N.M.P.C.C.
125 file

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

Form C-122
Revised 9-1-65

RECEIVED
NOV 1 1977
O. C. C.
ARTESIA, OFFICE

| | | | | | |
|---|---|---|---|---|---|
| Type Test: [X] Initial [ ] Annual [ ] Special | | | | Test Date: 10-25-77 | |
| Company: Gulf Oil Corp. | | Connection: None | | | Unit: J |
| Pool: ~~Undesignated~~ | | Formation: Morrow | | | |
| Completion Date: 10-6-77 | Total Depth: 11387 | Plug Back TD: 11303 | Elevation: 3.300 | Farm or Lease Name: Eddy G.E. State | |
| Csg. Size: 5½ / Wt.: 17 / d: / Set At: 11387 | | Perforations: From 10970 To 11120 | | Well No.: # 1 | |
| Tbg. Size: 2 3/8 / Wt.: 4.7 / d: / Set At: 10919 | | Perforations: From To | | Unit: J / Sec.: 23 / Twp.: 20 / Rge.: 27 | |
| Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single | | Packer Set At: 10913 | | County: Eddy | |
| Producing Thru: TBG. | Reservoir Temp. °F: 184 @ 11045 | Mean Annual Temp. °F: | Baro. Press. – $P_a$: | State: New Mexico | |
| L: 11045 | H: 11045 | Gg: .625 | % $CO_2$: | % $N_2$: | % $H_2S$: |
| Prover: | Meter Run: 4" | Taps: Flg. | | | |

| NO. | Prover Line Size | X | Orifice Size | Press. p.s.i.g. | Diff. $h_w$ | Temp. °F | Tubing Press. p.s.i.g. | Tubing Temp. °F | Casing Press. p.s.i.g. | Casing Temp. °F | Duration of Flow |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SI | | | | | | | 3375 | | | | 72 Hr |
| 1. | 4 | x | 2.000 | 590 | 4.5 | 78 | 2940 | | | | 1 Hr |
| 2. | 4 | x | 2.000 | 597 | 8.2 | 77 | 2790 | | | | 1 Hr |
| 3. | 4 | x | 2.000 | 600 | 16.1 | 78 | 2475 | | | | 1 Hr |
| 4. | 4 | x | 2.000 | 611 | 32.0 | 78 | 2090 | | | | 1 Hr |
| 5. | | | | | | | | | | | |

RATE OF FLOW CALCULATIONS

| NO. | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | Pressure $P_m$ | Flow Temp. Factor Ft. | Gravity Factor Fg | Super Compress. Factor, Fpv | Rate of Flow Q, Mcfd |
|---|---|---|---|---|---|---|---|
| 1 | 19.81 | 52.10 | 603.2 | .9831 | 1.265 | 1.054 | 1353 |
| 2. | 19.81 | 70.74 | 610.2 | .9840 | 1.265 | 1.054 | 1838 |
| 3. | 19.81 | 99.36 | 613.2 | .9831 | 1.265 | 1.055 | 2582 |
| 4. | 19.81 | 141.33 | 624.2 | .9831 | 1.265 | 1.055 | 3673 |
| 5. | | | | | | | |

| NO. | $P_t$ | Temp. °R | $T_r$ | Z |
|---|---|---|---|---|
| 1. | .90 | 538 | 1.46 | .901 |
| 2. | .91 | 537 | 1.46 | .900 |
| 3. | .92 | 538 | 1.46 | .899 |
| 4. | .93 | 538 | 1.46 | .899 |
| 5. | | | | |

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas .625 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 670 P.S.I.A. _____ P.S.I.A.
Critical Temperature 368 R _____ R

$P_c$ 3388.2 $P_c^2$ 11479.9

| NO | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | | 2964.1 | 8785.9 | 2694.0 |
| 2 | | 2823.9 | 7971.4 | 3505.5 |
| 3 | | 2535.1 | 6426.7 | 5053.2 |
| 4 | | 2199.7 | 4838.7 | 6641.2 |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.729$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.729$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 6.349$

Absolute Open Flow 6,349 Mcfd @ 15.025 | Angle of Slope θ 45° | Slope, n 1.000

Remarks:

| Approved By Commission: | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | Larry Davis | Larry Davis | |