

NEW MEXICO OIL CONSERVATION COMMISSION
HOBBS OFFICE OCC

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS
1957 FEB 14 AM 9:57

Pool Jalmat Formation Yates County Lea
Initial _____ Annual _____ Special X Date of Test 11-19 to 11-23-56
Company Samedan Oil Corporation Lease Hughes "B" Well No. 1-G
Unit C Sec. 19 Twp. 23S Rge. 37E Purchaser EPNG
Casing 5 1/2 Wt. 15.5 I.D. 4.950 Set at 2755 Perf. _____ To _____
Tubing 2 Wt. 4.6 I.D. 1.995 Set at 3335 Perf. _____ To _____
Gas Pay: From 2755 To 3350 L 3335 xG .650 -GL 2167 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 7-25-48 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through (~~Booster~~) (~~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						912				72
1.	4	1.500	822	21.16	73	825				24
2.	4	1.500	826	18.49	87	828				24
3.	4	1.500	781	34.81	84	786				24
4.	4	1.500	700	68.89	77	712				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.	13.99	132.92		.9877	.9608	1.086	1.917
2.	13.99	124.55		.9750	.9608	1.077	1.757
3.	13.99	166.25		.9777	.9608	1.072	2.342
4.	13.99	221.63		.9840	.9608	1.070	3.136
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 9.936 (1-e^{-s}) .139
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 925.2 P_c² 856.0

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.	838.2	702.6	19.04	362.5	50.39	753.0	103.0		.9813
2.	841.2	707.6	17.46	304.9	42.38	750.0	106.0		.9097
3.	799.2	638.7	23.27	541.5	75.27	714.0	142.0		.8563
4.	725.2	525.9	31.16	970.9	134.96	660.9	195.1		.7675
5.									

Absolute Potential: 12,600 MCFPD; n .9435

COMPANY Samedan Oil Corporation
ADDRESS Box 2137, Hobbs, New Mexico
AGENT and TITLE R. E. Layhe, District Engineer
WITNESSED Mr. Littlefield
COMPANY EPNG

REMARKS

EL PASO
OIL FIELD
388 24

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.

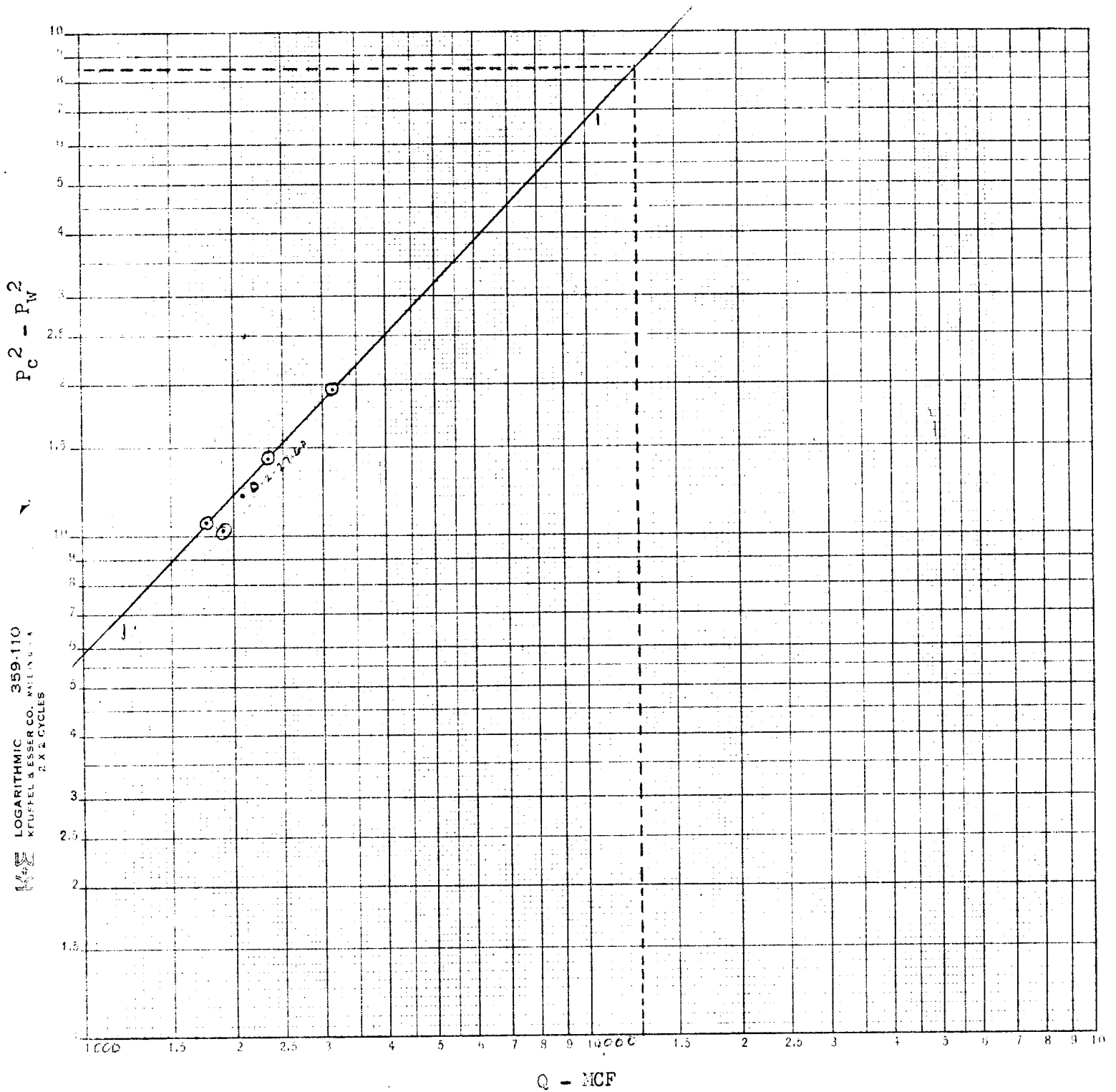
The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

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 .

Samedan Oil Corporation
 Hughes "B" No. 1-G
 Section 19-23S-37E
 Lea County, New Mexico
 November 23, 1956



$$Q_2 = 10.660 = 4.025 \times 306$$

$$Q_1 = 1200 = \frac{3.079 \times 181}{946 \times 125}$$