

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Tabbs Formation Tabbs County Lea
Initial X Annual _____ Special _____ Date of Test 12-31-56
Company Sinclair Oil & Gas Company Lease Roy Barton Well No. 1
Unit 0 Sec. 23 Twp. 21S Rge. 37E Purchaser Hemp
Casing 5 1/2 Wt. 17 I.D. 4.892 Set at 7782 Perf. 6130 To 6300
Tubing 2" Wt. 4.7 I.D. 1.995 Set at 7710 Perf. Packer To _____
Gas Pay: From 6130 To 6300 L 6130 xG .732 -GL 4487 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well G. O. Dual
Date of Completion: 12-27-56 Packer 6880 Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. 124

OBSERVED DATA

Tested Through (Prover) 100000 100000 Type Taps 2" GPP

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								1995	60	72
1.	2	1/8	774		22			1893	60	3
2.	2	3/16	780		26			1752	60	3
3.	2	1/4	783		35			1653	60	3
4.	2	5/16	779		37			1451	60	3
5.	2	3/8	760		37			1183	60	24

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.	.3418		787.2	1.0387	.9359	1.132	296
2.	.7851		793.2	1.0344	.9359	1.134	683
3.	1.4030		796.2	1.0249	.9359	1.121	1201
4.	2.1577		792.2	1.0229	.9359	1.115	1826
5.	3.0691		773.2	1.0229	.9359	1.115	2533

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 50.333 cf/bbl.
Gravity of Liquid Hydrocarbons 76 deg.
F_c 1.812 (1-e^{-s}) .266

Specific Gravity Separator Gas .686
Specific Gravity Flowing Fluid .6819
P_c 2008.1 P_c² 4032.9

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.	1906.2	3634	.537	.288	.076	3634.0	398.9	1906.2	.95
2.	1765.2	3116	1.838	1.533	.408	3116.4	916.5	1765.2	.88
3.	1666.2	2776	2.176	4.735	1.259	2777.3	1255.6	1666.3	.83
4.	1466.2	2144	3.309	10.949	2.912	2146.9	1886.0	1465.2	.73
5.	1196.2	1431	4.590	21.068	5.604	1436.6	2596.3	1198.6	.60

Absolute Potential: 3916 MCFPD; n .99COMPANY Sinclair Oil & Gas CompanyADDRESS Hebbs, New MexicoAGENT and TITLE R. L. Harned Gas Analyst

WITNESSED

COMPANY

REMARKS

UTZ
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.

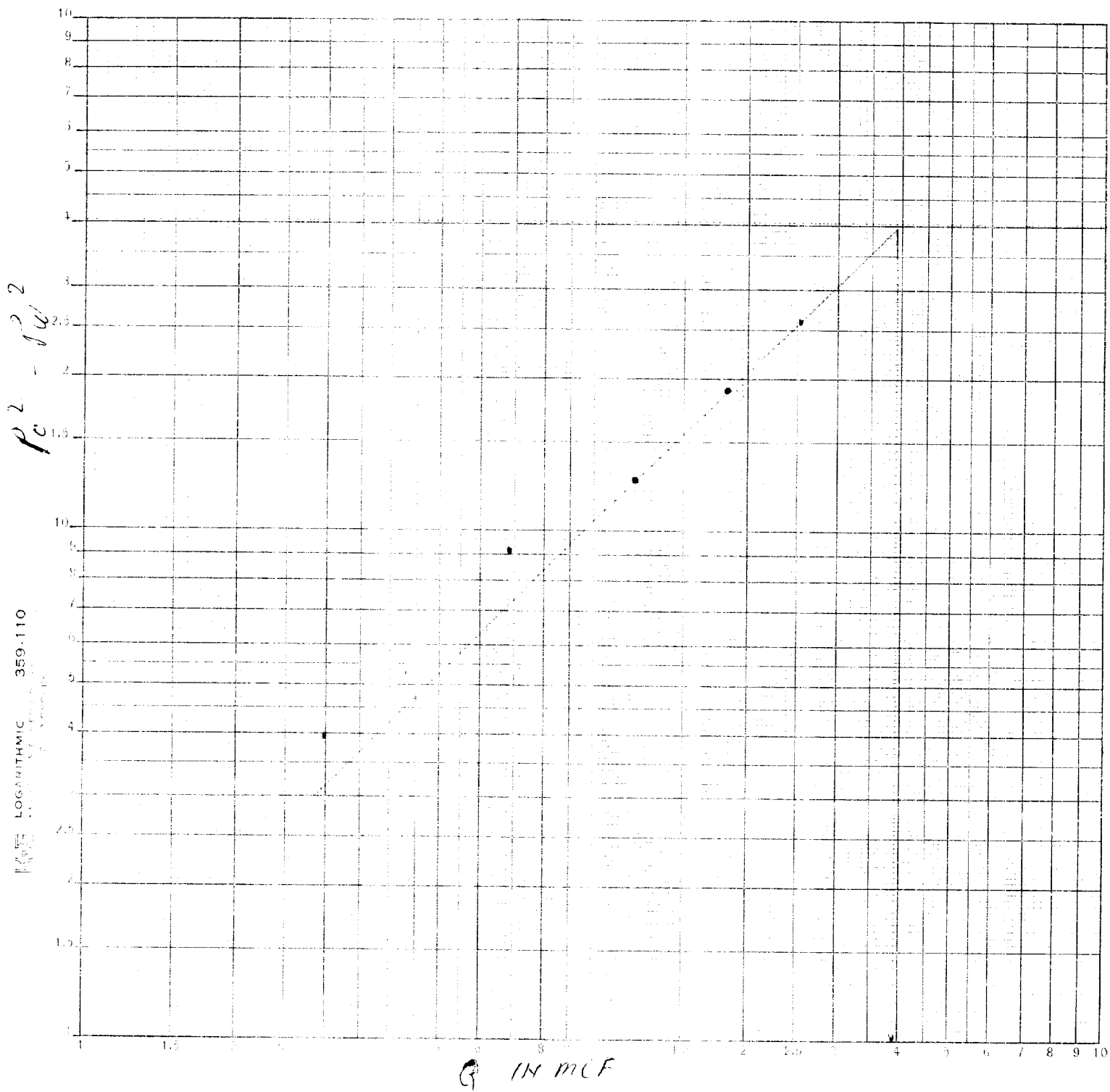
F_g = Gravity correction factor.

F_t = Flowing temperature correction factor.

F_{pv} = 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 .



17-. 99
 ABSOLUTE POTENTIAL- 3, 916 MCFPD