Form C-122-A
Revised April 20, 1955

Initial Deliverability Test

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 South Blanco Formation Pictured Cliffs County San Juan

Purchasing Pipeline Southern Union Gas Company Date Test Filed September 29, 1960

Operator Astec Oil & Gas Company Lease Whitley Well No. 4

Unit H Sec. 8 Twp. 27N Rge. 9W Pay Zone: From 2302 To 2321

Casing: OD 2 7/8 WT. 6.5 Set At 2360 Tubing: OD ____ WT. ____ T. Perf. ____

Produced Through: Casing X Tubing ____ Gas Gravity: Measured 0.695 Estimated ____

Date of Flow Test: From 9/7 To 9/15 * Date S.I.P. Measured 6/5/60

Meter Run Size 4 Orifice Size 1.250 Type Chart SR Type Taps Flg.

## 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 218 | psig + 12 = | 230 | psia | (g) |
| Square root chart average reading (____)$^2$ x sp. const. | = | ____ | psia | (g) |
| Corrected seven day avge. meter press. ($p_f$) (g) + (e) | = | 230 | psia | (h) |
| $P_t$ = (h) + (f) | = | 230 | psia | (i) |
| Wellhead casing shut-in pressure (Dwt) 606 | psig + 12 = | 618 | psia | (j) |
| Wellhead tubing shut-in pressure (Dwt) ____ | psig + 12 = | ____ | psia | (k) |
| $P_c$ = (j) or (k) whichever well flowed through | = | 618 | psia | (l) |
| Flowing Temp. (Meter Run) 65 °F + 460 | = | 525 | °Abs | (m) |
| $P_d$ = ½ $P_c$ = ½ (l) | = | 309 | psia | (n) |

## FLOW RATE CALCULATION

$$Q = 264 \text{ (integrated)} \times \left( \frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{\quad}{\quad} = 1.0000 \right)^{\bullet} = 264 \text{ MCF/da}$$

## DELIVERABILITY CALCULATION

$$D = Q\,264 \left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{206443}{328788} \right]^{n\ 0.85} 0.8895 = 235 \text{ MCF/da.}$$

## SUMMARY

| | | |
|---|---|---|
| $P_c$ = | 618 | psia |
| Q = | 264 | Mcf/day |
| $P_w$ = | 231 | psia |
| $P_d$ = | 309 | psia |
| D = | 235 | Mcf/day |

Company Astec Oil & Gas Company

By ORIGINAL SIGNED BY L. M. STEVENS

Title L. M. Stevens, Dist. Engr.

Witnessed by ____

Company ____

• This is date of completion test.

• Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

| GL | $(1-e^{-s})$ | $(F_cQ)2$ | $\frac{(FcQ)^2}{R^2}(1-e^{-s})$ | $Pt^2$ (Column i) | $P_t^2 + R^2$ | $P_w$ |
|---|---|---|---|---|---|---|
| 1600 | 0.110 | 2.146 | 0.236 | 52.900 | 53.136 | 231 |