

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County San Juan

Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 12-11-63

Company PAN AMERICAN PETROLEUM CORP. Lease McCarty Gas Unit Well No. 1

Unit 0 Sec. 16 Twp. 29N Rge. 11W Purchaser \_\_\_\_\_

Casing 4-1/2 Wt. 10.5 I.D. 4.090 Set at 6400 Perf. 6178-90 To 6284-84

Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 6164 Perf. Open ended To \_\_\_\_\_

Gas Pay: From 6178 To 6284 L 6231 xG .700 -GL 4362 Bar.Press. \_\_\_\_\_

Producing Thru: Casing None Tubing \_\_\_\_\_ Type Well Single

Date of Completion: 12-4-63 Packer None Single-Bradenhead-G. G. or G.O. Dual \_\_\_\_\_

Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (Prover) (Line) (Meter)Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
1.	7-day shut-in tubing and casing pressures*					2058		2040		No flow
2.										
3.										
4.										
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w P_f}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.							
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.

Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.

F<sub>c</sub> \_\_\_\_\_ (1-e<sup>-8</sup>)

Specific Gravity Separator Gas \_\_\_\_\_

Specific Gravity Flowing Fluid \_\_\_\_\_

P<sub>c</sub> \_\_\_\_\_ P<sub>c</sub><sup>2</sup> \_\_\_\_\_

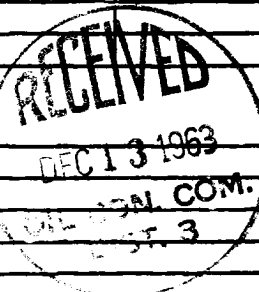
No.	P <sub>w</sub> P <sub>t</sub> (psia)	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-8</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> / P <sub>c</sub>
1.									
2.									
3.									
4.									
5.									

Absolute Potential: \_\_\_\_\_ MCFPD; n \_\_\_\_\_

COMPANY PAN AMERICAN PETROLEUM CORPORATIONADDRESS Box 400, Farmington, New MexicoAGENT and TITLE F. L. Roberts, Petroleum EngineerWITNESSED By [Signature]COMPANY F. W. Fossil

REMARKS

\*Well not potentialized because of fire hazard due to proximity of buildings, residences, etc.



## 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  $P_t$ .