

BACKGROUND

Production in the Rio Puerco Field, Sandoval County, New Mexico, occurs in the Gallup-Mancos member of the Mancos Shale. This formation is characterized as a fractured, silty, interbedded formation with predominant fracturing occurring along the flanks of the localized structures.

Volumetric reserve estimates are considered to be invalid due to the lack of matrix porosity and the degree of fracturing through the productive interval. Reserves, however, have been based upon well performance of each well during the last six month period and projecting this information to the economic limit.

Recent well tests and other pertinent well data are shown below:

	<u>#2</u> <u>Federal 22-1</u>	<u>#3</u> <u>Federal 24-3</u>	<u>#1</u> <u>Federal 24-11</u>
Production Period	24 hours	24 hours	24 hours
Test Date	10/29/85	10/31/85	10/30/85
Oil Rate	2.0 BOPD	2.0 BOPD	2.0 BOPD
Gas Rate	13 MCFD	16 MCFD	5.0 MCFD
GOR	6,500	8,000	2,500
Drilling & Completion Cost	\$520,000	\$560,000	\$490,000
Estimated Gas Reserves	Minimal	Minimal	Minimal
Champlin W.I.	35.75%	50.0%	50.0%
Champlin R.I.		41.25%	41.25%

	<u>#2</u> <u>Federal 24-2</u>	<u>#1</u> <u>Federal 44-2</u>
Production Period	24 hours	24 hours
Test Date	10/28/85	10/27/85
Oil Rate	32 BOPD	32 BOPD
Gas Rate	37 MCFD	26 MCFD
GOR	1,160	800
Drilling & Completion Cost	\$555,000	\$600,000
Estimated Gas Reserves	10 MMCF	8 MMCF
Champlin W.I.	50.0%	50.0%
Champlin R.I.	41.25%	41.25%

CHAMPLIN PETROLEUM COMPANY
RIO PUERCO FIELD
SANDOVAL COUNTY, NEW MEXICO

EVALUATION FOR FEASIBILITY OF MARKETING GAS

It is determined that there is no economically feasible alternative to venting the gas at the Rio Puerco Field. Three of the existing wells are near the economic limit and to prevent premature abandonment, permission is requested to vent the gas. A brief discussion of the alternatives and economics of each is as follows:

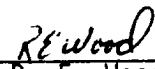
1. Sales via Gas pipeline:

Sales via gas pipeline is unfeasible due to the 12-15 miles of line that would have to be installed. The wells produce 5-37 MCFD and have insufficient reserves at current prices, to cover the cost of installation of the line.

2. Installation of a small gas plant to strip liquids:

This type of plant would cost + \$300,000. Reserves are insufficient to cover initial costs and increased operating expenses would affect premature abandonment. In addition, there would still be measurable gas to vent.

In conclusion, there is no reasonable alternative to venting our produced gas at this time. Champlin will, however, continue to investigate alternatives as they may be presented to us.



R. E. Wood
Petroleum Engineer

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Company CHAMPLIN PETROLEUM COMPANY Formation Mancos - Gallup
Well #1 FEDERAL 44-2 County SANDOVAL
Field Rio Puerco Field State NEW MEXICO

HYDROCARBON ANALYSIS OF: SEPARATOR GAS

<u>Component</u>	<u>Mol Percent</u>	<u>GPM</u>
Carbon Dioxide	.07	
Nitrogen	8.70	
Methane	57.46	
Ethane	10.49	2.789
Propane	13.75	3.762
iso-Butane	1.75	.569
n-Butane	3.71	1.163
iso-Pentane	.78	.284
n-Pentane	.65	.234
Hexanes Plus	2.64	1.131
	<u>100.00</u>	<u>9.932</u>

Calculated gas gravity (air = 1.000) = .954

Calculated gross heating value = 1479 BTU per
cubic foot of dry gas at 14.65 psia and 60°F.

Collected at 36 psig and 76 °F.

Date Sampled : 8-16-84

Cylinder Number: 868