

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Formation County
Initial Annual Special Date of Test 12/29/55
Company Lease Well No. 5
Unit 3 Sec. 15 Twp. 20 Rge. 13 Purchaser
Casing 5 1/2 Wt. 2 1/2 I.D. 1.000 Set at 2092 Perf. 2010 To 2030
Tubing Wt. .7 I.D. 1.049 Set at 2021 Perf. 2025 To 2030
Gas Pay: From 2060 To 2060 L xG -GL Bar.Press.
Producing Thru: Casing Tubing Type Well
Date of Completion: 12/29/55 Packer Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp.

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) 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										
1.		<u>.750</u>	<u>251</u>			<u>193</u>		<u>290</u>		<u>12 days</u>
2.						<u>270</u>		<u>251</u>	<u>50</u>	<u>3 hours</u>
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>12.35</u>		<u>251</u>	<u>1.000</u>	<u>.900</u>	<u>1.026</u>	<u>1.20</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 2060 P_c² 4243600

No.	P _w (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>251</u>					<u>63001</u>	<u>4179599</u>		
2.									
3.									
4.									
5.									

Absolute Potential: MCFPD; n .85
COMPANY
ADDRESS
AGENT and TITLE ORIGINAL SIGNED BY D. K. DRYANT
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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