

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Undersaturated Formation Albion County San JuanInitial    Annual    Special    Date of Test 9/22/59Company Antec Oil and Gas Company Lease Antec #1 Well No. 2Unit    Sec. 17 Twp. 27-N Rge. 11-E Purchaser   Casing 5.5 Wt. 23.2 I.D.    Set at 540 Perf. 444 To 156Tubing 2 3/8 Wt. 1.7 I.D. 1.95 Set at 541 Perf. 445 To 440Gas Pay: From 446 To 456 L    xG    -GL    Bar.Press.   Producing Thru: Casing    Tubing X Type Well Single-Bradenhead-G. G. or G.O. DualDate of Completion: 9/22/59 Packer    Reservoir Temp.   

1. - 1.11

2. - 1.11

3. - 1.11

## 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 <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.		.70	371			1997		2402		7 days
2.						375		57		3 hours
3.										
4.										
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.55		30	.9724	.9203	1.337	1.757
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio    cf/bbl.  
Gravity of Liquid Hydrocarbons    deg.  
P<sub>c</sub>    (1-e<sup>-s</sup>)   Specific Gravity Separator Gas     
Specific Gravity Flowing Fluid     
P<sub>c</sub> 244 P<sub>c</sub> 1,016,106

No.	P <sub>w</sub> (psia)	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> P <sub>c</sub>
1.	244					59,536	3,117,21		
2.									
3.									
4.									
5.									

Absolute Potential: 5,307 MCFPD; n .75COMPANY Antec Oil and Gas CompanyADDRESS Box # 730, Farmington, New MexicoAGENT and TITLE ORIGINAL SIGNED BY D. K. BRYANTWITNESSED   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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