

1 Southern Union Gas Co.
1 File

Revised April 20, 1955

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 Southern Union Gas Company Date Test Filed 12-26-61
Operator International Oil Corp. Lease Fogelson Well No. 2-11
Unit P Sec. 11 Twp. 29N Rge. 11W Pay Zone: From 6394 To 6554
Casing: OD 4 1/2" WT. 10.5 Set At 6724 Tubing: OD 1 1/2" WT. 2.44 T. Perf. 6584
Produced Through: Casing _____ Tubing 3 Gas Gravity: Measured .668 Estimated _____
Date of Flow Test: From 11-25-61 To 12-2-61 * Date S.I.P. Measured 12-9-61
Meter Run Size 4" Orifice Size 1.375 Type Chart S.R. Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 898 psig + 12 = 910 psia (a)
Flowing tubing pressure (Dwt) 570 psig + 12 = 582 psia (b)
Flowing meter pressure (Dwt) 517 psig + 12 = 529 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (7.4)² x spring constant 10 = 548 psia (d)
Meter error (c) - (d) or (d) - (c) ± = -19 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing = +53 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (7.5)² x sp. const. 10 = 562 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 543 psia (h)
P_t = (h) + (f) = 596 psia (i)
Wellhead casing shut-in pressure (Dwt) 1668 psig + 12 = 1680 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1632 psig + 12 = 1644 psia (k)
P_c = (j) or (k) whichever well flowed through. = 1644 psia (l)
Flowing Temp. (Meter Run) 78 °F + 460 = 538 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 822 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{1475}{(\text{integrated})} \times \left(\frac{\sqrt{(c)} = .9653}{\sqrt{(d)}} \right)^* = \frac{1449}{\text{MCF/da}}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{1449}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{.75}} = \frac{2,027,052}{1,998,811}^{.75} \frac{1.0105}{(1.0141)^{.75}} = 1464 \text{ MCF/da.}$$

SUMMARY

P_c = 1644 psia
Q = 1449 Mcf/day
P_w = 839 psia
P_d = 822 psia
D = 1464 Mcf/day

Company International Oil Corporation
By Original signed by T. J. RILEY
Title Consulting Engineer
Witnessed by _____
Company _____

DEC 27 1961

OIL CON. COM.
DIST. 3

- * 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
4398	.274	1272.659	348.709	355.216	703.925	839