

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

Form C-122  
Revised 9-1-65

*File*

**RECEIVED**  
*122 file*  
**OCT 31 1977**

|                                                                                                                           |             |                                         |                   |                                    |                       |                                       |                                     |                                   |
|---------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------|-------------------|------------------------------------|-----------------------|---------------------------------------|-------------------------------------|-----------------------------------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |             |                                         |                   |                                    | Test Date<br>9-26-77  |                                       | <b>D. C. C.<br/>ARTESIA, OFFICE</b> |                                   |
| Company<br>Schellinger                                                                                                    |             |                                         |                   |                                    | Connection<br>None    |                                       |                                     |                                   |
| Well<br>Rocky Arroyo wellcamp                                                                                             |             |                                         |                   |                                    | Formation<br>Tuff     |                                       |                                     |                                   |
| Completion Date<br>9-26-77                                                                                                |             | Total Depth (TD) <i>6695</i>            |                   | Plug back TD<br>6695               |                       | Elevation<br>4347 ft.                 |                                     | Form or Lease Name<br>Mabun State |
| Cas. Size<br>1 1/2                                                                                                        | Wt.<br>10.5 | d                                       | Set At<br>6695    | Perforations:<br>From 6153 To 6511 |                       | Well No.<br>1                         |                                     |                                   |
| Tub. Size<br>2 7/8                                                                                                        | Wt.<br>6.7  | d                                       | Set At<br>6301    | Perforations:<br>From open To end  |                       | Unit<br>F 16 22 22                    |                                     |                                   |
| Type well - Single - Broadhead - G.G. or G.O. Multiple<br>Single                                                          |             |                                         |                   |                                    | Packer Set At<br>6301 |                                       | County<br>Eddy                      |                                   |
| Producing Thru<br>Tbr.                                                                                                    |             | Reservoir Temp. °F<br>133 @ 6301 (Wst.) |                   | Mean Annual Temp. °F<br>60         |                       | Baro. Press. - P <sub>a</sub><br>13.2 |                                     | State<br>New Mexico               |
| L<br>6301                                                                                                                 | H<br>6301   | Gg<br>.685                              | % CO <sub>2</sub> | % N <sub>2</sub>                   | % H <sub>2</sub> S    | Prover                                | Meter Run<br>2                      | Peps                              |

  

| 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>hw | Temp.<br>°F | Press.<br>p.s.i.g. | Temp.<br>°F | Press.<br>p.s.i.g. |                        | Temp.<br>°F |
| 51        |                        |   |                 |                    |             |             | 1692               |             |                    |                        | 72 hrs.     |
| 1.        | 2                      | x | 1/8             | 1385               |             | 67          | 1385               |             |                    |                        | 1 hr.       |
| 2.        | 2                      | x | 3/16            | 1025               |             | 67          | 1025               |             |                    |                        | 1 hr.       |
| 3.        | 2                      | x | 7/32            | 727                |             | 68          | 727                |             |                    |                        | 1 hr.       |
| 4.        | 2                      | x | 1/4             | 507                |             | 69          | 507                |             |                    |                        | 1 hr.       |
| 5.        |                        |   |                 |                    |             |             |                    |             |                    |                        |             |

  

| RATE OF FLOW CALCULATIONS |                          |                  |                            |                   |                                     |                                               |                         |
|---------------------------|--------------------------|------------------|----------------------------|-------------------|-------------------------------------|-----------------------------------------------|-------------------------|
| NO.                       | Coefficient<br>(24 Hour) | $\sqrt{h_w P_m}$ | Pressure<br>P <sub>m</sub> | Flow Temp.<br>Ft. | 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                    |                  | 1398.2                     | .9933             | 1.208                               | 1.149                                         | 510                     |
| 2                         | .6082                    |                  | 1038.2                     | .9933             | 1.208                               | 1.110                                         | 841                     |
| 3                         | .8393                    |                  | 740.2                      | .9924             | 1.208                               | 1.078                                         | 803                     |
| 4                         | 1.087                    |                  | 520.2                      | .9915             | 1.208                               | 1.054                                         | 714                     |
| 5                         |                          |                  |                            |                   |                                     |                                               |                         |

  

|     |                |          |                |      |                                                                                                                                                                                                                                                 |
|-----|----------------|----------|----------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</sub> | Z    | Gas Liquid Hydrocarbon Ratio _____ Mcf/cub.<br>A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.<br>Specific Gravity Separator Gas .685<br>Specific Gravity Flowing Fluids _____<br>Critical Pressure 669 P.S.I.A.<br>Critical Temperature 385 R |
| 1   | 2.09           | 527      | 1.37           | .758 |                                                                                                                                                                                                                                                 |
| 2   | 1.55           | 527      | 1.37           | .811 |                                                                                                                                                                                                                                                 |
| 3   | 1.11           | 528      | 1.37           | .861 |                                                                                                                                                                                                                                                 |
| 4   | .78            | 529      | 1.37           | .901 |                                                                                                                                                                                                                                                 |
| 5   |                |          |                |      |                                                                                                                                                                                                                                                 |

  

|     |                |                |                             |                             |                                                           |                                                                                                                                                                      |
|-----|----------------|----------------|-----------------------------|-----------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NO. | P <sub>r</sub> | P <sub>w</sub> | P <sub>r</sub> <sup>2</sup> | P <sub>w</sub> <sup>2</sup> | P <sub>r</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> | (1) $\frac{P_r^2}{P_r^2 - P_w^2} = 3.058$<br>(2) $\left[ \frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.749$<br>(3) $\left[ \frac{P_r^2}{P_r^2 - P_w^2} \right]^n = .892$ |
| 1   |                | 1398.8         | 1956.7                      | 951.0                       |                                                           |                                                                                                                                                                      |
| 2   |                | 1038.7         | 1083.1                      | 1824.6                      |                                                           |                                                                                                                                                                      |
| 3   |                | 743.6          | 552.9                       | 2354.8                      |                                                           |                                                                                                                                                                      |
| 4   |                | 524.2          | 274.8                       | 2632.9                      |                                                           |                                                                                                                                                                      |
| 5   |                |                |                             |                             |                                                           |                                                                                                                                                                      |

  

|                                     |     |               |        |                |      |             |     |
|-------------------------------------|-----|---------------|--------|----------------|------|-------------|-----|
| At Date Open Flow                   | 892 | Well ID       | 15-025 | Angle of Dip   | 63.5 | Slope, n    | 500 |
| Remarks: No fluid made during test. |     |               |        |                |      |             |     |
| Approved By: Conservation           |     | Conducted By: |        | Calculated By: |      | Checked By: |     |
| Denton A. Lenamon                   |     | J. E. Murray  |        |                |      |             |     |