

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>11/12/82                 |                                 |                                   |
| Company<br>Northwest Pipeline Corporation   |            |                             | Connection<br>New Completion |                                       |                                 |                                   |
| Pool<br>Blanco  |            |                             | Formation<br>Mesa Verde      |                                       | Unit<br>Rosa                    |                                   |
| Completion Date<br>9-30-82  |            | Total Depth<br>6117'        | Plug Back TD<br>6077'        | Elevation<br>6558'                    | Farm or Lease Name<br>Rosa Unit |                                   |
| <del>C<sub>7</sub></del> 4.500  | Wt. 20.0   | d 6.456                     | Set At 3935'                 | Perforations:<br>From 5670' To 5990'  |                                 | Well No.<br>#45                   |
| 4.500   | 10.5       | 4.052                       | 3746'-6117'                  |                                       |                                 |                                   |
| Thg. Size<br>2.375  | Wt.<br>4.7 | d<br>1.995                  | Set At<br>5917'              | Perforations:<br>From To              |                                 | Unit Soc. Twp. Rye.<br>M 9 31N 5W |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Gas - Single Completion  |            |                             |                              | Packer Set At<br>None                 |                                 | County<br>Rio Arriba              |
| Producing Thru Tubing   |            | Reservoir Temp. °F<br>#     | Mean Annual Temp. °F         | Baro. Press. - P <sub>a</sub><br>12.0 |                                 | State<br>New Mexico               |
| L   | H          | G <sub>g</sub> est.<br>.580 | % CO <sub>2</sub>            | % N <sub>2</sub>                      | % H <sub>2</sub> S              | Positive Choke                    |
| Meter Run   | Tcps       |                             |                              |                                       |                                 |                                   |

  

| 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 Shut-In Pressures |                  |   |              |                 |                      |                 |                 |          |                 |          |                  |
| 1.                   | 2"               | X | .750"        | 63              |                      | 72 <sup>0</sup> | 976             |          | 976             |          | 3 hrs            |
| 2.                   |                  |   |              |                 |                      |                 |                 |          | 452             |          |                  |
| 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 F <sub>g</sub> | Super Compress. Factor, F <sub>pv</sub> | Rate of Flow O, Mcfd |
| 1.                        | 9.604                 |                  | 75                      | .989                  | 1.313                         | 1.006                                   | 941                  |
| 2.                        |                       |                  |                         |                       |                               |   |                      |
| 3.                        |                       |                  |                         |                       |                               |   |                      |
| 4.                        |                       |                  |                         |                       |                               |   |                      |
| 5.                        |                       |                  |                         |                       |                               |   |                      |

  

| NO. | P <sub>f</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        | X X X X X X X X X |
| 3.  |                |          |                |   | Specific Gravity Flowing Fluid        | X X X X X         |
| 4.  |                |          |                |   | Critical Pressure                     | P.S.I.A. P.S.I.A. |
| 5.  |                |          |                |   | Critical Temperature                  | R R               |

  

|                    |                                    |  |   |   |
|--------------------|------------------------------------|--|---|---|
| P <sub>c</sub> 988 | P <sub>c</sub> <sup>2</sup> 976144 | (1) $\frac{P_c^2}{P_e^2 - P_w^2} = 1.2830$ | (2) $\left[ \frac{P_c^2}{P_e^2 - P_w^2} \right]^n = 1.2055$ |   |
| NO                 | P <sub>1</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                  |                                    | 464  | 215296  | 760848  |
| 2                  |                                    |  |   |   |
| 3                  |                                    |  |   |   |
| 4                  |                                    |  |   |   |
| 5                  |                                    |  |   |   |

  

AOF = Q  $\left[ \frac{P_c^2}{P_e^2 - P_w^2} \right]^n = 1,134$

  

|                    |       |              |                  |              |
|--------------------|-------|--------------|------------------|--------------|
| Absolute Open Flow | 1,134 | Mcf @ 15.025 | Angle of Slope @ | Slope, n .75 |
|--------------------|-------|--------------|------------------|--------------|

  

Remarks: Produced heavy mist of water throughout test. Vented 146 MCF.

  

|                         |                                  |                                  |                       |
|-------------------------|----------------------------------|----------------------------------|-----------------------|
| Approved By Commission: | Conducted By:<br>Fred S. Hamrick | Calculated By:<br>B.J. Broughton | Checked By:<br>R.B.R. |
|-------------------------|----------------------------------|----------------------------------|-----------------------|