

OPEN FLOW TEST DATA

Date: April 5, 1956

Operator: El Paso Natural Gas Company Lease: Allison # 10

Location: 1750'N, 990'W, Sec. 20-32-6 County: San Juan State: N.M.

Formation: Mesa Verde and Dakota Pool: Blanco Mesa Verde and Los Pinos Dakota

Casing: 5 1/2 " Set @ 7940 ' Tubing: 2 " Set @ 7170 '

Pay Zone: 5500 ' To: 5690 Mesa Verde ' Total Depth: 8042 '

Choke Size: 3/4 " Choke Constant = C = 14.1605

Stimulation Method: Sand Water Frac. Flow Through: Casing X Tubing X

Shut-In Pressure Casing: 2318 psig / 12 = 2330 psia (Shut-in 15 days)

Shut-In Pressure Tubing: 1154 psig / 12 = 1166 psia

Flowing Pressure: P : 14 casing psig / 12 = 26 psia

Working Pressure: P_w : 309 tubing psig / 12 = 321 psia

Temperature: T : 28 casing °F / 460 = 40 ° Absolute

F_{pv} (from tables) : 699 tubing Gravity 0.595 csg. 0.75 casing

1.004 casing 0.600 tbg. 0.75 tbg.

$$\text{Choke Volume} = Q = C \times P_t \times F_t \times F_g \times F_{pv}$$

$$Q = 14.1605 \times 26 \times .9896 \times 1.004 \times 1.004 = 367 \text{ casing (Dak.) MCF/D}$$

$$14.1605 \times 321 \times .9933 \times 1.0 \times 1.024 = 4623 \text{ tubing (M.V.)}$$

$$\text{Open Flow} = Aof = Q$$

$$Aof = 367$$

$$Aof = 4623$$

$$Aof =$$

$$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n$$

$$\left[\frac{5,428,900}{5,427,300} \right]^n$$

$$\frac{1,359,556}{854,035} = 1.591$$

$$= 367 \times 1.002 = 368 \text{ Dakota}$$

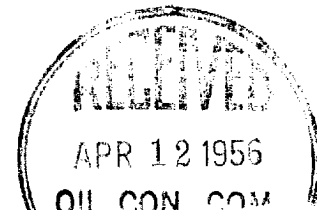
$$= 4623 \times 1.4170 = 6551 \text{ Mesa Verde}$$

$$\text{MCF/D Dakota (casing)}$$

$$\text{MCF/D Mesa Verde (tubing)}$$

Tested By: Tom Grant

Witnessed By: _____



L. D. Galloway
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