

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 Undesignated Formation Pictured Cliffs County Rio Arriba
Purchasing Pipeline Pacific Northwest Pipeline Corp. Date Test Filed 6-28-57
Operator Martella Petroleum Co. Lease Alcorilla #0 Well No. 2 P.O.
Unit A Sec. 35 Twp. 27N Rge. 3W Pay Zone: From 3030' To 3025'
Casing: OD 7-5/8" WT. 24 Set At 6167' Tubing: OD 2-3/8" WT. 4.75 T. Perf. 3018'
Produced Through: Casing Tubing X Gas Gravity: Measured 0.675 Estimated
Date of Flow Test: From 5-17-57 To 5-25-57 * Date S.I.P. Measured Sept. 4, 1956
Meter Run Size 2.000" Orifice Size 1.000" Type Chart Sq. Rt. Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 565 psig + 12 = 576 psia (a)
Flowing tubing pressure (Dwt) 565 psig + 12 = 576 psia (b)
Flowing meter pressure (Dwt) 565 psig + 12 = 575 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading 1.57 psig + 12 = 573 psia (d)
Square root chart reading (1.57)² x spring constant 10.0 = 573 psia (d)
Meter error (c) - (d) or (d) - (c) ± = + 2 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 7.5 psig + 12 = 563 psia (g)
Square root chart average reading (7.5)² x sp. const. 10.0 = 563 psia (g)
Corrected seven day avg. meter press. (p_f) (g) + (e) = 565 psia (h)
P_t = (h) + (f) = 566 psia (i)
Wellhead casing shut-in pressure (Dwt) 1006 psig + 12 = 1018 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1006 psig + 12 = 1018 psia (k)
P_c = (j) or (k) whichever well flowed through = 1018 psia (l)
Flowing Temp. (Meter Run) 70 °F + 460 = 530 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 509 psia (n)

FLOW RATE CALCULATION

Q = 422 X $\left(\frac{\sqrt{(c) 575} = \sqrt{1.0015} = 1.0007}{\sqrt{(d) 573}} \right)^2 = \underline{422} MCF/day
(Integrated)$

DELIVERABILITY CALCULATION

D = Q 422 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{0.85} = \underline{447} MCF/day
 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right] = \frac{808,083}{754,344} = 1.060$$

SUMMARY

P_c = 1018 psia
Q = 422 Mcf/day
P_w = 566.4 psia
P_d = 509 psia
D = 447 Mcf/day

Company Martella Petroleum Company
By William W. King
Title Gas 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
2577	0.272	15.75	2.7	300.4	303.1	566.4

OK



