

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Ballard Formation PC County Rio Arriba

Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 8-9-67

Company Petroleum Associates, Inc. Lease Florance Well No. D-9

Unit A Sec. 15 Twp. 23 Rge. 4 Purchaser EPNG

Casing 4 1/2 Wt. 9.50 I.D. 4.090 Set at 3085 Perf. 3002 To 3020

Tubing 1 1/2 Wt. 2.90 I.D. 1.610 Set at 3008 Perf. 3000 To 3008

Gas Pay: From 3002 To 3020 L 3011 xG .650(E) -GL 1957 Bar.Press. 12

Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single

Date of Completion: 8-2-67 Packer No 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						726		726		SI - 7 da.
1.		.750TC	219		53	219	53	660		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		231	1.0068	.9608	1.023	2827
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.

Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.

P<sub>c</sub> \_\_\_\_\_ (1-e<sup>-S</sup>)

Specific Gravity Separator Gas \_\_\_\_\_

Specific Gravity Flowing Fluid \_\_\_\_\_

P<sub>c</sub> 738 P<sub>c</sub><sup>2</sup> 544,644

No.	P <sub>w</sub> P <sub>w</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.	672					451,584	93,060	5.8526	4.4898
2.									
3.									
4.									
5.									

Absolute Potential: 12,693 MCFPD; n .85

COMPANY Petroleum Associates, Inc.

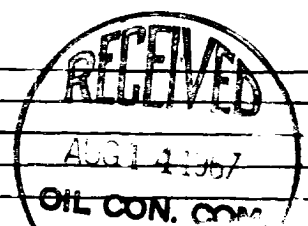
ADDRESS 520 Commercial Bank Tower, Midland, Texas

AGENT and TITLE William B. Smith, Jr.

WITNESSED W. B. Smith, Jr.

COMPANY Registered Professional Engineer

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  $P_t$ .