

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Bumont Formation Yates County Leon
Initial I Annual _____ Special _____ Date of Test 6/13/56
Company Shelly Oil Co. Lease Van Etten Well No. 10
Unit 0 Sec. 9 Twp. 208 Rge. 37E Purchaser Southern Union Gas Co.
Casing 7" Wt. 204 I.D. 6.456 Set at 3400 Perf. _____ To _____
Tubing 2 1/2" Wt. 6.54 I.D. 2.441 Set at 3656 Perf. 3651' To 3656'
Gas Pay: From 3406 To 3664 L 3651 xG 0.673 -GL 24.57 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing I Type Well Single
Date of Completion: _____ Packer _____ Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested Through (~~200000~~) (~~200000~~) (Meter)Type Taps Flange

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										
1.	1"	1"	510	36	68			1015		72
2.	"	1"	530	27	63			948		24
3.	"	1.5	540	28	64			892		24
4.	"	7/16	706	*	71			812		24
5.								-		

No. 4 tested with a critical flow prover

No.	Coefficient		Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
	(24-Hour)	$\sqrt{h_w P_f}$					
1.	6.135	137.2	523.2	0.9924	0.9441	1.059	835
2.	6.135	121.1	543.2	0.9971	"	1.061	742
3.	13.99	124.5	553.2	0.9962	"	1.061	1738
4.	4.3987	-	719.2	0.9896	"	1.078	3187
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 5.866 (1-e^{-S}) 0.156

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1028.2 P_c 1057.2

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.	961.2	923.9	4.90	24.01	3.7	927.6	129.6	963.1	0.94
2.	865.2	748.6	4.35	18.92	3.0	751.0	306.2	866.6	0.84
3.	825.2	681.0	10.20	104.04	16.2	697.2	360.0	835.0	0.81
4.	-	-	-	-	-	-	-	-	-
5.									

Absolute Potential: 5100 MCFPD; n 1.0000COMPANY Shelly Oil Co.ADDRESS Box 389 Hobbs, N. M.AGENT and TITLE (SIGNED) H. E. AabWITNESSED None Dist. Supt. _____

COMPANY _____

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 .