

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Dakota Formation Dakota County San JuanInitial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 12-15-59Company Pan American Petroleum Corporation Lease John Schumacher Well No. 1Unit G Sec. 8 Twp 30N Rge. 12W Purchaser -Casing 4-1/2 Wt. 11.6 & 9.5 I.D. 4.090 Set at 6790 Perf. Abrasijet perforations To 6618Tubing 2-3/8 Wt. 4.6 I.D. 1.995 Set at 6592 Perf. Open ended 6592 To \_\_\_\_\_Gas Pay: From 6616 To 6618 L 6592 xG 0.700 (est) GL 4614 Bar.Press. 12Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Gas - singleDate of Completion: 12-8-59 Packer None Single-Bradenhead-G. G. or G.O. Dual \_\_\_\_\_ Reservoir Temp. 132°F.

## OBSERVED DATA

Tested Through (~~2 1/2 inch~~) (Choke) (~~3 inch~~) Type Taps -

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	<del>(Line)</del> (Line) Size	<del>(Choke)</del> (Choke) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	<u>Shut in 7 days.</u>					<u>2072</u>		<u>2072</u>		
1.	<u>2 inch</u>	<u>3/4 inch</u>	<u>225</u>		<u>60 (est)</u>	<u>295</u>	<u>60 (est)</u>	<u>620</u>	<u>60 (est)</u>	<u>3 hours</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>12.3650</u>		<u>237</u>	<u>1.000</u>	<u>0.9258</u>	<u>1.028</u>	<u>2789</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> 2084 P<sub>c</sub> 4,343,056

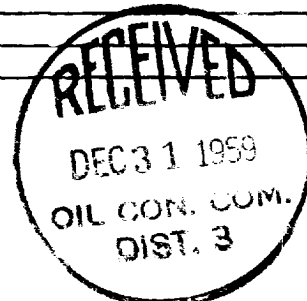
No.	P <sub>w</sub> P <sub>t</sub> (psia)	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> / P <sub>c</sub>
1.						<u>399,424</u>	<u>3,943,632</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 2998 MCFPD; n 0.75COMPANY Pan American Petroleum CorporationADDRESS Box 487, Farmington, New MexicoAGENT and TITLE R. M. Bauer, Jr., Area Engineer *RMBauer Jr.*

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<sub>C</sub> = 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<sub>t</sub> = 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  $P_t$ .

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