

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

Form C-122  
Revised 9-1-65

RECEIVED

15F  
File

|                                                                                                                        |           |                        |                              |                                      |                        |                                    |              |                                        |         |          |          |
|------------------------------------------------------------------------------------------------------------------------|-----------|------------------------|------------------------------|--------------------------------------|------------------------|------------------------------------|--------------|----------------------------------------|---------|----------|----------|
| Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |           |                        |                              | Test Date 12-16-82                   |                        |                                    |              | JAN 14 1983                            |         |          |          |
| Company Cities Service Co. <i>V</i>                                                                                    |           |                        |                              | El Paso                              |                        |                                    |              | O. C. D.                               |         |          |          |
| Pool Turkey Track <i>Atoka</i>                                                                                         |           |                        |                              | Atoka                                |                        |                                    |              | ARTESIA, OFFICE                        |         |          |          |
| Completion Date 12-16-82                                                                                               |           | Total Depth 11,356'    |                              | Packer Back TD 11,000' <i>10,965</i> |                        | Elevation 3426 GL.3442             |              | Farm or Lease Name Government "AM" Com |         |          |          |
| Cog. Size 5 1/2"                                                                                                       | Wt.       | d                      | Set At 11,356'               | Perforations: From 10,675 To 10,680  |                        |                                    |              | Well No. 1                             |         |          |          |
| Tog. Size 2 7/8"                                                                                                       | Wt.       | d                      | Set At 10,575' <i>10,605</i> | Perforations: From Open-Ended        |                        |                                    |              | Unit 0                                 | Sec. 33 | Twp. 18S | Rge. 21E |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple                                                                |           |                        |                              | Packer Set At 10,575'                |                        |                                    |              | County Eddy                            |         |          |          |
| Producing Thru Tubing                                                                                                  |           | Reservoir Temp. °F 60° |                              | Mean Annual Temp. °F 60°             |                        | Baro. Press. - P <sub>a</sub> 13.2 |              | State N.M.                             |         |          |          |
| L 10,678'                                                                                                              | H 10,678' | G <sub>g</sub> .6374   | % CO <sub>2</sub> .523       | % N <sub>2</sub> 3.959               | % H <sub>2</sub> S -0- | Prover -0-                         | Meter Run 4" | Tubs Flange                            |         |          |          |

| 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        |                  |   |              |                 |                      |             | 3200            |             | PKR             | Choke            | 24 Hrs.  |
| 1.        |                  |   | 1 1/4"       | 600             | 5"                   | 45°         | 2150            | 81°         |                 | 6/64             | 1 Hr.    |
| 2.        |                  |   | 1 1/4"       | 600             | 6                    | 52          | 1475            | 80          |                 | 9/64             | 1 Hr.    |
| 3.        |                  |   | 1 1/4"       | 600             | 4                    | 57          | 614             | 77          |                 | 14/64            | 1 Hr.    |
| 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, Mcf/d |
| 1                         | 7.469                 | 55.37            | 613.2                   | 1.015                 | 1.253                         | 1.063                                   | 559                   |
| 2                         | 7.469                 | 60.66            | 613.2                   | 1.008                 | 1.253                         | 1.060                                   | 607                   |
| 3                         | 7.469                 | 49.53            | 613.2                   | 1.003                 | 1.253                         | 1.057                                   | 491                   |
| 4                         |                       |                  |                         |                       |                               |                                         |                       |
| 5                         |                       |                  |                         |                       |                               |                                         |                       |

| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</sub> | Z    | Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.          |
|-----|----------------|----------|----------------|------|------------------------------------------------------|
| 1   | .922           | 505      | 1.40           | .885 | A.P.L. Gravity of Liquid Hydrocarbons _____ Deg.     |
| 2   | .922           | 512      | 1.42           | .890 | Specific Gravity Separator Gas .6374 X X X X X X X X |
| 3   | .922           | 517      | 1.44           | .895 | Specific Gravity Flowing Fluid X X X X X             |
| 4   |                |          |                |      | Critical Pressure 665 P.S.I.A. _____ P.S.I.A.        |
| 5   |                |          |                |      | Critical Temperature 360 R _____ R                   |

| P <sub>c</sub> 3813.7 P <sub>c</sub> <sup>2</sup> 14,544 |                             |                |                             |                                                           |
|----------------------------------------------------------|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|
| NO.                                                      | F <sub>t</sub> <sup>2</sup> | P <sub>w</sub> | F <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> |
| 1                                                        |                             | 2652.7         | 7037                        | 7507                                                      |
| 2                                                        |                             | 1879.2         | 3531                        | 11013                                                     |
| 3                                                        |                             | 913.2          | 834                         | 13710                                                     |
| 4                                                        |                             |                |                             |                                                           |
| 5                                                        |                             |                |                             |                                                           |

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = 1.93739$       (2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.39190$

$\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 778$

*Post FD-2  
1-21-83  
Alt. Zone & AK*

|                        |                |                     |                |
|------------------------|----------------|---------------------|----------------|
| Absolute Open Flow 778 | Mcf/d @ 15.625 | Angle of Slope 63.5 | Slope, n 50000 |
| Remarks:               |                |                     |                |

|                         |                    |                     |                  |
|-------------------------|--------------------|---------------------|------------------|
| Approved By Commission: | Conducted By: M.R. | Calculated By: M.K. | Checked By: M.K. |
|-------------------------|--------------------|---------------------|------------------|