

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Formation Seven Rivers - Queen County Lea
Initial Annual X Special Date of Test 6-26-56
Company Amerada Petroleum Corporation Lease Lambert Well No. 1
Unit B Sec. 6 Twp. 20-S Rge. 37-E Purchaser Permian Basin Pipe Line Company
Casing 6-5/8" Wt. 20.0# I.D. 6.049" Set at 3800' Perf. 3080' To 3350'
Tubing 2-3/8" Wt. 4.7# I.D. 1.995" Set at 3367' Perf. 3364' To 3367'
Gas Pay: From 2585' To 3350' L 3364 xG 0.670 -GL 2254 Bar.Press. 13.2
Producing Thru: Casing Tubing X Type Well Single
Date of Completion: 4-6-53 Packer 3021' Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. 92°F

OBSERVED DATA

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

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"	2.25"	452.0	10.0	67	982.0				72 S.I.
2.	4"	2.25"	456.9	17.4	65	864.0				24-1/4
3.	4"	2.25"	462.1	24.3	65	795.6				23-3/4
4.	4"	2.25"	457.3	29.0	66	716.0				24
5.						654.5				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.	40.53	4652.00	465.2	0.9933	0.9463	1.054	2738
2.	40.53	8179.74	470.1	0.9952	0.9463	1.055	3641
3.	40.53	11549.79	475.3	0.9952	0.9463	1.055	4348
4.	40.53	13644.50	470.5	0.9943	0.9463	1.055	4699
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.
Gravity of Liquid Hydrocarbons 9.936 deg.
F_c 9.936 (1-e^{-s}) 0.144

Specific Gravity Separator Gas 0.67
Specific Gravity Flowing Fluid -
P_c 995.2 P_c 990.423

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.	677.2	769,440	27.2	107	107	769,507	220,916	877.21	88.14
2.	666.8	694,157	36.16	188	188	654,345	336,078	806.91	88.28
3.	729.2	531,733	43.0	266	266	531,999	458,424	729.38	73.29
4.	667.7	445,823	46.69	314	314	446,137	544,286	667.93	67.11
5.									

Absolute Potential: 6,419 MCFPD; n 0.52COMPANY Amerada Petroleum CorporationADDRESS Drawer D - Monument, New MexicoAGENT and TITLE W. G. Abbott

WITNESSED

COMPANY Permian Basin Pipe Line Company

REMARKS

ELVIS A. UTZ
GAS ENGINEER

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 .