

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Alamo Formation Mesavie County San Juan
Initial X Annual _____ Special _____ Date of Test 10/13/60
Company Artes Oil and Gas Company Lease Docher Well No. 1
Unit L Sec. 14 Twp. 38N Rge. 12W Purchaser Southern Union Gathering System
Casing 4 1/2 Wt. 9.50 I.D. 4.090 Set at 5250 Perf. 5058 To 5128
Tubing 2 3/8 Wt. 4.70 I.D. 1.995 Set at 5078 Perf. 5048 To 5058
Gas Pay: From 5058 To 5128 L 5048 xG 0.65 (est) L 5051 Bar.Press. 12
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 10/4/60 Packer X Reservoir Temp. _____

OBSERVED DATA

Tested Through ~~2000000~~ (Choke) ~~2000000~~ 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>880</u>		<u>785</u>		<u>7 days</u>
1.		<u>0.750</u>				<u>132</u>	<u>60 (est)</u>	<u>950</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>144</u>	<u>1.0000</u>	<u>0.9688</u>	<u>1.014</u>	<u>175</u>
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

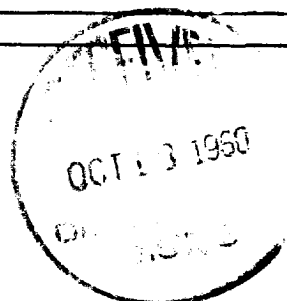
Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 832 P_c 6000

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>552</u>					<u>123904</u>	<u>563000</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 8012 MCFPD; n 0.75

COMPANY Artes Oil and Gas Company
ADDRESS Box 4 570, 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_2} = 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]