

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>2-6-69                   |  |
| Company<br>Burlison and Huff                                                                                              |  |                                  |  | Connection<br>None                                  |  |                                       |  |
| Pool<br>Jalmit                                                                                                            |  |                                  |  | Formation<br>Yates                                  |  | Unit                                  |  |
| Completion Date (Re)<br>1-15-69                                                                                           |  | Total Depth<br>3285              |  | Plug Back TD<br>2950                                |  | Elevation                             |  |
| Csg. Size<br>5 1/2                                                                                                        |  | Wt.<br>d                         |  | Set At<br>3108                                      |  | Perforations:<br>From 2567 To 2752    |  |
| Tbg. Size<br>2                                                                                                            |  | Wt.<br>d                         |  | Set At<br>2550                                      |  | Perforations:<br>From Open End To     |  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single                                                         |  |                                  |  |                                                     |  | Packer Set At<br>2550                 |  |
| Producing Thru<br>Tog.                                                                                                    |  | Reservoir Temp. °F<br>106 @ 3285 |  | Mean Annual Temp. °F<br>74                          |  | Baro. Press. - P <sub>a</sub><br>13.2 |  |
| L<br>2660                                                                                                                 |  | H<br>3285                        |  | G <sub>g</sub> (assumed) % CO <sub>2</sub><br>.643* |  | % H <sub>2</sub> S<br>Prover 2"       |  |
|                                                                                                                           |  |                                  |  |                                                     |  | Meter Run<br>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        |                  |   |              |                 |                      |          | 700             |          |                 |          |                  |
| 1.        | 2"               | x | 3/32"        | 687             |                      |          | 687             | 66       | Pkr             |          | 1                |
| 2.        | 2"               | x | 3/16"        | 648             |                      |          | 648             | 68       |                 |          | 1                |
| 3.        | 2"               | x | 3/8"         | 456             |                      |          | 456             | 69       |                 |          | 1                |
| 4.        | 2"               | x | 1/2"         | 300             |                      |          | 300             | 70       |                 |          | 1                |
| 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                         | .1410                 |                  | 700.2                   | .0043                 | 1.247                         | 1.070                                    | 131                  |
| 2                         | .6082                 |                  | 661.2                   | .0024                 | 1.247                         | 1.065                                    | 530                  |
| 3                         | 2.378                 |                  | 460.2                   | .0015                 | 1.247                         | 1.045                                    | 1042                 |
| 4                         | 4.273                 |                  | 313.2                   | .0005                 | 1.247                         | 1.030                                    | 1705                 |
| 5                         |                       |                  |                         |                       |                               |                                          |                      |

  

| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</sub> | Z    | Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.          |
|-----|----------------|----------|----------------|------|------------------------------------------------------|
| 1.  | 1.05           | 526      | 1.41           | .873 | A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.     |
| 2.  | .99            | 528      | 1.42           | .882 | Specific Gravity Separator Gas _____ X X X X X X X X |
| 3.  | .70            | 529      | 1.42           | .915 | Specific Gravity Flowing Fluid _____ X X X X X       |
| 4.  | .47            | 530      | 1.42           | .943 | Critical Pressure _____ 670 P.S.I.A. _____ P.S.I.A.  |
| 5.  |                |          |                |      | Critical Temperature _____ 372 R _____ R             |

  

| NO. | P <sub>r</sub> <sup>2</sup> | P <sub>w</sub> | P <sub>w</sub> <sup>2</sup> | P <sub>r</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> |
|-----|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|
| 1   | 490.3                       |                | 490.5                       | 18.2                                                      |
| 2   | 437.2                       |                | 439.9                       | 68.8                                                      |
| 3   | 220.1                       |                | 240.8                       | 267.9                                                     |
| 4   | 98.1                        |                | 127.7                       | 381.0                                                     |
| 5   |                             |                |                             |                                                           |

  

(1)  $\frac{P_r^2}{P_r^2 - P_w^2} = \frac{508.7}{381.0}$

(2)  $\left[ \frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.231$

AOF = Q  $\left[ \frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2098.9$

P<sub>c</sub> 713.2    P<sub>c</sub><sup>2</sup> 508.7

  

|                    |       |               |                  |          |      |
|--------------------|-------|---------------|------------------|----------|------|
| Absolute Open Flow | 2,099 | Mcfd @ 15.025 | Angle of Slope θ | Slope, n | .738 |
|--------------------|-------|---------------|------------------|----------|------|

  

Remarks: \*Gravity of .643 used from previous sample. Current gravity is .672

  

|              |                                             |                                              |                     |
|--------------|---------------------------------------------|----------------------------------------------|---------------------|
| Approved By: | Conducted By: EPNG<br>Bobby Boaz - Don Read | Calculated By: EPNG<br>Bobby Boaz - Don Read | Checked By: Ed Mabe |
|--------------|---------------------------------------------|----------------------------------------------|---------------------|