

RELEASE 8.30.93



August 6, 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. 136E
1175' FNL, 830' FWL
Section 23, T27N, R7W
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 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.

RECEIVED
OIL CONSERVATION DIVISION
AUG 10 1993

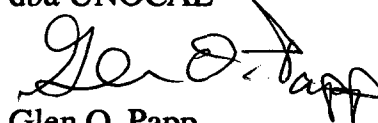
The Blanco Mesaverde formation is uneconomic to drill as a stand alone well. To develop these reserves, a dual or commingled completion is required. We estimate an ultimate recovery of approximately 750 MMCF from the Mesaverde horizon, which would otherwise remain undeveloped. Also, commingling will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

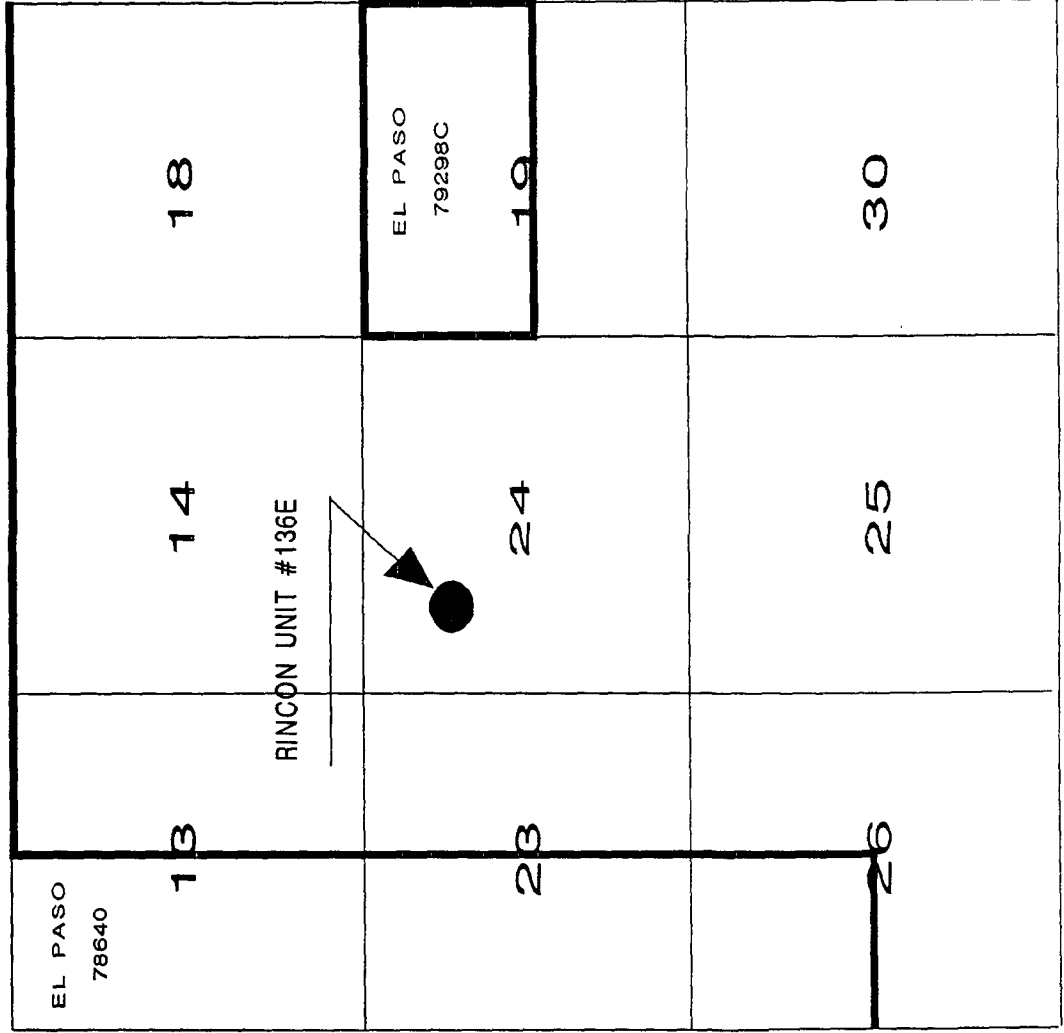
Attachments

GOP/DLD/df

OFFSET LEASE OWNERSHIP

R 7 W

T 27 N



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

Form C-116
Revised 1/1/89

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

GAS - OIL RATIO TEST

Operator		Pool		County										
UNION OIL COMPANY OF CALIFORNIA		BLANCO MESAVERDE/BASIN DAKOTA		RIO ARRIBA										
Address		TYPE OF TEST - (X)		Completion										
3300 N. Butler, Suite 200, Farmington, NM 87401		Scheduled		Special										
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/BBL.	
		U	S	T						R	WATER BBL.S.	GRAV. OIL		OIL BBL.S.
Rincon Unit	136E	D	23	27N	7W	12/11/92	F	14/64"	260	24	-0-	-0-	74	--
Blanco Mesaverde						12/19/92	F	18/64"	460	24	16	-0-	828	--
Basin Dakota														

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

Glen O. Papp
Printed name and title

Field Superintendent

August 6, 1993
Date

(505) 326-7600
Telephone No.

RINCC UNIT NO. 136-E
1175' FNL, 830' FWL SEC 23 T27N R7W
RIO ARRIBA COUNTY, NM

12 1/4" Hole

KB DATUM = 13' ABOVE G.L.
GROUND ELEVATION = 6605'

8-5/8" 24# J-55 @ 364'
Cmt'd w/ 240 SX - CIRC
To Surface

7-7/8" Hole

DV TOOL @ 3552'
Cmt'd Stage #3 w/ 927 sxs- Circ To Surface

TOC @ 4470' By Cement Bond Log

MESA VERDE
4776-4802, 4810-4914', W/2 SPF

4780' W/4 Holes

Cmt. Squeezed w/125 sxs

4814' W/4 Holes

"XO" Sliding Sleeve
@ 4957'

4913-14' w/ 2SPF For Cmt. Squeeze - 100 sxs

Gulberson Uni VI
pkc @ 4966'

DV TOOL @ 5764'
Cmt'd Stage #2 w/335 sxs

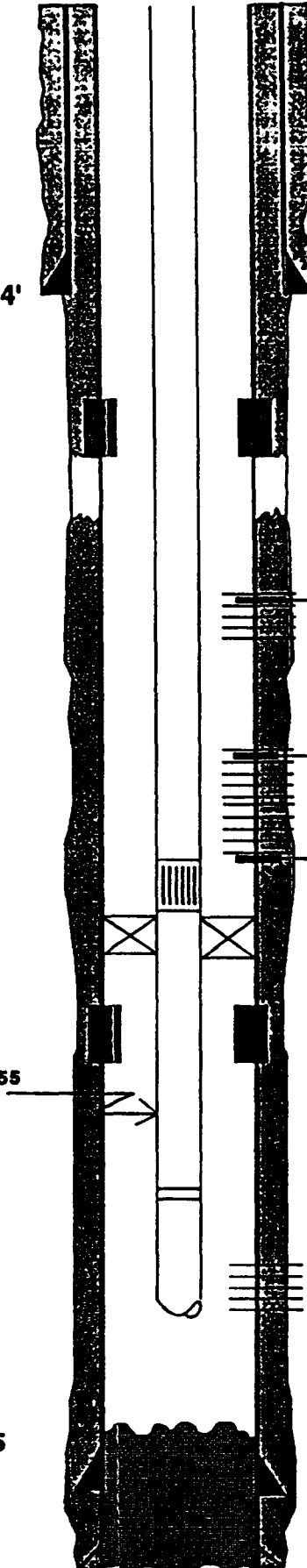
TUBING DETAIL
239 Jts 2-3/8" EUE 8rd J-55
@ 7552'

DAKOTA
7342-96, 7476-96, 7508-22, 7528-44, 7550-68,
7598-7608, 7612-18', w/ 2 SPF

5-1/2" 17# N-80, J-55
@ 7689'
Cmt'd Stage 1 w/ 400 sxs

PBTD = 7642'

TD @ 7690'



B & R SERVICE, INC.

P. O. Box 1048
Farmington, New Mexico 87499
(505) 325-2393

Company Unocal Lease Rincon Well 136-E
County Rio Arriba State N.M. Date 12-11-92
Shut-In _____ Zero Point K.B. Tbg. Pressure 1935
Casing Pressure _____ Tbg. Depth _____ Casing Perf. _____
Max. Temp. _____ Fluid Level _____

<u>DEPTH</u>	<u>PSIG</u>	<u>GRADIENT</u>
0	1935	- - -
1000	2007	.072
2000	2079	.072
3000	2148	.069
4000	2210	.062
5000	2262	.052
6000	2310	.048
7000	2359	.049
7100	2364	.050
7200	2369	.050

B & R SERVICE, INC.
P.O. BOX 1048
FARMINGTON, N.M.

FLUID LEVEL SURVEY

COMPANY: UNOCAL CORPORATION COUNTY: RIO ARriba
FIELD: RINCON DATE: _____ STATE: N. MEX.

LEASE AND WELL NO.	LOCATION	TIME	ELEV.	DATUM	CASING PRESSURE PSIG	JOINTS TO FLUID	FEET TO FLUID	FLUID ABOVE DATUM	PRESSURE AT DATUM
10/30/92 RINCON 158 M				MID PERF. 5039'	540	110	3432'	1607'	1231 PSIG
11/01/92 RINCON 151 M				MID PERF. 5211'	750	130	4108'	1103'	1228 PSIG
11/04/92 RINCON 171 M				MID PERF. 4883'	340	152	4758'	125'	394 PSIG
12/17/92 RINCON 184 M				MID PERF. 5127'	965	105	3308'	1819'	1753 PSIG
12/19/92 RINCON 136 E				MID PERF. 4845'	600	118	3729'	1116'	1139 PSIG
12/19/92 RINCON 127 M				MID PERF. 5080'	610	153	4835'	245'	716 PSIG
12/22/92 RINCON 125 M				MID PERF. 5277'	480	154	4882'	395'	789 PSIG
12/22/92 RINCON 137 E				MID PERF. 6712'	1120	205	6765'	0'	1120 PSIG
7/15/93 RINCON 126 M				MID PERF. 5224'	780	155	4898'	326'	921 PSIG
12/4/92 RINCON 168 E				MID PERF. 6608'	1020	203	6415'	193'	1104 PSIG

AVERAGE TUBING LENGTH:
REMARKS:

RINCON UNIT NO. 136 E

After a 7 day SI period:

Mesaverde BHP = 1139 psi @ 4845'

Dakota BHP = 2369 psi @ 7200'

Gas Gradient = 0.072 psi/ft

Adjusting to a common datum of 4845':

Mesaverde BHP = 1139 psi

Dakota BHP = $2369 - [(0.072)(7200 - 4845)] = 2199$ psi

Therefore the reservoir pressures fall within the 50% requirement.



15 FARMINGTON AVENUE - FARMINGTON, NM 87401

(505) 325-6622

ANALYSIS NO. UN020047

WELL/LEASE INFORMATION

COMPANY: UNOCAL CORPORATION

WELL NAME: RINCON 136E

LINE PRESSURE: 250 PSIG

LOCATION:

SAMPLE TEMP.: 60 DEG.F

COUNTY: RIO ARRIBA, NM

WELL FLOWING: YES

FORMATION: DAKOTA

DATE SAMPLED: 12/18/92

SMPL SRC:

SAMPLED BY: KIVA

REMARKS: TAKEN AT TEST UNIT

ANALYSIS

COMPONENT	MOLE%	GPM
NITROGEN	0.183	0.0000
CO2	1.127	0.0000
METHANE	86.791	0.0000
ETHANE	7.415	1.9835
PROPANE	2.564	0.7066
I-BUTANE	0.413	0.1351
N-BUTANE	0.682	0.2150
I-PENTANE	0.264	0.0966
N-PENTANE	0.205	0.0743
HEXANE+	0.356	0.1553
TOTAL	100.000	3.3664
COMPRESSIBILITY FACTOR	(1/Z)	1.0029
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)		1151.0
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)		1131.0
REAL SPECIFIC GRAVITY		0.6624

ANALYSIS RUN AT 14.73 PSIA & 60 DEGREES F

CYLINDER PRESSURE: 238 PSIG

DATE RUN: 12/21/92

ANALYSIS RUN BY: CHELLE DURBIN



1115 FARMINGTON AVENUE - FARMINGTON, NM 87401

(505) 325-6622

ANALYSIS NO. UN020042

WELL/LEASE INFORMATION

COMPANY: UNOCAL CORPORATION

WELL NAME: RINCON #136E

LINE PRESSURE: PSIG

LOCATION:

SAMPLE TEMP.: 70 DEG.F

COUNTY: RIO ARRIBA, NM

WELL FLOWING: YES

FORMATION: MESAVERDE

DATE SAMPLED: 12/11/92

SMPL SRC:

SAMPLED BY: KIVA

REMARKS:

ANALYSIS

COMPONENT	MOLE%	GPM
NITROGEN	0.219	0.0000
CO2	1.072	0.0000
METHANE	84.804	0.0000
ETHANE	8.487	2.2703
PROPANE	3.185	0.8778
I-BUTANE	0.484	0.1583
N-BUTANE	0.824	0.2598
I-PENTANE	0.307	0.1123
N-PENTANE	0.240	0.0869
HEXANE+	0.378	0.1649
TOTAL	100.000	3.9303
COMPRESSIBILITY FACTOR	(1/Z)	1.0031
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)		1177.1
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)		1156.6
REAL SPECIFIC GRAVITY		0.6786

ANALYSIS RUN AT 14.73 PSIA & 60 DEGREES F

CYLINDER PRESSURE: 236 PSIG

DATE RUN: 12/12/92

ANALYSIS RUN BY: CHELLE DURBIN

RINCON UNIT NO. 136 E

C-116 ADJUSTMENT

BASIN DAKOTA

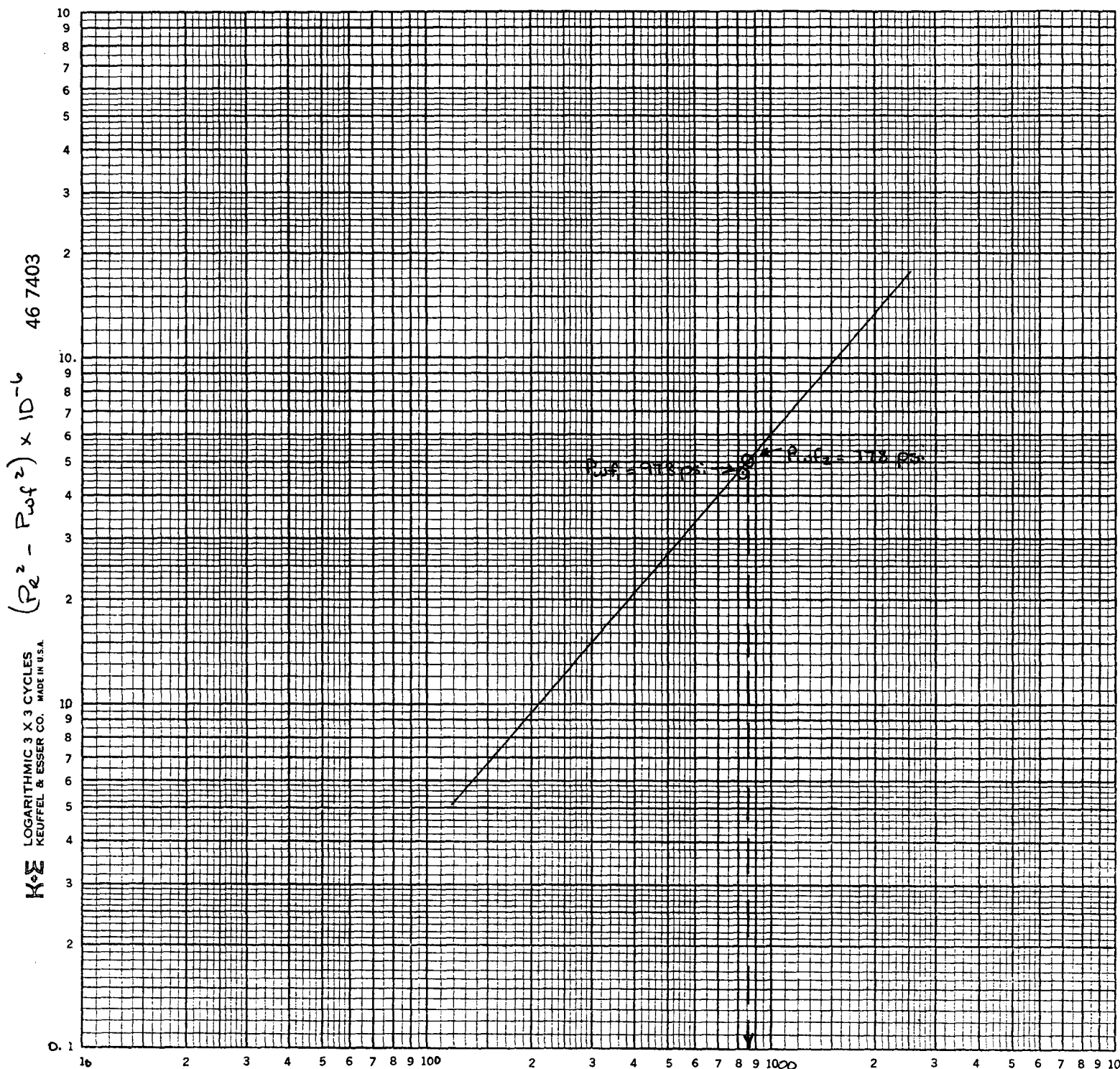
$n = 0.75$

$P_R = 2369 \text{ psi @ } 7200'$

$P_{wf1} = 978 \text{ psi @ } 7200'$

$Q = 828 \text{ mcfD}$

$P_{wf2} = 778 \text{ psi @ } 7200'$



$Q_2 = 850 \text{ mcfD}$

RINCON UNIT NO. 136 E
ALLOCATION FORMULA

(BASED ON ADJUSTED C-116)

GAS PRODUCTION:

Mesaverde Rate	74 MCFD
Dakota Rate	<u>850</u> MCFD
Total Rate	<u>924</u> MCFD

Therefore,

Mesaverde	8%
Dakota	92%

OIL PRODUCTION:

Mesaverde Rate	0 BOPD
Dakota Rate	<u>0</u> BOPD
Total Rate	<u>0</u> BOPD

Therefore,

Mesaverde	50%
Dakota	50%

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



August 6, 1993

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. 136E
1175' FNL, 830' FWL
Section 23, T27N, R7W
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

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Glen O. Papp
Field Superintendent

GOP/DLD/df

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



August 5, 1993

Farmington District

Meridian Oil Production Inc.
P.O. Box 4289
Farmington, New Mexico 87499

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:

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Rio Arriba County, New Mexico

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Sincerely,

Union Oil Company of California
dba UNOCAL

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Glen O. Papp
Field Superintendent

GOP/DLD/df