

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

Form 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>4-14-81     |                                       |
| Company<br>MESA PETROLEUM CO                                                                                              |             |                                   |                         | Connection<br>EPNG                   |                          |                                       |
| Pool<br>BASIN DAKOTA                                                                                                      |             |                                   |                         | Formation<br>DAKOTA                  |                          | Unit                                  |
| Completion Date<br>4-14-81                                                                                                |             | Total Depth<br>7610.              |                         | Plug Back TD<br>7555.                |                          | Elevation<br>6709.                    |
| Form or Lease Name<br>FEDERAL                                                                                             |             | Well No.<br>12E                   |                         |                                      |                          |                                       |
| Csg. Size<br>5.500                                                                                                        | Wt.<br>15.5 | d<br>4.950                        | Set At<br>7595.         | Perforations:<br>From 7274. To 7542. |                          | Unit Sec. Twp. Rye.<br>23-26N-6W      |
| Thq. Size<br>2.375                                                                                                        | Wt.<br>4.7  | d<br>1.995                        | Set At<br>7266.         | Perforations:<br>From 0. To 0.       |                          | County<br>RIO ARriba                  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>FLOWING                                                        |             |                                   |                         | Packer Set At<br>0.                  |                          | State<br>NM                           |
| Producing Thru<br>TUBING                                                                                                  |             | Reservoir Temp. °F<br>167.0 7274. |                         | Mean Annual Temp. °F<br>60.0         |                          | Baro. Press. - P <sub>a</sub><br>13.2 |
| L<br>7274.                                                                                                                | H<br>7274.  | G <sub>g</sub><br>0.673           | % CO <sub>2</sub><br>0. | % N <sub>2</sub><br>0.               | % H <sub>2</sub> S<br>0. | Prover<br>0.                          |
| Meter Run<br>0.                                                                                                           |             | Taps                              |                         |                                      |                          |                                       |

  

| 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        |                  |   |              |                 |                      |             | 2050.           | 50.         |                 |                  | 168.0    |
| 1.        | 2.00 X 0.750     |   |              | 190.            | 0.                   | 55.         | 190.            | 55.         | 0.              | 0.               | 3.0      |
| 2.        |                  |   |              |                 |                      |             |                 |             |                 |                  |          |
| 3.        |                  |   |              |                 |                      |             |                 |             |                 |                  |          |
| 4.        |                  |   |              |                 |                      |             |                 |             |                 |                  |          |
| 5.        |                  |   |              |                 |                      |             |                 |             |                 |                  |          |

  

| RATE OF FLOW CALCULATIONS |                       |                  |                         |                                  |                               |                                         |                      |
|---------------------------|-----------------------|------------------|-------------------------|----------------------------------|-------------------------------|-----------------------------------------|----------------------|
| NO.                       | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | Pressure P <sub>m</sub> | Flow Temp. Factor F <sub>t</sub> | Gravity Factor F <sub>g</sub> | Super Compress. Factor, F <sub>pv</sub> | Rate of Flow Q, Mcfd |
| 1                         | 11.22                 | 0.               | 203.2                   | 1.0046                           | 1.2170                        | 1.0232                                  | 2806.                |
| 2.                        |                       |                  |                         |                                  |                               |                                         |                      |
| 3.                        |                       |                  |                         |                                  |                               |                                         |                      |
| 4.                        |                       |                  |                         |                                  |                               |                                         |                      |
| 5.                        |                       |                  |                         |                                  |                               |                                         |                      |

  

| NO. | R <sub>t</sub> | Temp. °R | T <sub>t</sub> | Z     | Gas Liquid Hydrocarbon Ratio | Mcf/bbl. |
|-----|----------------|----------|----------------|-------|------------------------------|----------|
| 1.  | 0.30           | 315.     | 1.35           | 0.955 | 0.673                        | 0.       |
| 2.  |                |          |                |       |                              |          |
| 3.  |                |          |                |       |                              |          |
| 4.  |                |          |                |       |                              |          |
| 5.  |                |          |                |       |                              |          |

  

| NO. | P <sub>t</sub> <sup>2</sup> | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> | (1) $\frac{P_c^2}{P_c^2 - P_w^2} =$ | (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$ |
|-----|-----------------------------|-----------------------------|-----------------------------|-----------------------------------------------------------|-------------------------------------|------------------------------------------------------|
| 1   | 41.                         | 303.                        | 253.                        | 4049.                                                     | 1.0626                              | 1.0466                                               |
| 2   |                             |                             |                             |                                                           |                                     |                                                      |
| 3   |                             |                             |                             |                                                           |                                     |                                                      |
| 4   |                             |                             |                             |                                                           |                                     |                                                      |
| 5   |                             |                             |                             |                                                           |                                     |                                                      |

  

|                    |  |       |              |                  |       |          |       |
|--------------------|--|-------|--------------|------------------|-------|----------|-------|
| Absolute Open Flow |  | 2992. | Mcf @ 15.025 | Angle of Slope θ | 53.13 | Slope, γ | 0.750 |
|--------------------|--|-------|--------------|------------------|-------|----------|-------|

  

|                         |               |                     |               |
|-------------------------|---------------|---------------------|---------------|
| Remarks:                |               |                     |               |
| Approved By Commission: | Conducted By: | Calculated By:      | Checked By:   |
|                         | James Archer  | Garrett-AOF Program | 7.7 Kent Bush |