

**NEW MEXICO OIL CONSERVATION COMMISSION**  
**MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL**

Form C-122  
 Revised 9-1-65

|                                                                                                                           |             |                         |                   |                                    |                    |                                     |           |                                                     |  |
|---------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------|-------------------|------------------------------------|--------------------|-------------------------------------|-----------|-----------------------------------------------------|--|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |             |                         |                   |                                    |                    | Test Date<br>7-15-85                |           | JUL 19 1985<br><b>CON. DIV. J</b><br><b>DIST. 3</b> |  |
| Company<br>El Paso Natural Gas                                                                                            |             |                         |                   | Connection                         |                    |                                     |           |                                                     |  |
| Pool<br>Basin                                                                                                             |             |                         |                   | Formation<br>Dakota                |                    | Unit                                |           |                                                     |  |
| Completion Date<br>7-15-85                                                                                                |             | Total Depth<br>6617     |                   | Plug Back TD<br>6599               |                    | Elevation<br>6491 GR                |           | Farm or Lease Name<br>Huerfano Unit                 |  |
| Csg. Size<br>4.500                                                                                                        | Wt.<br>10.5 | d<br>4.052              | Set At<br>6616    | Perforations:<br>From 6417 To 6474 |                    | Well No.<br>244E #224E              |           |                                                     |  |
| Log. Size<br>2.375                                                                                                        | Wt.<br>4.7  | d<br>1.995              | Set At<br>6472    | Perforations:<br>From To           |                    | Unit Sec. Twp. Rge.<br>A 19 26 10   |           |                                                     |  |
| Type Well - Single - Brdenhead - G.C. or G.O. Multiple<br>Single                                                          |             |                         |                   |                                    |                    | Packer Set At<br>None               |           | County<br>San Juan                                  |  |
| Producing Thru<br>Tbg.                                                                                                    |             | Reservoir Temp. °F<br>a |                   | Mean Annual Temp. °F               |                    | Baro. Press. - P <sub>a</sub><br>12 |           | State<br>New Mexico                                 |  |
| L                                                                                                                         | H           | G <sub>g</sub><br>.700  | % CO <sub>2</sub> | % N <sub>2</sub>                   | % H <sub>2</sub> S | Prover                              | Meter Run | Taps                                                |  |

  

| FLOW DATA |                  |   |              |                 |                      |          | TUBING DATA     |          | CASING DATA     |          | Duration of Flow |
|-----------|------------------|---|--------------|-----------------|----------------------|----------|-----------------|----------|-----------------|----------|------------------|
| NO.       | Prover Line Size | X | Orifice Size | Press. p.s.i.g. | Diff. h <sub>w</sub> | Temp. °F | Press. p.s.i.g. | Temp. °F | Press. p.s.i.g. | Temp. °F |                  |
| 1.        |                  |   | .750         | 114             |                      | 75       | 1024            |          | 1439            |          | 7 Days           |
| 2.        |                  |   |              |                 |                      |          | 114             |          | 393             |          | 3 Hrs.           |
| 3.        |                  |   |              |                 |                      |          |                 |          |                 |          |                  |
| 4.        |                  |   |              |                 |                      |          |                 |          |                 |          |                  |
| 5.        |                  |   |              |                 |                      |          |                 |          |                 |          |                  |

  

| RATE OF FLOW CALCULATIONS |                       |                  |                         |                       |                               |                                         |                      |
|---------------------------|-----------------------|------------------|-------------------------|-----------------------|-------------------------------|-----------------------------------------|----------------------|
| NO.                       | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | Pressure P <sub>m</sub> | Flow Temp. Factor Ft. | Gravity Factor F <sub>g</sub> | Super Compress. Factor, F <sub>pv</sub> | Rate of Flow Q, Mcfd |
| 1                         | 12.365                |                  | 126                     | .9859                 | .9258                         | 1.013                                   | 1441                 |
| 2                         |                       |                  |                         |                       |                               |                                         |                      |
| 3                         |                       |                  |                         |                       |                               |                                         |                      |
| 4                         |                       |                  |                         |                       |                               |                                         |                      |
| 5                         |                       |                  |                         |                       |                               |                                         |                      |

  

|     |                |          |                |   |                                                      |
|-----|----------------|----------|----------------|---|------------------------------------------------------|
| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</sub> | Z | Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.          |
| 1   |                |          |                |   | A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.     |
| 2   |                |          |                |   | Specific Gravity Separator Gas _____ X X X X X X X X |
| 3   |                |          |                |   | Specific Gravity Flowing Fluid _____ X X X X X       |
| 4   |                |          |                |   | Critical Pressure _____ P.S.I.A. _____ P.S.I.A.      |
| 5   |                |          |                |   | Critical Temperature _____ R _____ R                 |

  

|                     |                                     |                |                             |                                                           |                                                             |                                                             |
|---------------------|-------------------------------------|----------------|-----------------------------|-----------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|
| P <sub>r</sub> 1451 | P <sub>r</sub> <sup>2</sup> 2105401 |                |                             |                                                           |                                                             |                                                             |
| NO.                 | P <sub>r</sub>                      | P <sub>w</sub> | P <sub>w</sub> <sup>2</sup> | P <sub>r</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> | (1) $\frac{P_r^2}{P_r^2 - P_w^2} = \frac{2105401}{1941376}$ | (2) $\left[ \frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.0627$ |
| 1                   |                                     | 405            | 164025                      | 1941376                                                   |                                                             |                                                             |
| 2                   |                                     |                |                             |                                                           |                                                             |                                                             |
| 3                   |                                     |                |                             |                                                           |                                                             |                                                             |
| 4                   |                                     |                |                             |                                                           |                                                             |                                                             |
| 5                   |                                     |                |                             |                                                           |                                                             |                                                             |

  

$ACF = Q \left[ \frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1531$

$\left[ \frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.0627$

  

|                    |      |                |                         |              |
|--------------------|------|----------------|-------------------------|--------------|
| Absolute Open Flow | 1531 | Mcf/d @ 15.025 | Angle of Slope $\theta$ | Slope, n .75 |
|--------------------|------|----------------|-------------------------|--------------|

  

Remarks: Heavy slug of oil & water after 6 mins. surges throughout test.  
 Gas vented during test = 243 MCF

  

|                         |                             |                           |                    |
|-------------------------|-----------------------------|---------------------------|--------------------|
| Approved by Commission: | Conducted By:<br>Don Norton | Calculated By:<br>Ed Mabe | Checked By:<br>kld |
|-------------------------|-----------------------------|---------------------------|--------------------|