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 San Juan

Initial X Annual Special Date of Test 10-26-64

Company PAN AMERICAN PETROLEUM CORP. Lease Gallegos Canyon 180 Unit Well No. 1

Unit J Sec. 28 Twp. 29N Rge. 12W Purchaser

Casing 4-1/2 Wt. 10.5 I.D. 4.052 Set at 5961 Perf. 5870-5900 To 5794-5802

Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 5823 Perf. 5787 To 5793

Gas Pay: From 5794 To 5900 L 5787 xG .700 -GL 4051 Bar.Press. 12

Producing Thru: Casing Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 10-19-64 Packer 5717 Reservoir Temp.

OBSERVED DATA

Tested Through (Choke) Type Taps Flange

	Flow Data					Tubing Data		Casing Data		
No.	(Line) Size	(Choke) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	Duration of Flow Hr.
SI	7 Days					2145				
1.	2 Inch	.750	599			599				3 Hr.
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.	12.3630		611	1.000	.9258	1.002	7568
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio cf/bbl.
Gravity of Liquid Hydrocarbons deg.
F_c 9.402 $(1-e^{-s})$ 0.255

Specific Gravity Separator Gas
Specific Gravity Flowing Fluid
P_c 2157 P_c^2 4,652,649

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.	611		71.154	5062.83	1590.89	1,664,211	2,988,438	1290	
2.									
3.									
4.									
5.									

Absolute Potential: 10,347 MCFPD; n .75
COMPANY PAN AMERICAN PETROLEUM CORPORATION
ADDRESS Box 468, Farmington, New Mexico
AGENT and TITLE F. L. Hubara, District Engineer
WITNESSED By: ORIGINAL SIGNED BY F. W. Foell
COMPANY

REMARKS

RECEIVED
NOV 5 1964
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.