

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Bumont Formation Queen County 11 AM 9:55
Initial X Annual _____ Special _____ Date of Test 1-6-57
Company El Paso Natural Gas Company Lease Brownlee Well No. 1
Unit 0 Sec. 25 Twp. 21 S Rge. 36 E Purchaser El Paso Natural Gas Company
Casing 5 1/2 Wt. 14 I.D. _____ Set at 3595 Perf. 3402 To 3542
Tubing 2 Wt. 4.7 I.D. _____ Set at 3540 Perf. 3532 To 3540
Gas Pay: From 3402 To 3542 L 3402 xG .670 -GL _____ Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 1-6-57 Packer None 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						1098		1124		24
1.	24	1.500"	26.5		14	1056		1109		3
2.	24	1.500"	43		25	1003		1090		3
3.	24	1.500"	61		24	895		1073		3
4.	24	1.500"	102		28	673		1053		3
5.	24	1.500"	102		28	673		1053		24

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.	54.3653		39.7	1.0474	.9463	1.000	2.139
2.	54.3653		56.2	1.0355	.9463	1.000	2.994
3.	54.3653		74.2	1.0365	.9463	1.000	3.957
4.	54.3653		115.2	1.0323	.9463	1.000	6.118
5.	54.3653		115.2	1.0323	.9463	1.000	6.118

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 1137.2 P_c 1293.2

No.	P _w 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.	1113.2					1239.2	54.0		97.9
2.	1103.2					1217.1	76.1		97.0
3.	1086.2					1179.8	113.4		95.5
4.	1066.2					1136.8	156.4		93.8
5.	1066.2					1136.8	156.4		93.8

Absolute Potential: 49,500 MCFPD; n .99086

COMPANY El Paso Natural Gas Company
ADDRESS P. O. Box 1384, Jal. New Mexico
AGENT and TITLE R. T. Wright - Petroleum Engineer
WITNESSED Payton N. Randolph
COMPANY El Paso Natural Gas Company

REMARKS

Well was tested following sandfrac treatment. Separator used during test was freezing off during maximum rate of flow, thus no more drawdown was obtained.

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 .