

NEW MEXICO OIL CONSERVATION COMMISSION GAS WELL TEST DATA SHEET - (FOR FLOW TESTS)

(TO BE USED FOR FLOW TESTS, PICTURED CLIFFS, AND OTHER STORAGE TANKS EXCEPT BARKER DOME STORAGE TANKS)

Pool Harmon Formation Harmon Lease Harmon
Purchasing Pipeline El Paso Natural Gas Date of Flow Test 11/21/58
Operator El Paso Natural Gas Lease Leasing Well No. 10
Unit 1 Sec. 10 Twp. 20 Rge. 10 Pay Zone From 1000 To 1000
Casing: OD 7 WT. 25 Set At 3790 Tubing: OD 2 WT. 2.7 Set At 3790
Produced Through: Casing X Tubing Gas Gravity: Measured 0.65 Estimated
Date of Flow Test: From 11/21/58 To 11/29/58 Date S.I.P. Measured 11/21/58
Meter Run Size Orifice Size Type Chart Type Factor

OBSERVED DATA

Flowing casing pressure (Dwt) psig + 12 = psia (a)
Flowing tubing pressure (Dwt) psig + 12 = psia (b)
Flowing meter pressure (Dwt) psig + 12 = psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading psig + 12 = psia (d)
Square root chart reading () ² x spring constant = psia (e)
Meter error (c) - (d) or (d) - (c) ± = psia (f)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing; (a) - (c) Flow through casing = psia (g)
Seven day average static meter pressure (from meter chart):
Normal chart average reading psig + 12 = psia (h)
Square root chart average reading (6.00) ² x sp. const. 10 = psia (i)
Corrected seven day avg. meter press. (p_i) (g) + (e) = psia (j)
P_t = (h) + (f) = psia (k)
Wellhead casing shut-in pressure (Dwt) 833 psig + 12 = psia (l)
Wellhead tubing shut-in pressure (Dwt) 495 psig + 12 = psia (m)
P_c = (j) or (k) whichever well flowed through = psia (n)
Flowing Temp. (Meter Run) 87 °F + 460 = °R (o)
P_d = 1/2 P_c = 1/2 (l) = psia (p)

FLOW RATE CALCULATION

Q = X $\left(\frac{\sqrt{(c)}}{\sqrt{(d)}} \right)^n$ = 322 MCF/day
(Integrated)

DELIVERABILITY CALCULATION

D = Q 322 $\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^n$ = 1.100 MCF/day
1.100

SUMMARY

P_c = 833 psia Company El Paso Natural Gas
Q = 322 Mcf/day By
P_w = 495 psia Title
P_d = 495 psia Witnessed by
D = 322 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 (1-e ^{-s})	P _c ²	P _c ² - P _d ²	P _d ²
			R ²	(Column 6)		
			Friction Multiplier			

Completed 11/24/58

D at 500 = 307



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)

70-147-01

Pool Blanco Formation Mesa Verde County San Juan
Purchasing Pipeline El Paso Natural Gas Date Test Filed _____

Operator El Paso Natural Gas Lease Lackey Well No. 2-A
Unit L Sec. 12 Twp. 29 Rge. 10 Pay Zone: From 3822 To 4590
Casing: OD 7 WT. 23 Set At 3790 Tubing: OD 2 WT. 4.7 T. Perf. 3760
Produced Through: Casing X Tubing _____ Gas Gravity: Measured .681 Estimated _____
Date of Flow Test: From 11/21/58 To 11/29/58* Date S.I.P. Measured 5/6/58 (7)
Meter Run Size _____ Orifice Size _____ Type Chart _____ Type Taps _____

OBSERVED DATA

Flowing casing pressure (Dwt) _____ psig + 12 = _____ psia (a)
Flowing tubing pressure (Dwt) _____ psig + 12 = _____ psia (b)
Flowing meter pressure (Dwt) _____ psig + 12 = _____ psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (_____) ² x spring constant _____ = _____ psia (d)
Meter error (c) - (d) or (d) - (c) _____ ± _____ = _____ psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing _____ = _____ psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (6.95) ² x sp. const. 10 _____ = 483 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 483 psia (h)
P_t = (h) + (f) _____ = 483 psia (i)
Wellhead casing shut-in pressure (Dwt) _____ 833 psig + 12 = 845 psia (j)
Wellhead tubing shut-in pressure (Dwt) _____ 495 psig + 12 = 507 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 845 psia (l)
Flowing Temp. (Meter Run) _____ 57 °F + 460 _____ = 517 °Abs (m)
P_d = ½ P_c = ½ (l) _____ = 423 psia (n)

Q = _____ X $\left(\frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)}} = \frac{\sqrt{(d)}}{\sqrt{(d)}} \right)^* = \underline{322} \text{ MCF/da}$
(integrated)

DELIVERABILITY CALCULATION

D = Q 322 $\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^n = \frac{1.1130}{1.0836} = \underline{349} \text{ MCF/da.}$

SUMMARY

P_c = 845 psia Company El Paso Natural Gas
Q = 322 Mcf/day By _____
P_w = 483 psia Title _____
P_d = 423 psia Witnessed by _____
D = 349 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 (1-e ^{-S}) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
			Friction Negligible			

Perforated 10/24/58

D at 500 = 307

