

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

Form C-112  
Revised 1-65

*File*

|                                                                                                                           |            |                         |                   |                                               |                    |                                       |           |                                                        |  |
|---------------------------------------------------------------------------------------------------------------------------|------------|-------------------------|-------------------|-----------------------------------------------|--------------------|---------------------------------------|-----------|--------------------------------------------------------|--|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |            |                         |                   |                                               |                    | Test Date<br>9-11-67                  |           |                                                        |  |
| Company<br>El Paso Natural Gas Company                                                                                    |            |                         |                   | Connection<br>None                            |                    |                                       |           |                                                        |  |
| Pool<br>Jalmat                                                                                                            |            |                         |                   | Formation<br>Yates                            |                    |                                       |           | Unit                                                   |  |
| Completion Date                                                                                                           |            | Total Depth<br>3400     |                   | Plug Back TD                                  |                    | Elevation                             |           | Farm or Lease Name<br>State "S"                        |  |
| Csg. Size<br>4 1/4                                                                                                        | Wt.<br>9.5 | d                       | Set At<br>3719    | Perforations:<br>From                      To |                    |                                       |           | Well No.<br>13                                         |  |
| Tbg. Size<br>2 3/8                                                                                                        | Wt.<br>4.7 | d                       | Set At<br>2897    | Perforations:<br>From                      To |                    |                                       |           | Unit    Sec.    Twp.    Rge.<br>L       32    23    37 |  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single                                                         |            |                         |                   | Packer Set At<br>None                         |                    |                                       |           | County<br>Lea County                                   |  |
| Producing Thru<br>Tubing                                                                                                  |            | Reservoir Temp. °F<br>a |                   | Mean Annual Temp. °F                          |                    | Baro. Press. - P <sub>a</sub><br>13.2 |           | State<br>New Mexico                                    |  |
| L<br>2897                                                                                                                 | H          | Gg                      | % CO <sub>2</sub> | % N <sub>2</sub>                              | % H <sub>2</sub> S | Prover<br>2"                          | Meter Run | Taps                                                   |  |

  

| FLOW DATA |                        |   |                 |                    |                         | TUBING DATA |                    | CASING DATA |                    | Duration<br>of<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. |                        |
| SI        |                        |   |                 |                    |                         |             | 706                |             | 706                |                        |
| 1.        | 2" x 1/8"              |   |                 | 553                |                         | 77          | 553                |             | 553                |                        |
| 2.        | 2" x 3/16"             |   |                 | 437                |                         | 78          | 437                |             | 439                |                        |
| 3.        | 2" x 5/16"             |   |                 | 230                |                         | 78          | 230                |             | 237                |                        |
| 4.        | 2" x 3/8"              |   |                 | 165                |                         | 78          | 165                |             | 175                |                        |
| 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.                        | .2648                    |                  | 566.2                      | .9840                                  | 1.231                               | 1.055                                         | 191.6                   |
| 2.                        | .6032                    |                  | 452.2                      | .9831                                  | 1.231                               | 1.043                                         | 347.2                   |
| 3.                        | 1.672                    |                  | 243.2                      | .9831                                  | 1.231                               | 1.021                                         | 502.3                   |
| 4.                        | 2.378                    |                  | 178.2                      | .9831                                  | 1.231                               | 1.014                                         | 520.0                   |
| 5.                        |                          |                  |                            |                                        |                                     |                                               |                         |

  

| NO. | P <sub>t</sub> | Temp. °R | T <sub>r</sub> | Z    | Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.              |
|-----|----------------|----------|----------------|------|----------------------------------------------------------|
| 1.  | .85            | 537      | 1.42           | .898 | A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.         |
| 2.  | .67            | 538      | 1.42           | .919 | Specific Gravity Separator Gas .660      X X X X X X X X |
| 3.  | .36            | 538      | 1.42           | .960 | Specific Gravity Flowing Fluid X X X X X                 |
| 4.  | .26            | 538      | 1.42           | .972 | Critical Pressure _____ P.S.I.A.      P.S.I.A.           |
| 5.  |                |          |                |      | Critical Temperature _____ R      R                      |

  

| P <sub>c</sub> 719.2    P <sub>c</sub> <sup>2</sup> 517.2 |                             |                |                             |                                                           |
|-----------------------------------------------------------|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|
| NO.                                                       | P <sub>t</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                                                         | 320.6                       | 566.2          | 320.6                       | 196.6                                                     |
| 2                                                         | 202.7                       | 452.2          | 204.5                       | 312.7                                                     |
| 3                                                         | 59.1                        | 250.2          | 62.6                        | 454.6                                                     |
| 4                                                         | 31.8                        | 188.2          | 35.4                        | 481.8                                                     |
| 5                                                         |                             |                |                             |                                                           |

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = 1.073$       (2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.035$

AOF = Q       $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 538$

  

|                                                |                          |                    |
|------------------------------------------------|--------------------------|--------------------|
| Absolute Open Flow      538      Mcfd @ 15.025 | Angle of Slope @      46 | Slope, n      .965 |
| Remarks: _____                                 |                          |                    |
|                                                |                          |                    |

  

|                         |                                |                                 |                              |
|-------------------------|--------------------------------|---------------------------------|------------------------------|
| Approved by Commission: | Conducted By:<br>Bobby G. Boaz | Calculated By:<br>Bobby G. Boaz | Checked By:<br>Earl G. Smith |
|-------------------------|--------------------------------|---------------------------------|------------------------------|