

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Angel Peak Dakota Formation Dakota County San Juan
Initial X Annual _____ Special _____ Date of Test 11/10/60
Company Southern Union Gas Company Lease Zachry Well No. 14
Unit M Sec. 10 Twp. 28N Rge. 10W Purchaser Southern Union Gas Company
Casing 1 1/2" Wt. 9.50 I.D. 4.090 Set at 6630 Perf. 6354, 6431 To 6382, 6480, 6570
Tubing 1.90" Wt. 2.75 I.D. 1.50 Set at 6404 Perf. 6396 To 6404
Gas Pay: From 6354 To 6570 L _____ xG 0.70 -GL _____ Bar.Press. 12.0
Producing Thru: Casing _____ Tubing X Type Well Single-Gas
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 10/31/60 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (PRIVAT) (Choke) (VALVE) Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (LINE) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						2051		2081		7 days
1.		1"	758		82°	758	82°	1697		3 hrs.
2.										
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.	5.4315		770	0.9795	0.9258	1.087	4.122
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

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

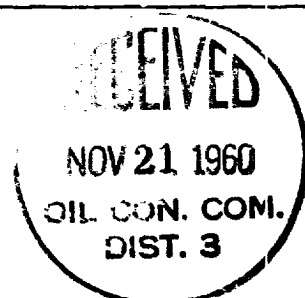
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 2093 P_c 4380.6
P_w 1709 P_w 2920.7

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.	1709					2920.7	1459.9		0.815
2.									
3.									
4.									
5.									

Absolute Potential: 9,398 MCFPD; n 0.75

COMPANY Southern Union Gas Company
ADDRESS P. O. Box 808 Farmington, New Mexico
AGENT AND TITLE Val Ripper - Production Foreman
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 .