

1-Bill Parish 1-D NEW MEXICO OIL CONSERVATION COMMISSION
1-Tidewater, Durango
2-Tidewater, Midland
1-N.W. Prod. 1-F
1-Lion

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Formation Mesaverde County San Juan
Initial X Annual _____ Special _____ Date of Test 10/10/61
Company Southwest Production Co. Lease Paul Palmer Well No. 1
Unit L Sec. 26 Twp. 30 Rge. 12 Purchaser El Paso Natural Gas Co.
Casing 4 1/2 Wt. 10.50 I.D. 4.040 Set at 3472 Perf. Open To Hole
Tubing 1 1/2 Wt. 2.76 I.D. 1.610 Set at 3474 Perf. - To 3474
Gas Pay: From 3473 To 3509 L 3474 xG .67 -GL 2327.5 Bar.Press. 12.0
Producing Thru: Casing _____ Tubing X Type Well Single Gas
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 9/26/61 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (XXXXXX) (Choke) (XXXXXX) Type Taps _____

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (XXXXXX) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.		3/4	300		69	300	69	862		7 days 3 hr.
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		312	.9915	.9463	1.033	3,739
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 1354 P_c² 1833.3

P_w 874 P_w² 763.8

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.						763.8	1069.5		.654
2.									
3.									
4.									
5.									

Absolute Potential: 5,609 MCFPD; n .75

COMPANY Southwest Production Company

ADDRESS 207 Petr. Club Plaza, Farmington, N.M.

AGENT and TITLE George L. Hoffman, Production 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} = Supercompressibility 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 .