

**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 type="checkbox"/> Initial <input type="checkbox"/> Annual <input checked="" type="checkbox"/> Special |  |                         |  |                                       | Test Date<br>5-15-80  |                                                      |
| Company<br>Cotton Petroleum Corporation                                                                                   |  |                         |  | Connection<br>El Paso Natural Gas     |                       |                                                      |
| Pool<br>Undesignated                                                                                                      |  |                         |  | Formation<br>Chacra                   |                       | Unit                                                 |
| Completion Date<br>5-8-80                                                                                                 |  | Total Depth<br>4074     |  | Plug Back TD<br>4051                  |                       | Elevation<br>6869                                    |
| Csg. Size<br>4.5                                                                                                          |  | Wt.<br>10.5             |  | Perforations:<br>From 3825 To 3962    |                       | Well No.<br>29                                       |
| Thq. Size<br>2.375                                                                                                        |  | Wt.<br>4.7              |  | Perforations:<br>From Open To Ended   |                       | Unit    Sec.    Twp.    Rge.<br>C    14    24N    4W |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single                                                         |  |                         |  |                                       | Packer Set At<br>None |                                                      |
| Producing Thru<br>Tubing                                                                                                  |  | Reservoir Temp. °F<br># |  | Mean Annual Temp. °F<br>12 psia (est) |                       | County<br>Rio Arriba                                 |
| L                                                                                                                         |  | H                       |  | 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 |
| 1         | 7 days           |      |              |                 |                      |             | 717             |             | 717             |                  | 3 hours  |
| 2         | 2 inch           | .750 | 23           |                 |                      |             | 23              | 51°         | 136             |                  |          |
| 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               |                  | 35                      | 1.0088               | 1.000             | 1.007                       | 440                  |
| 2                         |                       |                  |                         |                      |                   |                             |                      |
| 3                         |                       |                  |                         |                      |                   |                             |                      |
| 4                         |                       |                  |                         |                      |                   |                             |                      |
| 5                         |                       |                  |                         |                      |                   |                             |                      |

  

| NO. | P <sub>t</sub> | Temp. °R | T <sub>f</sub> | Z | Gas Liquid Hydrocarbon Ratio          | Mcf/bbl. |
|-----|----------------|----------|----------------|---|---------------------------------------|----------|
| 1   |                |          |                |   | A.P.I. Gravity of Liquid Hydrocarbons | Deg.     |
| 2   |                |          |                |   | Specific Gravity Separator Gas        | XXXXXXX  |
| 3   |                |          |                |   | Specific Gravity Flowing Fluid        | XXXXX    |
| 4   |                |          |                |   | Critical Pressure                     | P.S.I.A. |
| 5   |                |          |                |   | Critical Temperature                  | R        |

  

| P <sub>c</sub> 729 |                             | P <sub>c</sub> <sup>2</sup> 531,441 |                             |
|--------------------|-----------------------------|-------------------------------------|-----------------------------|
| NO.                | P <sub>t</sub> <sup>2</sup> | P <sub>w</sub>                      | P <sub>w</sub> <sup>2</sup> |
| 1                  |                             | 148                                 | 21,904                      |
| 2                  |                             |                                     |                             |
| 3                  |                             |                                     |                             |
| 4                  |                             |                                     |                             |
| 5                  |                             |                                     |                             |

  

(1)  $\frac{P_c^2}{P_w^2 - P_c^2} = 1.04299$

AOF = Q  $\left[ \frac{P_c^2}{P_w^2 - P_c^2} \right]^n = 454$

(2)  $\left[ \frac{P_c^2}{P_w^2 - P_c^2} \right]^n = 1.03207$

  

|                    |     |                |                  |              |
|--------------------|-----|----------------|------------------|--------------|
| Absolute Open Flow | 454 | Mcf/d @ 15.025 | Angle of Slope θ | Slope, n .75 |
|--------------------|-----|----------------|------------------|--------------|

  

Remarks: Flared for 3 hours - Slight show of water and condensate.

  

|                         |                                 |                                  |                                 |
|-------------------------|---------------------------------|----------------------------------|---------------------------------|
| Approved by Commission: | Conducted By:<br>Joe F. Elledge | Calculated By:<br>Joe F. Elledge | Checked By:<br>Mr. Howard Davis |
|-------------------------|---------------------------------|----------------------------------|---------------------------------|