

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Eumont Formation Penrose 1960 APR County PM 7 44
 Initial X Annual _____ Special _____ Date of Test March 28 to April 2, 1960
 Company TEXACO Inc. Lease C. H. Weir "B" Well No. 3
 Unit A Sec. 11 Twp. 20-S Rge. 37-E Purchaser None
 Casing 4-1/2 Wt. 11.6 I.D. _____ Set at 3803 Perf. 3670 To 3710 and 3784
 Tubing 2-3/8 Wt. 4.70 I.D. 1.995 Set at 3749 Perf. _____ To _____
 Gas Pay: From 3670 To 3784 L 3749 xG .677 -GL 2538 Bar. Press. 13.2
 Producing Thru: Casing _____ Tubing X Type Well Single
 Date of Completion: 12-7-56 Packer 3659 Single-Bradenhead-G. G. or G.O. Dual
 Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps Flange

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.	3"	1.250	54	16	88	482	75			72
2.	3"	1.250	53	33	95	449	76			3
3.	3"	1.250	77	64	97	440	74			3
4.	3"	1.250	98	100	78	400	74			3
5.	3"	1.250	75	31	87	343	72			3
						415	72			24

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wp} F}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	9.781	32.79	67.2	.9741	.9413		294.1
2.	9.781	46.74	66.2	.9680	.9413		416.5
3.	9.781	75.98	90.2	.9662	.9413		675.9
4.	9.781	105.45	111.2	.9831	.9413		954.4
5.	9.781	122.27	88.2	.9750	.9413		469.4

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio No Fluid cf/bbl.
 Gravity of Liquid Hydrocarbons _____ deg.
 F_c 9.936 (1-e^{-S}) 0.160
 Specific Gravity Separator Gas .677
 Specific Gravity Flowing Fluid _____
 P_c 495.2 P_c² 245.2

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.	462.2	213.6	2.922	8.538	1.366	215.0	30.2	463.7	.9364
2.	453.2	205.4	4.138	17.12	2.739	208.1	37.1	456.2	.9212
3.	413.2	170.7	6.716	45.10	7.216	177.9	67.3	421.8	.8518
4.	356.2	126.9	9.483	89.93	14.39	141.3	103.9	375.9	.7591
5.	428.2	183.3	4.664	21.75	3.480	186.8	58.4	432.2	.8726

Absolute Potential: 1560 MCFPD; n .8371

COMPANY TEXACO Inc.
 ADDRESS P. O. Box 1270, Midland, Texas
 AGENT and TITLE F. W. Moore, District Gas Foreman
 WITNESSED _____
 COMPANY _____

REMARKS

Well reclassified from oil to gas by New Mexico Oil Conservation Commission.
 Gas Supplement No. (SE) 550, dated February 9, 1960.

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 .