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Date: 5/31/72

Lease: Federal E 1

County: San Juan State: N.M.

Pool: Undesignated Chacra

Casing: 4.5 " Set @ 4796 ' Tubing: _____ " Set @ _____

Pay Zone: 4428 ' To: 4584 ' Total Depth:

Choke Size: 3/4" THC " Choke Constant - C - 12.365

Stimulation Method: _____ Flow Through: Casing _____ Tubing ☒ X

Shut-in Pressure Casing: 1016 psig $\div 12 =$ 1028 psia (Shut-in 8 days)

Shut-in Pressure Tubing: 1016 psig / 12 = 1028 psia

Flowing Pressure: $P : \frac{67}{12} \text{ psig} = 79 \text{ psia}$

Working Pressure: $P_w : \frac{392}{12} \text{ psig} = 404 \text{ psia}$

Temperature: T : 48 °F / 460 = 508 °Absolute

F_{pv} (from tables) : 1.008 Gravity Est. .620 n 75

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

$$12.365 \times 79 \times 1.0117 \times .9837 \times 1.008$$

$$Q = \frac{977}{\text{MCF/D}}$$

$$\text{Open Flow} - A_{of} = Q$$

$$A_{of} = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n$$

$$A_{of} = \left[\frac{1,056,784}{893,568} \right]^n = 1.1827 = 1.1340$$

Aof = 1108 MCF/D

Tested By: _____

Witnessed By: _____

Calculated By
GeoElectric, Inc.

