cc[illegible], El Paso & Farmington

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool TAPACITO Formation PICTURED CLIFFS County RIO ARRIBA

Initial X Annual Special Date of Test NOV 7, 1962

Company NORTHWEST PRODUCTION CORP. Lease "M" Well No. 13-6

Unit D Sec. 6 Twp. 26N Rge. 4W Purchaser Not connected

Casing 5 Wt. 11.5 I.D. 4.560 Set at 4100 Perf. 3978 To 3998

Tubing 1-1/4 Wt. 2.3 I.D. 1.380 Set at 3980 Perf. 3976 To 3980

Gas Pay: From 3978 To 3998 L 3976 xG .650 est. -GL Bar.Press.

Producing Thru: Casing Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 10-25-62 Packer No Reservoir Temp.

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps

| No. | Flow Data (Prover) (Line) Size | Flow Data (Choke) (Orifice) Size | Flow Data Press. psig | Flow Data Diff. $h_w$ | Flow Data Temp. °F. | Tubing Data Press. psig | Tubing Data Temp. °F. | Casing Data Press. psig | Casing Data Temp. °F. | Duration of Flow Hr. |
|---|---|---|---|---|---|---|---|---|---|---|
| SI | | | | | | 669 | | 669 | | SI |
| 1. | | | | | | | | | | |
| 2. | | | | | | | | | | |
| 3. | | 3/4 | | | | 338 | 80 | 495 | | 3 hrs |
| 4. | | | | | | | | | | |
| 5. | | | | | | | | | | |

FLOW CALCULATIONS

| No. | Coefficient (24-Hour) | $\sqrt{h_w p_f}$ | Pressure psia | Flow Temp. Factor $F_t$ | Gravity Factor $F_g$ | Compress. Factor $F_{pv}$ | Rate of Flow Q-MCFPD @ 15.025 psia |
|---|---|---|---|---|---|---|---|
| 1. | | | | | | | |
| 2. | | | | | | | |
| 3. | 12.365 | | 344 | 1.0000 | 0.9806 | 1.026 | 3,904 |
| 4. | | | | | | | |
| 5. | | | | | | | |

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio cf/bbl.
Gravity of Liquid Hydrocarbons deg.
$P_c$ $(1-e^{-s})$

Specific Gravity Separator Gas
Specific Gravity Flowing Fluid
$P_c$ 681 $P_c^2$ 463.761

| No. | $P_w$ $P_t$ (psia) | $P_t^2$ | $F_cQ$ | $(F_cQ)^2$ | $(F_cQ)^2$ $(1-e^{-s})$ | $P_w^2$ | $P_c^2-P_w^2$ | Cal. $P_w$ | $\frac{P_w}{P_c}$ |
|---|---|---|---|---|---|---|---|---|---|
| 1. | | | | | | | | | |
| 2. | | | | | | | | | |
| 3. | 507 | | | | | 257,049 | 206,712 | | 2.2435 |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |

Absolute Potential: 5,970 MCFPD; n .85/1.2873

COMPANY NORTHWEST PRODUCTION CORPORATION
ADDRESS P. O. BOX 1726, EL PASO 42, TEXAS
AGENT and TITLE C. E. WERNER, WELL TESTER
WITNESSED
COMPANY

REMARKS

RECEIVED

## INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

## NOMENCLATURE

Q = Actual rate of flow at end of flow period at W. H. working pressure ($P_w$). MCF/da. @ 15.025 psia and 60° F.

$P_c$ = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater. psia

$P_w$ = Static wellhead working pressure as determined at the end of flow period. (Casing if flowing thru tubing, tubing if flowing thru casing.) psia

$P_t$ = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

$P_f$ = Meter pressure, psia.

$h_w$ = Differential meter pressure, inches water.

$F_g$ = Gravity correction factor.

$F_t$ = Flowing temperature correction factor.

$F_{pv}$ = Supercompressability factor.

n = Slope of back pressure curve.

Note: If $P_w$ cannot be taken because of manner of completion or condition of well, then $P_w$ must be calculated by adding the pressure drop due to friction within the flow string to $P_t$.