

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 Basin Formation Dakota County San Juan
Purchasing Pipeline El Paso Natural Gas Co. Date Test Filed April 13, 1963
Operator Manor Production Corp. Lease Elizbeth Well No. 1
Unit 8 Sec. 28 Twp. 10N Rge. 12E Pay Zone: From 6000 To 6200
Casing: OD 4 1/2" WT. 20.0 Set At 6040 Tubing: OD 2 1/4" WT. 2.44 T. Perf. 6172
Produced Through: Casing ^ Tubing X Gas Gravity: Measured .70 Estimated ^
Date of Flow Test: From 3-28-63 To 3-26-63 * Date S.I.P. Measured 4-8-63
Meter Run Size 4" Orifice Size 1.900 Type Chart 20 Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 792 psig + 12 = 804 psia (a)
Flowing tubing pressure (Dwt) 561 psig + 12 = 573 psia (a)
Flowing meter pressure (Dwt) 480 psig + 12 = 492 psia (a)
Flowing meter pressure (meter reading when Dwt measurement taken):
Normal chart reading 7.4 psig + 12 = 804 psia (a)
Square root chart reading (7.4)² x spring constant 10 = 54.8 psia (a)
Meter error (c) - (d) or (d) - (c) ± = 12 psi (a)
Friction loss, Flowing column to meter:
(h) - (c) Flow through tubing: (a) - (c) Flow through casing = 192 psi (a)
Seven day average static meter pressure (from meter chart):
Normal chart average reading 7.4 psig + 12 = 804 psia (a)
Square root chart average reading (7.4)² x sp. const. 10 = 54.8 psia (a)
Corrected seven day avge. meter pressure, (p₁) (a) + (e) = 804 psia (a)
P₁ = (h) + (f) = 804 psia (a)
Wellhead casing shut-in pressure (Dwt) 1043 psig + 12 = 1055 psia (a)
Wellhead tubing shut-in pressure (Dwt) 1037 psig + 12 = 1049 psia (a)
P_c = (j) or (k) whichever well flowed through = 1049 psia (a)
Flowing Temp. (Meter Run) ^ °F + 460 = ^ °Abs (a)
P_d = 1/2 P_c = 1/2 (l) = 524.5 psia (a)

FLOW RATE CALCULATION

$$Q = \frac{1044}{(\text{integrated})} \times \left(\frac{\sqrt{P_1 - P_d}}{\sqrt{P_c - P_d}} = \frac{\sqrt{1049 - 524.5}}{\sqrt{1049 - 524.5}} = 1.000 \right) = 1044 \text{ MCF/day}$$

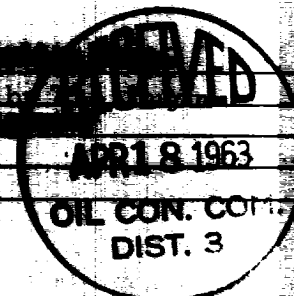
DELIVERABILITY CALCULATION

$$D = Q \left[\frac{(P_c^2 - P_d^2) = 1049^2 - 524.5^2}{(P_c^2 - P_w^2) = 1049^2 - 725^2} \right]^{.75} = \frac{1044 \cdot .7123}{(.9449)^{.75}} = 992 \text{ MCF/day}$$

SUMMARY

P_c = 1049 psia
Q = 1044 Mcf/day
P_w = 725 psia
P_d = 524.5 psia
D = 992 Mcf/day

Company Manor Production Corp.
By Original signature
Title Geological Engineer
Witnessed by ^
Company ^



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

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ⁻⁸)	F _c Q ²	(F _c Q) ² (1-e ⁻⁸) R ²	P _t ² (Column 1)	P _t ² + R ²	P _w
<u>400</u>	<u>.271</u>	<u>104.40</u>	<u>103.73</u>	<u>101.76</u>	<u>905.00</u>	<u>725</u>

THESE ARE THE ONLY TWO COPIES OF THE MESSAGE. A FULL COPY IS
BEING FORWARDED TO THE BUREAU OF INVESTIGATION AND THE BUREAU OF
THE ARMY AND THE BUREAU OF THE NAVY.

SECRET

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 3, 1862. It is a very long letter, and it contains a great deal of information about the state of the country at that time. It is a very important document, and it is one of the most interesting documents in the collection.

THEME: CEC AND C-53 2-11-60

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