

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE Aug. 13, 1979

Operator El Paso Natural Gas Company		Lease Mudge #52	
Location NE 21-31-11		County San Juan	State New Mexico
Formation Pictured Cliff		Pool Aztec	
Casing: Diameter 2 7/8	Set At: Feet 2685'	Tubing: Diameter No Tubing	Set At: Feet
Pay Zone: From 2514	To 2632	Total Depth: 2660	Shut In 7-17-79
Stimulation Method Sand Water Frac		Flow Through Casing XX	Flow Through Tubing

Choke Size, Inches .750	Choke Constant: C 12.365	Tubingless Completion	
Shut-In Pressure, Casing, PSIG 744	+ 12 = PSIA 756	Days Shut-In 11	Shut-In Pressure, Tubing PSIG No Tubing
Flowing Pressure: P PSIG 40	+ 12 = PSIA 52	Working Pressure: P _w PSIG Calculated	+ 12 = PSIA 98
Temperature: T = 54 °F	n = 1.0058	F _{pv} (From Tables) 1.003	Gravity .60 F _g = 1.000

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

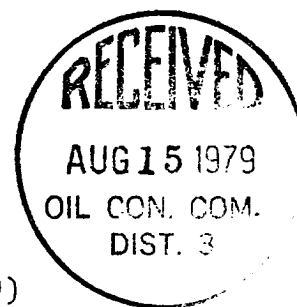
$$Q = 12.365 (52) (1.0058) (1.003) (1.000) = 649 \text{ MCF/D}$$

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

$$Aof = \left(\frac{571536}{561925} \right)^n = 649 (1.0171)^{.85} = (1.0145) (649)$$

$$Aof = 658 \text{ MCF/D}$$

NOTE: Well Blew Medium mist of water Throughout the Test.
Used 95 MCF of gas during Test.

TESTED BY Carl Rhames

WITNESSED BY _____

H. E. M. O'Reilly
Well Test Engineer