

OPEN FLOW TEST DATA

DATE 8-8-77

Operator El Paso Natural Gas Company		Lease Barnes #2-A	
Location NW 22-32-11		County San Juan	State New Mexico
Formation Pictured Cliffs		Pool Blanco PC Extension	
Casing: Diameter 4 1/2	Set At: Feet 5848'	Tubing: Diameter 1 1/4	Set At: Feet 3274'
Pay Zone: From 3221	To 3254	Total Depth: 5858'	Shut In 7-23-77
Stimulation Method Sandwater Frac		Flow Through Casing XX	Flow Through Tubing

Choke Size, Inches .750		Choke Constant: C 12.365			
Shut-In Pressure, Casing, PSIG 630	+ 12 = PSIA 642	Days Shut-In 16	Shut-In Pressure, Tubing PSIG 628	+ 12 = PSIA 640	
Flowing Pressure: P PSIG 195	+ 12 = PSIA 207		Working Pressure: P _w PSIG 201	+ 12 = PSIA 213	
Temperature: T = 68 °F	n = .85		F _{pv} (From Tables) 1.020	Gravity .670	F _g = .9463

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

$$Q = 12.365(207)(.9924)(.9463)(1.020) = 2452 \text{ MCF/D}$$

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

$$A_{of} = Q \left(\frac{412164}{366795} \right)^n = 2452(1.1237)^{.85} = 2452(1.1042)$$

$$A_{of} = 2707 \text{ MCF/D}$$

Note: Well blew 360 MCF of dry gas to the atmosphere during test.

TESTED BY D. Wright

WITNESSED BY

C. R. Wagner
Well Test Engineer

