

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool South Blanco Formation Pictured Cliffs County El Arriba
Initial I Annual _____ Special _____ Date of Test 10/20/59
Company Astec Oil and Gas Company Lease Arizono-Jicarilla Well No. h
Unit _____ Sec. 16 Twp. 1-25N Rge. 4-4E Purchaser _____
Casing 1 1/2 Wt. 9.5 I.D. 1.090 Set at 3753 Perf. 3614 To 3603
Tubing 2 Wt. 11.7 I.D. 1.995 Set at 3658 Perf. 3623 To 3658
Gas Pay: From 3614 To 3605 L _____ xG _____ -GL _____ Bar.Press. _____
Producing Thru: Casing _____ Tubing I Type Well _____
Date of Completion: 10/20/59 Packer _____ Reservoir Temp. _____
Single-Bradenhead-G. G. or G.O. Dual

1.7. 3753'
0.7. 7251'

OBSERVED DATA

Tested Through (Proven) (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						100		500	
1.		.750	112			112	60	255	
2.									
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.	12.365		121	1.000	.9708	1.011	1,449
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 512 P_c 262.144

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.	267					71,249	100,455		
2.									
3.									
4.									
5.									

Absolute Potential: 1,650 MCFPD; n .85
COMPANY Astec Oil and Gas Company
ADDRESS Box # 756, Farmington, New Mexico
AGENT and TITLE ORIGINAL SIGNED BY D. K. BRYANT D. K. Bryant, Production Engineer
WITNESSED _____
COMPANY _____

REMARKS

1.3735 - 1.3094



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 .

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