

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

Form C-122  
 Revised 9-1-65

2.11

RECEIVED  
 JUN 3 1966  
 OIL CON. COM.  
 DIST. 3

|                                                                                                                           |                     |                                       |                    |
|---------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------|--------------------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |                     | Test Date<br>10/2/66                  |                    |
| Company<br>Arctic Oil and Gas                                                                                             |                     | Connection<br>Southern Union Gasworks |                    |
| Pool<br>Dakota                                                                                                            |                     | Formation<br>Dakota Dakota            |                    |
| Completion Date<br>9/2/66                                                                                                 | Total Depth<br>6900 | Plug Back TD<br>6907                  | Elevation<br>5893  |
| Farm or Lease Name<br>Calpoper Martin                                                                                     |                     | Well No.<br>10                        |                    |
| Csg. Size<br>4 1/2                                                                                                        | Wt.<br>10,500 LBS   | d<br>4.000                            | Set At<br>6900     |
| Perforations:<br>From 6800 To 6900                                                                                        |                     | Unit<br>30                            |                    |
| Tbg. Size<br>1 1/2                                                                                                        | Wt.<br>2.75         | d<br>1.610                            | Set At<br>6770     |
| Perforations:<br>From 6775 To open metal                                                                                  |                     | Unit<br>30                            |                    |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>CO Dual                                                        |                     | Packer Set At<br>6770                 |                    |
| Producing Thru<br>tubing                                                                                                  |                     | Baro. Press. - P <sub>a</sub><br>58.5 |                    |
| Reservoir Temp. °F<br>@                                                                                                   |                     | Mean Annual Temp. °F<br>58.5          |                    |
| State<br>New Mexico                                                                                                       |                     | County<br>Santa Fe                    |                    |
| L                                                                                                                         | H                   | Gg                                    | % CO <sub>2</sub>  |
|                                                                                                                           |                     | 5.00                                  |                    |
|                                                                                                                           |                     | % N <sub>2</sub>                      | % H <sub>2</sub> S |
|                                                                                                                           |                     |                                       |                    |
| Prover                                                                                                                    |                     | 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        | 2"               |   | 3/4"         |                 |                      |             | 1700            |             |                 |                  |          |
| 1.        |                  |   |              |                 |                      |             | 185             | 60 (wet)    |                 |                  | 3 hr     |
| 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                         | 18.95                 |                  | 197                     | 1.000                            | .925                          | 1.005                                  | 2311                 |
| 2.                        |                       |                  |                         |                                  |                               |                                        |                      |
| 3.                        |                       |                  |                         |                                  |                               |                                        |                      |
| 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> 1714 | P <sub>c</sub> <sup>2</sup> 2,937,756 | (1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.286$ | (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.153$ |
| NO.                 | P <sub>t</sub> <sup>2</sup>           | P <sub>w</sub>                            | P <sub>w</sub> <sup>2</sup>                                |
| 1                   |                                       |                                           |                                                            |
| 2                   |                                       |                                           |                                                            |
| 3                   |                                       |                                           |                                                            |
| 4                   |                                       |                                           |                                                            |
| 5                   |                                       |                                           |                                                            |

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2706$

|                                          |                               |              |
|------------------------------------------|-------------------------------|--------------|
| Absolute Open Flow<br>2706 Mcfd @ 15.025 | Angle of Slope $\theta$ _____ | Slope, n .75 |
|------------------------------------------|-------------------------------|--------------|

Remarks: \_\_\_\_\_

|                         |               |                                                      |             |
|-------------------------|---------------|------------------------------------------------------|-------------|
| Approved By Commission: | Conducted By: | Calculated By: Original Signer By<br>Carl E. Jamison | Checked By: |
|-------------------------|---------------|------------------------------------------------------|-------------|