

**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><b>11-13-74</b>                 |  |
| Company<br><b>Dorchester Explor. Co.</b>                                                                                  |  |                                          |  | Connection<br><b>None</b>                          |  |                                              |  |
| Pool<br><b>Undesignated</b>                                                                                               |  |                                          |  | Formation<br><b>Morrow</b>                         |  | Unit                                         |  |
| Completion Date<br><b>11-9-74</b>                                                                                         |  | Total Depth<br><b>12780</b>              |  | Plug Back TD<br><b>12650</b>                       |  | Elevation<br><b>3695 KB</b>                  |  |
| Farm or Lease Name<br><b>Henry Record</b>                                                                                 |  | Well No.<br><b>1</b>                     |  | Perforations:<br>From <b>12529</b> To <b>12536</b> |  | Unit Sec. Twp. Rge.<br><b>I 26 19S 35E</b>   |  |
| Csg. Size<br><b>5 1/2</b>                                                                                                 |  | Wt.<br><b>17.0</b>                       |  | d<br><b>4.892</b>                                  |  | Set At<br><b>12780</b>                       |  |
| Tbg. Size<br><b>2 3/8</b>                                                                                                 |  | Wt.<br><b>4.7</b>                        |  | d<br><b>1.995</b>                                  |  | Set At<br><b>12350</b>                       |  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br><b>Single</b>                                                  |  |                                          |  | Packer Set At<br><b>12350</b>                      |  | County<br><b>Lea</b>                         |  |
| Producing Thru<br><b>tubing</b>                                                                                           |  | Reservoir Temp. °F<br><b>170 @ 12533</b> |  | Mean Annual Temp. °F<br><b>60</b>                  |  | Baro. Press. - P <sub>a</sub><br><b>13.2</b> |  |
| State<br><b>New Mexico</b>                                                                                                |  | Prover<br><b>12533</b>                   |  | Meter Run<br><b>X</b>                              |  | Taps<br><b>F</b>                             |  |
| L<br><b>12533</b>                                                                                                         |  | H<br><b>-</b>                            |  | G <sub>g</sub><br><b>0.987</b>                     |  | % CO <sub>2</sub><br><b>0.580</b>            |  |
| % N <sub>2</sub><br><b>0.000</b>                                                                                          |  | % H <sub>2</sub> S<br><b>0.000</b>       |  | Prover<br><b>12533</b>                             |  | Meter Run<br><b>X</b>                        |  |
| Taps<br><b>F</b>                                                                                                          |  |                                          |  |                                                    |  |                                              |  |

  

| 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. Dat | Temp. °F | Press. p.s.i.g. | Temp. °F |                  |
| SI        |                  |       |              |                 |                      |          | <b>3955</b>         |          | <b>Packer</b>   |          |                  |
| 1.        | 3                | 14/64 | 1.5          | 570             | 42                   | 57       | 2575                | 75       |                 |          | 2.0              |
| 2.        | 3                | 12/64 | 1.5          | 410             | 40                   | 52       | 2900                | 75       |                 |          | 1.0              |
| 3.        | 3                | 10/64 | 1.5          | 360             | 33                   | 66       | 3223                | 70       |                 |          | 1.0              |
| 4.        | 3                | 8/64  | 1.5          | 270             | 24                   | 74       | 3575                | 62       |                 |          | 1.0              |
| 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                         | 11.13                 | 156.52           | 583.2                   | 1.003                 | 1.007                         | 1.201                                   | 2113.2               |
| 2                         | 11.13                 | 130.12           | 423.2                   | 1.008                 | 1.007                         | 1.127                                   | 1656.7               |
| 3                         | 11.13                 | 110.98           | 373.2                   | 0.9943                | 1.007                         | 1.094                                   | 1353.1               |
| 4                         | 11.13                 | 82.45            | 283.2                   | 0.9868                | 1.007                         | 1.030                                   | 939.3                |
| 5                         |                       |                  |                         |                       |                               |                                         |                      |

  

| NO. | R <sub>t</sub> | Temp. °R | T <sub>r</sub> | Z     | Gas Liquid Hydrocarbon Ratio | Mcf/bbl. |
|-----|----------------|----------|----------------|-------|------------------------------|----------|
|     |                |          |                |       | <b>7.518</b>                 |          |
|     |                |          |                |       | <b>50.8</b>                  |          |
| 1.  | 0.88           | 517      | 1.08           | 0.693 |                              |          |
| 2.  | 0.64           | 512      | 1.07           | 0.787 |                              |          |
| 3.  | 0.56           | 526      | 1.10           | 0.836 |                              |          |
| 4.  | 0.43           | 666      | 1.39           | 0.943 |                              |          |
| 5.  |                |          |                |       |                              |          |

  

| NO. | P <sub>t</sub> <sup>2</sup> | P <sub>w</sub> <sup>2</sup> | P <sub>r</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   | -                           | 4731.2                      | 22384.3                     | 3 18406.9                                                 | <b>2.216</b>                      | <b>1.82</b>                                        |
| 2   | -                           | 5215.2                      | 27198.3                     | 3 13598.0                                                 |                                   |                                                    |
| 3   | -                           | 5531.2                      | 30594.2                     | 2 10202.0                                                 |                                   |                                                    |
| 4   | -                           | 5877.2                      | 34541.5                     | 5 6254.8                                                  |                                   |                                                    |
| 5   |                             |                             |                             |                                                           |                                   |                                                    |

  

|                    |             |                 |                |               |          |              |
|--------------------|-------------|-----------------|----------------|---------------|----------|--------------|
| Absolute Open Flow | <b>3846</b> | Mcf/d @ 15.025° | Angle of Slope | <b>53° 1'</b> | Slope, n | <b>0.753</b> |
|--------------------|-------------|-----------------|----------------|---------------|----------|--------------|

  

Remarks: **\* BHP @ (- 8838) 12533 used for pressure calculations**

  

|                                                                                                               |                                                     |                                        |                                     |
|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------------------------------|-------------------------------------|
| Approved By Commission<br> | Conducted By<br><b>Coleman Petro. Engr. Company</b> | Calculated By<br><b>Joe A. Coleman</b> | Checked By<br><b>Joe A. Coleman</b> |
|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------------------------------|-------------------------------------|

**RECEIVED**

NOV 22 1974

**OIL CONSERVATION COMM.  
HOBBS, N. M.**