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 X Annual Special Date of Test 11-9-62

Company Caulkins Oil Company Lease Brooch "F" Well No. B-1

Unit D Sec. 33 Twp. 27 N Rge. 6 W Purchaser Southern Union Gas Company

Casing 4½ Wt. 10.5 11.6 I.D. 4.00 Set at 7700 Perf. 7332 To 7552

Tubing 2-3/8" Wt. 4.7 I.D. 1.995 Set at 7323 Perf. 7323 To

Gas Pay: From 7332 To 7552 L 7323 xG .669 -GL 4893 Bar.Press. 12

Producing Thru: Casing No Tubing Yes Type Well Single Gas
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 10-27-62 Packer none Reservoir Temp. 180°

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) (Orifice) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						2350		2380		
1.		3/4"				360		1190		
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.	14.1605		372	1.0046	.9535	1.041	5254
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 _____
P_c _____ $(1-e^{-s})$ _____ P_c _____ P_c^2 _____

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.									
2.						1,444,804	4,276,860		.503
3.									
4.									
5.									

Absolute Potential: 6543 MCFPD; n 1.2154
COMPANY Caulkins Oil Company
ADDRESS Box 780, Farmington, New Mexico
AGENT and TITLE Frank Bury Superintendent
WITNESSED
COMPANY

REMARKS

RECEIVED
NOV 13 1962
OIL CON. COM.
DIST. 3

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.