NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Wildcat Formation Dakota County San Juan

Initial X Annual ____ Special ____ Date of Test 2-19-60

Company Southern Union Gas Company Lease Wright State Well No. 1

Unit B Sec. 36 Twp. 32N Rge. 13W Purchaser Southern Union Gas Company

Casing 5½" 15.50# 4.950 2150-6983 6727 6960
7-5/8" Wt. 26.40 I.D. 6.969 Set at 2352 Perf. - To -

Tubing 2-3/8" Wt. 4.7# I.D. 1.995 Set at 6738 Perf. - To -

Gas Pay: From 6727 To 6960 L 6738 xG 0.67 -GL 4514 Bar.Press. 12.0

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

Date of Completion: 1-26-60 Packer 6465' Reservoir Temp. ____

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						1961				9 days
1.		3/4"	66		62					3 hours
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.			78	0.9981	0.9463	1.000	910
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 9.402 $(1-e^{-s})$ 0.280 P_c 1973 P_c^2 3893

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.	177	6.1	9.56	91.3	25.5	31.6	3861	177	
2.									
3.									
4.									
5.									

Absolute Potential: 910 MCFPD; n 0.75
COMPANY SOUTHERN UNION GAS COMPANY
ADDRESS P. O. Box 815 Farmington, New Mexico
AGENT and TITLE Thomas E. Fenno - Engineer
WITNESSED ____
COMPANY ____

REMARKS

RECEIVED
MAR 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.