

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

1960 MAY 1

Form C-122
Revised 4-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates County Lea
Initial Annual Special X Date of Test 4-18 to 4-22, 1960
Company TEXACO Inc. Lease C.C. Fristoe "B" Well No. 2
Unit M Sec. 31 Twp. 24 Rge. 37 Purchaser El Paso Natural Gas Co.
Casing 7 Wt. 20 I.D. 6.46 Set at 3505 Perf. 2760 To 2960
Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 3346 Perf. To
Gas Pay: From 2760 To 2960 L 3346 xG .675 -GL 2258 Bar.Press. 13.2
Producing Thru: Casing Tubing X Type Well Single
Date of Completion: 11-26-48 Packer None Reservoir Temp.

OBSERVED DATA

Tested Through ~~XXXXXX~~ (Gauge) (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.	4	1.500	387	9.00	72	391		444		72
2.	4	1.500	347	24.01	76	356		407		24
3.	4	1.500	311	39.69	74	326		384		24
4.	4	1.500	270	60.84	72	292		366		24
5.	*2	0.500	17	9.0	60			350		24

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.	13.99	60.01	400.2	.9887	.9427	1.040	813.7	837.6
2.	13.99	93.00	360.2	.9850	.9427	1.034	1249	1272.9
3.	13.99	113.43	324.2	.9868	.9427	1.033	1524	1547.9
4.	13.99	131.26	283.2	.9887	.9427	1.028	1759	1782.9
5.	*1.535	16.49	30.2	1.000	.9427		23.86	

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio No Fluid cf/bbl.
Gravity of Liquid Hydrocarbons deg.
F_c 9.936 (1-e^{-S}) 0.144
Specific Gravity Separator Gas .675
Specific Gravity Flowing Fluid
P_c 457.2 P_c 209.0

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.	420.2		Friction			176.6	32.4		.9191
2.	397.2		Measured			157.8	51.2		.8688
3.	379.2					143.8	65.2		.8294
4.	363.2					131.9	77.1		.7940
5.									

Absolute Potential: 4,200 MCFPD; n .875
COMPANY TEXACO Inc.
ADDRESS P. O. Box 1270, Midland, Texas
AGENT and TITLE F. W. Moore, District Gas Foreman
WITNESSED Bobby Boas
COMPANY El Paso Natural Gas Co.

REMARKS

* Volume of Gas used for Lease Fuel

** Total Volume well produced.

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 .