

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 Undesignated Formation Dakota County San Juan
Purchasing Pipeline Southern Union Gas ~~Engineering~~ Company Date Test Filed June 16, 1960
Operator Southern Union Gas Co. Lease Federal Eye Well No. 1
Unit N/ Sec. 20 Twp. 31N Rge. 12 W Pay Zone: From 6013 To 7044
Casing: OD 5 1/2 WT. 25.5 Set At 7,273 Tubing: OD 2 3/8 WT. 4.7 T. Perf. 6,945
Produced Through: Casing _____ Tubing 2 3/8 Gas Gravity: Measured 0.75 Estimated _____
Date of Flow Test: From 5-26-60 To 5-26-60 * Date S.I.P. Measured 6-1-60
Meter Run Size 1" Orifice Size 1 1/2" Type Chart Normal Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) Backer psig + 12 = _____ psia (a)
Flowing tubing pressure (Dwt) 182 psig + 12 = 193 psia (b)
Flowing meter pressure (Dwt) 177 psig + 12 = 189 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading 175 psig + 12 = 187 psia (d)
Square root chart reading (_____) ² 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 167 psig + 12 = 179 psia (g)
Square root chart average reading (_____) ² x sp. const. _____ psia (g)
Corrected seven day avg. meter press. (p_f) (g) + (e) _____ psia (h)
P_i = (h) + (f) _____ psia (i)
Wellhead casing shut-in pressure (Dwt) Backer psig + 12 = _____ psia (j)
Wellhead tubing shut-in pressure (Dwt) 1722 psig + 12 = 1734 psia (k)
P_o = (j) or (k) whichever well flowed through _____ psia (l)
Flowing Temp. (Meter Run) 75 °F + 460 _____ °Abs (m)
P_d = 1/2 P_o = 1/2 (l) _____ psia (n)

FLOW RATE CALCULATION

$$Q = \frac{952}{(\text{Integrated})} \times \left(\frac{\frac{V(c)}{V(d)} = \frac{22.11}{22.07} = 1.0022}{\right) = 952 \text{ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{952}{\left[\frac{P_o^2 - P_d^2}{P_o^2 - P_w^2} = \frac{223507}{270743} \right]^{.75}} = .85761 = 858 \text{ MCF/day}$$

SUMMARY

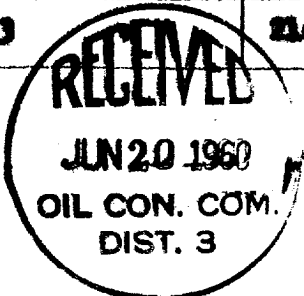
P_o = 1734 psia
Q = 952 Mcf/day
P_w = 189 psia
P_d = 187 psia
D = 858 Mcf/day

Company Southern Union Gas Company
By Jimmy Hoff
Title Measurement Office Supervisor
Witnessed by _____
Company _____

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

REMARKS OR FRICTION CALCULATIONS

GL	(1-σ ⁻²)	(F _c Q) ²	(F _c Q) ² R ²	(1-σ ⁻²)	P _i ² (Column 1)	$\frac{P_o^2 + P_w^2}{P_w^2}$	P _w
4688	0.289	80.462	23.253		216,225	239.478	189



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