

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>01-15-82                 |                                         |
| Company<br>Northwest Pipeline Corporation                                                                                 |          |                             |                   | Connection<br>New Completion          |                                         |
| Pool<br>Blanco                                                                                                            |          |                             |                   | Formation<br>Mesa Verde               |                                         |
| Completion Date<br>01-06-82                                                                                               |          |                             |                   | Unit<br>San Juan 32-8                 |                                         |
| Total Depth<br>6220'                                                                                                      |          | Plug Back TD<br>6167'       |                   | Elevation<br>6766'                    |                                         |
| Form or Lease Name<br>San Juan 32-8 Unit                                                                                  |          |                             |                   |                                       |                                         |
| Csg. 4.000                                                                                                                | Wt. 20.0 | d 6.456                     | Set At 4088'      | Perforations:                         |                                         |
| 4.500                                                                                                                     | 10.5     | 4.052                       | 3881'-6209'       | From 5686'                            | To 6140'                                |
| Trg. Size 2.375                                                                                                           | Wt. 4.7  | d 1.995                     | Set At 5771'      | Perforations:                         |                                         |
|                                                                                                                           |          |                             |                   | From                                  | To                                      |
| Type Well - Single - Broadhead - G.G. or G.O. Multiple<br>Gas - Single Completion                                         |          |                             |                   | Packer Set At<br>None                 |                                         |
| Producing Thru<br>Tubing                                                                                                  |          |                             |                   | County<br>San Juan                    |                                         |
| Reservoir Temp. *F<br>6                                                                                                   |          | 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>.590 | % CO <sub>2</sub> | % N <sub>2</sub>                      | % H <sub>2</sub> S<br>positive<br>choke |

| FLOW DATA |                        |   |                 |                    |                         |                 | TUBING DATA        |             | CASING DATA        |             | Duration<br>of<br>Flow |
|-----------|------------------------|---|-----------------|--------------------|-------------------------|-----------------|--------------------|-------------|--------------------|-------------|------------------------|
| NO.       | Prover<br>Line<br>Size | X | Orifice<br>Size | Press.<br>p.s.i.g. | Diff.<br>h <sub>w</sub> | Temp.<br>*F     | Press.<br>p.s.i.g. | Temp.<br>*F | Press.<br>p.s.i.g. | Temp.<br>*F |                        |
| SI        |                        |   |                 |                    |                         |                 | 1052               |             | 1052               |             | SIP                    |
| 1.        | 2"                     | X | .750"           | 224                |                         | 65 <sup>0</sup> | 224                |             | 586                |             | 3 hrs.                 |
| 2.        |                        |   |                 |                    |                         |                 |                    |             |                    |             |                        |
| 3.        |                        |   |                 |                    |                         |                 |                    |             |                    |             |                        |
| 4.        |                        |   |                 |                    |                         |                 |                    |             |                    |             |                        |
| 5.        |                        |   |                 |                    |                         |                 |                    |             |                    |             |                        |

| RATE OF FLOW CALCULATIONS |                          |                  |                            |                                        |                                     |                                               |                         |
|---------------------------|--------------------------|------------------|----------------------------|----------------------------------------|-------------------------------------|-----------------------------------------------|-------------------------|
| NO.                       | Coefficient<br>(24 Hour) | $\sqrt{h_w P_m}$ | Pressure<br>P <sub>m</sub> | Flow Temp.<br>Factor<br>F <sub>t</sub> | Gravity<br>Factor<br>F <sub>g</sub> | Super<br>Compress.<br>Factor, F <sub>pv</sub> | Rate of Flow<br>Q, Mcfd |
| 1                         | 9.604                    |                  | 236                        | .995                                   | 1.302                               | 1.020                                         | 2995                    |
| 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 | Deg.     |
| 2   |                |          |                |   | Specific Gravity Separator Gas        | XXXXXXX  |
| 3   |                |          |                |   | Specific Gravity Flowing LIQ. DIST. 3 | XXXXX    |
| 4   |                |          |                |   | Critical Pressure                     | P.S.I.A. |
| 5   |                |          |                |   | Critical Temperature                  | R        |

| NO. | P <sub>i</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) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.4617$ | (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.3294$ |
|-----|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------|
| 1   |                             | 598            | 357604                      | 774492                                                    |                                            |                                                             |
| 2   |                             |                |                             |                                                           |                                            |                                                             |
| 3   |                             |                |                             |                                                           |                                            |                                                             |
| 4   |                             |                |                             |                                                           |                                            |                                                             |
| 5   |                             |                |                             |                                                           |                                            |                                                             |

ADP = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3982$

|                    |      |                |                  |              |
|--------------------|------|----------------|------------------|--------------|
| Absolute Open Flow | 3982 | Mcf/d @ 15.025 | Angle of Slope @ | Slope, n .75 |
|--------------------|------|----------------|------------------|--------------|

Remarks: Produced light mist of water throughout test. Vented 414 MCF.

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