

## NEW MEXICO OIL CONSERVATION COMMISSION

HOODS OFFICE REC Form C-122

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Jalnet Formation Yates-Seven Rivers County LeaInitial \_\_\_\_\_ Annual \_\_\_\_\_ Special I Date of Test 11-30 to 12-4-57Company Pan American Petroleum Corp. Lease C. Myers "B" Well No. 13Unit L Sec. 9 Twp. 24 Rge. 37 Purchaser El Paso Natural Gas CompanyCasing 7" Wt. 20.0 I.D. \_\_\_\_\_ Set at 3689 Perf. \_\_\_\_\_ To \_\_\_\_\_Tubing 2" Wt. 4.7 I.D. \_\_\_\_\_ Set at 3296 Perf. \_\_\_\_\_ To \_\_\_\_\_Gas Pay: From 3123 To 3145 L 3123 xG 0.650 -GL 2031 Bar.Press. 13.2Producing Thru: Casing x Tubing \_\_\_\_\_ Type Well Gas-Oil DualDate of Completion: 10-23-56 Packer 3230 Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps \_\_\_\_\_

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.	
SI										
1.	4	1.000	536	7.6	118			837		72
2.	4	1.000	539	9.0	99			775		24
3.	4	1.000	567	14.44	99			740		24
4.	4	1.000	562	19.36	62			695		24
5.								652		24

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wp} F}$	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.	6.133	65.60		0.9501	0.9608	1.042	382
2.	6.133	71.73		1.0010	0.9608	1.064	450
3.	6.133	91.52		1.0010	0.9608	1.064	575
4.	6.133	105.51		0.9981	0.9608	1.062	660
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
c 0.707 (1-e<sup>-s</sup>) 0.130Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 850.2 P<sub>c</sub> 722.8

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.	788.2	621.3	0.270	0.073	0.009	621.3	101.5		
2.	753.2	567.3	0.320	0.102	0.013	567.3	135.3		
3.	708.2	501.5	0.407	0.166	0.022	501.5	221.3		
4.	663.2	442.5	0.467	0.218	0.028	442.5	280.3		
5.									

Absolute Potential: 1,100 MCFPD; n 0.545COMPANY Pan American Petroleum CorporationADDRESS Box 68 - Hobbs, New MexicoAGENT and TITLE J. W. Mack Field 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  $P_t$ .