

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

*Copy to SF*  
C-12-2  
Form C-122  
Revised 9-1-65

**RECEIVED**

|                                                                                                                           |                    |                                         |                       |                                          |                    |                                              |                       |                                           |  |
|---------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------------|-----------------------|------------------------------------------|--------------------|----------------------------------------------|-----------------------|-------------------------------------------|--|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |                    |                                         |                       |                                          |                    | Test Date<br><b>8-21-74</b>                  |                       | <b>AUG 27 1974</b>                        |  |
| Company<br><b>David Fasken</b>                                                                                            |                    |                                         |                       | Connection                               |                    |                                              |                       | <b>O. C. C.<br/>ARTESIA, OFFICE</b>       |  |
| Pool<br><b>Atoka Morrow</b>                                                                                               |                    |                                         |                       | Formation<br><b>Morrow</b>               |                    |                                              |                       | Unit                                      |  |
| Completion Date<br><b>8-21-74</b>                                                                                         |                    | Total Depth<br><b>9200</b>              |                       | Plug Back TD<br><b>9136</b>              |                    | Elevation<br><b>3329 GL</b>                  |                       | Farm or Lease Name<br><b>Rodgers "10"</b> |  |
| Csq. Size<br><b>4 1/2</b>                                                                                                 | Wt.<br><b>10.5</b> | d<br><b>4.052</b>                       | Set At<br><b>9200</b> | Perforations: <b>8851</b> to <b>8869</b> |                    | Well No.<br><b>1</b>                         |                       |                                           |  |
| Thq. Size<br><b>2 7/8</b>                                                                                                 | Wt.<br><b>6.5</b>  | d<br><b>2.441</b>                       | Set At<br><b>8670</b> | Perforations: From      To               |                    | Unit    Sec.    Twp.    Rge.                 |                       |                                           |  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br><b>Single</b>                                                  |                    |                                         |                       | Packer Set At<br><b>8670</b>             |                    | County<br><b>Eddy</b>                        |                       |                                           |  |
| Producing Thru<br><b>Tubing</b>                                                                                           |                    | Reservoir Temp. °F<br><b>154 @ 8860</b> |                       | Mean Annual Temp. °F<br><b>70</b>        |                    | Baro. Press. - P <sub>a</sub><br><b>13.2</b> |                       | State<br><b>New Mexico</b>                |  |
| L<br><b>8887</b>                                                                                                          | H<br><b>8887</b>   | Gg<br><b>0.600</b>                      | % CO <sub>2</sub>     | % N <sub>2</sub>                         | % H <sub>2</sub> S | Prover                                       | Meter Run<br><b>X</b> | 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        | <b>SI 114 1/2 hrs.</b> |   |              |                 |                      |          | <b>2282</b>     |          | <b>Pkr</b>      |          |                  |
| 1.        | 4"                     | X | 1.75"        | 280             | 4"                   | 104      | 2251            | 70       | "               |          | 1 hr.            |
| 2.        | 4"                     | X | 1.75"        | 285             | 10"                  | 102      | 2218            | 70       | "               |          | 1 hr.            |
| 3.        | 4"                     | X | 1.75"        | 315             | 19.5"                | 102      | 2165            | 70       | "               |          | 1 hr.            |
| 4.        | 4"                     | X | 1.75"        | 570             | 35"                  | 98       | 2019            | 70       | "               |          | 1 hr.            |
| 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.                        | 14.93                 | 34.25            | 293.2                   | 0.9602               | 1.291             | 1.019                       | 645.9                |
| 2.                        | 14.93                 | 54.61            | 298.2                   | 0.9619               | 1.291             | 1.020                       | 1032.7               |
| 3.                        | 14.93                 | 80.00            | 328.2                   | 0.9619               | 1.291             | 1.022                       | 1515.9               |
| 4.                        | 14.93                 | 142.87           | 583.2                   | 0.9653               | 1.291             | 1.040                       | 2764.6               |
| 5.                        |                       |                  |                         |                      |                   |                             |                      |

  

| NO. | P <sub>t</sub> | Temp. °R | T <sub>r</sub> | Z     | Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.                 |  |
|-----|----------------|----------|----------------|-------|-------------------------------------------------------------|--|
| 1.  | 0.44           | 564      | 1.58           | 0.963 | A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.            |  |
| 2.  | 0.44           | 562      | 1.57           | 0.962 | Specific Gravity Separator Gas <b>0.600</b> X X X X X X X X |  |
| 3.  | 0.49           | 562      | 1.57           | 0.958 | Specific Gravity Flowing Fluid      X X X X X               |  |
| 4.  | 0.87           | 558      | 1.56           | 0.925 | Critical Pressure <b>671</b> P.S.I.A.      P.S.I.A.         |  |
| 5.  |                |          |                |       | Critical Temperature <b>258</b> R      R                    |  |

  

| <b>P<sub>f</sub> 2939.2    P<sub>f</sub> 2 8639</b> |                             |                |                             |                                                           |
|-----------------------------------------------------|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|
| NO.                                                 | P <sub>t</sub> <sup>2</sup> | P <sub>s</sub> | P <sub>s</sub> <sup>2</sup> | P <sub>f</sub> <sup>2</sup> - P <sub>s</sub> <sup>2</sup> |
| 1                                                   |                             | 2893.2         | 8371                        | 268                                                       |
| 2                                                   |                             | 2852.2         | 8135                        | 504                                                       |
| 3                                                   |                             | 2794.2         | 7808                        | 831                                                       |
| 4                                                   |                             | 2631.2         | 6923                        | 1716                                                      |
| 5                                                   |                             |                |                             |                                                           |

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

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

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

  

|                                                |                                         |                                       |
|------------------------------------------------|-----------------------------------------|---------------------------------------|
| Absolute Open Flow <b>10,000</b> Mcfd @ 15.025 | Angle of Slope <b>51° 47'</b>           | Slope, n <b>0.78739</b>               |
| Remarks: _____                                 |                                         |                                       |
|                                                |                                         |                                       |
| Approved By Commission:                        | Conducted By:<br><b>Tefteller, Inc.</b> | Calculated By:<br><b>F. Tefteller</b> |
| Checked By:                                    |                                         |                                       |