

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WEIAMS 9:56

Revised 12-1-55

Pool Eumont Formation Queen County Lea
Initial _____ Annual X Special _____ Date of Test 7-10-56
Company Amerada Pet. Corp. Lease State P^{NA} Well No. 1
Unit J Sec. 18 Twp. 22S Rge. 37E Purchaser Permian Basin Pipe Line
Casing 5-1/2" Wt. 14.0# I.D. 5.012 Set at 3640' Perf. 3426' To 3490'
Tubing 3-1/2" Wt. 9.3# I.D. 2.922 Set at 3673' Perf. - To -
Gas Pay: From 3426' To 3490' L 3426' xG .705 -GL 24.15 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well G.O. Dual
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 4-14-60 Packer 3539' Reservoir Temp. 80°F

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Orifice) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								603.5		69-1/2
1.	2"	5/16"	551.5		73			551.5		3
2.	2"	3/8"	523.4		73			523.4		3
3.	2"	7/16"	489.1		74			489.1		3
4.	2"	1/2"	447.1		73			447.1		3
5.	4"	1-1/4"	464.8	27.7	72			541.5		20-1/2

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.	2.1577		564.7	0.9877	0.9225	1.066	1183
2.	3.0691		536.6	0.9872	0.9225	1.062	1594
3.	4.3997		502.3	0.9868	0.9225	1.057	2126
4.	5.5233		460.3	0.9877	0.9225	1.053	2439
5.	10.24	115.1		0.9887	0.9225	1.055	1134

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 3.641 (1-e^{-s}) 0.153

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 616.7 P_c 380.3

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.	564.7	318.9	4.307	18.55	2.84	321.7	58.6	567.2	.919
2.	536.6	287.9	5.804	33.69	5.15	293.1	87.2	541.4	.878
3.	502.3	252.3	7.741	59.92	9.17	261.5	118.8	511.4	.829
4.	460.3	211.9	8.880	78.85	12.06	224.0	156.3	473.3	.767
5.	554.7	307.7	4.129	17.05	2.61	310.3	70.0	557.0	.903

Absolute Potential: 4950 MCFPD; n .7727COMPANY Amerada Petroleum CorporationADDRESS Drawer D - Monument, New MexicoAGENT and TITLE W.G. Abbott - Dist. EngineerWITNESSED H.E. BarrettCOMPANY Permian Basin P.L. Co.

REMARKS

Tested with 2" critical flow prover on three-hour rates.
Long flow taken into pipe line.

H.E. Barrett
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 .