3-N. M. O. C. C. Aztec
1-Bill Cutler
1-L. D. Galloway
2-Wayne Smith
1-File

Initial Deliverability Test

Form C-122-A
Revised April 20, 1955

NEW MEXICO OIL CONSERVATION COMMISSION

# GAS WELL TEST DATA SHEET - - SAN JUAN BASIN

(TO BE USED FOR FRUITLAND, PICTURED CLIFFS, MESAVERDE, & ALL DAKOTA EXCEPT BARKER DOME STORAGE AREA)

Pool Blanco Mesa Verde Formation Mesa Verde County San Juan

Purchasing Pipeline PACIFIC NORTHWEST PIPELINE CORPORATION Date Test Filed 11-7-57

Operator PACIFIC NORTHWEST PIPELINE Lease San Juan 32-8 Well No. 19-3

Unit M Sec. 3 Twp. 31N Rge. 8W Pay Zone: From 6048' To 5584'

Casing: OD 5-½" WT. 14.0 Set At 6100' Tubing: OD 1-1/4" WT. 2.3 T. Perf. 6041'

Produced Through: Casing ____ Tubing x x Gas Gravity: Measured .597 Estimated ____

Date of Flow Test: From 9-23-57 To 10-1-57 * Date S.I.P. Measured 5-24-57

Meter Run Size ____ Orifice Size ____ Type Chart ____ Type Taps ____

## OBSERVED DATA

| | | | | |
|---|---|---|---|---|
| Flowing casing pressure (Dwt) | ____ psig + 12 = | ____ | psia | (a) |
| Flowing tubing pressure (Dwt) | ____ psig + 12 = | ____ | psia | (b) |
| Flowing meter pressure (Dwt) | ____ psig + 12 = | ____ | psia | (c) |
| Flowing meter pressure (meter reading when Dwt. measurement taken: | | | | |
| Normal chart reading | ____ psig + 12 = | ____ | psia | (d) |
| Square root chart reading (____)$^2$ x spring constant | = | ____ | psia | (d) |
| Meter error (c) - (d) or (d) - (c) | ± = | ____ | psi | (e) |
| Friction loss, Flowing column to meter: | | | | |
| (b) - (c) Flow through tubing: (a) - (c) Flow through casing | = | ____ | psi | (f) |
| Seven day average static meter pressure (from meter chart): | | | | |
| Normal chart average reading 457 | psig + 12 = | 469 | psia | (g) |
| Square root chart average reading (____)$^2$ x sp. const. | = | ____ | psia | (g) |
| Corrected seven day avge. meter press. ($p_f$) (g) + (e) | = | ____ | psia | (h) |
| $P_t$ = (h) + (f) | = | 469 | psia | (i) |
| Wellhead casing shut-in pressure (Dwt) 1121 | psig + 12 = | 1133 | psia | (j) |
| Wellhead tubing shut-in pressure (Dwt) 1120 | psig + 12 = | 1132 | psia | (k) |
| $P_c$ = (j) or (k) whichever well flowed through | = | 1132 | psia | (l) |
| Flowing Temp. (Meter Run) 63 °F + 460 | = | 523 | °Abs | (m) |
| $P_d$ = ½ $P_c$ = ½ (l) | = | 566 | psia | (n) |

## FLOW RATE CALCULATION

$$Q = 346 \text{ (integrated)} \times \left( \frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{\quad}{\quad} = \frac{\quad}{\quad} \right)^{*} = 346 \text{ MCF/da}$$

## DELIVERABILITY CALCULATION

$$D = Q \left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{961,068}{1,044,699} \right]^{n} \frac{(0.9199)^{.75}}{0.9394} = 325 \text{ MCF/da.}$$

## SUMMARY

$P_c$ = 1132 psia
Q = 346 Mcf/day
$P_w$ = 487 psia
$P_d$ = 566 psia
D = 325 Mcf/day

Company PACIFIC NORTHWEST PIPELINE CORPORATION
By ____
Title DISTRICT PRORATION ENGINEER
Witnessed by ____
Company ____

* This is date of completion test.
* Meter error correction factor

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DIST. 3

REMARKS OR FRICTION CALCULATIONS

| GL | $(1-e^{-s})$ | $(F_cQ)2$ | $\frac{(FcQ)^2}{R^2}$ $(1-e^{-s})$ | $P_t^2$ (Column i) | $P_c^2$ | $P_w$ |
|---|---|---|---|---|---|---|
| 3606 | 0.231 | 72.573 | 16.764 | 219.961 | 256,725 | 487 |