

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

Form C-122  
Revised 9-1-65

**RECEIVED**

|                                                                                                                |  |                                   |  |                                        |  |                                        |  |
|----------------------------------------------------------------------------------------------------------------|--|-----------------------------------|--|----------------------------------------|--|----------------------------------------|--|
| Type Test<br><input type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |  |                                   |  | Test Date<br>2-6-74                    |  | FEB 11 1974                            |  |
| Company<br>Texas Oil & Gas Corp.                                                                               |  |                                   |  | Connection<br><i>None</i>              |  |                                        |  |
| Pool<br>S. Carlsbad                                                                                            |  |                                   |  | Formation<br>Morrow                    |  | Unit<br>O.C.C. ARTESIA, OFFICE         |  |
| Completion Date<br>5-22-73                                                                                     |  | Total Depth<br>11,900             |  | Plug Back TD<br>11,860                 |  | Elevation<br>3149 ft.                  |  |
| Csg. Size<br>4 1/2" (Liner)                                                                                    |  | Set At<br>11.6 Packer             |  | Perforations:<br>From 11,312 To 11,444 |  | Form or Lease Name<br>City of Carlsbad |  |
| Tng. Size<br>2 3/8"                                                                                            |  | Set At<br>1.9981 11,200           |  | Perforations:<br>From To               |  | Well No.<br>1                          |  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single                                              |  |                                   |  | Packer Set At<br>11,200                |  | Unit Sec. Twp. Rge.<br>0 13 22-S 26-E  |  |
| Producing Thru<br>Tubing                                                                                       |  | Reservoir Temp. °F<br>190@ 11,400 |  | Mean Annual Temp. °F<br>60             |  | Baro. Press. - P <sub>a</sub><br>13.2  |  |
| L<br>11,200                                                                                                    |  | H<br>11,200                       |  | G <sub>g</sub><br>.60                  |  | Prover<br>X                            |  |
|                                                                                                                |  | % CO <sub>2</sub><br>1.10         |  | % N <sub>2</sub><br>.30                |  | % H <sub>2</sub> S<br>---              |  |
|                                                                                                                |  |                                   |  |                                        |  | Meter Run<br>X                         |  |
|                                                                                                                |  |                                   |  |                                        |  | Taps<br>Flange                         |  |

  

| 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.        | 2.067            | X | 0.875        | 537             |                      | 65          | 3115            | 65          | Packer          |                  | 24'      |
| 2.        |                  |   |              |                 |                      |             | 550             |             |                 |                  | 24'      |
| 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.                        | 3.729                 | 152.5            | 550                     | .9952                 | 1.291                         | 1.122                                   | 820                  |
| 2.                        |                       |                  |                         |                       |                               |                                         |                      |
| 3.                        |                       |                  |                         |                       |                               |                                         |                      |
| 4.                        |                       |                  |                         |                       |                               |                                         |                      |
| 5.                        |                       |                  |                         |                       |                               |                                         |                      |

  

| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</sub> | Z     | Gas Liquid Hydrocarbon Ratio          | Dry             |          |
|-----|----------------|----------|----------------|-------|---------------------------------------|-----------------|----------|
| 1.  | 4.61           | 525      | 1.475          | 0.794 | A.P.I. Gravity of Liquid Hydrocarbons | Mcf/bbl.        |          |
| 2.  |                |          |                |       | Specific Gravity Separator Gas        | Deg.            |          |
| 3.  |                |          |                |       | Specific Gravity Flowing Fluid        | X X X X X X X X |          |
| 4.  |                |          |                |       | Critical Pressure                     | 675             | P.S.I.A. |
| 5.  |                |          |                |       | Critical Temperature                  | 356             | R        |

  

| P <sub>c</sub> 3115    P <sub>c</sub> <sup>2</sup> 9703 |                             |                |                             |                                                           |
|---------------------------------------------------------|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|
| NO.                                                     | P <sub>i</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.                                                      | 302                         | 495            | 245                         | 9458                                                      |
| 2.                                                      |                             |                |                             |                                                           |
| 3.                                                      |                             |                |                             |                                                           |
| 4.                                                      |                             |                |                             |                                                           |
| 5.                                                      |                             |                |                             |                                                           |

  

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = 1.026$

(2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.026$

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 841$

  

|                        |  |                |                   |            |
|------------------------|--|----------------|-------------------|------------|
| Absolute Open Flow 841 |  | Mcf/d @ 15.025 | Angle of Slope 45 | Slope, n 1 |
|------------------------|--|----------------|-------------------|------------|

  

Remarks: Unable to run conventional 4-point test. Well produces 8-10 BWPD and short term stabilization is not possible.

  

|                         |               |                |             |
|-------------------------|---------------|----------------|-------------|
| Approved By Commission: | Conducted By: | Calculated By: | Checked By: |
|-------------------------|---------------|----------------|-------------|