NEW MEXICO OIL CONSERVATION COMMISSION

# 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: 10-19-81

Company: Northwest Pipeline Corporation — Connection: New Completion — Unit: San Juan 30-5

Pool: Gobernador — Formation: Pictured Cliffs — Farm or Lease Name: San Juan 30-5 Unit

| Completion Date | Total Depth | Plug Back TD | Elevation | Well No. |
|---|---|---|---|---|
| 9-29-81 | 6165' | 3910' | 6429' | #74 PC |

| Csg. Size | Wt. | d | Set At | Perforations: | Unit | Sec. | Twp. | Rge. |
|---|---|---|---|---|---|---|---|---|
| 7.000 / 4.500 | 20.0 / 10.5 | 6.456 / 4.052 | 4135' / 3967'-6160 | From 3758' To 3846' | K | 34 | 30N | 5W |
| Tbg. Size | Wt. | d | Set At | Perforations: | | | | |
| 1.660 | 2.3 | 1.380 | 3760' | From To | | | | |

Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Gas - Multiple Completion — Packer Set At: 3910' — County: Rio Arriba

Producing Thru: Tubing — Reservoir Temp. °F: 8 — Mean Annual Temp. °F — Baro. Press. – $P_a$: 12.0 — State: New Mexico

| L | H | Gg | % $CO_2$ | % $N_2$ | % $H_2S$ | Positive Choke | Meter Run | Taps |
|---|---|---|---|---|---|---|---|---|
| | | est. .620 | | | | | | |

| NO. | FLOW DATA: Prover Line Size | X | Orifice Size | Press. p.s.i.g. | Diff. $h_w$ | Temp. °F | TUBING DATA: Press. p.s.i.g. | Temp. °F | CASING DATA: Press. p.s.i.g. | Temp. °F | Duration of Flow |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SI | | | | | | | 1153 | | 1153 | | SIP |
| 1. | 2" | X | .750 | 71 | | 55° | 71 | | 398 | | 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 | 9.604 | | 83 | 1.005 | 1.270 | 1.007 | 1025 |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 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 _____ XXXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

$P_c$ 1165 $P_c^2$ 1357225

| NO | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | | 410 | 168100 | 1189125 |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.1414$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.1190$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1147$

Absolute Open Flow 1147 Mcfd @ 15.025 — Angle of Slope θ _____ — Slope, n .85

Remarks: Produced light mist of water with a trace of condensate. Vented 187 MCF.

Approved By Commission: — Conducted By: Fred S. Hamrick — Calculated By: B. J. Broughton — Checked By: