

NEW MEXICO OIL CONSERVATION COMMISSION  
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLForm 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>7-8-78 |                                             |
| Company<br>Jerome P. McHugh                                                                                               |             |                         |                   | Connection                         |                     |                                             |
| Pool<br>Choza Mesa Pictured Cliffs                                                                                        |             |                         |                   | Formation<br>Pictured Cliffs       |                     | Unit                                        |
| Completion Date<br>6-22-78                                                                                                |             | Total Depth<br>4300'    |                   | Plug Back TD<br>4255'              |                     | Elevation<br>7177'                          |
| Farm or Lease Name<br>Valencia Canyon Unit                                                                                |             | Well No.<br>#36         |                   |                                    |                     |                                             |
| Csq. Size<br>4-1/2                                                                                                        | Wt.<br>10.5 | d                       | Set At<br>4300'   | Perforations:<br>From 3924 To 4182 |                     | Unit Sec. Twp. Rge.<br>F 14 28 4            |
| Tbg. Size<br>1-1/4                                                                                                        | Wt.<br>2.4  | d                       | Set At<br>4130'   | Perforations:<br>From Open To End  |                     |                                             |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single - Gas                                                   |             |                         |                   | Packer Set At                      |                     | County<br>Rio Arriba                        |
| Producing Thru<br>Tbg                                                                                                     |             | Reservoir Temp. °F<br>@ |                   | Mean Annual Temp. °F               |                     | Baro. Press. - P <sub>a</sub><br>New Mexico |
| L                                                                                                                         | H           | Gg                      | % CO <sub>2</sub> | % N <sub>2</sub>                   | % H <sub>2</sub> S  | Prover Meter Run Taps                       |
|                                                                                                                           |             |                         | .62               |                                    |                     |                                             |

| 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 |
| SI        |                  |   |              |                 |                      |             | 1114            |             | 1115            |                  | 7 days   |
| 1.        |                  |   |              |                 |                      |             |                 |             |                 |                  |          |
| 2.        |                  |   |              |                 |                      |             |                 |             |                 |                  |          |
| 3.        | 3/4" Pos. Choke  |   |              |                 |                      |             | 151             | 62°         | 817             |                  | 3 hrs.   |
| 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 Fg | Super Compress. Factor, Fpv | Rate of Flow Q, Mcfd |
| 1                         |                       |                  |                         |                       |                   |                             |                      |
| 2                         |                       |                  |                         |                       |                   |                             |                      |
| 3                         | 12.365                |                  | 163                     | .9981                 | .9837             | 1.015                       | 2008                 |
| 4                         |                       |                  |                         |                       |                   |                             |                      |
| 5                         |                       |                  |                         |                       |                   |                             |                      |

| NO. | P <sub>t</sub> | Temp. °R | T <sub>f</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>c</sub> 1127      P <sub>c</sub> <sup>2</sup> 1270129 |                             |                |                             |
|--------------------------------------------------------------|-----------------------------|----------------|-----------------------------|
| NO.                                                          | P <sub>t</sub> <sup>2</sup> | P <sub>w</sub> | P <sub>w</sub> <sup>2</sup> |
| 1                                                            |                             |                |                             |
| 2                                                            |                             |                |                             |
| 3                                                            |                             | 829            | 687241                      |
| 4                                                            |                             |                |                             |
| 5                                                            |                             |                |                             |

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.1790$$

$$(2) \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.9387$$

$$ACF = Q \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3893$$

|                                       |  |                                    |  |
|---------------------------------------|--|------------------------------------|--|
| Absolute Open Flow 3893 Mcfd @ 15.025 |  | Angle of Slope @ _____ Slope, n 85 |  |
| Remarks:                              |  |                                    |  |

|                         |                               |                                |             |
|-------------------------|-------------------------------|--------------------------------|-------------|
| Approved By Commission: | Conducted By:<br>Charles Hall | Calculated By:<br>Charles Hall | Checked By: |
|-------------------------|-------------------------------|--------------------------------|-------------|