

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Bumont Formation Queen County Lee
Initial _____ Annual X Special _____ Date of Test 7-27-56
Company Skelly Oil Co. Lease Monstate Well No. 2
Unit I Sec. 13 Twp. 198 Rge. 36E Purchaser El Paso Natural
Casing 7" Wt. 24 I.D. 6.336 Set at 3820 Perf. 3570 To 3680
Tubing 2 1/2" Wt. 6.5 I.D. 2.441 Set at 3710 Perf. 3707 To 3710
Gas Pay: From 3570 To 3690 L 3707 xG 0.685 -GL 2539 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing XX Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 6/10/50 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (Globeval) (Globeval (Meter)) Type Taps Flange

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						1019				72
1.	4"	1.250"	899	11.90	98	900				24
2.	"	"	850	24.0	94	851				24
3.	"	"	778	42.25	89	780				24
4.	"	"	749	49.0	88	752*				24
5.										

*Unable to get 30% drawn down because of high line pressure.

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.	9.643	104.19	912.2	0.9653	0.9359	1.085	985
2.	"	143.94	863.2	0.9688	"	1.085	1365
3.	"	182.84	791.2	0.9732	"	1.079	1733
4.	"	193.25	762.2	0.9741	"	1.075	1826
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 5.866 (1-e^{-s}) 0.160
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1032.2 P_c 1065.4 x 10³

No.	P _{st} (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	P _w /P _c
1.	913.2	833.9	5.78	33.41	5.35	839.3	226.1	916.1	0.89
2.	864.2	746.8	8.01	64.16	10.27	757.1	308.3	870.1	0.84
3.	793.2	629.2	10.17	103.43	16.55	645.8	419.6	803.6	0.78
4.	765.2	585.5	10.71	114.70	18.35	603.9	461.5	777.1	0.75
5.									

Absolute Potential: 3500 MCFPD; n 0.7677
COMPANY Skelly Oil Co.
ADDRESS Box 38, Hobbs, New Mexico
AGENT and TITLE None Dist. Supt. _____
WITNESSED _____
COMPANY _____

REMARKS

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 .