

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

Form C-122  
 Revised 9-1-63

|                                                                                                                           |             |                          |                |                                           |          |                                            |                          |
|---------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------|----------------|-------------------------------------------|----------|--------------------------------------------|--------------------------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |             |                          |                | Test Date<br>8/14/98                      |          | API Number<br>30-059-20369                 |                          |
| Company<br><b>Amoco Exploration &amp; Production</b>                                                                      |             |                          |                | Connection<br><b>Bravo Dome CO2 Plant</b> |          | RTU Number<br>4004                         |                          |
| Pool<br><b>N/A</b>                                                                                                        |             |                          |                | Formation<br><b>Tubb</b>                  |          | Unit<br><b>BDCDGU</b>                      |                          |
| Completion Date<br>6/10/98                                                                                                |             | Total Depth<br>2430      |                | Plug Back Depth<br>2415                   |          | Elevation<br>4830 KB                       |                          |
| Csg. Size<br>5.50                                                                                                         | Wt.<br>14.0 | Csg. Inside Dia<br>5.012 | Set At<br>2426 | Perforations<br>From 2231 To 2368         |          | Well Number<br>1934-342-E                  |                          |
| Tbg. Size<br>3.50                                                                                                         | Wt.<br>FG   | Tbg. Inside Dia<br>2.95  | Set At<br>2224 | Perforations<br>From n/a To n/a           |          | Unit Sec. Twp. Rge.<br>SEC. 34. T-19, R-34 |                          |
| Type well -Single-Bradenhead-G.G. or G.O. Multiple<br><b>Single</b>                                                       |             |                          |                | Packer Set At<br>2220                     |          | County<br>Union                            |                          |
| Producing Through<br><b>Tubina</b>                                                                                        |             | Reservoir Temp. F<br>95  |                | Mean Annual Temp. F<br>60                 |          | Baro. Press. - PSIA<br>12.2                |                          |
| Flow Channel, L<br>2415                                                                                                   |             | Depth, H<br>2415         | Gg<br>1.5192   | %CO2<br>100                               | %N2<br>0 | %H2S<br>0                                  | Prover<br><b>ORIFICE</b> |
|                                                                                                                           |             |                          |                |                                           |          |                                            | Meter Run<br>4 inch      |
|                                                                                                                           |             |                          |                |                                           |          |                                            | Taps<br><b>FLANGE</b>    |

  

| FLOW DATA |             |   |                  |                 | TUBING DATA |                 | CASING DATA |                 | Duration of Flow |          |
|-----------|-------------|---|------------------|-----------------|-------------|-----------------|-------------|-----------------|------------------|----------|
| NO.       | Prover Size | X | Stat. Press psig | Diff. Press. Hw | Temp. °F    | Press. p.s.i.g. | Temp. °F    | Press. p.s.i.g. |                  | Temp. °F |
| SI        |             |   |                  |                 |             | 182             |             |                 |                  | 24 hour  |
| 1.        |             |   |                  |                 |             | 180             |             |                 |                  | 60 MIN   |
| 2.        |             |   |                  |                 |             | 170             |             |                 |                  | 60 MIN   |
| 3.        |             |   |                  |                 |             | 152             |             |                 |                  | 60 MIN   |
| 4.        |             |   |                  |                 |             | 119             |             |                 |                  | 60 MIN   |
| 5.        |             |   |                  |                 |             | 0               |             |                 |                  |          |

  

| RATE OF FLOW CALCULATIONS |                        |           |             |                       |                    |                                   |                      |         |
|---------------------------|------------------------|-----------|-------------|-----------------------|--------------------|-----------------------------------|----------------------|---------|
| NO.                       | Coefficient (24 Hours) | / hw * Pm | Pressure Pm | Flow Temp. Factor, Ft | Gravity Factor, Fg | Super Compressibility Factor, Fpv | Rate of Flow Q, Mcfd |         |
|                           |                        |           |             |                       |                    |                                   | Values               | Log(10) |
| SI                        |                        |           |             |                       |                    |                                   | 0                    |         |
| 1.                        |                        |           |             |                       |                    |                                   | 460                  | 2.6628  |
| 2.                        |                        |           |             |                       |                    |                                   | 1050                 | 3.0212  |
| 3.                        |                        |           |             |                       |                    |                                   | 1656                 | 3.2191  |
| 4.                        |                        |           |             |                       |                    |                                   | 2450                 | 3.3892  |
| 5.                        |                        |           |             |                       |                    |                                   | 4997                 | AOF     |

  

|     |     |          |     |   |                                        |               |
|-----|-----|----------|-----|---|----------------------------------------|---------------|
| NO. | P r | Temp, °R | T r | Z | Gas Liquid Hydrocarbon Ratio           | N/A Mcf/bbl   |
| 1.  |     |          |     |   | A. P. I. Gravity of Liquid Hydrocarbon | N/A Deg.      |
| 2.  |     |          |     |   | Specific Gravity Separator Gas         | N/A           |
| 3.  |     |          |     |   | Specific Gravity Flowing Fluid         | 1.5192        |
| 4.  |     |          |     |   | Critical Pressure                      | 1072 P.S.I.A. |
| 5.  |     |          |     |   | Critical Temperature                   | 548 R         |

  

|      |          |        |        |
|------|----------|--------|--------|
| Pc = | 225.3346 | Pc^2 = | 50,776 |
| NO.  | P r^2    | Pw     | P w^2  |
| SI   |          | 225.3  | 50,776 |
| 1.   |          | 224.2  | 50,283 |
| 2.   |          | 218.5  | 47,755 |
| 3.   |          | 209.3  | 43,823 |
| 4.   |          | 195.6  | 38,274 |
| 5.   |          |        |        |

  

|                    |          |                    |       |
|--------------------|----------|--------------------|-------|
| (1) 4th test point |          | (2) 4th test point |       |
| Pc^2               | 4.061    | Pc^2               | 2.039 |
| Pc^2 - Pw^2        |          | Pc^2 - Pw^2        |       |
| 4th test point     |          |                    |       |
| Q                  | P r^2 ^n | 4,997              | = AOF |
| Pc^2 - Pw^2        |          |                    |       |

  

|                    |       |               |                |       |            |                   |
|--------------------|-------|---------------|----------------|-------|------------|-------------------|
| Absolute Open Flow | 4,997 | Mcfd @ 15.025 | Angle of Slope | 63.05 | Slope, n = | 0.508 (Cotangent) |
| Remarks:           |       |               |                |       |            |                   |

  

|                         |                             |                               |                                |
|-------------------------|-----------------------------|-------------------------------|--------------------------------|
| Approved By Commission: | Conducted By:<br>Automation | Calculated By:<br>Spreadsheet | Checked By:<br>Michael Preston |
|-------------------------|-----------------------------|-------------------------------|--------------------------------|