

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Jalnet Formation Yates County Lea
Initial X Annual _____ Special _____ Date of Test 9-15/9-22-61
Company Pan American Petroleum Corporation Lease Farnsworth B Well No. 3
Unit K Sec. 7 Twp. 26 Rge. 37 Purchaser El Paso Natural Gas Company
Casing 4-1/2" Wt. 11.6 I.D. _____ Set at 2878 Perf. 2826 To 2848
Tubing 2" Wt. 4.7 I.D. _____ Set at 2832 Perf. Open End To _____
Gas Pay: From 2826 To 2848 L 2832 xG .668 -GL .892 Bar. Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Date of Completion: 2-15-61 Packer _____ Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

Type Taps 7C

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.	4	1.750	32	3.045	60	517		No Valve		72
2.	4	1.750	32	3.272	60	482		No Valve		24
3.	4	1.750	32	5.716	60	415		No Valve		24
4.	4	1.750	34	6.219	60	358		No Valve		24
5.						341		No Valve		24

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.	19.27	14.25	45.2	1.0000	.9477		248.2
2.	19.27	18.05	45.2	1.0000	.9477		339.6
3.	19.27	27.10	45.2	1.0000	.9477		494.9
4.	19.27	30.12	47.2	1.0000	.9477		590.0
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 4.00 cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c 9.936 (1-e^{-S}) 0.122

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 5302 P_c 281.1

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-S})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w P _c
1.	501.2	251.2	2.58	6.64	.81	252.0	29.1	502.0	946.1
2.	428.2	183.3	3.87	10.69	1.30	184.6	94.5	4129.7	810.0
3.	371.2	137.8	4.92	24.21	2.95	140.7	140.4	375.1	707.5
4.	354.2	125.4	5.66	29.81	3.64	129.0	152.1	357.2	677.5
5.									

Absolute Potential: 1.030 MCFPD; n 1.0000COMPANY Pan American Petroleum CorporationADDRESS Box 68, Hobbs, New MexicoAGENT and TITLE J. W. Meek, Area EngineerWITNESSED Bobby DeasCOMPANY El Paso Natural Gas Company

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 .