NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool So. Blanco Pictured Cliff Formation Pictured Cliffs County Rio Arriba

Initial X Annual ____ Special ____ Date of Test July 27, 1960

Company So. Union Gas Company Lease Jicarilla Well No. 5-K

Unit O Sec. 2 Twp. 25N Rge. 5W Purchaser Southern Union Gas Company

Casing 4½" Wt. 9.5# I.D. 4.060 Set at 3143 Perf. 3062 To 3098

Tubing 1½" Wt. 2.90# I.D. 1.610 Set at 3061 Perf. 3046 To 3061

Gas Pay: From 3062 To 3098 L ____ xG ____ -GL ____ Bar.Press. ____

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

Date of Completion: July 14, 1960 Packer None 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						909		909		9 days
1.		3/4"	297		58			753		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.	12.3650		309	1.0019	0.9463	1.035	3,749
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas ____
Specific Gravity Flowing Fluid ____
P_c 921 P_c^2 848
P_w 765 P_w^2 585

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.									
3.									
4.									
5.									

Absolute Potential: ~~5,421~~ 10,142 MCFPD; n 0.85

COMPANY Southern Union Gas Company
ADDRESS Box 808 - Farmington, New Mexico
AGENT and TITLE Thomas E. Fempo - Engineer
WITNESSED ____
COMPANY ____

REMARKS

$$\left[\frac{921^2 - 765^2}{921^2 - 765^2}\right]^{.85} \times 3749 =$$

RECEIVED
AUG 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.

STATE OF NEW MEXICO		
OIL CONSERVATION COMMISSION		
AZTEC DISTRICT OFFICE		
NUMBER OF COPIES RECEIVED		
DISTRIBUTION		
SANTA FE	1	
FILE	1	✓
U.S.G.S.		
LAND OFFICE		
TRANSPORTER OIL / GAS		
PRORATION OFFICE		
OPERATOR	1	