Submit in duplicate to appropriate district office
See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

# OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

## MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Operator: Medallion Production Company | | | | | | Lease or Unit Name: State of New Mexico 35 | | |
| Type Test: [X] Initial [ ] Annual [ ] Special | | | | | | Test Date: 8-14-95 | Well No.: 1 | |
| Completion Date: 7-1-95 | | Total Depth: 12750 | | Plug Back TD: 12706 | | Elevation: 4069.5 K.B. | Unit Ltr. - Sec. - TWP - Rge.: G 35-16-34 | |
| Csg. Size: 5½ | Wt.: 17# | d: | Set At: 12750 | Perforations: From: 12454 | To: 12466 | | County: Lea | |
| Tbg. Size: 2-7/8 | Wt.: 6.5 | d: 2.441 | Set At: 12330 | Perforations: From: | To: | | Pool: South Kemnitz | |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple: Single | | | | Packer Set At: 12352 | | | Formation: Atoka-Morrow | |
| Producing Thru: Tbg | Reservoir Temp. °F: | Mean Annual Temp. °F: 60° | | Baro. Press - $P_a$: 13.2 | | | Connection: NGPL | |
| L: 12352 | H: 12352 | Gg: .642 | % $CO_2$: .37 | % $N_2$: 1.37 | % $H_2S$: | Prover: | Meter Run: 3.068 | Taps: Flg |

| | 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 | Duration of Flow |
| SI | | | | | | 2914 | | PKR | | 24 Hours |
| 1. | 3 | X 1.375 | 815 | 4.00 | 77 | 2735 | | " | | 1 Hour |
| 2. | 3 | X 1.375 | 825 | 10.00 | 82 | 2575 | | " | | 1 Hour |
| 3. | 3 | X 1.375 | 830 | 20.50 | 81 | 2395 | | " | | 1 Hour |
| 4. | 3 | X 1.375 | 840 | 36.00 | 66 | 2154 | | " | | 1 Hour |
| 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, F pv. | Rate of Flow Q, Mcfd |
|---|---|---|---|---|---|---|---|
| 1. | 9.249 | 57.56 | 828.2 | .9840 | 1.248 | 1.075 | 703 |
| 2. | 9.249 | 91.55 | 838.2 | .9795 | 1.248 | 1.076 | 1,114 |
| 3. | 9.249 | 131.47 | 843.2 | .9804 | 1.248 | 1.076 | 1,601 |
| 4. | 9.249 | 175.26 | 853.2 | .9943 | 1.248 | 1.089 | 2,191 |
| 5. | | | | | | | |

| NO. | $P_r$ | Temp. °R | $T_r$ | Z |
|---|---|---|---|---|
| 1. | 1.23 | 537 | 1.45 | .866 |
| 2. | 1.25 | 542 | 1.46 | .864 |
| 3. | 1.26 | 541 | 1.46 | .863 |
| 4. | 1.27 | 526 | 1.42 | .843 |
| 5. | | | | |

Gas Liquid Hydrocarbon Ratio: Dry Gas Mcf/bbl.
A.P. I. Gravity of Liquid Hydrocarbons: Dry Deg.
Specific Gravity Separator Gas: .642 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: *669 P.S.I.A. P.S.I.A.
Critical Temperature: *369 R R

$P_c$ 2927.2 $P_c^2$ 8568.5

| NO. | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1. | | 2749.4 | 7558.9 | 1009.6 |
| 2. | | 2591.2 | 6714.5 | 1854.0 |
| 3. | | 2414.9 | 5831.6 | 2736.9 |
| 4. | | 2180.9 | 4756.4 | 3812.1 |
| 5. | | | | |

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.248$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.170$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 4.754$

Absolute Open Flow: 4,754 Mcfd @ 15.025 | Angle of Slope θ: 46.3 | Slope, n: .9565

Remarks: No Fluid Produced
*Corrected to 1.37% N2

| Approved By Division | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | West-Test, Inc. | B.M. | B.M. |