

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Jalmat Formation Tates & 7 Rivers County Do APR 15 1957

Initial _____ Annual _____ Special X Date of Test 4-15/19 - 57

Company Water Drilling Company Lease Woolworth Well No. 3

Unit 4 Sec. 28 Twp. 34 Rge. 37 Purchaser E.P.N.C.

Casing 7" Wt. 24.04 I.D. 6.331 Set at 3270 Perf. 3060 To 3130

Tubing None Wt. _____ I.D. _____ Set at _____ Perf. _____ To _____

Gas Pay: From 3060 To 3130 L 3060 xG 0.650 GL 1969 Bar.Press. 13.2

Producing Thru: Casing X Tubing _____ Type Well Single
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 1949 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								497		72
1.	4	1.000	4167.5	42.0	66			417		24
2.	4	1.000	4008.0	64.0	72			402		24
3.	4	1.000	3908.5	77.44	67			393		24
4.	4	1.000	3839.8	97.08	72			387		24
5.										

FLOW CALCULATIONS

No.	Coefficient (FLO.) (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.	6.135	144.98		.9243	.9608	1.041	.884
2.	6.135	162.58		.9267	.9608	1.039	.884
3.	6.135	176.66		.9233	.9608	1.039	1.075
4.	6.135	186.02		.9267	.9608	1.037	1.184
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.

Gravity of Liquid Hydrocarbons _____ deg.

F_c 0.4915 (1-e^{-s}) 0.188

Specific Gravity Separator Gas 0.650

Specific Gravity Flowing Fluid _____

P_c 510.2 P_c² 260.3

No.	$\frac{P_w}{P_t}$ P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	$\frac{(F_c Q)^2}{(1-e^{-s})}$	P _w ²	P _c ² -P _w ²	Cal. P _w	$\frac{P_w}{P_c}$
1.	430.2	185.1	0.43	0.18	0.023	185.1	75.2		
2.	415.2	172.4	0.48	0.23	0.029	172.4	87.9		
3.	406.2	165.0	0.53	0.28	0.036	165.0	95.3		
4.	400.2	160.2	0.58	0.34	0.044	160.2	100.1		
5.									

Absolute Potential: 3,075MCFPD; n 1,000

COMPANY

E.P.N.C.

ADDRESS

Jal, N.M.

AGENT and TITLE

E. G. Smith

WITNESSED

COMPANY

Water Drilling CoBy A. D. Weigh- Sec. Treas.

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 .