

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates County LeaInitial _____ Annual _____ Special X Date of Test 12-10 to 12-14-56Company Tidewater Oil Company Lease _____ State "TX" Well No. 1Unit I Sec. 2 Twp. 24S Rge. 36E Purchaser EPNGCasing 7 Wt. 24 I.D. _____ Set at 2911 Perf. _____ To _____Tubing 2 Wt. 4.7 I.D. 1.995 Set at 3339 Perf. _____ To _____Gas Pay: From 3010 To 3550 L 3339 xG .665 -GL 2220 Bar.Press. 13.2Producing Thru: Casing _____ Tubing I Type Well Single

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

Date of Completion: 9-11-49 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through (~~Pressure~~) (~~Orifice~~) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Pressure) (Line) Size	(Orifice) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						909		909		72
1.	1	1.500	854	10.89	98	854		871		24
2.	1	1.500	814	23.52	91	820		854		24
3.	1	1.500	741	54.02	85	750		827		24
4.	1	1.500	650	98.01	80	662*		796		24
5.										

*Not enough draw down orifice too small.

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.	13.99	97.17	867	.9653	.9498	1.073	1337
2.	13.99	139.48	827	.9715	.9498	1.072	1929
3.	13.99	201.82	754	.9768	.9498	1.067	2796
4.	13.99		663	.9813	.9498	1.063	3532
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 9.936 (1-e^{-S}) 0.142Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 922.2 P_c 850.5

No.	P _w (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.	884.2	782.0				781.8	68.7	28.0	0.030
2.	867.2	694.2				752.0	98.5	28.5	0.030
3.	840.2	582.5				705.9	144.6	28.5	0.029
4.	809.2	455.9				654.8	195.7	28.8	0.028
5.									

Absolute Potential: 16,250 MCFPD; n 0.987COMPANY Tidewater Oil CompanyADDRESS Box 547 Hobbs, New MexicoAGENT and TITLE H. P. Shackelford, Area Supt.WITNESSED Ed MabeCOMPANY El Paso Natural Gas Co.

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 .