

ILLEGIBLE

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Formation Delaware County New Mexico

Initial X Annual _____ Special _____ Date of Test 7/22/60

Company Astec Oil & Gas Company Lease Rye Well No. 10-3

Unit 0 Sec. 22 Twp. 30N Rge. 13W Purchaser _____

Casing 4 1/2 Wt. 9.90 I.D. 4.090 Set at 7203 Perf. 6944 To 7203

Tubing 2 Wt. 4.7 I.D. 1.975 Set at 6989 Perf. 714 collapsed To _____

Gas Pay: From 6944 To 7203 L 6989 xG 0.63 -GL 4904 Bar.Press. 12

Producing Thru: Casing _____ Tubing X Type Well Single

Date of Completion: 7/22/60 Packer _____ Reservoir Temp. 138

OBSERVED DATA

Tested Through 2 1/2" (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.	
1.		<u>0.750</u>				<u>1473</u>	<u>60</u>	<u>1473</u>		<u>7 days</u>
2.						<u>138</u>		<u>307</u>		<u>3 hours</u>
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>12.955</u>		<u>138</u>	<u>1.0000</u>	<u>0.9508</u>	<u>1.000</u>	<u>1.902</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 1987 P_c 1,042.160

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>379</u>					<u>14362</u>	<u>1,044,988</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 1545 MCFPD; n 0.75

COMPANY Astec Oil & Gas Company

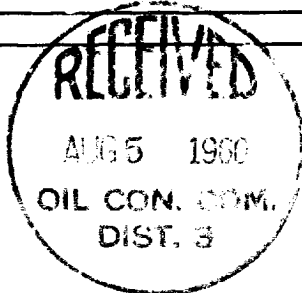
ADDRESS Drawer # 970, Farmington, New Mexico

AGENT and TITLE ORIGINAL SIGNED BY L. M. STEVENS L. M. Stevens, Dist. Engr.

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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