

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Fulcher Area No. 1 Formation Holston Shale County San Juan  
Initial 1 Annual 1 Special 1 Date of Test 12-1-54  
Company Antero Oil & Gas Company Lease McGraw Well No. 1  
Unit 1 Sec. 2 Twp. 23N Rge. 12W Purchaser Antero Oil & Gas  
Casing 3-1/2 Wt. 7.7 I.D. 3.063 Set at 2137 Perf. 2212 To 2271  
Tubing 1" Wt. 1.7 I.D. 1.049 Set at 1996 Perf. 1977 To 1986  
Gas Pay: From 2212 To 2276 L 2212 xG .700(amt) -GL 1408 Bar.Press. 1408  
Producing Thru: Casing 1 Tubing 1 Type Well Single Gas  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: 11-26-54 Packer None Reservoir Temp. 1408

## 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	7 days					232		232		
1.	2 days	3/4				151	60°(amt)	99	60°(amt)	3 hr
2.										
3.										
4.										
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	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.	12.364		111	1.000	0.853	1.004	1408
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

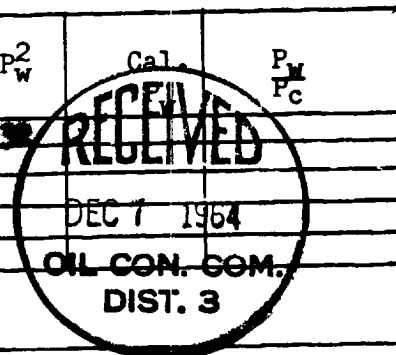
Gas Liquid Hydrocarbon Ratio                      cf/bbl.  
Gravity of Liquid Hydrocarbons                      deg.  
F<sub>c</sub>                      (1-e<sup>-s</sup>)

Specific Gravity Separator Gas                       
Specific Gravity Flowing Fluid                       
P<sub>c</sub> 231 P<sub>c</sub> 61.001

No.	P <sub>w</sub> P <sub>t</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>c</sub>
1.	163					26,569	35,431		
2.									
3.									
4.									
5.									

Absolute Potential: 2271 MCFPD; n .85COMPANY Antero Oil & Gas CompanyADDRESS Denver 1772, Fortification, New MexicoAGENT and TITLE Original Signed ByWITNESSED Carl E. JamesonCOMPANY                     

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  $P_t$ .