

Initial Deliverability
TestNEW 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 Rio Arriba
Purchasing Pipeline El Paso Natural Gas Co. Date Test Filed 4-11-60
(4-15-60)
Operator Petro-Atlas, Inc. Lease Bishop Well No. 1
Unit D Sec. 26 Twp. 25N Rge. 3W Pay Zone: From 3578 To 3635
Casing: OD 5 1/2" WT. 14# Set At 3668' Tubing: OD 2 3/8" WT. 4.7# T. Perf. 3509
Produced Through: Casing Z Tubing _____ Gas Gravity: Measured .685 Estimated _____
Date of Flow Test: From 3-28-60 To 4-4-60 * Date S.I.P. Measured 2-6-60
Meter Run Size 4" Orifice Size 1.000 Type Chart Sq. Root Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 494 psig + 12 = 506 psia (a)
Flowing tubing pressure (Dwt) 496 psig + 12 = 508 psia (b)
Flowing meter pressure (Dwt) 496 psig + 12 = 508 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken):
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (9.8)² x spring constant 500 = 480 psia (d)
Meter error (c) - (d) or (d) - (c) ± = 28 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing = -2 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (10.0)² x sp. const. 500 = 500 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 526 psia (h)
P_t = (h) + (f) = 526 psia (i)
Wellhead casing shut-in pressure (Dwt) 1012 psig + 12 = 1024 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1012 psig + 12 = 1024 psia (k)
P_c = (j) or (k) whichever well flowed through = 1024 psia (l)
Flowing Temp. (Meter Run) 44 °F + 460 = 504 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 512 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{159}{(\text{Integrated})} \times \left(\frac{\frac{V(c)}{V(d)} = \frac{22.5389}{21.9089} = 1.0288}{1} \right) = 164 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{164}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{1/n}} = \frac{1.0160}{1.01883^{.85}} = 167 \text{ MCF/da.}$$

SUMMARY

P_c = 1024 psia
Q = 164 Mcf/day
P_w = 526 psia
P_d = 512 psia
D = 167 Mcf/day

Company Petro-Atlas, Inc.
By H.B. Gove
Title Engineer
Witnessed by _____
Company _____

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

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ^{-S})	(F _c Q) ²	(F _c Q) ² (1-e ^{-S}) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
			Negligible			



RECEIVED
OCT 11 1964
U.S. AIR FORCE
OFFICE OF THE
SECRETARY OF THE AIR FORCE
WASHINGTON, D.C.