

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE Oct. 9, 1979

Operator El Paso Natural Gas Company		Lease Mudge 14A (PM)	
Location NW 21-31-11		County San Juan	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 4.500	Set At: Feet 5230	Tubing: Diameter 2 3/8	Set At: Feet 5111
Pay Zone: From 4523	To 5151	Total Depth: 5230	Shut In 9-27-79
Stimulation Method Sand Water Frac		Flow Through Casing	Flow Through Tubing XXX

Choke Size, Inches .750	Choke Constant: C 12.365			
Shut-In Pressure, Casing, PSIG ---	+ 12 = PSIA ---	Days Shut-In 12	Shut-In Pressure, Tubing PSIG 789	+ 12 = PSIA 801
Flowing Pressure: P PSIG 337	+ 12 = PSIA 349		Working Pressure: P _w PSIG Calc.	+ 12 = PSIA 693
Temperature: T = 54 °F	n = F _t = 1.006		F _{pv} (From Tables) 1.038	Gravity .650 F _g = .9608

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

$$Q = (12.365)(349)(1.006)(.9608)(1.038) = \underline{4330} \text{ MCF/D}$$

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

$$A_{of} = \left(\frac{641601}{161352} \right)^{.75} = (3.9764)^{.75} (4330) = (2.8159)(4330)$$

$$A_{of} = \underline{12,193} \text{ MCF/D}$$

NOTE: Well Unloaded a Slug of Water and Then Blew Dry Gas Throughout Test and Vented 411 MCF/D To the Atmosphere.

TESTED BY L. Fothergill

WITNESSED BY _____

C.R. Wagner
Well Test Engineer