NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Formation Yates County Lea

Initial ____ Annual X Special ____ Date of Test 6/13/56

Company Skelly Oil Co. Lease State "B" Well No. 7

Unit E Sec. 16 Twp. 21S Rge. 36E Purchaser Southern Union Gas Co.

Casing 7" Wt. 20# I.D. 6.456 Set at 2995 Perf. ____ To ____

Tubing 2½" Wt. 6.5# I.D. 2.441 Set at 3002' Perf. ____ To ____

Gas Pay: From 2995 To 3303 L 2995 xG 0.652 =GL 1953 Bar.Press. 13.2

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

Date of Completion: ____ Packer ____ Reservoir Temp. ____

OBSERVED DATA

Tested Through (XXXXXX)(XXXXX) (Meter) Type Taps Flange

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						1054				72
1.	4"	2"	595	15	54	973				24
2.	"	2"	680	48	59	925				"
3.	"	2"	635	74	60	846				"
4.	"	2.750"	670	22	60	782				"
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.	25.58	95.51	608.2	1.0058	0.9593	1.070	2582
2.	25.58	174.34	633.2	1.0010	"	1.072	4591
3.	25.58	219.01	648.2	1.0000	"	1.069	5745
4.	53.05	122.60	683.2	1.0000	"	1.073	6697 6694
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl. Specific Gravity Separator Gas ____
Gravity of Liquid Hydrocarbons ____ deg. Specific Gravity Flowing Fluid ____
P_c 5.866 $(1-e^{-s})$ 0.126 P_c 1067.2 P_c^2 1138.9

No.	Pt (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2 (1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	P_w/P_c
1.	966.2	933.6	14.78	218.7	27.6	1000.2	138.7	1000.1	0.94 .1211
2.	938.2	880.2	26.95	725.9	91.4	971.6	167.3	985.7	0.92 .9236
3.	899.2	738.2	33.70	1135.7	143.1	881.3	257.6	938.8	0.88 .8747
4.	795.2	632.3	39.24	1539.8	194.0	826.3	312.6	909.0	0.85 .8515
5.									

Absolute Potential: 24,200 MCFPD; n 1.000 .610

COMPANY Skelly Oil Co.
ADDRESS Box 38, Hobbs, N. M.
AGENT and TITLE (ORIGINAL SIGNED) H. E. Aab Dist. Supt.
WITNESSED None
COMPANY ____

REMARKS

This test had poor point alignment, so a slope of 1.0 was drawn through the point representing the highest flow rate.

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.