

RINCON UNIT
PAYING WELL DETERMINATION
PARTICIPATING AREA APPLICATION

QUALIFIERS - PROD:

FRUITLAND COAL WELL # 274 DATE : 08/18/92 TIME : 10:39:16 DBS FILE : RESMGMT

SETUP FILE : FEDERAL SEQ NUMBER : 674

		_			
٠,	 -	 7	n	*	

CALCULATED DATA

ITEM	SCHEDULII	ng rates	SCHEDUL	E UNTIL	PROCEDURE	:	ULTIMATE	LAST	EFF. DECL	INIT. RATE	FINAL RATE
401 START	10/90										
406 GAS	5954.40	X M/M	08/95	AD	H/3.904	71.19	193.605	7/95	71.19	5954.	2625.
411 "	2624.80	250.00 M/M	X	YRS	EXP	5.00	749,415	6/41	5.00	2625.	249.
416 PRI/GAS	1.14	1.14 \$/M	TO	LIFE	FLAT	.00		6/41		1.140	1.140
421 OPC/T	250.00	250.00 \$/M	TO	LIFE	FLAT	.00		6/41		250.000	250.000
426 NET/WI	87.50	87.50 %	TO	LIFE	FLAT	.00		6/41		.875	.875
436 NET/NIC	87.50	87.50 %	TO	LIFE	FLAT	.00		6/41		.875	.875
446 NET/NIG	87.50	87.50 %	TO	LIFE	FLAT	.00		6/41		.875	.875
501 STX/DIL	3.75	3.75 %	TO	LIFE	PC	۵		9/90		.037	.037
502 STX/GAS	3.94	3.94 %	TO	LIFE	PC	.00		9/90		.039	.039
503 ATX	5.46	5.46 %	TO	LIFE	PC	.00		9/90		.055	.055
INVESTMENT		s & intangibli			PROCEDURE	Ē	TOTAL T&I	НТИОМ	RISK INV.	TOT. T&I&R	ESC. T&I&R
801 COMPL	206.07	.00 M\$N	10/90	AD			206.070	10/90		206.0	206.0
RESERVE PARAM	1ETERS	ITEM			ITEM						
201 LOSS N 203 CUMO, MB		CUMG, 1	MMF .00		CUML, MB						
PROJECT ASSUN	MPTIONS										
BASE DATE :	10/90	P.W. 1	DATE: 1	0/90	REPORT	DATE :	10/90				

OTHER:

OWNER:

RINCON UNIT
PAYING WELL DETERMINATION
PARTICIPATING AREA APPLICATION
FRUITLAND COAL
WELL # 274

.

DATE : 08/18/92
TIME : 10:39:16
DBS FILE : RESMGMT
SETUP FILE : FEDERAL
SEQ NUMBER : 674

RESERVES AND ECONOMICS

AS OF DATE: 10/90

MO-YR	PRODUCTION	PRODUCTION	INTEREST	INTEREST	OIL	GAS	REVENUE TO INTEREST	EXPENSES	INVESTMENT	BEFORE FIT	NET INCOME	NET INCOME
9-91 9-92 9-93 9-94 9-95 9-96 9-97 9-98	.000 .000 .000 .000	41.711 36.946 34.053 32.027	.000 .000 .000 .000 .000	36.497 32.328 29.796 28.023 26.637 25.306	.00.00.00	1.140 1.140 1.140 1.140 1.140	39.967 35.402 32.630 30.688 29.170 27.712	4.807 4.558 4.407 4.301 4.218	.000 .000 .000 .000	35.160 30.844 28.223 26.387 24.952 23.574	-124.758 -93.914 -65.691 -39.304 -14.351 9.223	-130.356 -105.077 -83.728 -65.303 -49.220 -35.192
9-99 9-00	.000 000.	26.103 24.798	.000		.00				.000			
9-01 9-02 9-03 9-04 9-05	.000	22.382 21.263 20.201	.000 .000 .000 .000	19.584 18.605 17.675	.00. 00. 00. 00.	1.140 1.140 1.140	21.446 20.374 19.356	3.858 3.796 3.737 3.682 3.629	.000	17.650 16.637 15.674	108.714 125.351 141.025	12.114 18.241 23.570
S TOT AFTER	.000	442.917 263.559	.000		.00			62.547 79.414				28.202 57.093
TOTAL	.000	706.476	.000	618.167	.00	1.140	676.945	141.961	206.070	328.913	328.913	57.093
GROSS GROSS GROSS NET RE NET RE	WELLS ULT., MB & CUM., MB & RES., MB & ES., MB & EVENUE, M\$ AL PRICE, \$ AL N.I., PC	MMF MMF MMF	.000 .000 76 .000 6 .000 76	1.0 06.476 .000 06.476 18.167 04.710 1.140	DISCO UNDIS DISCO UNDIS DISCO RATE-	DUNTED PA SCOUNTED DUNTED NA -DF-RETU	PAYOUT, YR AYOUT, YRS. NET/INVEST. ET/INVEST. RN, PCT.	10.37	1 1 2 2 3 4 8 8	5.00 :: 5.00 :: 5.00 :: 5.00 :: 5.00 :: 6.00 :: 6.00 :: 6.00 :: 6.00 :: 6.00 :: 6.00 :: 6.00 ::	.W., M\$	

 $(x_1, \dots, x_n) \in \mathbb{R}^{n \times n} \times \mathbb{R$

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

UNOCAL

September 8, 1992

Farmington District

RECEIVED

SEF 2 1992

Bureau of Land Management Minerals Division 1235 La Plata Hwy Farmington, New Mexico 87401 Attn: Duane Spencer

Chief of Reservoir Management

OIL CONSERVATION DIVISION

Re:

Application for the Initial Basin Fruitland Coal Gas Participating Area "B" Rincon Unit, Rio Arriba County,

New Mexico

Gentlemen:

Enclosed please find two copies of the Application for Approval for the Initial Basin Fruitland Coal Gas Participating Area "B" in the Rincon Unit, Rio Arriba County, New Mexico. Enclosed also are geologic and engineering data in support of this application.

Union Oil Company of California, as operator of the Rincon Unit, respectfully requests your approval of this application.

Very Truly Yours, Union Oil Company of California DBA UNOCAL

Widi

William L. Irwin
District Petroleum Engineer

xc: Commissioner of Public Lands P.O. Box 1148 Santa Fe, New Mexico 87504-1148

> Oil Conservation Division New Mexico Department of Energy & Minerals P.O. Box 2088 Santa Fe, New Mexico 87504-2088

APPLICATION FOR THE INITIAL BASIN FRUITLAND COAL GAS PARTICIPATING AREA B - RINCON UNIT - RIO ARRIBA COUNTY, NEW MEXICO

Duane Spencer
Chief of Reservoir Management
Bureau of Land Management - Minerals Division
1235 La Plata Highway
Farmington, New Mexico 87401

Union Oil Company of California, as unit operator of the Rincon Unit, respectfully submits for your approval the following described lands to constitute the initial participating area B for the Basin Fruitland Coal Gas producing formation:

TOWNSHIP 27 NORTH, RANGE 7 WEST, N.M.P.M.

Section 35: West/2

Containing 320 acres, more or less

In support of this application, and in addition to the geologic and engineering reports, the following are attached:

- 1) Structure Top Basin Fruitland Coal Gas Formation
- 2) Basin Fruitland Coal Gas Formation Gross Isopach
- 3) Type Log
- 4) Land Map Rincon Unit
- 5) Rincon Unit #292 Fruitland Coal Gas Production Decline Curve
- 6) Rincon Unit #292 Fruitland Coal Gas Economics
- 7) Schedule of Lands and Working Interest Ownership in the initial Basin Fruitland Coal Gas Participating Area B (Participation Allocation Formula)
- 8) Applicant's Statement and Affidavit

This application is predicated on nine months of actual production history from the Rincon Unit #292 well which first delivered on September 6, 1990.

Applicant respectfully requests your approval of the hereinabove selection of lands to constitute the initial Basin Fruitland Coal Gas Formation Participating Area B, to be effective the date of first sales September 6, 1990 as referenced in the "Agreement for the Development and Operation of the Rincon Unit Area": Article 11, "Participation After Discovery", (Rincon Unit Agreement June 1, 1951).

Dated this 8th day of September, 1992.

William L. Irwin

District Petroleum Engineer Union Oil Company of California Well Summary

Well Name: Rincon Unit #292

Location: 2265'FSL, 1555'FWL, Sec 35, T27N, R7W

Elevation: 6586' GL Total Depth: 2949' Lease Number: SF-080385

Pool/Formation: Basin Fruitland Coal Gas

Spud Date: 4-22-90

Completion Date: 5-12-90 1st Delivery Date: 9-6-90

Perf'd Interval: 2866-2873, 2880-2895.

Geologic Summary

The Fruitland Formation was deposited in a coastal plain environment landward of the Pictured Cliffs strandline. It consists of shales, siltstones, sandstones and coal. The coals were deposited in low-lying areas such as lagoons, swamps and bayous behind the barrier islands, bars, and beaches of the Pictured Cliffs sandstone. The coal is best developed in the basal Fruitland, and extends aerially over the entire basin with the exception of a small region on the eastern margin. Net coal varies from 20 to 80 feet thick with the thickest sections being in the north-central part of the basin. The Rincon Unit coals range in thickness from 30 to 70 feet and in some areas of the unit are split into an upper and a basal coal zone. The coal itself is considered High Volatile C Bituminous in rank. Regional dip is 1 to 2 degrees to the northeast, and structure does not appear to be a factor in natural gas entrapment anywhere in the area of the unit.

Engineering Summary

The Rincon Unit #292 was drilled and completed by Union Oil Company of California as a Basin Fruitland Coal Gas producer in 1990. Surface pipe measuring 8-5/8" was set at 227 feet and cemented with 300 sacks to surface. Production casing measuring 4-1/2" was then set at 2949 feet and cemented in two stages to surface with 720 sacks cement. After drilling out to PBTD of 2944' the lower coal zone was perforated from 2866'- 2895' with 4 shots per foot and fracture stimulated with 206,140# 20/40 sand, 6700# 100 mesh sand and 56,700 gallons crosslinked gel water. The recorded initial potential and 24 hour shut-in pressure were 376 MCFD and 580 psi, respectively. The well was first delivered to the El Paso Natural Gas pipeline system on September 6, 1990. The current deliverability for the well against a 150# line pressure is 119 MCFD.

Volumetrics calculated on the below-listed parameters yields a recoverable gas volume of 0.39 Bcf.

Net Pay: 46 ft Drainage area: 160 acres Gas Content: 158 SCF/ton

Tonnage Factor: 1982 tons/acre-feet (from density log)

Recovery Factor: 17%

Economics

Economics are attached. Given the investment cost to complete this well discounted payout should occur in 5.39 years with an 18.47% rate of return. Compared with net total revenue this Basin Fruitland Coal Gas well produces in economic quantities above operating costs.

STATE OF NEW MEXICO

COUNTY OF SAN JUAN

APPLICANT'S STATEMENT AND AFFIDAVIT

BEFORE ME, the undersigned authority on this day personally appeared William L. Irwin, District Petroleum Engineer, known to me to be the person whose name is subscribed to this instrument, who, having been by me first duly sworn, upon oath states as follows:

- 1) That this Statement and Affidavit is made concerning this application for the initial Basin Fruitland Coal Gas participating area B in the Rincon Unit, in the W/2 Section 35, T27N-R7W, comprising 320 acres.
- 2) That to the best of his information, knowledge and belief, the information supplied is true.
- 3) That notice of this application has been mailed or delivered to the Rincon Unit working interest owners in accordance with the unit agreement and the unit operating agreement.
- 4) That he certifies that the information and data contained in the application are true and correct and that all copies of records or summaries of such records relied upon in the application are true, correct and authentic copies of documents on file in the offices of Union Oil Company of California.
- Union Oil Company of California.

 5) That he is of lawful age, that he is a responsible official of Union, that he is duly authorized to make this Statement and Affidavit on behalf of Union, that he has knowledge of the facts contained herein, that this Statement and Affidavit is true and correct, and that he adopts the allegations herein as his sworn statement.

SUBSCRIBED AND SWORN TO before me, this undersigned authority, on this day of $80 (99)$	i .
Molary Public in and for	

My Commission Expires: $\frac{1}{190}$

San Juan County, New Mexico

SCHEDULE OF LANDS AND **WORKING INTEREST OWNERSHIP** IN INITIAL BASIN FRUITLAND COAL PARTICIPATING AREA "B"

RINCON UNIT

Tract No. 1 (Unit Tract No. 19)
(Acreage in Unit Tract: 2645.09 ac.)

LESSOR:

SERIAL NO.:

ACREAGE DESCRIPTION:

U.S.A. SF-080385

Township 27 North, Range 7 West Section 35: Lots 3,4,5,6,11,12, 13,14 (W/2)

WORKING INTEREST OWNER(S):

Union Oil Company of California - 83.33% Meridian Oil, Inc. - 16.67%

ACREAGE INCLUDED IN INITIAL BASIN FRUITLAND COAL PARTICIPATING AREA "B":

338.04 acres

PERCENTAGE OF FRUITLAND COAL FORMATION PRODUCTION ALLOCATED

TO THIS TRACT:

100%

SUMMARY OF LANDS INCLUDED IN INITIAL FRUITLAND COAL PARTICIPATING AREA "B"

<u>Lease</u>	<u>Unit Tract No.</u>	<u>Acreage</u>	<u>Percentage</u>
U.S.A. SF-080385	19	338.04	100.00%

SUMMARY OF WORKING INTEREST OWNERSHIP INITIAL BASIN FRUITLAND COAL PARTICIPATING AREA "B"

WORKING INTEREST OWNER	WORKING INTEREST PERCENTAGE
Union Oil Company of California	5.00000%
San Juan-Unocal General Partnership	71.82091%
Wiser Oil Company	2.54378%
H. R. Stasney & Sons Company	1.30259%
Meridian Oil Inc., as Agent	10.59527%
Meridian Oil Inc., Individually	1.55217%
Jones Company, Ltd.	1.30259%
Conoco, Inc.	2.29005%
Amoco Production Company	2.29004%
Beryl B. McMahan	0.65130%
Beryl B. McMahan, Trustee of the Thomas V. McMahan Trust	0.32565%
Beryl B. McMahan, Trustee of the Gwin M. Lewis Trust	0.32565%
TOTAL	100.00000%