NEW MEXICO OIL CONSERVATION COMMSSION

# MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-
Revised

| | | | | | |
|---|---|---|---|---|---|
| Type Test: ☒ Initial ☐ Annual ☐ Special | | | | Test Date: 5-3-83 | |
| Company: The Superior Oil Company | | Connection: Transwestern | | | |
| Pool: Wildcat | | Formation: Atoka | | | Unit |
| Completion Date: 8-4-82 | Total Depth: 15950' | | Plug Back TD: 14,750' | Elevation: 3728.3 | Farm or Lease Name: Triste Draw Fed. |
| Csg. Size: 7 5/8" 5" Liner | Wt.: 18# | d: 4.276 | Set At: 12,650 12,239-15950 | Perforations: From 14,373 To 14,584 | Well No.: 1 |
| Tbg. Size: 2 7/8" 2 3/8" | Wt.: 6.5# 4.7# | d: 2.441 1.995 | Set At: 14,200' | Perforations: From Openended To | Unit: N Sec.: 11 Twp.: 23S |
| Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single | | | Packer Set At: 14,200' | | County: Lea |
| Producing Thru: Tubing | Reservoir Temp. °F: 202° @ 14,572' | | Mean Annual Temp. °F: 60° | Baro. Press. – $P_a$: 13.2 | State: New Mexico |

| L | H | Gg | % $CO_2$ | % $N_2$ | % $H_2S$ | Prover | Meter Run | Taps |
|---|---|---|---|---|---|---|---|---|
| 14,572 | 14,572 | .592 | .741 | 1.680 | | | 2" | Flan |

| | FLOW DATA | | | | | TUBING DATA | | CASING DATA | | |
|---|---|---|---|---|---|---|---|---|---|---|
| NO. | Prover Line Size | X Orifice Size | Press. p.s.i.g. | Diff. $h_w$ | Temp. °F | Press. p.s.i.g. | Temp. °F | Press. p.s.i.g. | Temp. °F | Dura of Flo |
| SI | | | | | | 4465 | | PKR | CHOKE | 48 |
| 1. | 2 | x 1.000 | 710 | 4" | 70° | 4236 | | | 4/64 | 1 |
| 2. | 2 | x 1.000 | 710 | 8 | 70 | 4015 | | | 6/64 | 1 |
| 3. | 2 | x 1.000 | 715 | 19 | 69 | 3675 | | | 8/64 | 1 |
| 4. | 2 | x 1.000 | 715 | 73 | 64 | 2851 | | | 11/64 | 1 |
| 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 | 4.946 | 53.75 | 723.2 | .9905 | 1.300 | 1.057 | 362 |
| 2 | 4.946 | 76.06 | 723.2 | .9905 | 1.300 | 1.057 | 512 |
| 3 | 4.946 | 117.63 | 728.2 | .9915 | 1.300 | 1.059 | 794 |
| 4 | 4.946 | 230.56 | 728.2 | .9962 | 1.300 | 1.06 | 1567 |
| 5 | | | | | | | |

| NO. | $P_t$ | Temp. °R | $T_r$ | Z |
|---|---|---|---|---|
| 1 | 1.08 | 530 | 1.50 | .895 |
| 2. | 1.08 | 530 | 1.50 | .895 |
| 3. | 1.08 | 529 | 1.49 | .892 |
| 4 | 1.08 | 524 | 1.48 | .889 |
| 5 | | | | |

Gas Liquid Hydrocarbon Ratio _____ Mcf/

A.P.I. Gravity of Liquid Hydrocarbons _____

Specific Gravity Separator Gas .592 XXXXXXX

Specific Gravity Flowing Fluid XXXXX

Critical Pressure 672 P.S.I.A. _____ P.S

Critical Temperature 354 R

$P_c$ *4497.7 $P_c^2$ 20229.3

| NO | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | | 4274.9 | 18274.8 | 1954.5 |
| 2 | | 4104.7 | 16848.6 | 3380.7 |
| 3 | | 3832.4 | 14687.3 | 5542.0 |
| 4 | | 3055.8 | 9337.9 | 10891.4 |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2}$ = 1.857

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 1.800

AOF = $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 2.820

Absolute Open Flow 2820 Mcfd @ 15.025 Angle of Slope θ 46.5 Slope, n .94

Remarks: * Calculated from known bottom hole pressures, pressures measured with Kuste Gauge. BHPB set @ 14,572 feet.

| Approved By Commission: | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | W.S. | RER | RR |