

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Tubb Gas Formation Tubb County Lea
Initial X Annual _____ Special _____ Date of Test Sept. 11-12, 1961
Company TEXACO Inc. Lease A. H. Blinebry NCT-4 Well No. 1-MT
Unit P Sec. 31 Twp. 22S Rge. 38E Purchaser El Paso Natural Gas Company
Casing 7" OD Wt. 23.0 I.D. 6.366 Set at 7105 Perf. 6100 To 6220
UT 2-3/8 4.7 I.D. 1.995 Set at 5497
Tubing LT 2-3/8 4.7 I.D. 1.995 Set at 6897 Perf. _____ To _____
Gas Pay: From 6100 To 6220 L 6100 xG .864 -GL 5270 Bar. Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well Triple Gas-011-011
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: July 28, 1959 Packer _____ Reservoir Temp. _____
Producing through annulus that has two 2-3/8 OD strings tubing.
OBSERVED DATA

Tested Through (Rohrer) (Orifice) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								1766	76	
1.	4.026	1.250	475	5.5	78			1561	78	4
2.	"	"	475	13.0	75			1414	78	4
3.	"	"	470	30.0	65			1285	79	4
4.	"	"	460	52.0	67			1121	79	4
5.	"	"	480	42.0	80			1027	79	*17

*5th point continuation of 4th

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.	9.643	51.82	488.2	.9831	.9239	1.054	478.3
2.	"	79.67	488.2	.9859	"	1.054	737.5
3.	"	120.40	483.2	.9952	"	1.059	1130.0
4.	"	156.80	473.2	.9933	"	1.058	1468.0
5.	"	143.90	493.2	.9813	"	1.053	1324.0

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 16,180 cf/bbl.
Gravity of Liquid Hydrocarbons 50.0 deg.
P_c 1.035 (1-e^{-s}) .304

Specific Gravity Separator Gas .703
Specific Gravity Flowing Fluid .864
P_c 1779.2 P_c 3165

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.	1574.2	2478	.4950	.2450	.0745	2478	687	1574.2	.8848
2.	1427.2	2037	.7633	.5826	.1771	2037	1128	1427.2	.8021
3.	1298.2	1685	1.1690	1.3660	.4152	1685	1480	1298.2	.7296
4.	1134.2	1286	1.5190	2.3070	.7013	1286	1879	1134.2	.6375
5.	1040.2	1082	1.3700	1.8770	.5706	1082	2083	1040.2	.5846

Absolute Potential: 2000 MCFPD; n 1.00

COMPANY TEXACO Inc.

ADDRESS P. O. Box 1270, Midland, Texas

AGENT and TITLE F. W. Moore, District Gas Foreman

WITNESSED

COMPANY

No.	Cond.Gr	Cond.Bbls.	Gas MCF	GOR
1	49.1	1.03	79.6	77,281
2	50.0	4.48	122.8	27,410
3	50.5	19.32	188.3	9,746
4	50.5	22.08	244.6	11,077
5	50.5	53.82	994.0	18,468

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 .

T. J. Inc.
 Building 11, 4
 West 1st (107) Toll
 1000 P, Sec. 11, T 31, R 12
 1000 P, Sec. 11, T 31, R 12
 1000 P, Sec. 11, T 31, R 12

FULLER, C. E. & S. E. Inc.
 1000 P, Sec. 11, T 31, R 12

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Q-1000 P, Sec. 11, T 31, R 12

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