

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County San Juan  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 10-2-64  
Company PAN AMERICAN PETROLEUM CORP. Lease Jack Frost "D" Well No. 1  
Unit B Sec. 26 Twp. 27N Rge. 10W Purchaser El Paso Natural Gas Company  
Casing 4-1/2 Wt. 10.9 I.D. 4.052 Set at 6324 Perf. 6479-89 To 6481-87  
6520-23 To 6522-28/6568-96  
Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 6507 Perf. 6470 To 6476  
Gas Pay: From 6479 To 6596 L \_\_\_\_\_ xG .700 -GL \_\_\_\_\_ Bar.Press. 12  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: 9-22-64 Packer None Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through ~~(Gauge)~~ (Choke) ~~(Meter)~~ Type Taps Flange

Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.	
No.	(Pressure) (Line) Size	(Choke) (Restriction) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig		Temp. °F.
SI	10 Day					1471		1809		
1.	2 Inch	.750	221			221	60° est.	531	60° est.	3 Hr.
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.	<u>17.3630</u>		<u>233</u>	<u>1.000</u>	<u>.9238</u>	<u>1.027</u>	<u>2739</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> 1901 P<sub>c</sub> 3,613,801

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> P <sub>c</sub>
1.						<u>294,849</u>	<u>3,318,952</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 2919 MCFPD; n .75

COMPANY PAN AMERICAN PETROLEUM CORPORATION

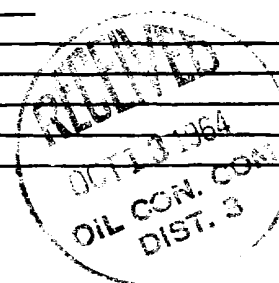
ADDRESS Box 480, Farmington, New Mexico

AGENT and TITLE F. L. Nabors, District Engineer

WITNESSED By: ORIGINAL SIGNED BY

COMPANY F. W. Focht

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  $P_t$ .