

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

Form C-122  
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

|                                                                                                                           |             |                         |                   |                                     |                    |                                    |                |
|---------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------|-------------------|-------------------------------------|--------------------|------------------------------------|----------------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |             |                         |                   | Test Date<br>12-20-81               |                    |                                    |                |
| Company<br>Dugan Production Corp.                                                                                         |             |                         |                   | Connection                          |                    |                                    |                |
| Pool<br>Basin Dakota                                                                                                      |             |                         |                   | Formation<br>Dakota                 |                    | Unit                               |                |
| Completion Date<br>11-20-81                                                                                               |             | Total Depth<br>6500'    |                   | Plug Back TD<br>6465'               |                    | Elevation<br>6882'                 |                |
| Farm or Lease Name<br>Holly                                                                                               |             |                         |                   | Well No.<br>1                       |                    |                                    |                |
| Csq. Size<br>4 1/2"                                                                                                       | Wt.<br>10.5 | d<br>4.052              | Set At<br>6500    | Perforations:<br>From 6431 To 6452  |                    | Unit Sec. Twp. Rge.<br>L 16 24N 9W |                |
| Tbg. Size<br>1 1/2"                                                                                                       | Wt.<br>2.9  | d<br>1.610              | Set At<br>6440    | Perforations:<br>From open ended To |                    |                                    |                |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single gas                                                     |             |                         |                   | Packer Set At<br>---                |                    | County<br>San Juan                 |                |
| Producing Thru<br>tbg.                                                                                                    |             | Reservoir Temp. °F<br># |                   | Mean Annual Temp. °F                |                    | Baro. Press. - P <sub>a</sub>      |                |
| State<br>NM                                                                                                               |             |                         |                   |                                     |                    |                                    |                |
| L                                                                                                                         | H           | Gg<br>0.64 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 |                  |
| SI        |                  |          |              |                 |                      |          | 1182            |          | 1185            |          |                  |
| 1.        |                  |          |              |                 |                      |          |                 |          |                 |          |                  |
| 2.        |                  |          |              |                 |                      |          |                 |          |                 |          |                  |
| 3.        | 2" 1/2"          | positive | Chk 3        |                 |                      | 52       | -               |          | 180             |          | 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 Fg | Super Compress. Factor, Fpv | Rate of Flow Q, Mcfd |
| 1                         |                       |                  |                         |                       |                   |                             |                      |
| 2                         |                       |                  |                         |                       |                   |                             |                      |
| 3                         | 5.4315                |                  | 15                      | 1.0078                | 0.9682            | 1.000                       | 79                   |
| 4                         |                       |                  |                         |                       |                   |                             |                      |
| 5                         |                       |                  |                         |                       |                   |                             |                      |

  

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

  

|                     |                                       |                                           |                                                             |
|---------------------|---------------------------------------|-------------------------------------------|-------------------------------------------------------------|
| P <sub>c</sub> 1197 | P <sub>c</sub> <sup>2</sup> 1,432,809 | (1) $\frac{P_c^2}{P_t^2 - P_w^2} = 1.026$ | (2) $\left[ \frac{P_c^2}{P_t^2 - P_w^2} \right]^n = 1.0197$ |
| NO                  | P <sub>t</sub> <sup>2</sup>           | P <sub>w</sub>                            | P <sub>w</sub> <sup>2</sup>                                 |
| 1                   |                                       |                                           |                                                             |
| 2                   |                                       |                                           |                                                             |
| 3                   | 192                                   | 36,864                                    | 1,395,945                                                   |
| 4                   |                                       |                                           |                                                             |
| 5                   |                                       |                                           |                                                             |

  

|                                     |               |                |             |
|-------------------------------------|---------------|----------------|-------------|
| Absolute Open Flow 81 Mcfd @ 15.025 |               | Angle of Slope | Slope, n    |
| Remarks:                            |               |                |             |
| Approved By Division                | Conducted By: | Calculated By: | Checked By: |