NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco Mesaverde Formation Mesaverde County Rio Arriba

Initial ____ Annual ____ Special X Date of Test Jan. 21, 1960

Company Southern Union Gas Company Lease Jicarilla "F" Well No. 1-F

Unit L Sec. 27 Twp. 26N Rge. 4W Purchaser Southern Union Gas Company

Casing 5" Wt. 15# I.D. 4.408 Set at 8350 Perf. 6030 To 5900 (Mesaverde)

Tubing 2-3/8" Wt. 4.7 I.D. 1.995 Set at 5180 Perf. 5180 To 5176

Gas Pay: From 6030 To 5900 (Mesaverde) xG 0.67 -GL ____ Bar.Press. 12.0

Producing Thru: Casing ____ Tubing X Type Well Gas-Oil Dual
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 1-10-60 Packer 7816 Reservoir Temp. ____

OBSERVED DATA

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

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						1177		1177		S.I. 7 days +
1.		3/8"	867		70	867	70	907		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.	3.0300		879	0.9905	0.9463	1.100	2.746 MMCFD
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 0 cf/bbl.
Gravity of Liquid Hydrocarbons ____ deg.
P_c ____ $(1-e^{-s})$ ____

Specific Gravity Separator Gas ____
Specific Gravity Flowing Fluid ____
P_c 1189 P_c^2 1413.7
Pw 919 P_w^2 844.6

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.						844.6	569.1		
2.									
3.									
4.									
5.									

Absolute Potential: 5432 MCFD MCFPD; n 0.75
COMPANY SOUTHERN UNION GAS COMPANY
ADDRESS P. O. Box 815 Farmington, New Mexico
AGENT and TITLE Oran L. Haseltine, Production Supt.
WITNESSED G. L. Hoffman
COMPANY SOUTHERN UNION GAS COMPANY

REMARKS

RECEIVED
FEB 1 1960
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.