



**SUPERIOR**  
Black Lick, Pa.  
Mercer, Pa.  
Wooster, Oh.  
Cleveland, Ok.  
Trinidad, Co.

# COMPENSATED DENSITY NEUTRON LOG

Company	XTO Energy Inc.		
Well	Apache Canyon 26-02		
Field	Purgatoire River		
County	Las Animas	State	Colorado
Location:	API # : 05 071 08813 00		Other Services dill
SEC 26 TWP 34S RGE 68W			
Permanent Datum	Ground Level	Elevation	8044'
Log Measured From	Ground Level		
Drilling Measured From	Ground Level		
Date	01-18-07		
Run Number	One		
Depth Driller	1945'		
Depth Logger	1941'		
Bottom Logged Interval	1920'		
Top Log Interval	Surface Casing		
Casing Driller	8 5/8" @ 500'		
Casing Logger	499'		
Bit Size	7 7/8"		
Type Fluid in Hole	Water		
Density / Viscosity	///		
pH / Fluid Loss	///		
Source of Sample	///		
Rm @ Meas. Temp	///		
Rmf @ Meas. Temp	///		
Rmc @ Meas. Temp	///		
Source of Rmf / Rmc	///		
Rm @ BHT	///		
Time Circulation Stopped	1:00 p.m.		
Time Logger on Bottom	2:50 p.m.		
Maximum Recorded Temperature	112		
Equipment Number	T701		
Location	Trinidad		
Recorded By	L. Smith		
Witnessed By	Mr. Don Johnson		

>>> Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

## Comments

Compensated Density Neutron Porosity Presented On Sandstone Matrix.  
ABHV Calculated For 5.5" Casing.  
GR logged to surface.  
Bosque before Weston, stay on main rd.approx. 8 miles,  
turn left at Monte Leone Canyon, then take first right, location is  
at end of rd.



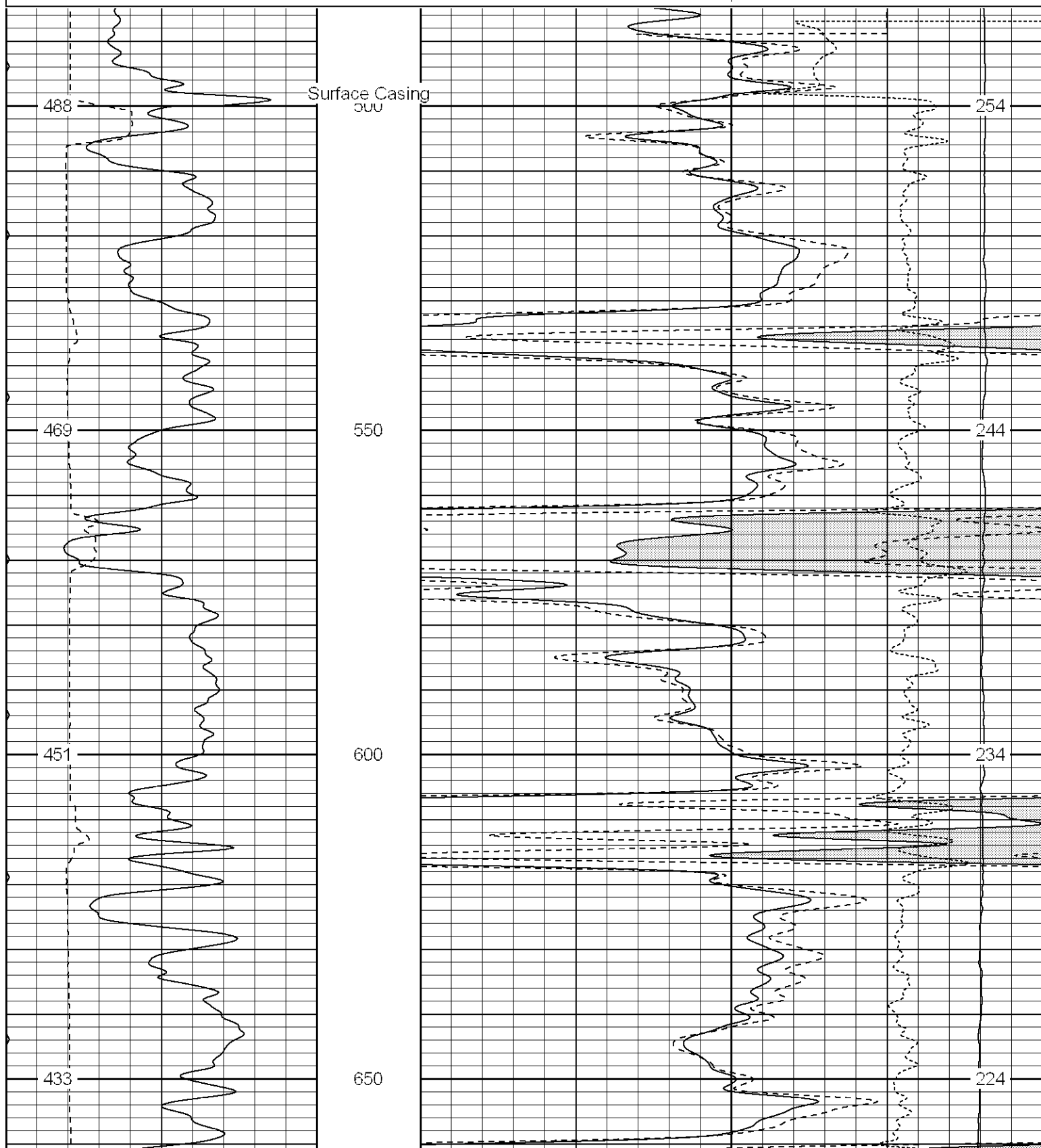
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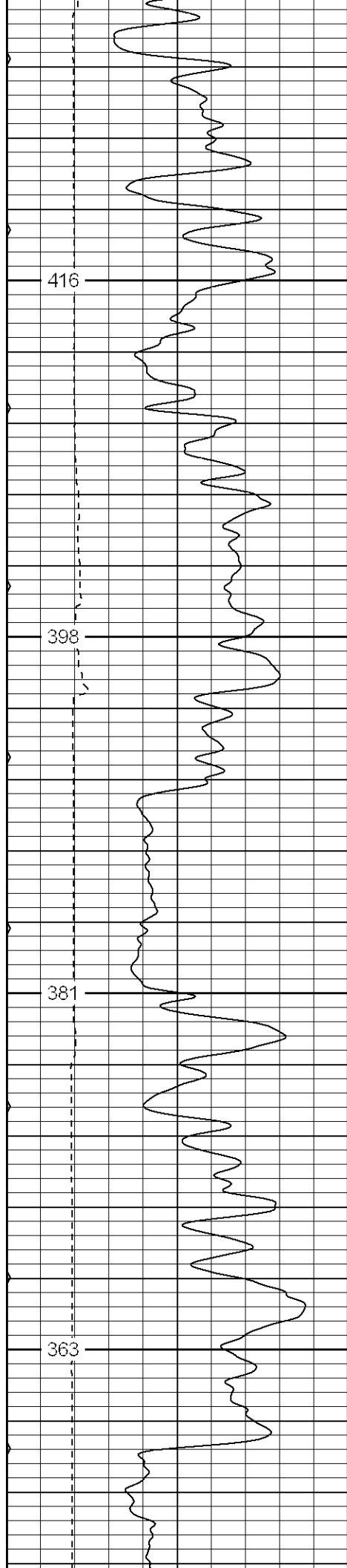
# Main Pass

Database File: xtoac2602.db  
Dataset Pathname: pass2.1  
Presentation Format: cdl  
Dataset Creation: Thu Jan 18 16:19:17 2007 by Calc Open-Cased 060407  
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200
6	DCAL (in)	16
0	MINMK	80

2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0



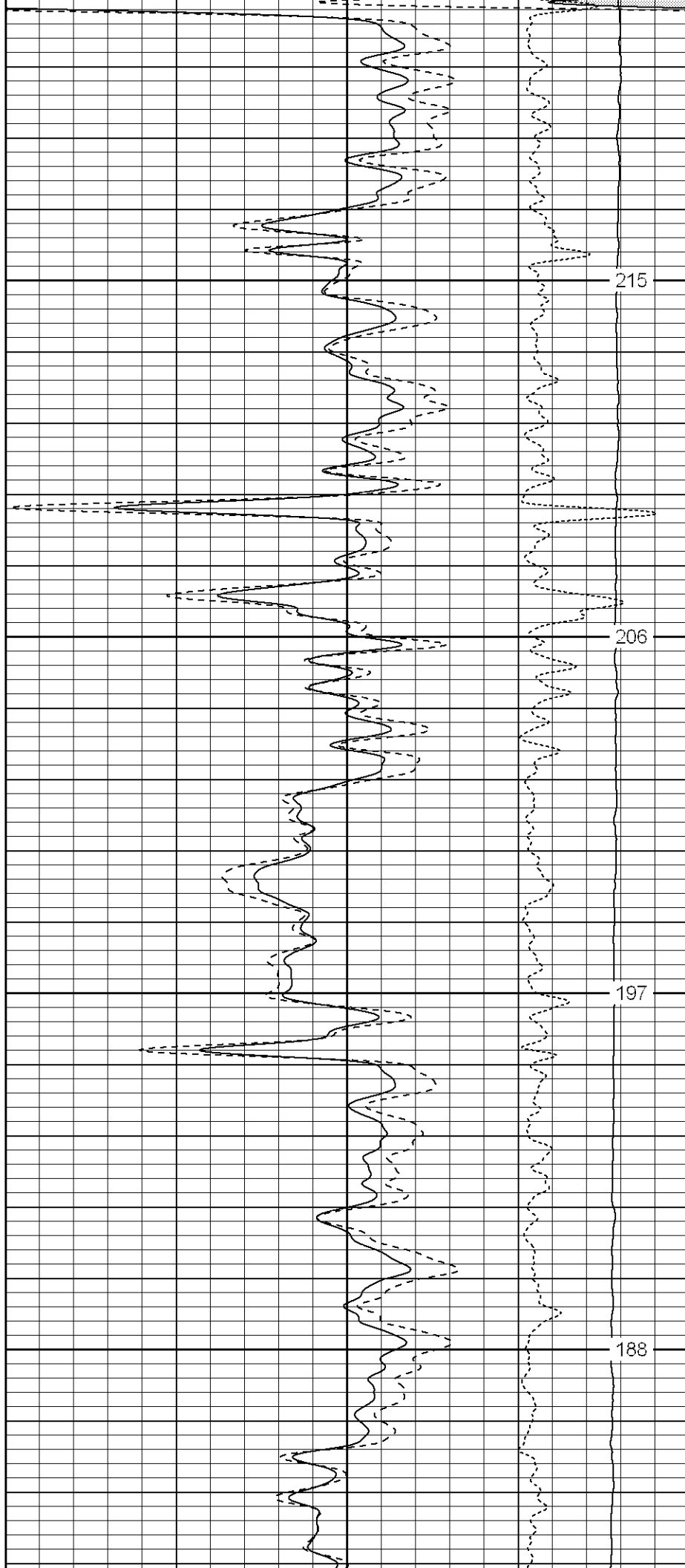


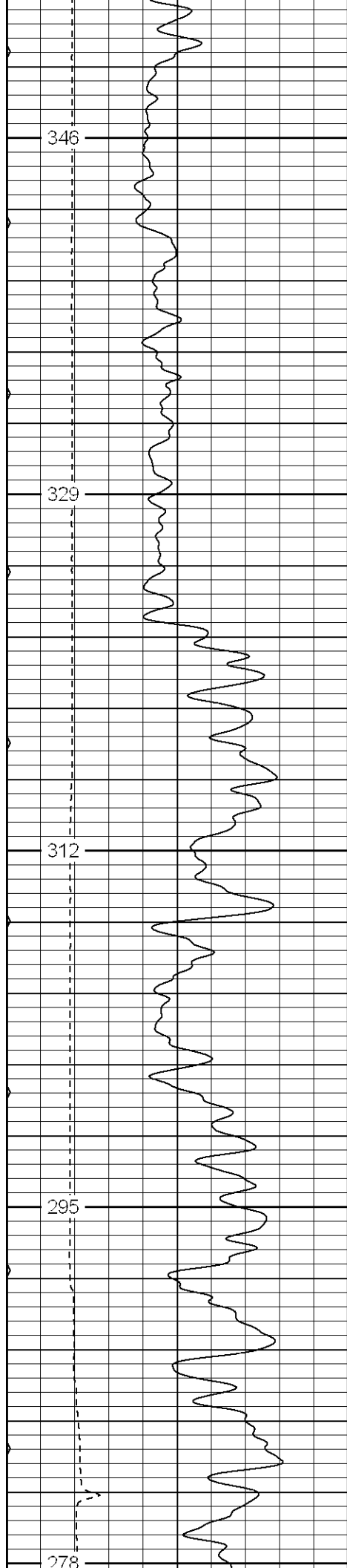
700

750

800

850





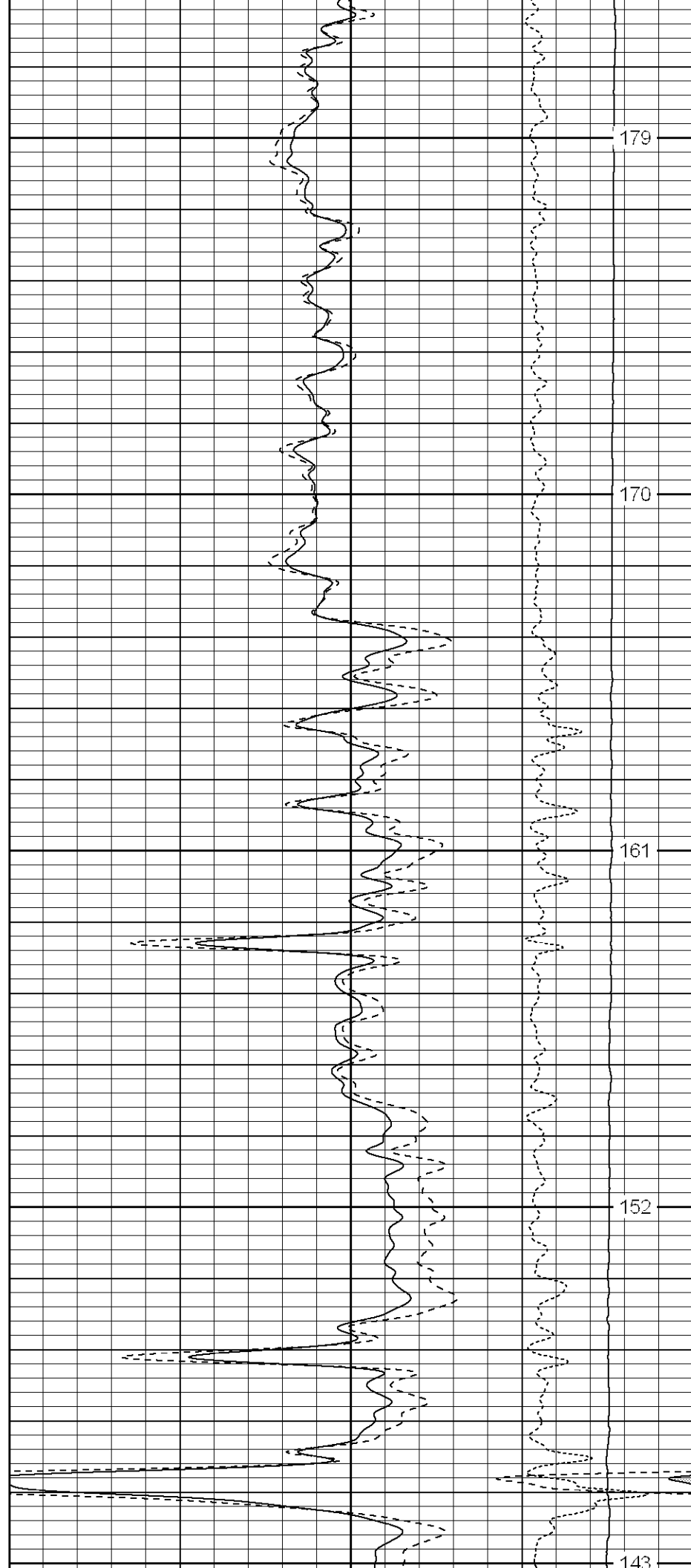
900

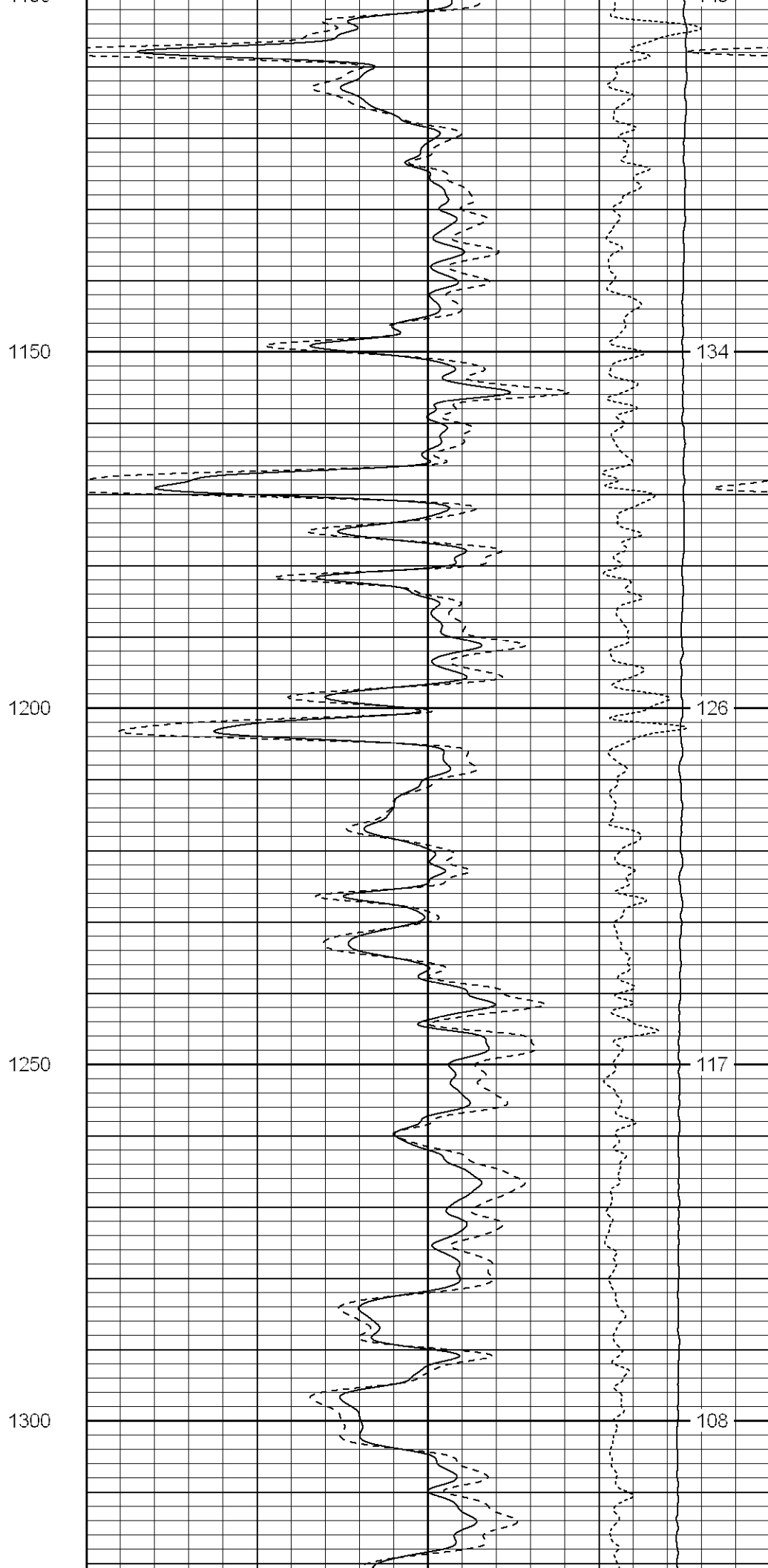
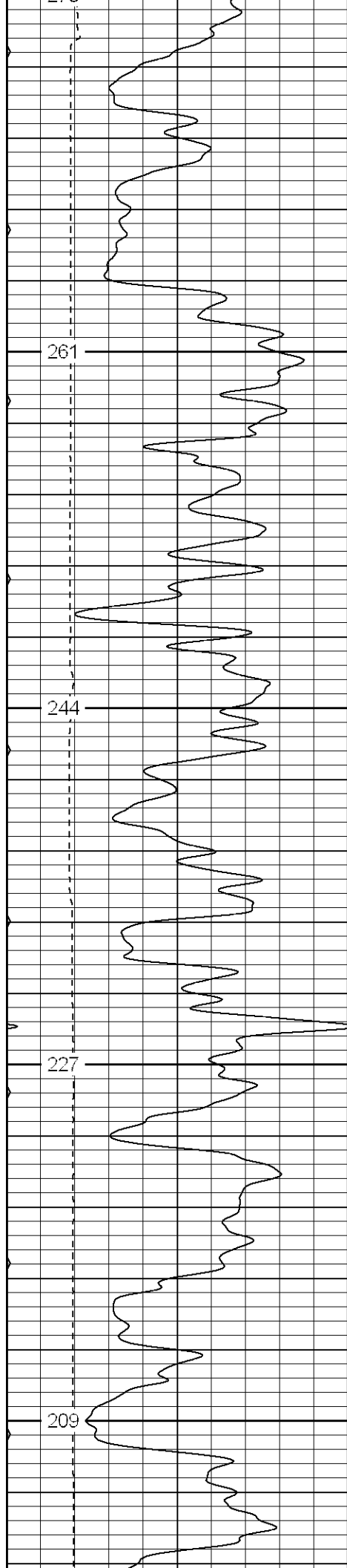
950

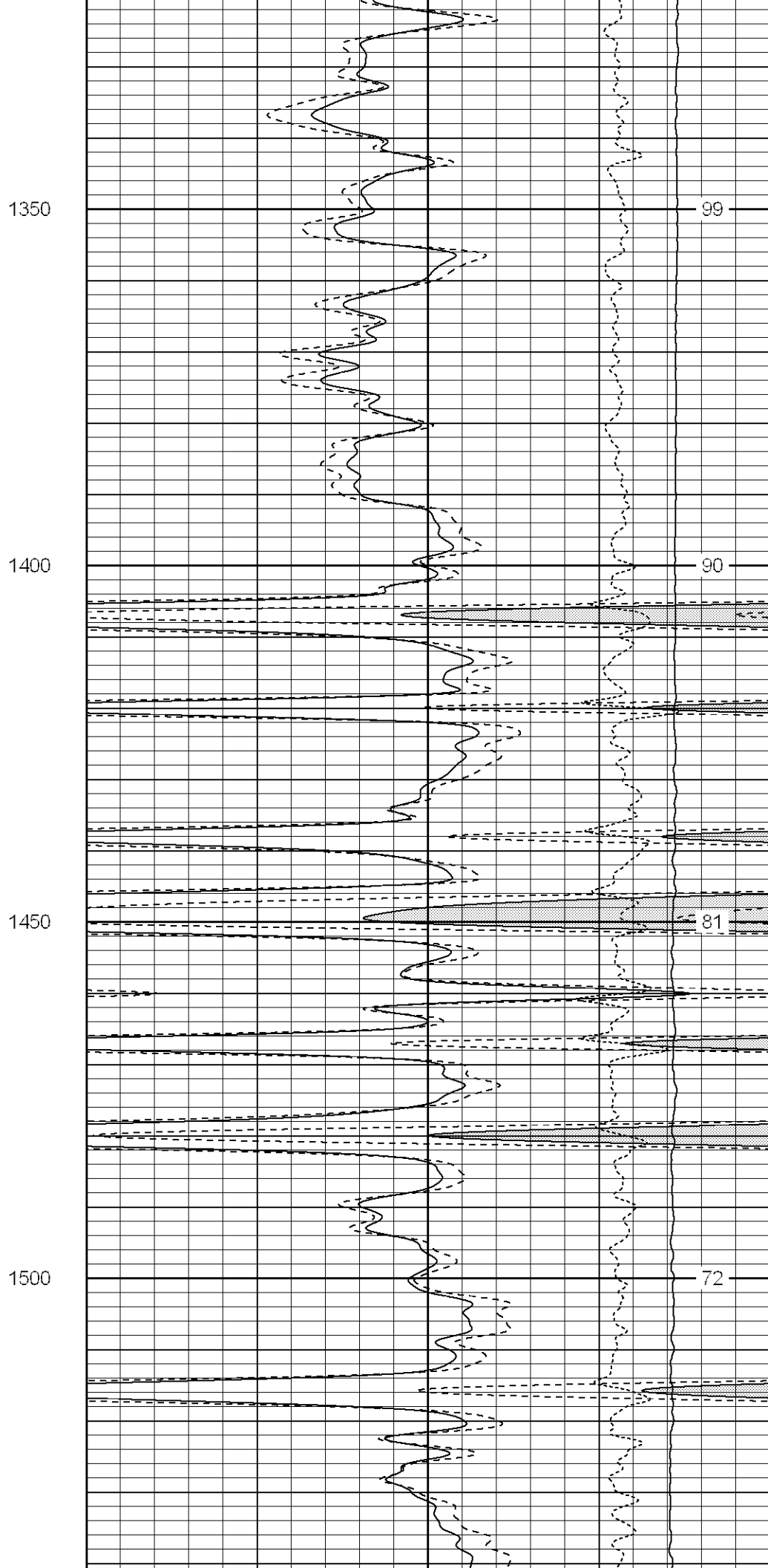
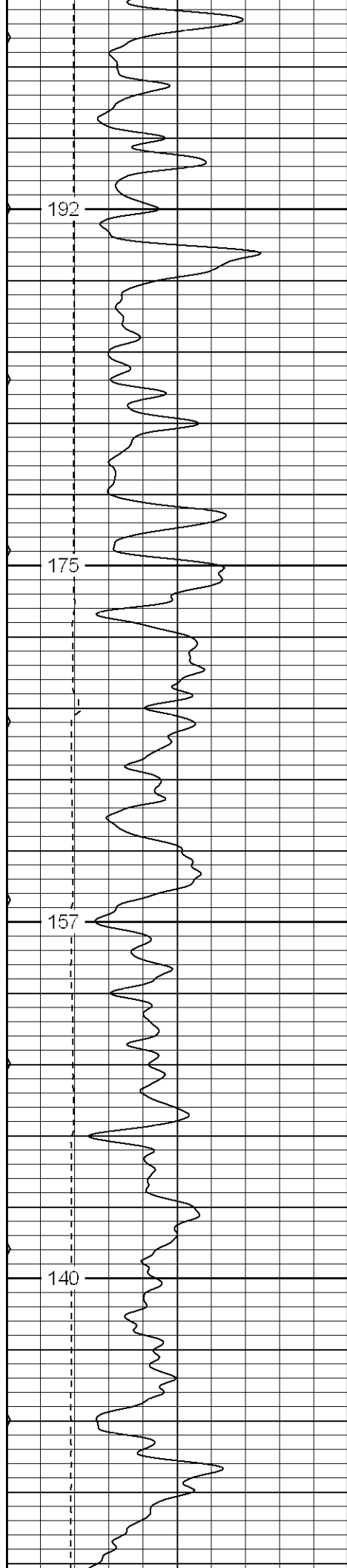
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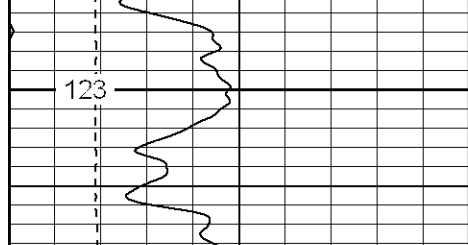
1050

1100

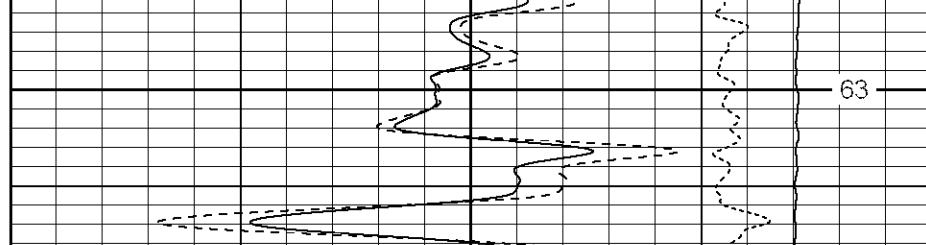


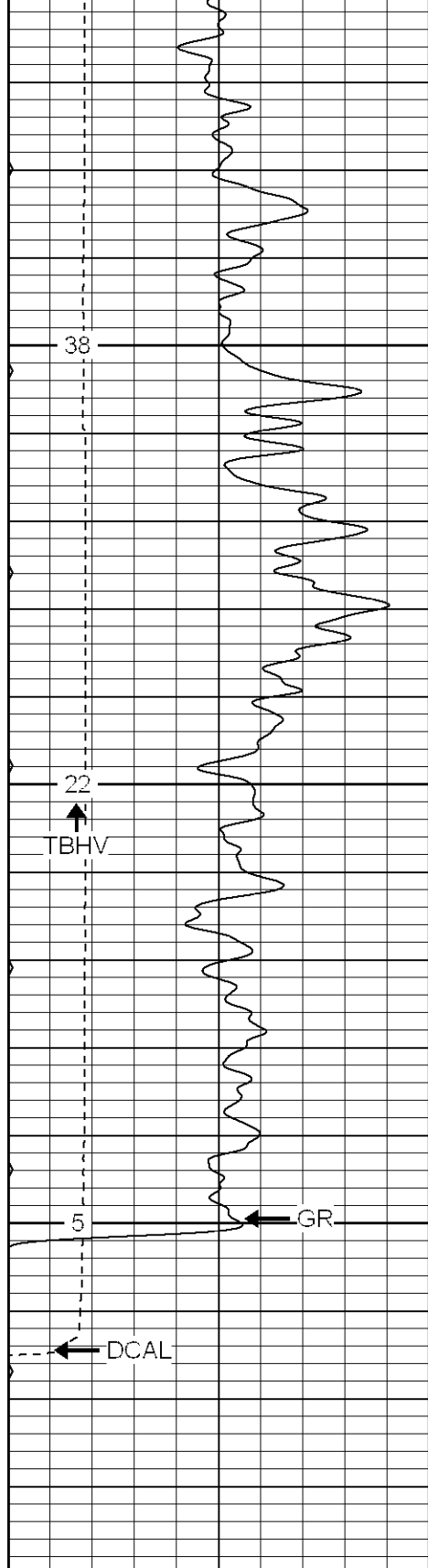




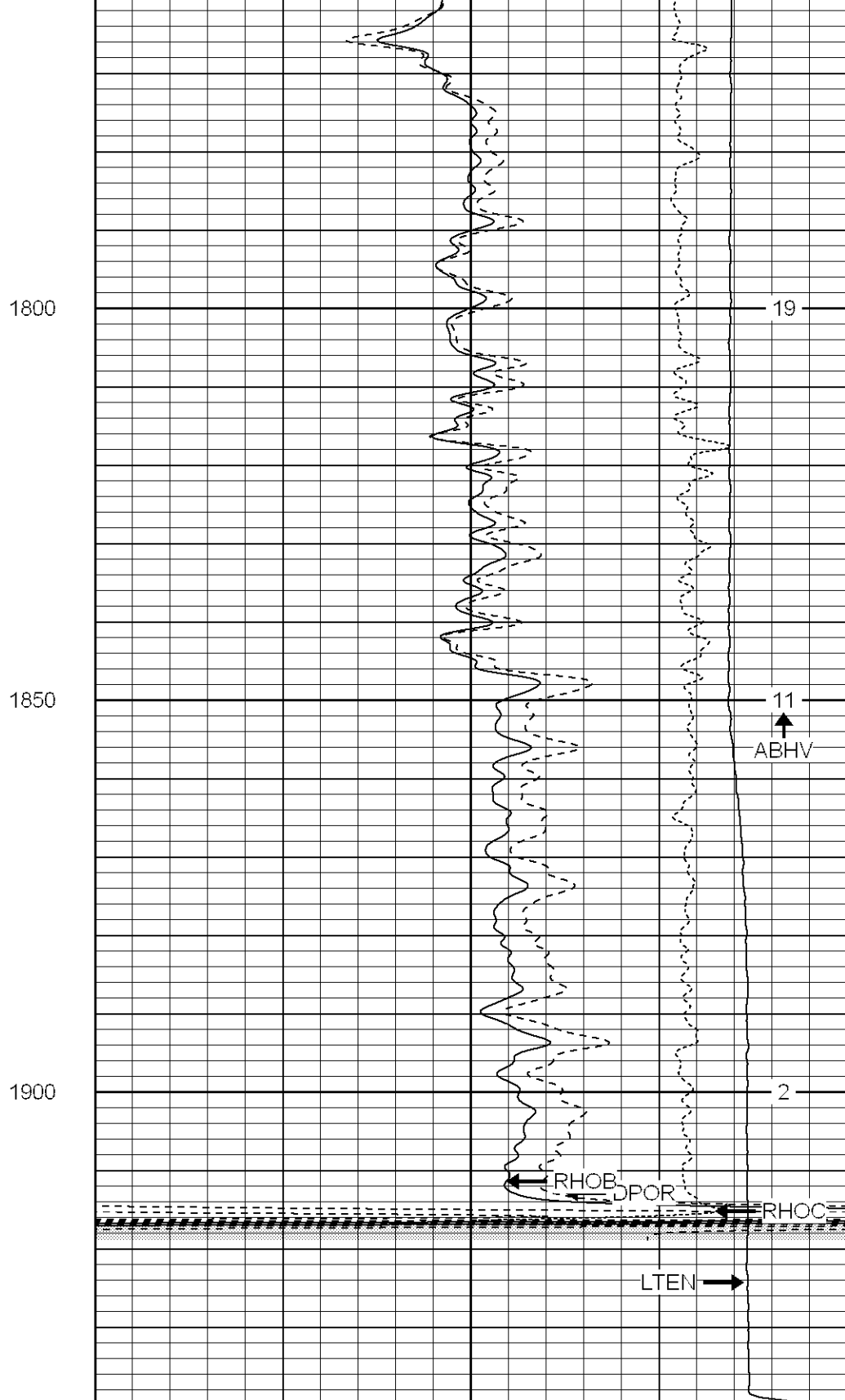


1550





0	GR (GAPI)	200
6	DCAL (in)	16
0	MINMK	80



2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0





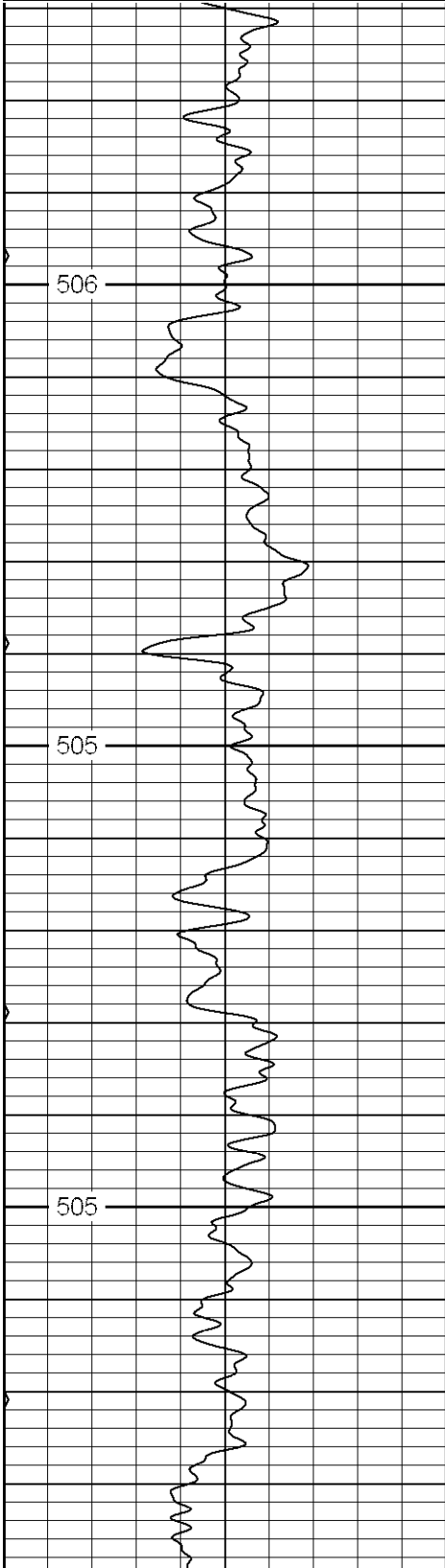
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# Main Pass

Database File: xtoac2602.db  
Dataset Pathname: pass2.1  
Presentation Format: cdnl  
Dataset Creation: Thu Jan 18 16:19:17 2007 by Calc Open-Cased 060407  
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200
6	DCAL (in)	16
0	MINMK	80

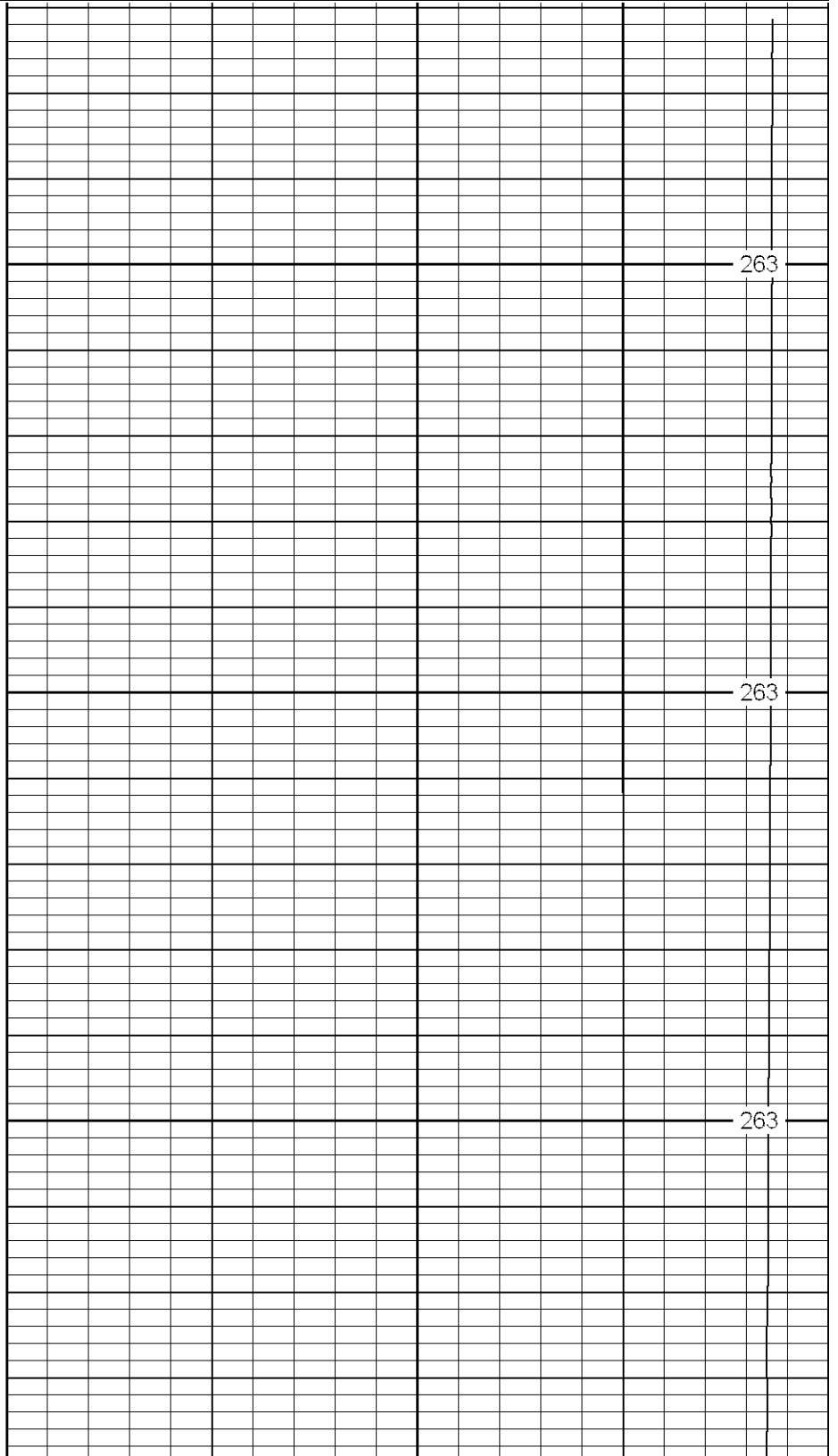
30	NPOR (pu)	-10
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0

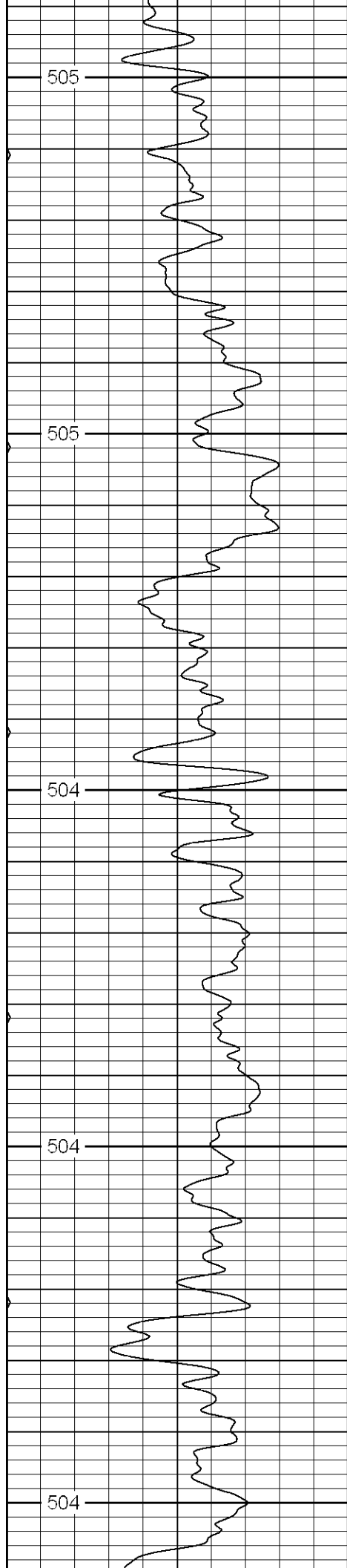


50

100

150





200

250

300

350

400

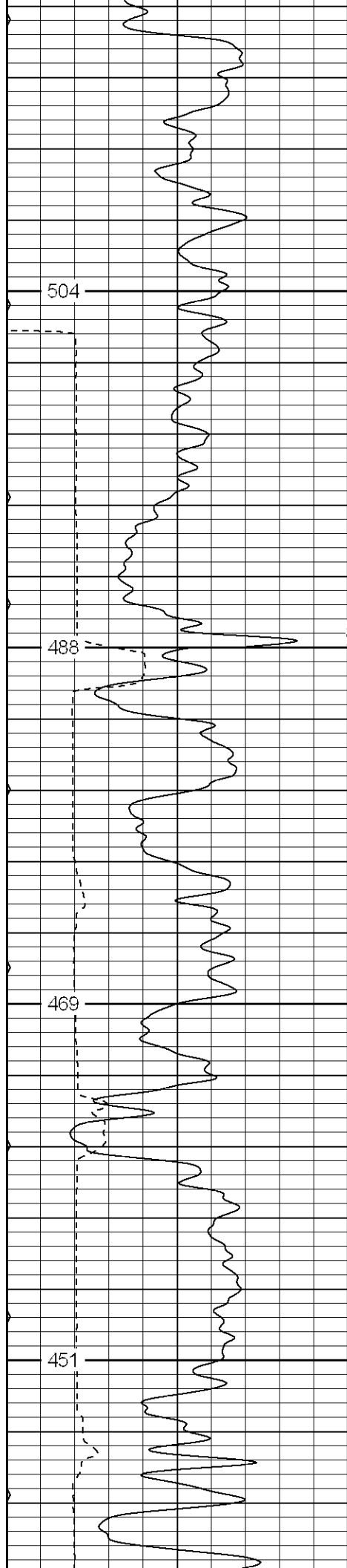
263

263

263

263

263

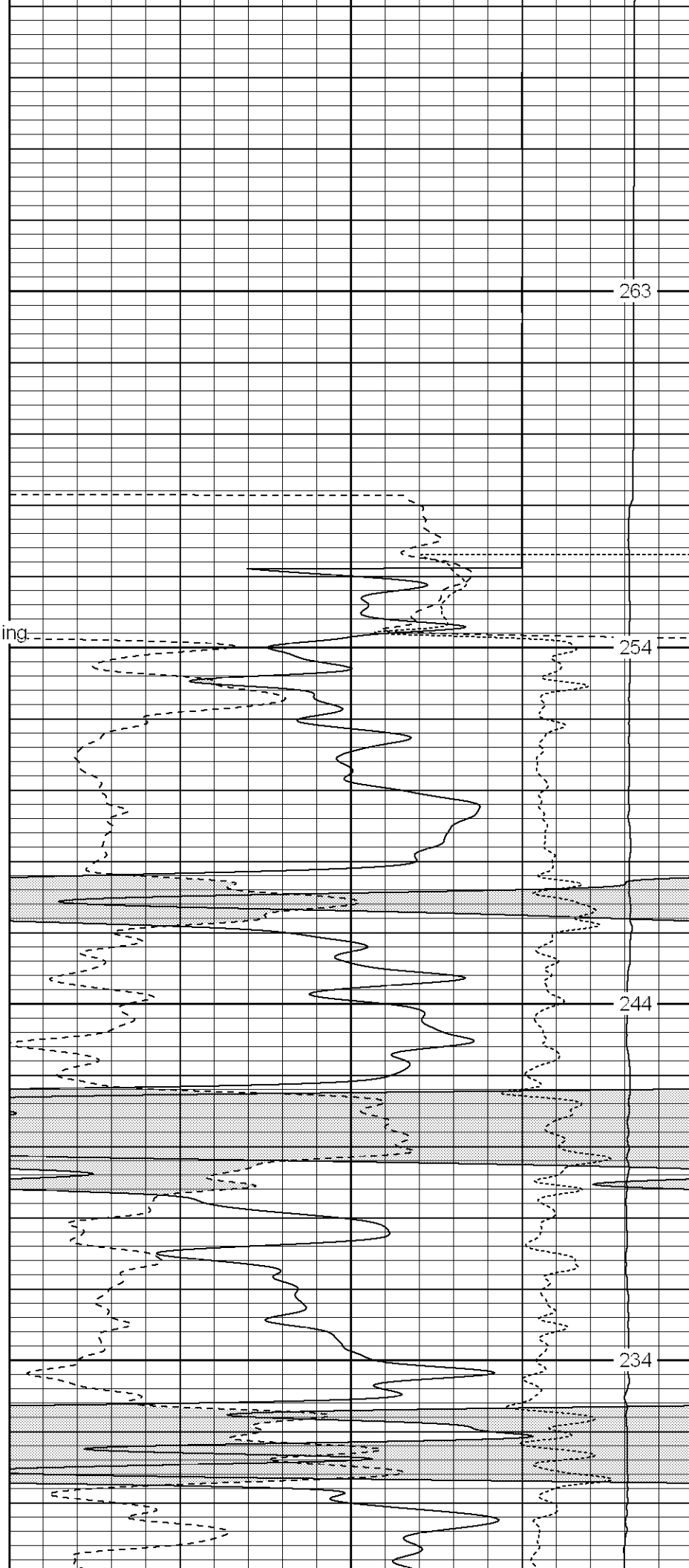


Surface Casing  
500

450

550

600

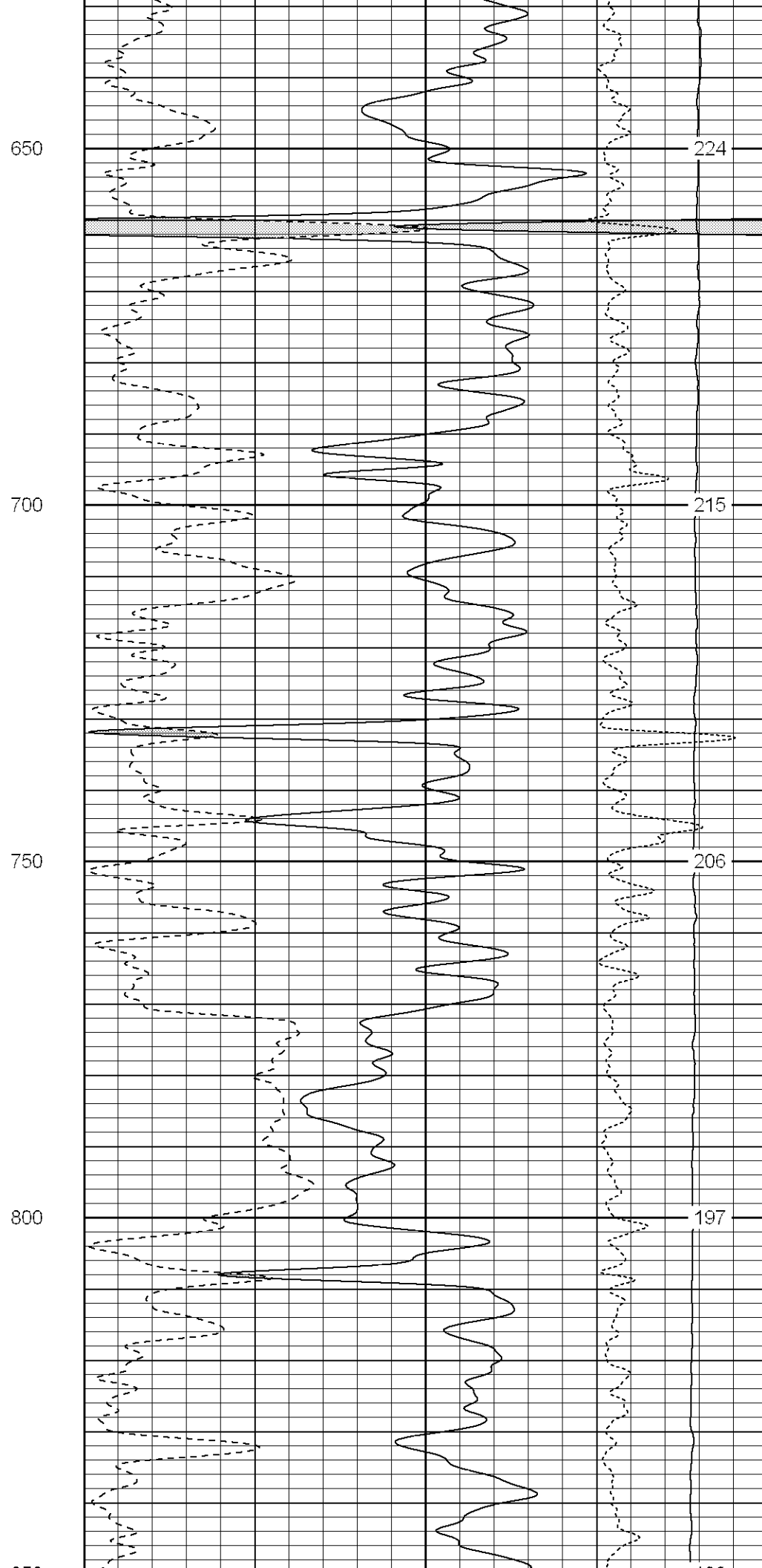
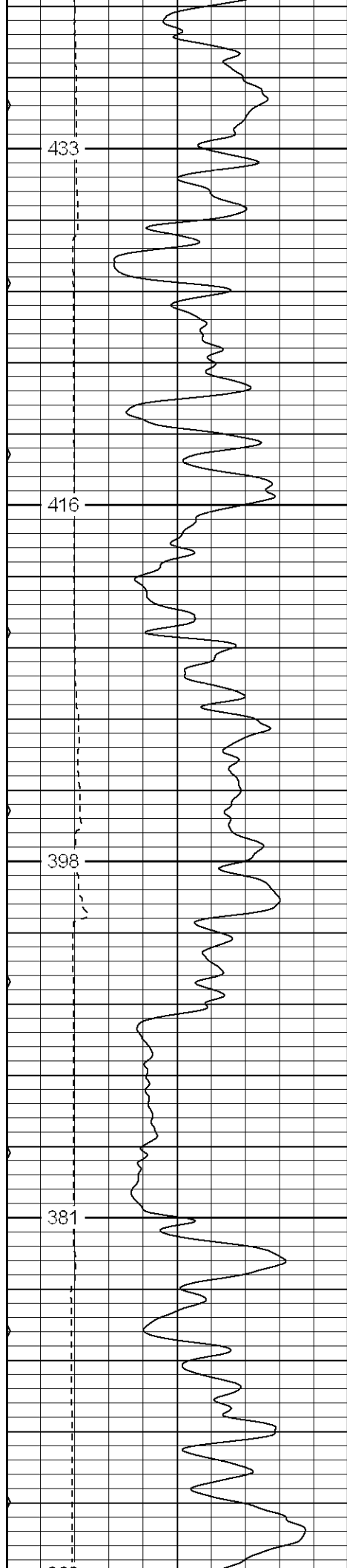


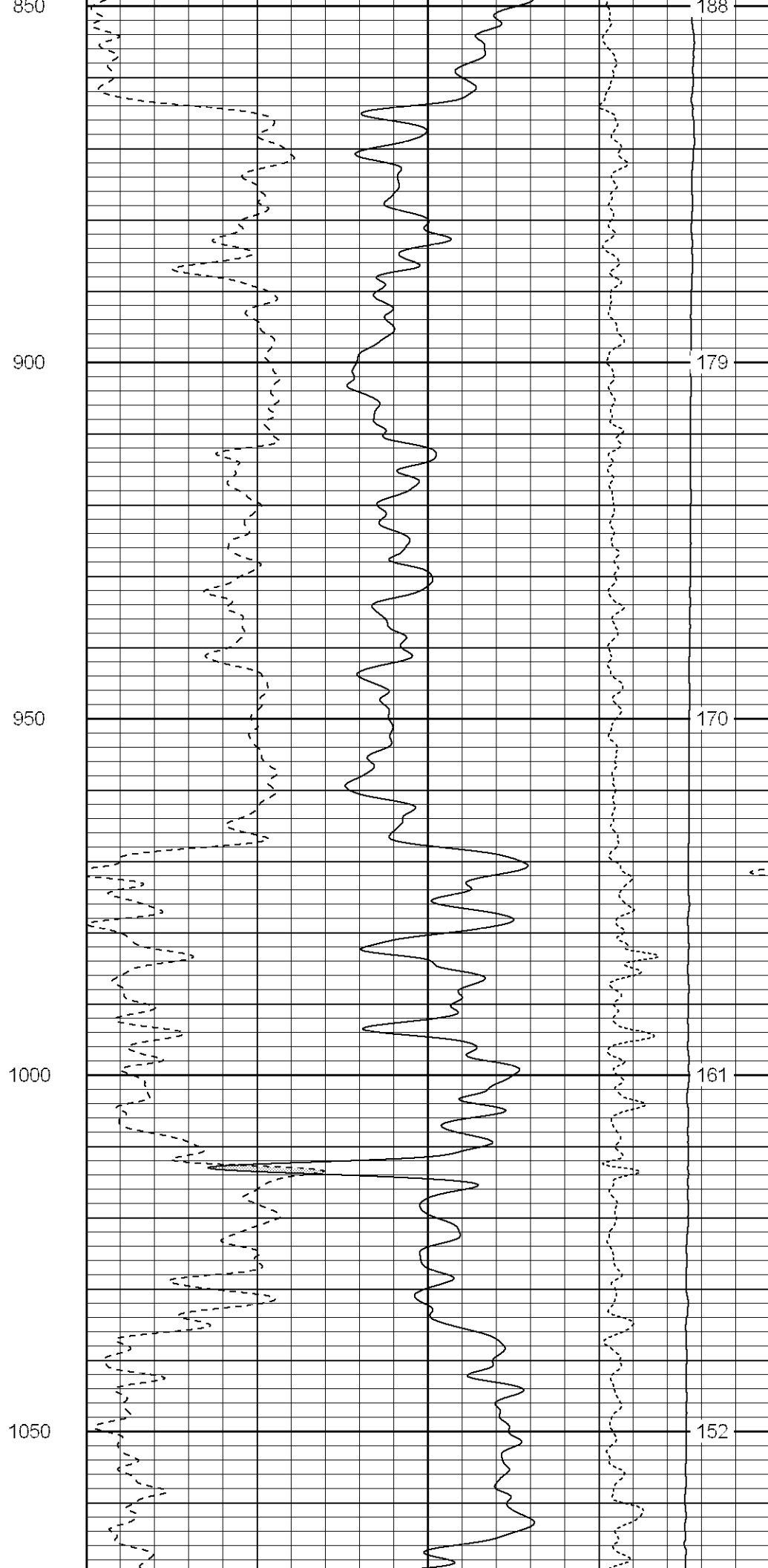
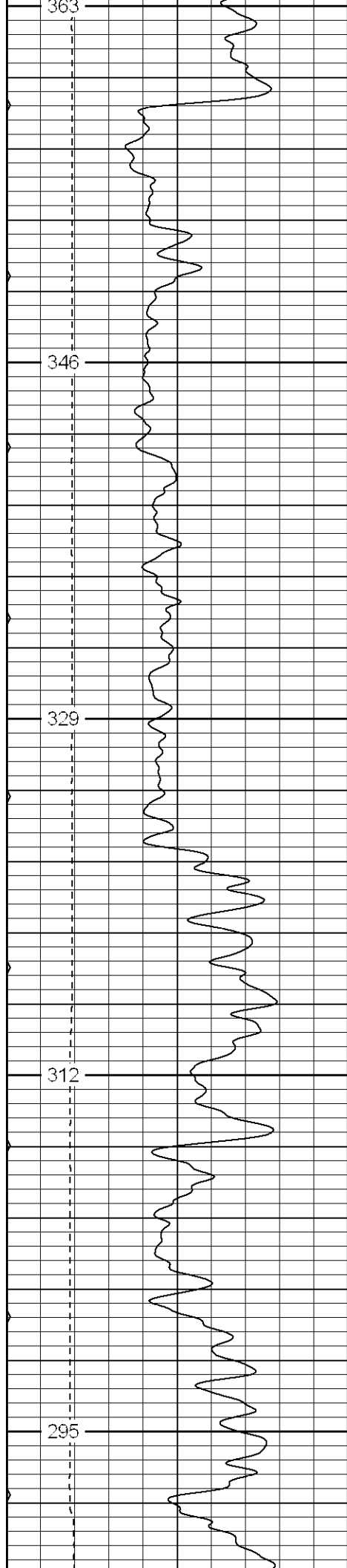
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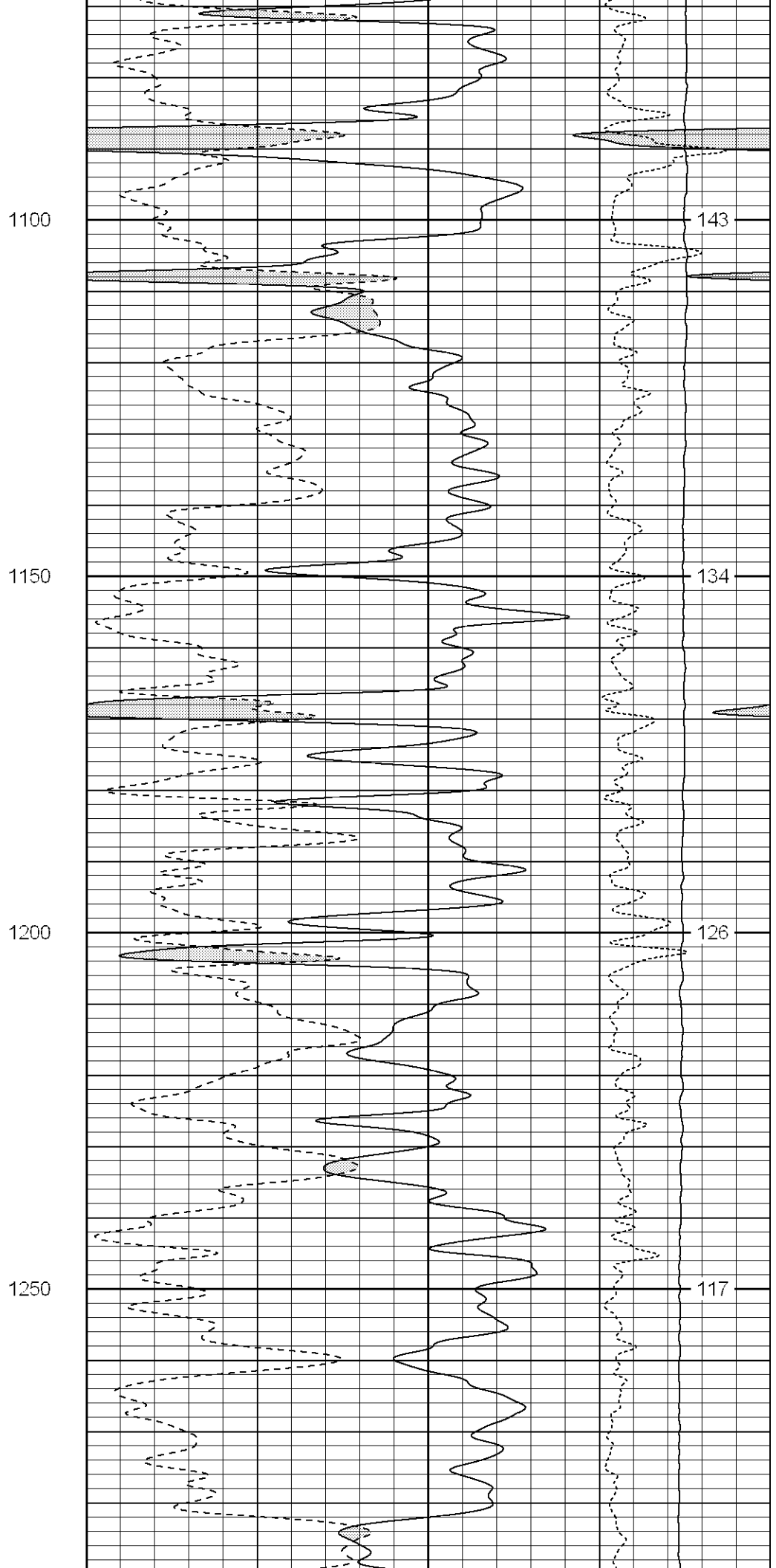
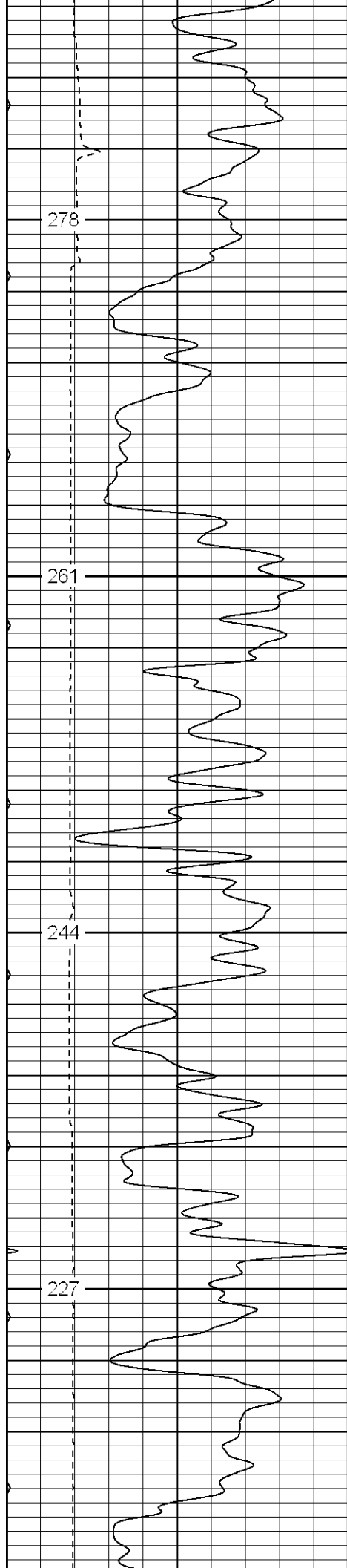
254

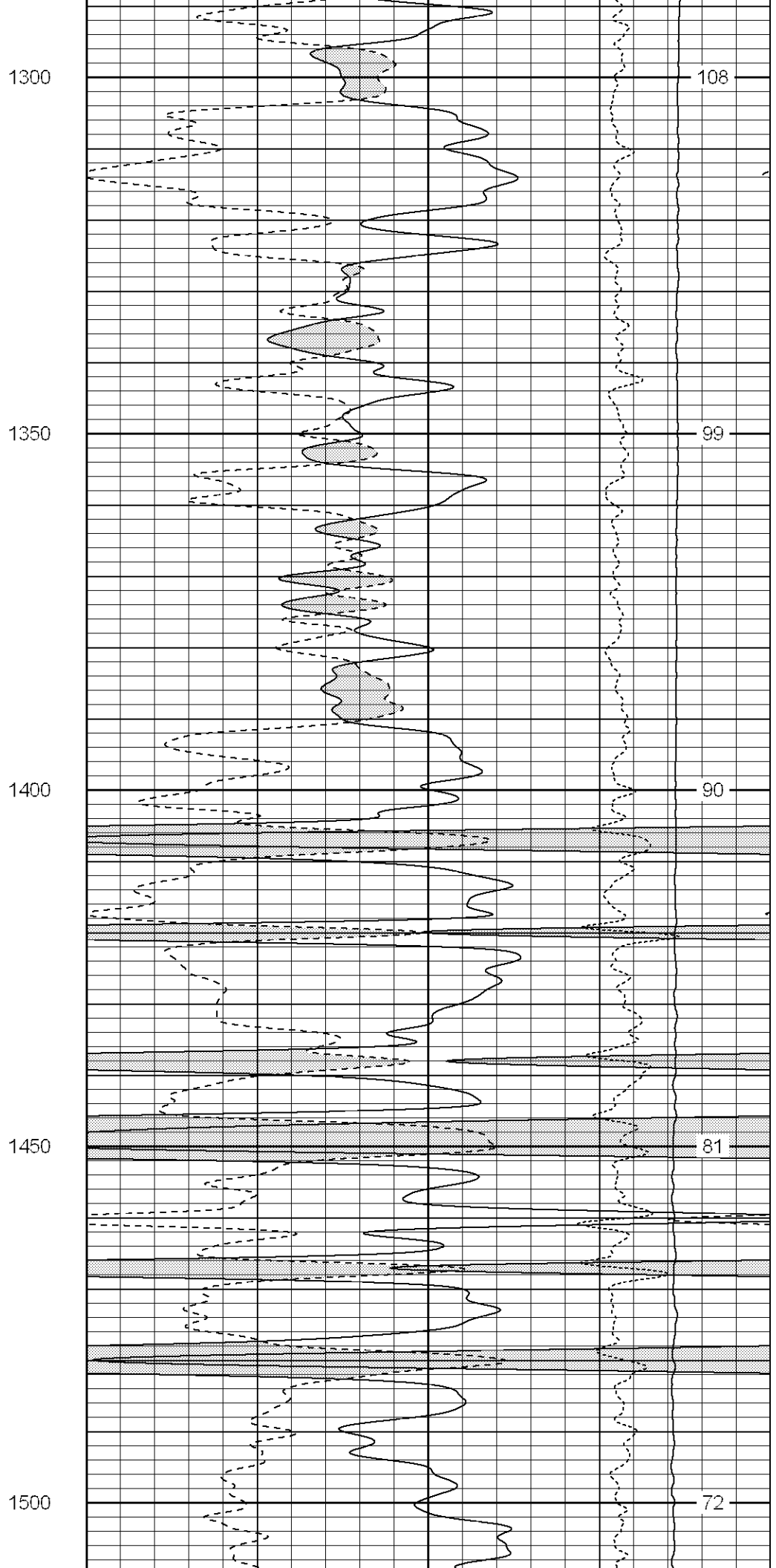
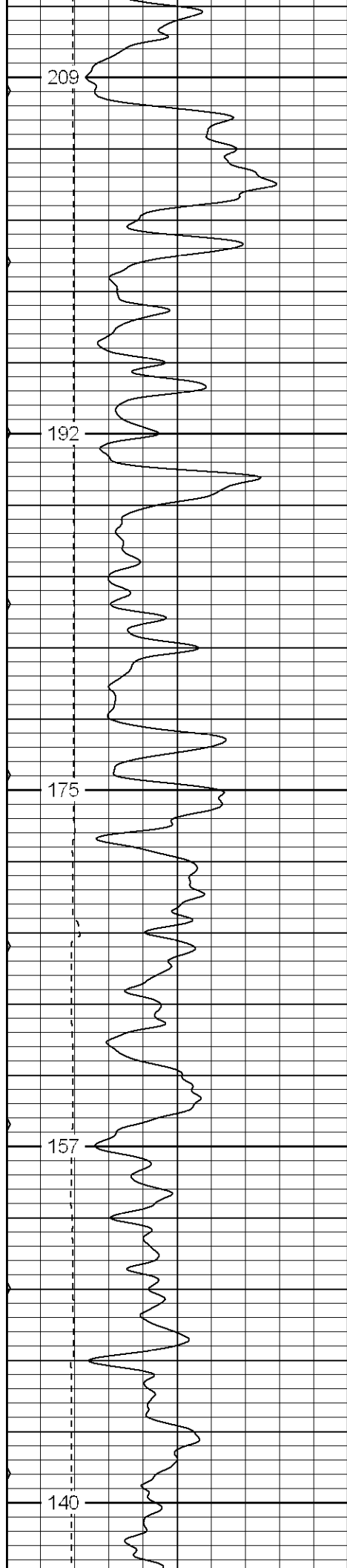
244

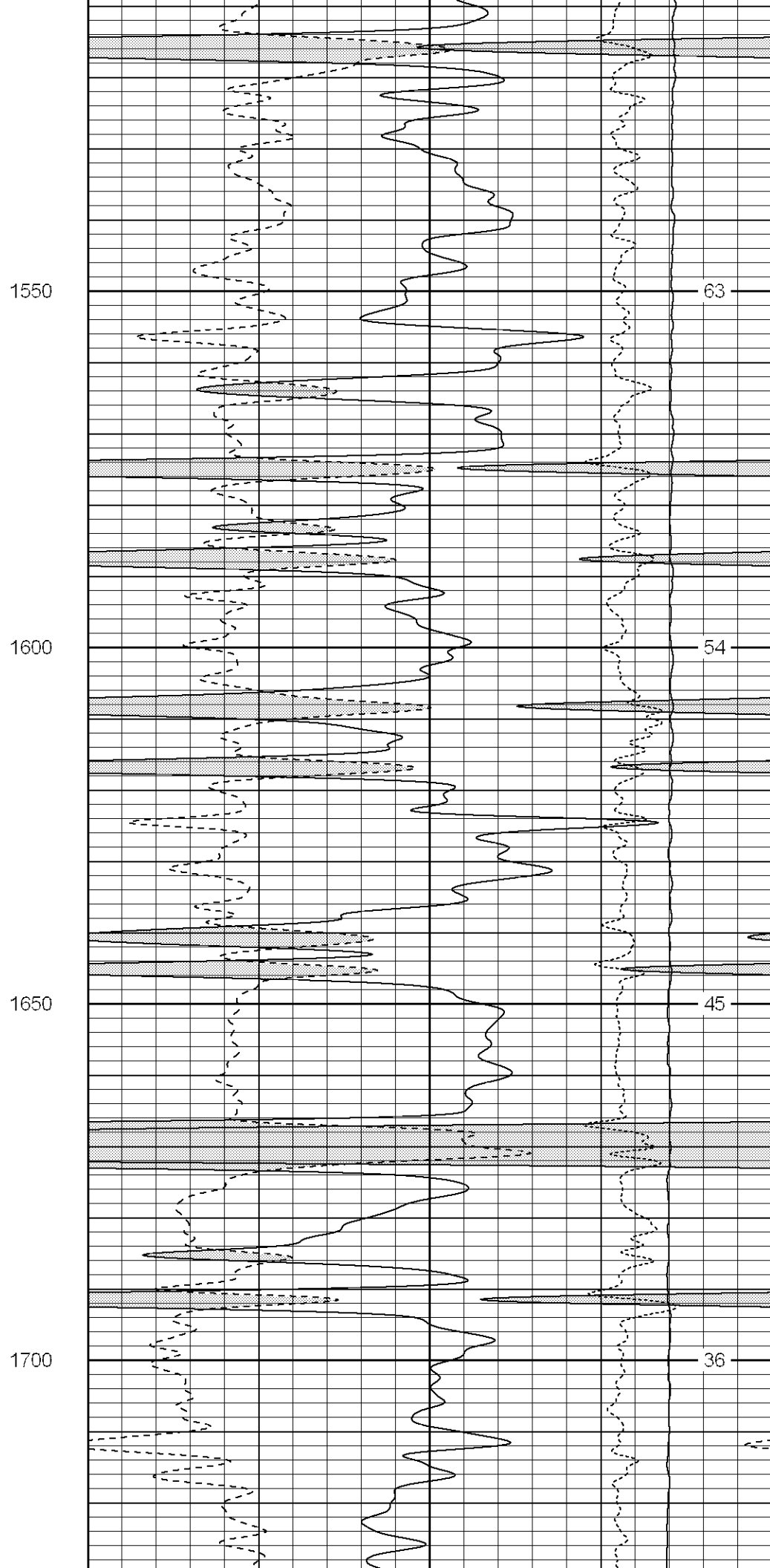
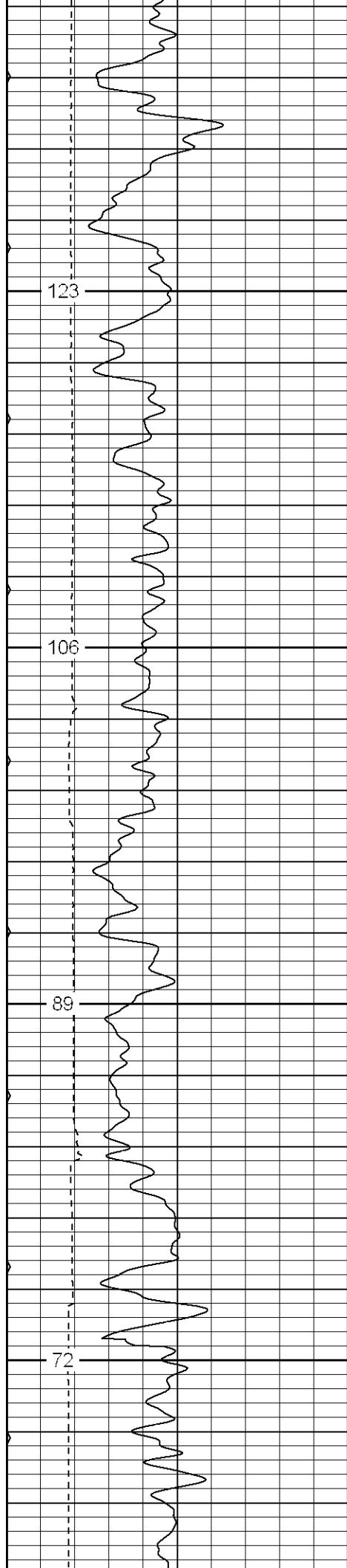
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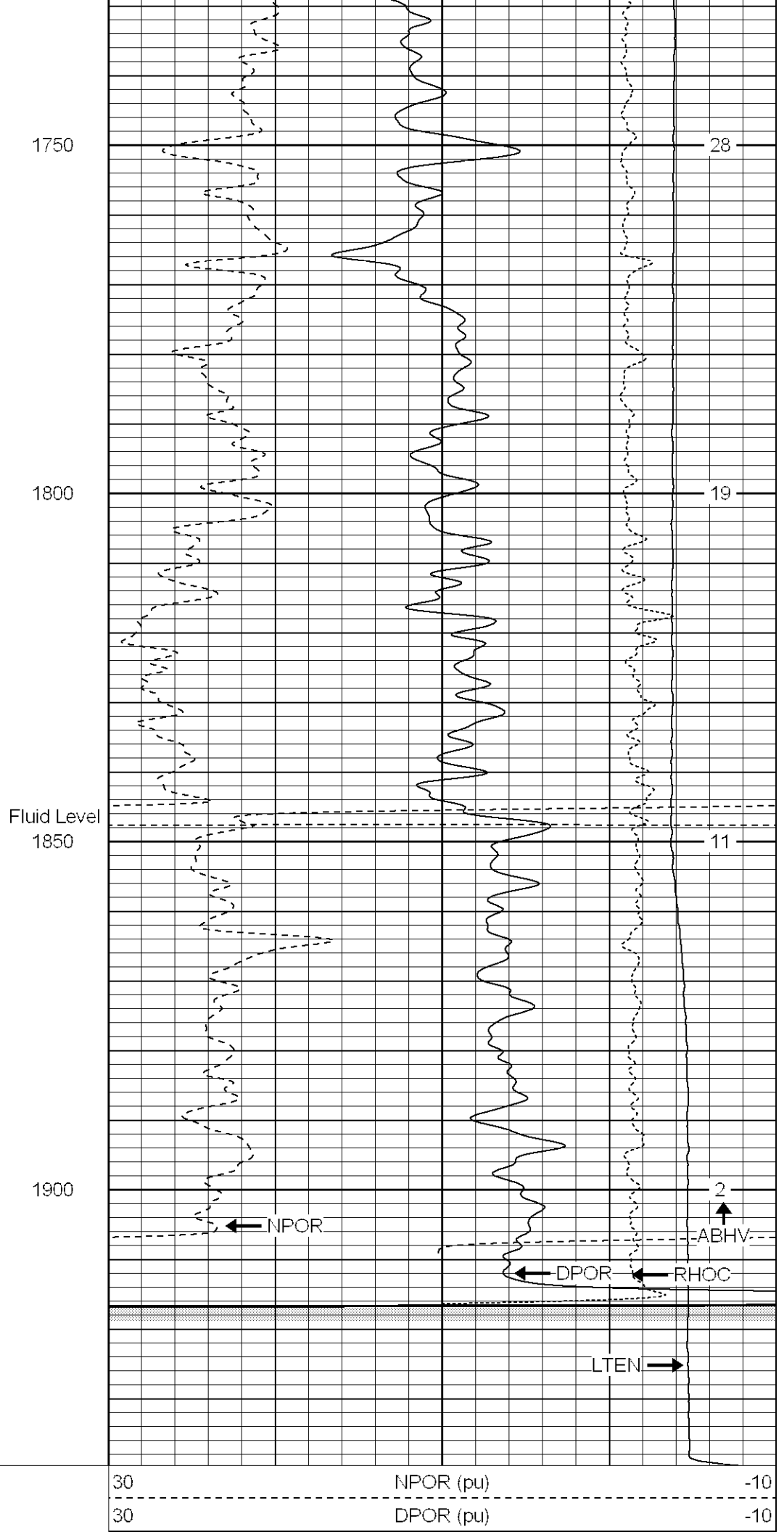
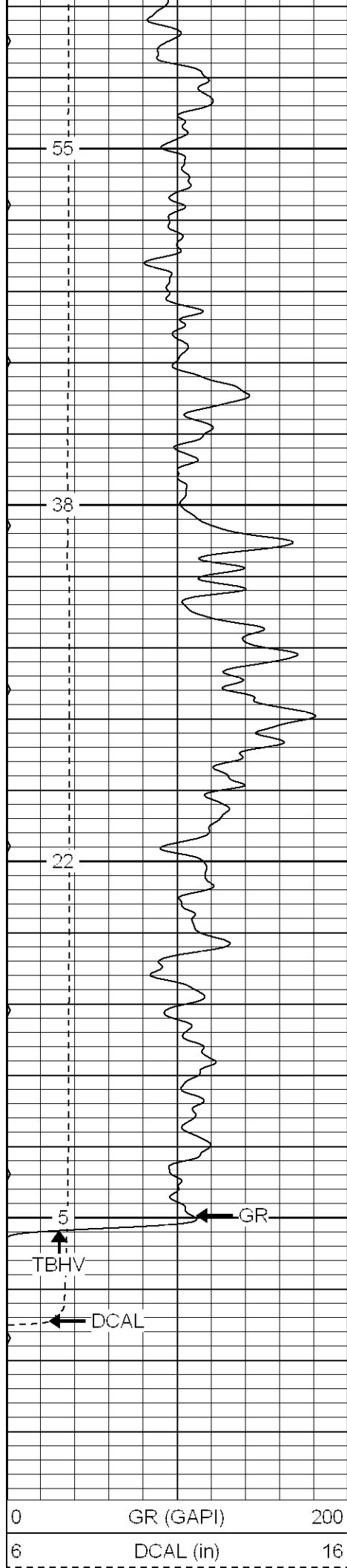












0	MINMK	80
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-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0



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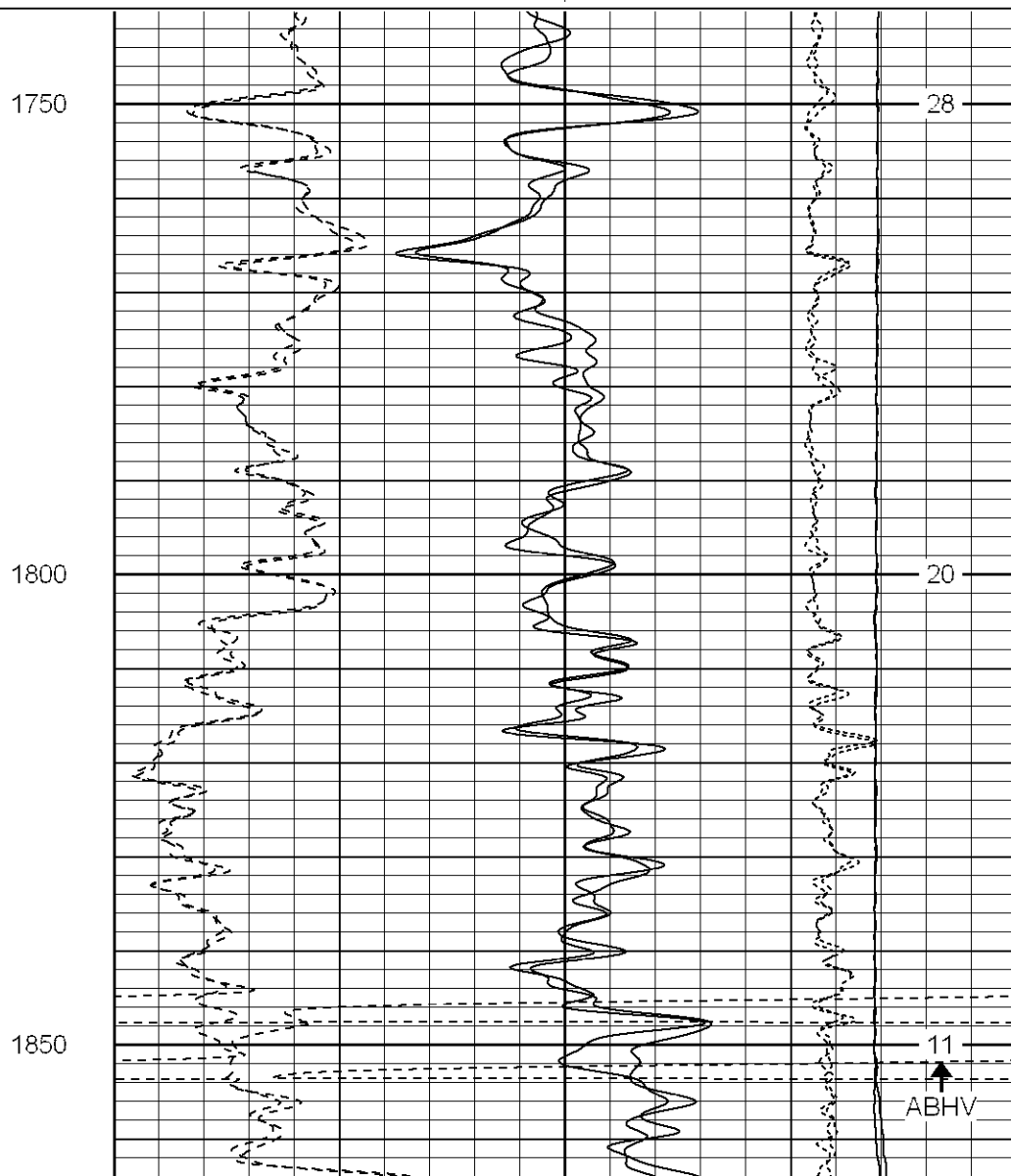
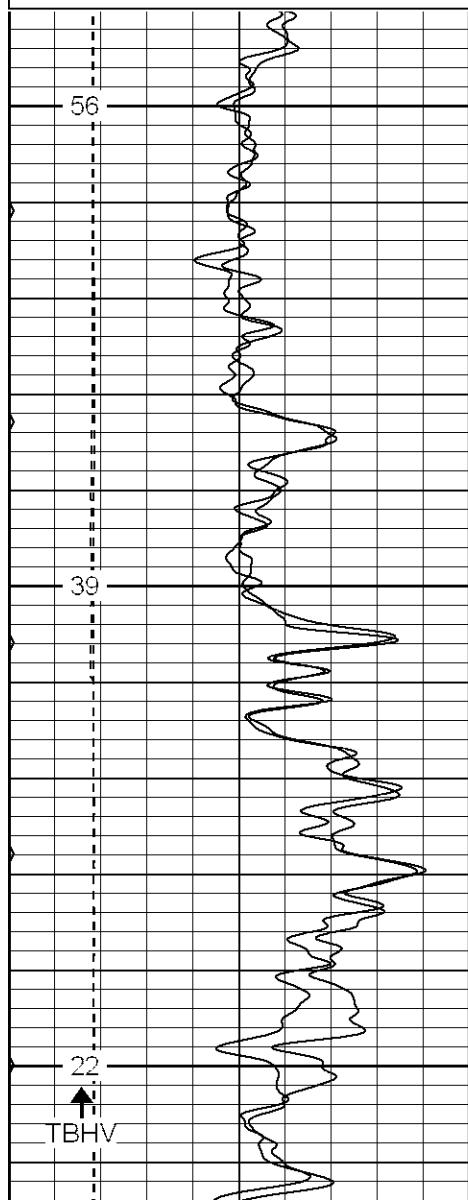
# Repeat Pass

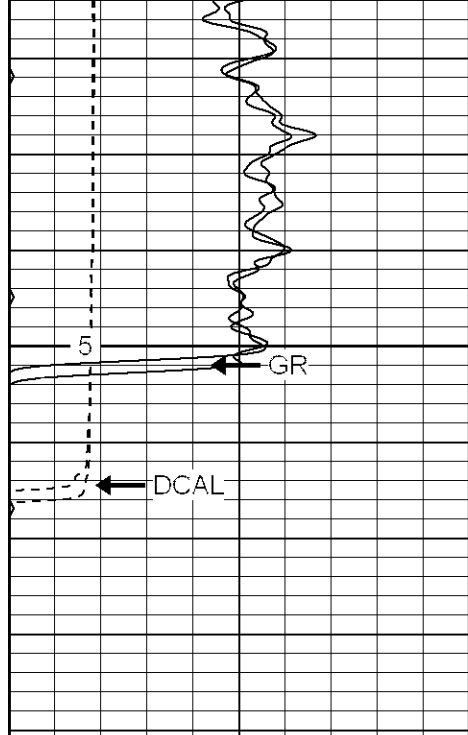
Database File: xtoac2602.db  
Dataset Pathname: pass1.1  
Presentation Format: cdnl  
Dataset Creation: Thu Jan 18 15:38:26 2007 by Calc Open-Cased 060407  
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200
6	DCAL (in)	16
0	MINMK	80
0	GR-repeat (GAPI)	200
6	DCAL-repeat (in)	16

30	NPOR (pu)	-10
30	DPOR (pu)	-10
30	NPOR-repeat (pu)	-10
30	DPOR-repeat (pu)	-10

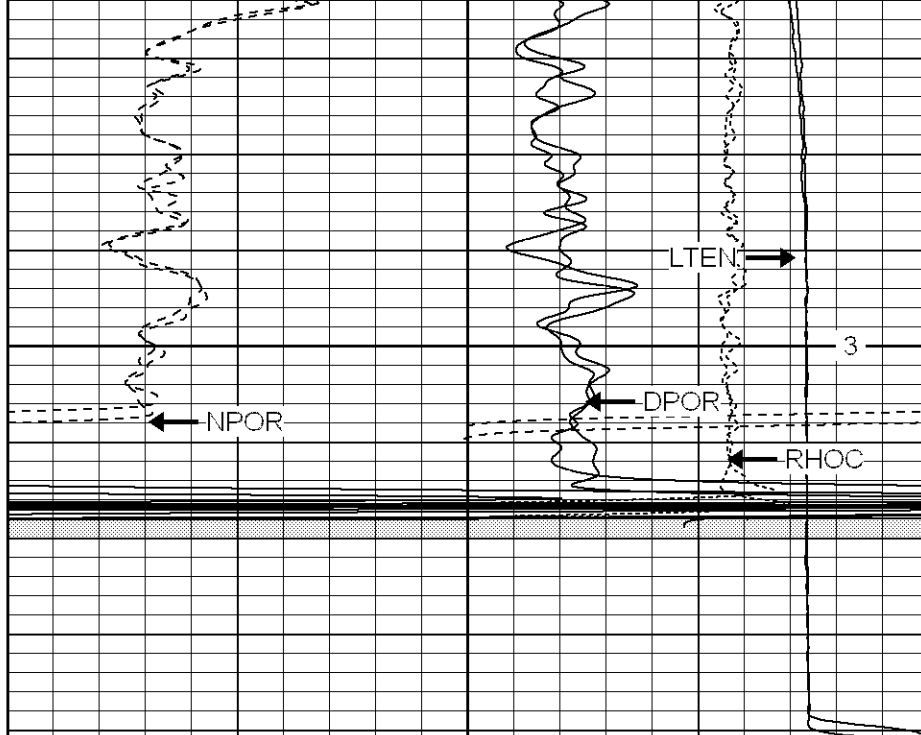
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0
-0.5	RHOC-repeat (g/cc)	0.5
4000	LTEN-repeat (lb)	0





0	GR (GAPI)	200
6	DCAL (in)	16
0	MINMK	80
0	GR-repeat (GAPI)	200
6	DCAL-repeat (in)	16

1900



30	NPOR (pu)	-10
30	DPOR (pu)	-10
30	NPOR-repeat (pu)	-10
30	DPOR-repeat (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0
-0.5	RHOC-repeat (g/cc)	0.5
4000	LTEN-repeat (lb)	0



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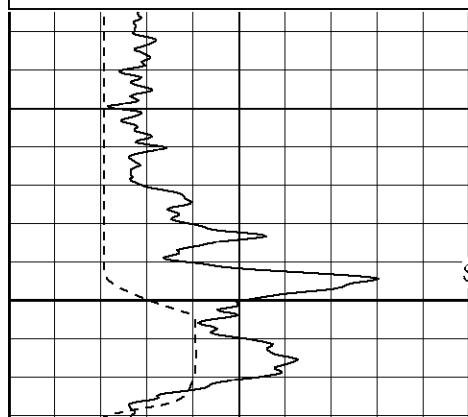
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# High Resolution Pass

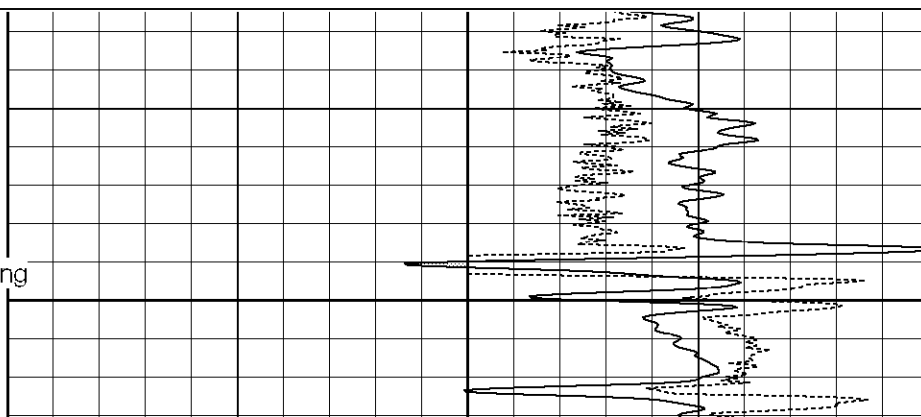
Database File: xtoac2602.db  
Dataset Pathname: pass2.2  
Presentation Format: cdlhr  
Dataset Creation: Fri Jan 19 07:15:30 2007 by Calc Open-Cased 060407  
Charted by: Depth in Feet scaled 1:120

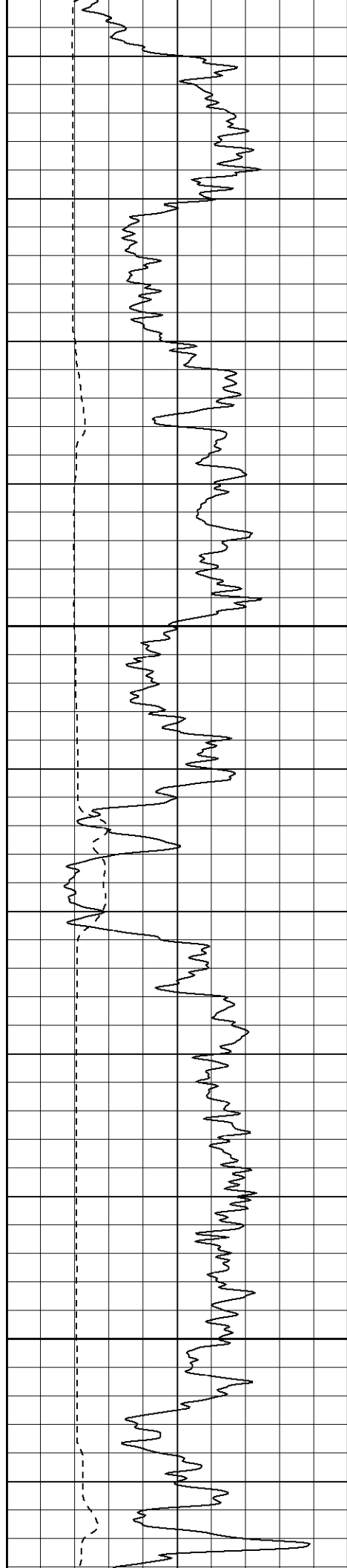
0	GR (GAPI)	200
6	DCAL (in)	16

1	RHOB (g/cc)	3
-0.5	RHOC (g/cc)	0.5



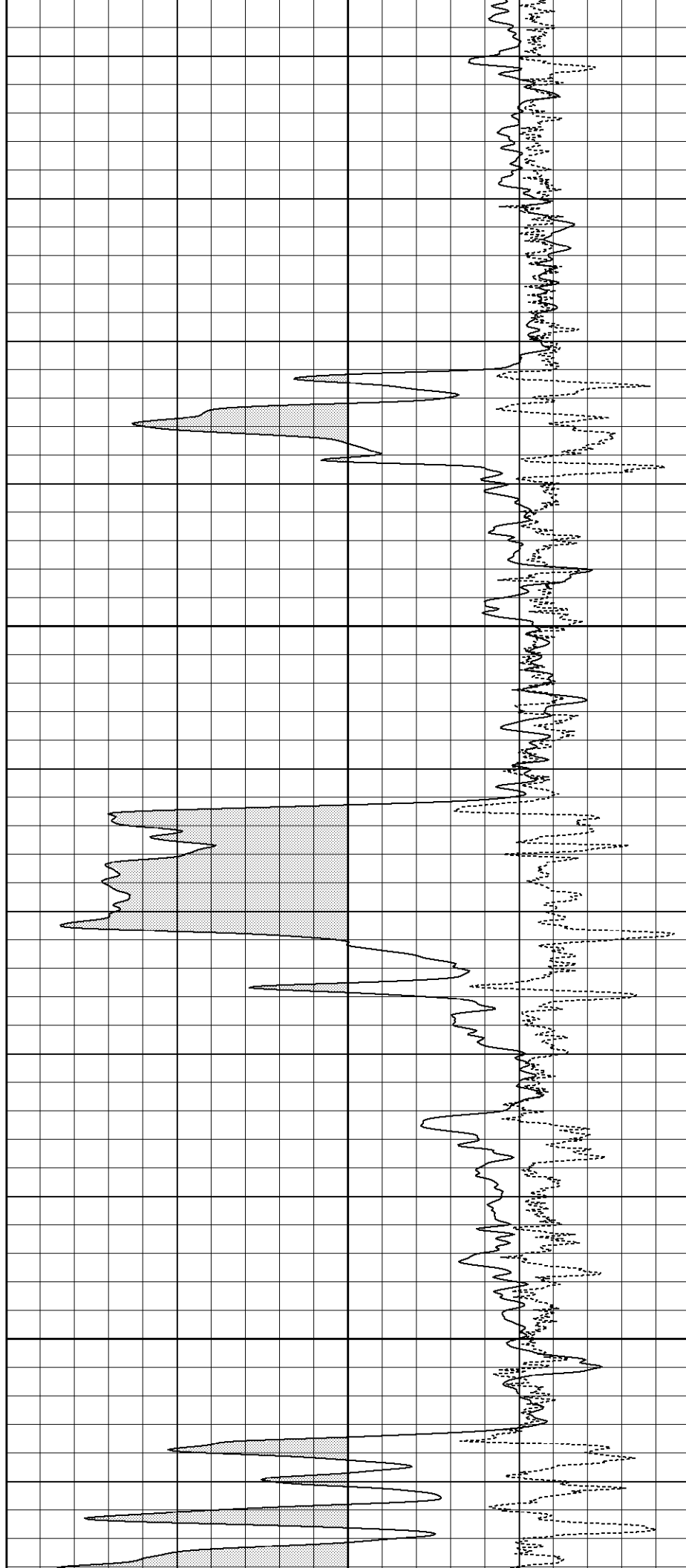
Surface Casing  
500

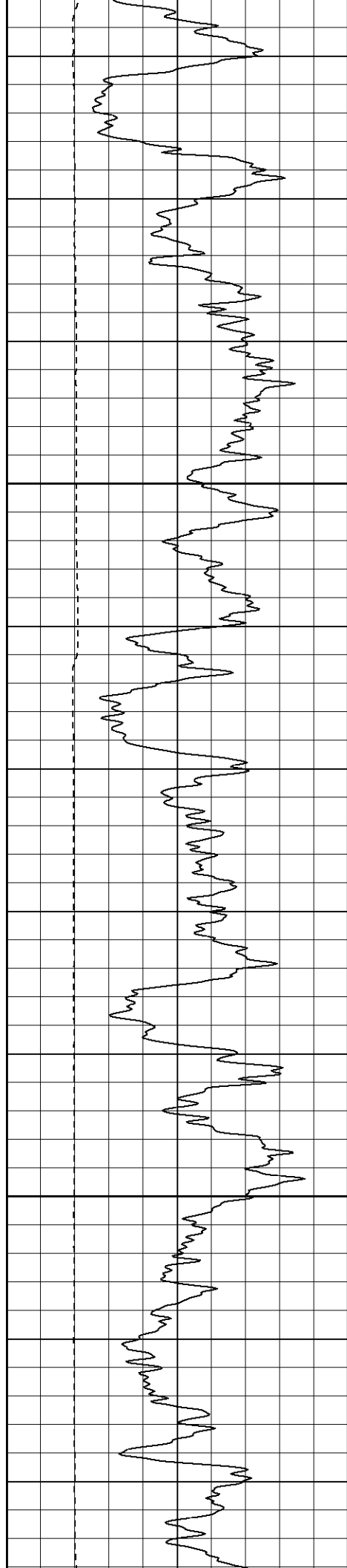




550

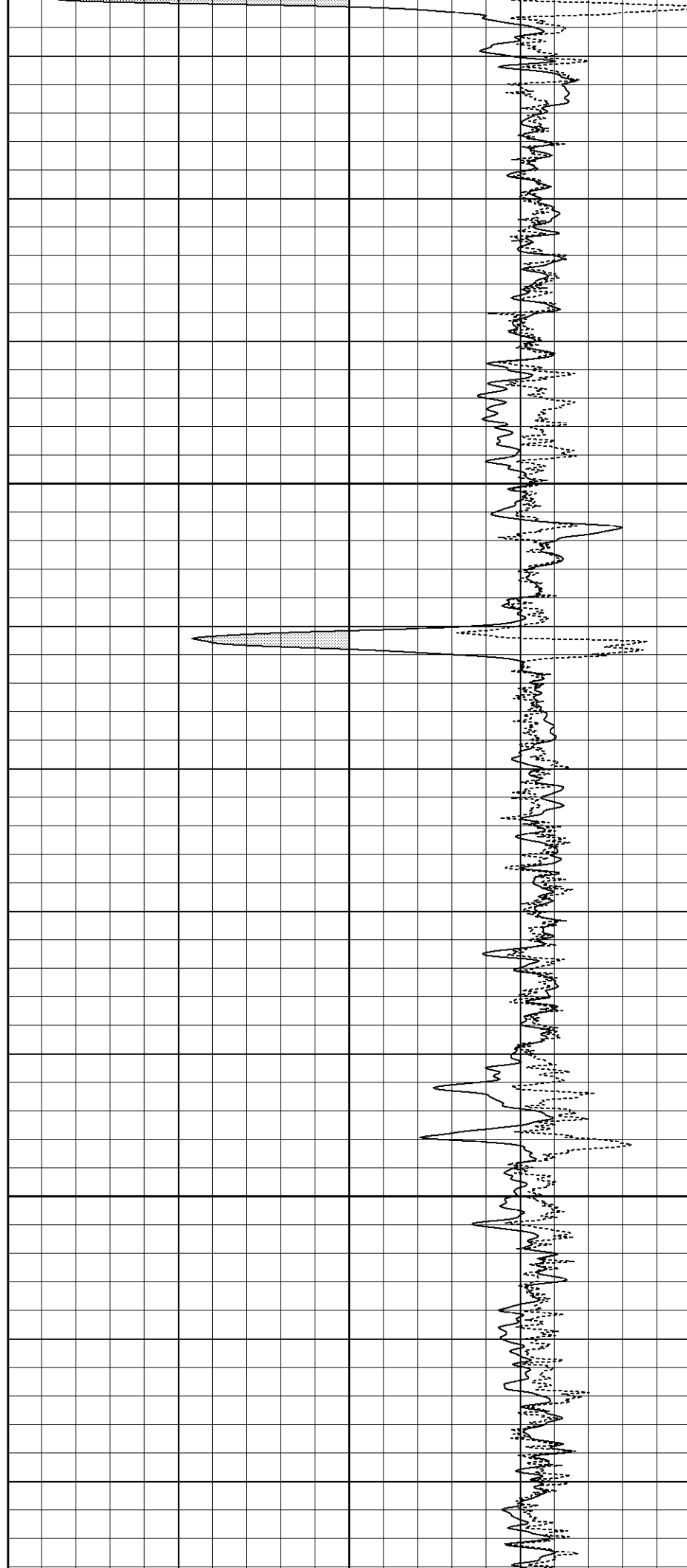
600

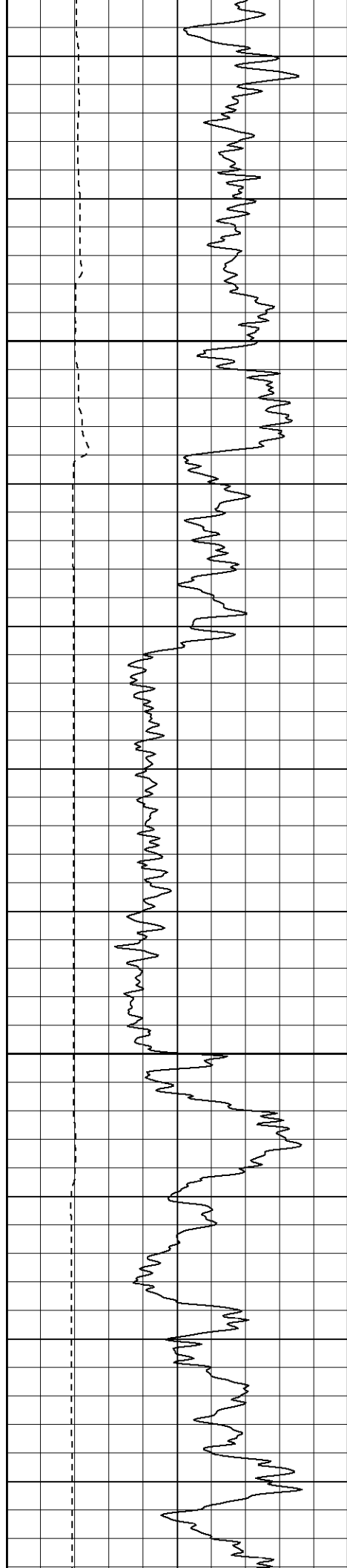




650

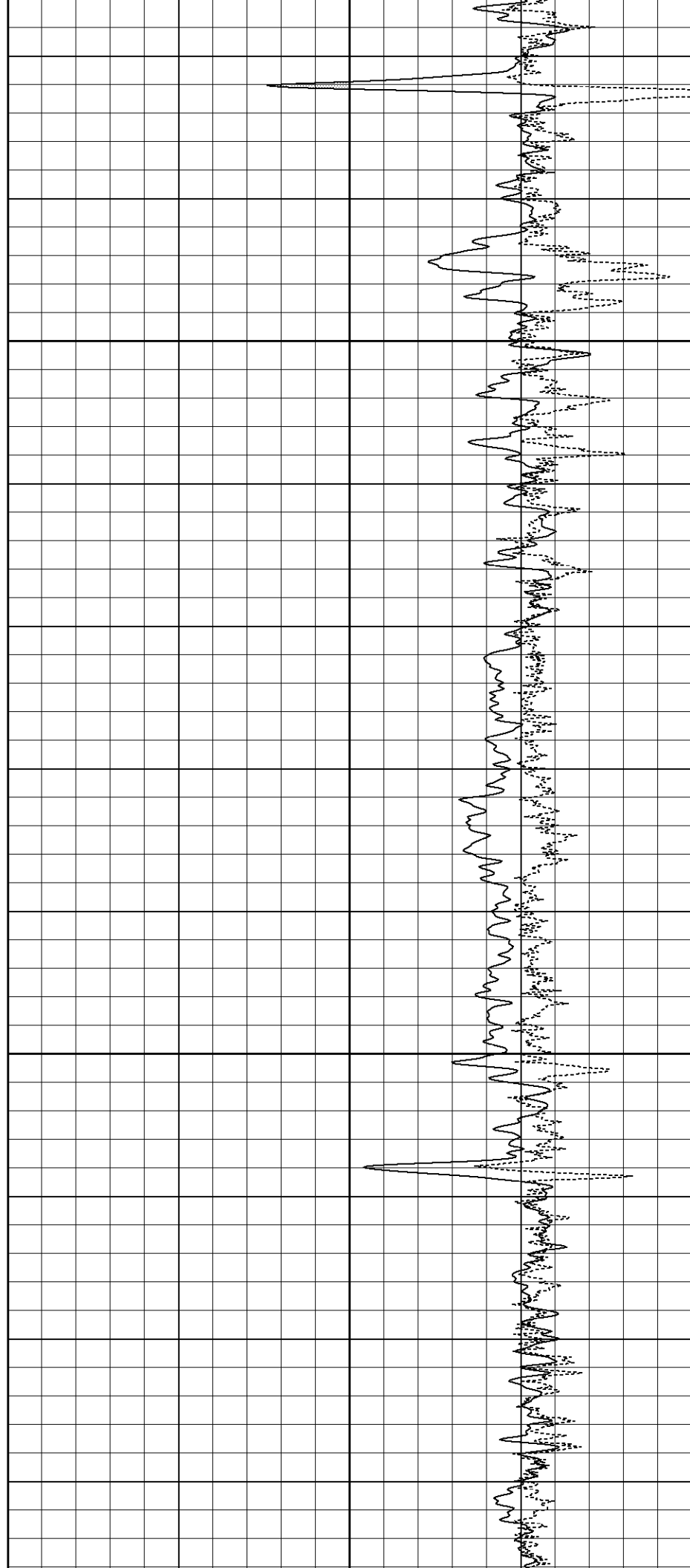
700

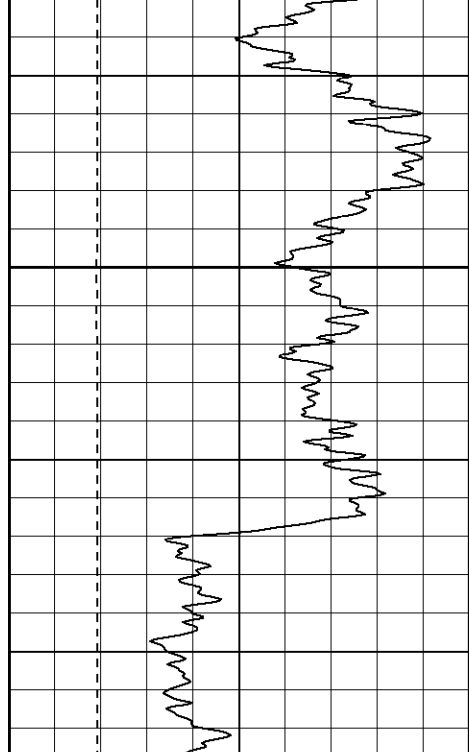




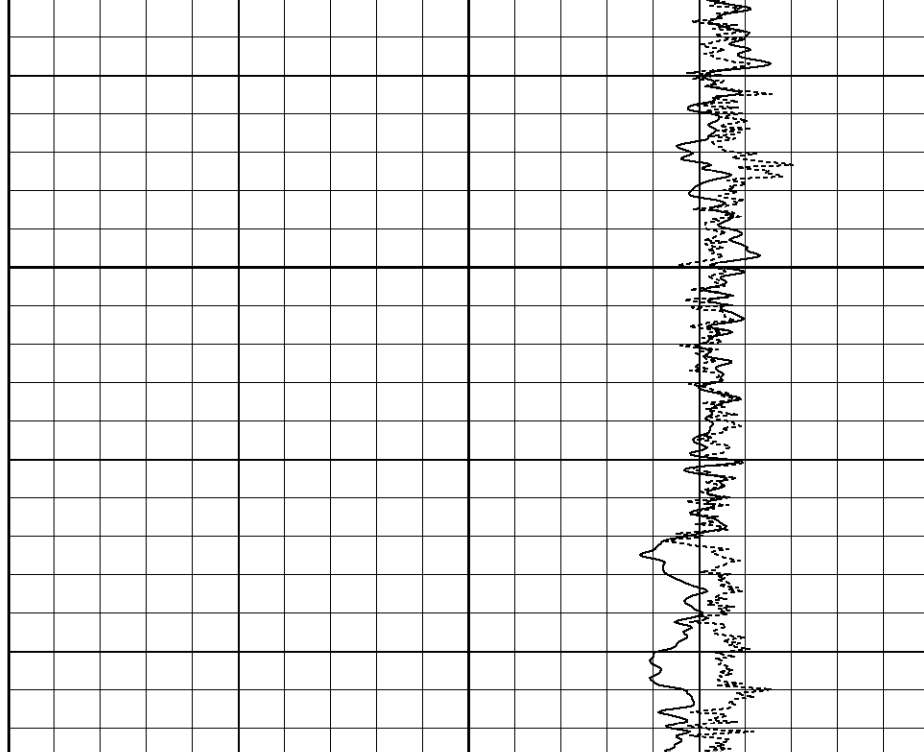
750

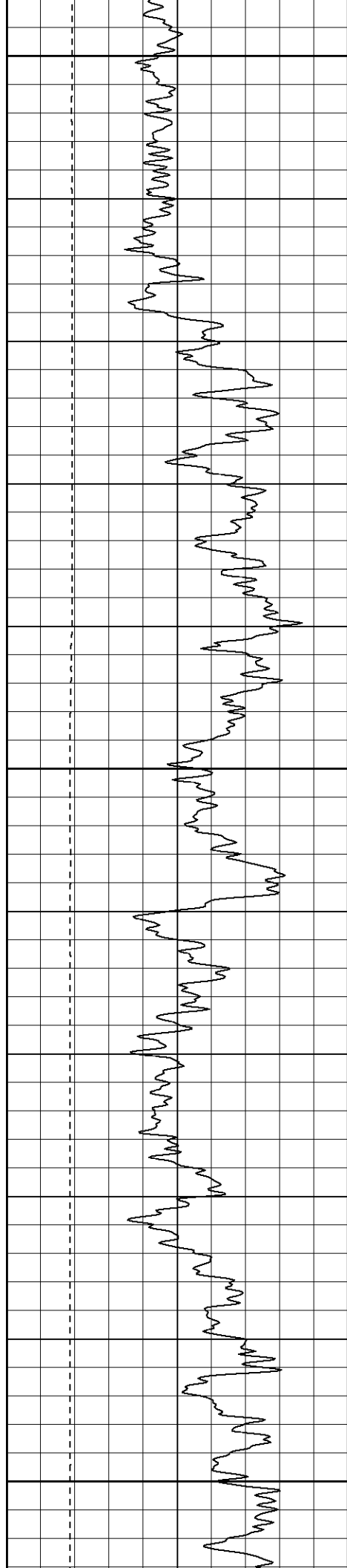
800





850

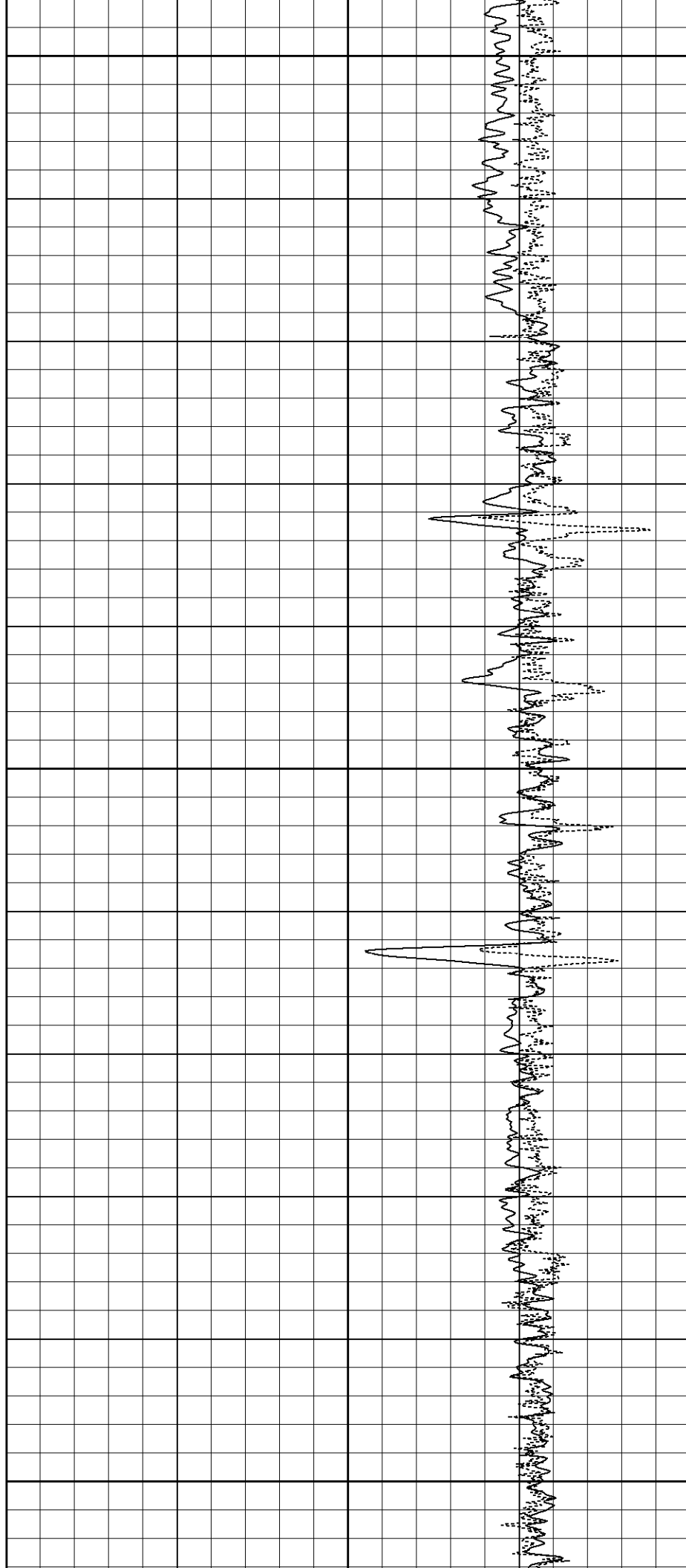




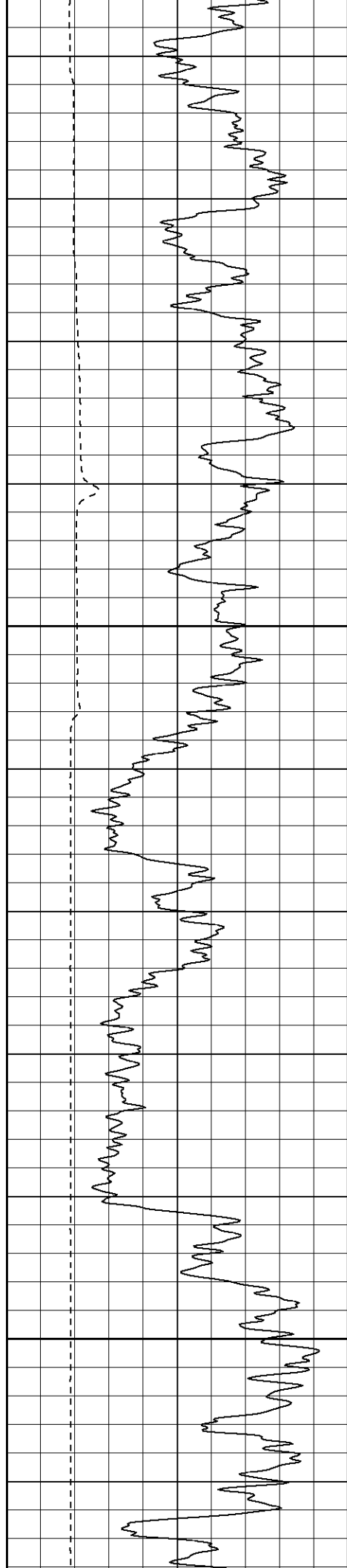
950

1000

1050

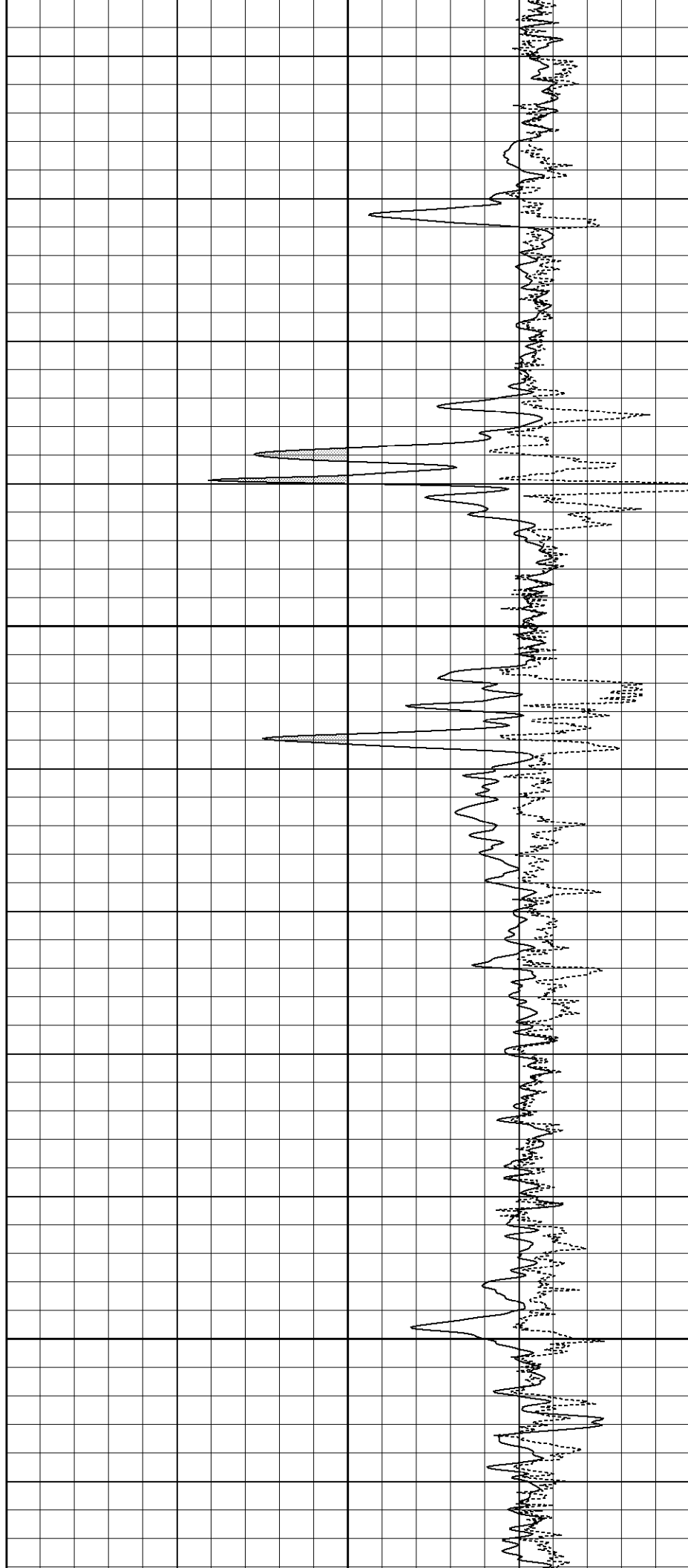


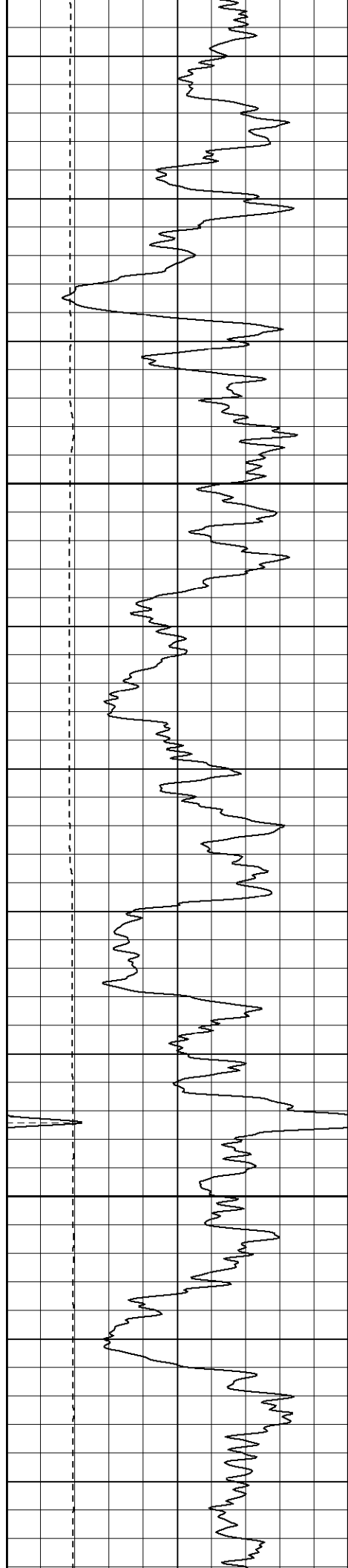




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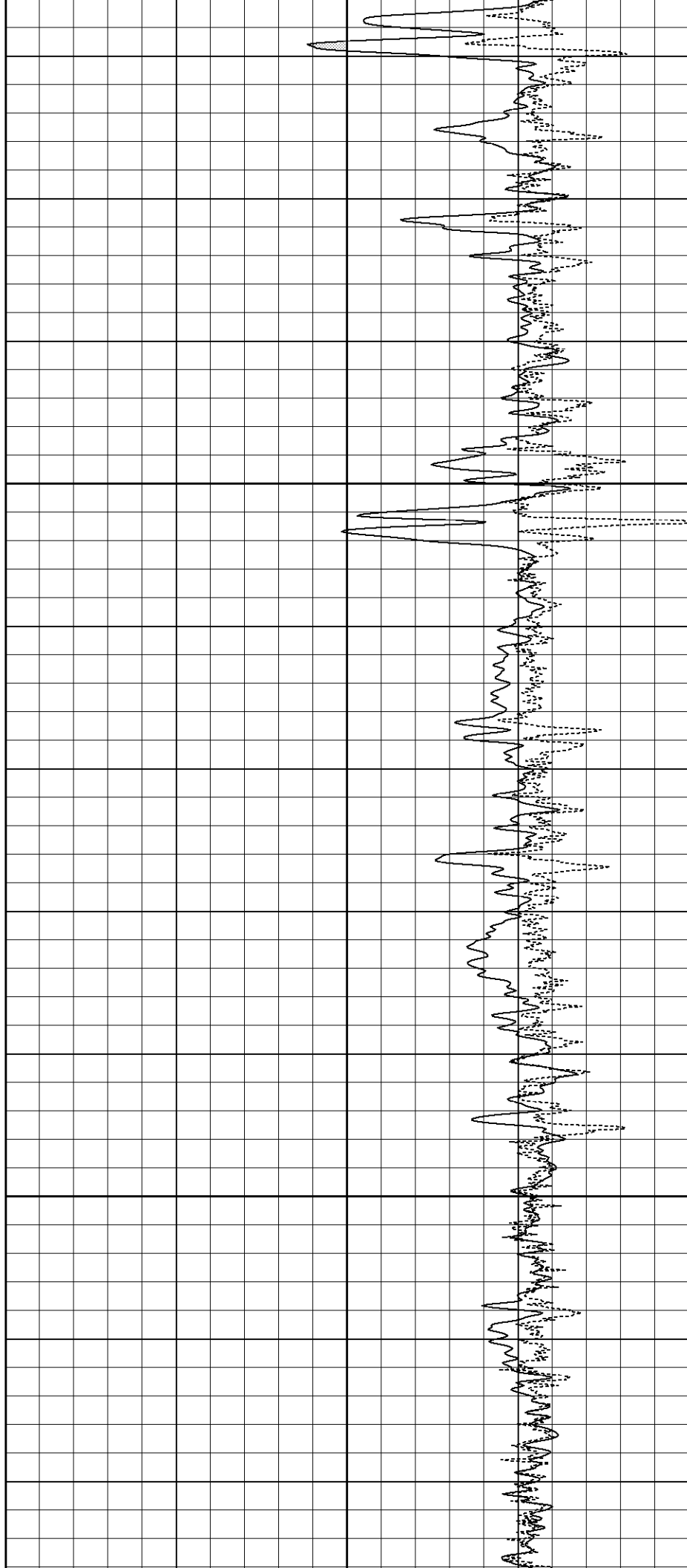
1150



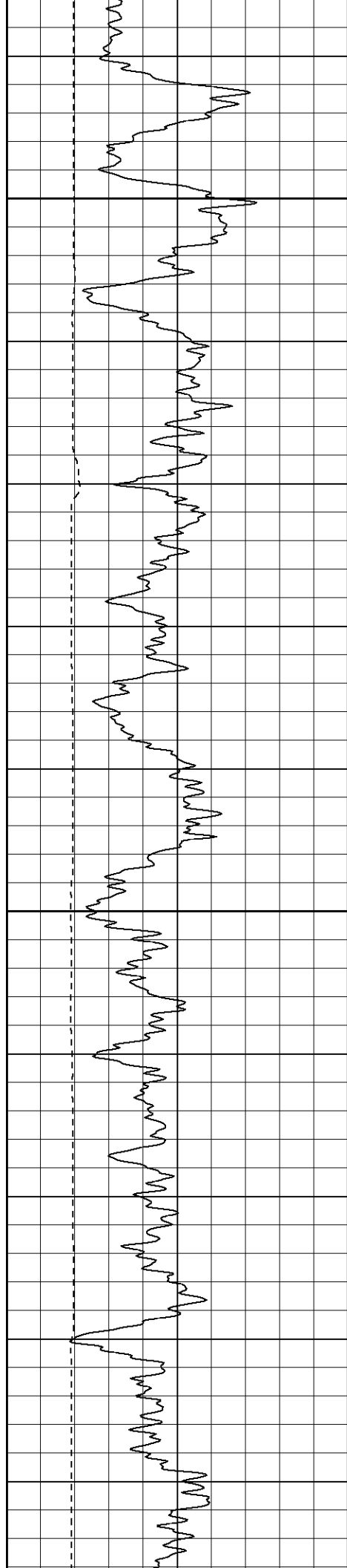


1200

1250

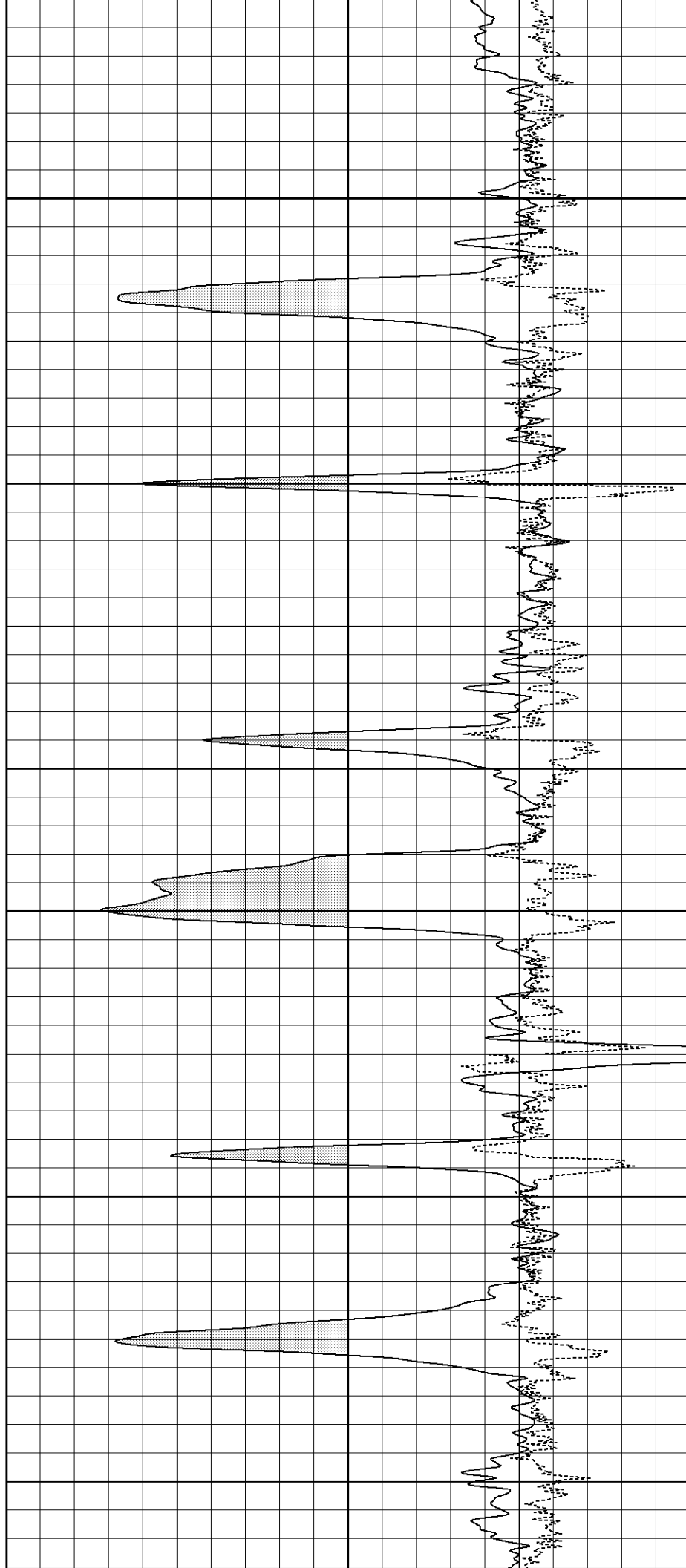


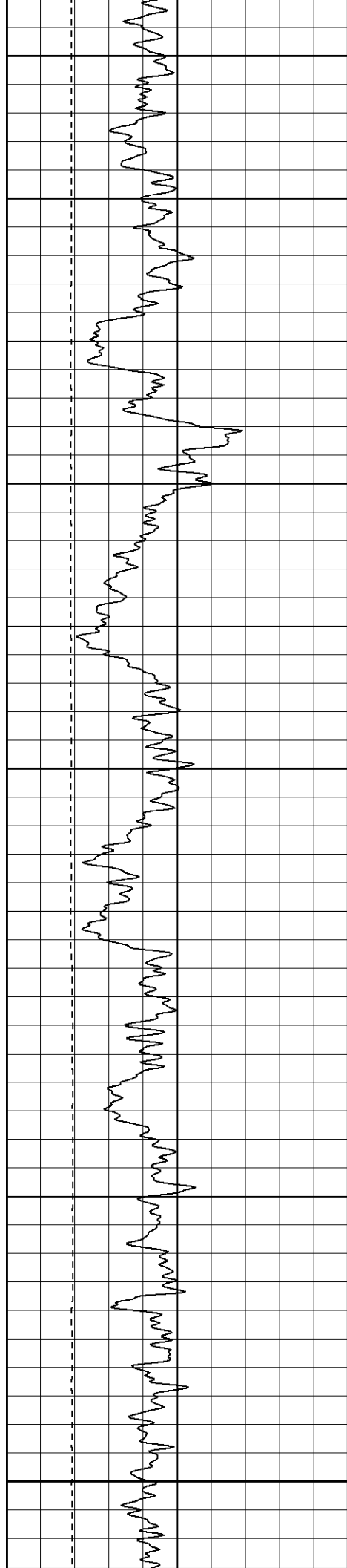




1400

1450

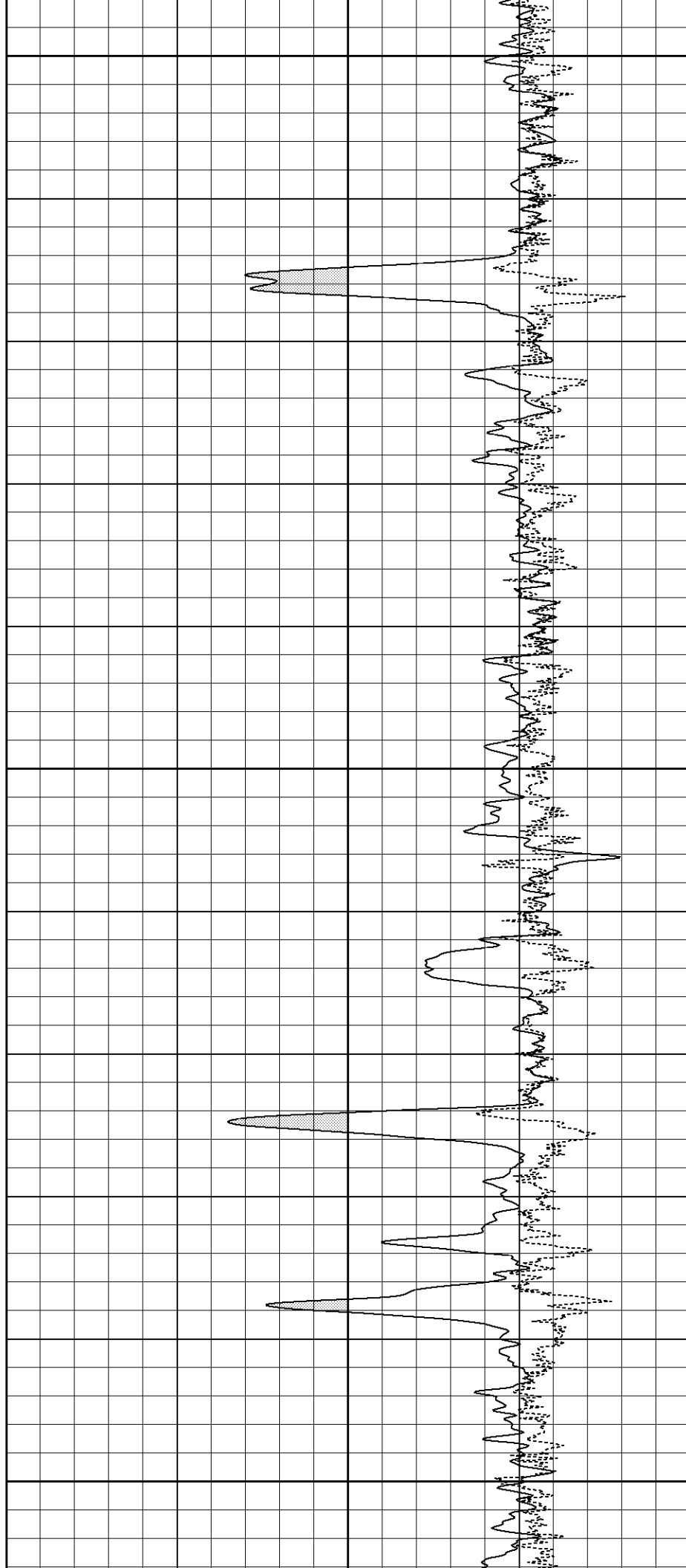


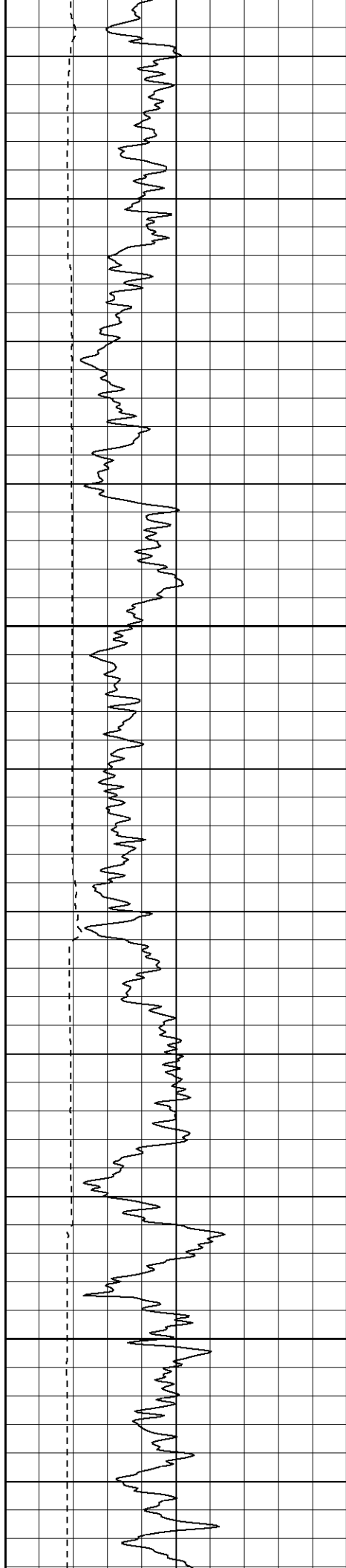


1500

1550

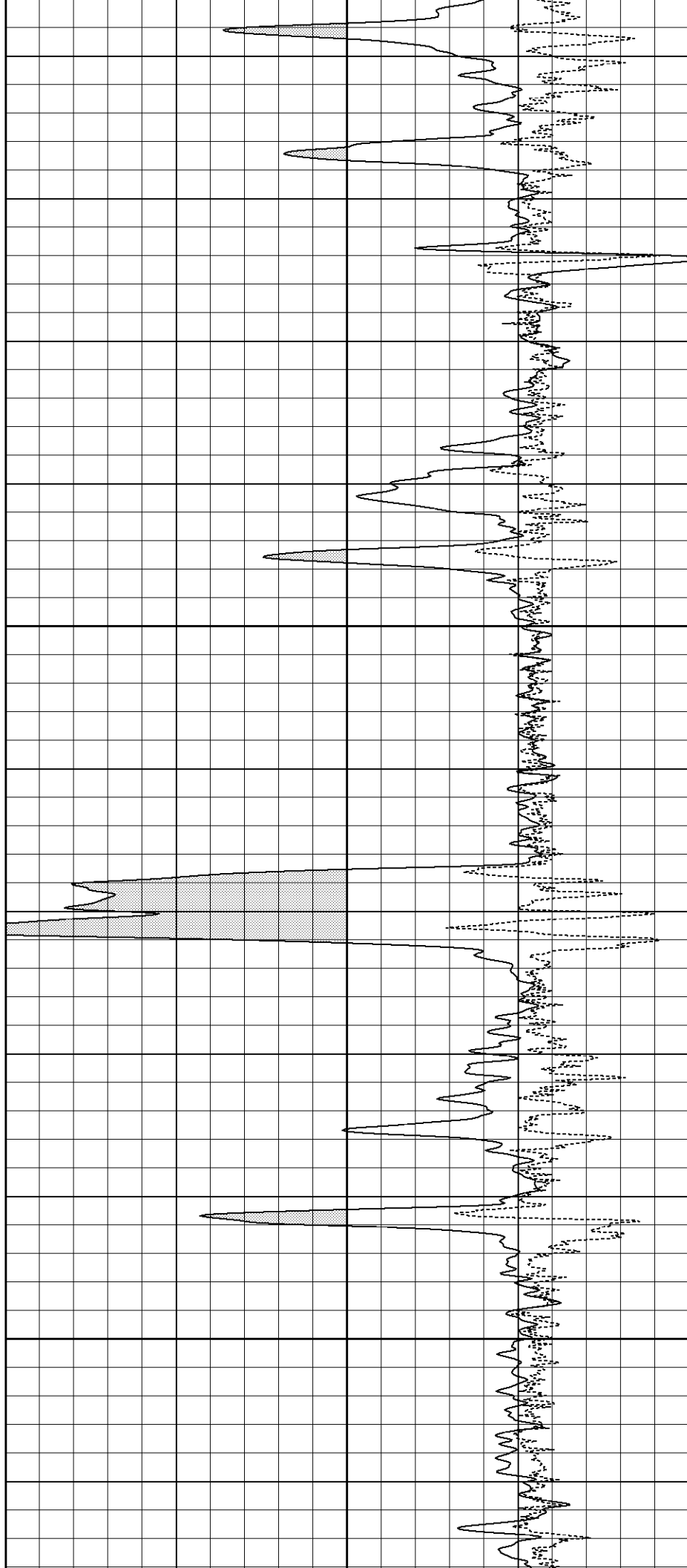
1600

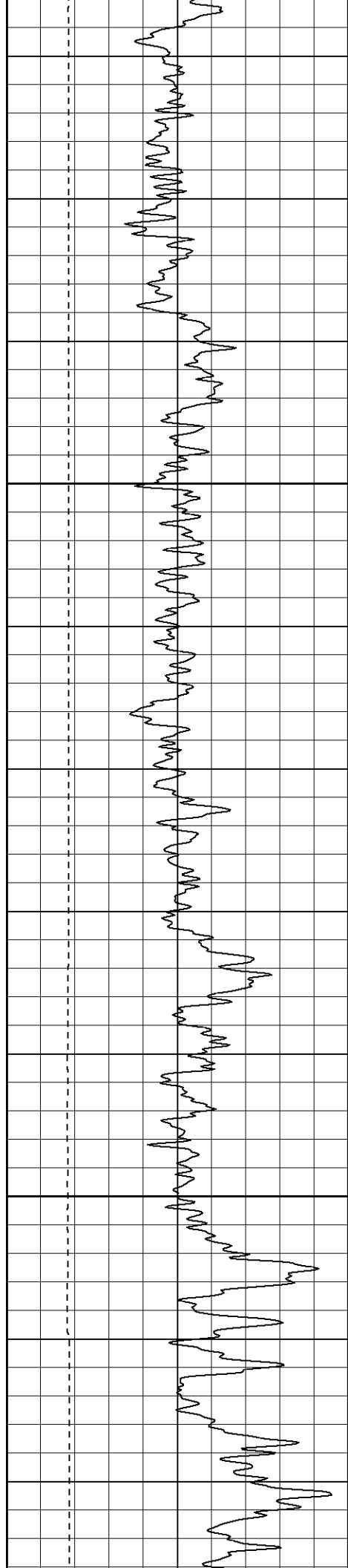




1650

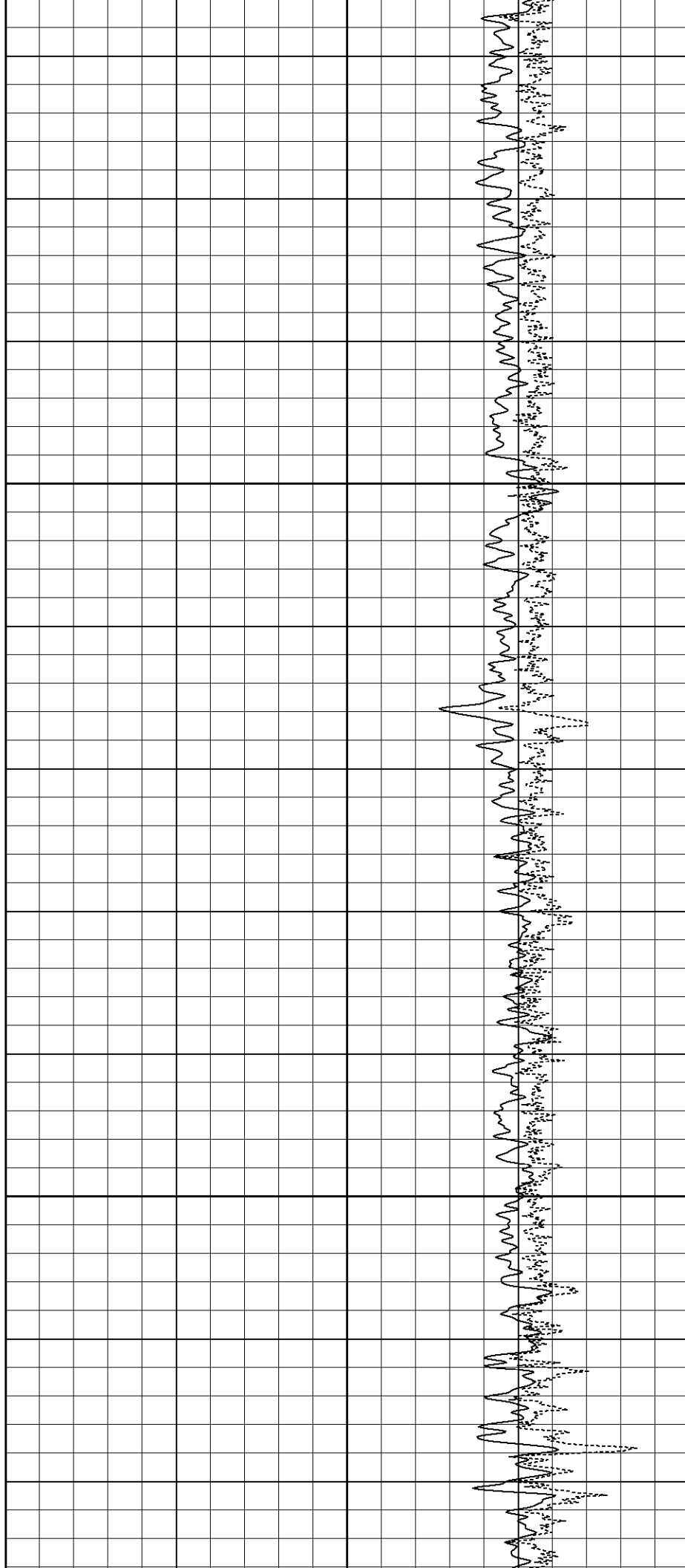
1700

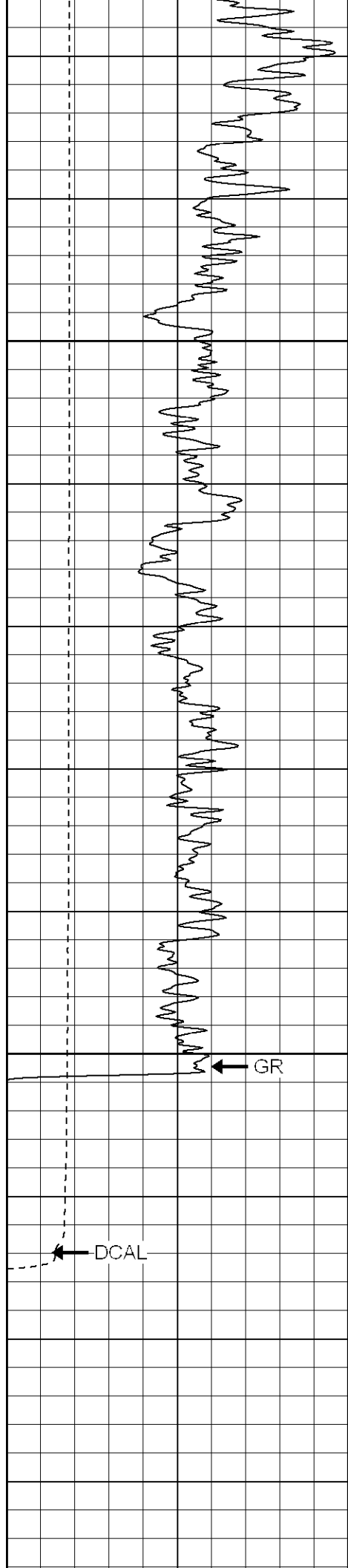




1750

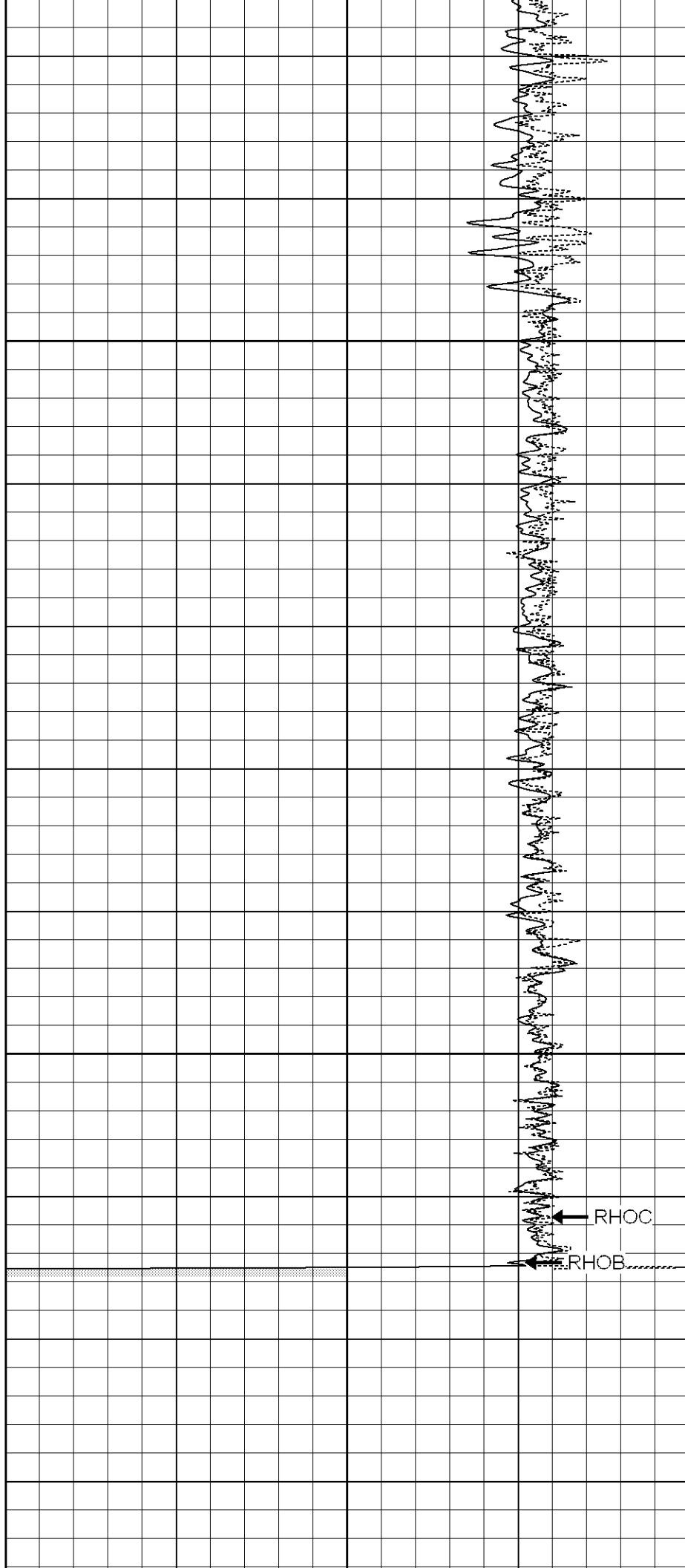
1800





1850

1900





Calibration Report									
Database File:		xtoac2602.db							
Dataset Pathname:		pass1							
Dataset Creation:		Thu Jan 18 14:50:27 2007 by Log Open-Cased 060407							
Dual Induction Calibration Report									
Serial-Model:		5375-G							
Surface Cal Performed:		Tue Jan 09 13:17:43 2007							
Downhole Cal Performed:		Tue Jan 09 13:18:11 2007							
Surface Calibration									
		Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b	
Deep	0.007	0.625	V	0.000	500.000	mmho-m	809.614	-5.856	
Medium	0.010	0.747	V	0.000	550.000	mmho-m	746.393	-7.503	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.007	0.626	V	0.000	500.000	mmho-m	808.671	-5.957	
Medium	0.010	0.747	V	0.000	550.000	mmho-m	745.979	-7.399	
Downhole Calibration									
		Readings			References			Results	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.222	500.717	mmho-m	0.109	500.692	mmho-m	1.000	-0.114	
Medium	-0.178	550.064	mmho-m	-0.100	550.205	mmho-m	1.000	0.077	
Shallow	2.515	0.017	V	500.000	2.000	Ohm-m	179.332	-3.000	
Compensated Density Calibration Report									
Serial-Model:		902-2.75POH							
Source / Verifier:		/							
Master Calibration Performed:		Thu Jan 11 14:44:29 2007							
Master Calibration									
		Density		Far Detector		Near Detector			
Magnesium	1.710	g/cc		1015.57	498.52	cps			
Aluminum	2.585	g/cc		183.60	250.82	cps			
Spine Angle = 68.12			Density/Spine Ratio = 0.475						
		Size		Reading					
Small Ring	8.05	in		1.84	V				
Large Ring	17.00	in		4.32	V				

## Neutron Calibration Report

Serial Number: 802  
Tool Model: 2.75POH  
Performed: Wed Jan 10 07:15:31 2007

Calibrator Value: 1 NAPI

Calibrator Reading: 1 cps

Sensitivity: 1 NAPI/cps

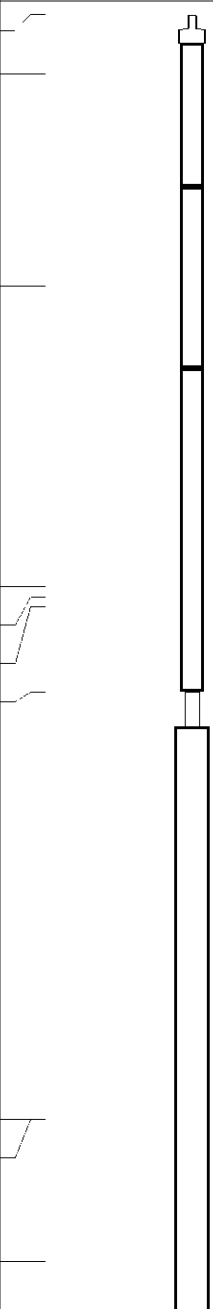
### Gamma Ray Calibration Report

Serial Number: 804  
Tool Model: 2.75POH  
Performed: Thu Jan 11 10:15:54 2007

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
Calibrator Reading: 1.0 cps

Sensitivity: 0.8000 GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CHD	39.37		None	0.75	1.50	5.00
GR	37.84		GR-2.75POH (804) Probe	3.73	2.75	43.00
NEU	32.30		NEU-2.75POH (802) Probe Epithermal	4.75	2.75	58.00
LSD	24.47		CDL-2.75POH (902) Probe	8.43	2.75	106.00
DCAL	24.19		Probe	0.89	3.50	20.00
SSD	23.95					
10pin	21.72					
CILD	10.60		DIL-G (5375) Gearhart	20.83	4.00	345.00
SP	10.60					
CILM	6.89					

RLL3	1.70					
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Dataset:	xtoac2602.db: field/well/run1/pass1
Total Length:	39.37 ft
Total Weight:	577.00 lb
O.D.	4.00 in