

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco Mesa Verde Formation Mesa Verde County Rio Arriba
Initial X Annual _____ Special _____ Date of Test 6-1-59
Company Caulkins Oil Company Lease Breech Well No. PMD-224
Unit A Sec. 13 Twp. 26N Rge. 7W Purchaser Southern Union Gas Company
Casing 7" 5/8 Wt. 26 & 23# I.D. 6.366 & 6.276 7342 Perf. 4997' To 5146'
Tubing 2 3/8 Wt. 4.70# I.D. _____ Set at 6302 Perf. 5153' To _____
Gas Pay: From 4996' To 5146' L 5153' xG .660 -GL 3401 Bar.Press. 12#
Producing Thru: Casing No Tubing Yes Type Well G.G.
Date of Completion: 5-19-59 Packer Upper 4954' Single-Bradenhead-G. G. or G.O. Dual
Lower 5184' Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (XXXXX)

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>3/4"</u>	<u>142</u>		<u>55°</u>	<u>588#</u> <u>142#</u>	<u>550</u>			<u>7 day shut in</u> <u>3 hr. test</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>14.1605</u>		<u>154#</u>	<u>1.0048</u>	<u>.9535</u>	<u>1.016</u>	<u>2.123</u>
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c 9.402 (1-e^{-s}) .219

Specific Gravity Separator Gas 660
Specific Gravity Flowing Fluid _____
P_c 600 P_c² 360,000

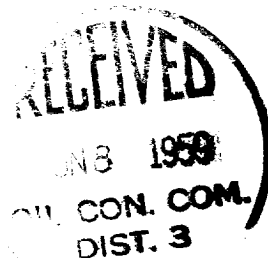
No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w P _c
1.	<u>154</u>	<u>23,716</u>	<u>19.960</u>	<u>398.4</u>	<u>87.2</u>	<u>568.3</u>	<u>303.2</u>	<u>155</u>	
2.									
3.									
4.									
5.									

Absolute Potential: 2233 MCFPD; n(1.07)ⁿ = 1.0520COMPANY Caulkins Oil CompanyADDRESS Box 967, Farmington, New MexicoAGENT and TITLE Field Superintendent Frank Gray

WITNESSED

COMPANY Southern Union Gas Co.

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 .

OIL CONSERVATION COMMISSION			
AZTEC DISTRICT OFFICE			
Name of Well: _____ Location: _____ Date of Test: _____	Test No.: _____ Date: _____	Page _____ of _____	Status: _____
Test Results: _____ Back Pressure Curve: _____ Friction Loss: _____ Working Pressure: _____ Shut-in Pressure: _____ Flow Rate: _____ Temperature: _____ Gravity Correction: _____ Temperature Correction: _____ Supercompressability: _____ Slope: _____	Calculated P_w : _____ Calculated P_t : _____ Calculated P_f : _____ Calculated h_w : _____ Calculated F_g : _____ Calculated F_t : _____ Calculated F_{pv} : _____ Calculated n : _____	Checked by: _____ Date: _____ Approved by: _____ Date: _____	Initials: _____ Date: _____ Status: _____