

**NEW MEXICO OIL CONSERVATION COMMISSION**  
**MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL**

Form C-122  
 Revised 9-1-65

|                                                                                                                         |           |                                |                         |                                 |                       |                                      |                 |                     |
|-------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------|-------------------------|---------------------------------|-----------------------|--------------------------------------|-----------------|---------------------|
| Type Test: <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |           |                                |                         |                                 | Test Date: 5-24-85    |                                      |                 |                     |
| Company: Amoco Production Company                                                                                       |           |                                |                         | Connection:                     |                       |                                      |                 |                     |
| Pool: Bravo Dome Carbon Dioxide Gas Unit 640-acre area                                                                  |           |                                |                         | Formation: Tubb                 |                       | Unit: BDCDGU                         |                 |                     |
| Completion Date: 12-13-83                                                                                               |           | Total Depth: 2923'             |                         | Plug Back TD: 2771'             |                       | Elevation: 4730'                     |                 | Farm or Lease Name: |
| Csg. Size: 7"                                                                                                           | Wt.: 20#  | d:                             | Set At: 2923"           | Perforations: From 2490 To 2532 |                       | Well No.: 1834 221G                  |                 |                     |
| Tbg. Size: 3-1/2"                                                                                                       | Wt.: 9.3# | d:                             | Set At: 2303            | Perforations: From To           |                       | Unit Sec. Twp. Rge.<br>G 22 18 34    |                 |                     |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single                                                       |           |                                |                         |                                 | Packer Set At: 2295'  |                                      | County: Union   |                     |
| Producing Thru: Tubing                                                                                                  |           | Reservoir Temp. °F: 89°@ 2511' |                         | Mean Annual Temp. °F: 50        |                       | Baro. Press. - P <sub>a</sub> : 12.2 |                 | State: New Mexico   |
| L: 2511'                                                                                                                | H: 2511'  | G <sub>g</sub> : 1.529         | % CO <sub>2</sub> : 100 | % N <sub>2</sub> : 0            | % H <sub>2</sub> S: 0 | Prover:                              | Meter Run: 4.0" | Taps: Flange        |

  

| 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        |                  |   |              |                 |                      |             | 360             |             |                 |                  |          |
| 1.        | 4.206 x 2.5      |   |              | 222             | 34                   | 50          | 234.2           | 50          |                 |                  | 24 hrs   |
| 2.        | 4.206 x 2.5      |   |              | 232             | 30                   | 60          | 244.2           | 50          |                 |                  | 24 hrs   |
| 3.        | 4.206 x 2.5      |   |              | 263             | 18                   | 60          | 275.2           | 50          |                 |                  | 24 hrs   |
| 4.        | 4.206 x 2.5      |   |              | 288             | 11                   | 61          | 300.2           | 50          |                 |                  | 24 hrs   |
| 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                         |                       |                  |                         |                       |                   |                             | 2380                 |
| 2                         |                       |                  |                         |                       |                   |                             | 2261                 |
| 3                         |                       |                  |                         |                       |                   |                             | 1882                 |
| 4                         |                       |                  |                         |                       |                   |                             | 1583                 |
| 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 | 0             |
| 2   |                |          |                |   | Specific Gravity Separator Gas        | 1.529         |
| 3   |                |          |                |   | Specific Gravity Flowing Fluid        | XXXXXX        |
| 4   |                |          |                |   | Critical Pressure                     | 1072 P.S.I.A. |
| 5   |                |          |                |   | Critical Temperature                  | 547 °R        |

  

|                                                          |                             |                |                             |                                                           |
|----------------------------------------------------------|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|
| P <sub>c</sub> 372.2 P <sub>c</sub> <sup>2</sup> 138.533 |                             |                |                             |                                                           |
| NO.                                                      | P <sub>t</sub> <sup>2</sup> | P <sub>w</sub> | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> |
| 1                                                        |                             | 234.2          |                             | 83.683                                                    |
| 2                                                        |                             | 244.2          |                             | 78.899                                                    |
| 3                                                        |                             | 275.2          |                             | 62.798                                                    |
| 4                                                        |                             | 300.2          |                             | 48.413                                                    |
| 5                                                        |                             |                |                             |                                                           |

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.65$$

$$(2) \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.46$$

$$AOF = Q \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3473$$

  

|                         |               |                             |                  |          |     |
|-------------------------|---------------|-----------------------------|------------------|----------|-----|
| Absolute Open Flow      | 3473          | Mcf/d @ 15.025              | Angle of Slope θ | Slope, n | .75 |
| Remarks:                |               |                             |                  |          |     |
|                         |               |                             |                  |          |     |
| Approved By Commission: | Conducted By: | Calculated By: D. D. Kimble | Checked By:      |          |     |

1834 2216

46 7200

LOGARITHMIC 2 x 2 CYCLES  
KEUFFEL & ESSER CO. MADE IN U.S.A.

AOE = 3473

$P_1^2/P_2^2$

$Q = MCF$

