

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>9/17/81                          |                    |
| Company<br>Chaparral Oil & Gas Co.                                                                                        |              |                           |                   | Connection<br>None                            |                    |
| Pool<br>Undesignated                                                                                                      |              |                           |                   | Formation<br>Fruitland                        |                    |
| Completion Date<br>9/4/81                                                                                                 |              | Total Depth<br>1850'      |                   | Plug Back TD<br>1843'                         |                    |
|                                                                                                                           |              |                           |                   | Elevation<br>5836'GL                          |                    |
| Farm or Lease Name<br>Francis                                                                                             |              |                           |                   |                                               |                    |
| Csg. Size<br>4.500                                                                                                        | Wt.<br>10.50 | d<br>4.000                | Set At<br>1843'   | Perforations:<br>From 1684' To 1694'          |                    |
| Well No.<br>2                                                                                                             |              |                           |                   |                                               |                    |
| Tbg. Size<br>1.660                                                                                                        | Wt.<br>2.40  | d<br>1.380                | Set At<br>1663'   | Perforations:<br>From                      To |                    |
| Unit      Sec.      Twp.      Rge.<br>L      18      28N      10W                                                         |              |                           |                   |                                               |                    |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single - Gas                                                   |              |                           |                   | Packer Set At                                 |                    |
| County<br>San Juan                                                                                                        |              |                           |                   |                                               |                    |
| Producing Thru<br>Tubing                                                                                                  |              | Reservoir Temp. °F<br>60° |                   | Baro. Press. - P <sub>a</sub>                 |                    |
| State<br>New Mexico                                                                                                       |              |                           |                   |                                               |                    |
| L<br>1663                                                                                                                 | H<br>1663    | Gg                        | % 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        |                  |   |              |                 |                      |             | 585             |             | 590             |                  | 7 days |
| 1.        | 3/4" T.H.C.      |   |              |                 |                      |             | 28              |             | 90              |                  | 3 hrs. |
| 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 Ft. | Gravity Factor Fg | Super Compress. Factor, Fpv | Rate of Flow Q, Mcfd |
| 1                         | 12.3650               |                  | 40                      | 1.000                 | 1.000             |                             | 494                  |
| 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 | Deq.            |
| 2.  |                |          |                |   | Specific Gravity Separator Gas        | X X X X X X X X |
| 3.  |                |          |                |   | Specific Gravity Flowing Fluid        | X X X X X X X X |
| 4.  |                |          |                |   | Critical Pressure                     | P.S.I.A.        |
| 5.  |                |          |                |   | Critical Temperature                  | R               |

  

|                    |                                     |                                            |                                                             |
|--------------------|-------------------------------------|--------------------------------------------|-------------------------------------------------------------|
| P <sub>c</sub> 602 | P <sub>c</sub> <sup>2</sup> 362,404 | (1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0295$ | (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0250$ |
| NO                 | P <sub>t</sub> <sup>2</sup>         | P <sub>w</sub>                             | P <sub>w</sub> <sup>2</sup>                                 |
| 1                  |                                     | 102                                        | 10,404                                                      |
|                    |                                     |                                            | 352,000                                                     |
| 2                  |                                     |                                            |                                                             |
| 3                  |                                     |                                            |                                                             |
| 4                  |                                     |                                            |                                                             |
| 5                  |                                     |                                            |                                                             |

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 506$

  

|                    |     |                |                  |          |      |
|--------------------|-----|----------------|------------------|----------|------|
| Absolute Open Flow | 506 | Mcf/d @ 15.025 | Angle of Slope ° | Slope, n | 0.85 |
| Remarks:           |     |                |                  |          |      |

  

|                         |               |                                    |             |
|-------------------------|---------------|------------------------------------|-------------|
| Approved By Commission: | Conducted By: | Calculated By:<br>Dewayne Blancett | Checked By: |
|-------------------------|---------------|------------------------------------|-------------|