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NEW MEXICO OIL CONSERVATION COMMISSION

AUG 23 1965

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Unden. (W. Moss Queen Gas) Formation Queen County Eddy
 Initial X Annual _____ Special _____ Date of Test August 17, 1965
 Company Robert A. Dean Lease Pan American 13 State Well No. 1
 Unit A Sec. 13 Twp. 16 S Rge. 31 E Purchaser Not Connected
 Casing 2 7/8 Wt. 6.50 I.D. 2.441 Set at 3399 Perf. 3356 To 3370
 Tubing none Wt. _____ I.D. _____ Set at _____ Perf. _____ To _____
 Gas Pay: From 3356 To 3370 L 3356 xG .845 -GL 2836 Bar.Press. 13.2
 Producing Thru: Casing X Tubing _____ Type Well Single
 Single-Bradenhead-G. G. or G.O. Dual
 Date of Completion: 8/65 Packer none Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps _____

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						Choke Size		958		48
1.	2"	3/8	160		72	11/64		922		1
2.	2"	3/8	297		63	13/64		874		1
3.	2"	3/8	466		67	17/64		784		1
4.	2"	3/8	640		75	36/64		659		1
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.	3.0691		173.2	.9887	.8426	1.029	456
2.	3.0691		310.2	.9971	.8426	1.048	838
3.	3.0691		479.2	.9933	.8426	1.089	1340
4.	3.0691		653.2	.9859	.8426	1.122	1869
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry Gas cf/bbl.
 Gravity of Liquid Hydrocarbons _____ deg.
 P_c 5.866 (1-e^{-s}) 0.177
 Specific Gravity Separator Gas _____
 Specific Gravity Flowing Fluid _____
 P_c 971.2 P_c 943.2

No.	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.	935.2	874.6	2.675	7.16	1.27	875.9	67.3	935.9	.96
2.	887.2	787.1	4.916	24.17	4.28	791.4	151.8	889.6	.92
3.	797.2	635.5	7.860	61.78	10.94	646.4	296.8	804.0	.83
4.	672.2	451.9	10.964	120.21	21.28	473.2	470.0	687.9	.71
5.									

Absolute Potential: 3125 MCFPD; n 0.72
 COMPANY Robert A. Dean
 ADDRESS c/o Oil Reports & Gas Services, Box 763, Hobbs, New Mexico
 AGENT and TITLE H. K. Smith Independent Gas Tester
 WITNESSED none
 COMPANY _____

REMARKS

* Gravity exceeds highest in New Mexico tables. Factors were taken from Texas ERC Manual.

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} = Supercompressibility 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 .