

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 Date Test Filed _____
Operator Blackwood Nichols Lease NEBU Well No. 45-5
Unit A Sec. 5 Twp. 30N Rge. 7W Pay Zone: From 5640 To 5700
Casing: OD 5 1/2 WT. _____ Set At 5685 Tubing: OD 2 WT. 4.70 T. Perf. 5525
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .627 Estimated _____
Date of Flow Test: From 4/29 To 5/7 * Date S.I.P. Measured 5/14/60
Meter Run Size _____ Orifice Size 1.500 Type Chart _____ Type Taps _____

OBSERVED DATA

Flowing casing pressure (Dwt) 542 psig + 12 = 554 psia (a)
Flowing tubing pressure (Dwt) 499 psig + 12 = 511 psia (b)
Flowing meter pressure (Dwt) 490 psig + 12 = 502 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken):
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (7.00)² x spring constant 1000 = 490 psia (d)
Meter error (c) - (d) or (d) - (c) _____ = - 12 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing _____ = 9 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (7.00)² x sp. const. _____ = 490 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 502 psia (h)
P_t = (h) + (f) _____ = 511 psia (i)
Wellhead casing shut-in pressure (Dwt) 698 psig + 12 = 698 psia (j)
Wellhead tubing shut-in pressure (Dwt) 698 psig + 12 = 698 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 698 psia (l)
Flowing Temp. (Meter Run) 71 °F + 460 _____ = 531 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 349 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{1,424}{(\text{integrated})} \times \left(\frac{\sqrt{V(c)}}{\sqrt{V(d)}} \right) = \frac{1.0244}{1.0121} = 1.441 \text{ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{1,441}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{1/n}} = \frac{1,441}{\left[\frac{365.403}{185.151} \right]^{1/1.6650}} = 2399 \text{ MCF/day}$$

SUMMARY

1.9735

P_c = 698 psia
Q = 1,441 Mcf/day
P_w = 550 psia
P_d = 349 psia
D = 2,399 Mcf/day

Company Blackwood Nichols
By _____
Title _____
Witnessed by L.W. McGlothlin
Company L.W. McGlothlin

- * 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
3464	.225	183.554	40.932	261.121	302.053	550

