NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool __Basin Dakota__ Formation __Dakota__ County __Rio Arriba__

Initial __Yes__ Annual _____ Special _____ Date of Test __3-5-64__

Company __Caulkins Oil Company__ Lease __Breech "C"__ Well No. __D-189__

Unit __L__ Sec. __12__ Twp. __26N__ Rge. __6W__ Purchaser __Southern Union Gas Company__

Casing __5 1/2"__ Wt. __17.0__ 15.5 I.D. __4.95__ Set at __7600__ Perf. __7293__ To __7497__

Tubing __2 3/8"__ Wt. __4.7__ I.D. __1.995__ Set at __7290__ Perf. __7290__ To _____

Gas Pay: From __7293__ To __7497__ L __7290__ G __.660__ P_c __4811__ Bar.Press. __12__

Producing Thru: Casing __No__ Tubing __Yes__ Type Well __Gas Oil Dual__
Single-Braidenhead-G. G. or G.O. Dual

Date of Completion: __2-10-64__ Packer __See below__ Reservoir Temp. __180°__

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.	psig	°F.	Press. psig	Temp. °F.	
SI						2350		2352		SI 168 hours
1.		3/4"				206	60	628	60	3 hours
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	Pressure psia	Flow Base Factor F_b	Gravity Factor F_g	Compress. Factor F_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	14.1605		218	1.000	.9571	1.022	3020
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.   Specific Gravity Separator Gas _____
Gravity of Liquid Hydrocarbons _____ deg.   Specific Gravity Flowing Fluid _____
F_c _____ $(1-e^{-s})$ P_c __2364__ P_c^2 __5,588,496__

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.									
2.						409,600	5,178,896		.270
3.									
4.									
5.									

Absolute Potential: __3199__ MCFPD; n __(1.08)n__ __1.0594__
COMPANY _____
ADDRESS __Caulkins Oil Company__
__P. O. Box 780, Farmington, New Mexico__
AGENT and TITLE __Frank Gray__ __Production Superintendent__
WITNESSED _____
COMPANY _____

APR 6 1964
CON. COM.

RECEIVED

REMARKS

4-2-64 This well has a bridge plug set at 7255' and is being produced from the Tocito oil zone as a single completion at this time. It will be recompleted as a Tocito-Dakota dual as soon as a market for the Dakota gas has been 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.