

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Formation Dakota County San Juan
Initial X Annual _____ Special _____ Date of Test 4/21/60
Company Astec Oil & Gas Company Lease Bigod Well No. 5
Unit P Sec. 29 Twp. 29N Rge. 13W Purchaser _____
Casing 4 1/2 Wt. 9.50 I.D. 4.090 Set at 6390 Perf. 6124 To 6226
Tubing 2 3/8 Wt. 4.70 I.D. 1.995 Set at 6051 Perf. Pin collared To _____
Gas Pay: From 6124 To 6226 L 6051 xG 0.65 -GL 2933 Bar.Press. 12
Producing Thru: Casing _____ Tubing X Type Well Single
Date of Completion: 4/14/60 Packer No Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. 130

OBSERVED DATA

Tested Through 2 3/8" (Choke) (Choke) Pin collared 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>6051</u>		<u>6051</u>		<u>7 days</u>
1.		<u>0.790</u>				<u>118</u>	<u>60</u>	<u>501</u>		<u>3 hours</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>12.350</u>		<u>130</u>	<u>1.0000</u>	<u>0.9608</u>	<u>1.014</u>	<u>1956</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 8044 P_c 4.177.936

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>513</u>					<u>263.169</u>	<u>1.914.797</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 1644 MCFPD; n 0.75

COMPANY Astec Oil & Gas Company

ADDRESS Box 4706, Farmington, New Mexico

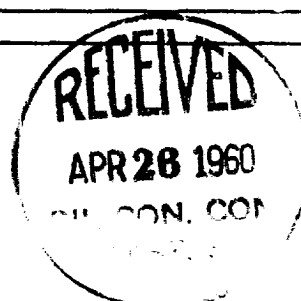
AGENT and TITLE ORIGINAL SIGNED BY L. M. STEVENS

L. 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_{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 .

STATE OF NEW MEXICO	
OIL COMMISSION	
WELL IDENTIFICATION	
WELL NAME	
WELL NO.	
TUBING NO.	
Casing No.	
Tubing Size	
Tubing Material	
Tubing Weight	
Tubing Length	
Tubing Condition	
Tubing Date	
Tubing Operator	
Tubing Service	
Tubing Operator	