NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool __Undesignated Dakota__ Formation __Dakota__ County __San Juan__

Initial __x__ Annual _____ Special _____ Date of Test __9-15-60__

Company __Three States Natural Gas Co.__ Lease __Maddox__ Well No. __1__

Unit __H__ Sec. __13__ Twp. __30N__ Rge. __13W__ Purchaser __None__

Casing __4½__ Wt. __11.6__ I.D. __4.000__ Set at __6789__ Perf. __6522__ To __6738__

Tubing __2"__ Wt. __4.7__ I.D. __1.995__ Set at __6708__ Perf. __6704__ To __6708__

Gas Pay: From __6520__ To __6738__ L __6704__ xG __.685__ =GL __4592__ Bar.Press. __12.0__

Producing Thru: Casing _____ Tubing __x__ Type Well __Gas – single__
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: __9-15-60__ Packer __None__ Reservoir Temp. __138°__

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						2125		2125		
1.		3/4	304		68		68	700		3
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.	12.3650		316	.9924	.9359	1.040	3,774
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c _____ $(1-e^{-s})$ _____

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c __2137__ P_c^2 __4,567__

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	$\frac{P_w}{P_c}$
1.						506.9	4060.1		.333
2.									
3.									
4.									
5.									

Absolute Potential: __4117__ MCFPD; n __.75__

COMPANY __Three States Natural Gas Co.__
ADDRESS __Box 67, Farmington__
AGENT and TITLE __John Carothers, Assistant Dist.__
WITNESSED _____
COMPANY _____

REMARKS
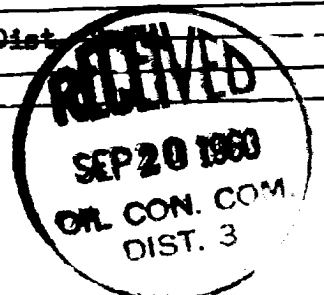
INSTRUCTIONS

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.