

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL.

**RECEIVED**  
MAR 27 1984  
OIL CON. DIV.  
DIST. 3

|                                                                                                                                      |                         |                                         |                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------|-------------------------------------------------------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input checked="" type="checkbox"/> Special |                         | Test Date<br>3-20-84                    |                                                       |
| Company<br>Amoco Production Company                                                                                                  |                         | Connection<br>El Paso Natural Gas Co.   |                                                       |
| Pool<br>Basin                                                                                                                        |                         | Formation<br>Dakota                     |                                                       |
| Completion Date<br>3-1-84                                                                                                            | Total Depth<br>7082     | Plug Back TD<br>7038                    | Elevation<br>5854 GL                                  |
| Coq. Size<br>7.000                                                                                                                   | Wt.<br>23               | d<br>6.366                              | Set At *<br>2634                                      |
| Thp. Size<br>2.375                                                                                                                   | Wt.<br>4.7              | d<br>1.995                              | Set At<br>7008                                        |
| Type Well—Single—Packerhead—G.C. or G.O. Multiple<br>Single                                                                          |                         | Packer Set At<br>None                   |                                                       |
| Producing Thru<br>Tubing                                                                                                             | Reservoir Temp. °F<br>• | Mean Annual Temp. °F<br>•               | Baro. Press. — P <sub>a</sub>                         |
| L                                                                                                                                    | H                       | Ca                                      | % CO <sub>2</sub> % N <sub>2</sub> % H <sub>2</sub> S |
| Prover                                                                                                                               |                         | Meter Run                               |                                                       |
| Tape                                                                                                                                 |                         | Form or Lease Name<br>A. L. Elliott "B" |                                                       |
| Well No.<br>5E                                                                                                                       |                         | Unit Sec. Twp. Rge.<br>P 10 29 9        |                                                       |
| County<br>San Juan                                                                                                                   |                         | State<br>New Mexico                     |                                                       |

| FLOW DATA |                        |      |                 |                    |             |             | TUBING DATA        |             | CASING DATA        |             | Duration<br>of<br>Flow |
|-----------|------------------------|------|-----------------|--------------------|-------------|-------------|--------------------|-------------|--------------------|-------------|------------------------|
| NO.       | Prover<br>Line<br>Size | X    | Orifice<br>Size | Press.<br>p.s.i.g. | Diff.<br>hw | Temp.<br>°F | Press.<br>p.s.i.g. | Temp.<br>°F | Press.<br>p.s.i.g. | Temp.<br>°F |                        |
| SI        | 10 days                |      |                 |                    |             |             | 1900               |             | 1970               |             | 3 Hrs                  |
| 1.        | 2.375                  | .750 |                 |                    |             |             | 62                 |             | 438                |             |                        |
| 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. Compres. Factor, F <sub>sp</sub> | Rate of Flow O. Mcd |
|-----|-----------------------|------------------|-------------------------|----------------------------------|-------------------------------|-----------------------------------------|---------------------|
| 1   | 12.365                |                  | 74                      | 1.000                            | .9258                         | 1.008                                   | 854                 |
| 2.  |                       |                  |                         |                                  |                               |                                         |                     |
| 3.  |                       |                  |                         |                                  |                               |                                         |                     |
| 4.  |                       |                  |                         |                                  |                               |                                         |                     |
| 5.  |                       |                  |                         |                                  |                               |                                         |                     |

| NO. | P <sub>t</sub> | Temp. °R | $\frac{1}{T}$ | Z | Gas Liquid Hydrocarbon Ratio | A.P.I. Gravity of Liquid Hydrocarbons | Specific Gravity Separator Gas | Specific Gravity Flowing Fluid | Critical Pressure | Critical Temperature |
|-----|----------------|----------|---------------|---|------------------------------|---------------------------------------|--------------------------------|--------------------------------|-------------------|----------------------|
| 1.  |                |          |               |   |                              |                                       |                                |                                |                   |                      |
| 2.  |                |          |               |   |                              |                                       |                                |                                |                   |                      |
| 3.  |                |          |               |   |                              |                                       |                                |                                |                   |                      |
| 4.  |                |          |               |   |                              |                                       |                                |                                |                   |                      |
| 5.  |                |          |               |   |                              |                                       |                                |                                |                   |                      |

|       |         |         |         |                 |                                                     |                                                                      |
|-------|---------|---------|---------|-----------------|-----------------------------------------------------|----------------------------------------------------------------------|
| $P_c$ | 1982    | $P_c^2$ | 3928324 |                 |                                                     |                                                                      |
| NO    | $P_t^2$ | $P_w$   | $P_w^2$ | $P_c^2 - P_w^2$ | (1) $\frac{P_c^2}{P_t^2 - P_w^2} = \frac{1.0544}{}$ | (2) $\left[ \frac{P_c^2}{P_t^2 - P_w^2} \right]^n = \frac{1.0405}{}$ |
| 1     |         | 450     | 202500  | 3725824         |                                                     |                                                                      |
| 2     |         |         |         |                 |                                                     |                                                                      |
| 3     |         |         |         |                 |                                                     |                                                                      |
| 4     |         |         |         |                 |                                                     |                                                                      |
| 5     |         |         |         |                 |                                                     |                                                                      |

$ACF = Q \left[ \frac{P_c^2}{P_t^2 - P_w^2} \right]^n = \frac{889}{}$

$$AQF = Q \left[ \frac{P_t^2}{P_t^2 - P_w^2} \right]^n = 889$$

|                             |     |              |                  |          |
|-----------------------------|-----|--------------|------------------|----------|
| Absolute Open Flow          | 889 | Mcd @ 15.025 | Angle of Slope ° | Slope, n |
| *4.500 set @ 2469' to 7080' |     |              |                  |          |