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: 7-1-76 | |
| Company: Dugan Production Corp. | | Connection: | | | |
| Pool: WAW - Pictured Cliffs | | Formation: Pictured Cliffs | | | Unit: |
| Completion Date: 6-22-76 | Total Depth: 1450' | Plug Back TD: | | Elevation: 6187' GR | Farm or Lease Name: Thomas Jefferson |
| Csg. Size: 2-7/8" / Wt.: 6.4# / d: / Set At: 1426' | | Perforations: From 1346' To 1366' | | | Well No.: 2 |
| Tbg. Size: 1-1/4" / Wt.: 2.3# / d: / Set At: 1381' | | Perforations: From Open To Ended | | | Unit: M / Sec.: 34 / Twp.: 27N / Rge.: 13W |
| Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single - Gas | | Packer Set At: | | | County: San Juan |
| Producing Thru: Tubing | Reservoir Temp. °F: @ | Mean Annual Temp. °F: | Baro. Press. – $P_a$: | | State: New Mexico |

| L | H | Gg | % $CO_2$ | % $N_2$ | % $H_2S$ | Prover | Meter Run | Taps |
|---|---|---|---|---|---|---|---|---|
| | | .62 | | | | | | |

| | 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 | | | | | 142 | | 227 | | 7 days |
| 1. | | | | | | | | | |
| 2. | | | | | | | | | |
| 3. | 5/8" Pos Choke | | | | 2 | 70° | 16 | | 3 hrs |
| 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 | | | | | | | |
| 2. | | | | | | | |
| 3. | 8.5417 | | 14 | .9905 | .9487 | 1.000 | 116 |
| 4. | | | | | | | |
| 5. | | | | | | | |

| NO. | $P_t$ | Temp. °R | $T_r$ | 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

$P_c$ 239 $P_c^2$ 57,121

| NO | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | 28 | 784 | 56,337 |
| 4 | | | | |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0139$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^{n} = \left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^{.85} = 1.0117$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^{n} = 117$

Absolute Open Flow 117 Mcfd @ 15.025 Angle of Slope θ _____ Slope, n .85

Remarks: _____

| Approved By Commission: | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | Charles Hall | Charles Hall | |