

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED  
MAR 18 1985  
OIL CON. DIV.  
DIST. 3

|                                                                                                                           |              |                               |                   |                                           |                    |
|---------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------------|-------------------|-------------------------------------------|--------------------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |              |                               |                   | Test Date<br>11-16-84                     |                    |
| Company<br>Southland Royalty Company                                                                                      |              |                               |                   | Connection<br>El Paso Natural Gas Company |                    |
| Pool<br>Gobernador                                                                                                        |              |                               |                   | Formation<br>Pictured Cliffs              |                    |
| Completion Date<br>9-28-84                                                                                                |              | Total Depth<br>3554'          |                   | Plug Back TD<br>3508'                     |                    |
| Elevation<br>6427' GL                                                                                                     |              | Form or Lease Name<br>La Jara |                   |                                           |                    |
| Csq. Size<br>4.500                                                                                                        | Wt.<br>10.5# | d<br>4.052                    | Set At<br>3553    | Perforations:<br>From To                  |                    |
| Tbg. Size<br>2.375                                                                                                        | Wt.<br>4.7#  | d<br>1.995                    | Set At<br>3316'   | Perforations:<br>From 3236' To 3422'      |                    |
| Type Well - Single - Brdenhead - G.C. or G.O. Multiple<br>Single                                                          |              |                               |                   | Packer Set At<br>---                      |                    |
| Producing Thru<br>Tubing                                                                                                  |              | Reservoir Temp. °F<br>8       |                   | Mean Annual Temp. °F<br>12.2              |                    |
| Baro. Press. - P <sub>g</sub><br>12.2                                                                                     |              | State<br>New Mexico           |                   |                                           |                    |
| 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 |                  |
| 1.        | 2"               | X | 3/4"         |                 |                      |          | 1144            |          | 1147            |          | 1 hr             |
| 2.        |                  |   |              |                 |                      |          | 377             |          | 752             |          | 2 hrs            |
| 3.        |                  |   |              |                 |                      |          | 355             |          | 721             |          | 3 hrs            |
| 4.        |                  |   |              |                 |                      |          | 317             |          | 678             |          |                  |
| 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 O, Mcfd |
| 1                         | 12.365                |                  | 329.2                   | 1.0000                | .9258                         | 1.0000                                  | 3769                 |
| 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> 1159.2 | P <sub>c</sub> <sup>2</sup> 1343744.6 | (1) $\frac{P_c^2}{P_r^2 - P_w^2} = 1.5492$ | (2) $\left[ \frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 1.4508$ |
| NO.                   | P <sub>r</sub> <sup>2</sup>           | P <sub>w</sub>                             | P <sub>w</sub> <sup>2</sup>                                 |
| 1                     | 690.2                                 | 476376.0                                   | 867368.6                                                    |
| 2.                    |                                       |                                            |                                                             |
| 3.                    |                                       |                                            |                                                             |
| 4.                    |                                       |                                            |                                                             |
| 5.                    |                                       |                                            |                                                             |

  

|                                       |  |                               |                                  |
|---------------------------------------|--|-------------------------------|----------------------------------|
| Absolute Open Flow 5468 Mcfd @ 15.025 |  | Angle of Slope θ _____        | Slope, n .85                     |
| Remarks: _____                        |  |                               |                                  |
| Approved By Division                  |  | Conducted By:<br>Odell Farley | Calculated By:<br>James W. Smith |
|                                       |  | Checked By:<br>C. Terry Hobbs |                                  |