

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 San Juan  
 Initial X Special \_\_\_\_\_ Date of Test July 31, 1958  
 Company Aztec Oil & Gas Company Lease Banks Well No. 9  
 Unit P Sect. 5 Twp. 27N Rge. 9W Purchaser Southern Union Gathering Company  
 Casing 5 1/2 Wt. 14# I.P. 5.012 Set at 2561 Perf. 2453 To 2496  
 Tubing 1" Wt. 1.7# I.P. 1.049 Set at 2478 Perf. 2456 To 2466  
 Gas Pay: From 2453 To 2496 L. 2453 xG 0.65 -GL \_\_\_\_\_ Bar.Press. 12  
 Producing Thru: Casing X Tubing \_\_\_\_\_ Type Well Single  
 Single-Bradenhead-G. G. or G.O. Dual \_\_\_\_\_  
 Date of Completion: July 25, 1958 Packer None Reservoir Temp. \_\_\_\_\_

OBSERVED DATA

Tested Through (Prover) (Choke) (Bottom) 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.		<u>0.750</u>				<u>616</u>	<u>60</u>	<u>616</u>	<u>60</u>	<u>7 days</u>
2.						<u>247</u>	<u>60</u>	<u>242</u>	<u>60</u>	<u>3 hours</u>
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wp} P_t}$	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.	<u>12.3650</u>		<u>254</u>	<u>1.0000</u>	<u>0.9608</u>	<u>1.025</u>	<u>3093</u>
2.							
3.							
4.							
5.							

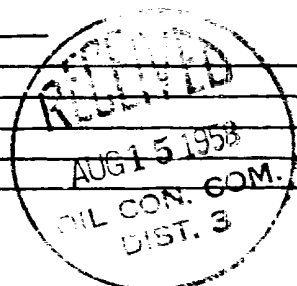
PRESSURE CALCULATIONS

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> 628 P<sub>c</sub><sup>2</sup> 394.384

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>w</sub> /P <sub>c</sub>
1.						<u>64.516</u>	<u>329868</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 3601 MCFPD; n 0.85  
 COMPANY AZTEC OIL & GAS COMPANY  
 ADDRESS P.O. Box 786, Farmington, New Mexico  
 AGENT and TITLE ORIGINAL SIGNED BY L. M. STEVENS, District Engineer  
 WITNESSED \_\_\_\_\_  
 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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