

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 Antero Formation Permian County Sandoz  
Purchasing Pipeline Southern Union Gas Company Date Test Filed August 2, 1960

Operator Antero Oil and Gas Company Lease 244 Well No. 22  
Unit 1 Sec. 10 Twp. 36N Rge. 1E Pay Zone: From 2000 To 2000  
Casing: OD 2 7/8 WT. 6.50 Set At 2007 Tubing: OD 2 1/2 WT. 5.00 T. Perf. 2000  
Produced Through: Casing 1 Tubing 1 Gas Gravity: Measured 0.95 Estimated 0.95  
Date of Flow Test: From 7/1 To 7/8 \* Date S.I.P. Measured 7/12/60  
Meter Run Size 1/2 Orifice Size 1/8 Type Chart 1 Type Taps 1

OBSERVED DATA

Flowing casing pressure (Dwt) 2000 psig + 12 = 2012 psia (a)  
Flowing tubing pressure (Dwt) 2000 psig + 12 = 2012 psia (b)  
Flowing meter pressure (Dwt) 2000 psig + 12 = 2012 psia (c)  
Flowing meter pressure (meter reading when Dwt. measurement taken):  
Normal chart reading 2000 psig + 12 = 2012 psia (d)  
Square root chart reading ( ) <sup>2</sup> x spring constant 2000 = 2012 psia (d)  
Meter error (c) - (d) or (d) - (c) 0 = 0 psi (e)  
Friction loss, Flowing column to meter:  
(b) - (c) Flow through tubing: (a) - (c) Flow through casing 0 = 0 psi (f)  
Seven day average static meter pressure (from meter chart):  
Normal chart average reading 2000 psig + 12 = 2012 psia (g)  
Square root chart average reading ( ) <sup>2</sup> x sp. const. 2000 = 2012 psia (g)  
Corrected seven day avge. meter press. (p<sub>f</sub>) (g) + (e) 2000 = 2012 psia (h)  
P<sub>t</sub> = (h) + (f) 2000 = 2012 psia (i)  
Wellhead casing shut-in pressure (Dwt) 2000 psig + 12 = 2012 psia (j)  
Wellhead tubing shut-in pressure (Dwt) 2000 psig + 12 = 2012 psia (k)  
P<sub>c</sub> = (j) or (k) whichever well flowed through 2000 = 2012 psia (l)  
Flowing Temp. (Meter Run) 67 °F + 460 = 527 °Abs (m)  
P<sub>d</sub> = 1/2 P<sub>c</sub> = 1/2 (l) 1000 = 1006 psia (n)

Q = 1.0 X  $\left( \frac{\text{FLOW RATE CALCULATION}}{\frac{\sqrt{(c)}}{\sqrt{(d)}}} = \frac{\sqrt{(c)}}{\sqrt{(d)}} \right) = \text{MCF/da}$   
(integrated)

DELIVERABILITY CALCULATION

D = Q 1.0  $\left[ \frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^{0.25} = \text{MCF/da.}$   
1.0  $\left[ \frac{(2012^2 - 1006^2)}{(2012^2 - 1006^2)} \right]^{0.25} = \text{MCF/da.}$

SUMMARY

P<sub>c</sub> = 2012 psia  
Q = 1.0 Mcf/day  
P<sub>w</sub> = 1006 psia  
P<sub>d</sub> = 1006 psia  
D = 1.0 Mcf/day  
Company Antero Oil & Gas Company  
By ORIGINAL SIGNED BY L. M. STEVENS  
Title L. M. Stevens, Dist. Eng.  
Witnessed by   
Company

\* This is date of completion test.  
\* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	(1-e <sup>-S</sup> )	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-S</sup> ) R <sup>2</sup>	P <sub>t</sub> <sup>2</sup> (Column i)	P <sub>t</sub> <sup>2</sup> + R <sup>2</sup>	P <sub>w</sub>
<u>1.0</u>	<u>0.999</u>	<u>10.0</u>	<u>1.0</u>	<u>2012</u>	<u>2012</u>	<u>1006</u>

OK

