

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County San Juan
Initial XX Annual _____ Special _____ Date of Test 1-15-64
Company Southern Union Production Co. Lease McCord Well No. 13
Unit N Sec. 22 Twp 30-N Rge. 13-W Purchaser El Paso Natural Gas Company
Casing 4-1/2 Wt. 10.50 I.D. 4.052 Set at 6520 Perf. 6266 To 6402
Tubing 1-1/2 Wt. 2.90 I.D. 1.610 Set at 6350 Perf. 6340 To 6350
Gas Pay: From 6266 To 6402 L 6340 xG .735 -GL 4660 Bar.Press. 12.0
Producing Thru: Casing _____ Tubing XX Type Well Single Gas
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 1-6-64 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (PERMANENT) (Choke) (PERMANENT) 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						1846		1842		9 days
1.	2"	3/4	306		78°	306	78°	1072		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.	12.3650		318	.9831	.9035	1.037	3622
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 1858 P_c 3452.2

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.						1175.1	2277.1		.583
2.									
3.									
4.									
5.									

Absolute Potential: 4949 MCFPD; n .75

COMPANY Southern Union Production Company

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

AGENT and TITLE Verne Rockhold, Jr. Engineer

WITNESSED Herman McAnally

COMPANY El Paso Natural Gas Company

Original Signed By

VERNE ROCKHOLD

JAN 28 1964

OIL CON. COM.
DIST. 3

- REMARKS
- (3) New Mexico O.C.C.
 - (1) Mr. Paul Clote
 - (1) El Paso Natural Gas Company, Exploration Dept.
P.O. Box 1492, El Paso, Texas
 - (2) Mr. H. L. Kindricks, P.O. Box 990 Farmington, N.M.
 - (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 .