

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE July 28, 1977

Operator El Paso Natural Gas Company		Lease San Juan 27-4 Unit #16-A	
Location NW 17-27-04		County Rio Arriba	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 4 1/2	Set At: Feet 6110'	Tubing: Diameter 2 3/8	Set At: Feet 6076'
Pay Zone: From 5207	To 6072	Total Depth: 6110	Shut In 7-17-77
Stimulation Method Sandwater Frac		Flow Through Casing	Flow Through Tubing XX

Meter Choke Size, Inches 4" M.R. orifice plate 2.500		Meter Choke Constant: C 32.64		Well tested through 3/4" variable choke	
Shut-In Pressure, Casing, PSIG --	+ 12 = PSIA --	Days Shut-In 11	Shut-In Pressure, Tubing PSIG 1050	+ 12 = PSIA 1062	
Flowing Pressure: P PSIG M.R. 138 W.H. 350	+ 12 = PSIA M.R. 150 W.H. 362		Working Pressure: P _w PSIG Calc.	+ 12 = PSIA 660	
Temperature: T = 57 °F F _t = 1.003	n = .75		F _{pv} (From Tables) 1.041	Gravity .670 F _g = 1.222	

$$\text{CHOKE VOLUME} = Q = C \times P_i \times F_t \times F_g \times F_{pv}$$

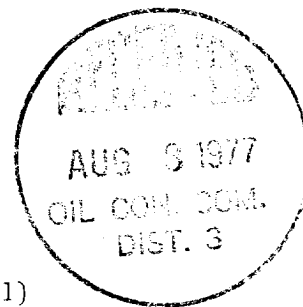
$$Q = \text{Calculated from orifice meter readings} = 3669 \text{ MCF/D}$$

$$\text{OPEN FLOW} = Aof = Q \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$$

$$Aof = Q \left(\frac{1127844}{692244} \right)^n = (3669)(1.6293) = .75 (3669)(1.4421)$$

$$Aof = 5291 \text{ MCF/D}$$

Note: Well produced 13 Bbl's of 63° API gravity oil and vented 390 MCF of gas to atmosphere during test.



TESTED BY D. Howell

WITNESSED BY

C. R. Wagner
Well Test Engineer