

HODDS OFFICE 000

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Gas Formation Queen 1956 OCT 8 PM 2:19 County LeaInitial X Annual _____ Special _____ Date of Test June 22, 1956Company Neville G. Penrose, Inc. Lease Alves Well No. 2Unit G Sec. 18 Twp. 21S Rge. 37E Purchaser Permain Basin Pipeline Co.Casing 5 1/2" Wt. 15.5# I.D. 4.950" Set at 3460' Perf. Open hole To _____Tubing 2 1/2" Wt. 6.5# I.D. 2.441" Set at 3487' Perf. _____ To _____Gas Pay: From 3490' To 3538' L 3487' xG 0.675 -GL 2354' Bar.Press. 13.2Producing Thru: Casing _____ Tubing X Type Well Single CompletionDate of Completion: 11-14-53 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (~~Smoke~~ ~~INDEX~~) Type Taps None

No.	Flow Data				Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.
SI									
1.	2" CFP	1/8"	608.3		70	751.0		PACER	68-3/4 Hr. S.I.
2.	2" CFP	3/16"	615.6		71	615.6			3-Hrs.
3.	2" CFP	7/32"	558.7		72	558.7			3-Hrs.
4.	2" CFP	1/4"	501.8		71	501.8			3-Hrs.
5.	2" CFP	1/4"	458.5		73	458.5			24-Hrs.

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor Ft	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	0.3418		711.5	0.9905	0.9427	1.075	244
2.	0.7851		628.8	0.9896	0.9427	1.067	491
3.	1.0834		571.9	0.9887	0.9427	1.060	612
4.	1.4030		515.0	0.9896	0.9427	1.053	710
5.	1.4030		471.7	0.9877	0.9427	1.048	646

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry Gas cf/bbl.
 Gravity of Liquid Hydrocarbons _____ deg.
 F_c 5.866 (1-e^{-s}) 0.150

Specific Gravity Separator Gas _____
 Specific Gravity Flowing Fluid _____
 P_c 764.2 P_c² 584.0

No.	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.	711.5	506.2	1.431	2.048	0.3072	506.5	77.5	711.7	.931
2.	628.8	395.4	2.880	8.294	1.2411	396.6	187.4	629.8	.821
3.	571.9	327.1	1.590	12.89	1.9335	329.0	255.0	573.6	.751
4.	515.0	265.2	1.165	17.35	2.8023	267.8	316.2	517.5	.677
5.	471.7	222.5	3.789	14.36	2.1540	224.7	359.3	474.0	.620

Absolute Potential: 913 MCFPD; n 0.71COMPANY Neville G. Penrose, Inc.ADDRESS Box 988 Eunice, New MexicoAGENT and TITLE Charles L. M. Co. Gas Tester RepresentativeWITNESSED H.E. BarrettCOMPANY Permain Basin Pipe Line 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} = 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 .