

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 Angel Peak Formation Dakota County San Juan  
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed 9-13-60

Operator FURCO PETROLEUM CORPORATION Lease State Well No. 26  
Unit 11 Sec. 36 Twp. 29N Rge. 11W Pay Zone: From 6356 To 6394  
Casing: OD 5 1/2" WT. 17 Set At 6545 Tubing: OD 2" WT. 4.7 T. Perf. 6361  
Produced Through: Casing                      Tubing X Gas Gravity: Measured 0.700 Estimated                       
Date of Flow Test: From 8-22-60 To 8-30-60 Date S.I.P. Measured 3-30-60  
Meter Run Size 4" Orifice Size 1.75 Type Chart 8 1/2" St. Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 919 psig + 12 = 931 psia (a)  
Flowing tubing pressure (Dwt) 788 psig + 12 = 740 psia (b)  
Flowing meter pressure (Dwt) 498 psig + 12 = 510 psia (c)  
Flowing meter pressure (meter reading when Dwt. measurement taken:  
Normal chart reading                      psig + 12 =                      psia (d)  
Square root chart reading (7.1)<sup>2</sup> x spring constant 10 = 504 psia (d)  
Meter error (c) - (d) or (d) - (c)                      = 46 psi (e)  
Friction loss, Flowing column to meter:  
(b) - (c) Flow through tubing: (a) - (c) Flow through casing                      = 230 psi (f)  
Seven day average static meter pressure (from meter chart):  
Normal chart average reading                      psig + 12 =                      psia (g)  
Square root chart average reading (7.10)<sup>2</sup> x sp. const. 10 = 504 psia (g)  
Corrected seven day avge. meter press. (p<sub>f</sub>) (g) + (e)                      = 510 psia (h)  
P<sub>t</sub> = (h) + (f)                      = 740 psia (i)  
Wellhead casing shut-in pressure (Dwt) 2078 psig + 12 = 2090 psia (j)  
Wellhead tubing shut-in pressure (Dwt) 2078 psig + 12 = 2090 psia (k)  
P<sub>c</sub> = (j) or (k) whichever well flowed through                      = 2090 psia (l)  
Flowing Temp. (Meter Run) 77 °F + 460                      = 537 °Abs (m)  
P<sub>d</sub> = 1/2 P<sub>c</sub> = 1/2 (l)                      = 1045 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{2716}{(\text{integrated})} \times \left( \frac{\sqrt{(c)} \frac{510 - 22.58318}{\sqrt{(d)} \frac{504 - 22.44994}}{1.00593}} \right) = 2732 \text{ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{2732}{\left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n} = 2525 \text{ MCF/day}$$

SUMMARY

"D" at 512 - 2991

P<sub>c</sub> = 2090 psia  
Q = 2732 Mcf/day  
P<sub>w</sub> = 855 psia  
P<sub>d</sub> = 1045 psia  
D = 2525 Mcf/day

Company FURCO PETROLEUM CORPORATION  
By D. H. Weyhoff, Jr.  
Title Production Engineer  
Witnessed by Jack Dunning  
Company Furco Petroleum Corp

- \* 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><br>R <sup>2</sup> | (1-e <sup>-S</sup> ) | P <sub>t</sub> <sup>2</sup><br>(Column i) | P <sub>t</sub> <sup>2</sup> + R <sup>2</sup> | P <sub>w</sub> |
|------|----------------------|---------------------------------|---------------------------------------------------|----------------------|-------------------------------------------|----------------------------------------------|----------------|
| 4453 | 0.277                | 659.772                         | 182.757                                           |                      | 547,600                                   | 730,357                                      | 855            |

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