

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATA

DATE May 1, 1974

|                                               |                       |                                       |                     |
|-----------------------------------------------|-----------------------|---------------------------------------|---------------------|
| Operator<br>El Paso Natural Gas Company       |                       | Lease<br>San Juan 28-7 Unit #167 (PC) |                     |
| Location<br>1710/S, 1830/W, Sec. 5, T27N, R7W |                       | County<br>Rio Arriba                  | State<br>New Mexico |
| Formation<br>Pictured Cliffs                  |                       | Pool<br>So. Blanco                    |                     |
| Casing: Diameter<br>2.875                     | Set At: Feet<br>3460' | Tubing: Diameter<br>No Tubing         | Set At: Feet<br>--  |
| Pay Zone: From<br>3272'                       | To<br>3350'           | Total Depth: PBD<br>4330' 3443'       | Shut In<br>3-29-74  |
| Stimulation Method<br>Sandwater Frac          |                       | Flow Through Casing<br>XX             | Flow Through Tubing |

|                                       |                    |                                                       |                                             |                        |  |
|---------------------------------------|--------------------|-------------------------------------------------------|---------------------------------------------|------------------------|--|
| Choke Size, Inches<br>.750            |                    | Choke Constant: C<br>12.365                           |                                             | Tubingless Completion  |  |
| Shut-In Pressure, Casing, PSIG<br>846 | + 12 = PSIA<br>858 | Days Shut-In<br>33                                    | Shut-In Pressure, Tubing, PSIG<br>No Tubing | + 12 = PSIA            |  |
| Flowing Pressure: P, PSIG<br>150      | + 12 = PSIA<br>162 | Working Pressure: P <sub>w</sub> , PSIG<br>Calculated | + 12 = PSIA                                 | 208                    |  |
| Temperature:<br>T = 60 °F F = 1.0000  | n = .85            | F <sub>pv</sub> (From Tables)<br>1.014                | Gravity<br>.625                             | F <sub>g</sub> = .9798 |  |

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

$$Q = 12.365(162)(1.0000)(.9798)(1.0140) = 1990 \text{ MCF/D}$$

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

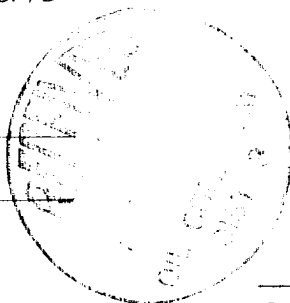
$$Aof = Q \left( \frac{736164}{692900} \right)^n = 1990(1.0624)^{.85} = 1990(1.0528)$$

$$Aof = 2095 \text{ MCF/D}$$

Note: The well produced a dry flow.

TESTED BY Rhames

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*Loren W. Fothergill*  
Loren W. Fothergill  
Well Test Engineer