

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 Blanco Formation Mesa Verde County San Juan
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed 11-26-56
Operator Growthrier Oil Company Lease Hedges Well No. #1
Unit I Sec. 23 Twp. 31N Rge. 17E Pay Zone: From _____ To 5230
Casing: OD 5" WT. 10# Set At 1983 Tubing: OD 2-7/8 WT. 6.50 T. Perf. 4916
Produced Through: Casing _____ Tubing X Gas Gravity: Measured _____ Estimated .665
Date of Flow Test: From 10-31-56 To 11-8-56 * Date S.I.P. Measured 11-16-56
Meter Run Size 1" Orifice Size 1-1/2" Type Chart S.R. Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 612 psig + 12 = 624 psia (a)
Flowing tubing pressure (Dwt) 549 psig + 12 = 561 psia (b)
Flowing meter pressure (Dwt) 548 psig + 12 = 560 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (7.48) ² x spring constant 10 = 560 psia (d)
Meter error (c) - (d) or (d) - (c) ± = 0 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing = 1 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (7.40) ² x sp. const. 10 = 548 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 548 psia (h)
P_t = (h) + (f) = 549 psia (i)
Wellhead casing shut-in pressure (Dwt) 769 psig + 12 = 781 psia (j)
Wellhead tubing shut-in pressure (Dwt) 772 psig + 12 = 784 psia (k)
P_c = (j) or (k) whichever well flowed through = 784 psia (l)
Flowing Temp. (Meter Run) 61 °F + 460 = 521 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 392 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{679}{(\text{Integrated})} \times \left(\frac{\sqrt{V(c)}}{\sqrt{V(d)}} = \frac{1}{1} = 1 \right) = 679 \text{ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{679}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{1.1873}{1.3465} \right]^{.75}} = 914 \text{ MCF/day}$$

SUMMARY

P_c = 784 psia
Q = 679 Mcf/day
P_w = 532 psia
P_d = 392 psia
D = 914 Mcf/day

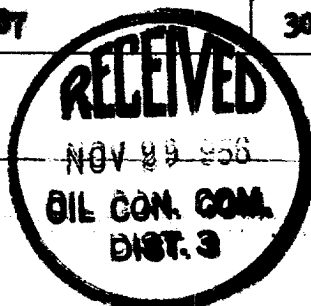
Company Growthrier Oil Company
By T. A. Engen
Title Engineer
Witnessed by _____
Company _____

* 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
3269	.201	15.864	3.1887	301.4	304.589	551.9



1941

1942

1943

1944

1945

1946

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1948

1949

1950

1951

1952

