

OPEN FLOW TEST DATA

DATE November 8, 1977

Operator El Paso Natural Gas Company		Lease Gartner #3A	
Location NW 33-30-08		County San Juan	State New Mexico
Formation Pictured Cliffs		Pool Blanco Ext.	
Casing: Diameter 4 1/2	Set At: Feet 5704'	Tubing: Diameter 1 1/4"	Set At: Feet 3142'
Pay Zone: From 3076	To 3120	Total Depth: 5704'	Shut In 10-23-77
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 815	+ 12 = PSIA 827	Days Shut-In 16	Shut-In Pressure, Tubing PSIG 815	+ 12 = PSIA 827	
Flowing Pressure: P PSIG 47	+ 12 = PSIA 59		Working Pressure: P _w PSIG 49	+ 12 = PSIA 61	
Temperature: T = 51 °F	n = 1.0088		F _{pv} (From Tables) 1.004	Gravity .650	F _g = .9608

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

$$Q = 12.365 (59) (1.0038) (.9608) (1.004) = \underline{710} \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{683929}{680208} \right)^n (1.0055)^{.85} = (710) = (1.0046) (710) = 713$$

$$Aof = \underline{713} \text{ MCF/D}$$

Note: Well blew dry gas throughout test.
Well vented 134 MCF gas to the atmosphere during test.

TESTED BY Ron Headrick

WITNESSED BY

[Signature]
Well Test Engineer