

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

Release 11.11.92

OIL CONSERVATION DIVISION
RECEIVED

OCT 22 1992 9 14



October 21, 1992

CERTIFIED RETURN RECEIPT REQUESTED

Farmington District

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

Attn: Mr. William J. LeMay

Dear Mr. LeMay:

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. 175M
1740' FNL, 1500' FWL
Section 20, T27N, R6W
Rio Arriba County, New Mexico

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 measured 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.

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.

UNOCAL wishes to commingle the production from the Blanco Mesaverde and Basin Dakota formations in order to more effectively lift condensate production and justify installation of compression facilities. This will result in incremental reserves for both formations.

Both zones are of common ownership and 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



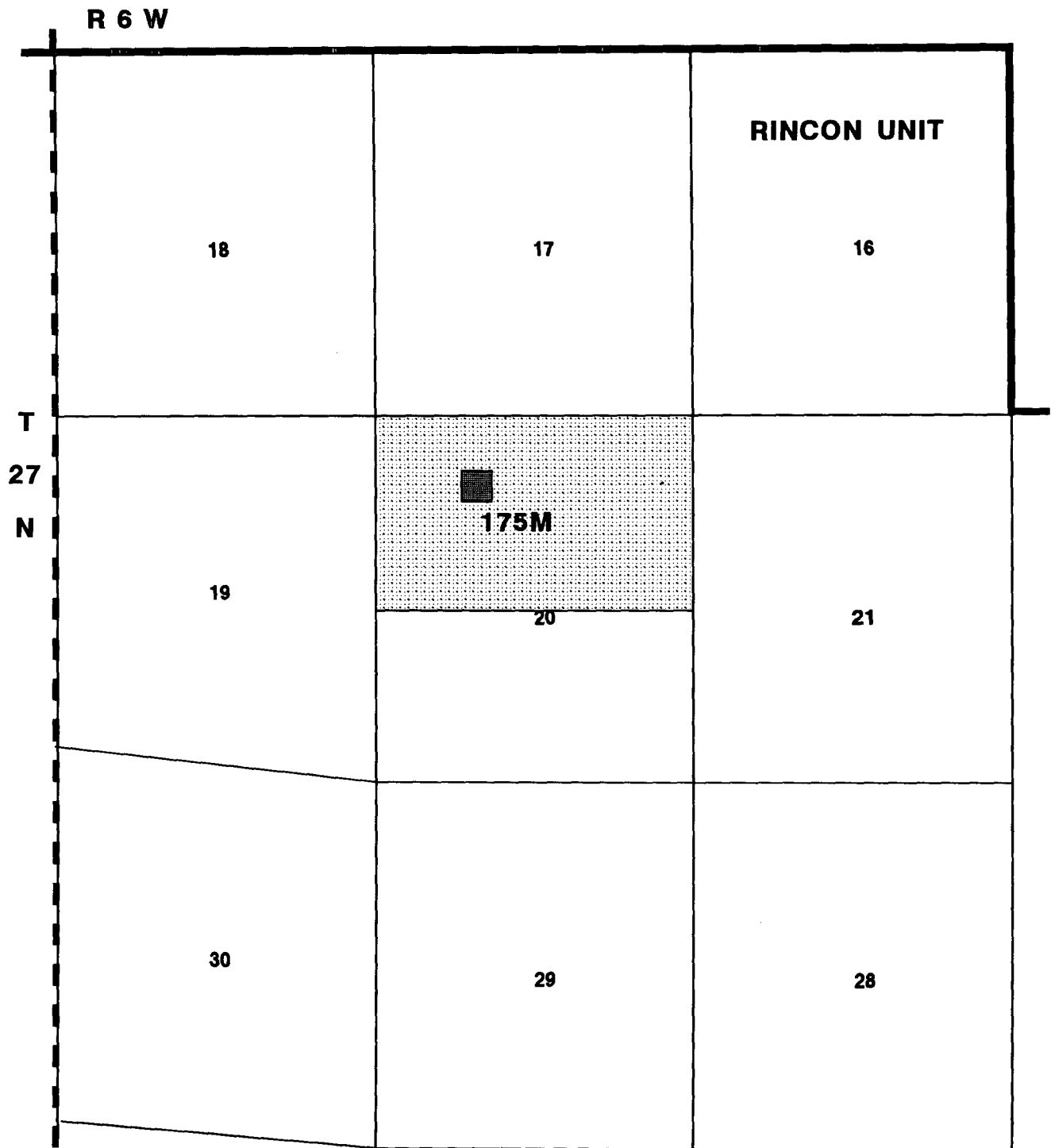
William L. Irwin
District Petroleum Engineer

Attachments

WLI/DLD/df

cc: New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

OFFSET LEASE OWNERSHIP



OIL CONSERVATION DIVISION

**P.O. Box 2088
Santa Fe, New Mexico 87504-2088**

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 874

GAS-OIL RATIO TEST

Operator		Pool		County												
Address		Type of Test - (X)		Completion		Special										
Lease Name	Well No.	Location			Date of Test	Status	Choke Size	TBG. Press.	Daily Allowable	Length of Test Hours	Prod. During Test			Gas - Oil Ratio CU.FT/BBL.		
		U	S	T							R	Water BBLs.	Grav. Oil		Oil BBLs.	Gas M.C.F.
RINCON UNIT	175M	F	20	27N	6W	9/13/92	F	48/64"	249		24	7	55	2	628	314,000
BLANCO MESAVERDE BASIN DAKOTA						9/05/92	F	48/64"	250		24	18		0	408	----

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.

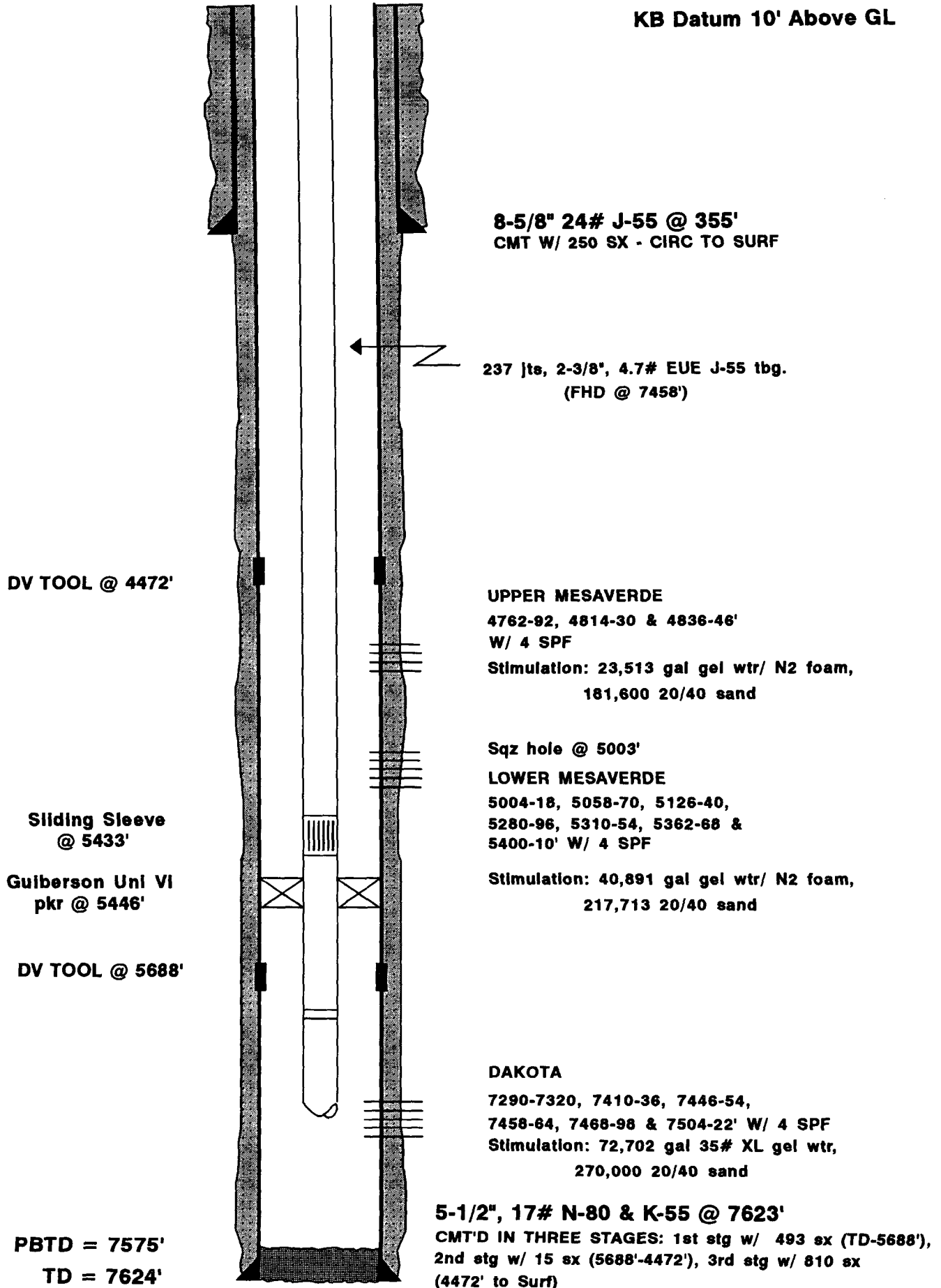
Signature

Printed name and title
W.L. Irwin District Petroleum Engineer

10/20/92 (505) 326-7600
Date Telephone No.

RINCON UNIT NO. 175-M
1740' FNL, 1500' FWL, SEC 20, T27N-R6W
RIO ARriba COUNTY, NM

KB Datum 10' Above GL



B & R SERVICE, INC.

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

Company UNOCAL CORPORATION Lease RINCON Well 175-M (M.V.)
County RIO ARriba State N. MEX. Date 9/24/92
Shut-In _____ Zero Point G.L. Tbg. Pressure 629
Casing Pressure 630 Tbg. Depth _____ Casing Perf. _____
Max. Temp. _____ Fluid Level _____

<u>DEPTH</u>	<u>PSIG</u>	<u>GRADIENT</u>
0	629	----
1000	649	.020
2000	670	.021
3000	691	.021
4000	710	.019
5424	735	.018

 * B & R SERVICE, INC. *
 * FARMINGTON, NM 87401 *
 * (505) 325-2393 *

COMPANY NAME...: UNOCAL CORPORATION

DATE: 09/28/92

WELL I.D.: RINCON 175M (DAK)

FIELD I.D.: DAKOTA

RUN #: 1

ENGINEER:

ZERO REFERENCE: G.L.

START DATE: 09/09/92

START TIME: 09:55:00

WELL STATUS...: BUILD-UP

GAUGE INFO:

I.D.: KPG-3 PRESSURE 175F

SERIAL #.....: 23973

RANGE.....: 7075 PSIA @ 175F

COMMENTS: BHP RECORDED @ 7441' G.L.

FILE #: 17

NO.	TIME		PRESSURE	
	DEFL (IN)	HRS	DEFL (IN)	PSI
1	0.0000	0.000	0.2709	950.53
2	0.0129	0.956	0.2714	952.28
3	0.0267	1.979	0.2719	954.04
4	0.0406	3.009	0.2724	955.79
5	0.0542	4.017	0.2729	957.54
6	0.0679	5.033	0.2733	958.95
7	0.0812	6.018	0.2741	961.75
8	0.0950	7.041	0.2747	963.86
9	0.1082	8.020	0.2751	965.26
10	0.1215	9.005	0.2755	966.67
11	0.1345	9.969	0.2759	968.07
12	0.1488	11.029	0.2765	970.18
13	0.1618	11.992	0.2771	972.28
14	0.1755	13.008	0.2780	975.44
15	0.1891	14.016	0.2787	977.89
16	0.2026	15.017	0.2793	980.00
17	0.2154	15.965	0.2801	982.81
18	0.2294	17.003	0.2808	985.26
19	0.2426	17.981	0.2813	987.02
20	0.2562	18.989	0.2818	988.77
21	0.2696	19.983	0.2822	990.18
22	0.2840	21.050	0.2825	991.23
23	0.2967	21.991	0.2829	992.63
24	0.3101	22.984	0.2834	994.39
25	0.3239	24.007	0.2839	996.14
26	0.3368	24.963	0.2842	997.19
27	0.3503	25.964	0.2846	998.60
28	0.3644	27.009	0.2848	999.30
29	0.3782	28.032	0.2855	1001.77
30	0.3913	29.003	0.2859	1003.19
31	0.4049	30.011	0.2865	1005.32
32	0.4180	30.982	0.2869	1006.74
33	0.4322	32.034	0.2872	1007.80

 * B & R SERVICE, INC. *

Company : UNOCAL CORPORATION
 Well I.D.: RINCON 175M (DAK)
 Field I.D.: DAKOTA

Date: 09/28/92
 Run#: 1
 Page: 2

NO.	TIME		PRESSURE	
	DEFL (IN)	HRS	DEFL (IN)	PSI
34	0.4454	33.013	0.2878	1009.93
35	0.4589	34.013	0.2882	1011.35
36	0.4728	35.044	0.2885	1012.41
37	0.4853	35.970	0.2889	1013.83
38	0.4993	37.008	0.2893	1015.25
39	0.5125	37.986	0.2900	1017.73
40	0.5263	39.009	0.2904	1019.15
41	0.5397	40.002	0.2910	1021.28
42	0.5536	41.032	0.2919	1024.47
43	0.5672	42.040	0.2923	1025.89
44	0.5804	43.019	0.2926	1026.95
45	0.5938	44.012	0.2927	1027.30
46	0.6076	45.035	0.2931	1028.72
47	0.6208	46.013	0.2934	1029.79
48	0.6342	47.006	0.2939	1031.56
49	0.6477	48.007	0.2943	1032.98
50	0.7279	53.951	0.2951	1035.82
51	0.8097	60.014	0.2984	1047.52
52	0.8907	66.018	0.3019	1059.93
53	0.9720	72.044	0.3054	1072.34
54	1.0537	78.099	0.3084	1082.98
55	1.1344	84.081	0.3118	1095.04
56	1.2141	89.988	0.3147	1105.32
57	1.2976	96.177	0.3178	1116.31
58	1.3778	102.121	0.3202	1124.82
59	1.4582	108.080	0.3226	1133.33
60	1.5382	114.010	0.3257	1144.33
61	1.6191	120.006	0.3284	1153.90
62	1.7013	126.099	0.3319	1166.31
63	1.7831	132.162	0.3348	1176.60
64	1.8620	138.010	0.3365	1182.62
65	1.9458	144.221	0.3391	1191.84
66	2.0253	150.113	0.3408	1197.87
67	2.1066	156.139	0.3414	1200.00
68	2.1865	162.061	0.3430	1205.67
69	2.2685	168.139	0.3438	1208.51
70	2.3458	173.869	0.3469	1219.50
71	2.3607	174.973	0.3523	1238.65
72	2.3748	176.018	0.3563	1252.84
73	2.3884	177.026	0.3593	1263.48
74	2.4016	178.004	0.3615	1271.28
75	2.4148	178.983	0.3637	1279.08
76	2.4287	180.013	0.3655	1285.46
77	2.5116	186.158	0.3737	1314.54
78	2.5900	191.969	0.3799	1336.52
79	2.6689	197.817	0.3843	1352.13
80	2.7520	203.976	0.3887	1367.73
81	2.8335	210.017	0.3937	1385.46
82	2.9152	216.072	0.3982	1401.42
83	2.9952	222.002	0.3931	1383.33

RINCON UNIT NO. 175 M

After a 7 day SI period:

$$\text{Mesaverde BHP} = 735 \text{ psi @ } 5424'$$

$$\text{Dakota BHP} = 1209 \text{ psi @ } 7441'$$

$$\text{Gas Gradient} = \frac{(0.01875)(0.69)(2100)}{(0.88)(655)} = 0.05 \text{ psi/ft}$$

Adjusting to a common datum of 5424':

$$\text{Mesaverde BHP} = 735 \text{ psi}$$

$$\text{Dakota BHP} = 1209 - [(0.05)(7441 - 5424)] = 1108 \text{ psi}$$

Therefore the reservoir pressures fall within the 50% requirement.



(505) 325-6622

ANALYSIS NO. UN020021

WELL/LEASE INFORMATION

COMPANY: UNOCAL CORPORATION

WELL NAME: RINCON #175M

LINE PRESSURE: 250 PSIG

LOCATION:

SAMPLE TEMP.: 80 DEG.F

COUNTY: RIO ARriba, NM

WELL FLOWING:

FORMATION: MESAVERDE

DATE SAMPLED: 9/16/92; 11:00 AM

SMPL SRC:

SAMPLED BY: KIVA MEASURING

REMARKS:

ANALYSIS

COMPONENT	MOLE%	GPM
NITROGEN	2.369	0.0000
CO2	0.948	0.0000
METHANE	81.749	0.0000
ETHANE	8.765	2.3446
PROPANE	3.718	1.0247
I-BUTANE	0.630	0.2061
N-BUTANE	0.893	0.2816
I-PENTANE	0.325	0.1189
N-PENTANE	0.218	0.0790
HEXANE+	0.385	0.1679
TOTAL	100.000	4.2228
COMPRESSIBILITY FACTOR (1/Z)		1.0031
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)		1171.7
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)		1151.3
REAL SPECIFIC GRAVITY		0.6961

ANALYSIS RUN AT 14.73 PSIA & 60 DEGREES F

CYLINDER PRESSURE: 212 PSIG

DATE RUN: 9/17/92

ANALYSIS RUN BY: CHELLE DURBIN

(505) 325-6622



ANALYSIS NO. UN020019

WELL/LEASE INFORMATION

COMPANY: UNOCAL CORPORATION

WELL NAME: RINCON #175M

LINE PRESSURE: 249 PSIG

LOCATION:

SAMPLE TEMP.: 66 DEG.F

COUNTY: RIO ARRIBA, NM

WELL FLOWING: YES

FORMATION: DAKOTA

DATE SAMPLED: 9/9/92

SMPL SRC:

SAMPLED BY: KIVA MEASURING

REMARKS: TAKEN AT TEST UNIT

ANALYSIS

COMPONENT	MOLE%	GPM
NITROGEN	0.225	0.0000
CO2	1.220	0.0000
METHANE	87.784	0.0000
ETHANE	7.548	2.0191
PROPANE	1.823	0.5024
I-BUTANE	0.339	0.1109
N-BUTANE	0.429	0.1353
I-PENTANE	0.191	0.0699
N-PENTANE	0.126	0.0456
HEXANE+	0.315	0.1374
TOTAL	100.000	3.0206
COMPRESSIBILITY FACTOR (1/Z)		1.0028
BTU/CU.FT. (DRY) CORRECTED FOR (1/Z)		1125.6
BTU/CU.FT. (WET) CORRECTED FOR (1/Z)		1106.0
REAL SPECIFIC GRAVITY		0.6481

ANALYSIS RUN AT 14.73 PSIA & 60 DEGREES F

CYLINDER PRESSURE: 238 PSIG

DATE RUN: 9/10/92

ANALYSIS RUN BY: CHELLE DURBIN

ALLOCATION FORMULA
(BASED ON C-116)

<u>GAS PRODUCTION:</u>	Mesaverde Rate	408 MCFD
	Dakota Rate	<u>628</u> MCFD
	Total Rate	<u>1036</u> MCFD

Therefore,	Mesaverde	39%
	Dakota	61%

<u>OIL PRODUCTION:</u>	Mesaverde Rate	0 BOPD
	Dakota Rate	<u>2</u> BOPD
	Total Rate	<u>2</u> BOPD

Therefore,	Mesaverde	0%
	Dakota	100%

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



October 20, 1992

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. 175 M
1740' FNL, 1500' FWL
Section 20, T27N, R6W
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

A handwritten signature in dark ink, appearing to read "W. L. Irwin".

William L. Irwin
District Petroleum Engineer

WLI/DLD/df