

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 Basin Formation Dakota County San Juan
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed December 29, 1961
Operator Shelly Oil Company Lease Marion-Fed "M" Well No. 1
Unit I Sec. 12 Twp. 31N Rge. 13W Pay Zone: From 6580' To 6800'
Casing: OD 4-1/2" WT. 9.5611.66 Set At 6855' Tubing: OD 2-3/8" WT. 4.75 T. Perf. 6612'
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .678 Estimated _____
Date of Flow Test: From 12-8-61 To 12-16-61 * Date S.I.P. Measured 12-23-61
Meter Run Size 4.027" I.D. Orifice Size 1.250 Type Chart S.R. Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) _____ psig + 12 = _____ psia (a)
Flowing tubing pressure (Dwt) 554 psig + 12 = 566 psia (b)
Flowing meter pressure (Dwt) 541 psig + 12 = 553 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken):
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (7.42)² x spring constant 10.00 = 551 psia (d)
Meter error (c) - (d) or (d) - (c) _____ ± _____ = 2 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing _____ = 13 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (7.40)² x sp. const. 10.00 = 548 psia (g)
Corrected seven day ave. meter press. (p_f) (g) + (e) _____ = 550 psia (h)
P_t = (h) + (f) _____ = 563 psia (i)
Wellhead casing shut-in pressure (Dwt) _____ psig + 12 = _____ psia (j)
Wellhead tubing shut-in pressure (Dwt) 1586 psig + 12 = 1598 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1598 psia (l)
Flowing Temp. (Meter Run) 67 °F + 460 _____ = 527 ° Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 799 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{536}{(\text{Integrated})} \times \left(\frac{\sqrt{(c)} = 23.51595}{\sqrt{(d)} = 23.47339} = 1.0018 \right) = 537 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{537}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{1,915,203}{2,229,549} \right]^n \cdot .8590 \cdot 72.8922} = 479 \text{ MCF/da.}$$

SUMMARY

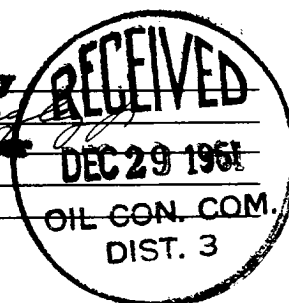
P_c = 1598 psia
Q = 537 Mcf/day
P_w = 569 psia
P_d = 799 psia
D = 479 Mcf/day

Company Shelly Oil Company
By William Singh
Title Production Engineer
Witnessed by _____
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
<u>4483</u>	<u>0.278</u>	<u>25.491</u>	<u>7.066</u>	<u>316.969</u>	<u>324.033</u>	<u>569</u>



SECRET

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SUBJECT: [illegible]

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