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 Juan

Initial X Annual ____ Special ____ Date of Test July 8, 1959

Company Pan American Petroleum Corp. Lease Miller Gas Unit Well No. 1

Unit H Sec. 20 Twp. 30N Rge. 13W Purchaser ----

Casing 5-1/2" Wt. 15.5 (14 #) I.D. 4.950 (5.012 #) Set at 6228 Perf. 6056 To 6100

Tubing 2" Wt. 4.7 I.D. 1.995 Set at 6049 Perf. Open ended; no perforations To

Gas Pay: From 6056 To 6100 L 6049 xG 0.70 (est) GL 4234 Bar.Press. 12

Producing Thru: Casing ____ Tubing X Type Well Gas - single

Date of Completion: June 30, 1959 Packer None Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. 139°F

OBSERVED DATA

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

No.	Flow Data (Line) Size	Flow Data (Choke) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI	Shut in 8 days					1921		1908		
1.	2"	3/4"	209		60 (est)	225	60 (est)	690	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		217	1.000	0.9258	1.026	2549
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 ____

P_c ____ $(1-e^{-s})$ 0.265 P_c 1933 P_c^2 3,736,489

No.	P_w / P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2$ $(1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	P_w / P_c
1.						484,244	3,252,997		
2.									
3.									
4.									
5.									

Absolute Potential: 2799 MCFPD; n 0.75

COMPANY Pan American Petroleum Corporation

ADDRESS Box 487, Farmington, New Mexico

AGENT and TITLE R. M. Bauer, Jr., Area Engineer R M Bauer Jr.

WITNESSED ____

COMPANY ____

REMARKS

RECEIVED
JUL 28 1959
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.