

N MEXICO OIL CONSERVATION COMM. JN  
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122  
Revised 9-1-65

|                                                                                                                           |                 |                                     |                          |                                          |                           |                                     |                 |                                      |  |
|---------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------------------------|--------------------------|------------------------------------------|---------------------------|-------------------------------------|-----------------|--------------------------------------|--|
| Type Test<br><input type="checkbox"/> Initial <input type="checkbox"/> Annual <input checked="" type="checkbox"/> Special |                 |                                     |                          |                                          |                           | Test Date<br>11/19/73               |                 |                                      |  |
| Company<br>Cities Service Oil Co.                                                                                         |                 |                                     |                          | Connection<br>El Paso Natural Gas Co.    |                           |                                     |                 |                                      |  |
| Pool<br>Undesignated                                                                                                      |                 |                                     |                          | Formation<br>Morrow                      |                           |                                     |                 | Unit                                 |  |
| Completion Date<br>9-11-73                                                                                                |                 | Total Depth<br>11,500'              |                          | Plug Back TD<br>11,439'                  |                           | Elevation<br>3260' KB               |                 | Farm or Lease Name<br>Government "R" |  |
| Csq. Size<br>5-1/2"                                                                                                       | Wt.<br>17 & 20# | d                                   | Set At<br>11,500'        | Perforations:<br>From 11,331' To 11,349' |                           | Well No.<br>1                       |                 |                                      |  |
| Tbg. Size<br>2-7/8"                                                                                                       | Wt.<br>6.4#     | d                                   | Set At<br>11,070'        | Perforations:<br>From To                 |                           | Unit Sec. Twp. Rge.<br>K 14 20S 28E |                 |                                      |  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single                                                         |                 |                                     |                          |                                          |                           | Packer Set At<br>11,070'            |                 | County<br>Eddy                       |  |
| Producing Thru<br>Tubing                                                                                                  |                 | Reservoir Temp. °F<br>180 @ 11,439' |                          | Mean Annual Temp. °F                     |                           | Baro. Press. - P <sub>a</sub>       |                 | State<br>New Mexico                  |  |
| L<br>11,070                                                                                                               | H<br>11,070     | G <sub>g</sub><br>.6172             | % CO <sub>2</sub><br>.28 | % N <sub>2</sub><br>.78                  | % H <sub>2</sub> S<br>--- | Prover                              | Meter Run<br>6" | Flange                               |  |

  

| FLOW DATA |                        |   |                 |                    |                         | TUBING DATA |                    | CASING DATA |                    | Duration<br>o.<br>Flow |             |
|-----------|------------------------|---|-----------------|--------------------|-------------------------|-------------|--------------------|-------------|--------------------|------------------------|-------------|
| NO.       | Prover<br>Line<br>Size | X | Orifice<br>Size | Press.<br>p.s.i.g. | Diff.<br>h <sub>w</sub> | Temp.<br>°F | Press.<br>p.s.i.g. | Temp.<br>°F | Press.<br>p.s.i.g. |                        | Temp.<br>°F |
| 1.        | 4"                     | x | 2-3/4"          | 940                | 9.0                     | 75          | 2920               | 74          | --                 | --                     | 1 Hr        |
| 2.        |                        |   |                 |                    |                         |             |                    |             |                    |                        |             |
| 3.        |                        |   |                 |                    |                         |             |                    |             |                    |                        |             |
| 4.        |                        |   |                 |                    |                         |             |                    |             |                    |                        |             |
| 5.        |                        |   |                 |                    |                         |             |                    |             |                    |                        |             |

  

| RATE OF FLOW CALCULATIONS |                          |                  |                            |                                        |                                     |                                               |                         |
|---------------------------|--------------------------|------------------|----------------------------|----------------------------------------|-------------------------------------|-----------------------------------------------|-------------------------|
| NO.                       | Coefficient<br>(24 Hour) | $\sqrt{h_w P_m}$ | Pressure<br>P <sub>m</sub> | Flow Temp.<br>Factor<br>F <sub>t</sub> | Gravity<br>Factor<br>F <sub>g</sub> | Super<br>Compress.<br>Factor, F <sub>pv</sub> | Rate of Flow<br>Q, Mcfd |
| 1                         | 41.10                    | 92               | 953.2                      | 0.9859                                 | 1.273                               | 1.086                                         | 5154                    |
| 2.                        |                          |                  |                            |                                        |                                     |                                               |                         |
| 3.                        |                          |                  |                            |                                        |                                     |                                               |                         |
| 4.                        |                          |                  |                            |                                        |                                     |                                               |                         |
| 5.                        |                          |                  |                            |                                        |                                     |                                               |                         |

  

|     |                |          |                |       |                                                 |
|-----|----------------|----------|----------------|-------|-------------------------------------------------|
| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</sub> | Z     | Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl      |
| 1   | 1.420          | 535      | 1.465          | 0.848 | A.P.I. Gravity of Liquid Hydrocarbons _____ Deg |
| 2.  |                |          |                |       | Specific Gravity Separator Gas .6172 XXXXXXXX   |
| 3.  |                |          |                |       | Specific Gravity Flowing Fluid XXXXX            |
| 4.  |                |          |                |       | Critical Pressure 671 P.S.I.A. P.S.I.A.         |
| 5.  |                |          |                |       | Critical Temperature 365 R R                    |

  

|                                                            |                             |                |                             |                                                           |
|------------------------------------------------------------|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|
| P <sub>c</sub> 4615 P <sub>c</sub> <sup>2</sup> 21,298,000 |                             |                |                             |                                                           |
| NO.                                                        | P <sub>r</sub> <sup>2</sup> | P <sub>w</sub> | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> |
| 1                                                          | 8526                        | 3854           | 1485                        | 6445                                                      |
| 2.                                                         |                             |                |                             |                                                           |
| 3.                                                         |                             |                |                             |                                                           |
| 4.                                                         |                             |                |                             |                                                           |
| 5.                                                         |                             |                |                             |                                                           |

  

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = 3.305$

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 10,756$

(2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.087$

  

|                                            |                          |                   |
|--------------------------------------------|--------------------------|-------------------|
| Absolute Open Flow<br>10,756 Mcfd @ 15.025 | Angle of Slope @<br>31.6 | Slope, n<br>.0155 |
|--------------------------------------------|--------------------------|-------------------|

  

Remarks: \_\_\_\_\_

  

|                         |               |                                      |                                  |
|-------------------------|---------------|--------------------------------------|----------------------------------|
| Approved By Commission: | Conducted By: | Calculated By:<br><i>Mike Daniel</i> | Checked By:<br><i>Steve Dain</i> |
|-------------------------|---------------|--------------------------------------|----------------------------------|