

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122  
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Angel Peak Dakota Formation Dakota County San Juan  
Initial I Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test June 30, 1959  
Company Pan American Petroleum Corp. Lease Fred Peasal "H" Well No. 1  
Unit H Sec. 33 Twp. 28N Rge. 10W Purchaser El Paso Natural Gas Company  
Casing 5-1/2 Wt. 15.5 I.D. 4.950 Set at 6607 Perf. 6445 To 6496  
Tubing 2-3/8 Wt. 4.7 I.D. 1.975 Set at 6414 Perf. 6414 To 6414  
Gas Pay: From 6445 To 6496 L 6414 xG 0.70(est) GL 4490 Bar.Press. 12  
Producing Thru: Casing \_\_\_\_\_ Tubing I Type Well Single - Gas  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: May 22, 1959 Packer None Reservoir Temp. 137°F

OBSERVED DATA

Tested Through (~~Fraser~~) (Choke) (~~Water~~) Type Taps \_\_\_\_\_

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	( <del>Fraser</del> ) (Line) Size	(Choke) ( <del>Orifice</del> ) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	Shut in 8 days					1913		1917		
1.	2"	3/4"	265		60°(est)	325	60°(est)	770	60°(est)	3 hrs.
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.	12.365		277	1.300	0.9258	1.032	3272
2.							
3.							
4.							
5.							

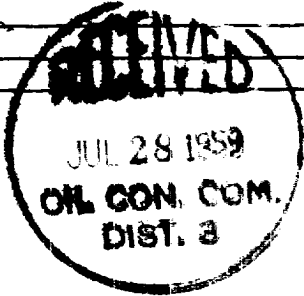
PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
P<sub>c</sub> 9.402 (1-e<sup>-S</sup>) 0.279  
Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 1925 P<sub>c</sub> 3,705.625

No.	$\frac{P_w}{P_t}$ (psia)	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	$\frac{(F_c Q)^2}{(1-e^{-S})}$	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>	$\frac{P_w}{P_c}$
1.						611.524	3,094,101		
2.									
3.									
4.									
5.									

Absolute Potential: 3746 MCFPD; n 0.75  
COMPANY Pan American Petroleum Corporation  
ADDRESS Box 487, Farmington, New Mexico  
AGENT and TITLE R. M. Bauer, Jr., Area Engineer  
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.

$P_c$  = 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  $P_t$ .

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