

Initial Deliverability  
TestForm C-122-A  
Revised April 20, 1955NEW 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 San Juan Pictured Cliffs Formation Pictured Cliffs County San Juan  
Purchasing Pipeline El Paso Natural Gas Date Test Filed 5-4-58  
Operator Amurda Petroleum Corp. Lease J. Apache #7 Well No. 7-8  
Unit 8 Sec. 21 Twp. 25 Rge. 3 Pay Zone: From 2770' To 2822'  
Casing: OD 2-3/8" WT. 13.50 Set At 3000 Tubing: OD 2-3/8" WT. 4.40 T. Perf. 2770  
Produced Through: Casing 8 Tubing        Gas Gravity: Measured 0.645 Estimated         
Date of Flow Test: From 3-13-58 To 4-3-58 \* Date S.I.P. Measured 4-13-58  
Meter Run Size 4" Orifice Size 0.750" Type Chart EE-3 Type Taps Flange

## OBSERVED DATA

Flowing casing pressure (Dwt) 302 psig + 12 = 314 psia (a)  
Flowing tubing pressure (Dwt) 302 psig + 12 = 314 psia (b)  
Flowing meter pressure (Dwt) 302 psig + 12 = 314 psia (c)  
Flowing meter pressure (meter reading when Dwt. measurement taken:  
Normal chart reading 6.9 psig + 12 = 314 psia (d)  
Square root chart reading (6.9)<sup>2</sup> x spring constant 5 = 314 psia (d)  
Meter error (c) - (d) or (d) - (c) ± = 0 psi (e)  
Friction loss, Flowing column to meter:  
(b) - (c) Flow through tubing: (a) - (c) Flow through casing = 0 psi (f)  
Seven day average static meter pressure (from meter chart):  
Normal chart average reading 6.85 psig + 12 = 314 psia (g)  
Square root chart average reading (6.85)<sup>2</sup> x sp. const. 5 = 314 psia (g)  
Corrected seven day avge. meter press. (p<sub>f</sub>) (g) + (e) = 314 psia (h)  
P<sub>t</sub> = (h) + (f) = 314 psia (i)  
Wellhead casing shut-in pressure (Dwt) 690 psig + 12 = 702 psia (j)  
Wellhead tubing shut-in pressure (Dwt)        psig + 12 = 702 psia (k)  
P<sub>c</sub> = (j) or (k) whichever well flowed through 60 = 702 psia (l)  
Flowing Temp. (Meter Run) 60 °F + 460 = 520 °Abs (m)  
P<sub>d</sub> = 1/2 P<sub>c</sub> = 1/2 (l) = 351 psia (n)

## FLOW RATE CALCULATION

$$Q = \frac{285}{(\text{integrated})} \times \left( \frac{\sqrt{(c)} = 19.45}{\sqrt{(d)} = 19.90} = .977 \right) = 282 \text{ MCF/da}$$

## DELIVERABILITY CALCULATION

$$D = Q \frac{\left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right] = \frac{618803}{661904}}{.934} = 287 \text{ MCF/da.}$$

## SUMMARY

P<sub>c</sub> = 702 psia  
Q = 287 Mcf/day  
P<sub>w</sub> = 314 psia  
P<sub>d</sub> = 351 psia  
D = 287 Mcf/day

Company Amurda Petroleum Corporation  
By W.F. Fernald  
Title President  
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><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> |
|-------------|----------------------|---------------------------------|---------------------------------------------------|----------------------|-------------------------------------------|----------------------------------------------|----------------|
| <u>1822</u> | <u>0.126</u>         | <u>.130</u>                     | <u>.0172</u>                                      |                      | <u>152,240</u>                            | <u>152,257</u>                               | <u>314</u>     |

S = 0.42  
F<sub>c</sub> = 1.075



OK