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 3/1/60

Company SOUTHWEST PRODUCTION COMPANY Lease Zachary Fed Well No. 1

Unit L Sec. 34 Twp. 29N Rge. 10W Purchaser Southern Union Gas Company

Casing 5-1/2" Wt. 17# I.D. 4.892 Set at 6622 Perf. 6340 To 6524

Tubing 2-3/8" Wt. 4.70 I.D. 1.995 Set at 6514.22 Perf. ---- To 6514.22

Gas Pay: From 6340 To 6524 L 6514 xG 0.67 -GL 4364 Bar.Press. 0.12

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

Date of Completion: 2/15/60 Packer ____ Reservoir Temp. ____

OBSERVED DATA

Tested Through (~~XXXXXX~~) (Choke) (~~XXXXXX~~) 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						2040		2040		7 days
1.		3/4	539		83°	539	83°	1810		3 hour
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		551	0.9786	0.9463	1.[illegible]5	6,592.9
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 2052 P_c^2 4201.7
P_w 1222 P^2_w 1493.3

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.						1493.3	2708.7		.596
2.									
3.									
4.									
5.									

Absolute Potential: 9,164 MCFPD; n 0.75

COMPANY SOUTHWEST PRODUCTION COMPANY

ADDRESS (3500 Southland Center, Dallas, Texas) c/o Oil Reports Box 753 Hobbs, N.M.

AGENT and TITLE Helen Smith, Agent

WITNESSED Tests taken by George L. [illegible], Fred Foreman

COMPANY ____

REMARKS

New Well

RECEIVED
APR 4 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.