

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

Form C-111  
Revised 9-1-81

**RECEIVED**

|                                                                                                                           |              |                                   |                          |                                                                  |                           |                                                      |           |                                       |  |
|---------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------|--------------------------|------------------------------------------------------------------|---------------------------|------------------------------------------------------|-----------|---------------------------------------|--|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |              |                                   |                          |                                                                  |                           | Test Date<br>9-11-81                                 |           | SEP 23 1981                           |  |
| Company<br>David Fasken                                                                                                   |              |                                   |                          | Connection<br>Unconnected (Gas dedicated to El Paso Natural Gas) |                           |                                                      |           | O. C. D. ARTESIA, OFFICE              |  |
| Pool<br>Avalon (Marrow)                                                                                                   |              |                                   |                          | Formation<br>Morrow                                              |                           |                                                      |           | Unit                                  |  |
| Completion Date<br>9-7-81                                                                                                 |              | Total Depth<br>11209              |                          | Plug Back TD<br>11096                                            |                           | Elevation<br>3192.6 GL                               |           | Farm or Lease Name<br>El Paso Federal |  |
| Csg. Size<br>4 1/2                                                                                                        | Wt.<br>13.50 | d<br>3.920"                       | Set At<br>11209          | Perforations:<br>From 10858 To 10881                             |                           | Well No.<br>6                                        |           |                                       |  |
| Thg. Size<br>2 3/8                                                                                                        | Wt.<br>4.70  | d<br>1.995"                       | Set At<br>10356          | Perforations:<br>From 10889 To 10893                             |                           | Unit    Sec.    Twp.    Rge.<br>J    2    21S    26E |           |                                       |  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single                                                         |              |                                   |                          |                                                                  |                           | Packer Set At<br>10343                               |           | County<br>Eddy                        |  |
| Producing Thru<br>Tubing                                                                                                  |              | Reservoir Temp. °F<br>180 @ 10776 |                          | Mean Annual Temp. °F<br>70                                       |                           | Baro. Press. - P <sub>a</sub><br>13.2                |           | State<br>New Mexico                   |  |
| L<br>10876                                                                                                                | H<br>10876   | Gg<br>0.600                       | % CO <sub>2</sub><br>N/A | % N <sub>2</sub><br>N/A                                          | % H <sub>2</sub> S<br>N/A | Prover<br>Pos. Ck.                                   | 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 |                  |
| 51        | 48 hrs           |        |              | 3429            |                      |          | 3429            |          | Pkr.            |          |                  |
| 1.        | 2" x             | 4/64"  |              | 3154            |                      | 78       | 3154            | 78       | "               |          | 60 mins          |
| 2.        | 2" x             | 5/64"  |              | 2950            |                      | 78       | 2950            | 78       | "               |          | 60 mins          |
| 3.        | 2" x             | 8/64"  |              | 2271            |                      | 80       | 2271            | 80       | "               |          | 60 mins          |
| 4.        | 2" x             | 12/64" |              | 1435            |                      | 80       | 1435            | 80       | "               |          | 60 mins          |
| 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                         | 0.0604                |                  | 3167.2                  | 0.9831                | 1.291             | 1.119                       | 271.7                |
| 2                         | 0.0966                |                  | 2963.2                  | 0.9831                | 1.291             | 1.127                       | 409.4                |
| 3                         | 0.2618                |                  | 2284.2                  | 0.9813                | 1.291             | 1.139                       | 862.9                |
| 4                         | 0.6101                |                  | 1448.2                  | 0.9813                | 1.291             | 1.108                       | 1240.2               |
| 5                         |                       |                  |                         |                       |                   |                             |                      |

  

| NO. | P <sub>t</sub>       | Temp. °R | T <sub>f</sub> | Z | Gas Liquid Hydrocarbon Ratio | Mcf/bbl. |
|-----|----------------------|----------|----------------|---|------------------------------|----------|
| 1.  | Used Simplified      |          |                |   | N/A                          |          |
| 2.  | Supercompressibility |          |                |   | N/A                          |          |
| 3.  | Tables               |          |                |   |                              |          |
| 4.  |                      |          |                |   |                              |          |
| 5.  |                      |          |                |   |                              |          |

  

| p <sub>c</sub> 4392.2    p <sub>f</sub> 19291 |                             |                |                             |                                                           |
|-----------------------------------------------|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|
| 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                                             |                             | 4070.2         | 16567                       | 2724                                                      |
| 2                                             |                             | 3822.2         | 14609                       | 4682                                                      |
| 3                                             |                             | 2974.2         | 8846                        | 10445                                                     |
| 4                                             |                             | 1893.2         | 3584                        | 15707                                                     |
| 5                                             |                             |                |                             |                                                           |

  

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = 1.228179$

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1497.020$

(2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.207080$

  

|                    |          |                |                  |        |          |         |
|--------------------|----------|----------------|------------------|--------|----------|---------|
| Absolute Open Flow | 1497.020 | Mcf/d @ 15.025 | Angle of Slope @ | 47.52° | Slope, n | 0.91569 |
|--------------------|----------|----------------|------------------|--------|----------|---------|

  

Remarks: BHP measured with Amerada RPG-3 gauge no. 47504, 0-6000 psi range.

  

|                         |                                  |                                     |             |
|-------------------------|----------------------------------|-------------------------------------|-------------|
| Approved By Commission: | Conducted By:<br>Tefteller, Inc. | Calculated By:<br>D. A. Warren, Jr. | Checked By: |
|-------------------------|----------------------------------|-------------------------------------|-------------|