

Gas Vol Prod (Msct)

Wed Sep 02 14:42:37 1992

RINCON UNIT PAYING WELL DETERMINATION PARTICIPATING AREA APPLICATION FRUITLAND COAL WELL # 292

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> DATE : 08/17/92 TIME : 14:48:13 . DBS FILE : RESMGMT SETUP FILE : FEDERAL SEQ NUMBER : 673

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ITEM	SCHEDUL II	NG RATES	SCHEDUL	E UNTIL	PROCEDURE		ULTIMATE	LAST	EFF. DECL	INIT. RATE	FINAL RATE
401 START	09/90										
406 GAS 411 "	14903.00 956.80	X M/M 250.00 M/M	09/98 X	ad Yrs	H/2.443 EXP	99.00 5.00	359.634 524.991			14903. 957.	2353 . 250.
416 PRI/GAS	1.14	1.14 \$/M	то	LIFE	FLAT	.00		10/24		1.140	1.140
421 OPC/T	250.00	250.00 \$/M	то	LIFE	FLAT	.00		10/24		250.000	250,000
426 NET/WI	87,50	87.50 %	то	LIFE	FLAT	.00		10/24		.875	.875
436 NET/NIC	87.50	87.50 %	TO	LIFE	FLAT	.00		10/24		.875	.875
446 NET/NIG	87.50	87.50 %	TO	LIFE	FLAT	.00		10/24		.875	.875
501 STX/DIL	3,75	3.75 %		LIFE		0		8/90		.037	.037
502 STX/GAS	3.94	3.94 %	то	LIFE	PC	.00		8/90		.039	.039
503 ATX	5.46	5.46 %	TO	LIFE	PC	.00		8/90		.055	.055
INVESTMENT	TANGIBLE	5 & INTANGIBLES	TIME		PROCEDURE		total t&i	Month	RISK INV.	TOT. T&I&R	ESC. T&I&R
801 COMPL	202.43	.00 M\$N	09/90	AD		· · · ·	202.429	9/90		202.4	202.4
Reserve Para	METERS	ITEM			ITEM						
201 LOSS 203 CUMD, MB		CUMG, MMF	.00		CUML, MB						
PROJECT ASSU	MPTIONS							÷			
BASE DATE : QUALIFIERS -		P.W. DAT D :		7/90 WNER :	REPORT		9/90 THER :				

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RESERVES AND ECONOMICS

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AS OF DATE: 9/90

	PRODUCTION	PRODUCTION	INTEREST	INTEREST	OIL	GAS	REVENUE TO INTEREST	EXPENSES	INVESTMENT	BEFORE FIT		NET INCOME
8-91	.000	90.997	.000	79.622	.00	1.140	87.193	7.386	202.429	-122.622	-122.622	-125.252
8-92	.000	55.069	.000	48,186	.00	1.140	52.767	5.506	.000	47.261	-75.360	-83.244
8-93	.000	44.780	.000	39.182	.00	1.140	42.908	4.968	.000	37,940	-37.420	-52.135
8-94	.000	39.095	.000	34.208	.00	1.140	37.461	4,670	.000	32.791	-4.630	-27.323
8-95	.000	35.321	.000	30,906	.00	1.140	33.845	4.473	.000	29,372	24.742	-6.809
8-96	.000	32,567	.000	28.496	.00	1.140	31,206	4.329	.000	26.877	51.619	10.518
8-97	.000	30.437	.000	26.632	.00	1.140	29.164	4.217	.000	24,947	76,566	25,364
8-98	,000	28.721	.000	25.131	.00	1.140	27.520	4.128	.000	23.393	99.959	38.214
8-99	.000	11.192	,000	9,793	.00	1.140	10.724	3.211	.000	7.514	107.473	42.024
8-00	.000	10.632	.000	9.303	.00	1.140	10.188	3,181	.000	7.006	114.479	45.304
8-01	.000	10,100	.000	8.838	.00	1.140	9.678	3, 153	.000	6.525	121.004	48.124
8-02	.000	9.595	.000	8.396	.00	1.140	9.194	3.127	.000	6.067	127.071	50.545
8-03	.000	9.115	.000	7.976	.00	1.140	8.734	3.102	.000	5,632	132.703	52.619
8-04	.000	8.659	.000	7.577	.00	1.140	8.297	3.078	.000	5.219	137.922	54.394
8-05	.000	8.226	.000	7.198	.00	1.140	7.882	3.055	.000	4.827	142.749	55.909
s tot	.000	424.507	.000	371.444	.00	1.140	405,762	61.584	202.429	142.749	142.749	55.909
AFTER	.000	97.799	.000	85.574	.00	1.140	93.711	55.429	.000	38,282	181.030	63.476
TOTAL	.000	522.306	.000	457.018	.00	1.140	500.473	117.013	202.429	181.030	181.030	63.476

	OIL	GAS			P.W. %	P.₩., M\$
		*				
GROSS WELLS	.0	1.0	LIFE, YRS.	34.17	5.00	98.509
GROSS ULT., MB & MMF	.000	522.306	DISCOUNT %	8.33	10.00	49.361
GROSS CUM., MB & MMF	.000	.000	UNDISCOUNTED PAYOUT, YRS.	4.16	15.00	16.472
GROSS RES., MB & MMF	.000	522.306	DISCOUNTED PAYOUT, YRS.	5.39	20.00	-7,272
NET RES., MB & MMF	.000	457.018	UNDISCOUNTED NET/INVEST.	1.89	25.00	-25.310
NET REVENUE, M\$.000	521.000	DISCOUNTED NET/INVEST.	1.31	30.00	-39.518
INITIAL PRICE, \$.000	1.140	RATE-OF-RETURN, PCT.	18.47	40.00	-60.525
INITIAL N.I., PCT.	00,000	87,500	INITIAL W.I., PCT.	87,500	60.00	-86.385
					80.00	-101.790
					100.00	-112.093

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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

9-29-92-D-Vait letter ChEy



September 8, 1992 -

Farmington District

RECEIVED

SFP 28 P

OIL CONSERVATION DIVISION

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

> Re: Application for the Initial Basin Fruitland Coal Gas "" Participating Area "A" +hruE 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 "A" 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 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 A - 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 the initial participating area A for the Basin Fruitland Coal Gas producing formation:

TOWNSHIP 27 NORTH, RANGE 6 WEST, N.M.P.M.

Section 18: North/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 #252 Fruitland Coal Gas Production Decline Curve
- 6) Rincon Unit #252 Fruitland Coal Gas Economics
- 7) Schedule of Lands and Working Interest Ownership in the Basin Fruitland Coal Gas Participating Area A (Participation Allocation Formula)
- 8) Applicant's Statement and Affidavit

This application is predicated on nine months of actual production history from the Rincon Unit #252 well which first delivered on August 24, 1990.

Applicant respectfully requests your approval of the hereinabove selection of lands to constitute the initial Basin Fruitland Coal Gas Formation Participating Area A, to be effective the date of first sales, August 24, 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

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William L. Irwin District Petroleum Engineer Union Oil Company of California

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 #252 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 226 feet and cemented with 200 sacks to surface. Production casing measuring 4-1/2" was then set at 3240 feet and cemented in two stages to surface with 745 sacks cement. After drilling out to PBTD of 3193', the upper and lower coal zones were perforated from 3067' to 3193' with 4 shots per foot and fracture stimulated with 390,000# 20/40 sand, 12,000# 100 mesh sand and 103,000 gallons cross-linked gel water. The recorded initial potential and 24 hour shut-in pressure were 311 MCFD and 550 psi, respectively. The well was first delivered to the El Paso Natural Gas pipeline system on August 24, 1990. The current deliverability for the well against a 150# line pressure is 101 MCFD.

Volumetrics calculated on the below-listed parameters yields a recoverable gas volume of 0.51 Bcf.

Net Pay: 51 ft Drainage area: 160 acres Gas Content: 179 SCF/ton Tonnage Factor: 2064 tons/acre-feet (from density log) Recovery Factor: 17 %

<u>Economics</u>

Economics are attached. Given the investment cost to complete this well the discounted payout should occur in 3.85 years with a 26.87% 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:

by me first duly sworn, upon oath states as follows: 1) That this Statement and Affidavit is made concerning this application for initial Basin Fruitland Coal Gas Participating Area A in the Rincon Unit, in the N/2 Section 18, T27N-R6W, comprising 320.00 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.

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 $8^{4}/9^{4}$.

lelino YMPHE)

Notary Public in and for San Juan County, New Mexico

My Commission Expires:

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

RINCON UNIT

<u>Tract No. 1 (Unit Tract No. 21)</u> (Acreage in Unit Tract: 600.00 ac.)

LESSOR: SERIAL NO.: ACREAGE DESCRIPTION: WORKING INTEREST OWNER(S): ACREAGE INCLUDED IN INITIAL BASIN EPULITIAND COAL

BASIN FRUITLAND COAL PARTICIPATING AREA "A":

PERCENTAGE OF FRUITLAND COAL FORMATION PRODUCTION ALLOCATED TO THIS TRACT:

75.31%

240.00 acres

<u>Tract No. 2 (Unit Tract No. 17)</u> (Acreage in Unit Tract: 157.76 ac.)

LESSOR: U.S.A. SERIAL NO.: SF-079404-A ACREAGE DESCRIPTION: Township 27 North, Range 6 West Section 18: Lots 1 and 2 WORKING INTEREST OWNER(S): El Paso Natural Gas Company - 100% ACREAGE INCLUDED IN INITIAL BASIN FRUITLAND COAL PARTICIPATING AREA "A": 78.68 acres PERCENTAGE OF FRUITLAND COAL FORMATION PRODUCTION ALLOCATED TO THIS TRACT: 24.69%

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

<u>Lease</u>	<u>Unit Tract No.</u>	<u>Acreage</u>	<u>Percentage</u>
U.S.A. NM-013654	21	240.00	75.31%
U.S.A. SF-079404-A	17	78.68	<u>24.69</u> %
		318.68	100.00%

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

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	100.0000%