

**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: 6/5/85     |                                      |                |                     |
| Company: Amoco Production Company                                                                                       |           |                             |                         | Connection:                       |                       |                                      |                |                     |
| Pool: Bravo Dome Carbon Dioxide Gas Unit 640 Acre Area                                                                  |           |                             |                         | Formation: Tubb                   |                       | Unit: BDCDGU                         |                |                     |
| Completion Date: 1/10/84                                                                                                |           | Total Depth: 2748'          |                         | Plug Back TD: 2648'               |                       | Elevation: 4635 GL                   |                | Farm or Lease Name: |
| Csg. Size: 7"                                                                                                           | Wt.: 20#  | d:                          | Set At: 2748'           | Perforations: From 2121' To 2239' |                       | Well No.: 1835 081C                  |                |                     |
| Thq. Size: 3-1/2"                                                                                                       | Wt.: 9.3# | d:                          | Set At: 2069'           | Perforations: From To             |                       | Unit: C Sec: 8 Twp: 18 Rge: 35       |                |                     |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple: Single                                                         |           |                             |                         |                                   | Packer Set At: 2031'  |                                      | County: UNION  |                     |
| Producing Thru: Tubing                                                                                                  |           | Reservoir Temp. °F: @ 2180' |                         | Mean Annual Temp. °F: 50          |                       | Baro. Press. - P <sub>a</sub> : 12.2 |                | State: New Mexico   |
| L: 2180'                                                                                                                | H: 2180'  | 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. |                  |
| SI        |                  |   |              |                 |                      |             | 302             |             |                 |                  |
| 1.        | 4.026 x 2.00     |   |              | 224             | 21                   | 62          | 236.2           | 50          |                 |                  |
| 2.        | 4.026 x 2.00     |   |              | 241             | 12                   | 60          | 253.2           | "           |                 |                  |
| 3.        | 4.026 x 2.00     |   |              | 266             | 6                    | 60          | 274.2           | "           |                 |                  |
| 4.        | 4.026 x 2.00     |   |              | 291             | 2                    | 60          | 303.2           | "           |                 |                  |
| 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>pv</sub> | Rate of Flow Q, Mcfd |
| 1                         |                       |                  |                         |                       |                               |                                         | 1133                 |
| 2                         |                       |                  |                         |                       |                               |                                         | 904                  |
| 3                         |                       |                  |                         |                       |                               |                                         | 665                  |
| 4                         |                       |                  |                         |                       |                               |                                         | 406                  |
| 5                         |                       |                  |                         |                       |                               |                                         |                      |

  

|     |                |          |                |   |                                                       |
|-----|----------------|----------|----------------|---|-------------------------------------------------------|
| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</sub> | Z | Gas Liquid Hydrocarbon Ratio: 0 Mcf/bbl.              |
| 1   |                |          |                |   | A.P.I. Gravity of Liquid Hydrocarbons: 0 Deg.         |
| 2   |                |          |                |   | Specific Gravity Separator Gas: 1.529 X X X X X X X X |
| 3   |                |          |                |   | Specific Gravity Flowing Fluid: X X X X X             |
| 4   |                |          |                |   | Critical Pressure: 1072 P.S.I.A.                      |
| 5   |                |          |                |   | Critical Temperature: 547 R                           |

  

|                        |                                      |                |                             |
|------------------------|--------------------------------------|----------------|-----------------------------|
| P <sub>r</sub> : 314.2 | P <sub>c</sub> <sup>2</sup> : 98.722 |                |                             |
| NO.                    | P <sub>r</sub> <sup>2</sup>          | P <sub>w</sub> | P <sub>w</sub> <sup>2</sup> |
| 1                      |                                      | 236.2          | 42.931                      |
| 2                      |                                      | 253.2          | 34.611                      |
| 3                      |                                      | 274.2          | 23.536                      |
| 4                      |                                      | 303.2          | 6.791                       |
| 5                      |                                      |                |                             |

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.3$$

$$(2) \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.594$$

$$AOF = Q \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1806$$

|                                        |                           |                             |
|----------------------------------------|---------------------------|-----------------------------|
| Absolute Open Flow: 1806 Mcfd @ 15.025 | Angle of Slope $\theta$ : | Slope, n: .56               |
| Remarks:                               |                           |                             |
|                                        |                           |                             |
| Approved By Commission:                | Conducted By:             | Calculated By: D. D. Kimble |
|                                        |                           | Checked By:                 |

1835 081C

AOF = 1806

46 7200

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

K<sub>0</sub>Σ

100

1.5

2

2.5

3

4

5

6

7

8

9

1000

1.5

2

2.5

3

4

5

6

7

8

9

1

Q = MCF