

3 - OCC
1 - Midland
1 - File

NEW MEXICO OIL CONSERVATION COMMISSION

STANDARD FORM 600

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

1963 JUL 10 AM 8:39

Revised 12-1-55

Pool Bumont Formation Queen County Lea
Initial Annual Special X Date of Test 5-17-63
Company Tidewater Oil Company Lease State "AC" Well No. 1
Unit F Sec. 5 Twp. 19 Rge. 37 Purchaser El Paso Nat. Gas Co.
Casing 5-1/2 Wt. 15.5 I.D. Set at 3922 Perf. 3536 To 3827
Tubing 2 Wt. 4.7 I.D. Set at 3728 Perf. To
Gas Pay: From 3536 To 3827 L 3728 xG .679 -GL 2531 Bar.Press. 13.2
Producing Thru: Casing Tubing X Type Well Single
Date of Completion: 2-18-56 Packer None Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp.

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						602		601		72
1.	4	.750	535	12.33	53	591		596		24
2.	4	.750	563	11.56	61	583		587		24
3.										
4.	Unable to obtain a complete 4 point test. Slope n of .792 and n of .625 was taken									
5.	from Multi-Point Test dated 7-22-36 and applied to this flow data.									

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.	3.435	81.95		1.0068	.9400	1.066	284.0
2.	3.435	81.61		.9990	.9400	1.064	280.0
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio cf/bbl.
Gravity of Liquid Hydrocarbons deg.
F_c Measured (1-e^{-s})
Specific Gravity Separator Gas .679
Specific Gravity Flowing Fluid
P_c 615.2 P_c² 378.5

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.	604.2	365.0	Measured			371.1	7.4		
2.	596.2	355.4				360.2	18.3		
3.									
4.									
5.									

Absolute Potential: 3100 MCFPD; n .792
COMPANY Tidewater Oil Co.
ADDRESS Box 249, Hobbs, N. Mex.
AGENT and TITLE B. M. Breining, Area Engineer
WITNESSED L. D. Southern
COMPANY 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 .