

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 .

OIL CONSERVATION COM.		
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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool South Blanco Formation Pictured Cliffs County Big Arriba
 Initial XXXX Annual _____ Special _____ Date of Test 10/14/59
 Company Astec Oil & Gas Company Lease Arizona-Jicarilla A Well No. 2
 Unit A Sec. 24 Twp. 34N Rge. 34W Purchaser Southern Union Gas Company
 Casing 4 1/2" Wt. 9.5 I.D. 4.090 Set at 3542 Perf. 3522 To 2590
 Tubing 2" Wt. 4.7 I.D. 1.995 Set at 3608 Perf. 3578 To 3608
 Gas Pay: From 3522 To 3590 L _____ xG _____ -GL _____ Bar.Press. _____
 Producing Thru: Casing _____ Tubing XXXX Type Well Single - Gas
 Single-Bradenhead-G. G. or G.O. Dual _____
 Date of Completion: 10/14/59 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.	Press. psig	Temp. °F.	
SI						500		650		7 days
1.		.750	105			105	60	150		3 hours
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		117	1.000	.9608	1.010	1,404
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 622 P_c 438,244

No.	P _w (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.	164					26,844	412,000		
2.									
3.									
4.									
5.									

Absolute Potential: 1,480 MCFPD; n .85

COMPANY Astec Oil & Gas Company

ADDRESS Box 786, Farmington, New Mexico

AGENT and TITLE ORIGINAL SIGNED BY D. K. BRYANT D. K. Bryant, Engineer

WITNESSED _____

COMPANY _____

REMARKS _____