

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool South / Lanco Formation Pictured Cliffs County Rio ArribaInitial 1 Annual _____ Special _____ Date of Test 11/6/59Company Astec Oil and Gas Company Lease Arizona-Monrillo Well No. 7Unit J Sec. 26 Twp. 25N Rge. 6W Purchaser _____Casing 4 1/2 Wt. 94 I.D. 4.000 Set at 3409 Perf. 3436 To 3470Tubing 2 Wt. 4.7 I.D. 1.995 Set at 3462 Perf. 3432 To 3462Gas Pay: From 3436 To 3470 L _____ xG _____ -GL _____ Bar.Press. _____Producing Thru: Casing _____ Tubing I Type Well Single-Bradenhead-G. G. or G.O. DualDate of Completion: 11/6/59 Packer _____ Reservoir Temp. _____I.P. - 3495TV - 7100

OBSERVED DATA

Tested Through ~~(Prover)~~ (Choke) ~~(Prover)~~ 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						<u>961</u>		<u>971</u>		<u>15 days</u>
1.		<u>.750</u>	<u>233</u>			<u>233</u>	<u>60</u>	<u>125</u>		<u>1 hour</u>
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w P_f}$	Pressure psia	Flow Temp. Factor F_t	Gravity Factor F_g	Compress. Factor F_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	<u>12.35</u>		<u>245</u>	<u>1.000</u>	<u>.9608</u>	<u>1.024</u>	<u>2.910</u>
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 921 P_c^2 94,239

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	$\frac{P_w}{P_c}$
1.	<u>437</u>					<u>190,959</u>	<u>77,320</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 3,594 MCFPD; n .85COMPANY Astec Oil and Gas CompanyADDRESS Box # 735, Farmington, New MexicoAGENT and TITLE ORIGINAL SIGNED BY D. K. BRYANT D. K. Bryant, Production 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} - 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 .

[illegible]