

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Form C-122

Revised 12-1-55

Pool Eumont Formation Yates-Seven Rivers-Queen County LeaInitial Annual x Special Date of Test 9-30-56Company Stanolind Oil and Gas Company Lease O.J. Gillully "B" Well No. 6-XUnit A Sec. 21 Twp. 20-S Rge. 37-E Purchaser Permian Basin Pipeline CompanyCasing 5-1/2" Wt. 17.0# I.D. 4.892" Set at 3776' Perf. 2678' To 3495'Tubing 2" Wt. 4.7# I.D. 1.995" Set at Perf. To Gas Pay: From 2678' To 3495' L 2678' xG 0.685 -GL 1834' Bar.Press. 13.2Producing Thru: Casing x Tubing Type Well Gas-Oil Dual

Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 9-2-54 Packer Reservoir Temp.

OBSERVED DATA

Tested Through (~~ROVER~~) (~~ROVER~~) (Meter) Type Taps Pipe

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(ROVER) (Line) Size	(ROVER) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								1061.2		68-1/4
1.	4"	2.50	465.4	4.5	79			1011.1		26-3/4
2.	4"	2.50	475.7	11.6	72			957.4		24
3.	4"	2.50	485.4	20.2	52			891.6		24
4.	4"	2.50	493.6	31.6	53			813.5		24
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.	54.44	46.11		0.9822	0.9359	1.040	2400
2.	54.44	75.31		0.9887	0.9359	1.043	3957
3.	54.44	100.4		1.0078	0.9359	1.052	5423
4.	54.44	126.6		1.0068	0.9359	1.053	6836
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio cf/bbl.Gravity of Liquid Hydrocarbons deg.F_c 1.812 (1-e^{-s}) 0.119Specific Gravity Separator Gas Specific Gravity Flowing Fluid P_c 1074.4 P_c² 1154.3

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	P _w P _t
1.	1024.3	1049.2	4.349	18.91	2.250	1051.5	102.8	1025.4	.95
2.	970.6	942.1	7.170	51.41	6.118	948.2	206.1	973.8	.91
3.	904.8	818.7	9.826	96.55	11.49	830.2	324.1	911.2	.85
4.	826.7	683.4	12.39	153.5	18.27	701.7	452.6	837.7	.78
5.									

Absolute Potential: 13170 MCFPD; n 0.70COMPANY Stanolind Oil and Gas CompanyADDRESS Box 68 - Hobbs, New MexicoAGENT and TITLE WITNESSED COMPANY

REMARKS

ELVIS A. UZ
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 .

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