

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATA

DATE **September 29, 1958**

|                                               |                             |                                           |                             |
|-----------------------------------------------|-----------------------------|-------------------------------------------|-----------------------------|
| Operator<br><b>El Paso Natural Gas</b>        |                             | Lease<br><b>San Juan 30-4 Unit No. 21</b> |                             |
| Location<br><b>850N, 987W; 22-30-4</b>        |                             | County<br><b>Rio Arriba</b>               | State<br><b>New Mexico</b>  |
| Formation<br><b>Pictured Cliffs</b>           |                             | Pool<br><b>East Blanco</b>                |                             |
| Casing Diameter<br><b>5-1/2</b>               | Set At: Feet<br><b>4587</b> | Tubing Diameter<br><b>2"</b>              | Set At: Feet<br><b>4535</b> |
| Pay Zone: From<br><b>4304</b>                 | To<br><b>4572</b>           | Total Depth:<br><b>4598 c/o 4578</b>      | Shut-in 9/12/58<br><b>X</b> |
| Stimulation Method<br><b>Sand Water Frac.</b> |                             | Flow Through Casing<br><b>X</b>           |                             |

|                                               |                                 |                                    |                                                       |
|-----------------------------------------------|---------------------------------|------------------------------------|-------------------------------------------------------|
| Choke Size, Inches<br><b>.75</b>              |                                 | Choke Constant: C<br><b>12.365</b> |                                                       |
| Shut-In Pressure, Casing, PSIG<br><b>1132</b> | PSIG - 12 - PSIA<br><b>1144</b> | Days Shut-in<br><b>13</b>          | Shut-In Pressure, Tubing, PSIG<br><b>1130</b>         |
| Flowing Pressure: P<br><b>100</b>             | PSIG - 12 - PSIA<br><b>112</b>  |                                    | Working Pressure: P <sub>w</sub> , PSIG<br><b>238</b> |
| Temperature: T<br><b>66</b>                   | F<br><b>.85</b>                 |                                    | Gravity<br><b>.596</b>                                |
|                                               |                                 |                                    | F <sub>pv</sub> (From Tables)<br><b>1.008</b>         |

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

$$Q = 12.365 \times 112 \times .9943 \times 1.004 \times 1.008 = 1394 \text{ MCF/D}$$

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

$$A_{of} = \left( \frac{1,308,736}{1,246,236} \right)^n (1.0501)^{.85} (1394) = (1.0425) (1394)$$

$$A_{of} = 1453 \text{ MCF/D}$$

TESTED BY **S. V. Roberts**

WITNESSED BY



*L. D. Galloway*  
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