

## 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 Z Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 3-23-64  
Company PAN AMERICAN PETROLEUM CORP. Lease Bell Federal Gas Unit Well No. 1  
Unit A Sec. 11 Twp. 30N Rge. 13W Purchaser \_\_\_\_\_  
Casing 4-1/2 Wt. 10.5 I.D. 4.025 Set at 6767 Perf. 6302-12 To 6404-16/6204-00  
Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 6304 Perf. Open To Ended  
Gas Pay: From 6302 To 6616 L 6359 xG .700 -GL 4391 Bar.Press. 12  
Producing Thru: Casing \_\_\_\_\_ Tubing Z Type Well Single  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: 3-18-64 Packer None Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (Prover) (Choke) (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.	<u>2" Days</u>	<u>.730</u>	<u>177</u>			<u>1819</u>	<u>600 act.</u>	<u>1830</u>	<u>400 act.</u>	<u>3 hr.</u>
2.										
3.										
4.										
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wPF}}$	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.	<u>12.3630</u>		<u>189</u>	<u>1.000</u>	<u>.9250</u>	<u>1.002</u>	<u>2212</u>
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
F<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)

Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 1832 P<sub>c</sub><sup>2</sup> 3,336,384

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>-s</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> / F <sub>c</sub>
1.						<u>230,400</u>	<u>3,123,824</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 1333 MCFPD; n .73  
COMPANY PAN AMERICAN PETROLEUM CORPORATION  
ADDRESS Box 400, Farmington, New Mexico  
AGENT and TITLE F. L. Moore, District Engineer  
WITNESSED By F. W. Hall  
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 600 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  $P_t$ .