

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>10/18/82                    |                                                       |
| Company<br>Northwest Pipeline Corporation                                                                                 |                         | Connection<br>New Completion             |                                                       |
| Pool<br>Blanco                                                                                                            |                         | Formation<br>Mesa Verde                  |                                                       |
| Completion Date<br>10-03-82                                                                                               |                         | Total Depth<br>6250'                     | Plug Back TD<br>6195'                                 |
| Elevation<br>6855'                                                                                                        |                         | Farm or Lease Name<br>San Juan 29-5 Unit |                                                       |
| Csg. Size<br>4.500                                                                                                        | Wt.<br>20.0#            | d<br>6.456                               | Set At<br>4170'                                       |
| Perforations:<br>From 5640' To 6150'                                                                                      |                         | Well No.<br>#106 MV                      |                                                       |
| Tbg. Size<br>2.375                                                                                                        | Wt.<br>4.7#             | d<br>1.995                               | Set At<br>6000'                                       |
| Perforations:<br>From To                                                                                                  |                         | Unit Sec. Twp. Rge.<br>K 25 29N 5W       |                                                       |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Multiple Completion                                            |                         | Packer Set At<br>3930'                   | County<br>Rio Arriba                                  |
| Producing Thru<br>Tubing                                                                                                  | Reservoir Temp. °F<br>8 | Mean Annual Temp. °F                     | Baro. Press. - P <sub>a</sub><br>12.0                 |
| State<br>New Mexico                                                                                                       |                         | Meter Run                                |                                                       |
| L                                                                                                                         | H                       | G <sub>g</sub> est.<br>.670              | % CO <sub>2</sub> % N <sub>2</sub> % H <sub>2</sub> S |
|                                                                                                                           |                         | Positive Choke                           |                                                       |

  

| 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 Pressure |   |              |                 |                      |                 | 1158            |             |                 |                  | SIP      |
| 1.        | 2"               | X | .750"        | 154             |                      | 62 <sup>0</sup> | 154             |             |                 |                  | 3 hrs.   |
| 2.        |                  |   |              |                 |                      |                 |                 |             |                 |                  |          |
| 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 Fg | Super Compress. Factor, F <sub>pv</sub> | Rate of Flow Q, Mcfd |
| 1                         | 9.604                 |                  | 166                     | .998                  | 1.222             | 1.020                                   | 1983                 |
| 2.                        |                       |                  |                         |                       |                   |                                         |                      |
| 3.                        |                       |                  |                         |                       |                   |                                         |                      |
| 4.                        |                       |                  |                         |                       |                   |                                         |                      |
| 5.                        |                       |                  |                         |                       |                   |                                         |                      |

  

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

  
  

| NO. | P <sub>c</sub> | P <sub>w</sub> | P <sub>c</sub> <sup>2</sup> | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> |
|-----|----------------|----------------|-----------------------------|-----------------------------|-----------------------------------------------------------|
| 1   | 1170           | 340            | 1368900                     | 115600                      | 1253300                                                   |
| 2   |                | (calc.)        |                             |                             |                                                           |
| 3   |                |                |                             |                             |                                                           |
| 4   |                |                |                             |                             |                                                           |
| 5   |                |                |                             |                             |                                                           |

  

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.0922$$

$$AOF = Q \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2119$$

$$(2) \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0684$$

  

|                    |      |              |                  |              |
|--------------------|------|--------------|------------------|--------------|
| Absolute Open Flow | 2119 | Mcf @ 15.025 | Angle of Slope ° | Slope, n .75 |
|--------------------|------|--------------|------------------|--------------|

  

Remarks: Produced light mist of water with a trace of condensate vented 274 MCF.

|                |       |                              |                |                |                                                           |                |
|----------------|-------|------------------------------|----------------|----------------|-----------------------------------------------------------|----------------|
| G <sub>1</sub> | 1-e-s | F <sub>CO</sub> <sup>2</sup> | R <sub>c</sub> | P <sub>t</sub> | P <sub>t</sub> <sup>2</sup> + R <sub>c</sub> <sup>2</sup> | P <sub>w</sub> |
| 4020           | .253  | 347605                       | 87944          | 27556          | 115500                                                    | 340            |

  

|                         |                                  |                                  |                         |
|-------------------------|----------------------------------|----------------------------------|-------------------------|
| Approved By Commission: | Conducted By:<br>Fred C. Hamrick | Calculated By:<br>D. J. Doughton | Checked By:<br>B. J. R. |
|-------------------------|----------------------------------|----------------------------------|-------------------------|