NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS 1956 NOV 11 AM 10:01

Revised 12-1-55

Pool Eumont Formation Seven Rivers-Queen County Lea

Initial ____ Annual X Special ____ Date of Test 8-24-56

Company Amerada Pet. Corp. Lease State "U" Gas Unit Well No. 1

Unit E Sec. 32 Twp. 19S Rge. 37E Purchaser Permian Basin P.L. Co.

Casing 6-5/8" Wt. 20.0# I.D. 6.049" Set at 3780' Perf. 3322' To 3553'

Tubing 2-7/8" Wt. 6.5# I.D. 2.441" Set at 3897' Perf. 3894' To 3897'

Gas Pay: From 3322' To 3559' L 3322' xG 0.670 -GL 2226 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: 1-26-55 Packer 3704' Reservoir Temp. 80°

OBSERVED DATA

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

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) (Orifice) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI								944.4		72-1/2 hrs.
1.	4"	1-1/2"	453.4	11.0	74			787.5		24
2.	4"	1-1/2"	449.5	15.5	71			726.3		23-3/4
3.	4"	1-1/2"	448.2	27.0	66			679.7		23-3/4
4.	4"	1-1/2"	449.5	41.0	69			610.5		24-1/4
5.										

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.	15.26	71.64		0.9868	0.9463	1.042	1064
2.	15.26	84.69		0.9896	0.9463	1.041	1260
3.	15.26	111.60		0.9943	0.9463	1.043	1671
4.	15.26	137.70		0.9915	0.9463	1.043	2056
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl.

Gravity of Liquid Hydrocarbons ____ deg.

F_c 1.041 $(1-e^{-s})$ 0.142

Specific Gravity Separator Gas ____

Specific Gravity Flowing Fluid ____

P_c 957.6 P_c^2 917.0

CO_2 2.35% N_2 1.56%

No.	P_w / P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	800.7	641.1	1.108	1.228	0.174	641.3	275.7	800.8	.84
2.	739.4	546.7	1.312	1.721	0.244	546.9	370.1	739.5	.77
3.	692.9	480.1	1.740	3.028	0.430	480.5	436.5	693.2	.72
4.	623.7	389.0	2.140	4.580	0.650	389.7	527.3	624.3	.65
5.									

Absolute Potential: 3500 MCFPD; n 1

COMPANY Amerada Pet. Corp.

ADDRESS Drawer D - Monument, New Mexico

AGENT and TITLE W.G. Abbott - Dist. Engineer W.G. Abbott

WITNESSED R.L. West

COMPANY Permian Basin P.L. Co.

REMARKS

Retest

INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those for 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.