

HOBBS OFFICE OCC
MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Lumont Formation Queens 1957 FEB 11 AM 2:55 Lea
Initial _____ Annual _____ Special X Date of Test 8-24-56
Company Sun Oil Company Lease W. B. Nav. City Well No. 5
Unit G Sec. 35 Twp. 125 Rge. 36E Purchaser Permian Basin Pipeline Co.
Casing 7" Wt. 24.0# I.D. 6.336 Set at 3778 Perf. 3386 To 3550
Tubing 2 3/8" Wt. 4.7# I.D. 1.995 Set at 3381 Perf. Open End To _____
Gas Pay: From 3386 To 3550 L 3381 xG 0.680 -GL 2299 Bar. Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 1-22-54 Packer 3345 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						849.5				73 1/2
1.	4"	2.25"	458.2	8.4	72	771.5				23 1/2
2.	4"	2.25"	460.1	13.0	62	728.7				24
3.	4"	2.25"	460.0	20.4	64	661.3				24
4.	4"	2.25"	463.2	29.9	66	521.3				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.	40.53	62.93	471.4	0.9887	0.9393	1.046	2478
2.	40.53	78.44	473.3	0.9981	0.9393	1.052	3136
3.	40.53	98.25	473.2	0.9962	0.9393	1.052	3920
4.	40.53	119.30	476.4	0.9946	0.9393	1.050	4713
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 9.936 (1-e⁻⁸) 0.146
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 862.7 P_c² 744.3

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ⁻⁸)	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w /P _c
1.	784.7	615.8	24.62	606.1	88.49	704.3	40.0	839.2	.97
2.	741.9	550.4	31.16	970.9	141.80	692.2	52.1	832.0	.96
3.	674.5	455.0	38.95	1517.1	221.50	676.5	67.8	822.5	.95
4.	534.5	285.7	47.13	2221.2	324.30	610.0	134.3	781.0	.91
5.									

Absolute Potential: 31521 MCFPD; n 0.87COMPANY Sun Oil CompanyADDRESS Box 2782 OdessaAGENT and TITLE Ronald R. Lawrence - Engineer

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 .