NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County Rio Arriba

Initial X Annual ____ Special ____ Date of Test May 31, 1961

Company Pan American Petroleum Corp. Lease Jicarilla Contract 155 Well No. 13

Unit I Sec. 30 Twp. 26N Rge. 5W Purchaser El Paso Natural Gas Company

Casing 4.5 Wt. 9.5 & 11.6 I.D. 4.090 Set at 6355 Perf. 7100 To 7110

Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 7078 Perf. open ended To ____

Gas Pay: From 7100 To 7110 L 7078 xG .700(est) -GL 4955 Bar.Press. 12

Producing Thru: Casing ____ Tubing X Type Well Single gas

Date of Completion: May 20, 1961 Packer 6949 Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. 143° F

OBSERVED DATA

Tested Through ~~(Prover)~~ (Choke) ~~(Meter)~~ Type Taps ____

No.	Flow Data (~~Prover~~) (Line) Size	(Choke) (~~Orifice~~) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI	11 days					2331		Packer		
1.	2"	3/4"	184			253	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_t	Gravity Factor F_g	Compress. Factor F_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.365	196		1.000	.9258	1.023	2295
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl. Specific Gravity Separator Gas ____

Gravity of Liquid Hydrocarbons ____ deg. Specific Gravity Flowing Fluid ____

F_c 9.402 $(1-e^{-s})$ .303 P_c 2343 P_c^2 5,489,649

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	265	70.225	21.577	465.567	1481.067	211,292	5,278,357	459	
2.									
3.									
4.									
5.									

Absolute Potential: 2369 MCFPD; n .75

COMPANY Pan American Petroleum Corporation

ADDRESS Box 480, Farmington, New Mexico

AGENT and TITLE M. M. Baker, Jr. Senior Petroleum Engineer

WITNESSED ____

COMPANY ____

REMARKS

RECEIVED
JUN 6 1961
OIL CON. COM.
DIST. 3

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.