

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE 12-19-74

Operator El Paso Natural Gas Company		Lease San Juan 27-4 Unit #121	
Location 1020/N, 980/E, Sec. 18, T27N, R4W		County Rio Arriba	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 4.500	Set At: Feet 6104	Tubing: Diameter 2.375	Set At: Feet 6055'
Pay Zone: From 5416'	To 5458	Total Depth: PBD 6104' 6097'	Shut In 12-10-74
Stimulation Method Sandwater Frac		Flow Through Casing	Flow Through Tubing XX

Choke Size, Inches .750		Choke Constant: C 12,365			
Shut-In Pressure, Casing, PSIG 1155	+ 12 = PSIA 1167	Days Shut-In 9	Shut-In Pressure, Tubing PSIG 926	+ 12 = PSIA 938	
Flowing Pressure: P PSIG 313	+ 12 = PSIA 325		Working Pressure: P _w PSIG 792	+ 12 = PSIA 804	
Temperature: T = 59 °F	n = F _t = 1.0010		F _{pv} (From Tables) 1.033	Gravity .650	F _g = 0.9608

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

$$Q = 12.365(325)(1.0010)(0.9608)(1.033) = \underline{\quad 3992 \quad} \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{1361889}{715473} \right)^n = 3992(1.9035)^{.75} = 3992(1.6205)$$

$$Aof = \underline{\quad 6470 \quad} \text{ MCF/D}$$

Note: The well unloaded heavy slug of water in approximately 4 minutes. Then a light fog of water and distillate for the rest of the test.

TESTED BY D. Norton

WITNESSED BY _____

Soren W. Fairgill
Well Test Engineer