

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 Basin Formation Dakota County San Juan
Purchasing Pipeline EPNG Co. Date Test Filed 1-22-62

Operator Pioneer Prod. Corp. Lease Manny Well No. 1
Unit B Sec. 24 Twp. 29N Rge. 12W Pay Zone: From 6208 To 6336
Casing: OD 4 1/2 WT. 9.5 Set At 6468 Tubing: OD 2 3/8 WT. 4.7 T. Perf. 6334
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .664 Estimated _____
Date of Flow Test: From 12-25-61 To 1-1-62 * Date S.I.P. Measured 1-8-62
Meter Run Size 4" Orifice Size 2.000" Type Chart SR Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 1015 psig + 12 = 1027 psia (a)
Flowing tubing pressure (Dwt) 902 psig + 12 = 914 psia (b)
Flowing meter pressure (Dwt) 493 psig + 12 = 505 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (7.1)² x spring constant 10 = 504 psia (d)
Meter error (c) - (d) or (d) - (c) _____ ± _____ = +1 psi (e)
Friction loss, Flowing column to meter: _____ = _____ psi (f)
(b) - (c) Flow through tubing: (a) - (c) Flow through casing
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (7.1)² x sp. const. 10 = 504 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 505 psia (h)
P_t = (h) + (f) _____ = 914 psia (i)
Wellhead casing shut-in pressure (Dwt) 1786 psig + 12 = 1798 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1778 psig + 12 = 1790 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1790 psia (l)
Flowing Temp. (Meter Run) 71 °F + 460 _____ = 531° ° Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 895 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{2971}{(\text{integrated})} \times \left(\frac{\sqrt{(c)} = \sqrt{1.0020} = 1.0010}{\sqrt{(d)}} \right) = 2974 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{2974}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{.75}} = \frac{2974}{\left[\frac{2,403,075}{2,162,297} \right]^{.75}} = \frac{2974}{(1.1114)^{.75}} = 3219 \text{ MCF/da.}$$

SUMMARY

P_c = 1790 psia
Q = 2974 Mcf/day
P_w = 1021 psia
P_d = 895 psia
D = 3219 Mcf/day

Company Pioneer Prod Corporation
By Original signed by T. B. ...
Title Consulting 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
<u>4206</u>	<u>.264</u>	<u>781.845</u>	<u>206.407</u>	<u>835.396</u>	<u>1041.803</u>	<u>1021</u>



