

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool El Paso Mesquite Formation Mesquite County San Juan
 Initial XX Annual _____ Special _____ Date of Test 10-22-64
 Company Southern Union Production Co. Lease Mavage Indian Well No. 6
 Unit 1^E Sec. 6 Twp. 26-N Rge. 8-W Purchaser El Paso Natural Gas Company
 Casing 5-1/2 Wt. 37.0 I.D. 4.892 Set at 4400 Perf. 4182 To 4270
 Tubing 1-3/4 Wt. 2.30 I.D. 1.380 Set at 4270 Perf. 4260 To 4270
 Gas Pay: From 4182 To 4270 L 4260 xG .730 -GL 3110 Bar.Press. 12.0
 Producing Thru: Casing XX Tubing _____ Type Well Dual Gas, Gas
 Single-Bradenhead-G. G. or G.O. Dual
 Date of Completion: 10-7-64 Packer 6090 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
SI									15 days
1.	2"	3/4"	635		70	725		670	70
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.	12.250		635	.973	.968	1.072	7572
2.							
3.							
4.							
5.							

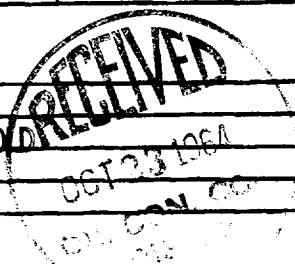
PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
 Gravity of Liquid Hydrocarbons _____ deg.
 F_c _____ (1-e⁻⁸)
 Specific Gravity Separator Gas _____
 Specific Gravity Flowing Fluid _____
 P_c 1097 P_c² 120349

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	$\frac{(F_c Q)^2}{(1-e^{-8})}$	P _w ²	P _c ² -P _w ²	Cal. P _w	$\frac{P_w}{P_c}$
1.						5200	61360		677
2.									
3.									
4.									
5.									

Absolute Potential: 11.977 MCFPD; n .75
 COMPANY Southern Union Production Company
 ADDRESS P. O. Box 288 - Farmington, New Mexico
 AGENT and TITLE Verne Rockhold - Jr. Engineer
 WITNESSED Norman Mahaffey
 COMPANY El Paso Natural Gas Company

Original Signed By
 VERNE ROCKHOLD



REMARKS

- cc: (3) E. Max. J.C.G.
- cc: (1) Mr. Paul J. Clote
- cc: (1) El Paso Natural Gas Co., Production Dept., P. O. Box 1492, El Paso, Texas
- cc: (1) Mr. H. L. Lindriks, Box 990, Farmington, New Mexico
- cc: (1) Mr. John Hill
- cc: (1) File

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 .