

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool B ASIN Formation DAKOTA County SAN JUAN
Initial XX Annual _____ Special _____ Date of Test 12-7-61
Company SOUTHERN UNION PRODUCTION CO. Lease Zachry Well No. 17
Unit M Sec. 35 Twp. 29-N Rge. 10-W Purchaser Southern Union Gas Company
Casing 1 1/2" Wt. 10.5# I.D. 4.052 Set at 6616 Perf. 6352 To 6530
Tubing 2 3/8" Wt. 4.70# I.D. 1.995 Set at 6412 Perf. 6405 To 6411
Gas Pay: From 6352 To 6530 L 6405 xG .680 -GL 4355 Bar.Press. 12.0
Producing Thru: Casing _____ Tubing XX Type Well Single - Gas
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 12-3-61 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through ~~(separator)~~ (Choke) ~~(separator)~~ 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.	
SI						1945		1945		7 days
1.		3/4	326		70	326	70	825		3 hr.
2.										
3.										
4.										
5.										

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.	12.3650		338	.9905	.9393	1.034	4021
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

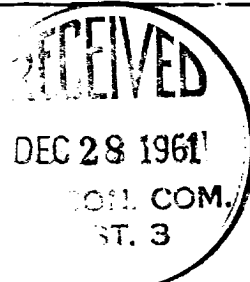
Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1957 P_c² 3829.8

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.						700.6	3129.2		.428
2.									
3.									
4.									
5.									

Absolute Potential: 4679 MCFPD; n .75
COMPANY SOUTHERN UNION PRODUCTION CO.
ADDRESS P.O. Box 808 - Farmington, N.Mexico Original Signed By _____
AGENT and TITLE L. S. Muennink - Production Supt. L. S. MUENNINK
WITNESSED V. A. Ripper
COMPANY Southern Union Production 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 .