NEW MEXICO OIL CONSERVATION COMMSSION

# MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

| | | | | |
|---|---|---|---|---|
| Type Test: [X] Initial [ ] Annual [ ] Special | | | Test Date: 8-2-78 | |
| Company: Marathon Oil Company | | Connection: | | |
| Pool: La Plata-Blanco M.V. | | Formation: Mesa Verde | | Unit: C |
| Completion Date: 8-2-78 | Total Depth: 5,050' | Plug Back TD: 5,003' | Elevation: 6,012' KB 6,000' GL | Farm or Lease Name: Ohio F Gov't. |
| Csg. Size: 4-1/2" / Wt.: 10.5# / d: / Set At: 5,050' | | Perforations: From 4,732' To 4,943' | | Well No.: 1-A |
| Tbg. Size: 2 3/8 / Wt.: 6.5# / d: / Set At: 4375 | | Perforations: From To | | Unit: C / Sec.: 20 / Twp.: 31N / Rge.: 12W |
| Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single gas | | Packer Set At: None | | County: San Juan |
| Producing Thru: Tbg. | Reservoir Temp. °F: 144 @ 4750 | Mean Annual Temp. °F: | Baro. Press. – $P_a$: | State: New Mexico |
| L: | H: | Gg: .650 | % $CO_2$: | % $N_2$: |
| % $H_2S$: | Prover: X | Meter Run: | Taps: | |

## FLOW DATA / TUBING DATA / CASING DATA

| 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 | 7 Days | | | | 975 | | 975 | | |
| 1. | 2 X 3/4 | | | | 380 | 84 | 620 | | 3 hrs. |
| 2. | | | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 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 | 9.453 | | 392 | .9777 | 1.240 | 1.041 | 4677 |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |

| NO. | $P_t$ | Temp. °R | $T_f$ | Z |
|---|---|---|---|---|
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |

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

$P_c$ 987 $P_c^2$ 974169

| NO | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | | 632 | 399424 | 574745 |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.6950$ ✓

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.4855$

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 6948$

Absolute Open Flow 6948 Mcfd @ 15.025 | Angle of Slope θ _____ | Slope, n .75

Remarks: _____

| Approved By Commission: | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | Toby Tefteller | Neil Tefteller | J. E. Lawrence |

File 2-8769-AOFP & P

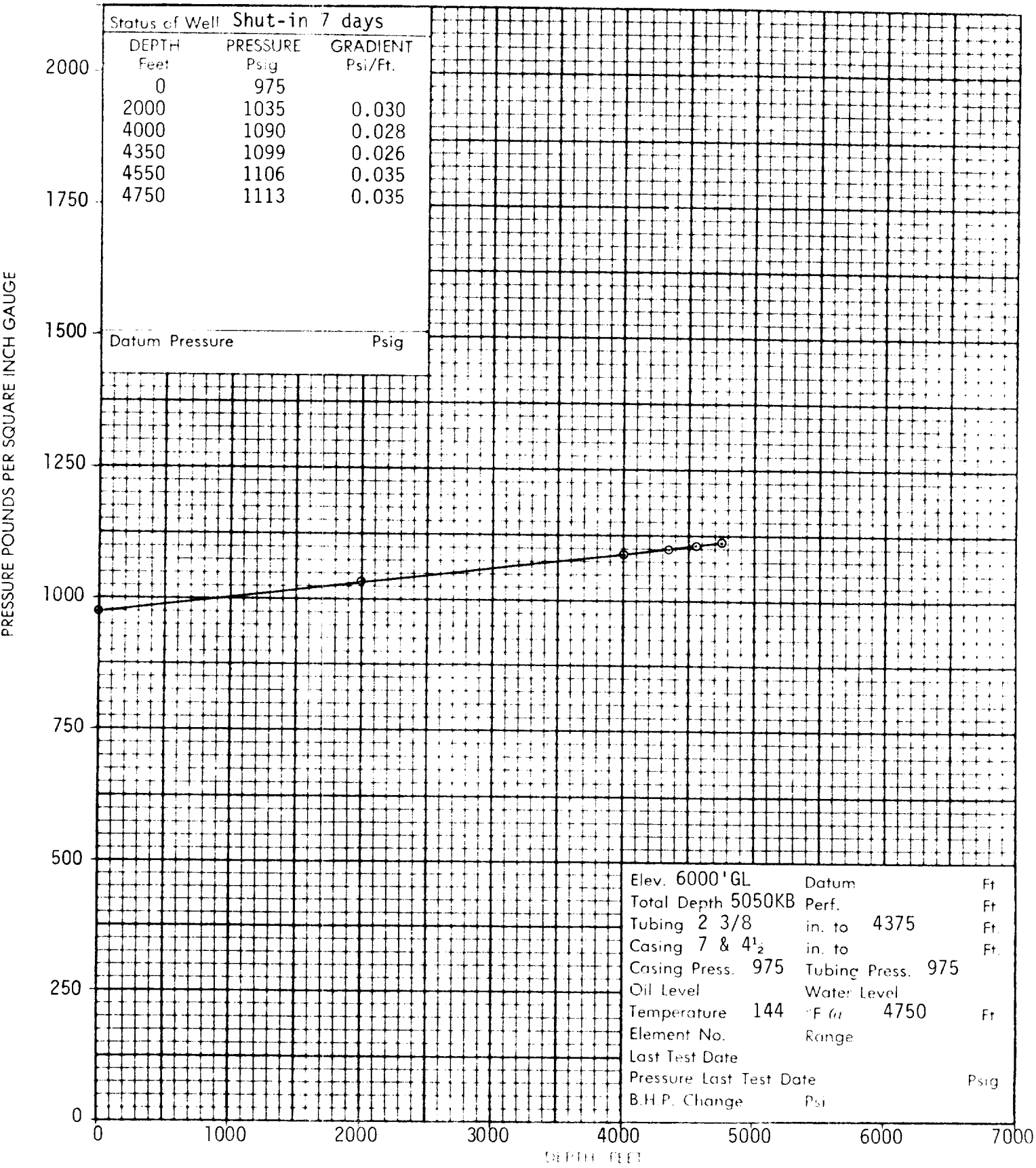
**TEFTELLER, INC.**
reservoir engineering data
MIDLAND, TEXAS

Company MARATHON OIL COMPANY Lease OHIO "F" GOV'T. Well No. 1-A
Field LA PLATA-BLANCO MESA VERDE County SAN JUAN State NEW MEXICO
Formation MESA VERDE Test Date AUGUST 2, 1978

Status of Well Shut-in 7 days

| DEPTH Feet | PRESSURE Psig | GRADIENT Psi/Ft. |
|---|---|---|
| 0 | 975 | |
| 2000 | 1035 | 0.030 |
| 4000 | 1090 | 0.028 |
| 4350 | 1099 | 0.026 |
| 4550 | 1106 | 0.035 |
| 4750 | 1113 | 0.035 |

Datum Pressure Psig




| | | | |
|---|---|---|---|
| Elev. 6000'GL | | Datum | Ft |
| Total Depth 5050KB | | Perf. | Ft |
| Tubing 2 3/8 | | in. to 4375 | Ft |
| Casing 7 & 4½ | | in. to | Ft |
| Casing Press. 975 | | Tubing Press. 975 | |
| Oil Level | | Water Level | |
| Temperature 144 | °F @ | 4750 | Ft |
| Element No. | | Range | |
| Last Test Date | | | |
| Pressure Last Test Date | | | Psig |
| B.H.P. Change | Psi | | |