

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco Mesaverde Formation Mesaverde County Rio Arriba
Initial After workover Annual _____ Special _____ Date of Test 7-25-66
Company Blackwood & Nichols Lease Northeast Blanco Well No. 18
Unit H Sec. 9 Twp. 30N Rge. 7W Purchaser El Paso Natural Gas Company
Casing 4 1/2" Wt. 10.50 I.D. 4.052" Set at 5676' Perf. 5092' To 5652'
Tubing 2 3/8" Wt. 4.7# I.D. 1.995" Set at 5602' Perf. 5564' To 5570'
Gas Pay: From 5092' To 5652' L 5652' xG .655 -GL 3702 Bar.Press. 11.5
Producing Thru: Casing _____ Tubing X Type Well Single - Gas
Recompletion Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 7-4-66 Packer _____ Reservoir Temp. _____

OBSERVED DATA

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

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	
SI								
1.		3/4"				830		3 hrs.
2.						315		
3.								
4.								
5.								

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w P_f}$	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		326.5				4037
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c _____ (1-e^{-s})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 841.5 P_c 708

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.						546	162		.86
2.									
3.									
4.									
5.									

Absolute Potential: 12,162 MCFPD; n .75
COMPANY Blackwood & Nichols
ADDRESS P.O. Box 1237, Durango, Colorado 81301
AGENT and TITLE DeLasso Loos, Field Superintendent Original Signed _____
WITNESSED _____ by DeLasso Loos
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} = Supercompressibility 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 .