

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 10-27-64
Company PAN AMERICAN PETROLEUM CORP. Lease Keys Gas Unit "B" Well No. 1
Unit N Sec. 29 Twp. 29N Rge. 10W Purchaser El Paso Natural Gas Company
Casing 4-1/2 Wt. 10.5 I.D. 4.052 Set at 6402 Perf. 6202-12 To 6272-32
Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 6222 Perf. 6184 To 6190
Gas Pay: From 6202 To 6304 L 6254 G .700 GL 4378 Bar. Press. 12
Producing Through Casing _____ Tubing _____ Type Well Single
Single-Bradenhead-G, G. or G Dual
Date of Completion: 10-20-64 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Prover) Type ps

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Prover) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
1.	3 Days 2 inch	3/4"	636			2015 636	60° est.	2056 1366	60° est.	3 Hrs.
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour) $-\frac{1}{h_w P_d f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow = MCFPD = 5.025 psia
1.	12.3650	645	1.000	.9258	1.036	3056
2.						
3.						
4.						
5.						

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ scf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-S})

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 2068 4,276,624

No.	P _w P _t (psia)	F _t	F _g	F _{pv}	(F _g F _{pv}) ² (1-e ^{-S})	P _w ²	P _w ² P _c
1.						1,898,884	2,377,740
2.							
3.							
4.							
5.							

Absolute Potential 12,511 MCFPD; .75COMPANY PAN AMERICAN PETROLEUM CORPORATIONADDRESS Box 480, Farmington, New MexicoAGENT and TITLE F. L. Nabors, District EngineerWITNESSED By: ORIGINAL SIGNED BY
COMPANY F. W. Foell

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 .