

## OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088  
SANTA FE, NEW MEXICO 87501Form C-122  
Revised 10-1-78

## MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS RELEASE

RECEIVED

|                                                                                                                           |  |                                         |  |                                       |  |
|---------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------|--|---------------------------------------|--|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |  | Test Date<br>11-06-85                   |  | NOV 22 1985                           |  |
| Company<br>Southland Royalty Company                                                                                      |  | Connection<br>Gas Company of New Mexico |  | CON. DIV.                             |  |
| Pool<br>Basin-B.S. Mesa                                                                                                   |  | Formation<br>Dakota-Gallup              |  | Unit<br>DIST. 3                       |  |
| Completion Date<br>10-26-85                                                                                               |  | Total Depth<br>8243'                    |  | Plug Back TD<br>8240'                 |  |
| Elevation<br>7062' GL                                                                                                     |  | Form or Lease Name<br>Jicarilla 101     |  |                                       |  |
| C.G. 625<br>5.500                                                                                                         |  | Wt. 26.40#<br>5.5/17#                   |  | d 6.969<br>4.950/4.892                |  |
| Set At 4086'                                                                                                              |  | Perforations:<br>From 8242' To          |  | Well No.<br>3E                        |  |
| Tag. Size<br>2.0625                                                                                                       |  | Wt.<br>3.25#                            |  | d 1.750                               |  |
| Set At 8021'                                                                                                              |  | Perforations:<br>From 7004' To 8202'    |  | Unit Sec. Twp. Rye.<br>E 1 26N 4W     |  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>G.G.-Multiple (Dakota-Gallup Commingled)                       |  |                                         |  | Packer Set At<br>6849'                |  |
| Producing Thru<br>Tubing                                                                                                  |  |                                         |  | Baro. Press. - P <sub>g</sub><br>12.2 |  |
| Reservoir Temp. °F<br>●                                                                                                   |  |                                         |  | State<br>New Mexico                   |  |
| L                                                                                                                         |  | H                                       |  | G <sub>g</sub>                        |  |
|                                                                                                                           |  |                                         |  | .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. |                  |
| SI        |                  |   |              |                 |                      |             | 1231            |             |                 |                  |
| 1.        | 2" X 3/4"        |   |              |                 |                      |             | 202             |             |                 | 1 hr             |
| 2.        |                  |   |              |                 |                      |             | 155             |             |                 | 2 hrs            |
| 3.        |                  |   |              |                 |                      |             | 129             |             |                 | 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                |                  | 141.2                   | 1.0000                | .9258                         | 1.0000                                  | 1616                 |
| 2.                        |                       |                  |                         |                       |                               |                                         |                      |
| 3.                        |                       |                  |                         |                       |                               |                                         |                      |
| 4.                        |                       |                  |                         |                       |                               |                                         |                      |
| 5.                        |                       |                  |                         |                       |                               |                                         |                      |

|     |                |          |                |   |                                                      |
|-----|----------------|----------|----------------|---|------------------------------------------------------|
| NO. | P <sub>r</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 <sub>c</sub> 1243.2 |                             | P <sub>c</sub> <sup>2</sup> 1545546.2 |                             | (1) $\frac{P_c^2}{P_r^2 - P_w^2} = 1.0131$                |   | (2) $\left[ \frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 1.0098$ |  |
| NO                    | P <sub>r</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> | 8 |                                                             |  |
| 1                     |                             | 141.2                                 | 19937.4                     | 1525608                                                   |   |                                                             |  |
| 2                     |                             |                                       |                             |                                                           |   |                                                             |  |
| 3                     |                             |                                       |                             |                                                           |   |                                                             |  |
| 4                     |                             |                                       |                             |                                                           |   |                                                             |  |
| 5                     |                             |                                       |                             |                                                           |   |                                                             |  |

AOF = Q  $\left[ \frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 1632$

|                         |  |                                  |  |                                  |  |                               |  |
|-------------------------|--|----------------------------------|--|----------------------------------|--|-------------------------------|--|
| Absolute Open Flow 1632 |  | Mcf @ 15.025                     |  | Angle of Slope @ _____           |  | Slope, n .75                  |  |
| Remarks: _____          |  |                                  |  |                                  |  |                               |  |
| Approved by Division    |  | Conducted By:<br>Leroy Castleman |  | Calculated By:<br>James W. Smith |  | Checked By:<br>C. Terry Hobbs |  |