

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

**RECEIVED**

Copy 6-21  
C-122  
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>8-7-73</b>     |                                                         | <b>AUG 13 1973</b>             |                                          |
| Company<br><b>J. M. Huber Corporation</b>                                                                                 |                    |                                     |                         | Connection<br><b>None</b>                            |                                |                                                         | <b>O. C. C.</b>                |                                          |
| Pool<br><b>South Carlsbad</b>                                                                                             |                    |                                     |                         | Formation<br><b>Morrow</b>                           |                                |                                                         | Unit<br><b>ARTESIA, OFFICE</b> |                                          |
| Completion Date<br><b>7-10-73</b>                                                                                         |                    | Total Depth<br><b>11,922</b>        |                         | Plug Back TD<br><b>11,876</b>                        |                                | Elevation<br><b>KB 3255</b>                             |                                | Farm or Lease Name<br><b>Moore "Com"</b> |
| Well Size<br><b>4 1/2</b>                                                                                                 | Wt.<br><b>11.6</b> | d<br><b>4.000</b>                   | Set At<br><b>11,892</b> | Perforations:<br>From <b>11,515</b> To <b>11,618</b> |                                | Well No.<br><b>1</b>                                    |                                |                                          |
| Teg. Size<br><b>2 7/8"</b>                                                                                                | Wt.<br><b>6.4</b>  | d<br><b>2.441</b>                   | Set At<br><b>11,482</b> | Perforations:<br>From                      To        |                                | Unit    Sec.    Twp.    Rge.<br><b>35    23S    26E</b> |                                |                                          |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br><b>Single</b>                                                  |                    |                                     |                         |                                                      | Packer Set At<br><b>11,482</b> |                                                         | County<br><b>Eddy</b>          |                                          |
| Producing Thru<br><b>Tbg.</b>                                                                                             |                    | Reservoir Temp. °F<br><b>11.567</b> |                         | Mean Annual Temp. °F<br><b>0.578</b>                 |                                | Baro. Press. - P <sub>a</sub><br><b>11,482</b>          |                                | State<br><b>New Mexico</b>               |
| L<br><b>11,567</b>                                                                                                        | H<br><b>11.567</b> | G <sub>g</sub><br><b>0.578</b>      | % CO <sub>2</sub>       | % N <sub>2</sub>                                     | % H <sub>2</sub> S             | Prover<br><b>2"</b>                                     | Meter Run                      | 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        |                  |   |              |                 |                      |             | 3352.0          |             |                 |                  | 72hr     |
| 1.        | 2" X 5/16"       |   |              | 302.0           |                      | 74          | 3265.0          |             |                 |                  | 1 hr     |
| 2.        | "                |   |              | 501.0           |                      | 75          | 3162.0          |             |                 |                  | "        |
| 3.        | "                |   |              | 692.0           |                      | 80          | 3029.0          |             |                 |                  | "        |
| 4.        | "                |   |              | 903.0           |                      | 82          | 2850.0          |             |                 |                  | "        |
| 5.        | 2" X 3/8"        |   |              | 801.0           |                      | 81          | 2637.0          |             |                 |                  | "        |

  

| 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                         | 1.672                 |                  | 315.2                   | 0.9868                           | 1.315                         | 1.023                                   | 700                  |
| 2                         | "                     |                  | 514.2                   | 0.9859                           | "                             | 1.036                                   | 1,155                |
| 3                         | "                     |                  | 705.2                   | 0.9813                           | "                             | 1.048                                   | 1,594                |
| 4                         | "                     |                  | 916.2                   | 0.9795                           | "                             | 1.061                                   | 2,094                |
| 5                         | 2.378                 |                  | 814.2                   | 0.9804                           | "                             | 1.055                                   | 2,633                |

  

| NO. | P <sub>t</sub> | Temp. °R | T <sub>f</sub> | Z     | Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.                   |  |
|-----|----------------|----------|----------------|-------|---------------------------------------------------------------|--|
| 1   | 0.47           | 534      | 1.54           | 0.956 | A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.              |  |
| 2   | 0.77           | 535      | 1.55           | 0.932 | Specific Gravity Separator Gas <b>0.578</b> <b>XXXXXXXXXX</b> |  |
| 3   | 1.05           | 540      | 1.56           | 0.911 | Specific Gravity Flowing Fluid <b>XXXXXX</b>                  |  |
| 4   | 1.36           | 542      | 1.57           | 0.889 | Critical Pressure <b>672</b> P.S.I.A.    _____ P.S.I.A.       |  |
| 5   | 1.21           | 541      | 1.56           | 0.898 | Critical Temperature <b>346</b> °R    _____ °R                |  |

  

| NO. | P <sub>c</sub> | 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) $\frac{P_c^2}{P_c^2 - P_w^2} =$ | (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$ |
|-----|----------------|----------------|-----------------------------|-----------------------------------------------------------|-------------------------------------|------------------------------------------------------|
| 1   | 4265.2         | 18191.9        |                             |                                                           | <b>2.784</b>                        | <b>1.972</b>                                         |
| 2   |                |                | 4141.2                      | 17149.5                                                   |                                     |                                                      |
| 3   |                |                | 4037.2                      | 16299.0                                                   |                                     |                                                      |
| 4   |                |                | 3885.2                      | 15094.8                                                   |                                     |                                                      |
| 5   |                |                | 3671.2                      | 13477.7                                                   |                                     |                                                      |
| 5   |                |                | 3414.2                      | 11656.8                                                   |                                     |                                                      |

  

Absolute Open Flow **5,192** Mcfd @ 15.025    Angle of Slope **56.5**    Slope, n **0.663**

Remarks: **Pf & Ps measured by A & A engineering Service Midland, Texas**  
**Witness: Bob Alston Transwestern Pipeline Co.**

|                         |                                        |                                         |             |
|-------------------------|----------------------------------------|-----------------------------------------|-------------|
| Approved By Commission: | Conducted By:<br><b>Paul E. Powers</b> | Calculated By:<br><i>Paul E. Powers</i> | Checked By: |
|-------------------------|----------------------------------------|-----------------------------------------|-------------|