



WIRELINE SERVICES
GEARHART-OWEN

CEMENT BOND WITH NUCLEAR LOG

FILING NO.

COMPANY **KOCH EXPLORATION**

WELL **HORSESHOE CANYON UNIT #5**

FIELD **SHIRE GULCH**

COUNTY **MESA** STATE **COLORADO**

LOCATION:

2300 FSL & 1000 FEL

OTHER SERVICES:

SEC. **34** TWP. **9S** RGE. **97W**

PERMANENT DATUM: **G.L.**, ELEV. **5663**
LOG MEASURED FROM **K.B.** **10** FT. ABOVE PERM. DATUM
DRILLING MEASURED FROM **K.B.**

ELEV.: K.B. **5673**
D.F.
G.L. **5663**

Date	2-24-80		Type Fluid in Hole		Water	
Run No.	One		Dens.	Visc.		
Depth—Driller	3286		Max. Rec. Temp.			
Depth—Logger	3216		Est. Cement Top			
Btm. Log Interval	3210		Equip.	Location	6033	29-078
Top Log Interval	2500		Recorded By		Huskey	
Open Hole Size	7 7/8		Witnessed By		Mr. Muir	
CASING REC.	Size	Wt/Ft	Grade	Type Joint	Top	Bottom
Surface String	8 5/8				Surface	195
Prot. String						
Prod. String	4 1/2				Surface	T.D.
Liner						

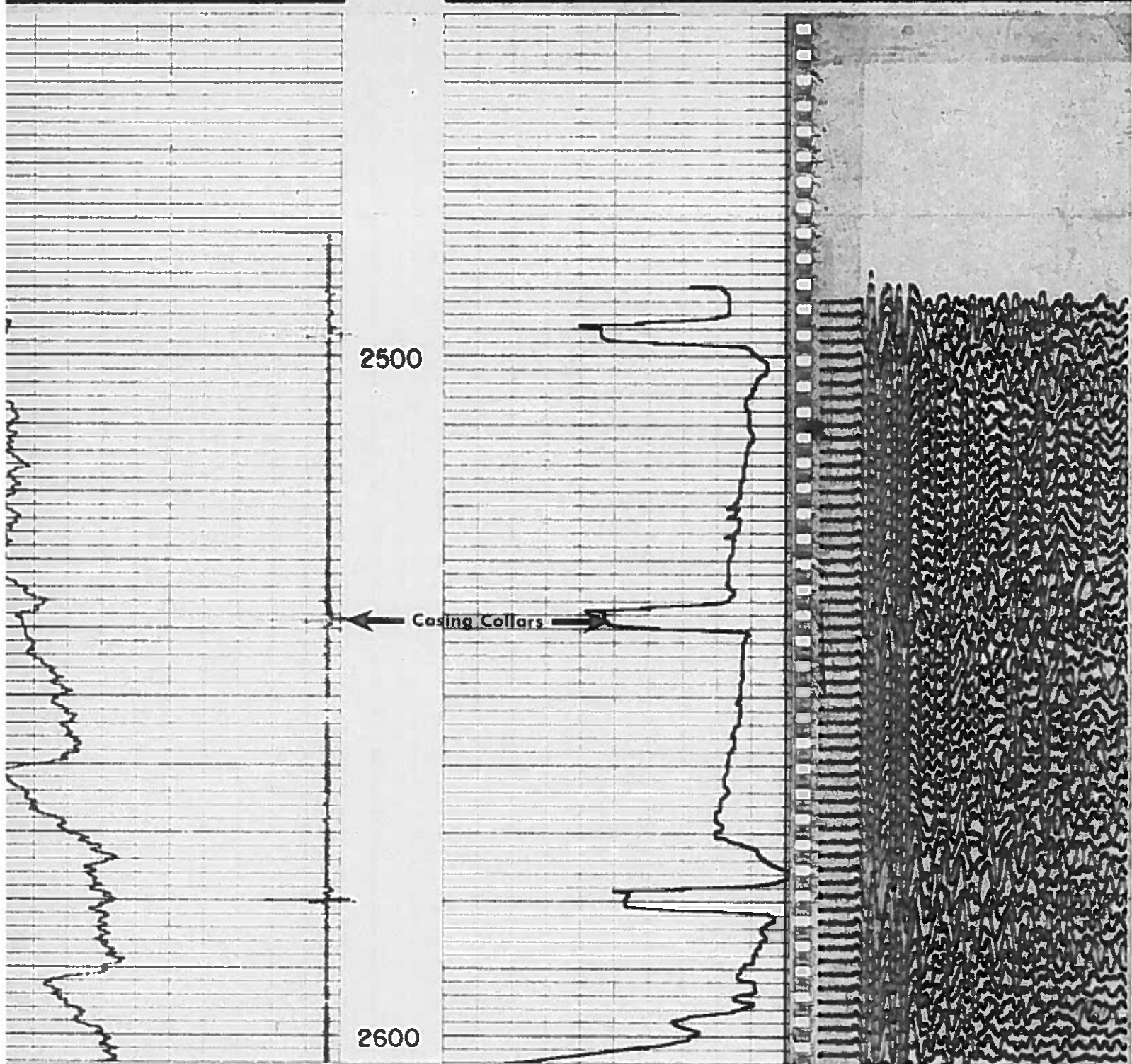
PRIMARY CEMENTING DATA

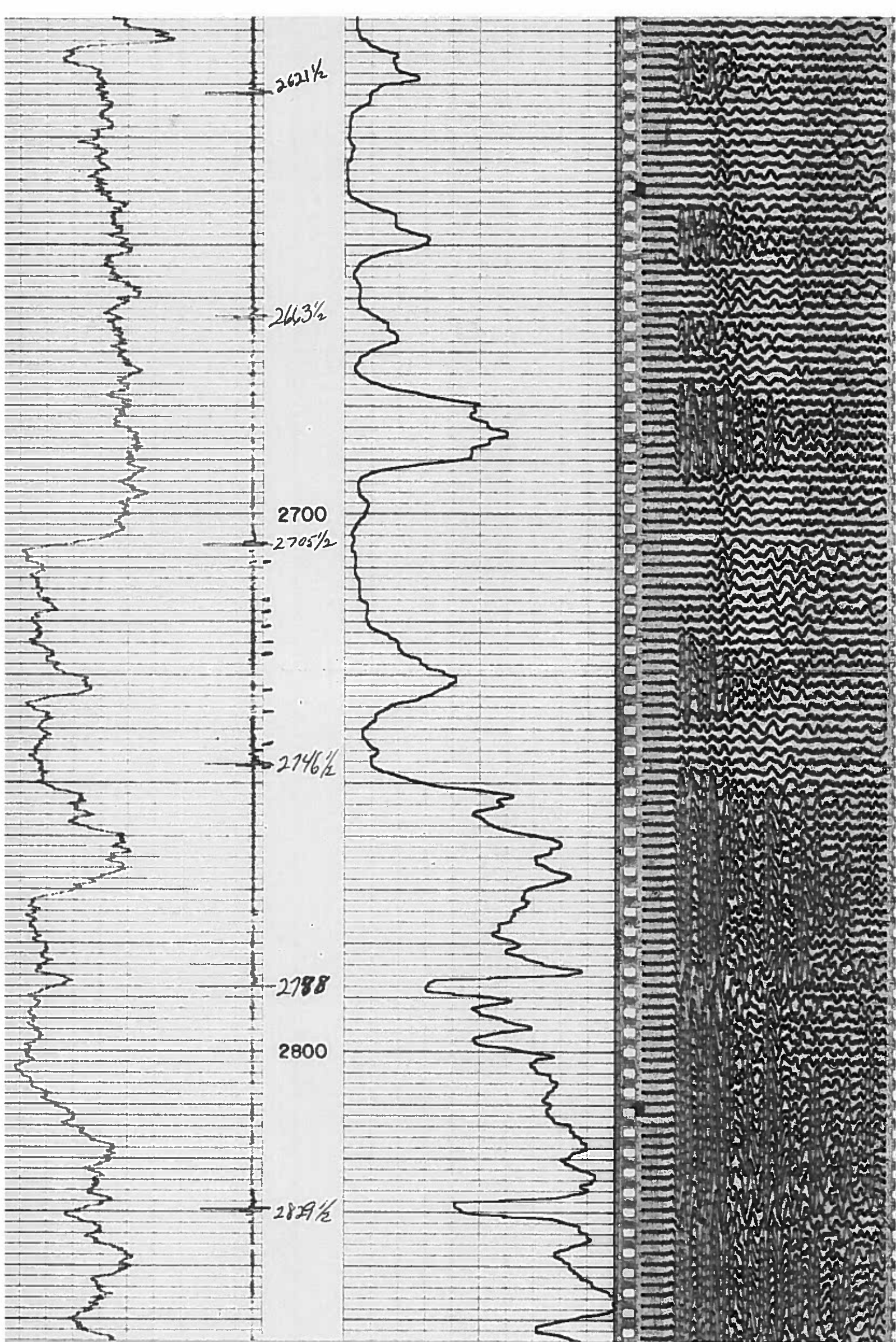
STRING	Surface	Protection	Production	Liner
Vol. of cement				
Type of cement				
Additive				
Additive by %				
Retarder				
Retarder by %				
Wt. of slurry				
Water loss				
Drill. mud type				
Drilling mud wt.				

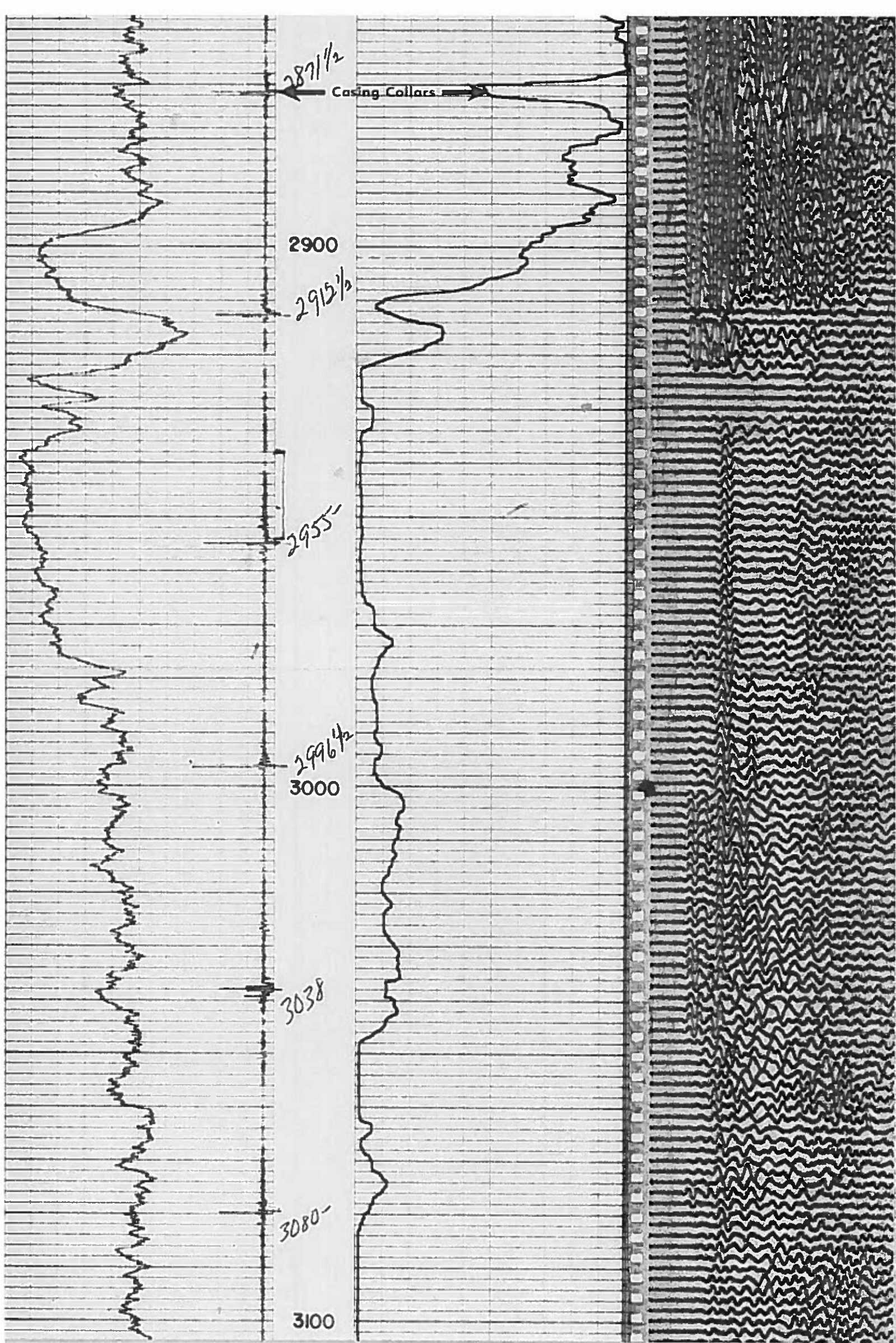
COMPRESSIVE STRENGTH (p.s.i.)										Curing Temp.)	
Time Elapsed		Surface		Protective		Production		Liner			
24 hrs.			°F		°F		°F		°F		
48 hrs.			°F		°F		°F		°F		
72 hrs.			°F		°F		°F		°F		

PRIMARY CEMENTING PROCEDURE				Bond Equipment Data	
	Hour — date	Hours from start of operation	Run No.	Type standoff	Rubber
Started pumping cement				Logging speed	30 ft./hr
Plug on bottom				Sig. Sen.	70
Release pressure				Out. Sen.	210
Start Cement Bond Log				T-R Spacing	3 ft.
Stop Cement Bond Log				Tool Type	Comb.
Cementing fluid _____ Volume _____ bbls.		Pipe reciprocated during Pumping: Yes _____ No _____			
Turns: Full _____ Partial _____ None _____		Pipe reciprocated after plug down: Yes _____ min., No _____			

Collar Log	Depths	AMPLITUDE CURVE				
		BONDING INCREASES				
		0	MILLIVOLTS	50	0	
					MICRO SECONDS	1000
		SINGLE RECEIVER TRAVEL TIME				
		MICRO SECONDS / FT.				







3126 1/2

3162

3200

Gamma Ray Zero

Div. Left of This Line

100% Bonding

AMPLITUDE

Zero % Bonding

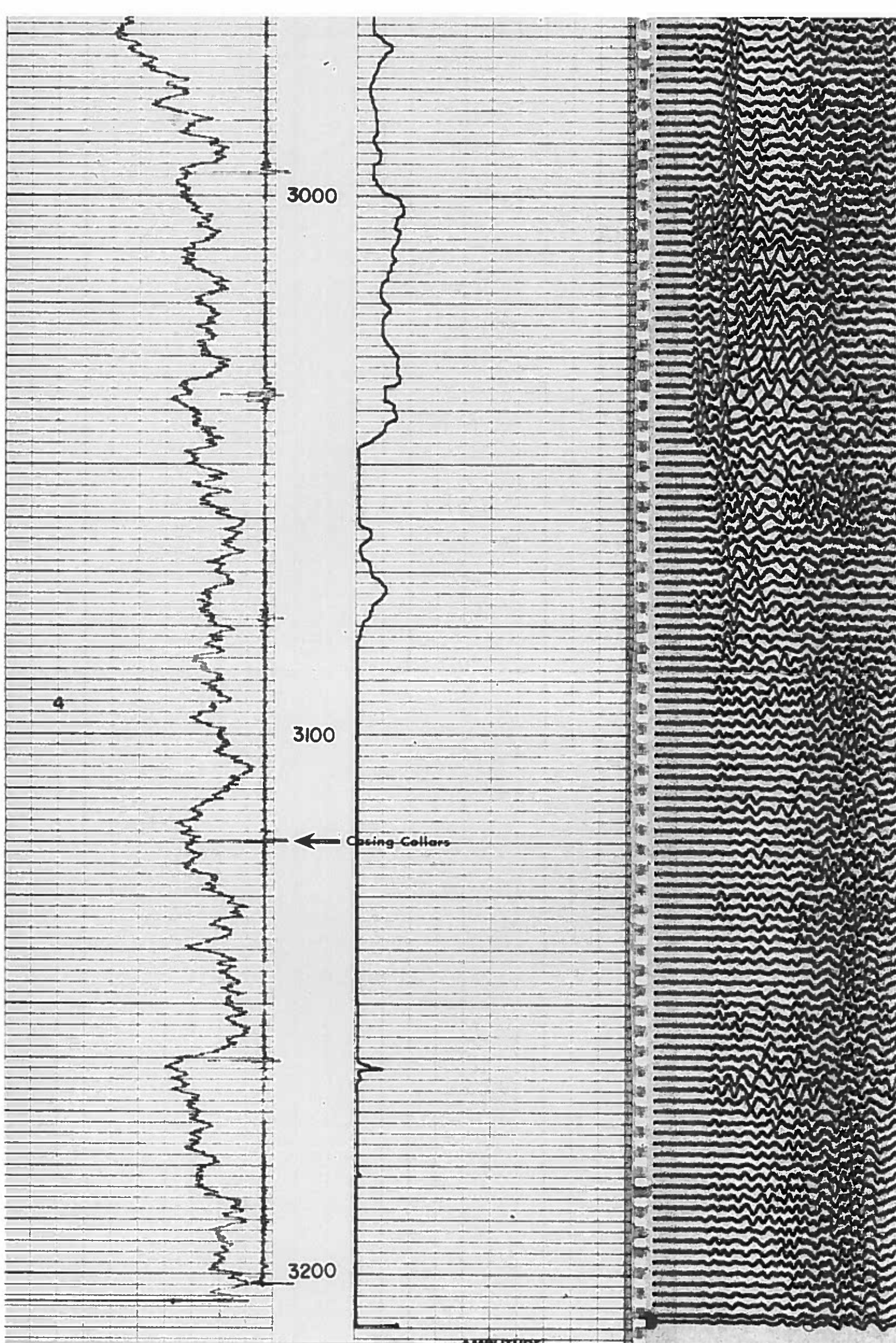
P.D. 3210

T.D. 3216

SIGNATURE CURVE

REPEAT SECTION

2900



CALIBRATION

PEN SPACING CHECK

GAMMA RAY

COLLAR LOG

AMPLITUDE

