

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE September 10, 1964

Operator Mr. B. B. Smith, El Paso Company		Lease El Arroyo State No. 4	
Location 99913, 217241, Sec. 6-67-6		County San Juan	State New Mexico
Formation Mudstone		Pool El Arroyo	
Casing Depth 1013	Surf Air Flow 1013	Total Depth 4330	Surf Air Flow 1013
Pay Zones From 4330	To 4330	Total Depth 4330	Shut-in 8-20-64
Stratification Method Shut-in Test		Flow Through Casing 11	Flow Through Tubing

Choke Size, Inches 0.75		Choke Constant: C 12.365			
Shut-in Pressure, Casing, PSIG 1013	+ 12 = PSIA 1025	Days Shut-in 1.5	Shut-in Pressure, Tubing, PSIG 1013	+ 12 = PSIA 1025	
Flowing Pressure: P 214	+ 12 = PSIA 226		Working Pressure: P _w 223	+ 12 = PSIA 235	
Temperature: T = 72 °F	n = .750		F _{pv} (From Table) 1.023	Gravity .835	F _g = .9359

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

$$Q = (12.365) (226) (.9357) (.9359) (1.023) = 2645 \text{ MCF/D}$$

$$\text{OPEN FLOW} = AOF = Q \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^{1/n}$$

$$AOF = \left(\frac{1,050,625}{975,400} \right)^{1/.75} = (1.0554)^{1.33} (2645) = (1.0413) (2645)$$

NOTE: Blew heavy mist of oil
and water vapor.

$$AOF = 2645 \text{ MCF/D}$$

TESTED BY J. B. Goodwin
 Checked H. D. McNally
 RELEASED BY H. D. McNally

Lewis D. Galloway
 Lewis D. Galloway

