

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Angel Peak Extension Formation Dakota County San JuanInitial X Annual _____ Special _____ Date of Test 5/13/60Company Astec Oil and Gas Company Lease Cain "D" Well No. 10Unit M Sec. 15 Twp. 28N Rge. 10W Purchaser _____Casing 4 1/2 Wt. 11.60 I.D. 4.000 Set at 6563 Perf. 6448 To 6545Tubing 2 3/8 Wt. 4.70 I.D. 1.995 Set at 6352 Perf. Pinnellared To _____Gas Pay: From 6448 To 6545 L 6352 xG 0.65 -GL 4129 Bar.Press. 12Producing Thru: Casing _____ Tubing X Type Well singleDate of Completion: 5/6/60 Packer _____ Reservoir Temp. _____T.D. - 6570P.B.T.D. - 6563

OBSERVED DATA

Tested Through 2 3/8" (Choke) 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>2014</u>		<u>2015</u>		<u>7 days S.I.</u>
1.		<u>0.750</u>				<u>764</u>	<u>60</u>	<u>1561</u>		<u>3 hrs.</u>
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.	<u>12.365</u>		<u>776</u>	<u>1.000</u>	<u>0.9608</u>	<u>1.093</u>	<u>10,076</u>
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-S})Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 2085 P_c 4.104.676

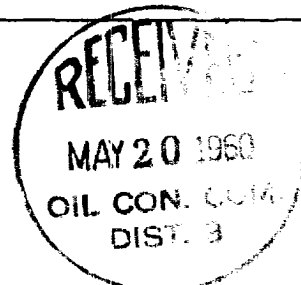
No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-S})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w P _c
1.	<u>1573</u>					<u>2.474.329</u>	<u>1.630.347</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 20,140 MCFPD; n 0.75COMPANY Astec Oil and Gas CompanyADDRESS Box # 786, Farmington, New MexicoAGENT and TITLE ORIGINAL SIGNED BY L. M. STEVENSL. M. Stevens, Dist. 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_{nv} = 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 .

[illegible]