

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Langlie Mattix Formation 7 Rivers, Cocon County Lee

Initial X Annual _____ Special _____ Date of Test 4-9-63

Company Amerada Petroleum Corporation Lease Ida Wimberley Well No. 15

Unit X Sec. 24 Twp. 25 Rge. 37 Purchaser None

Casing 2-7/8" Wt. 6.5# I.D. 2.441" Set at 3496' Perf. 2946' To 3177'

Tubing _____ Wt. _____ I.D. _____ Set at _____ Perf. _____ To _____

Gas Pay: From 2946' To 3177' L 2946' xG 0.65 -GL 1915 Bar.Press. 13.2

Producing Thru: Casing X Tubing _____ Type Well G.O. Dual

Date of Completion: 3-31-63 Packer None Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) [REDACTED] 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						362				72
1.	2	.250	46		63	337				3
2.	2	.750	42		68	333				3
3.	2	.875	39		65	312				3
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wP_f}}$	Pressure psia	Flow Temp. Factor Ft	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	5.5233		59.2	.9922	.9608		312.7
2.	12.2023		55.2	.9924	"		642.2
3.	15.7816		52.2	.9922	.9608		837.6
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl. Specific Gravity Separator Gas 0.65

Gravity of Liquid Hydrocarbons Dry deg. Specific Gravity Flowing Fluid Dry

P_c 5.866 (1-e^{-S}) .123 P_c 375.2 P_c² 140.8

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.	370.2	137.0	1.836	3.364	0.314	137.4	3.4	370.7	98.8
2.	342.2	117.2	3.707	14.150	1.743	122.9	17.9	350.5	91.4
3.	323.2	105.8	4.913	24.138	2.929	108.8	32.0	329.2	87.9
4.									
5.									

Absolute Potential: 1990 MCFPD; n 0.499

COMPANY Amerada Petroleum Corporation

ADDRESS Box 706, Mules, New Mexico

AGENT and TITLE J. Whitting, Gas Engr., El Paso Natural Gas Co.

WITNESSED _____

COMPANY _____

REMARKS

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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 .