

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

Form C-122  
Revised 9-1-65

|                                                                                                                        |            |                     |                                        |                                    |                                   |
|------------------------------------------------------------------------------------------------------------------------|------------|---------------------|----------------------------------------|------------------------------------|-----------------------------------|
| Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |            |                     |                                        | Test Date<br>6-13-69               |                                   |
| Company<br>Astec Oil and Gas                                                                                           |            |                     | Connection<br>Southern Union Gathering |                                    |                                   |
| Pool                                                                                                                   |            |                     | Formation<br>Pictured Cliffs           |                                    | Unit                              |
| Completion Date<br>6-16-69                                                                                             |            | Total Depth<br>2600 | Plug Back TD<br>2600                   | Elevation<br>6119 Gr               | Farm or Lease Name<br>Thompson    |
| Chq. Size<br>4"                                                                                                        | Wt.<br>9.5 | d                   | Set At<br>2600                         | Perforations:<br>From 2527 To 2506 | Well No.<br>13                    |
| Chq. Size<br>1"                                                                                                        | Wt.<br>1.7 | d                   | Set At<br>2510                         | Perforations:<br>From open ended   | Unit Sec. Twp. Rge.<br>F 28 31 12 |
| Type Well - Single - Brdenhead - G.G. or G.O. Multiple<br>single                                                       |            |                     |                                        | Packer Set At                      | County<br>San Juan                |
| Flowing Thru                                                                                                           |            | Reservoir Temp. °F  | Mean Annual Temp. °F                   | Baro. Press. - P <sub>a</sub>      | State<br>New Mexico               |
| L                                                                                                                      | H          | Q <sub>g</sub>      | % CO <sub>2</sub>                      | % N <sub>2</sub>                   | % H <sub>2</sub> S                |
| Prover                                                                                                                 |            | Meter Run           |                                        | Taps                               |                                   |

  

| FLOW DATA |                  |   |              |                 |                     | TUBING DATA |                 | CASING DATA |                 | Duration of Flow |          |
|-----------|------------------|---|--------------|-----------------|---------------------|-------------|-----------------|-------------|-----------------|------------------|----------|
| NO.       | Prover Line Size | X | Orifice Size | Press. p.s.i.g. | D.H. h <sub>w</sub> | Temp. °F    | Press. p.s.i.g. | Temp. °F    | Press. p.s.i.g. |                  | Temp. °F |
| 1.        | 2                |   | 3/4          |                 |                     |             | 598             |             | 612             |                  |          |
| 2.        |                  |   |              |                 |                     |             | 91              |             | 9               |                  |          |
| 3.        |                  |   |              |                 |                     |             |                 |             |                 |                  |          |
| 4.        |                  |   |              |                 |                     |             |                 |             |                 |                  |          |
| 5.        |                  |   |              |                 |                     |             |                 |             |                 |                  |          |

  

| RATE OF FLOW CALCULATIONS |                       |                  |                         |                                  |                               |                                         |                      |
|---------------------------|-----------------------|------------------|-------------------------|----------------------------------|-------------------------------|-----------------------------------------|----------------------|
| NO.                       | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | Pressure P <sub>m</sub> | Flow Temp. Factor F <sub>t</sub> | Gravity Factor F <sub>g</sub> | Super Compress. Factor, F <sub>pv</sub> | Rate of Flow Q, Mcfd |
| 1                         | 12.365                |                  | 21                      | 1.000                            | .9258                         | 1.004                                   | 242                  |
| 2                         |                       |                  |                         |                                  |                               |                                         |                      |
| 3                         |                       |                  |                         |                                  |                               |                                         |                      |
| 4                         |                       |                  |                         |                                  |                               |                                         |                      |
| 5                         |                       |                  |                         |                                  |                               |                                         |                      |

  

|     |                |          |                |   |                                                      |
|-----|----------------|----------|----------------|---|------------------------------------------------------|
| NO. | P <sub>i</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 _____ 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> 624 | P <sub>c</sub> <sup>2</sup> 389376 |                             |
| NO.                | P <sub>w</sub>                     | P <sub>w</sub> <sup>2</sup> |
| 1                  | 441                                | 470                         |
| 2                  |                                    |                             |
| 3                  |                                    |                             |
| 4                  |                                    |                             |
| 5                  |                                    |                             |

  

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0012$

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 242$

(2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0010$

  

|                                                  |                               |                |
|--------------------------------------------------|-------------------------------|----------------|
| Absolute Open Flow _____ 242 _____ Mcfd @ 15.025 | Angle of Slope $\theta$ _____ | Slope, n _____ |
| Remarks: _____                                   |                               |                |

  

|                               |                     |                                      |                   |
|-------------------------------|---------------------|--------------------------------------|-------------------|
| Approved By Commission: _____ | Conducted By: _____ | Calculated By: <i>Joe C. Delgren</i> | Checked By: _____ |
|-------------------------------|---------------------|--------------------------------------|-------------------|

