

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool South Blanco Formation Dakota County Blanco Arriba
Initial X Annual _____ Special _____ Date of Test 1-27-60
Company Caulkins Oil Company Lease Breech "F" Well No. MD-58
Unit A Sec. 3 Twp. 26N Rge. 6W Purchaser Southern Union Gas Company
Casing 4 1/2" Wt. 19.5 I.D. 4.950 Set at 7700 Perf. 7306 To 7551
Tubing 1 1/2" Wt. 2.4 I.D. 1.380 Set at 7285 Perf. 7285 To 7285
Gas Pay: From 7306 To 7551 L 7285 xG 660 -GL 4008 Bar.Press. 12 1/2
Producing Thru: Casing No Tubing Yes Type Well G.G. Dual
Date of Completion: 1-18-60 Packer 7285 Reservoir Temp. _____

OBSERVED DATA

Tested Through (Breech) (Choke) (Breech) Type Taps _____

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						<u>2195</u>				<u>7 day SI</u>
1.		<u>3/8"</u>				<u>242</u>	<u>55</u>			<u>3 hr. test</u>
2.										
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>14.1605</u>		<u>254</u>	<u>1.0048</u>	<u>.9535</u>	<u>1.029</u>	<u>3.546</u>
2.							
3.							
4.							
5.							

ILLECIBLE

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c 24.62 (1-e^{-s}) .295
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 2207 P_c 4,870,849

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>254</u>	<u>64,516</u>	<u>07.3</u>	<u>7621.3</u>	<u>2,248</u>	<u>2,313</u>	<u>2,550</u>	<u>1599</u>	<u>.725</u>
2.									
3.									
4.									
5.									

Absolute Potential: 5,738 MCFPD; n (1.904) .75 = 1.6183
COMPANY Caulkins Oil Company
ADDRESS P. O. Box 967, Farmington, New Mexico
AGENT and TITLE Charles D. Jones Production Foreman
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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