NEW MEXICO OIL CONSERVATION COMMISSION

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

1957 FEB 11 AM 9:58

Pool __Jalmat__ Formation __Yates - Seven Rivers__ County __Lea__

Initial _____ Annual __X__ Special _____ Date of Test __11-23-56__

Company __Stanolind Oil and Gas Company__ Lease __C. Myers "B"__ Well No. __2__

Unit __M__ Sec. __4__ Twp. __24-S__ Rge. __37-E__ Purchaser __Permian Basin Pipeline Company__

Casing __5-1/2"__ Wt. __17.0#__ I.D. __4.892"__ Set at __3195'__ Perf. __2720'__ To __3188'__

Tubing __2-1/2"__ Wt. __6.5#__ I.D. __2.441"__ Set at __2690'__ Perf. _____ To _____

Gas Pay: From __2720'__ To __3188'__ L __2690'__ xG __0.650__ -GL __1749'__ Bar.Press. __13.2__

Producing Thru: Casing _____ Tubing __x__ Type Well __Single Completion__
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: __11-7-54__ Packer _____ Reservoir Temp. _____

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						762.8		762.8		73 Hrs. SI Froze Off
1.	4	1.00								
2.	4	1.00	463.7	8.7	118	711.5		712.1		24
3.	4	1.00	470.0	18.6	66	653.1		654.4		24
4.	4	1.00	461.2	32.7	69	566.2		582.0		24-1/4
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.	6.375				0.9608		
2.	6.375	64.41		0.9485	0.9608	1.031	386
3.	6.375	94.81		0.9943	0.9608	1.045	603
4.	6.375	124.5		0.9915	0.9608	1.044	789
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.   Specific Gravity Separator Gas _____
Gravity of Liquid Hydrocarbons _____ deg.   Specific Gravity Flowing Fluid _____
F_c __5.866__ $(1-e^{-s})$ __0.113__ P_c __776__ P_c^2 __602.2__

No.	P_w P_t (psia)	P_t^2	$F_c Q$	$(F_c Q)^2$	$(F_c Q)^2 (1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.									
2.		525.2				526.1	76.1		.93
3.		444.0				445.7	156.5		.86
4.		335.7				354.3	247.9		.77
5.									

Absolute Potential: __1344__ MCFPD; n __0.60__

COMPANY __Stanolind Oil and Gas Company__
ADDRESS __Box 68 - Hobbs, New Mexico__
AGENT and TITLE _____
WITNESSED _____
COMPANY _____

REMARKS

Good Test: Only 3 data points obtained due to the first rate freezing off. Good point alignment and point spread on the data points obtained.

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.