

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Gas Formation Queen County Lea
Initial X Annual _____ Special _____ Date of Test 10/3 thru 10/11, 57
Company The Ohio Oil Company Lease C. J. Saunders Well No. 1
Unit C Sec. 1 Twp. 22-S Rge. 36-E Purchaser Permian Basin Pipeline Company
Casing * 3.5" Wt. 9.3 I.D. 2.992 Set at 3628' Perf. 3378'-3405' 28 3416'-3454'
Tubing 1.25" Wt. 2.4 I.D. 1.380 Set at 3396' Perf. 3393' To 3395'
Gas Pay: From 3378' To 3454' L 3378' xG 0.690 -GL 2331 Bar.Press. 13.2
Producing Thru: Casing * 3.5" Tubing _____ Type Well Single
Date of Completion: 8/19/57 Packer -- Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. --

OBSERVED DATA

Tested Through (~~Reometer~~) (~~Orifice~~) (Meter)Type Taps Pipe

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Reometer) (Line) Size	(Orifice) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.	4"	1.75	495.5	1.4	50	--	--	1037.7	--	72 hr SIP
2.	4"	1.75	491.5	12.3	79	--	--	947.0	--	24 hrs
3.	4"	1.75	474.8	17.5	81	--	--	862.6	--	24 hrs
4.	4"	1.75	485.2	36.5	89	--	--	796.0	--	24 hrs
5.						--	--	577.7	--	24 hrs

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.	21.69	26.69	508.7	1.0098	0.9325	1.067	582
2.	21.69	78.79	504.7	0.9822	0.9325	1.055	1651
3.	21.69	92.41	488.0	0.9804	0.9325	1.051	1926
4.	21.69	134.88	498.4	0.9732	0.9325	1.050	2788
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry Gas cf/bbl.
Gravity of Liquid Hydrocarbons -- deg.
F_c 8.1723 (1-e^{-s}) 0.148

Specific Gravity Separator Gas --
Specific Gravity Flowing Fluid --
P_c 1050.9 P_c² 1104.4

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 _c
1.	960.2	922.0	4.756	22.620	3.348	925.3	179.1	961.9	91.53
2.	875.8	767.0	13.492	182.034	26.941	793.9	310.5	891.0	84.78
3.	809.2	654.8	15.740	247.748	36.667	691.5	412.9	831.6	79.13
4.	590.9	349.2	22.784	519.111	76.828	426.0	678.4	652.7	62.11
5.									

Absolute Potential: 3780 MCFPD; n 0.669782

COMPANY The Ohio Oil CompanyADDRESS Box 2107, Hobbs, New MexicoAGENT and TITLE Thomas O. Webb - Petroleum Engr.WITNESSED Mr. R. L. WestCOMPANY Permian Basin Pipeline Co.

REMARKS

* 3½" O.D. tubing set @ 3628' & cemented w/225 sx cement.

NOTE: Due to improper point alignment, well will be retested.

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 .