

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Formation Tekota County San Juan
Initial XXX Annual _____ Special _____ Date of Test 4-12-62
Company H. B. Rudman Lease Federal Well No. 21-1
Unit 0 Sec. 21 Twp. 25-N Rge. 9-W Purchaser El Paso Natural Gas Co.
Casing 4-1/2 Wt. 10.5 I.D. _____ Set at 6570 Perf. 6366 To 6378
Tubing 2" Wt. 4.7 I.D. _____ Set at 6350 Perf. --- To ---
Gas Pay: From 6358 To 6380 L 6369 xG 0.70 -GL 4458 Bar.Press. 12 psi
Producing Thru: Casing _____ Tubing XXX Type Well Single Gas
Date of Completion: 4-1-62 Packer None Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. 150° F

OBSERVED DATA

Tested Through (~~15000~~) (Choke) (~~15000~~)Type Taps ---

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (15000) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						1932		1935		
1.		3/4	205	---	60	211	60	513	60	3 hrs
2.										
3.										
4.										
5.										

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.	12.365		217	1.000	0.9258	1.027	2552
2.							
3.							
4.							
5.							

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 1947 P_c² 3790.8

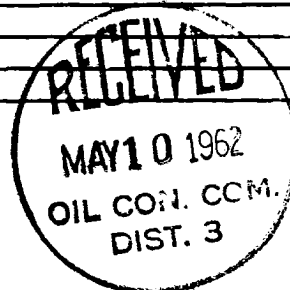
No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w /P _c
1.						308.0	3482.8		0.285
2.									
3.									
4.									
5.									

Absolute Potential: 2719 MCFPD; n 0.75COMPANY H. B. Rudman

ADDRESS _____

AGENT and TITLE James F. Brimble, EngineerWITNESSED Regery MirronCOMPANY Consulting Petroleum Engineer

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 .