

**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>5-21-79                 |                                |
| Company<br>Southland Royalty Company                                                                                      |   |                         |                   | Connection<br>Southern Union Gathering                |                                      |                                |
| Pool<br>Undesignated                                                                                                      |   |                         |                   | Formation<br>Fruitland                                |                                      | Unit                           |
| Completion Date<br>5-7 79                                                                                                 |   | Total Depth<br>2627'    |                   | Plug Back TD<br>2350'                                 |                                      | Elevation<br>5795' GR          |
| Csg. Size<br>4.500                                                                                                        |   | Wt.<br>10.5#            | d<br>4.052        | Set At<br>2627'                                       | Perforations:<br>From 2216' To 2318' |                                |
| Tbg. Size                                                                                                                 |   | Wt.                     | d                 | Set At                                                | Perforations:<br>From To             |                                |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>G.G. Multiple                                                  |   |                         |                   | Packer Set At<br>2363'                                |                                      | Farm or Lease Name<br>Calloway |
| Producing Thru<br>Csg                                                                                                     |   | Reservoir Temp. °F<br>@ |                   | Mean Annual Temp. °F                                  |                                      | Well No.<br>2                  |
| Baro. Press. - P <sub>g</sub><br>12.2                                                                                     |   | State<br>New Mexico     |                   | Unit    Sec.    Twp.    Rge.<br>A    22    31N    11W |                                      |                                |
| L                                                                                                                         | H | G <sub>g</sub><br>.700  | % CO <sub>2</sub> | % 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        |                  |   |              |                 |                      |             |                 |             | 780             |                  |          |
| 1.        | 2" X 3/4"        |   |              |                 |                      |             |                 |             | 180             |                  | 1 hr     |
| 2.        |                  |   |              |                 |                      |             |                 |             | 140             |                  | 2 hrs    |
| 3.        |                  |   |              |                 |                      |             |                 |             | 125             |                  | 3 hrs    |
| 4.        |                  |   |              |                 |                      |             |                 |             |                 |                  |          |
| 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                         | 12.365                |                  | 137.2                   | 1.0000                | .9258                         | 1.0000                                  | 1571                 |
| 2.                        |                       |                  |                         |                       |                               |                                         |                      |
| 3.                        |                       |                  |                         |                       |                               |                                         |                      |
| 4.                        |                       |                  |                         |                       |                               |                                         |                      |
| 5.                        |                       |                  |                         |                       |                               |                                         |                      |

  

| NO. | P <sub>t</sub> | Temp. °R | T <sub>r</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                 |

  

| $P_c = 792.2$ $P_c^2 = 627,581$ |                             |                |                             | $(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.0309$                | $(2) \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0262$ |
|---------------------------------|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|-------------------------------------------------------------|
| NO.                             | P <sub>t</sub> <sup>2</sup> | 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                               |                             | 137.2          | 18,824                      | 608,757                                                   |                                                             |
| 2                               |                             |                |                             |                                                           |                                                             |
| 3                               |                             |                |                             |                                                           |                                                             |
| 4                               |                             |                |                             |                                                           |                                                             |
| 5                               |                             |                |                             |                                                           |                                                             |

  

$AOF = Q \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1612$

1612

  

|                                        |                               |                    |
|----------------------------------------|-------------------------------|--------------------|
| Absolute Open Flow _____ Mcfd @ 15.025 | Angle of Slope $\theta$ _____ | Slope, n _____ .85 |
| Remarks: _____                         |                               |                    |

  

|                         |                                |                |                 |
|-------------------------|--------------------------------|----------------|-----------------|
| Approved By Commission: | Conducted By:<br>Mike Cattaneo | Calculated By: | Checked By:<br> |
|-------------------------|--------------------------------|----------------|-----------------|