

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

|                                                                                                                         |                   |                                    |                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------|-------------------------------------------------------------------------------------|
| Type Test: <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |                   | Test Date: 1/13/87                 |                                                                                     |
| Company: Union Texas Petroleum Corp.                                                                                    |                   | Connection: Gas Co of New Mexico   |                                                                                     |
| Pool: Blanco                                                                                                            |                   | Formation: Mesaverde               |                                                                                     |
| Completion Date: 12/19/87                                                                                               | Total Depth: 6120 | Plug Back TD: 6084                 | Elevation: 7270 GL                                                                  |
| Farm or Lease Name: McCroden                                                                                            |                   | Well No.: 8                        |                                                                                     |
| Gas Size: 4.988                                                                                                         | Wt: 18.9          | d: 4.052                           | Set At: 3913-6120                                                                   |
| Perforations: From 5951 To 6022                                                                                         |                   |                                    |                                                                                     |
| Log Size: 2.375                                                                                                         | Wt: 4.7           | d: 1.995                           | Set At: 5999                                                                        |
| Perforations: From 5967 To 5973                                                                                         |                   |                                    |                                                                                     |
| Type Well - Single - Broadhead - G.C. or G.C. Multiple: Single - Gas                                                    |                   | Packer Set At:                     |                                                                                     |
| Producing Thru Tubing                                                                                                   |                   | Baro. Press. - P <sub>g</sub> : 12 |                                                                                     |
| Reservoir Temp. °F: 8                                                                                                   |                   | Mean Annual Temp. °F:              |                                                                                     |
| County: Rio Arriba                                                                                                      |                   | State: New Mexico                  |                                                                                     |
| L: 5967                                                                                                                 | H:                | G <sub>g</sub> : 0.700             | % 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 |                  |
| 1         | 2"               |   | 3/4"         |                 |                      |          | 1078            | 1086     | 7 Days           |
| 2         |                  |   |              |                 |                      |          | 204             | 58°      | 3 Hours          |
| 3         |                  |   |              |                 |                      |          |                 |          |                  |
| 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>sp</sub> | Rate of Flow Q, Mcfd |
| 1                         | 12.3650               |                  | 216                     | 1.0019                | 0.9258                        | 1.027                                   | 2544                 |
| 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: JAN 16 1987 | Deg.     |
| 2   |                |          |                |   | Specific Gravity Separator Gas: OIL CON. DIV.      | XXXXXXX  |
| 3   |                |          |                |   | Specific Gravity Flowing Fluid: DIST. 3            | XXXXXXX  |
| 4   |                |          |                |   | Critical Pressure: P.S.I.A.                        | P.S.I.A. |
| 5   |                |          |                |   | Critical Temperature: R                            | R        |

  

| NO. | P <sub>r</sub> <sup>2</sup> | P <sub>w</sub> <sup>2</sup> | P <sub>r</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> | (1) $\frac{P_r^2}{P_r^2 - P_w^2} =$ | (2) $\left[ \frac{P_r^2}{P_r^2 - P_w^2} \right]^n =$ |
|-----|-----------------------------|-----------------------------|-----------------------------------------------------------|-------------------------------------|------------------------------------------------------|
| 1   | 1098                        | 519                         | 269,361                                                   | 1.2877                              | 1.2088                                               |
| 2   |                             |                             |                                                           |                                     |                                                      |
| 3   |                             |                             |                                                           |                                     |                                                      |
| 4   |                             |                             |                                                           |                                     |                                                      |
| 5   |                             |                             |                                                           |                                     |                                                      |

  

|                                        |  |                           |  |
|----------------------------------------|--|---------------------------|--|
| Absolute Open Flow: 3075 Mcfd @ 15.025 |  | Angle of Slope: 0.75      |  |
| Remarks:                               |  |                           |  |
| Approved By Division: Bruce Voiles     |  | Conducted By: John Rector |  |
| Checked By:                            |  | Checked By:               |  |