

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATA

DATE 8-16-73

|                                                 |                       |                              |                       |
|-------------------------------------------------|-----------------------|------------------------------|-----------------------|
| Operator<br>El Paso Natural Gas Company         |                       | Lease<br>Huerfano Unit # 244 |                       |
| Location<br>1000/S, 890/E, Sec 19, T-26N, R-10W |                       | County<br>San Juan           | State<br>New Mexico   |
| Formation<br>DAKOTA                             |                       | Pool<br>BASIN                |                       |
| Casing: Diameter<br>4 1/2"                      | Set At: Feet<br>6544' | Tubing: Diameter<br>2 3/8"   | Set At: Feet<br>6490' |
| Pay Zone: From<br>6352'                         | To<br>6496'           | Total Depth:<br>6558'        | Shut In<br>5-14-73    |
| Stimulation Method<br>Sand Water Frac           |                       | Flow Through Casing<br>X     | Flow Through Tubing   |

|                                                |                                   |                            |                                       |                                       |           |
|------------------------------------------------|-----------------------------------|----------------------------|---------------------------------------|---------------------------------------|-----------|
| Choke Size, Inches<br>4" M.R.; 2.750" Plate    |                                   | Choke Constant: C<br>41.10 |                                       | Tested through a 3/4" Variable choke. |           |
| Shut-In Pressure, Casing, PSIG<br>1583         | + 12 = PSIA<br>1595               | Days Shut-In<br>93         | Shut-In Pressure, Tubing PSIG<br>1295 | + 12 = PSIA<br>1307                   |           |
| Flowing Pressure: P PSIG<br>181 M.R.; 242 W.H. | + 12 = PSIA<br>193 M.R.; 255 W.H. |                            | Working Pressure: Pw PSIG<br>690      | + 12 = PSIA<br>702                    |           |
| Temperature:<br>T= 77 °F                       | Ft=0.9840                         | n =<br>.75                 | Fpv (From Tables)<br>1.021            | Gravity<br>.710                       | Fg=1.1868 |

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

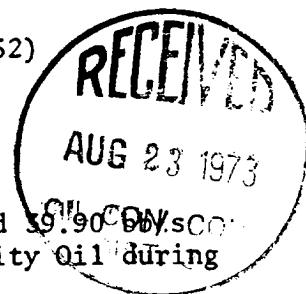
$$Q = \text{Calculated from orifice meter readings} = 3571 \text{ MCF/D}$$

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

$$Aof = Q \left( \frac{2544025}{2051221} \right)^n = (3571) (1.2402)^{.75} = (3571) (1.1752)$$

$$Aof = 4197 \text{ MCF/D}$$

Note: The well produced 39.90 bbls/day of 47.9 API Gravity Oil during the test.



TESTED BY H. E. McAnally and Carl Rhames

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

*William D. Welch*  
Well Test Engineer