

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADUAL COMPLETIONDATE March 11, 1957

Operator El Paso Natural Gas Company		Lease Lackey #8-B	
Location 890'S, 990'W, Sec. 20-28-9		County San Juan	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing Diameter 5 1/2" liner	Set At: Feet 3732-4480	Tubing Diameter 2"	Set At: Feet 4419
Pay Zone: From 4288	To 4424	Total Depth: 4483 - c/o - 4483	
Stimulation Method Sand Water Frac		Flow Through Casing	Flow Through Tubing X

Choke size, inches .750	Choke Constant, C 14.1605	7" set at 3810	
Shut-in Pressure, Casing, PSIG 1068	PSIA 1080	Days Shut-in 18	Shut-in Pressure, Tubing, PSIG 665 P.C.
Flowing Pressure, P, PSIG 274	PSIA 286	Working Pressure, Pw, PSIG Calculated	PSIA 589
Temperature, T, F 63	Flowing Pressure, P, PSIA .75	Epv (From Tables)	Gravity .710

CHOKE VOLUME: $Q = C \times P_1 \times F_1 \times F_g \times F_{pv}$

$$Q = 14.1605 \times 286 \times .9971 \times .9193 \times 1.035 = 3842 \text{ MCF/D}$$

$$\text{OPEN FLOW } A_{of} = Q \left(\frac{P_1^2 - P_2^2}{P_2^2 - P_w^2} \right)^n$$

$$A_{of} = \left(\frac{1,166,400}{819,479} \right)^n (1.4233)^{.75} \times 3842 = 1.303 \times 3842$$

Made water last two hours of test.

$$A_{of} = 5006 \text{ MCF/D}$$

By: K. C. McBridecc: E. J. Coel, Jr. (6)

By:

Tom Grant
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EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE February 28, 1957

Operator El Paso Natural Gas Company		Lease Lackey # 8-B	
Location 890°S, 990°W, Sec. 20-28-9		County San Juan	State New Mexico
Formation Pictured Cliff		Pool Aztec	
Casing Diameter 7"	Set At: Feet 3810	Tubing: Diameter 1 1/4"	Set At: Feet 2085
Pay Zone From 2040	To 2082	Total Depth: 4483 - Packer at 3786	
Stimulation Method Sand Water Frac		Flow Through Casing X	Flow Through Tubing

Choke Size, Inches .750	Choke Constant: C 14.1605			
Shut-In Pressure, Casing, PSIG 621	- 12 = PSIA 633	Days Shut-In 7	Shut-In Pressure, Tubing, PSIG 621	- 12 = PSIA 633
Flowing Pressure, Casing, PSIG 236	- 12 = PSIA 248		Working Pressure: P _w , PSIG 247	- 12 = PSIA 259
Temperature, °F 65	Grav. Sp. @ 60°F .85		Fpv (From Tables) 1.022	Gravity .641

Shut-in Mesa Verde 1032 psig

CHOKE VOLUME = $Q = C \times P_r \times F_v \times F_g \times F_{pv}$

$$Q = 14.1605 \times 248 \times .9952 \times .9682 \times 1.022 = 3458 \text{ MCF/D}$$

$$Q_{OPEN} = Q_{AOF} \left(\frac{P_r^2 - P_{wf}^2}{P_r^2 - P_{wi}^2} \right)^n$$

$$Q_{AOF} = \left(\frac{400,689}{333,608} \right)^n (1.201)^{.85} \times 3458 = 1.1685 \times 3458$$

$$Q_{AOF} = 4041 \text{ MCF/D}$$

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