

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Formation Seven Rivers - Queen County 10:100

Initial _____ Annual _____ Special _____ Date of Test 6-13-56

Company Amerada Petroleum Corporation Lease State "O" Well No. 1

Unit B Sec. 30 Twp. 19 Rge. 37 Purchaser Permian Basin Pipe Line Co.

Casing 6-5/8" Wt. 20.0# I.D. 6.049" Set at 3863' Perf. 3260-3412 To 3380-3560

Tubing 3-1/2" Wt. 9.3# I.D. 2.992" Set at 3969 Perf. 3920' To 3923'

Gas Pay: From 3260' To 3560' L 3260' xG 0.672 -GL 2190.7 Bar.Press. 13.2

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

Date of Completion: 11-8-53 Packer _____ Single-Br. lenhead-G. G. or G.O. Dual
Reservoir Temp. 91°

OBSERVED DATA

Tested Through (Prover) (Orifice) (Meter)Type Taps Pipe

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.	
1.	4"	2.250"	448.0	5.0	82			1020.1		72-1/4
2.	4"	2.250"	453.1	10.3	71			935.0		24-1/4
3.	4"	2.250"	454.3	18.9	71			832.3		24
4.	4"	2.250"	464.0	30.8	74			753.7		23-3/4
5.								645.8		23-3/4

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	48.02	461.2	0.9795	0.9449	1.035	1864.4
2.	40.53	69.97	466.3	0.9896	0.9449	1.038	2752.6
3.	40.53	93.99	467.5	0.9896	0.9449	1.038	3697.5
4.	40.53	121.23	477.2	0.9868	0.9449	1.039	4760.1
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.

Gravity of Liquid Hydrocarbons _____ deg.

F_c 1.291 (1-e^{-s}) 0.140

Specific Gravity Separator Gas .655

Specific Gravity Flowing Fluid _____

P_c 1033.3 P_c² 1067.7

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.	948.2	899.1	2.41	5.81	0.8	949.0	118.7	974.2	94.28
2.	865.5	749.1	3.55	12.60	1.8	867.3	200.4	931.3	90.13
3.	766.9	588.1	4.77	22.75	3.2	770.1	297.6	877.6	84.93
4.	659.0	434.3	6.13	37.82	5.3	664.3	403.4	815.1	78.88
5.									

Absolute Potential: 9800 MCFPD; n 0.7510COMPANY Amerada Petroleum CorporationADDRESS Drawer D - Monument, New MexicoAGENT and TITLE W. G. Abbott - District Engineer

WITNESSED _____

COMPANY Permian Basin Pipe Line

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} = 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 .