

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Langlie-Mattin Formation Queen County Lea
Initial _____ Annual _____ Special X Date of Test 6-3/6-7-57
Company Amerada Petroleum Corp. Lease Winberly Well No. 1
Unit A Sec. 26 Twp. 25 Rge. 37 Purchaser El Paso Natural Gas Co.
Casing 5 1/2" Wt. _____ I.D. _____ Set at 2935' Perf. _____ To _____
Tubing 2" Wt. _____ I.D. _____ Set at 3219' Perf. _____ To _____
Gas Pay: From 2950 To 3230 L _____ xG 0.670 -GL _____ Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Date of Completion: 4-16-45 Packer _____ Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

GWT

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

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						688		688		72
1.	4	1.000	649	9.61	72	649		649		24
2.	4	1.000	637	21.16	74	639		639		24
3.	4	1.000	625	31.36	74	628		628		24
4.	4	1.000	580	34.64	74	585		585		24
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	6.135	99.76		0.9887	0.9463	1.067	488
2.	6.135	117.28		0.9868	0.9463	1.067	717
3.	6.135	141.43		0.9868	0.9463	1.067	865
4.	6.135	224.04		0.9868	0.9463	1.064	1363
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 701.2 P_c 491.7

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.	662.2	438.5				438.5	53.2		
2.	652.2	425.4				425.4	66.3		
3.	641.2	411.1				411.1	80.6		
4.	598.2	357.8				357.8	133.9		
5.									

Absolute Potential: 4,400 MCFPD; n 0.916COMPANY Amerada Petroleum CorporationADDRESS Drawer "D" - Monument, New MexicoAGENT and TITLE O.C. McBryde, Jr. - District Engineer

WITNESSED

COMPANY

REMARKS

K. H. A. J. L. 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} = Supercompressibility 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 .