NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

1957 FEB 11 AM 9:48

Form C-12

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Tubbs Formation Tubbs County Lea

Initial X Annual Special Date of Test 12-13-56

Company Sinclair Oil & Gas Company Lease J.E. Corbe "A" Well No. 1

Unit M Sec. 26 Twp. 21S Rge. 37E Purchaser None

Casing 5½ Wt. 17# I.D. 4.892 Set at 6554 Perf. 6066 To 6191

Tubing 2" EUE Wt. 4.7 I.D. 1.995 Set at 6514 Perf. 6480 To 6540

Gas Pay: From 6066 To 6191 L 6060 xG .719 -GL 4357 Bar.Press. 13.2

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

Date of Completion: 12-1-56 Packer 6400 Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. 120

OBSERVED DATA

Tested Through (Prover) (~~Choke~~) (~~Meter~~)

Type Taps 2" F.F.

No.	Flow Data (Prover) (~~Choke~~) Size	(Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI										
1.	2"	3/16	624		30			1493	60	72
2.		1/4	654		16			1792	60	3
3.		5/16	700		23			1693	60	3
4.		7/16	720		23			1599	60	3
5.		1/2	730		42			1115	60	3
								741	60	20

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.	.7851		637.2	1.0302	.9427	1.092	430
2.	1.4030		667.2	1.0452	.9427	1.112	1025
3.	2.1577		713.2	1.0276	.9427	1.114	1476
4.	4.3997		733.2	1.0276	.9427	1.116	3037
5.	5.5253		755.2	1.0176	.9427	1.100	3789

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 59,569 cf/bbl.

Gravity of Liquid Hydrocarbons 65 deg.

F_c 1.812 $(1-e^{-s})$ .259

Specific Gravity Separator Gas .677

Specific Gravity Flowing Fluid .719

P_c 1906.2 P_c^2 3633.6

No.	P_w Pt (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2$ $(1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	1805.2	3259	.779	.922	.239	3259.2	374.4	1805.2	94.7
2.	1706.2	2911	1.857	3.448	.893	2911.8	721.8	1706.2	89.5
3.	1612.2	2599	3.037	9.223	2.389	2101.4	1032.2	1612.6	84.6
4.	1128.2	1273	6.192	38.341	9.930	1282.9	2350.7	1132.4	59.4
5.	754.2	569	7.772	60.404	15.645	584.6	3048.8	764.7	40.1

Absolute Potential: 5,112 MCFPD; n 1.000

COMPANY Sinclair Oil & Gas Company

ADDRESS 520 North Broadway, Hobbs, New Mexico

AGENT and TITLE R. L. Hamrick - Gas Analyst

WITNESSED

COMPANY

REMARKS

Orig. & 2cc:OCC

cc:PCR,WJR,CCS,PTD,EPH,PBPL, File(3)

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.

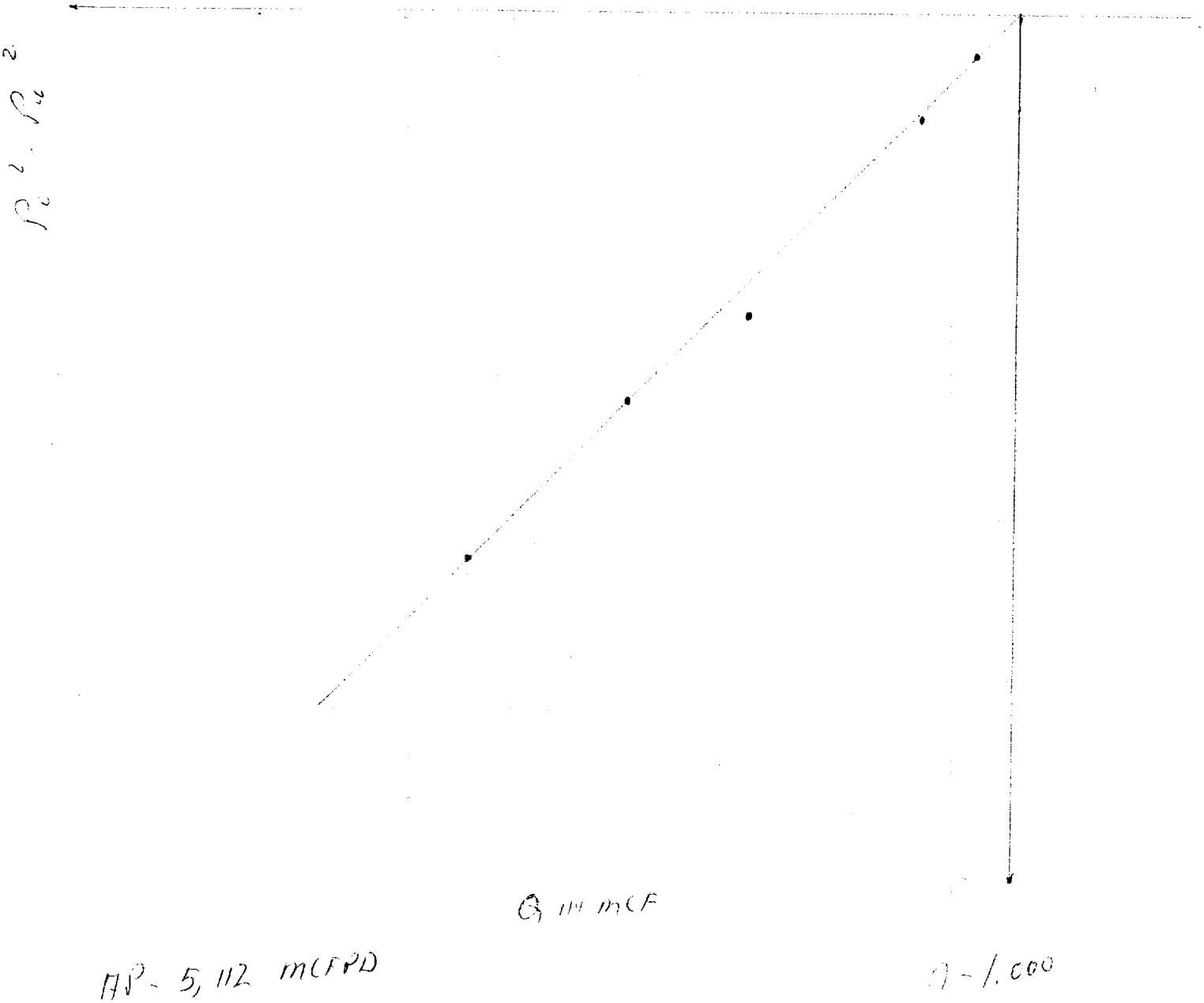
F_g = Gravity correction factor.

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.


$P_c^2 - P_w^2$
Q in mcf
AOF - 5,112 mcfpd
n - 1.000