HOBBS OFFICE OCC   HOBBS OFFICE OCC Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS   Revised 12-1-55

JUN 17 AM 10 20 1955 MAY 8 AM 10 49

Pool **Jalmat**   Formation **Yates**   County **Lea**

Initial_____ Annual_____ Special **X**   Date of Test **12-2/12-6 1957**

Company **Sinclair O & G Co.**   Lease **Crosby B**   Well No. **1**

Unit **N** Sec. **28** Twp. **25** Rge. **37** Purchaser **El Paso Nat. Gas Co.**

Casing **7** Wt. **24** I.D._____ Set at **3150** Perf._____ To_____

Tubing **2½** Wt. **6.5** I.D. **2.441** Set at **2578** Perf._____ To_____

Gas Pay: From **2530** To **2550** L **2578** xG **.660** -GL **1701** Bar.Press. **13.2**

Producing Thru: Casing_____ Tubing **X** Type Well **Single**

Date of Completion: **7-42** Packer_____ Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. **?**

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	Temp. °F.	Casing Data Press. psig	Temp. °F.	Duration of Flow Hr.
SI						**335**				**72**
1.	**4"**	**1.000**	**110**	**5.29**	**46**	**111**				**24**
2.										
3.										
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.	**6.135**	**25.51**		**1.0037**	**.9535**	**1.013**	**154**
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio_____ cf/bbl.
Gravity of Liquid Hydrocarbons_____ deg.
F_c **5.866** (1-e^{-s}) **0.111**

Specific Gravity Separator Gas_____
Specific Gravity Flowing Fluid_____
P_c **348.2** P_c^2 **121.2**

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	$\frac{P_w}{P_c}$
1.	**124.2**	**15.4**	**0.903**	**0.815**	**0.090**	**15.5**	**105.7**	**124.5**	**.358**
2.									
3.									
4.									
5.									

Absolute Potential: **174**   MCFPD; n **0.771**
COMPANY **Sinclair O & G Co.**
ADDRESS **Box 1470 Midland, Texas**
AGENT and TITLE *Ray Ford Gas Analyst*
WITNESSED_____
COMPANY_____

REMARKS

Unable to secure 4 point test on this well. Average Jalmat slope of 0.771 was drawn through one point.

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.

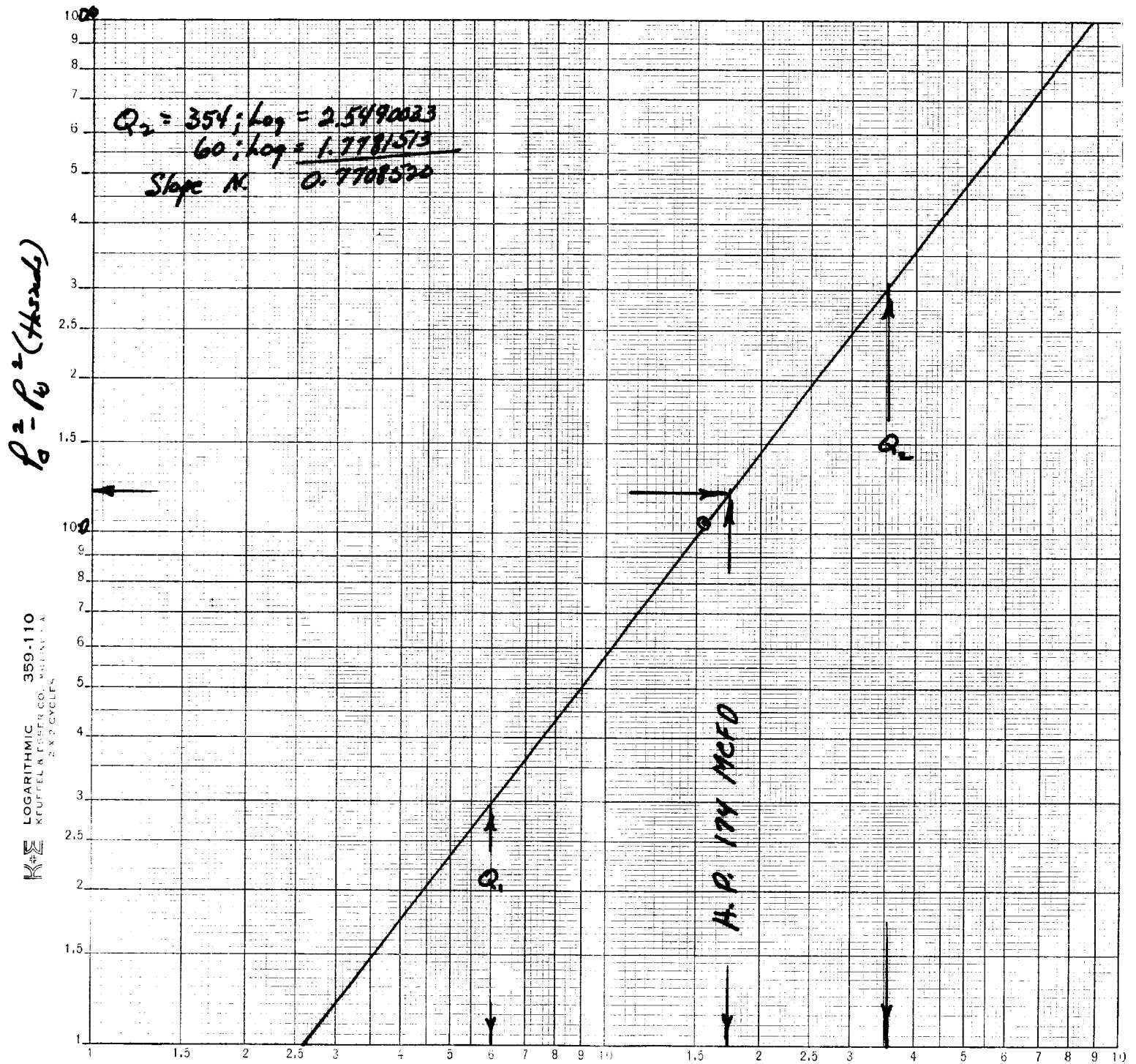F_g = Gravity correction factor.

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.

Sinclair O & G Co
Crosby B #1
N-78-25-37, Lea Co N. Mex
12-6-57
AP = 174 MCFD

$Q_2 = 354$; Log = 2.5490033
60; Log = 1.7781513
Slope N   0.7708520

$P_0^2 - P_w^2 (Absol.)$

LOGARITHMIC   359-110
KEUFFEL & ESSER CO. MADE IN U.S.A.
2 X 2 CYCLES

Q_1

H. P. 174 MCFD

Q_2

Q = MCFD - 15.025 PSIA @ 60°