

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Aztec Formation Pictured Cliffs County San Juan
Initial X Annual _____ Special _____ Date of Test Sept. 24, 1957
Company Southern Union Gas Lease Albright Well No. 5
Unit K Sec. 22 Twp. 29N Rge. 10W Purchaser Southern Union Gas Co.
Casing 5 1/8" Wt. 15.5 I.D. 4.950 Set at 2064 Perf. 1940 To 2008
Tubing 1" Wt. 1.7 I.D. _____ Set at 1992 Perf. 1972 To 1992
Gas Pay: From 1940 To 2008 L _____ xG 0.67 est. GL _____ Bar.Press. 12.0
Producing Thru: Casing X Tubing _____ Type Well Single - Gas
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: Sept. 5, 1957 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps _____

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.		3/4"	253		61°	658		658		19 days 3 hours
2.						287		253	61°	
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.3650		265	0.9990	0.9463	1.029	3,187
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 670 P_c 448.9
P_w 299 P_w 89.4

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w / P _c
1.						89.4	359.5		0.448
2.									
3.									
4.									
5.									

Absolute Potential: 3,853 MCFPD; n 0.85
COMPANY Southern Union Gas Co.
ADDRESS P. O. Box 815 Farmington, New Mexico
AGENT and TITLE Gilbert Noland, Jr., Ass't. Dir. Supt.
WITNESSED _____
COMPANY _____

REMARKS



INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w).
MCF/da. @ 15.025 psia and 60° F.

P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.
psia

P_w = Static wellhead working pressure as determined at the end of flow period.
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia

P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

P_f = Meter pressure, psia.

h_w = Differential meter pressure, inches water.

F_g = Gravity correction factor.

F_t = Flowing temperature correction factor.

F_{pv} = Supercompressability factor.

n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .

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