NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool **Blinebry** Formation **Blinebry** County **Lea**

Initial **X** Annual ____ Special ____ Date of Test **8-15-60**

Company **SINCLAIR OIL & GAS COMPANY** Lease **R. L. BRUNSON** Well No. **7**

Unit **O** Sec. **4** Twp. **22 S** Rge. **37 E** Purchaser **None**

Casing **5 1/2"** Wt. **17** I.D. **4.892** Set at **6555'** Perf. **5573** (5522) To **5587** (5556)

Tubing **2"** Wt. **4.7** I.D. **1.995** Set at **6410** Perf. ____ To ____

Gas Pay: From **5522** To **5587** L **5522** xG **.690** -GL **3810** 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: **8-8-60** Packer **6410** Reservoir Temp. **94**

OBSERVED DATA

Tested Through ~~(Prover)~~ ~~(Choke)~~ (Meter) Type Taps **Flange**

No.	Flow Data ~~(Prover)~~ (Line) Size	~~(Choke)~~ (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								1545	80	72
1.	4"	1.685	360	1	78			1382	80	4
2.	"	"	402	2	78			1231	78	4
3.	"	"	556	2	76			1042	72	4
4.	"	"	713	2	69			892	71	4
5.	"	"	713	2.5	72			737	74	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.	16.51	19.319	373.2	.9831	.9325	1.039	304
2.	"	28.816	415.2	.9831	"	1.045	456
3.	"	33.740	569.2	.9850	"	1.060	542
4.	"	38.110	726.2	.9715	"	1.087	632
5.	"	42.608	726.2	.9807	"	1.085	704

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ---- cf/bbl. Specific Gravity Separator Gas **.690**

Gravity of Liquid Hydrocarbons ---- deg. Specific Gravity Flowing Fluid ----

F_c **1.812** $(1-e^{-s})$ **.231** P_c **1558.2** P_c^2 **2428**

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.	1395.2	1946.4	.551	.304	.070	1946.7	481.3	1395.2	89.5
2.	1244.2	1548.0	.826	.682	.158	1548.2	879.8	1244.3	79.5
3.	1055.2	1113.4	.982	.964	.223	1113.7	1314.3	1055.3	67.7
4.	905.2	819.4	1.136	1.290	.298	819.7	1608.3	905.4	58.1
5.	750.2	563.2	1.276	1.628	.376	563.2	1864.8	750.5	48.2

Absolute Potential: **853** MCFPD; n **.726**

COMPANY **SINCLAIR OIL & GAS COMPANY**

ADDRESS **Gas & Gas Products Dept. Box 1470 Midland, Texas**

AGENT and TITLE John M. Lucas **Gas Analyst - Box 724 - Sweetwater, Texas**

WITNESSED ____

COMPANY ____

REMARKS

Well made no fluid during test.

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.

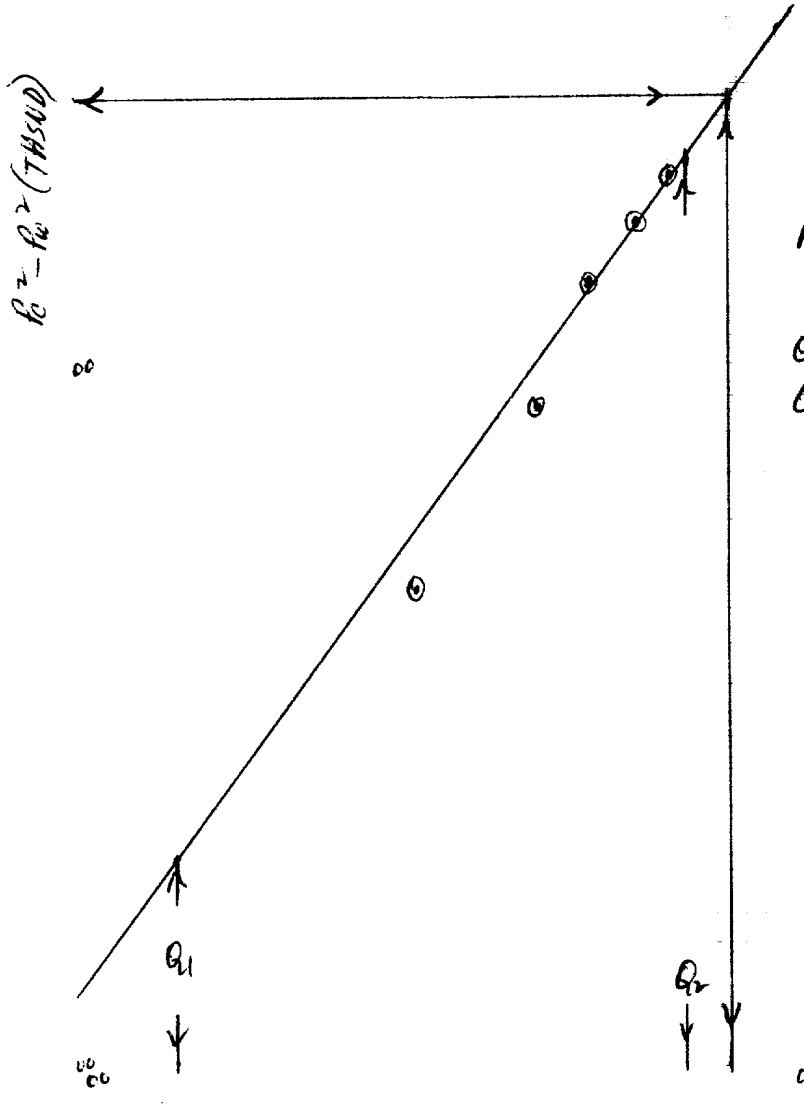
F_t = Flowing temperature correction factor.

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.

Producer	SINCLAIR OIL & GAS Co
Lease	R. L. Brunson
Well No.	7
Location	Unit O - 4 - 22S - 37E
County	Lea
Date	8-15-60



A.P. = 853

Q_2 = 740 = 2.8692317

Q_1 = 139 = 2.1430148

.7262169

Q - MCFD - 15.025 psia