

**NEW MEXICO OIL CONSERVATION COMMISSION  
MULTI-POINT BACK PRESSURE TEST FOR GAS WELL**

Form C-122  
Revised 12-1-55

|                                        |                             |                            |                                |                                                                           |                               |
|----------------------------------------|-----------------------------|----------------------------|--------------------------------|---------------------------------------------------------------------------|-------------------------------|
| Well<br><b>Basin Dakota</b>            |                             | Formation<br><b>Dakota</b> |                                | County<br><b>Rio Arriba</b>                                               |                               |
| Initial<br><b>X</b>                    | Annual                      | Special                    | Date of Test<br><b>7-15-78</b> |                                                                           |                               |
| Company<br><b>Caulkins Oil Company</b> |                             | Lease<br><b>Breech "D"</b> |                                | Well No.<br><b>346</b>                                                    |                               |
| Unit<br><b>A</b>                       | Sec.<br><b>22</b>           | Twp.<br><b>26N</b>         | Range<br><b>6 W</b>            | Purchaser<br><b>Gas Company of New Mexico</b>                             |                               |
| Casing<br><b>5.50</b>                  | Wt.<br><b>15.5 &amp; 17</b> | I.D.<br><b>4.892</b>       | Set at<br><b>7620</b>          | Perf.<br><b>7264</b>                                                      | To<br><b>7603</b>             |
| Tubing<br><b>2 3/8"</b>                | Wt.<br><b>4.7</b>           | I.D.<br><b>1.991</b>       | Set at<br><b>7480</b>          | Perf.<br><b>7480</b>                                                      | To                            |
| Gas Pay:                               | From<br><b>7264</b>         | To<br><b>7603</b>          | L<br><b>7480</b>               | G<br><b>.660</b>                                                          | GL<br><b>4937</b> Bar. Press. |
| Producing Through:                     |                             | Casing                     | Tubing<br><b>yes</b>           | Type Well - Single - Braden head - G.G. or G.O. Dual<br><b>Single Gas</b> |                               |
| Date of Completion<br><b>7-7-78</b>    |                             | Packer                     |                                | Reservoir Temp.                                                           |                               |

**OBSERVED DATA**

| Tested Through: Prover <input type="checkbox"/> Choke <input checked="" type="checkbox"/> Meter <input type="checkbox"/> |                            |                                    |                 |                         |              | Type of Taps    |              |                 |                            |                         |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------|-----------------|-------------------------|--------------|-----------------|--------------|-----------------|----------------------------|-------------------------|
| FLOW DATA                                                                                                                |                            |                                    |                 |                         | TUBING DATA  |                 | CASING DATA  |                 | DURATION<br>OF FLOW<br>HR. |                         |
| Lo.                                                                                                                      | (Prover)<br>(Line)<br>Size | (Choke)<br>(Orifice)<br>Size       | Press.<br>psig. | Diff.<br>h <sub>w</sub> | Temp.<br>°F. | Press.<br>psig. | Temp.<br>°F. | Press.<br>psig. |                            | Temp.<br>°F.            |
| 1.                                                                                                                       |                            | <del>3 3/4"</del><br><b>3 1/4"</b> |                 |                         |              | <b>2275</b>     |              | <b>2175</b>     |                            | <b>7 days<br/>3 hrs</b> |
| 2.                                                                                                                       |                            |                                    |                 |                         |              | <b>110</b>      |              | <b>620</b>      |                            |                         |
| 3.                                                                                                                       |                            |                                    |                 |                         |              |                 |              |                 |                            |                         |
| 4.                                                                                                                       |                            |                                    |                 |                         |              |                 |              |                 |                            |                         |
| 5.                                                                                                                       |                            |                                    |                 |                         |              |                 |              |                 |                            |                         |

**FLOW CALCULATIONS**

| Coefficient<br>(24 Hour) | $\sqrt{h_w p_f}$ | Pressure<br>psia | Flow Temp.<br>Factor<br>F <sub>t</sub> | Gravity<br>Factor<br>F <sub>g</sub> | Compress.<br>Factor<br>F <sub>cv</sub> | Rate of Flow Q-MCF P.D.<br>@ 15.025 psia |
|--------------------------|------------------|------------------|----------------------------------------|-------------------------------------|----------------------------------------|------------------------------------------|
| <b>14.1605</b>           |                  | <b>122</b>       | <b>1.000</b>                           | <b>1.000</b>                        | <b>1.000</b>                           | <b>1727</b>                              |
|                          |                  |                  |                                        |                                     |                                        |                                          |
|                          |                  |                  |                                        |                                     |                                        |                                          |
|                          |                  |                  |                                        |                                     |                                        |                                          |

**PRESSURE CALCULATIONS**

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.      Specific Gravity Separator Gas \_\_\_\_\_

Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.      Specific Gravity Flowing Fluid \_\_\_\_\_

**9.402** (1-e<sup>-S</sup>) **0.297**      P<sub>c</sub> **2287**      P<sub>c</sub><sup>2</sup> **5,230,369**

| P <sub>w</sub><br>P <sub>f</sub> psia | P <sub>t</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> | (P <sub>c</sub> Q) <sup>2</sup> | (P <sub>c</sub> Q) <sup>2</sup><br>(1-e <sup>-S</sup> ) | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> | Cal<br>P <sub>w</sub> | P <sub>w</sub> |
|---------------------------------------|-----------------------------|-----------------------------|---------------------------------|---------------------------------------------------------|-----------------------------|-----------------------------------------------------------|-----------------------|----------------|
| <b>632</b>                            | <b>399,424</b>              | <b>16.237</b>               | <b>263,648</b>                  | <b>78,301</b>                                           | <b>477,725</b>              | <b>4,752,644</b>                                          | <b>691</b>            |                |
|                                       |                             |                             |                                 |                                                         |                             |                                                           |                       |                |
|                                       |                             |                             |                                 |                                                         |                             |                                                           |                       |                |
|                                       |                             |                             |                                 |                                                         |                             |                                                           |                       |                |

ABSOLUTE POTENTIAL: **1,856**      MCFPD: **n 1.10 = 1.07**

COMPANY **Caulkins Oil Company**      WITNESSED \_\_\_\_\_

ADDRESS **P.O. Box 780 Farmington, N Mex.**      COMPANY \_\_\_\_\_

AGENT AND TITLE **Debrae Blaney**      Prod. Foreman

