

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE April 8, 1960

|                                                |                             |                                          |                                 |
|------------------------------------------------|-----------------------------|------------------------------------------|---------------------------------|
| Operator<br><b>El Paso Natural Gas Company</b> |                             | Lease<br><b>San Juan 27-5 No. 50 (M)</b> |                                 |
| Location<br><b>1650N, 1850E; 19-27-5</b>       |                             | County<br><b>Rio Arriba</b>              | State<br><b>New Mexico</b>      |
| Formation<br><b>Mesa Verde</b>                 |                             | Pool<br><b>Blanco</b>                    |                                 |
| Casing: Diameter<br><b>5-1/2</b>               | Set At: Feet<br><b>5547</b> | Tubing: Diameter<br><b>2</b>             | Set At: Feet<br><b>5396</b>     |
| Pay Zone: From<br><b>5306</b>                  | To<br><b>5410</b>           | Total Depth:<br><b>5543 o/o 5505</b>     | Shut In<br><b>3/29/60</b>       |
| Stimulation Method:<br><b>Sand Water Frac.</b> |                             | Flow Through Casing                      | Flow Through Tubing<br><b>X</b> |

|                                              |                                 |                                    |                                                  |                                 |                               |
|----------------------------------------------|---------------------------------|------------------------------------|--------------------------------------------------|---------------------------------|-------------------------------|
| Choke Size, Inches<br><b>.75</b>             |                                 | Choke Constant: C<br><b>12.365</b> |                                                  | 5-1/2 liner 3270 - 5547         |                               |
| Shut-In Pressure, Casing<br><b>1035 (PC)</b> | PSIG · 12 · PSIA<br><b>1047</b> | Days Shut-In<br><b>10</b>          | Shut-In Pressure, Tubing<br><b>1062 (MV)</b>     | PSIG · 12 · PSIA<br><b>1074</b> |                               |
| Flowing Pressure, C<br><b>133</b>            | PSIG · 12 · PSIA<br><b>145</b>  |                                    | Working Pressure: P <sub>w</sub><br><b>Calc.</b> | PSIG · 12 · PSIA<br><b>286</b>  |                               |
| Temperature:<br>T <b>60</b>                  | F <sub>g</sub> <b>1.000</b>     |                                    | F <sub>pv</sub> (From Tables)<br><b>1.012</b>    | Gravity<br><b>.627</b>          | F <sub>g</sub> = <b>.9798</b> |

Initial SIPT (PC) = 1036 psig  
Final SIPC (PC) = 1038 psig

Packer at 3343

CHOKE VOLUME  $Q = C \times P_r \times F_p \times F_g \times F_v$

$$Q = 12.365 \times 145 \times 1.000 \times .9798 \times 1.012 = 1778$$

MCF/D

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

$$A_{of} = \left( \frac{1153476}{1071680} \right)^n \quad 1.0763^{.75} \times 1778 = 1.0567 \times 1778$$

$$A_{of} = 1879 \quad \text{MCF/D}$$

TESTED BY **B. V. Roberts**

WITNESSED BY \_\_\_\_\_

*Lewis D. Galloway*  
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