NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Angels Peak-Dakota Formation Dakota County San Juan

Initial X Annual ____ Special ____ Date of Test 4-6-60

Company Pan American Petroleum Corp. Lease M. N. Galt "J" Well No. 1

Unit M Sec. 4 Twp. 27N Rge. 10W Purchaser Southern Union Gas Company

Casing 4-1/2 Wt. 9.5 11.6 I.D. 4.090 4.000 Set at 6499 Perf. Hydraulic Jet Cut 6342' To ____

Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 6320 Perf. Open ended To ____

Gas Pay: From 6320 To 6353 L 6320 xG 0.70(est.) -GL 4424 Bar.Press. 12

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

Date of Completion: March 3, 1960 Packer None Reservoir Temp. 140° F

OBSERVED DATA

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

No.	Flow Data: ~~(Prover)~~ (Line) Size	Flow Data: (Choke) ~~(Orifice)~~ 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	SI 47 days					1965		1965		
1.	2"	3/4	97		60 (est)	192	60 (est)	421	60 (est)	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.	12.365		109	1.000	.9258	1.014	1265
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 ____ $(1-e^{-s})$ ____ P_c 1977 P_c^2 3,908,529

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.						187,489	3,721,040		
2.									
3.									
4.									
5.									

Absolute Potential: 1312 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

Well produced 7 barrels distillate during 3-hour test.

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.