

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 MEANSO Formation MESAVERDE County RIO ARriba  
Purchasing Pipeline PACIFIC NORTHWEST PIPELINE CORPORATION Date Test Filed FEBRUARY 8, 1957  
Operator E. Paso Natural Gas Co. Lease San Juan Unit 25.6 Well No. 60-21  
Unit B Sec. 21 Twp. 28 Rge. 6 Pay Zone: From 9050 To 9596  
Casing: OD 5 1/2 WT. 14 Set At 9696 Tubing: OD 2 3/8 WT. 4.7 T. Perf. 9661  
Produced Through: Casing    Tubing x Gas Gravity: Measured    Estimated .650  
Date of Flow Test: From 1-19-57 To 1-27-57 \* Date S.I.P. Measured 9-21-56  
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 (    ) <sup>2</sup> 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 (    ) <sup>2</sup> x sp. const. 611 = 603 psia (g)  
Corrected seven day avge. meter press. (p<sub>f</sub>) (g) + (e)    =    psia (h)  
P<sub>t</sub> = (h) + (f)    = 603 psia (i)  
Wellhead casing shut-in pressure (Dwt) 1108 psig + 12 = 1120 psia (j)  
Wellhead tubing shut-in pressure (Dwt) 1093 psig + 12 = 1105 psia (k)  
P<sub>c</sub> = (j) or (k) whichever well flowed through    = 1105 psia (l)  
Flowing Temp. (Meter Run) 68 °F + 460    = 508 °Abs (m)  
P<sub>d</sub> = 1/2 P<sub>c</sub> = 1/2 (l)    = 553 psia (n)

Q = 1166 X  $\left( \frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)} = \text{  } = \text{  }} \right) = \text{  }$   
(integrated)  $\sqrt{(d)} = \text{  }$

DELIVERABILITY CALCULATION  
D = Q 1166  $\left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{850136}{717092} \right] \frac{(1.1342) - 75}{1.1352} = 1324$

SUMMARY

P<sub>c</sub> = 1105 psia  
Q = 1166 Mcf/day  
P<sub>w</sub> = 605 psia  
P<sub>d</sub> = 553 psia  
D = 1324 Mcf/day

Company Pacific Northwest Pipeline Corp.  
By Donald C. Adams  
Title Well Test Engineer  
Witnessed by     
Company   

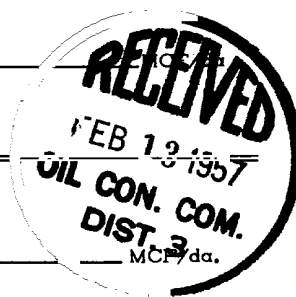
- \* This is date of completion test.
- \* Meter error correction factor

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> )<br>R <sup>2</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>3600</u> | <u>.235</u>          | <u>120,187</u>                  | <u>28244</u>                                                           | <u>308129</u>                             | <u>426373</u>                                | <u>605</u>     |

3-M.N.O.C.S.-Alto  
1-L. C. Tracy  
1-B.P.N.C. (Galloway)  
B-Phillips Petroleum (Smith)  
1-File

OK



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FROM : SAC, NEW YORK  
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RE: [Illegible]

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