

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Bellard P.C. Formation Pictured Cliffs County San Juan
Initial x Annual _____ Special _____ Date of Test Oct. 7, 1957
Company Southern Union Gas Co. Lease Newson Well No. 3-B
Unit L Sec. 6 Twp. 26N Rge. 8W Purchaser Southern Union Gas Co.
Casing 52 Wt. 15.5 I.D. 4.950 Set at 2205 Perf. 2000 To 2104
Tubing 14 Wt. 1.7 I.D. _____ Set at 2145 Perf. 2125 To 2145
Gas Pay: From 2000 To 2104 L _____ xG 0.67 ~~Net~~ ^{GL} Bar.Press. 12.0
Producing Thru: Casing x Tubing _____ Type Well Single Gas
Single-Bradenhead G.O. or G.O. Dual
Date of Completion: Sept. 8, 1957 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.	
1.										29 days
2.		3/4"	106		63°	110		106	63°	3 hrs.
3.										
4.										
5.										

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.							
2.	12.3650		110	0.9971	0.9463	1.012	1,383
3.							
4.							
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____

P_c 661 P_c² 436.9
P_w 122 P_w² 14.9

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.									
2.						14.9	422		0.104
3.									
4.									
5.									

Absolute Potential: 1117 MCFPD; n 0.85

COMPANY Southern Union Gas Co.
ADDRESS P.O. Box 615, Farmington, New Mexico
AGENT and TITLE Gilbert Woland, Jr.
WITNESSED _____
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 .

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