

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>1-19-76 |                               |               |                               |  |
| Company<br>Dugan Production Corp.                                                                                         |             |                           |                   | Connection                          |                      |                               |               |                               |  |
| Pool<br>Undesignated - PC                                                                                                 |             |                           |                   | Formation<br>Pictured Cliffs        |                      |                               |               | Unit                          |  |
| Completion Date<br>1-9-76                                                                                                 |             | Total Depth<br>705'       |                   | Plug Back TD<br>665'                |                      | Elevation<br>5236' GR         |               | Farm or Lease Name<br>Burrows |  |
| Csg. Size<br>2-7/8"                                                                                                       | Wt.<br>6.5# | d<br>2.441                | Set At<br>704'    | Perforations:<br>From 549' To 584'  |                      |                               | Well No.<br>1 |                               |  |
| Tbg. Size<br>1-1/4"                                                                                                       | Wt.<br>2.4# | d<br>1.380                | Set At<br>587'    | Perforations:<br>From Open Ended To |                      |                               | Unit<br>C     | Sec.<br>8                     |  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single - Gas                                                   |             |                           |                   | Packer Set At                       |                      | County<br>San Juan            |               |                               |  |
| Producing Thru<br>Tbg                                                                                                     |             | Reservoir Temp. °F<br>@   |                   | Mean Annual Temp. °F                |                      | Baro. Press. - P <sub>a</sub> |               | State<br>New Mexico           |  |
| L                                                                                                                         | H           | G <sub>g</sub><br>.62 est | % 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. | Diff. h <sub>w</sub> | Temp. °F        | Press. p.s.i.g. | Temp. °F    | Press. p.s.i.g. |                  | Temp. °F |
| 1.        |                  |   |              |                 |                      |                 | 187             |             | 212             |                  | 7 days   |
| 2.        |                  |   |              |                 |                      |                 |                 |             |                 |                  |          |
| 3.        | 5/8" Pos Choke   |   |              | 3               |                      | 58 <sup>0</sup> |                 |             | 16              |                  | 3 hrs    |
| 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 Q, Mcfd |
| 1.                        |                       |                  |                         |                       |                               |                                         |                      |
| 2.                        | 8.5417                |                  | 15                      | 1.0019                | .9837                         | 1.000                                   | 126                  |
| 3.                        |                       |                  |                         |                       |                               |                                         |                      |
| 4.                        |                       |                  |                         |                       |                               |                                         |                      |
| 5.                        |                       |                  |                         |                       |                               |                                         |                      |

  

| NO. | P <sub>t</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 |  |
| 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                 |  |

  

| NO. | P <sub>t</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.  |                             |                |                             |                                                           |
| 2.  |                             | 28             | 784                         | 49,392                                                    |
| 3.  |                             |                |                             |                                                           |
| 4.  |                             |                |                             |                                                           |
| 5.  |                             |                |                             |                                                           |

P<sub>c</sub> 224      P<sub>c</sub><sup>2</sup> 50,176

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{1.0159}{1.0159 - 0.0000} = 1.0159$       (2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{1.0134}{1.0134 - 0.0000} = 1.0134$

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 128$

  

|                                      |  |                             |              |
|--------------------------------------|--|-----------------------------|--------------|
| Absolute Open Flow 128 Mcfd @ 15.025 |  | Angle of Slope $\phi$ _____ | Slope, n .85 |
| Remarks: _____                       |  |                             |              |
|                                      |  |                             |              |

  

|                         |                             |                              |             |
|-------------------------|-----------------------------|------------------------------|-------------|
| Approved By Commission: | Conducted By:<br>Jim Jacobs | Calculated By:<br>Jim Jacobs | Checked By: |
|-------------------------|-----------------------------|------------------------------|-------------|