sheet.
5. Copies of notification letters sent to all offset operators (if any) and BLM.

Both zones produce gas with some oil and water. Oil and water production from both zones will not exceeded 50 bbl/day. To date UNOCAL has not experienced any fluid compatibility problems from commingled wells drilled in 1993 and 1994.


If you have any questions, please contact me at (505) 632-1811 ext. 14. Thank you for your consideration in this matter.




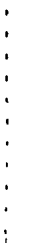
Sincerely,

Union Oil Company of California  
d.b.a. UNOCAL



Brett H. Liggett  
Production Engineer

17 UNOCAL OPERATED	16 T27N R6W UNOCAL OPERATED	15 MERIDIAN OPERATED
20 UNOCAL OPERATED	21 RU 171M LEASE NO. SF 079366 320 ACRES 	22 UNOCAL OPERATED
29 UNOCAL OPERATED	28 UNOCAL OPERATED	27 UNOCAL OPERATED

RINCON UNIT BOUNDARY	
SECTION	
TOWNSHIP / RANGE	
DEDICATED ACREAGE	

UNOCAL, RINCON UNIT, 171M

# RINCON UNIT 171M

PRESENT COMPLETION

PROPOSED COMPLETION

0000.53' 2-3/8" GUIA PLUG CONT.  
 0000.78' R NIPPLE (ID=1.562)  
 2620.50' 84 JTB 2-3/8" 4.7# J-55 BRD  
 0006.60' 2-3/8" 5-1/2" UNI VI  
 (ID = 1.61")  
 0001.97' 2-3/8" ON/OFF W/ F PROFILE  
 (ID=1.781)  
 0004.06' 2-3/8" PERF SUB (AS TBG)  
 4330.68' 158 JTB 2-3/8" 4.7# J-55 BRD  
 0010' BKO3  
 7575.10' PHD

8-5/8" 24# J-55 @ 368'

8-5/8" 24# J-55 @ 368'

MESA VERDE PERFS 4826' - 940'

PRODUCES UP 2-3/8" x 1-1/2" ANNULUS

CT, 1-1/2"x0.087 WT @ 4944'

QUIBERSON UNI VI W/ ON/OFF W/ F PROFILE  
 TOP @ 4946'

DAKOTA PERFS 7368' - 598'

PRODUCES UP 1-1/2" CT

PRTB 7559'

5-1/2" 15.5# & 17# J-55 @ 7706'

MESA VERDE PERFS 4826' - 940'

DAKOTA PERFS 7368' - 598'

2-3/8" 4.7# J-55 BRD @ +/- 7575'

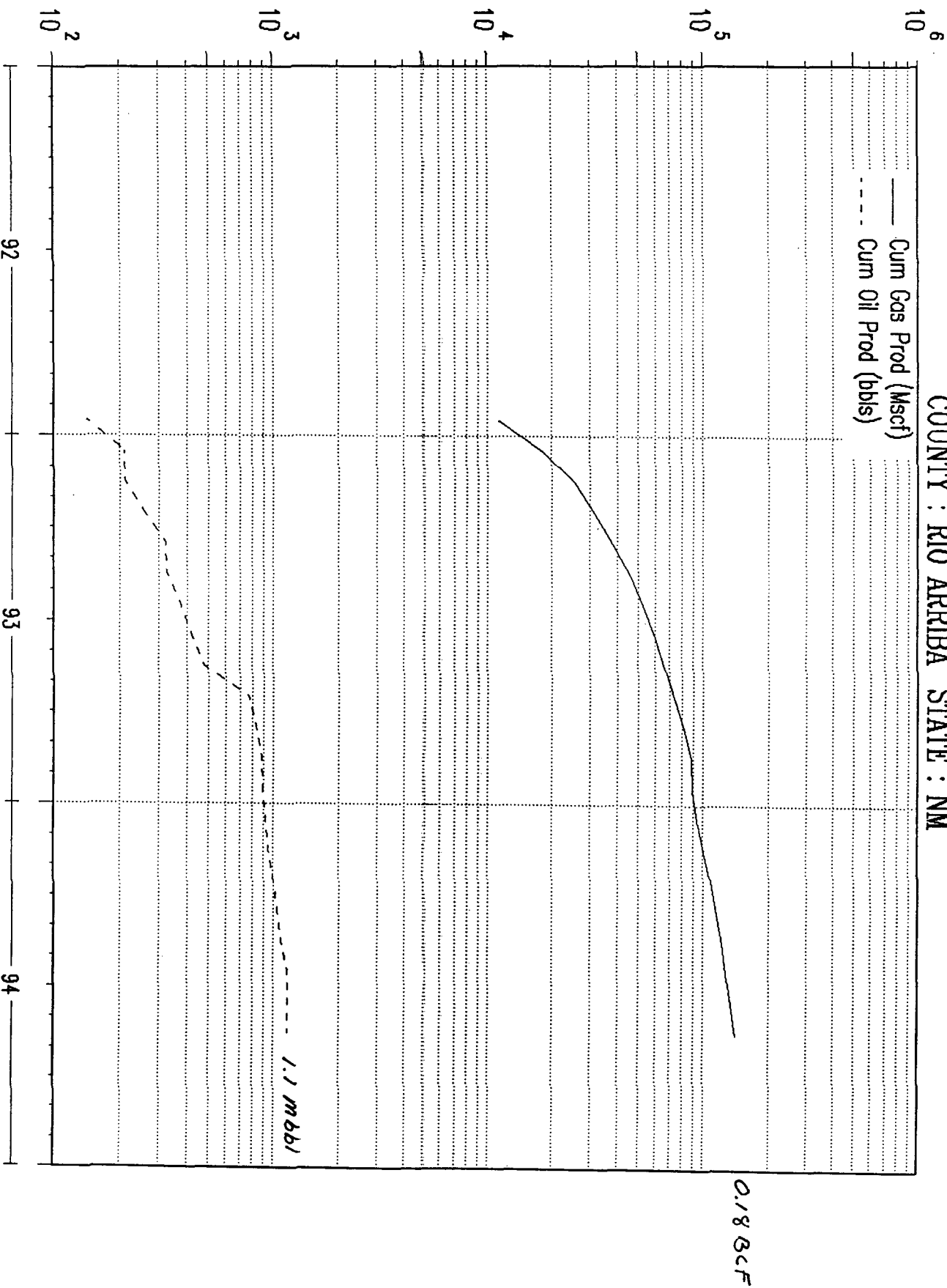
PRTB 7559'

5-1/2" 15.5# & 17# J-55 @ 7706'

WELL: RINCON UNIT 171M:DK

SECTION : 21 TOWN : 27N RANGE : 06W

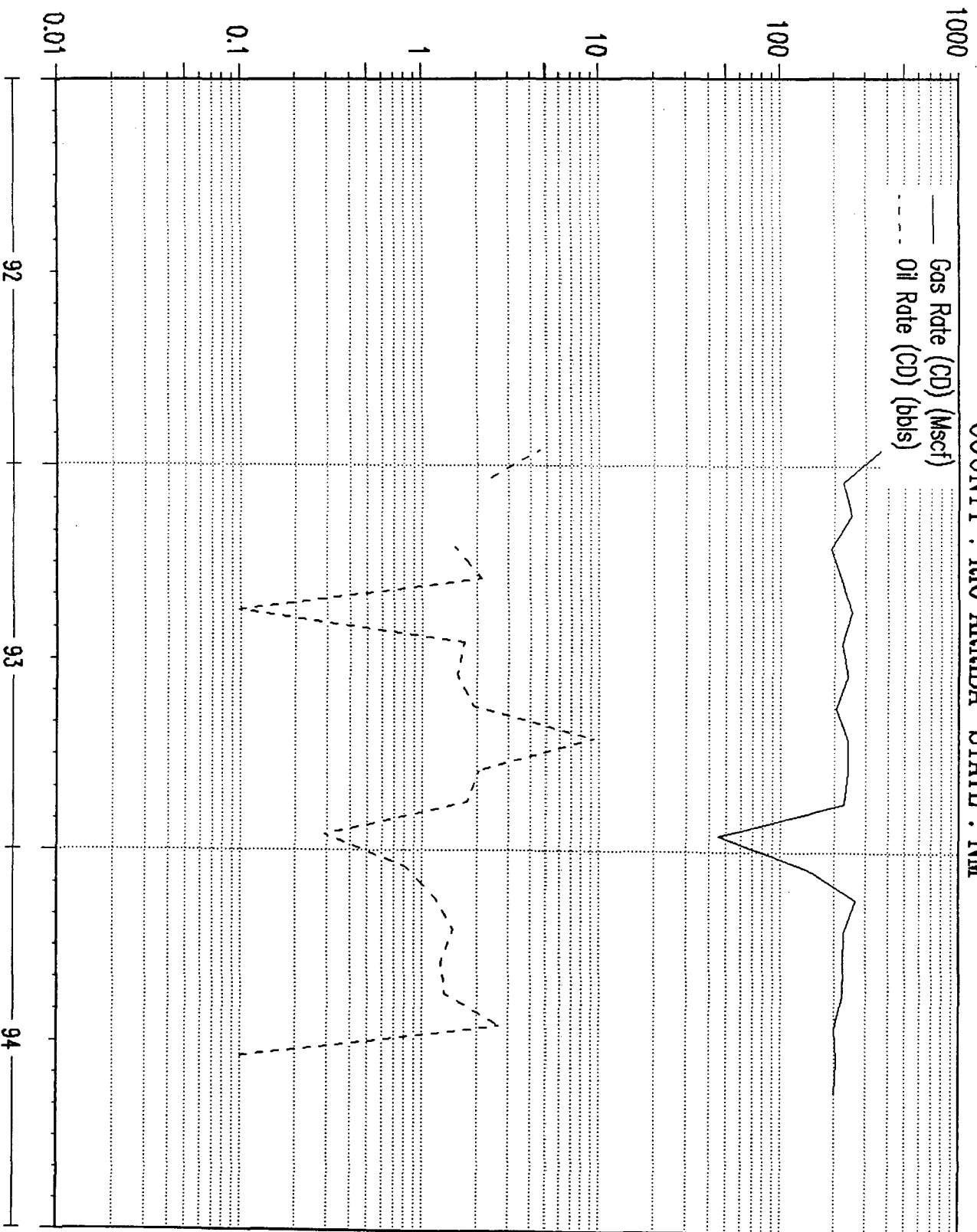
COUNTY : RIO ARRIBA STATE : NM



WELL: RINCON UNIT 171M:DK

SECTION : 21 TOWN : 27N RANGE : 06W

COUNTY : RIO ARriba STATE : NM

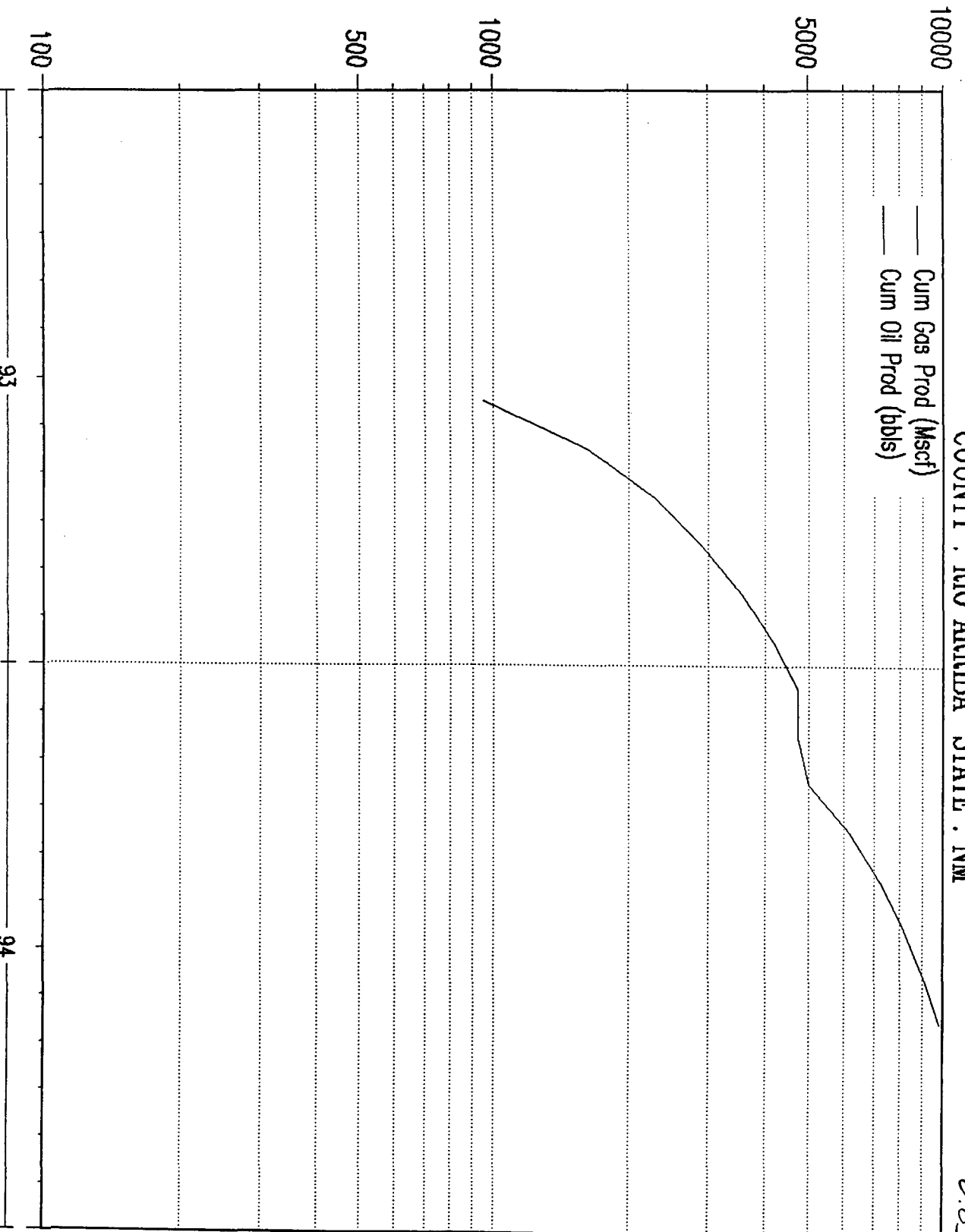


WELL: RINCON UNIT 171M:MV

SECTION : 21 TOWN : 27N RANGE : 06W

COUNTY : RIO ARriba STATE : NM

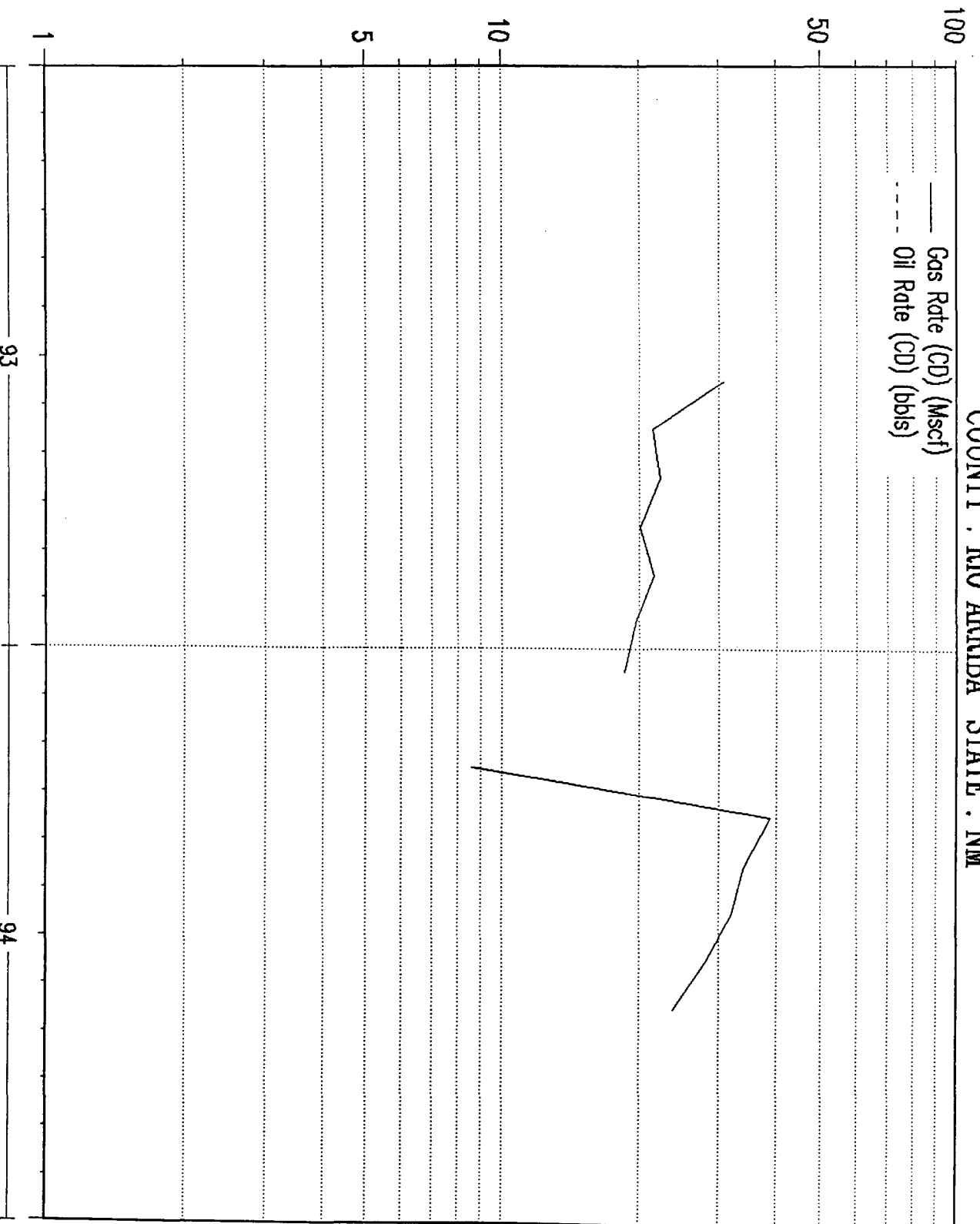
0.03 B.F



WELL: RINCON UNIT 171M:MV

SECTION : 21 TOWN : 27N RANGE : 06W

COUNTY : RIO ARriba STATE : NM





# RINCON UNIT DK/MV COMMINGLE BOTTOMHOLE PRESSURE DATA

	<u>WELL</u>	<u>MV BHP (PSI)</u>	<u>DK BHP (PSI)</u>	<u>% DIFF</u>
*	1E	1156	1690	32
*	125M	789	1548	49
*	126	660	850	22
*	126M	921	1607	43
*	127	512	580	12
*	127M	716	1280	44
*	128	801	781	2
**	128M	1001	1000	0
*	129	806	836	4
*	129M	1053	935	11
*	130	586	622	6
*	135	481	736	35
*	136E	1139	2199	48
*	137	400	686	42
**	138E	684	1100	38
**	139E	761	1300	41
*	149	471	521	10
*	151M	1228	1862	34
*	158M	1231	766	38
*	159M	603	583	3
*	167M	1007	1909	47
*	170M	940	1752	46
*	175M	735	1108	34
*	180M	585	788	26
*	184M	1753	1708	3
**	302	654	1225	47

DK ZONE TAKEN AS DATUM

\* 1993 TEST DATA

\*\* 1994 TEST DATA

EL PASO NATURAL GAS COMPANY			
VOLUME ACCOUNTING DEPARTMENT			
MEASUREMENT DIVISION			
POST OFFICE BOX 1492			
EL PASO, TEXAS 79978			
PHONE: (915) 541-5267			
DATE 11/08/94		CHROMATOGRAPHIC GAS ANALYSIS REPORT	
MAILEE			
94100 UNION OIL COMPANY OF CALIFORNI			
ATTN: GAS ACCOUNTING			
P O BOX 3100			
MIDLAND, TX 79702-3100			
METER NUMBER 97275 - RINCON UNIT #171 M DK			
OPERATOR 9165 - UNION OIL CO OF CALIF			
ANALYSIS DATE 10/14/94		TYPE CODE 2 - ACTUAL	
SAMPLE DATE 10/12/94		H2S GRAINS 0	
EFFECTIVE DATE 11/01/94		LOCATION D - DANIELS FM	
EFFECTIVE FOR 6 MONTHS			
NORMALIZED			
COMPONENTS	MOL %	GPM	
CO2	1.29	.000	
H2S	.00	.000	
N2	.30	.000	
METHANE	85.41	.000	
ETHANE	7.54	2.017	
PROPANE	2.90	.799	
ISO-BUTANE	.64	.209	
NORM-BUTANE	.77	.243	
ISO-PENTANE	.34	.124	
NORM-PENTANE	.22	.080	
HEXANE PLUS	.59	.257	
	100.00	3.729	
SPECIFIC GRAVITY	.681		
MIXTURE HEATING VALUE			
(BTU @ 14.73 DRY)	1174		
RATIO OF SPECIFIC HEATS	.000		
NO TEST SECURED FOR H2S CONTENT			

# GAS ANALYSIS

WELL NAME	ZONE	TEST DATE	NITROGEN	CO2	METHANE	ETHANE	PROPANE	I-BUTANE	N-BUTANE	I-PENTANE	N-PENTANE	HEXANE+	BTUS	GFM	SPEC GRAV
RINCON #1E	DK	11/23/94	0.310	1.150	86.570	6.980	2.760	0.500	0.730	0.270	0.20	0.530	1159.0	3.424	0.670
	MV	11/23/94	0.310	1.150	86.570	6.980	2.760	0.500	0.730	0.270	0.20	0.530	1159.0	3.424	0.670
RINCON #125M	DK	06/10/94	0.260	1.160	85.010	7.670	3.250	0.630	0.950	0.350	0.23	0.590	1184.0	3.890	0.685
	MV	06/10/94	0.260	1.160	85.010	7.670	3.250	0.630	0.950	0.350	0.23	0.590	1184.0	3.890	0.685
RINCON #126M	DK	11/17/94	0.210	1.320	87.950	6.430	2.000	0.510	0.520	0.280	0.16	0.520	1141.0	3.034	0.660
	MV	11/18/94	0.450	1.070	83.080	8.230	4.220	0.790	1.090	0.370	0.24	0.460	1207.0	4.390	0.701
RINCON #127M	DK	12/07/93	0.290	1.050	87.540	6.460	2.770	0.540	0.680	0.270	0.17	0.230	1140.4	3.139	0.656
	MV	12/07/93	0.290	1.050	87.540	6.460	2.770	0.540	0.680	0.270	0.17	0.230	1140.4	3.139	0.656
RINCON #127	DK	09/15/93	0.280	1.160	84.870	8.010	2.940	0.680	0.800	0.430	0.25	0.580	1182.1	3.927	0.685
	MV	09/15/93	0.390	1.020	81.780	10.520	4.220	0.600	0.840	0.280	0.19	0.180	1199.0	4.679	0.694
RINCON #127M	DK	11/17/94	0.300	1.240	84.850	8.010	3.050	0.600	0.800	0.340	0.23	0.580	1180.0	3.892	0.684
	MV	11/17/94	0.300	1.240	84.850	8.010	3.050	0.600	0.800	0.340	0.23	0.580	1180.0	3.892	0.684
RINCON #128	DK	11/18/94	0.230	1.280	84.060	8.420	3.260	0.640	0.890	0.370	0.25	0.600	1192.0	4.128	0.692
	MV	11/18/94	0.450	0.780	79.710	10.320	5.030	0.880	1.390	0.470	0.35	0.820	1260.0	5.443	0.730
RINCON #129	DK	04/15/94	0.260	1.000	86.830	7.120	2.350	0.520	0.650	0.290	0.19	0.490	1151.0	3.317	0.686
	MV	03/29/94	0.550	0.590	79.100	11.220	5.500	0.840	1.080	0.430	0.35	0.560	1259.0	5.586	0.727
RINCON #129M	DK	10/23/94	0.270	1.180	81.230	9.850	4.130	0.780	1.120	0.460	0.31	0.660	1232.0	4.949	0.717
	MV	10/23/94	0.270	1.180	81.230	9.850	4.130	0.780	1.120	0.460	0.31	0.660	1232.0	4.949	0.717
RINCON #130	DK	04/15/94	0.580	0.730	78.580	10.230	5.830	1.020	1.470	0.460	0.34	0.740	1281.0	5.763	0.744
	MV	04/15/94	0.430	1.240	84.220	8.530	2.970	0.830	0.780	0.340	0.22	0.640	1184.0	4.036	0.688
RINCON #135	DK	04/13/94	0.330	1.210	84.030	8.690	3.110	0.840	0.820	0.350	0.22	0.600	1188.0	4.120	0.690
	MV	04/13/94	0.330	1.210	84.030	8.690	3.110	0.840	0.820	0.350	0.22	0.600	1188.0	4.120	0.690
RINCON #136E	DK	06/15/93	0.220	1.080	83.600	9.320	3.440	0.560	0.890	0.330	0.22	0.340	1189.0	4.254	0.687
	MV	12/12/92	0.219	1.072	84.804	8.487	3.185	0.464	0.824	0.307	0.24	0.378	1177.1	3.930	0.678
RINCON #137	DK	11/11/94	0.210	1.120	84.930	8.400	3.100	0.820	0.950	0.280	0.18	0.410	1175.0	3.886	0.678
	MV	11/11/94	0.440	0.600	77.270	12.190	5.890	0.940	1.600	0.460	0.32	0.490	1266.0	6.138	0.744
RINCON #149	DK	11/18/94	0.380	1.200	88.310	6.080	1.900	0.550	0.690	0.250	0.19	0.450	1134.0	2.905	0.655
	MV	11/30/94	0.380	1.180	84.630	7.900	3.110	0.610	0.950	0.390	0.27	0.580	1186.0	3.964	0.686
RINCON #151M	DK	10/07/94	0.230	1.010	82.500	9.610	3.930	0.660	1.020	0.370	0.26	0.410	1210.0	4.800	0.699
	MV	10/07/94	0.230	1.010	82.500	9.610	3.930	0.660	1.020	0.370	0.26	0.410	1210.0	4.800	0.699
RINCON #158M	DK	12/08/93	0.290	1.040	86.780	7.010	2.800	0.550	0.710	0.300	0.19	0.330	1152.0	3.371	0.663
	MV	12/08/93	0.260	1.040	86.780	7.010	2.800	0.550	0.710	0.300	0.19	0.330	1152.0	3.371	0.663
RINCON #159M	DK	11/10/94	0.240	1.090	83.010	9.180	3.690	0.710	0.930	0.380	0.24	0.550	1207.0	4.458	0.698
	MV	11/10/94	0.240	1.090	83.010	9.180	3.690	0.710	0.930	0.380	0.24	0.550	1207.0	4.458	0.698
RINCON #167M	DK	10/14/94	0.230	1.010	86.080	7.620	2.890	0.540	0.770	0.280	0.19	0.410	1185.0	3.605	0.671
	MV	10/14/94	0.230	1.010	86.080	7.620	2.890	0.540	0.770	0.280	0.19	0.410	1185.0	3.605	0.671
RINCON #170M	DK	10/31/94	0.330	1.120	83.640	8.800	3.640	0.670	0.890	0.340	0.21	0.360	1190.0	4.214	0.689
	MV	10/31/94	0.330	1.120	83.640	8.800	3.640	0.670	0.890	0.340	0.21	0.360	1190.0	4.214	0.689
RINCON #175M	DK	11/26/94	0.360	1.140	82.250	9.290	3.880	0.710	1.040	0.410	0.28	0.640	1217.0	4.644	0.707
	MV	11/26/94	0.360	1.140	82.250	9.290	3.880	0.710	1.040	0.410	0.28	0.640	1217.0	4.644	0.707
RINCON #180M	DK	09/28/94	0.270	1.170	85.810	7.490	2.930	0.600	0.740	0.310	0.19	0.590	1171.0	3.652	0.677
	MV	09/28/94	0.270	1.170	85.810	7.490	2.930	0.600	0.740	0.310	0.19	0.590	1171.0	3.652	0.677
RINCON #184M	DK	12/30/93	0.250	1.010	81.930	9.580	4.090	0.680	1.060	0.400	0.29	0.710	1228.0	4.807	0.711
	MV	12/30/93	0.250	1.010	81.930	9.580	4.090	0.680	1.060	0.400	0.29	0.710	1228.0	4.807	0.711

# UNOCAL <sup>76</sup>

December 28, 1994

Meridian Oil Co.  
3535 E. 30th St.  
Farmington, New Mexico 87402

Greetings:

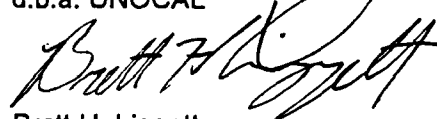
Union Oil Company of California (UNOCAL) has requested, from the State of New Mexico, Oil Conservation Division, permission to downhole commingle production from the Blanco Mesa Verde and Basin Dakota formations in the following Rincon Unit wells, Rio Arriba County, New Mexico.

<u>Well</u>	<u>Legal Location</u>
171M	1645' FSL, 1775' FEL, S21, T27N, R6W

If you have any objections to this proposal, please notify NMOCD within twenty days. If you have any questions regarding this application, please contact me at (505) 632-1811 ext. 14.

Sincerely,

Union Oil Company of California  
d.b.a. UNOCAL



Brett H. Liggett  
Production Engineer

# UNOCAL 76

January 30, 1995

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

Greetings:

Union Oil Company of California (UNOCAL) has requested, from the State of New Mexico, Oil Conservation Division, permission to downhole commingle commonly owned production from the Blanco Mesa Verde and Basin Dakota formations in the following Rincon Unit wells, Rio Arriba County, New Mexico.

Well	Legal Location
171M	1645' FSL, 1775' FEL, S21, T27N, R6W

If you have any objections to this proposal, please notify NMOCD within twenty days. If you have any questions regarding this application, please contact me at (505) 532-1811 ext. 21.

Sincerely,

Union Oil Company of California  
d.b.a. UNOCAL

  
Brett H. Liggett  
Production Engineer



STATE OF NEW MEXICO

ENERGY, MINERALS and NATURAL RESOURCES DIVISION

OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE

THE STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION  
RECEIVED

BRUCE KING  
GOVERNOR

ANITA LOCKWOOD  
CABINET SECRETARY

95 FEB 28 AM 9:50

1000 RIO BRAZOS ROAD  
AZTEC, NEW MEXICO 87410  
(505) 334-6178

Date: 2/27/95

1101

Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87504-2088

RE: Proposed MC \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed NSP \_\_\_\_\_

Proposed DHC X \_\_\_\_\_  
Proposed SWD \_\_\_\_\_  
Proposed PMX \_\_\_\_\_  
Proposed DD \_\_\_\_\_

Gentlemen:

I have examined the application received on 2/10/95  
for the Unocal River Unit # 171M  
OPERATOR LEASE & WELL NO.

J-21-27N-6W and my recommendations are as follows:  
UL-S-T-R

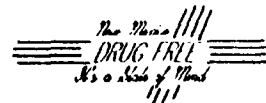
I'm unsure as to whether to recommend approval  
on this or not. If the upper zone is partially  
plugged, how can they get adequate production and  
pressure figures? How can we really tell if this  
well meets criteria for Adm. approval?

Yours truly,

[Signature]



STATE OF NEW MEXICO



CONSERVATION DIVISION  
RECEIVED

ENERGY, MINERALS and NATURAL RESOURCES DIVISION

OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE

BRUCE KING  
GOVERNOR

ANITA LOCKWOOD  
CABINET SECRETARY

1000 RIO BRAZOS ROAD  
AZTEC, NEW MEXICO 87410  
(505) 334-6178

Date: 3/8/95

1101

Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87504-2088

RE: Proposed MC \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed NSP \_\_\_\_\_

Proposed DHC X \_\_\_\_\_  
Proposed SWD \_\_\_\_\_  
Proposed PMX \_\_\_\_\_  
Proposed DD \_\_\_\_\_

Surface Commings

Gentlemen:

I have examined the application received on 3/2/95

for the Unocal OPERATOR Reiner Chif LEASE & WELL NO.

several wells and my recommendations are as follows:  
UL-S-T-R

Approved  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours truly,

[Signature]



March 1, 1995

Certified Return Receipt No.: P909423602

New Mexico Oil Conservation Division  
Attn.: Mr. William J. LeMay  
PO 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

RECEIVED  
MAR - 2 1995  
OIL CON. DIV.  
DIST. 3

Dear Sirs:

Union Oil Company of California d.b.a. UNOCAL requests permission to surface commingle hydrocarbon production from the Blanco Mesa Verde and Basin Dakota formations in the following Rincon Unit wells, Rio Arriba County, New Mexico.

Well	Legal Location
131E	1145' FSL, 1525' FWL, S36, T27N, R7W
134E	800' FSL, 800' FEL, S12, T26N, R7W
149M	1900' FNL, 1365' FWL, S30, T27N, R6W
166E	1980' FNL, 1980' FWL, S32, T27N, R6W
176E	1505' FNL, 1850' FWL, S31, T27N, R6W
178E	1450' FSL, 1450' FEL, S23, T27N, R7W
185E	1550' FSL, 1505' FEL, S22, T27N, R7W
231E	1145' FNL, 790' FWL, S12, T26N, R7W
304	1850' FNL, 1480' FEL, S11, T26N, R7W
304M	1020' FSL, 795' FEL, S11, T26N, R7W
193M	1000' FNL, 1190' FWL, S35, T27N, R7W
227E	800' FSL, 800' FWL, S28, T27N, R7W
303E	1850' FNL, 830' FEL, S33, T27N, R7W
124A	2025' FNL, 1610' FWL, S34, T27N, R7W

These wells will be drilled during the Summer of 1995. It is UNOCAL's intention to complete these wells as dual string Blanco Mesa Verde and Basin Dakota and to surface commingle, in common facilities, commonly owned hydrocarbon production from the Blanco Mesa Verde and Basin Dakota. Allocation factors for gas and oil production from each zone will be determined semiannually by flowing each zone independently through the custody transfer meter or a test separator. The commercial value of this surface commingled production will not be less than the sum of the values of the production from the individual Mesa Verde and Dakota horizons.