

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

Form C-122  
Revised 9-1-65

|                                                                                                                           |                      |                                   |                            |                                     |                         |                                                         |                  |                                   |  |
|---------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------------------|----------------------------|-------------------------------------|-------------------------|---------------------------------------------------------|------------------|-----------------------------------|--|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |                      |                                   |                            |                                     | Test Date<br>8-3-74     |                                                         |                  |                                   |  |
| Company<br>Union Texas Petroleum Corporation                                                                              |                      |                                   |                            | Connection<br>None                  |                         |                                                         |                  |                                   |  |
| Pool<br>Undesignated                                                                                                      |                      |                                   |                            | Formation<br>McKee Sand             |                         |                                                         |                  | Unit                              |  |
| Completion Date<br>8-14-74                                                                                                |                      | Total Depth<br>10,155             |                            | Plug Back TD<br>10,060              |                         | Elevation<br>3,010 D.F.                                 |                  | Farm or Lease Name<br>Crosby Deep |  |
| Csg. Size<br>4 1/2                                                                                                        | Wt. 10.5#<br>& 11.6# | d                                 | Set At<br>10,102           | Perforations:<br>From 9641 To 9,720 |                         | Well No.<br>3                                           |                  |                                   |  |
| Thg. Size<br>2 3/8                                                                                                        | Wt.<br>4.7           | d                                 | Set At<br>9,600            | Perforations:<br>From - To -        |                         | Unit    Sec.    Twp.    Rge.<br>J    33    25-S    37-E |                  |                                   |  |
| Type Well - Single - Bradenhead - G.C. or G.O. Multiple<br>Multiple                                                       |                      |                                   |                            |                                     | Packer Set At<br>9,600  |                                                         | County<br>Lea    |                                   |  |
| Producing Thru<br>Tubing                                                                                                  |                      | Reservoir Temp. °F<br>192 @ 9750' |                            | Mean Annual Temp. °F<br>60          |                         | Baro. Press. - P <sub>g</sub><br>14.2                   |                  | State<br>New Mexico               |  |
| L<br>9.600                                                                                                                | H<br>9.600           | Gg<br>1.0966                      | % CO <sub>2</sub><br>.279% | % N <sub>2</sub><br>1.0             | % H <sub>2</sub> S<br>- | Prover<br>2"                                            | Meter Run<br>--- | Taps<br>---                       |  |

  

| 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        | 2"               |   |              |                 |                      |          | 3,100           |          |                 |          | 3.0              |
| 1.        | 2"               |   | 1.5"         | 890             | 36"                  | 60.8     | 2,600           | 60.8     | 13 1/4/64"      | Choke    | 1.625            |
| 2.        | 2"               |   | 1.5"         | 890             | 42"                  | 60.8     | 2,500           | 60.8     | 14/64"          | Choke    | 1.625            |
| 3.        | 2"               |   | 1.5"         | 890             | 64"                  | 60.8     | 2,300           | 60.8     | 16/64"          | Choke    | 1.625            |
| 4.        | 2"               |   | 1.5"         | 890             | 79"                  | 60.8     | 2,200           | 60.8     | 17 1/4/64"      | Choke    | 1.625            |
| 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, Mcfd |
| 1                         | 16.47                 | 178.99           |                         | 1.0008                | 0.7396                        | 1.374                                   | 2998.15              |
| 2.                        | 16.47                 | 193.34           |                         | 1.0008                | 0.7396                        | 1.400                                   | 3299.80              |
| 3.                        | 16.47                 | 238.66           |                         | 1.0008                | 0.7396                        | 1.451                                   | 4221.68              |
| 4.                        | 16.47                 | 265.16           |                         | 1.0008                | 0.7396                        | 1.491                                   | 4819.74              |
| 5.                        |                       |                  |                         |                       |                               |                                         |                      |

  

|     |                |          |                |   |                              |          |
|-----|----------------|----------|----------------|---|------------------------------|----------|
| NO. | P <sub>t</sub> | Temp. °R | T <sub>r</sub> | Z | Gas Liquid Hydrocarbon Ratio | Mcf/bbl. |
| 1.  |                |          |                |   | 37738                        |          |
| 2.  |                |          |                |   | 65                           |          |
| 3.  |                |          |                |   |                              |          |
| 4.  |                |          |                |   |                              |          |
| 5.  |                |          |                |   |                              |          |

  

|                                                                                                                                                                                                                                                       |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| A.P.I. Gravity of Liquid Hydrocarbons _____ Deq.<br>Specific Gravity Separator Gas _____ X X X X X X X X<br>Specific Gravity Flowing Fluid _____ X X X X X<br>Critical Pressure _____ P.S.I.A. _____ P.S.I.A.<br>Critical Temperature _____ R _____ R |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|

  

|     |                             |                |                             |                                                           |                                            |                                                             |
|-----|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------|
| NO. | P <sub>t</sub> <sup>2</sup> | P <sub>w</sub> | P <sub>w</sub> <sup>2</sup> | P <sub>t</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> | (1) $\frac{P_c^2}{P_t^2 - P_w^2} = 2.5026$ | (2) $\left[ \frac{P_c^2}{P_t^2 - P_w^2} \right]^n = 2.3652$ |
| 1   | 6834                        | 2677           | 7169.45                     | 2440.50                                                   |                                            |                                                             |
| 2   | 6321                        | 2594           | 6727.17                     | 2882.83                                                   |                                            |                                                             |
| 3   | 5356                        | 2454           | 6021.20                     | 3588.80                                                   |                                            |                                                             |
| 4   | 4903                        | 2402           | 5769.92                     | 3840.08                                                   |                                            |                                                             |
| 5   |                             |                |                             |                                                           |                                            |                                                             |

  

|                                                                 |  |  |
|-----------------------------------------------------------------|--|--|
| AOF = Q $\left[ \frac{P_c^2}{P_t^2 - P_w^2} \right]^n = 11.400$ |  |  |
|-----------------------------------------------------------------|--|--|

  

|                    |        |                |                  |         |          |       |
|--------------------|--------|----------------|------------------|---------|----------|-------|
| Absolute Open Flow | 11,400 | Mcf/d @ 15.025 | Angle of Slope @ | 45° 42' | Slope, n | .9756 |
|--------------------|--------|----------------|------------------|---------|----------|-------|

  

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| Remarks: |  |  |  |
|----------|--|--|--|

  

|                         |                  |                    |             |
|-------------------------|------------------|--------------------|-------------|
| Approved By Commission: | Conducted By:    | Calculated By:     | Checked By: |
| <i>[Signature]</i>      | Frank K. Vasseur | <i>[Signature]</i> |             |