

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmit Formation Yates County 32 Lea
 Initial _____ Annual _____ Special K Date of Test 11/2/56
 Company Sun Oil Company Lease _____ Record Unit _____ Well No. 1
 Unit A Sec. 22 Twp. 22 S Rge. 36 E Purchaser LANG
 Casing 5 1/2 Wt. 14 I.D. 5.012 Set at 3201 Perf. _____ To _____
 Tubing 2 3/8 Wt. 4.7 I.D. 1.995 Set at 3476 Perf. _____ To _____
 Gas Pay: From 3335 To 3490 L 3476 xG .675 -GL 2346 Bar.Press. 13.2
 Producing Thru: Casing _____ Tubing X Type Well Single
 Date of Completion: 6-1-48 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (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						831		836		72
1.	4"	1.250	761	14.44	66	762		774		24
2.	4"	1.250	727	27.36	69	729		750		24
3.	4"	1.250	681	49.00	70	685		723		24
4.	4"	1.250	650	67.24	66	654		704		24
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	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	105.72		.943	.9427	1.087	1038
2.	9.643	142.82		.9915	.9427	1.082	1393
3.	9.643	184.41		.9905	.9427	1.075	1785
4.	9.643	211.14		.9943	.9427	1.073	2047
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
 Gravity of Liquid Hydrocarbons _____ deg.
 F_c 9.936 (1-e^{-s}) 0.149
 Specific Gravity Separator Gas _____
 Specific Gravity Flowing Fluid _____
 P_c 849.2 P_c² 721.1

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. F _w	R _w P _d
1.	787.2	600.9	10.31	106.30	15.84	619.7	101.4	787.4	0.927
2.	763.2	550.9	13.84	191.55	28.54	582.5	138.6	763.3	0.899
3.	736.2	487.5	17.74	314.71	46.89	541.9	179.2	736.4	0.867
4.	717.2	445.2	20.34	413.72	61.64	514.4	206.7	717.2	0.845
5.									

Absolute Potential: 6,800 MCF/D MCFPD; n 0.956
 COMPANY Sun Oil Company
 ADDRESS Box 2792 Odessa
 AGENT and TITLE Donald R. Lawrence Engineer
 WITNESSED _____
 COMPANY _____

REMARKS

ELMS 7-117
 GAS ENGINEER

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 .