

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Tapacito-Pictured Cliffs Formation Pictured Cliffs County Rio Arriba
Initial I Annual _____ Special _____ Date of Test August 22, 1960
Company Southern Union Gas Company Lease Jicarilla Well No. 7-D
Unit I Sec. 31 Twp. 26N Rge. 3W Purchaser Southern Union Gas Company
Casing 4 1/2" Wt. 9.5 I.D. 4.090 Set at 3974 Perf. 3895 To 3928
Tubing 1 1/2" Wt. 2.75 I.D. 1.610 Set at 3904 Perf. 3888 To 3904
Gas Pay: From 3895 To 3928 L _____ xG _____ -GL _____ Bar.Press. 12.0
Producing Thru: Casing _____ Tubing I Type Well Single - Gas
Single-Bradenhead-G. G. or G.O. Dual _____
Date of Completion: August 2, 1960 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through 3/4" (Choke) 1/2" (Choke) 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						1011		1010		20 Days
1.		3/4"	339		57			939		3 Hours
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		351	1.0029	0.9463	1.040	4.283
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 1023 P_c 1046
P_w 951 P_{w2} 904

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.									
3.									
4.									
5.									

Absolute Potential: 23,342 MCFPD; n 0.85

COMPANY SOUTHERN UNION GAS COMPANY

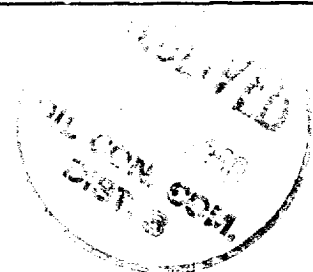
ADDRESS P. O. Box 808, Farmington, New Mexico

AGENT and TITLE Thomas E. Ferro, Engineer

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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