## SOUTHWESTERN LABORATORIES

## FORT WORTH - DALLAS - HOUSTON - MIDLAND - BEAUMONT-TEXARKANA

## CONSULTING, ANALYTICAL CHEMISTS (

_	Midland	_ Texas6:	-21-79 Cit (20)	Nσ <u>C-1950-</u> G	VIOIOII
Report of tests on	Gas			•	
То	Bennett Petrole	m Corp.	•	Date Rec'd.	5-30/6-6-79
Received from					
Identification Mark	s Phelps Dodge Lea	ase, Well No	o. 3-Y		
Test Conditions:	:				
			Well 3-Y	<u>We</u>	11 3
Observed 18 hr.	shut-in pressure		7.2" water (11.26 psia)		2" water 1.26 psia)
Reported shut-in	pressure, 11-77		Approx. 30 oz/ii	n. <sup>2</sup> Ap	prox. 35 oz/in. <sup>2</sup>
Stabalized flow, 0.75" orifice, 2" tester.			0.20" water (11.007 psia)		20" water 1.007 psia)
Stabalized Flow	Rate at 0.2" wate	r (0.75" or	ifice) 5770 MSFCD	5.7	70 MSFCD
Vacuum Test	,	,	4.0" Mercury (9.036 psia)		*****
Duration of Vacu	um Test	, 	51 hrs.		•

## Gas Production:

30 NSCFD appears to be a reasonable estimate of production at 4.0 inches of mercury vacuum. This estimate was made by extrapolating the plot of, 1/Test hours vs. declining production rate, to zero. (Petroleum Production Handbook).

By the equation  $Q = C(P_c^2 - P_c^2)^n$  it is estimated that 7.0 inches of Hg vacuum would produce 40 MSCTD and 50 MSCTD at 10.0 inches of mercury. The assumption that the reservoir is of a reasonable size has to be made for these estimates to have any validity. No estimate of reserves can be made from the low pressure test data available.

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Lab. No. 43032

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