



Tucker
ENERGY SERVICES

BOREHOLE VOLUME

CALIPER LOG

Company TOTO ENERGY LLC Well GREENE #24-1 Field CARPENTER County PAWNEE State KANSAS Country USA API No. 15-145-21721		File No : TUL- Company : TOTO ENERGY LLC Well : GREENE #24-1 Field : CARPENTER County : PAWNEE State : KANSAS Country : USA API No : 15-145-21721	
Location : 2290' FSL & 1650' FWL S2 NW NE SW		LSD : Sect : 24 Twp : 23S Rge : 17W	
Permanent Datum:	GL	Elevations:	Services:
Drilling Measured From:	KB	KB 2085.00	CNT
Log Measured From:	KB	DF 2084.00	PIT
Above Permanent Datum:	11.00 Ft	GL 2074.00	MLT
Date	05-31-2013		
Run Number	1		
Depth--Driller	4570.0 Ft		
Depth--Logger	4566.0 Ft		
First Reading	4543.0 Ft		
Last Reading	432.0 Ft		
Casing--Driller	432.0 Ft		
Casing--Logger	432.0 Ft		
Bit Size	7.875 In		
Casing Size	8.625 In		
Hole Fluid Type	WBM		
Density	9.3 LBS/GAL		
Fluid Loss	17.2 CC		
PH/Viscosity	8.5 54.0 SEC		
Sample Source	MEASURED		
RM@Measured Temp.	0.900 @ 75 F		
RMF@Measured Temp	0.770 @ 75 F		
RMG@Measured Temp.	1.040 @ 75 F		
Source RMF/RMC	CALCULATED/CALCULATED		
RM@BHT	0.550 @ 0 F		
Time Circulation Stopped	0 F		
Max Recorded Temp.	TRK 119 TULSA		
Equipment/Base	S. DAVIS		
Recorded By	T. MADDEN		
Witnessed By			

The customer is hereby warned that by providing the log data herein, T. E. S. does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. T. E. S. does not guarantee or warrant either expressly or impliedly, the accuracy of any interpretation of log data, conversion of log data to physical rock parameters or recommendations which may be given by T. E. S. personnel. Any interpretation, conversion or recommendation is not part of the consideration for the agreement between the parties and is not part of any part of the charge by T. E. S. for its services. Any user of the log data is warned that said user is not entitled to rely on interpretations, conversions or recommendations as aforesaid.

Bitsize Intervals		Casing Strings		
Size (In)	Bottom (Ft)	Size (In)	Weight (Lbs)	Bottom (Ft)
7.875	4570.00	8.625	24.00	432.00

Run Number	1	
Date	05-31-2013	
Date/Time On Bottom	05-31-2013 5:30 am	
Depth to Fluid	0.0 Ft	
Salinity	14900.000 PPM	
RMF@BHT	0.470 @ 0 F	
RMC@BHT	0.630 @ 0 F	

Run Number 1

Comments

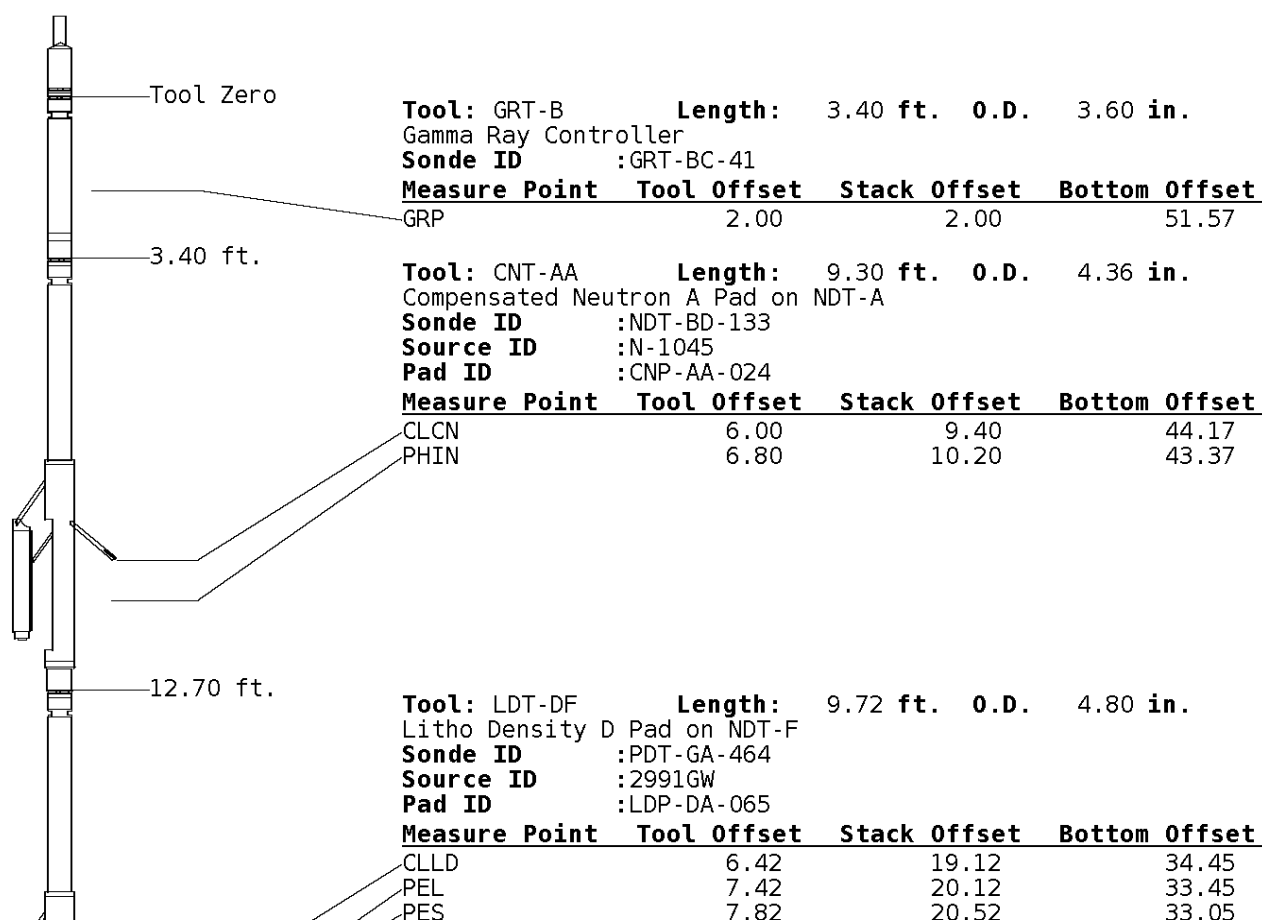
ALL PRESENTATIONS AS PER CUSTOMER REQUEST.
 GRT, CNT, LDT, MLT, AND PIT RUN IN COMBINATION.
 CALIPERS ORIENTED ON X-Y AXIS.
 2.71 G/CC USED TO CALCULATED POROSITY.
 ANNULAR HOLE VOLUME CALCULATED USING 5.50" PRODUCTION CASING.
 PHIN IS CALIPER CORRECTED

GRT: GRP.
 CNT: PHIN, CLCNIN.
 LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN.
 MLT: NOR_RF, INV_RF, MSCLPIN.
 PIT: ILD, ILM, SPU, SFLAEC, CIRD.

OPERATORS:
 J. KLINE
 A. DJAHO

Tool String Schematic

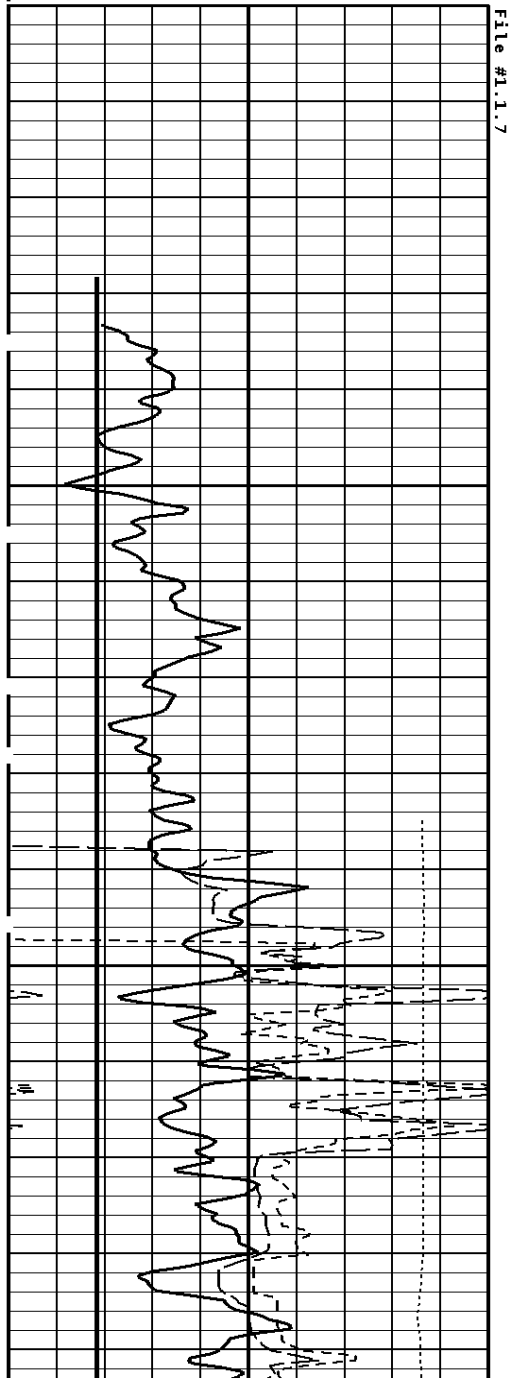
Total Tool Length - 53.57 ft.
Maximum Outside diameter - 6.00 in.
Net Weight in Air - 943.00 lbs.



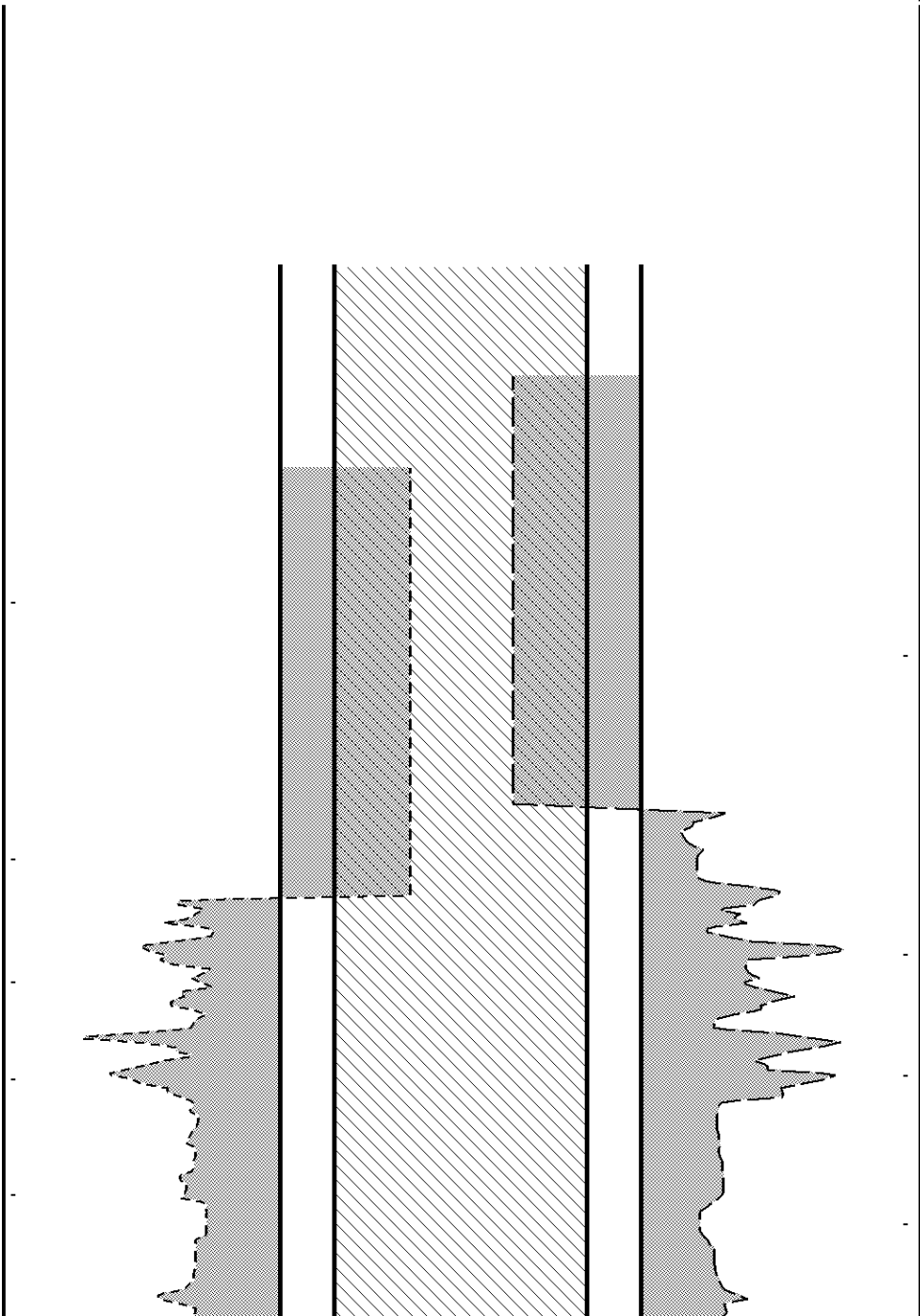
16	26
6	16
X CALIPER INCHES (IN)	
16	26
6	16
TENSION LBS	
10000	0
GAMMA RAY API UNITS	
150	300
0	150

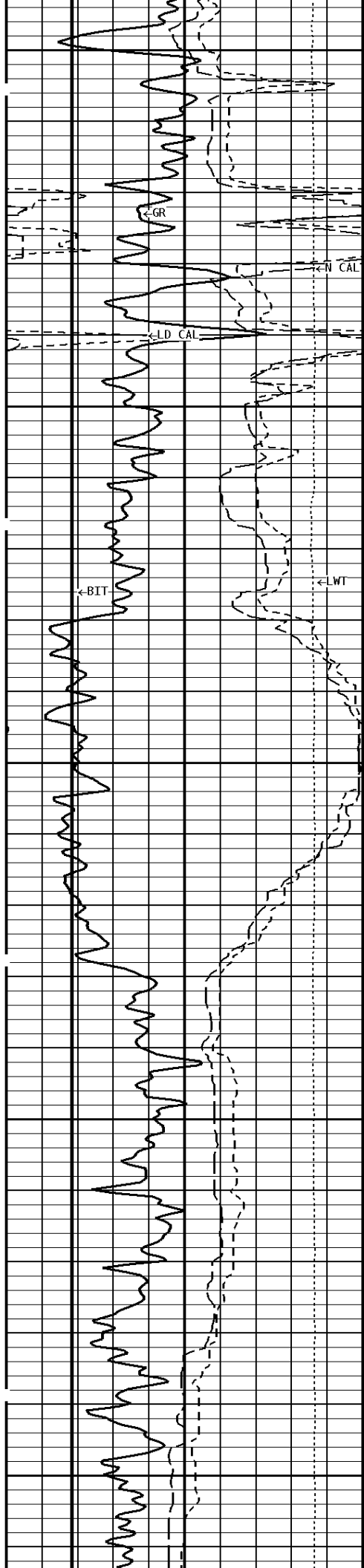
BOREHOLE VOLUME CU.FT	ANNULAR HOLE VOLUME CU.FT.
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1:240 MAIN SECTION



400





500

-2000Cu.ft

-L CAL

-N CAL

1300Cu.ft-

600

-1900Cu.ft

1200Cu.ft-

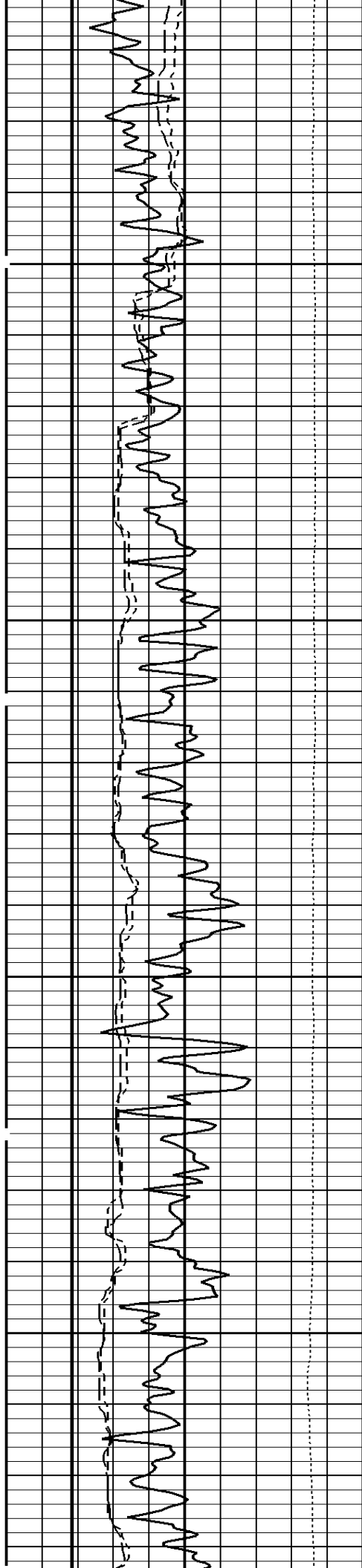
700

←BIT

←CASING

←BIT

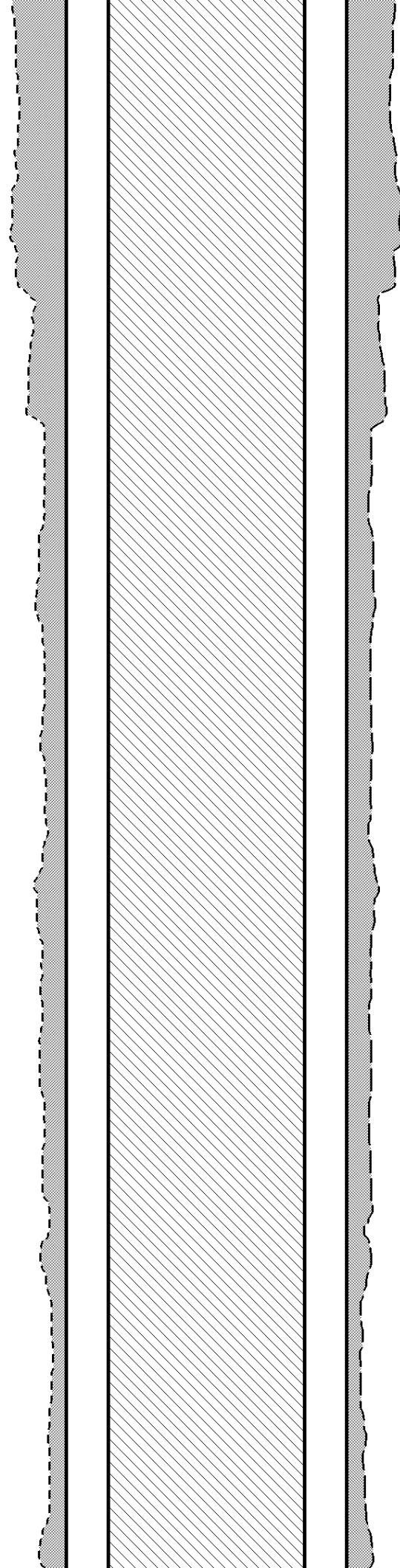
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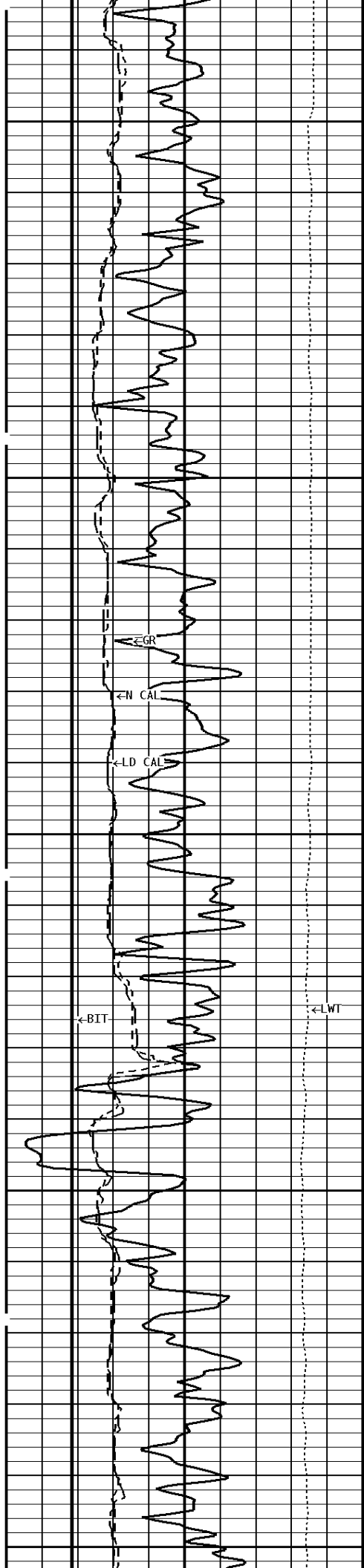


800

900

-1800 Cu. ft



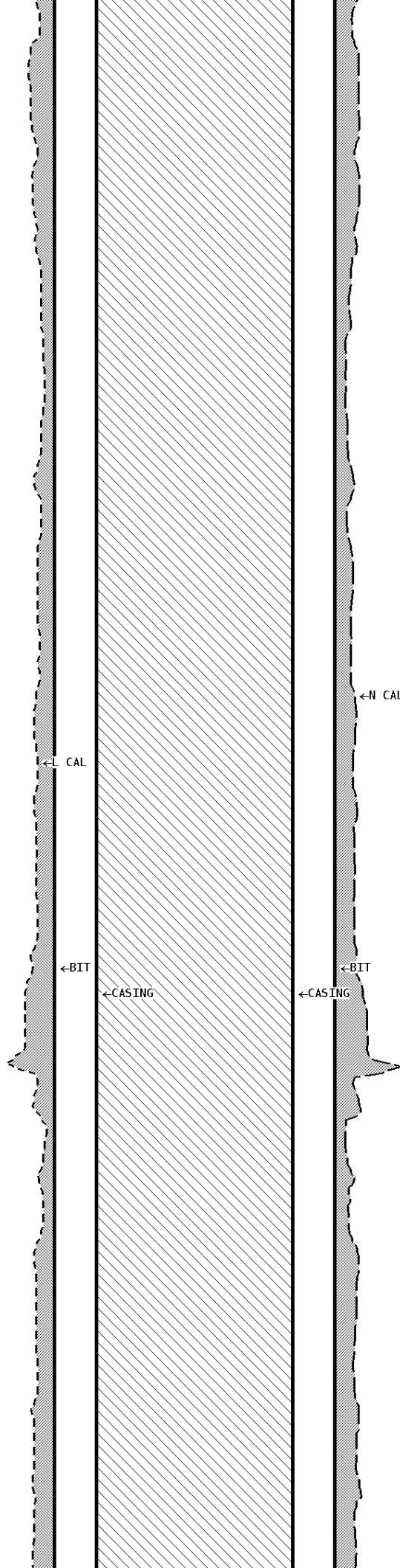


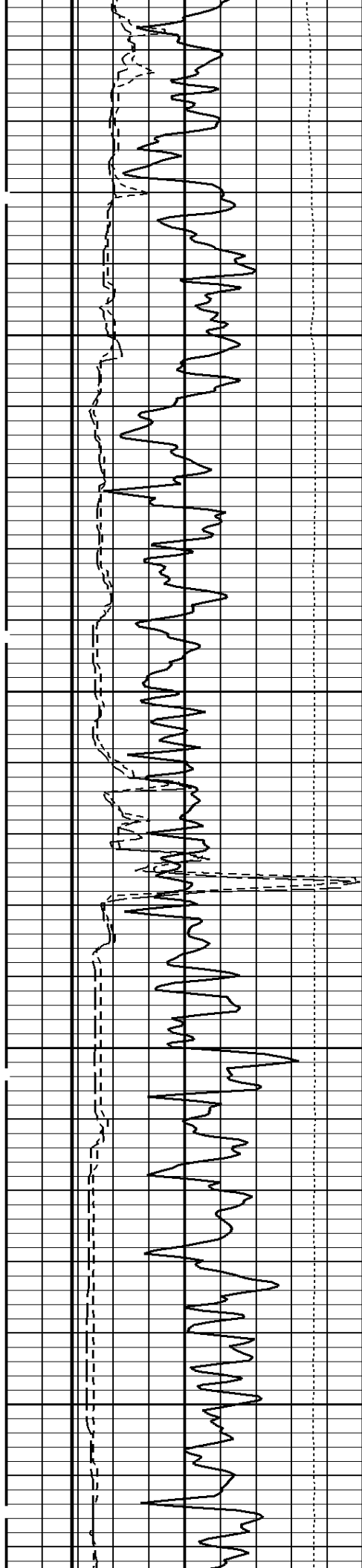
1000

1100

-1700Cu.ft

1100Cu.ft-

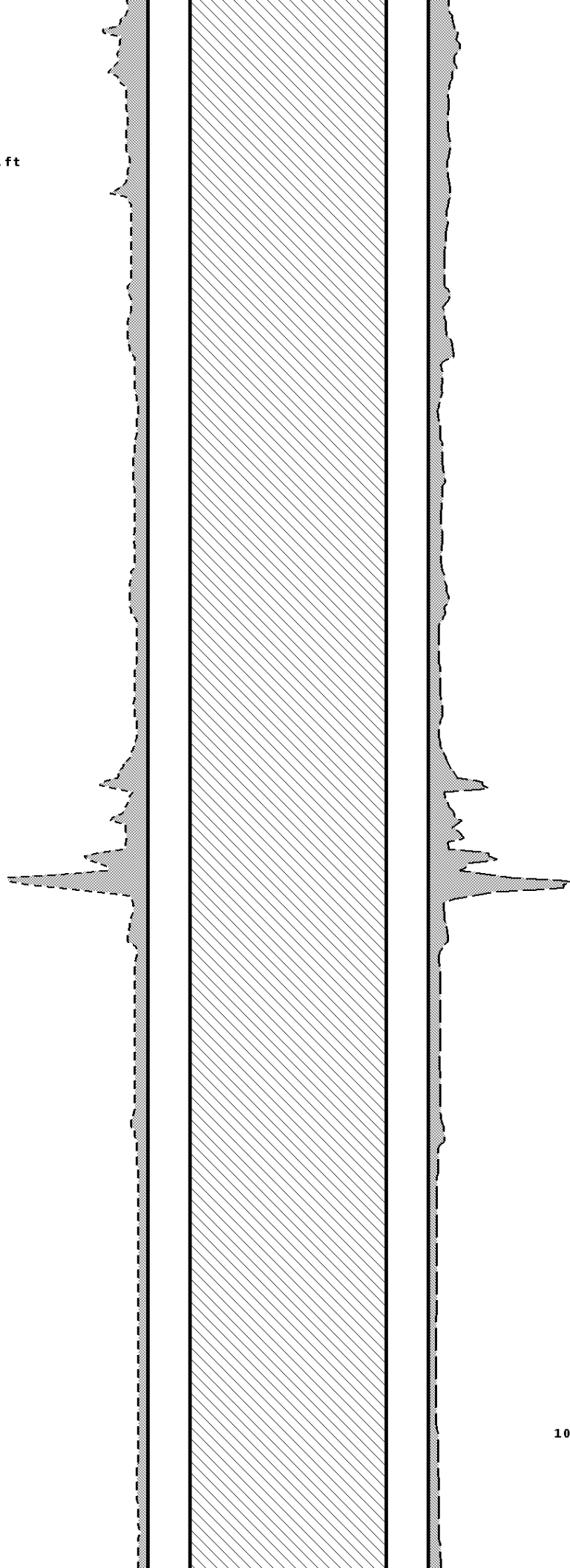




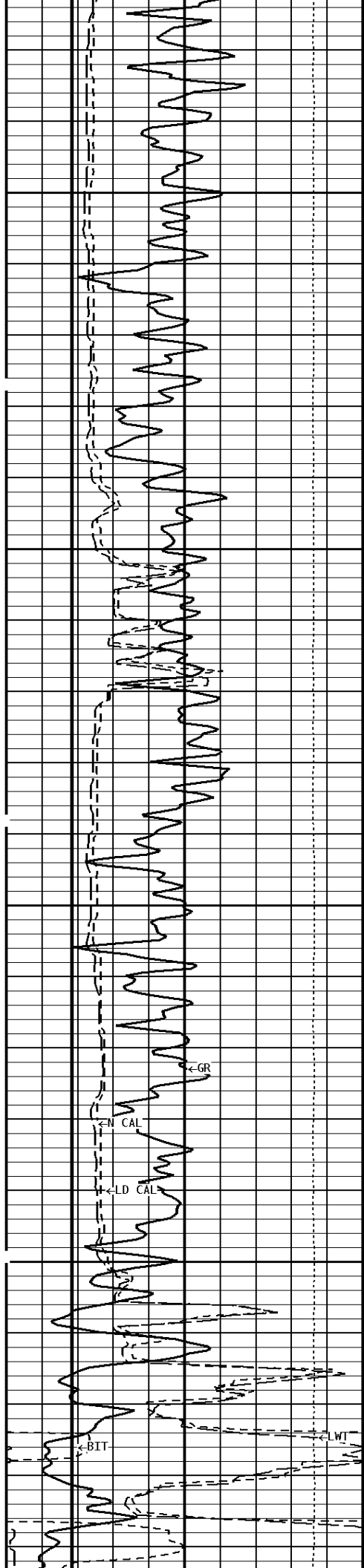
1200

1300

-1600Cu.ft



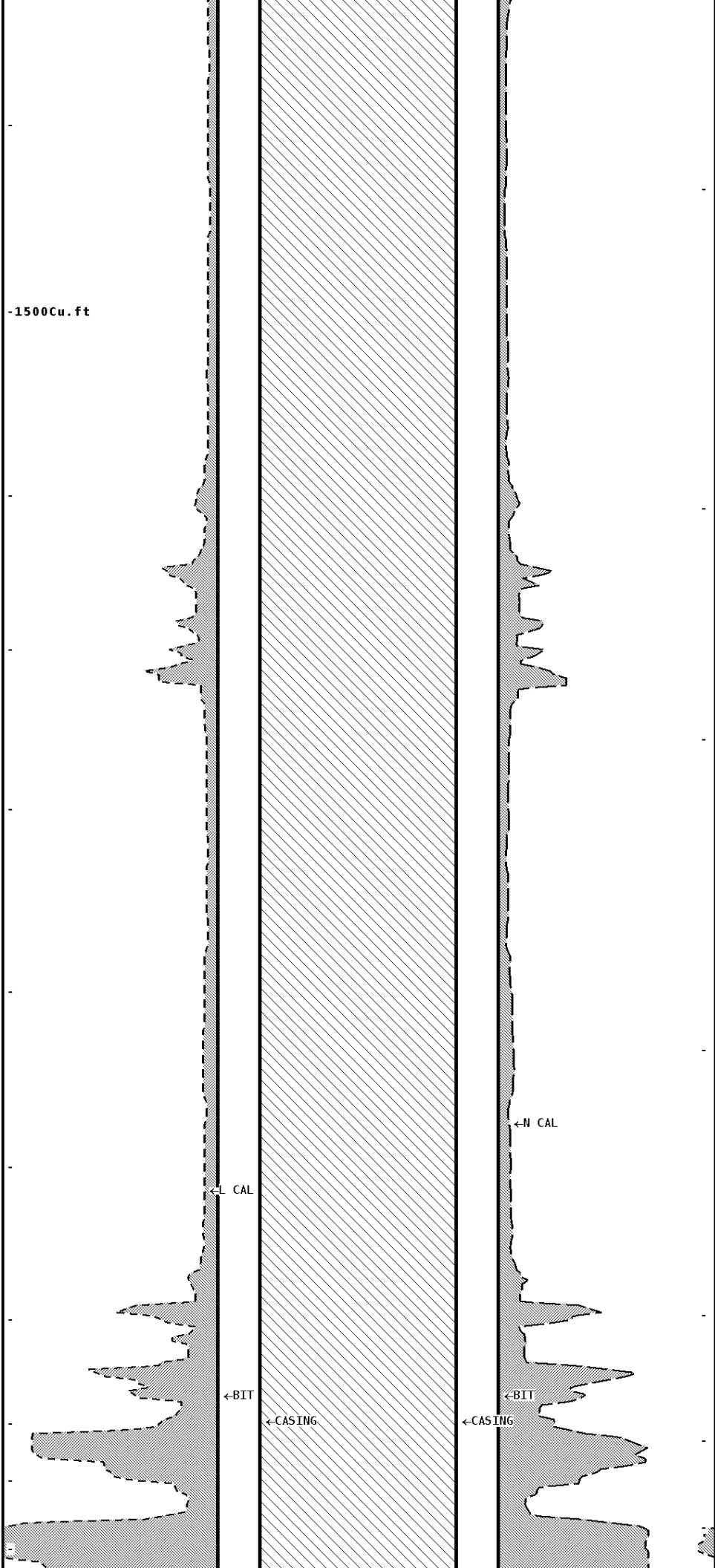
1000Cu.ft-

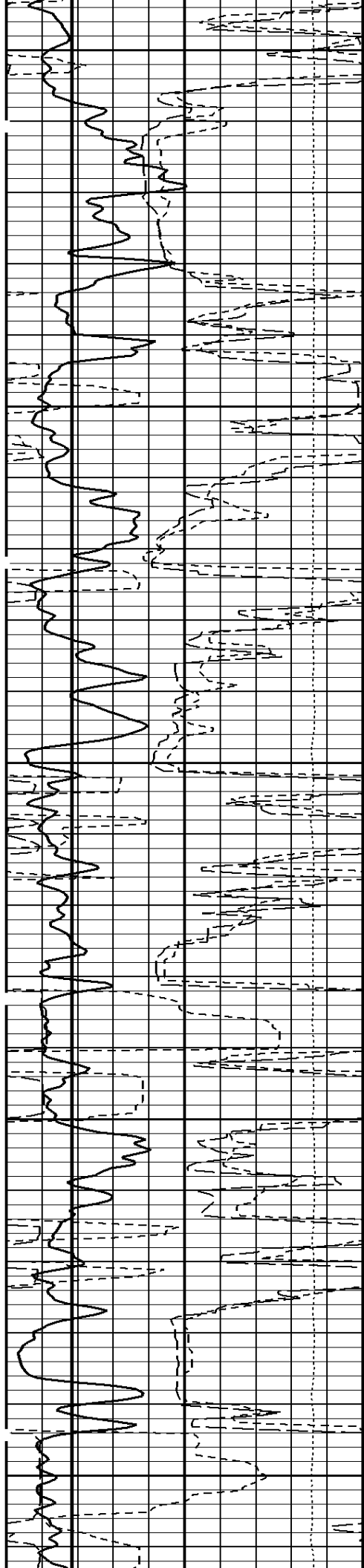


1400

-1500Cu. ft

1500





1600

1700

1800

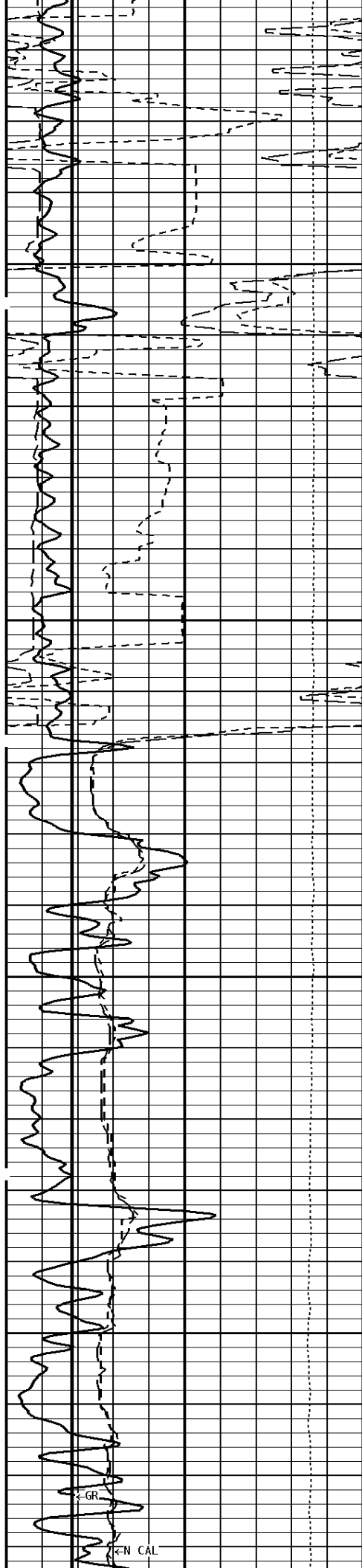
-1400Cu.ft

-1300Cu.ft

-1200Cu.ft

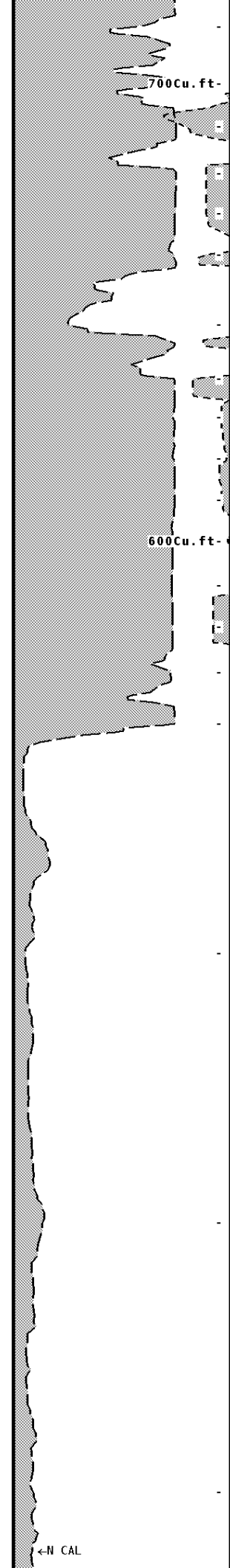
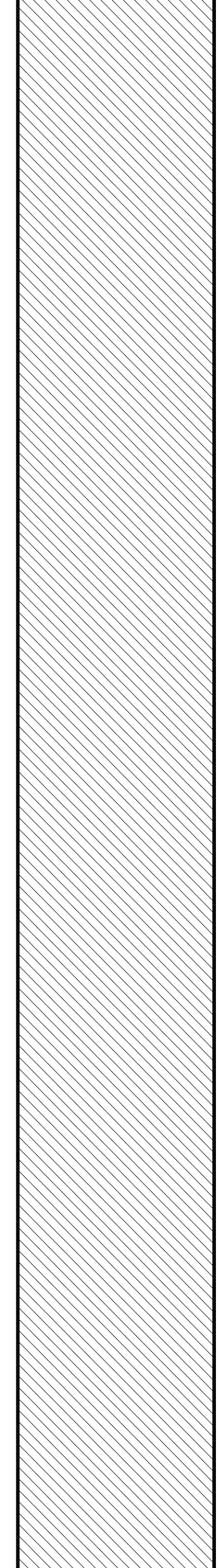
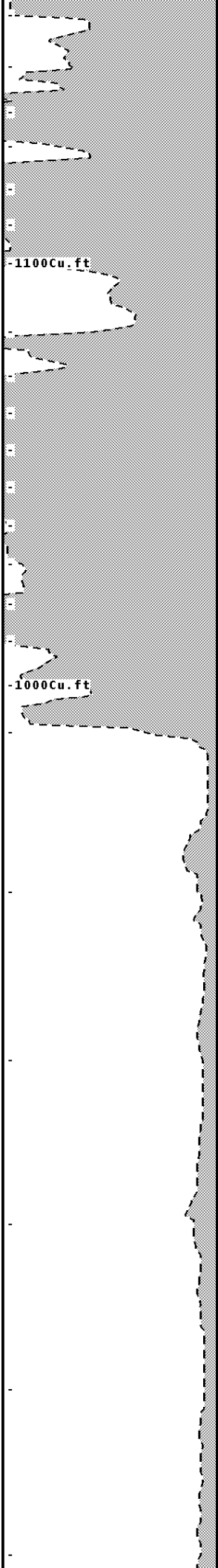
900Cu.ft-

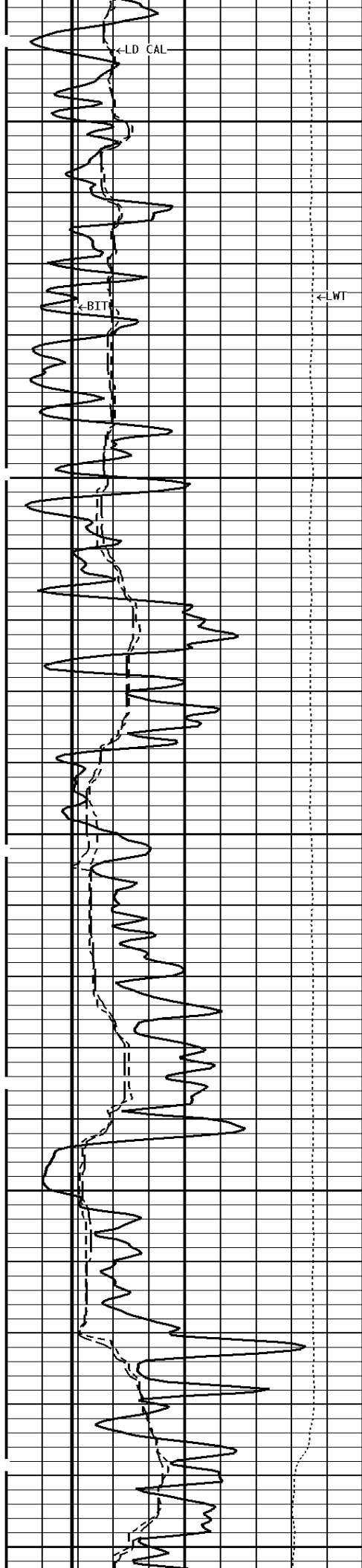
800Cu.ft-



1900

2000

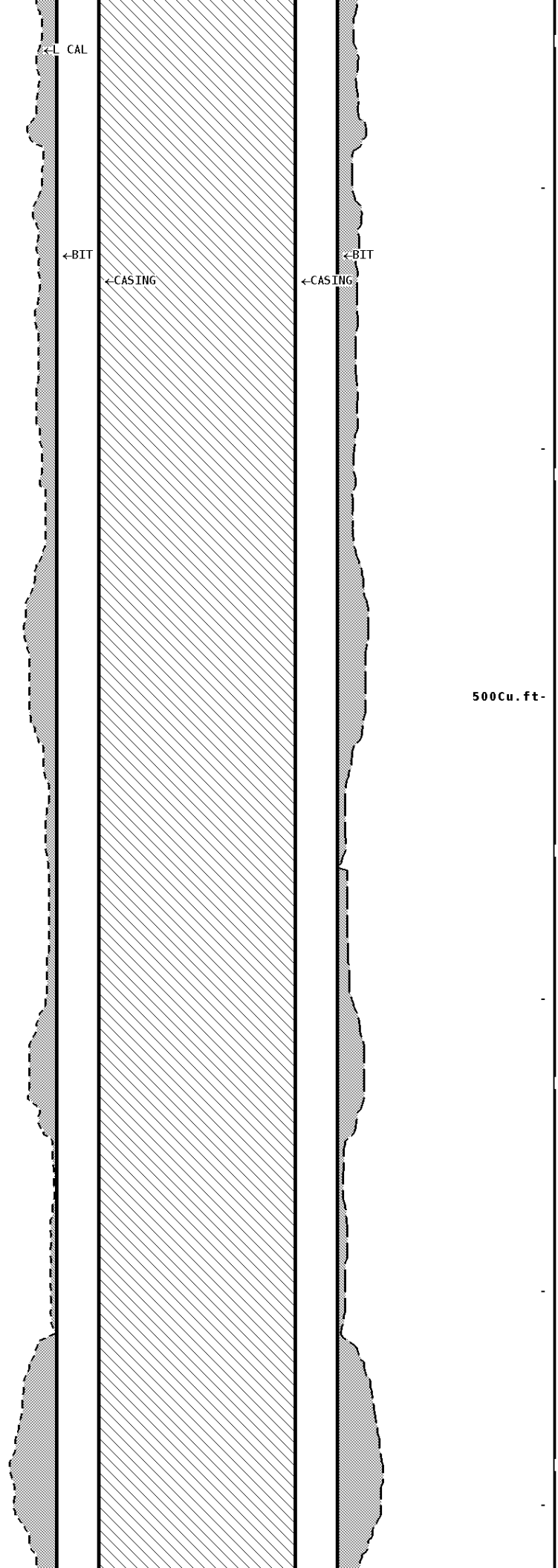




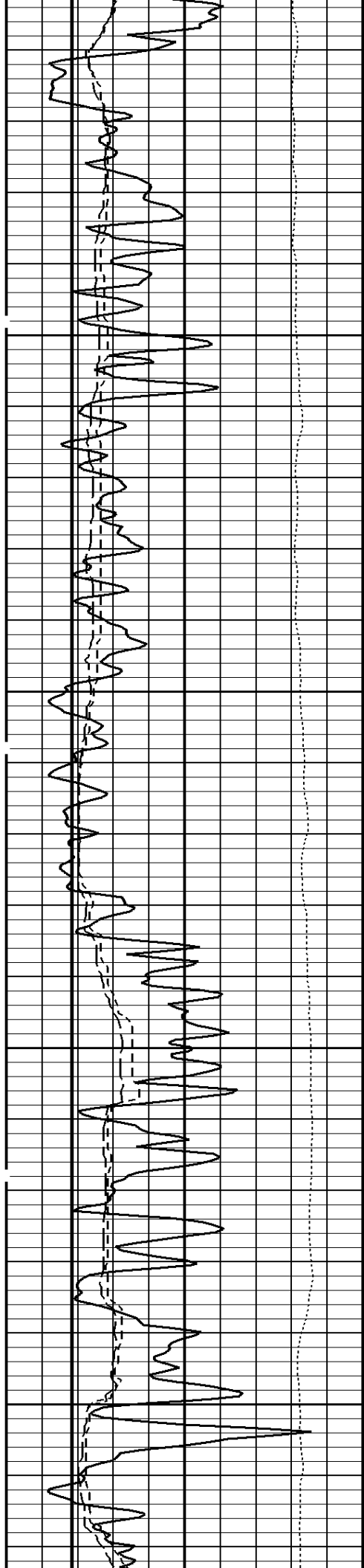
2100

- 900Cu.ft

2200



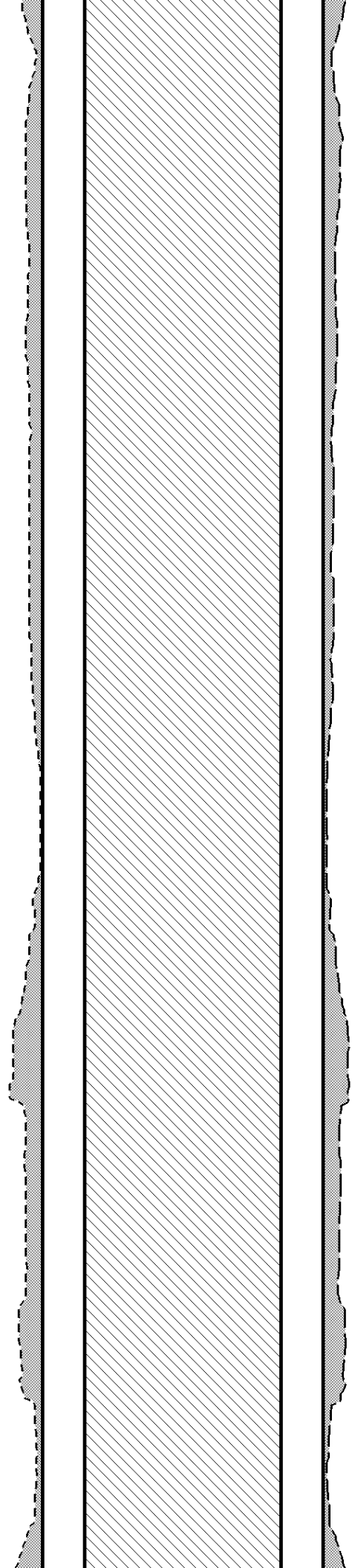
500Cu.ft-

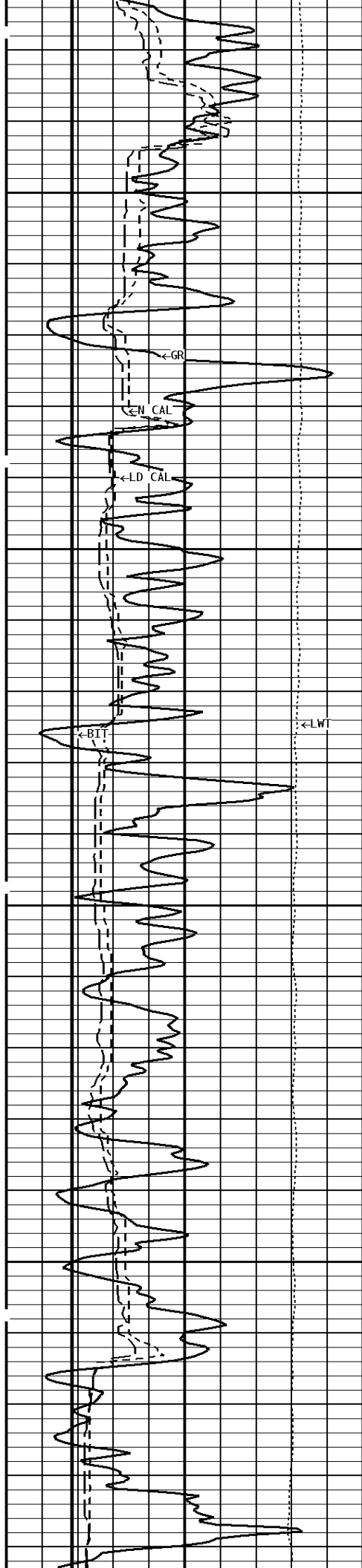


2300

-800Cu.ft

2400

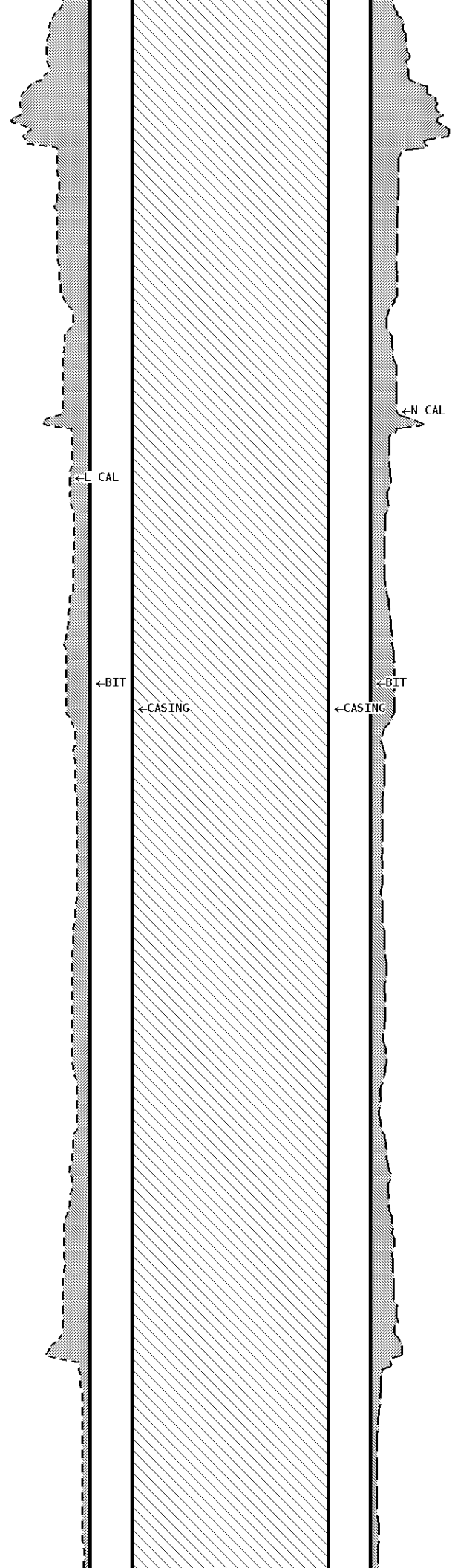




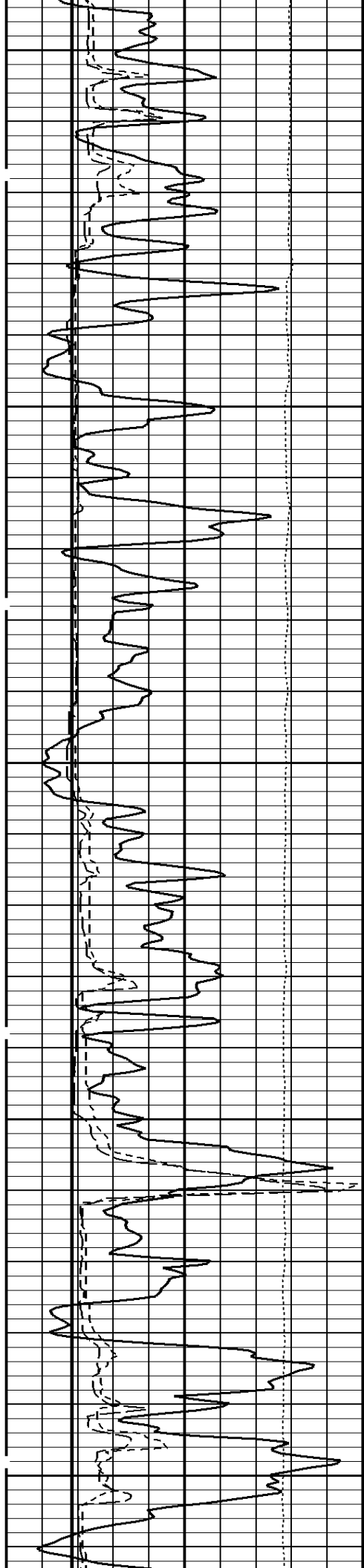
2500

2600

-700Cu.ft



400Cu.ft

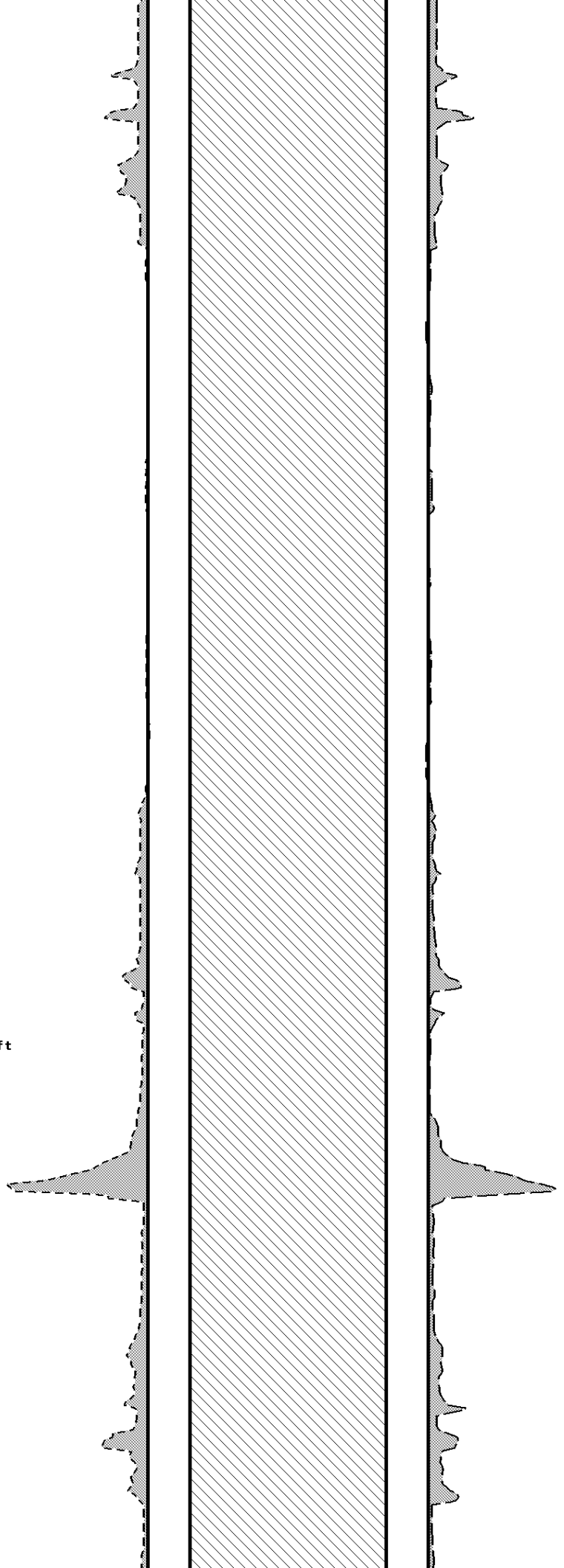


2700

2800

2900

-600Cu.ft

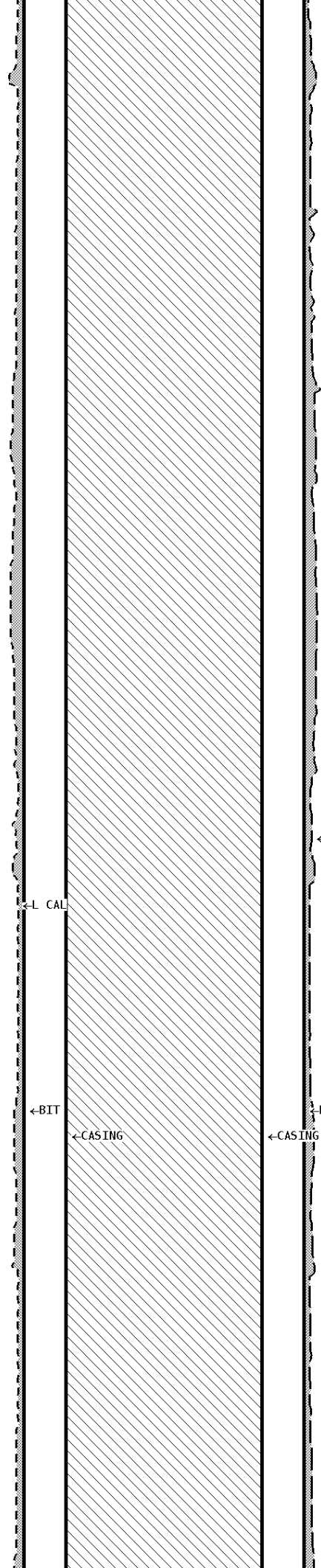
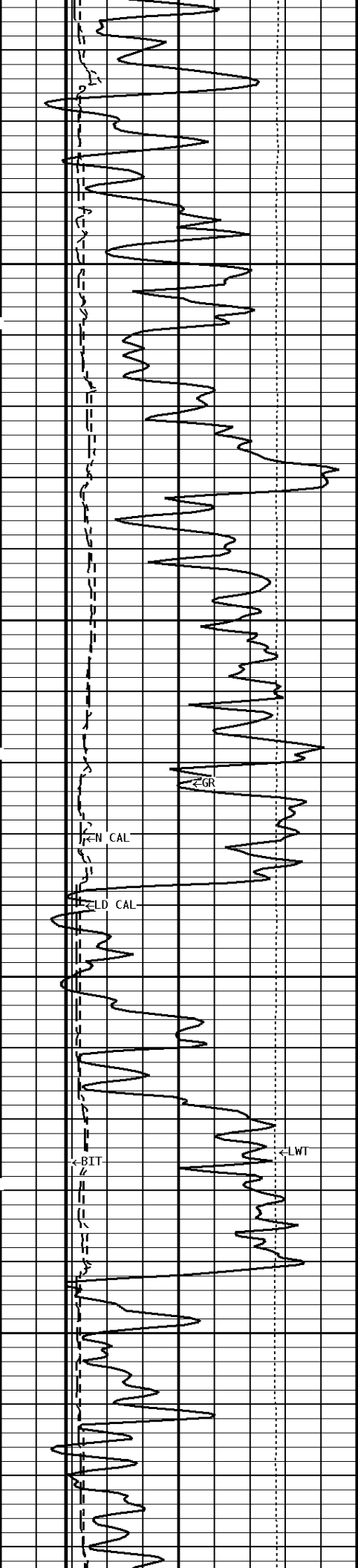


300Cu.ft-

3000

-500Cu.ft

3100



←N CAL

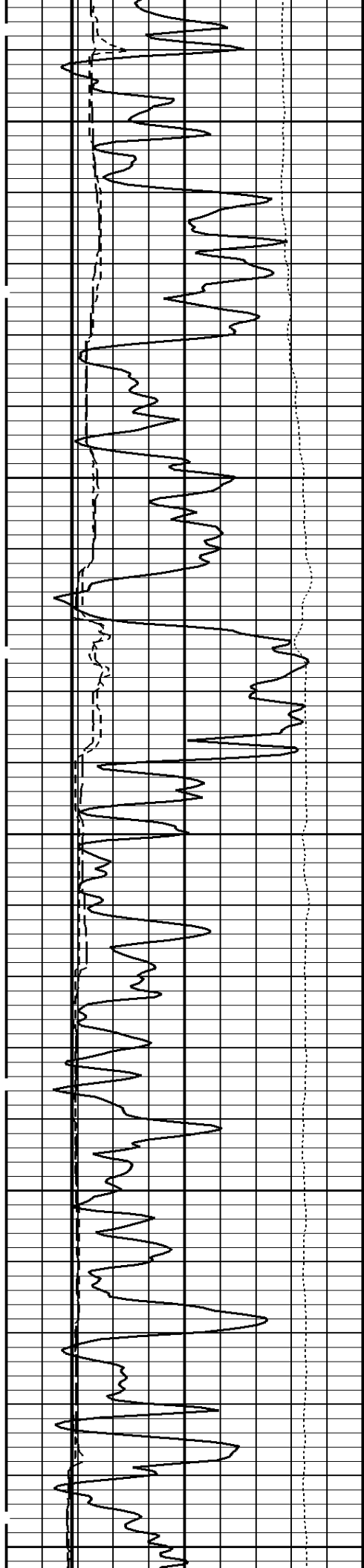
←L CAL

←BIT

←CASING

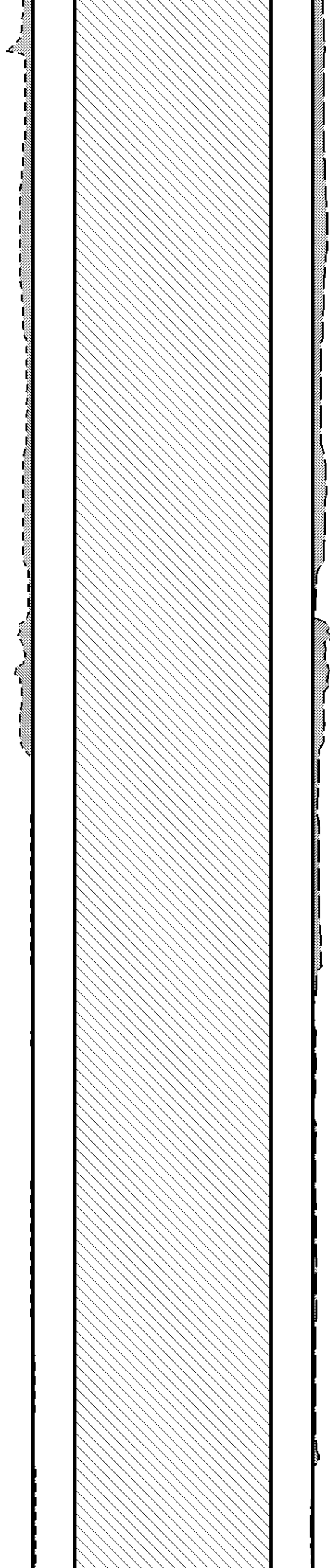
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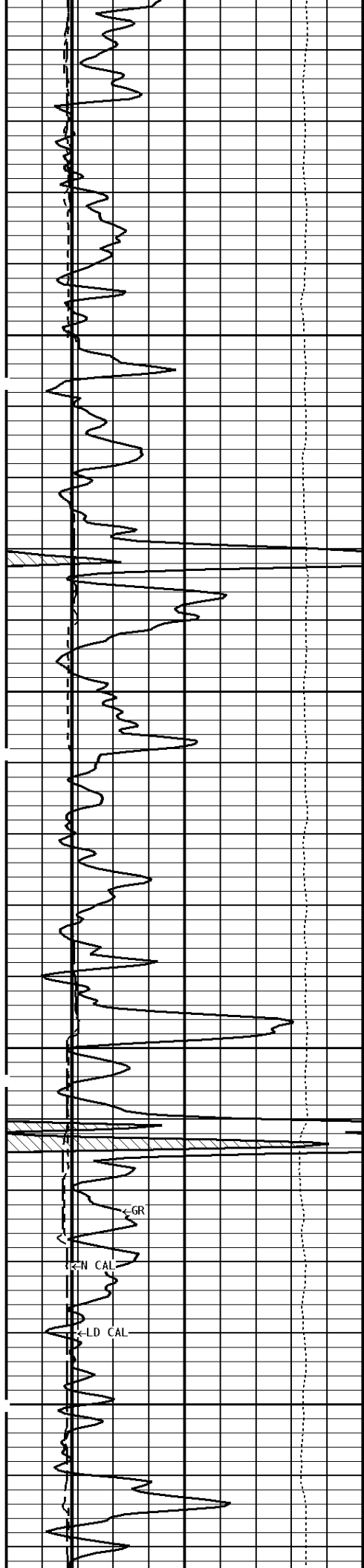
←CASING



3200

3300





3400

3500

-400Cu.ft

200Cu.ft-

←L CAL

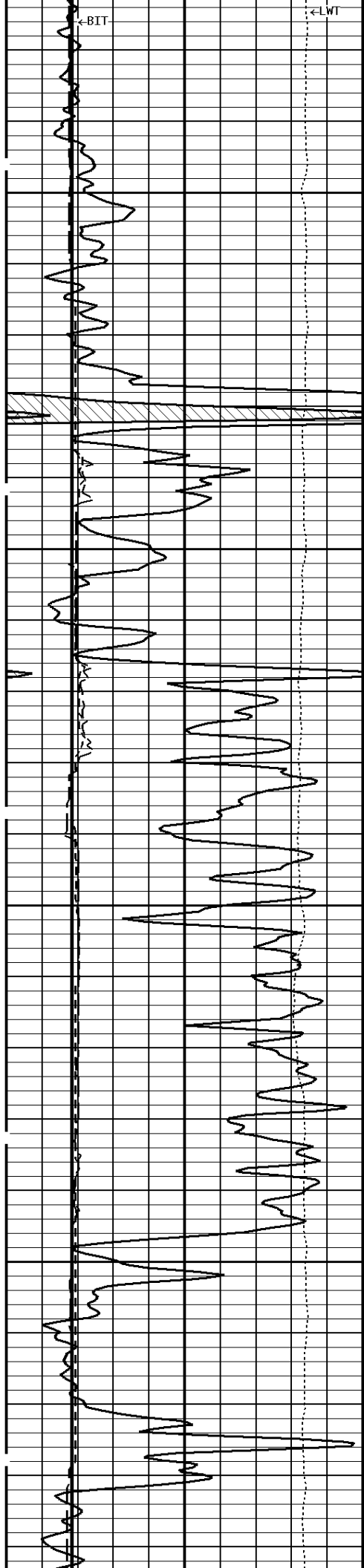
←BIT

←CASING

←N CAL

←BIT

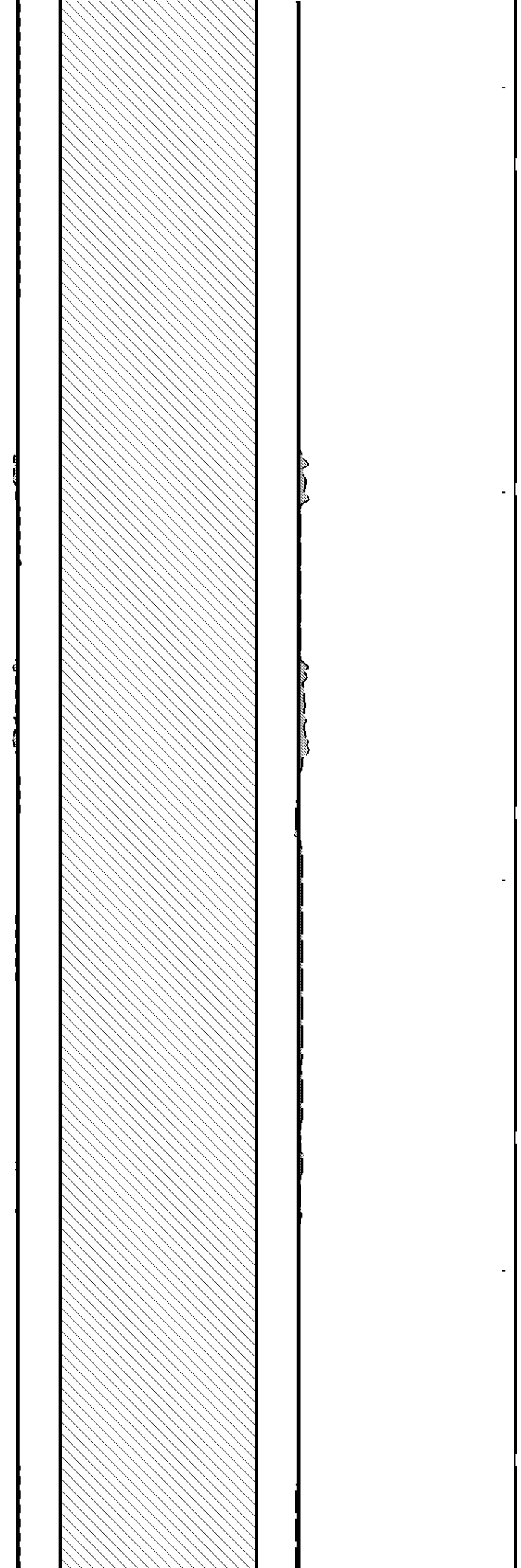
←CASING

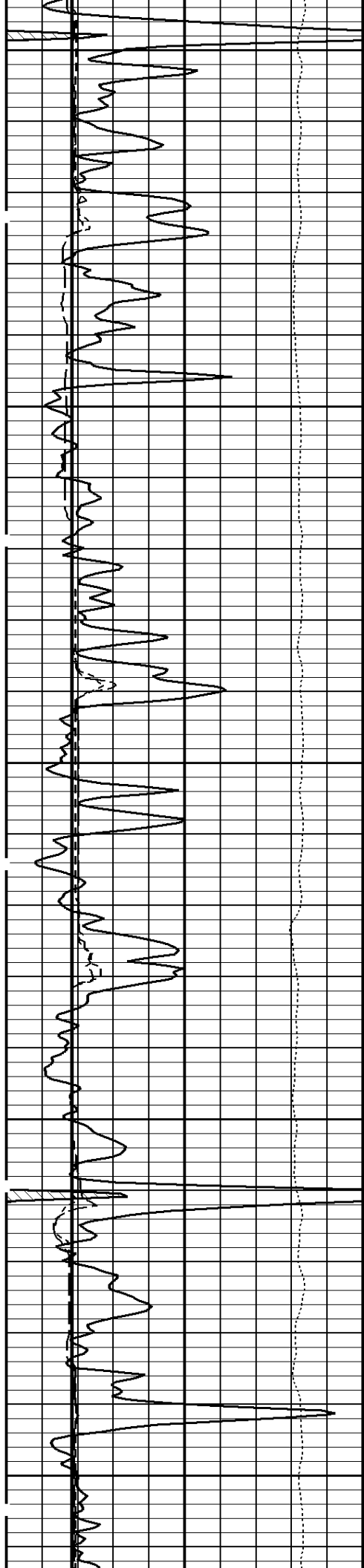


3600

-300Cu.ft

3700





3800

3900

-200Cu.ft

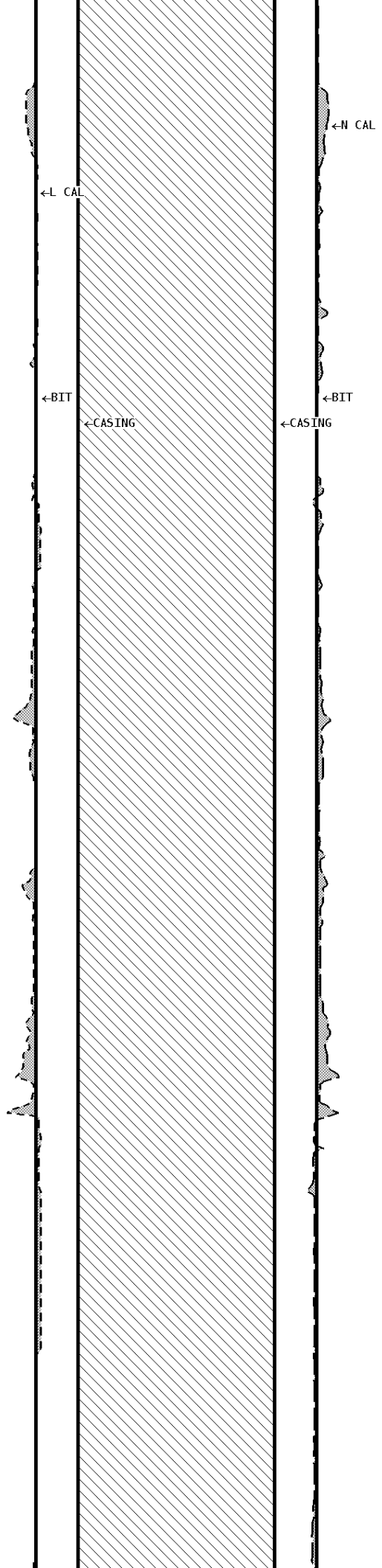
4000

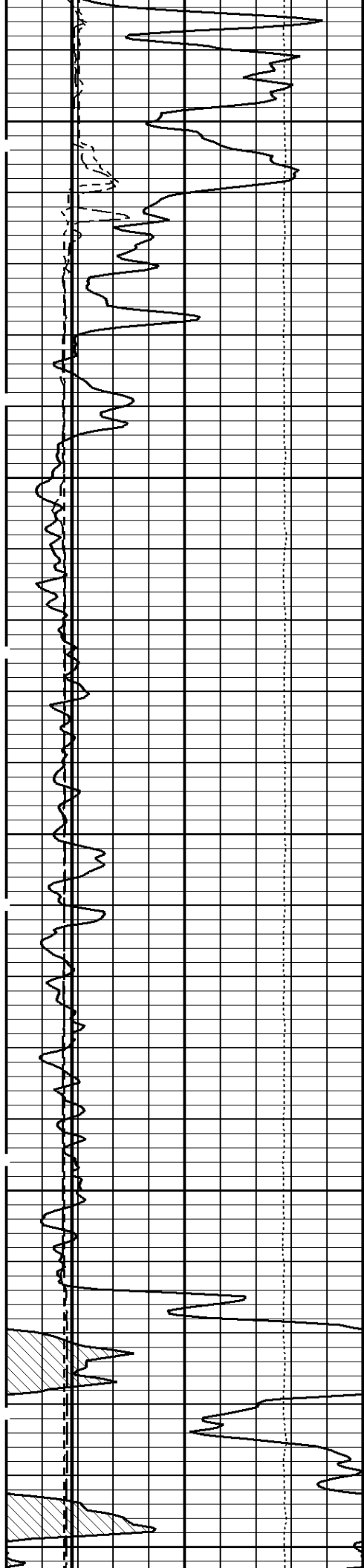
100Cu.ft-



4100

4200

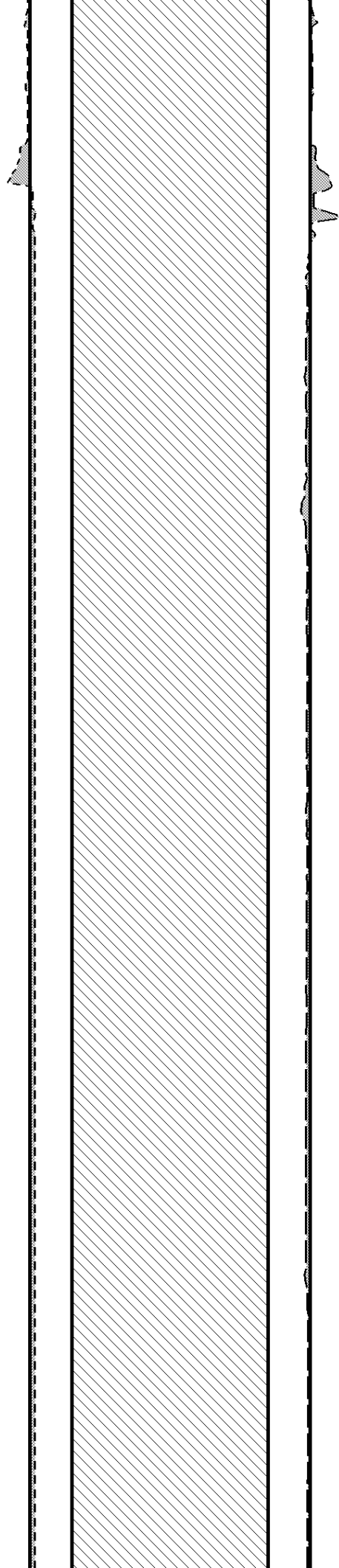


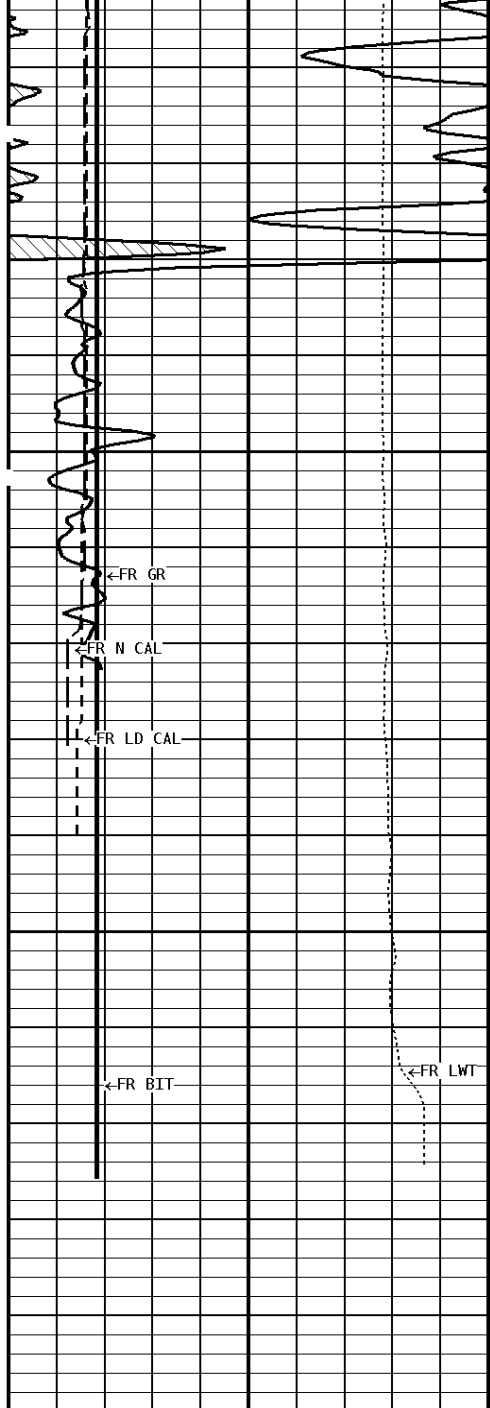


4300

4400

-100Cu.ft

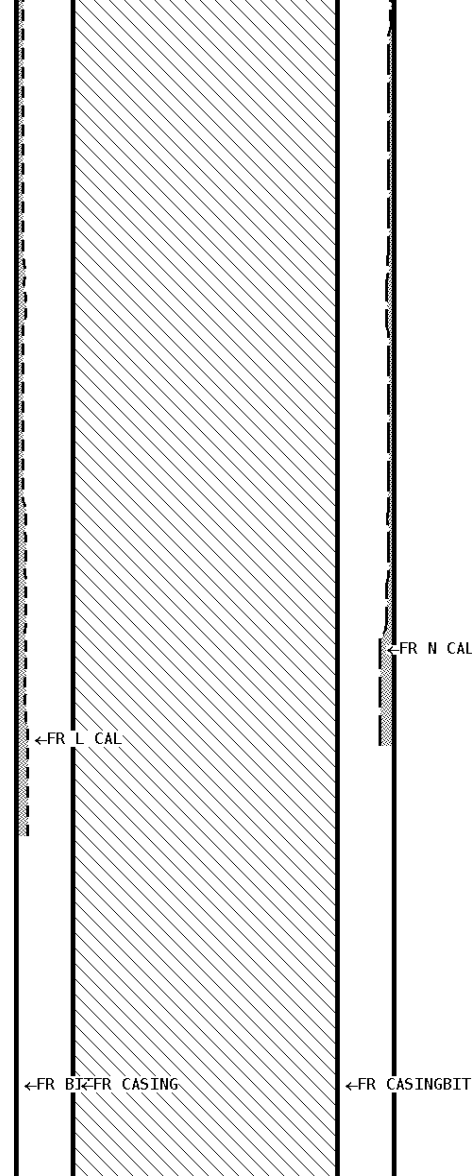




4500

4566

1:240 MAIN SECTION



GAMMA RAY API UNITS	
150 0	300 150
TENSION LBS	
10000	0
X CALIPER INCHES (IN)	
16 6	26 16
Y CALIPER INCHES (IN)	

BOREHOLE VOLUME CU.FT

ANNULAR HOLE VOLUME CU.FT.

16	INCHES (IN)	26
6		16

BIT SIZE INCHES (IN)		
6		16

*** Borehole Zone Factors ***

Zone 1	99999.0	to	0.0	Feet
Drill Bit Size			7.875	in
Casing Diameter			5.500	in

*** Calibration Summary ***

Shop Calibration GRT-B					
Performed : 15-Mar-2013			Time : 11:26		
Sensor Suite : GR-GR5			ID : GRT-BC-41		
	Measured	Units	Calibrated	Units	
GR	Background	Jig	Jig		
	54	360	175	GRAPI	
CPS					
Shop Calibration CNT-AA					
Performed : 20-May-2013			Time : 11:12		
Sensor Suite : CALI-BCN			ID : NDT-BD-133		
	Jig - Measured		Jig - Calibrated	Units	
	Ring#1	Ring#2	Ring#1	Ring#2	
CL # 1	9.1	13.8	6.0	12.0	IN.
Shop Calibration LDT-DF					
Performed : 13-May-2013			Time : 11:41		
Sensor Suite : CALI-LTH			ID : PDT-GA-464		
	Jig - Measured		Jig - Calibrated	Units	
	Ring#1	Ring#2	Ring#1	Ring#2	
CL # 1	8.1	10.9	6.0	12.0	IN.



Tucker
ENERGY SERVICES

Company: TOT0 ENERGY LLC
Well: GREENE #24-1
Location: 2290' FSL & 1650' FWL
Logged: 05-31-2013
K.B. Elev: 2085.0 Ft