

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATA

DATE August 13, 1963

|                                                  |                             |                                               |                                 |
|--------------------------------------------------|-----------------------------|-----------------------------------------------|---------------------------------|
| Operator<br><b>El Paso Natural Gas Company</b>   |                             | Lease<br><b>Brookhaven State No. 1 (OWNO)</b> |                                 |
| Location<br><b>1190'S, 1650'W, Sec. 16-31-10</b> |                             | County<br><b>San Juan</b>                     | State<br><b>New Mexico</b>      |
| Formation<br><b>Mesa Verde</b>                   |                             | Pool<br><b>Blanco</b>                         |                                 |
| Casing: Diameter<br><b>4.50</b>                  | Set At: Feet<br><b>5251</b> | Tubing: Diameter<br><b>2.375</b>              | Set At: Feet<br><b>5168</b>     |
| Pay Zone: From<br><b>4612</b>                    | To<br><b>5196</b>           | Total Depth:<br><b>5252</b>                   | Shut In<br><b>8-5-63</b>        |
| Stimulation Method<br><b>Sand/Water Frac.</b>    |                             | Flow Through Casing                           | Flow Through Tubing<br><b>X</b> |

|                                              |                         |                                    |                                                     |
|----------------------------------------------|-------------------------|------------------------------------|-----------------------------------------------------|
| Choke Size, Inches<br><b>0.75</b>            |                         | Choke Constant: C<br><b>12.365</b> |                                                     |
| Shut-In Pressure, Casing, PSIG<br><b>883</b> | 12 : PSIA<br><b>895</b> | Days Shut-In<br><b>8</b>           | Shut-In Pressure, Tubing PSIG<br><b>822</b>         |
| Flowing Pressure: P PSIG<br><b>111</b>       | 12 : PSIA<br><b>123</b> |                                    | Working Pressure: P <sub>w</sub> PSIG<br><b>373</b> |
| Temperature:<br>T <b>76</b> F                | Ft <b>.9850</b>         |                                    | Fpv (From Tables)<br><b>1.010</b>                   |
|                                              | <b>.750</b>             |                                    | Gravity<br><b>.650</b>                              |
|                                              |                         |                                    | Fg <b>.9608</b>                                     |

CHOKE VOLUME  $Q = C \times P_c \times F_c \times F_g \times F_{pv}$

$$Q = (12.365)(123)(.9850)(.9608)(1.010) = 1454 \text{ MCF/D}$$

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

$$Aof = \left( \frac{801,025}{652,800} \right)^n (1.2270)^{.75} (1454) = (1.1659)(1454)$$

NOTE: Blew slight mist. Slight amount of slugging.

$$Aof = 1695 \text{ MCF/D}$$

TESTED BY **Don Mortensen**

Calculated by:

**T. B. Grant, Jr.**



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