

3-OCC
2-**Texaco**
1-WD
1-EPNG
1-D
1-F

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 X Annual - Special - Date of Test 11-3-61
Company Southwest Production Company Lease Sibyl Federal Well No. 1
Unit C Sec. 32 Twp. 27 Rge. 11 Purchaser El Paso Natural Gas Co.
Casing 4½ Wt. 10.50 I.D. 4.040 Set at 6340 Perf. 6264-83 To 6287-92
Tubing 1½ Wt. 2.7 I.D. 1.610 Set at 6324 Perf. - To 6324
Gas Pay: From 6264 To 6292 L 6324 xG .67 -GL 4237.0 Bar.Press. 12.0
Producing Thru: Casing - Tubing X Type Well Single Gas
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 10/21/61 Packer - Reservoir Temp. -

OBSERVED DATA

Tested Through (Provers) (Choke) (Meters) Type Taps -

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Line) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						2102		2102		7 d y
1.		3/4"	435		60	435	60	1913		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		447	1.000	.9463	1.052	5.602
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio - cf/bbl.
Gravity of Liquid Hydrocarbons - deg.
P_c - (1-e^{-s}) -
Specific Gravity Separator Gas -
Specific Gravity Flowing Fluid -
P_c 2114 P_c² 4468.9

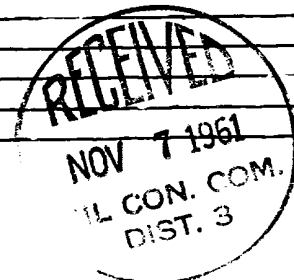
P_w 1925 P_w² 3705.6

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.						3705.6	763.3		.910
2.									
3.									
4.									
5.									

Absolute Potential: 19,053 MCFPD; n .75

COMPANY Southwest Production Company
ADDRESS 207 Petr. Club PlA sa, Farmington, N.M.
AGENT and TITLE G. 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 .
