

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 Alance FORMATION Mesa Verde COUNTY San Juan
PURCHASING PIPELINE Southern Union Gas Company DATE TEST FILED 1/7/57
OPERATOR New Drilling Company LEASE Reid WELL NO. #1
UNIT M SEC. 18 TWP. 31N RGE. 12W PAY ZONE: From 4758 To 4759
CASING: OD 7" WT. 15.5 SET AT 4613 TUBING: OD 2 3/8" WT. 4.7 T.Perf. 4759
PRODUCED THROUGH: CASING TUBING X GAS GRAVITY: MEASURED .666 ESTIMATED
DATE OF FLOW TEST: From 12/16/56 To 12/23/56 *Date S.I.P. MEASURED 12/30/56
METER RUN SIZE 4 inch ORIFICE SIZE 1" TYPE CHART Normal TYPE TAPS Alance

OBSERVED DATA

Flowing casing pressure (Dwt) 676 psig + 12 = 668 psia (a)
Flowing tubing pressure (Dwt) 530 psig + 12 = 542 psia (b)
Flowing meter pressure (Dwt) 530 psig + 12 = 542 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading. 530 psig + 12 = 542 psia (d)
Square root chart reading () ² x spring constant = 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... = 0 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading. 532 psig + 12 = 544 psia (g)
Square root chart average reading () ² x sp. const. = psia (g)
Corrected seven day avge. meter press. (P_f) (g) + (e) = 544 psia (h)
P_t = (h) + (f) = 544 psia (i)
Wellhead casing shut-in pressure (Dwt) 878 psig + 12 = 870 psia (j)
Wellhead tubing shut-in pressure (Dwt) 870 psig + 12 = 862 psia (k)
P_c = (j) or (k) whichever well flowed through. = 862 psia (l)
Flowing Temp. (Meter Run). 56 °F + 460 = 516 °Abs (m)
P_d = $\frac{1}{2}$ P_c = $\frac{1}{2}$ (l) = 431 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{370}{(\text{integrated})} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{23.28}{23.28} = 1.0000 \right) = 370 \text{ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{370}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{0.75} \frac{1.1839}{1.1839}} = 438$$

SUMMARY

P_c = 862 psia Company Southern Union Gas Company
Q = 370 Mcf/day By L.S. Messink
P_w = 546 psia Title Exploration Engineer
P_d = 431 psia Witnessed by
D = 438 Mcf/day 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 R ²	(1-e ^{-S})	P _t ² (Column 1)	P _t ² + R ²	P _w
3169	0.206	12.11	2.42		295.936	297.996	546

OK

