

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

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>10-14-74    |                                       | OCT 29 1974                                       |                                  |
| Company<br>MOBIL OIL CORPORATION LLANO INC.                                                                               |              |                                    |                            |                                               | Connection               |                                       | O. C. C.<br>ARTESIA, OFFICE                       |                                  |
| Pool<br>SOUTH CARLSBAD                                                                                                    |              |                                    |                            |                                               | Formation<br>MORROW      |                                       | Unit<br>320                                       |                                  |
| Completion Date<br>7-27-74                                                                                                |              | Total Depth<br>12,270'             |                            | Plug Back TD<br>12,200                        |                          | Elevation<br>31796.1                  |                                                   | Farm or Lease Name<br>STATE "SS" |
| Csg. Size<br>7"                                                                                                           | Wt.<br>26 #  | d<br>6.276                         | Set At<br>12,270'          | Perforations:<br>From 11,596' To 12,091'      |                          |                                       | Well No.<br>1                                     |                                  |
| Tbg. Size<br>2 3/8"                                                                                                       | Wt.<br>N-80  | d<br>1.995                         | Set At<br>11,586'          | Perforations:<br>From                      To |                          |                                       | Unit    Sec.    Twp.    Rge.<br>C, 20, 23-S, 22-E |                                  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>SINGLE                                                         |              |                                    |                            |                                               | Packer Set At<br>11,566' |                                       | County<br>EDDY                                    |                                  |
| Producing Thru<br>TUBING                                                                                                  |              | Reservoir Temp. °F<br>185° 12,200' |                            | Mean Annual Temp. °F<br>60°                   |                          | Baro. Press. - P <sub>a</sub><br>13.2 |                                                   | State<br>NEW MEXICO              |
| L<br>11,586'                                                                                                              | H<br>11,740' | Gg<br>0.5946                       | % CO <sub>2</sub><br>2.307 | % N <sub>2</sub><br>0.578                     | % H <sub>2</sub> S<br>-  | Prover<br>-                           | Meter Run<br>4"                                   | Taps<br>FLANGES                  |

  

| FLOW DATA |                        |   |                 |                    |                         |             | TUBING DATA        |             | CASING DATA        |             | Duration<br>of<br>Flow |
|-----------|------------------------|---|-----------------|--------------------|-------------------------|-------------|--------------------|-------------|--------------------|-------------|------------------------|
| NO.       | Prover<br>Line<br>Size | X | Orifice<br>Size | Press.<br>p.s.i.g. | Diff.<br>h <sub>w</sub> | Temp.<br>°F | Press.<br>p.s.i.g. | Temp.<br>°F | Press.<br>p.s.i.g. | Temp.<br>°F |                        |
| SI        |                        |   |                 |                    |                         |             | 3952               |             | 60                 |             |                        |
| 1.        | 4 x 1.5                |   |                 | 860                | 104                     | 60          | 2690               | 60          | 60                 |             | 24 HRS                 |
| 2.        | 4 x 2.250              |   |                 | 855                | 28                      | 63          | 2315               | 60          | 60                 |             | 24 HRS                 |
| 3.        | 4 x 2.250              |   |                 | 880                | 40                      | 63          | 1640               | 60          | 100                |             | 24 HRS                 |
| 4.        | 4 x 2.250              |   |                 | 893                | 44                      | 63          | 1290               | 60          | 100                |             | 24 HRS                 |
| 5.        |                        |   |                 |                    |                         |             |                    |             |                    |             |                        |

  

| RATE OF FLOW CALCULATIONS |                          |                  |                            |                                        |                                     |                                               |                         |
|---------------------------|--------------------------|------------------|----------------------------|----------------------------------------|-------------------------------------|-----------------------------------------------|-------------------------|
| NO.                       | Coefficient<br>(24 Hour) | $\sqrt{h_w P_m}$ | Pressure<br>P <sub>m</sub> | Flow Temp.<br>Factor<br>F <sub>t</sub> | Gravity<br>Factor<br>F <sub>g</sub> | Super<br>Compress.<br>Factor, F <sub>pv</sub> | Rate of Flow<br>Q, Mcfd |
| 1                         | 10.84                    | 301.35           | 873.20                     | 1.0000                                 | 1.2964                              | 1.0089                                        | 4526.8                  |
| 2                         | 25.64                    | 155.91           | 868.20                     | 0.9971                                 | 1.2964                              | 1.0669                                        | 5513.7                  |
| 3                         | 25.64                    | 189.01           | 893.20                     | 0.9971                                 | 1.2964                              | 1.0687                                        | 6695.5                  |
| 4                         | 25.64                    | 199.68           | 906.20                     | 0.9971                                 | 1.2964                              | 1.0696                                        | 7079.2                  |
| 5.                        |                          |                  |                            |                                        |                                     |                                               |                         |

  

| NO. | P <sub>t</sub> | Temp. °R | T <sub>r</sub> | Z     | Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.           |
|-----|----------------|----------|----------------|-------|-------------------------------------------------------|
| 1.  | 1.28           | 520      | 1.49           | 0.875 | A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.      |
| 2.  | 1.27           | 523      | 1.50           | 0.878 | Specific Gravity Separator Gas 0.5946 X X X X X X X X |
| 3.  | 1.31           | 523      | 1.50           | 0.875 | Specific Gravity Flowing Fluid X X X X X              |
| 4.  | 1.33           | 523      | 1.50           | 0.874 | Critical Pressure 679 P.S.I.A. P.S.I.A.               |
| 5.  |                |          |                |       | Critical Temperature 348 R R                          |

  

| P <sub>c</sub> 3965.2 | P <sub>c</sub> <sup>2</sup> 15722.8 |                |                             |
|-----------------------|-------------------------------------|----------------|-----------------------------|
| NO.                   | P <sub>t</sub> <sup>2</sup>         | P <sub>w</sub> | P <sub>w</sub> <sup>2</sup> |
| 1                     | 7307.2                              | 2820.4         | 7954.8                      |
| 2                     | 5420.5                              | 2520.1         | 6350.9                      |
| 3                     | 2733.0                              | 2021.2         | 4085.4                      |
| 4                     | 1698.3                              | 1797.5         | 3231.2                      |
| 5                     |                                     |                |                             |

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = 1.258$       (2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.242$

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 8793$

  

|                         |                |                          |                |
|-------------------------|----------------|--------------------------|----------------|
| Absolute Open Flow 8793 | Mcf/d @ 15.025 | Angle of Slope @ 46.697° | Slope, n 0.942 |
| Remarks:                |                |                          |                |

  

|                         |                                  |                              |                                |
|-------------------------|----------------------------------|------------------------------|--------------------------------|
| Approved By Commission: | Conducted By:<br>A.R. ALAMEDDINE | Calculated By:<br>K.O. LEWIS | Checked By:<br>A.R. ALAMEDDINE |
|-------------------------|----------------------------------|------------------------------|--------------------------------|