

DISTRICT I

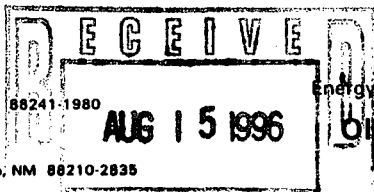
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

811 South First St., Artesia, NM 88210-2835

DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410-1893

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429Form C-107-A
New 3-12-96

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

UNION OIL OF CALIFORNIA dba/UNOCAL P.O. BOX 850, BLOOMFIELD, NM 87413

Operator

Address

RINCON UNIT

183

K-SEC 31-T27N-R06W

Rio Arriba

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

OGRID NO. 023708 Property Code 11510 API NO. 30-039-06834

Spacing Unit Lease Types: (check 1 or more)

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 MESA VERDE/ 72319		BASIN DAKOTA/71599
2. Top and Bottom of Pay Section (Perforations)	TO BE DETERMINED AFTER GAMMA RAY LOG RUN (4-7300')		7274'-7470'
3. Type of production (Oil or Gas)	GAS		GAS
4. Method of Production (Flowing or Artificial Lift)	FLOWING		FLOWING
5. Bottomhole Pressure	a. (Current)	a.	a.
Oil Zones - Artificial Lift: Estimated Current	303D exception		303D Exception
Gas & Oil - Flowing: Measured Current	b. (Original)	b.	b.
All Gas Zones: Estimated Or Measured Original	303D exception		303D Exception
6. Oil Gravity (°API) or Gas BTU Content	ESTIMATED 48° API		56.0° API
7. Producing or Shut-In?			PRODUCING
Production Marginal? (yes or no)	YES		YES
* If Shut-In, give date and oil/gas/water rates of last production	Date: SEE SUPPORTING DATA Rates:	Date: Rates:	Date: Rates:
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)	Date: Rates: N/A	Date: Rates:	Date: Rates: SEE SUPPORTING DATA
8. Fixed Percentage Allocation Formula - % for each zone	Oil: Gas: % *SEE ATTACHEMENT %	Oil: Gas: % % %	Oil: Gas: % *SEE ATTACHEMENT %

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?

If not, have all working, overriding, and royalty interests been notified by certified mail?

Have all offset operators been given written notice of the proposed downhole commingling?

☒ Yes ☐ No
☐ Yes ☐ No
☒ Yes ☐ No11. 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 ☐ No13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)14. If this well is on, or communited 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. NMOC Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). *SEE ATTACHEMENT

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 all offset operators.
- * 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

TITLE Production Engineer

DATE 8/14/96

TYPE OR PRINT NAME

BRETT LIGGETT

TELEPHONE NO. (505) 632-1811 ext 14

Unocal, Rincon Unit, Rio Arriba County, New Mexico

Rincon Unit Well	Legal Description								NMOCD Order No.	Issue Date
302	C	S	11	T	26	N	R	7 W	DHC-1050	11/3/94
134	B	S	12	T	26	N	R	7 W	DHC-1190	3/7/96
159M	F	S	18	T	27	N	R	6 W	DHC-904	6/18/93
174M	F	S	19	T	27	N	R	6 W	DHC-966	1/31/94
170	M	S	20	T	27	N	R	6 W	DHC-1192	3/7/96
170M	I	S	20	T	27	N	R	6 W	DHC-920	9/17/93
175M	F	S	20	T	27	N	R	6 W	DHC-864	11/24/92
171M	J	S	21	T	27	N	R	6 W	DHC-1101	3/7/95
180M	D	S	21	T	27	N	R	6 W	DHC-940	10/25/93
158M	J	S	22	T	27	N	R	6 W	DHC-909	4/27/93
125M	F	S	26	T	27	N	R	6 W	DHC-95	9/17/93
126M	P	S	27	T	27	N	R	6 W	DHC-914	9/17/93
127M	D	S	28	T	27	N	R	6 W	DHC-916	8/17/93
128M	O	S	28	T	27	N	R	6 W	DHC-1042	8/31/94
129M	P	S	29	T	27	N	R	6 W	DHC-903	6/18/93
1E	G	S	30	T	27	N	R	6 W	DHC-902	6/18/93
303	E	S	33	T	27	N	R	6 W	DHC-1086	2/3/95
186M	L	S	33	T	27	N	R	6 W	DHC-1176	12/21/95
167M	C	S	13	T	27	N	R	7 W	DHC-863	11/5/92
151M	O	S	14	T	27	N	R	7 W	DHC-918	9/17/93
133E	D	S	14	T	27	N	R	7 W	DHC-1043	8/31/94
184M	P	S	15	T	27	N	R	7 W	DHC-911	8/25/93
185E	J	S	22	T	27	N	R	7 W	DHC-1038	8/31/94
136E	D	S	23	T	27	N	R	7 W	DHC-912	9/17/93
178E	I	S	23	T	27	N	R	7 W	DHC-1040	8/31/94
138E	P	S	25	T	27	N	R	7 W	DHC-1044	8/31/94
139E	F	S	25	T	27	N	R	7 W	DHC-1041	8/31/94
203	M	S	27	T	27	N	R	7 W	DHC-1261	5/23/96
149M	F	S	30	T	27	N	R	7 W	DHC-1037	8/31/94
229E	M	S	34	T	27	N	R	7 W	DHC-1124	5/16/95
187E	P	S	35	T	27	N	R	7 W	DHC-1176	12/21/95
131E	C	S	36	T	27	N	R	7 W	DHC-1039	8/31/94
168E	I	S	36	T	27	N	R	7 W	DHC-1191	3/7/96

District I
PO Box 1980, Hobbs, NM 88241-1980
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-
Revised February 21, 1996
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 30-039-06834	² Pool Code 72319	³ Pool Name BLANCO MESA VERDE
⁴ Property Code 11510	⁵ Property Name RINCON UNIT	⁶ Well Number 183
⁷ OGRID No. 023708	⁸ Operator Name UNION OIL OF CALIFORNIA dba/UNOCAL	⁹ Elevation 6658' DF

¹⁰ Surface Location

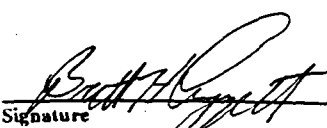
UL or lot no. K	Section 31	Township 27N	Range 06W	Lot Idn	Feet from the 1697'	North/South line SOUTH	Feet from the 1460'	East/West line WEST	County RIO ARriba
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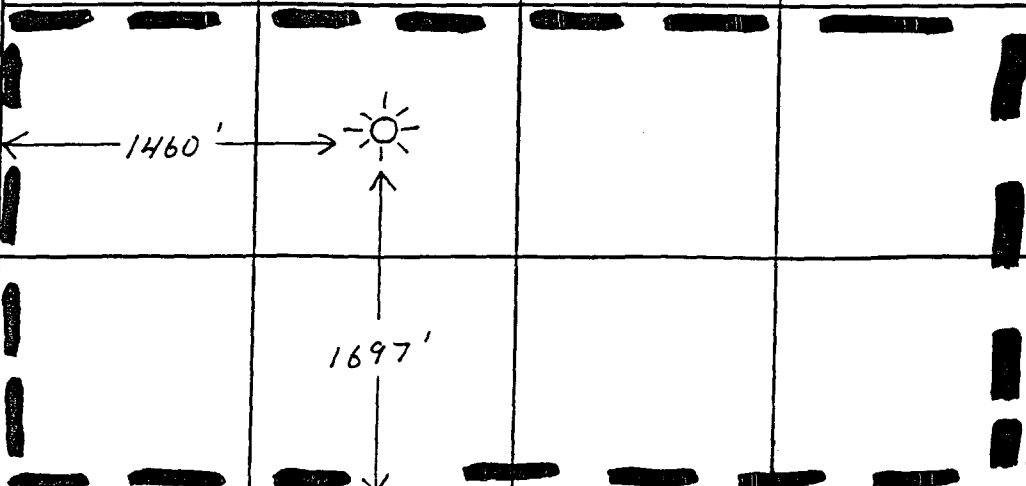
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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¹² Dedicated Acres 320	¹³ Joint or Infill Y	¹⁴ Consolidation Code	¹⁵ Order No.
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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

¹⁶				¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature Brett H. Liggett Printed Name Production Engineer Title 8/14/96 Date
				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 and correct to the best of my belief. Date of Survey Signature and Seal of Professional Surveyer: Certificate Number



Well Location and Acreage Dedication Plat

Section A.

Date **AUGUST 1, 1962**

Operator **EL PASO NATURAL GAS COMPANY** Lease **RINCON UNIT** SF079364
 Well No. **183** Unit Letter **K** Section **31** Township **27-N** Range **6-W** N.M.P.M.
 Located **1697** Feet From **SOUTH** Line, **1460** Feet From **WEST** Line
 County **RIO ARriba** G. L. Elevation **6648** Dedicated Acreage **336.32** Acres
 Name of Producing Formation **DAKOTA** Pool **BASIN DAKOTA**

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below?
 Yes ☒ No ☐
2. If the answer to question one is "no", have the interests of all the owners been consolidated by communitization agreement or otherwise? Yes ☐ No ☐ If answer is "yes", Type of Consolidation.
3. If the answer to question two is "no", list all the owners and their respective interests below:

Owner

Land Description

RECEIVED

AUG 29 1962

U.S. GEOLOGICAL SURVEY
FARMINGTON, NEW MEXICO

Section B.

Note: All distances must be from outer boundaries of section.

This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

El Paso Natural Gas Company

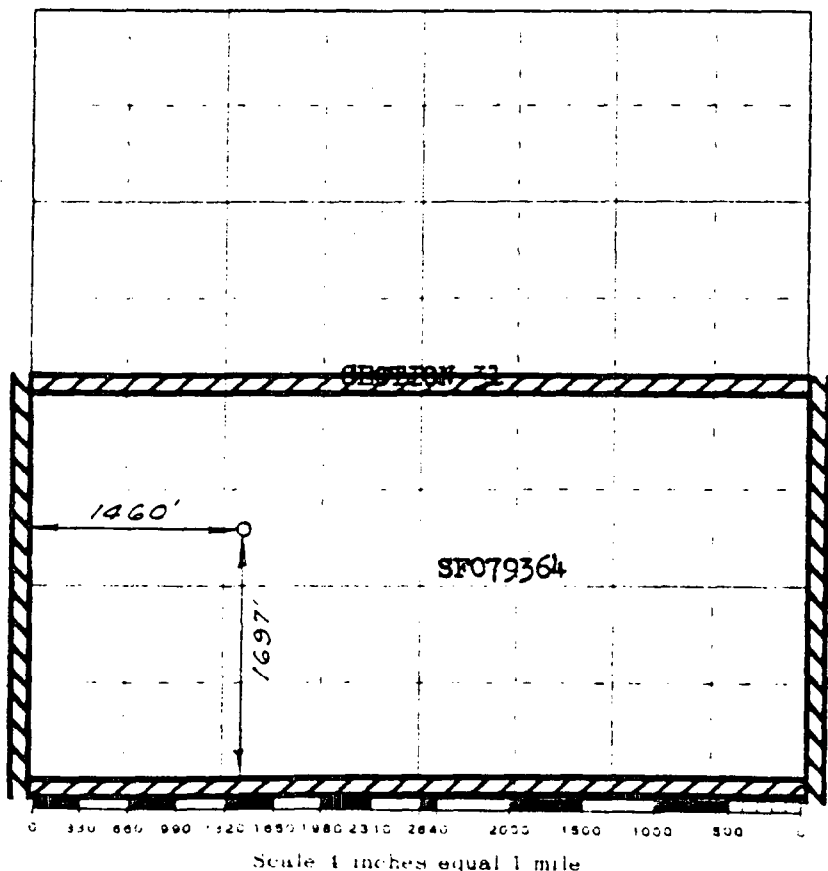
(Operator)

Original Signed **D. W. Meehan**

(Representative)

Box 990

(Address)

Farmington, New Mexico

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

(Signed)

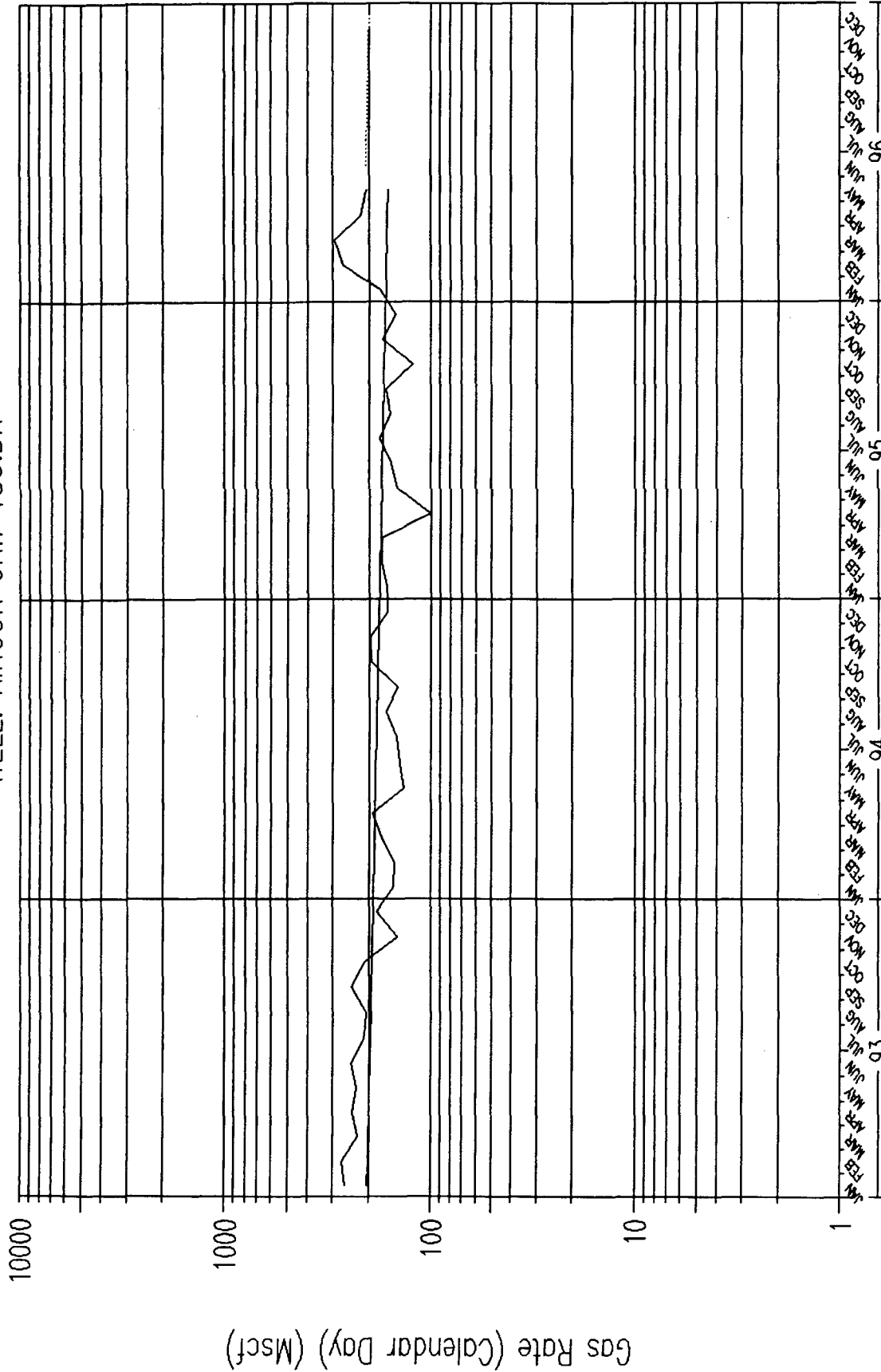
Date Surveyed

JUNE 25, 1962

Farmington, New Mexico

David A. Fithen
 Registered Professional Engineer and/or Land Surveyor

WELL: RINCON UNIT 183:DK



Decline Rate (frac) Nominal: 0.005709 Effective: 0.005693 Annual: 0.066211

Current Gas rate: 207.90 Mscf/d

Economic Limit: 25.000 Mscf/d

Cumulative Gas Produced: 1293.83 MMscf

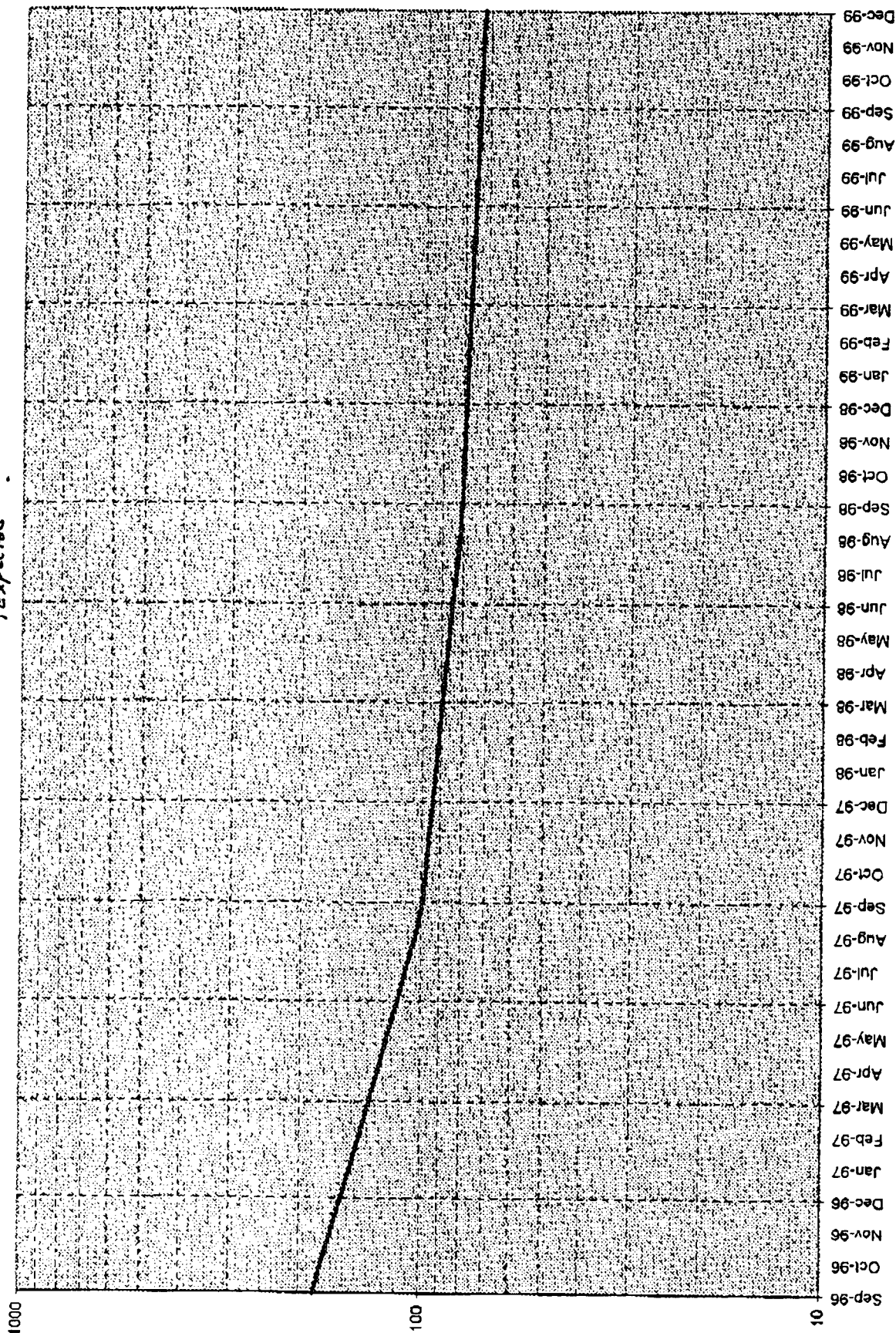
Remaining Reserves: 321.3 MMscf

Total Reserves: 1615.1 MMscf – At End of Forecast

To: BLOOMFIELD NM

Sheet1 Chart 1

/83 MV Decline, Expected



Unocal will henceforth adopt the following method for allocating gas and oil production in certain future down hole commingled wells in the Rincon Unit, Rio Arriba County, New Mexico. This method will apply to wells having a new producing formation commingled in an existing well bore with mature formation(s). This method will account for approximately twelve to twenty-four months of "flush production" typically associated with new completions in the Rincon Unit (see attachment). After twenty-four months of commingled production a fixed percentage allocation will be calculated according to the formulas discussed below. This method will also account for mechanical, transportation and gas marketing constraints.

qi - Average three month production rate of the existing completion prior to down hole commingling (Mcf/d).

D - Effective monthly decline rate of the existing completion (1/months).

Qn - Total commingled production, for the nth month, after n months of commingled production (Mcf).

Q1n - Total production for the existing completion, for the nth month, after n months of commingled production (Mcf).

Q2n - Total production for the new completion, for the nth month, after n months of commingled production (Mcf).

t - Time from beginning of commingled production (months)

t <= 24 months

$$Q1n = qi(e^{-D(t-0.5)})(365/12)$$

$$Q2n = Qn - Q1n$$

Qn < Q1n

$$Q1n = Qn(Q1(n-1)/(Q1(n-1)+Q2(n-1)))$$

$$Q2n = Qn(Q2(n-1)/(Q1(n-1)+Q2(n-1)))$$

t > 24 months and royalty interests identical between commingled formations

$$Q1n = Qn(Q1(24)/(Q1(24)+Q2(24)))$$

$$Q2n = Qn(Q2(24)/(Q1(24)+Q2(24)))$$

Chart3

Rincon Unit, 20 month average production, 1992 & 1994, DK/MV infill commingles

