

**COMPENSATED DENSITY  
NEUTRON  
LOG**

Company	Pioneer Natural Resources	Company	Pioneer Natural Resources
Well	Pointer 43-25	Well	Pointer 43-25
Field	Purgatoire River	Field	Purgatoire River
County	Las Animas	County	Las Animas
State	Colorado	State	Colorado
Location:	APL #: 05 071 09766 00	Other Services	SIL
SEC 25 TWP 32S RGE 67W	2634' FSL & 643' FEL	Elevation	
Permanent Datum	Ground Level	K.B. 7416'	
Log Measured From	Kelly Bushing 4' AGL	D.F. -----	
Drilling Measured From	Kelly Bushing	G.L. 7412'	
Date	8-23-11		
Run Number	One		
Depth Driller	2480'		
Depth Logger	2472'		
Bottom Logged Interval	2456'		
Top Log Interval	Surface Casing		
Casing Driller	8 5/8" @ 264"		
Casing Logger	263'		
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	3:30 P.M.		
Time Logger on Bottom	8:15 P.M.		
Maximum Recorded Temperature	97 DEG F		
Equipment Number	T590		
Location	Trinidad		
Recorded By	C. Sisneros		
Witnessed By	Mr. Billy Vigil		

<<< 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**

Density Porosity Presented On Sandstone Matrix.  
ABHV Calculated For 5.5" Casing.

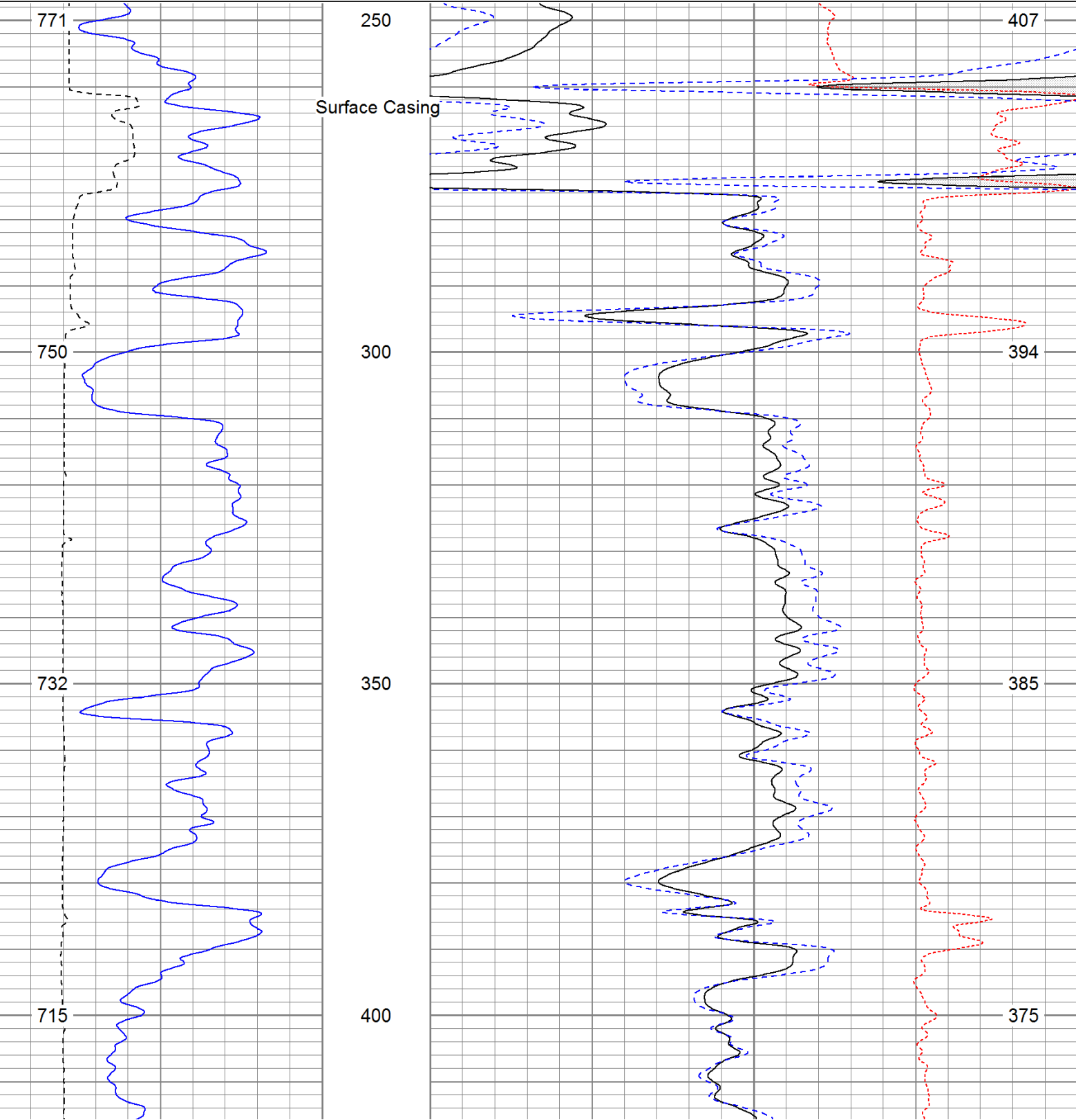
**Directions:**

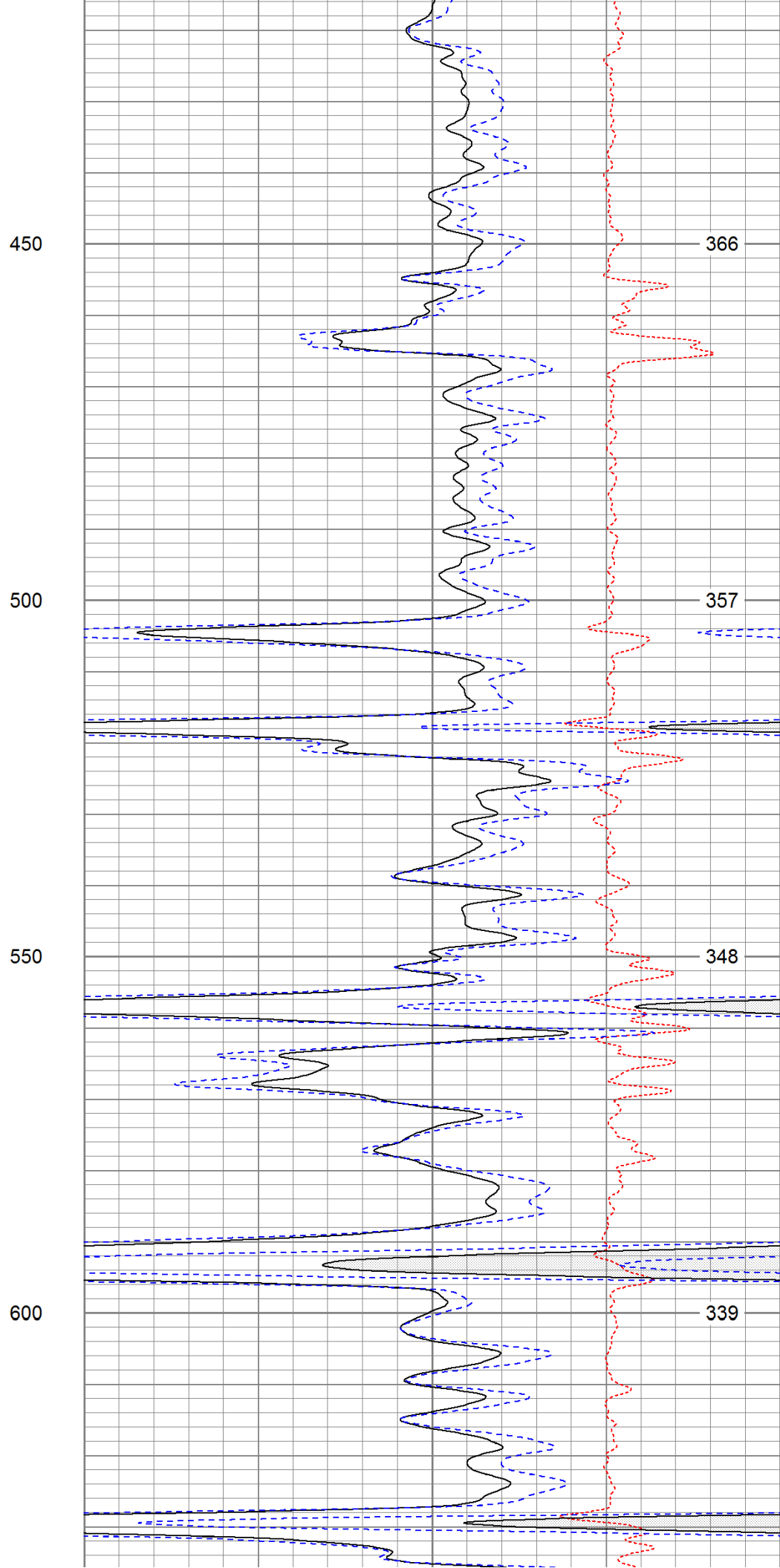
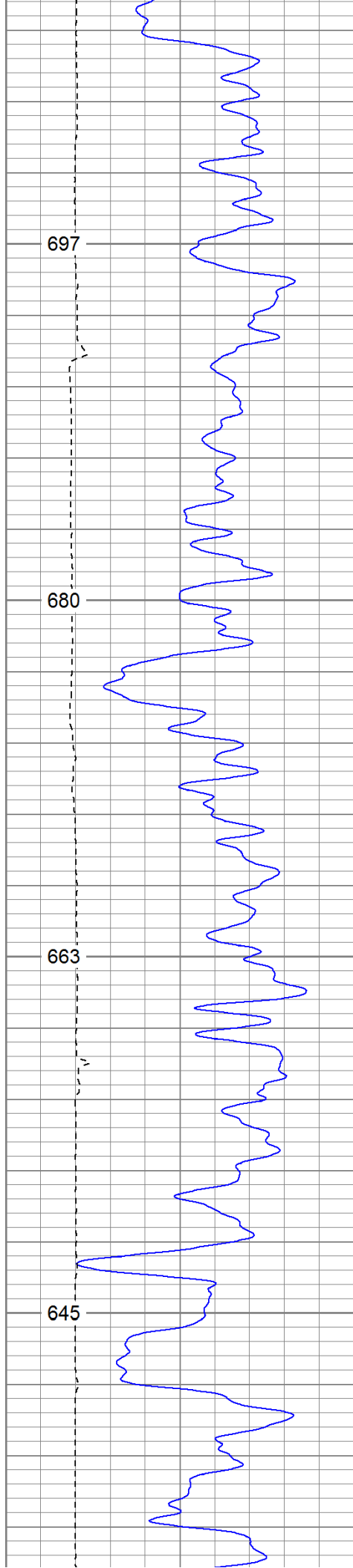
Sarcillo to turn off to Sakariason tract, go right, third left after cattlegaurd,  
go thru gate, at Y go right end on location.

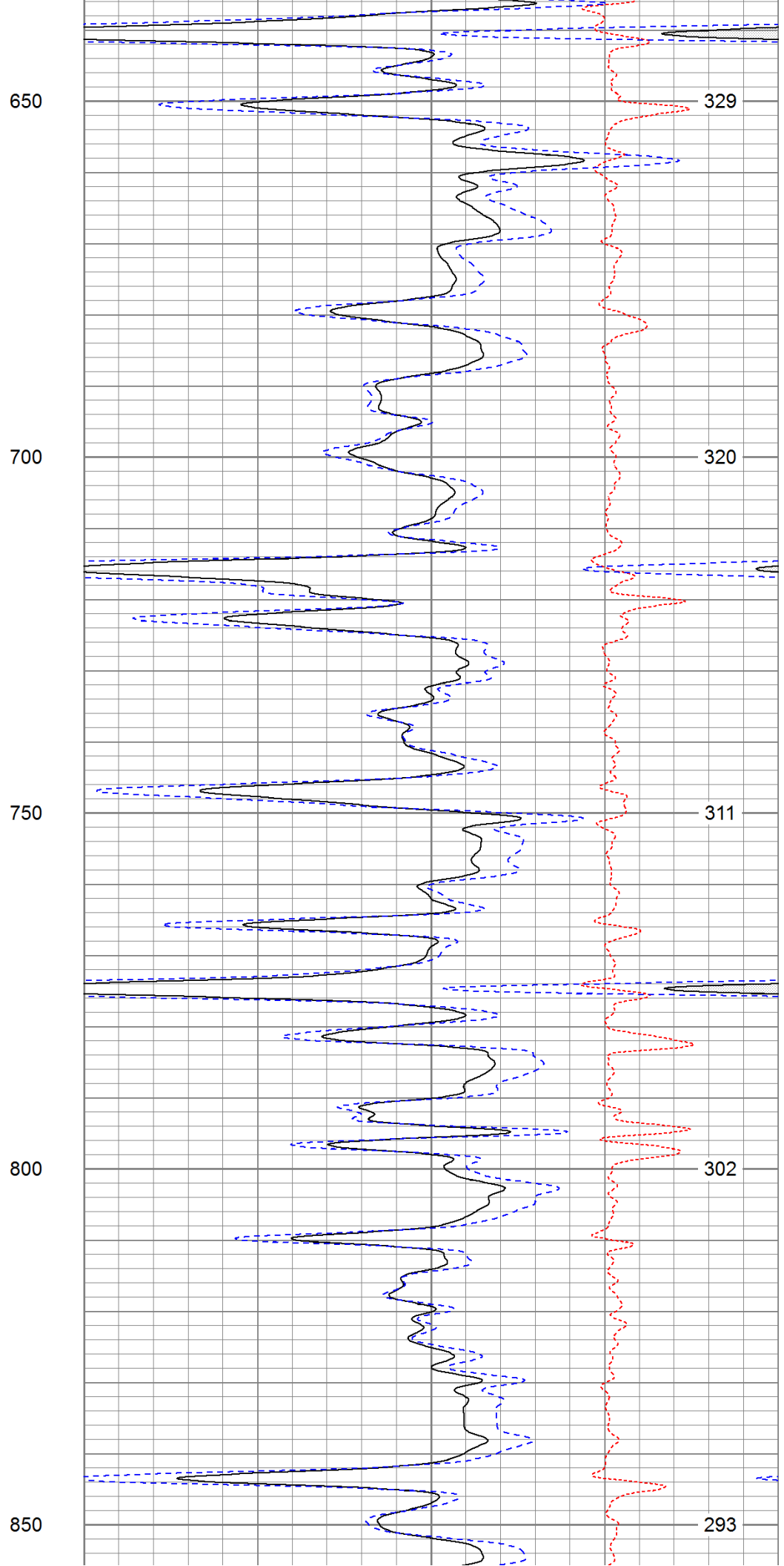
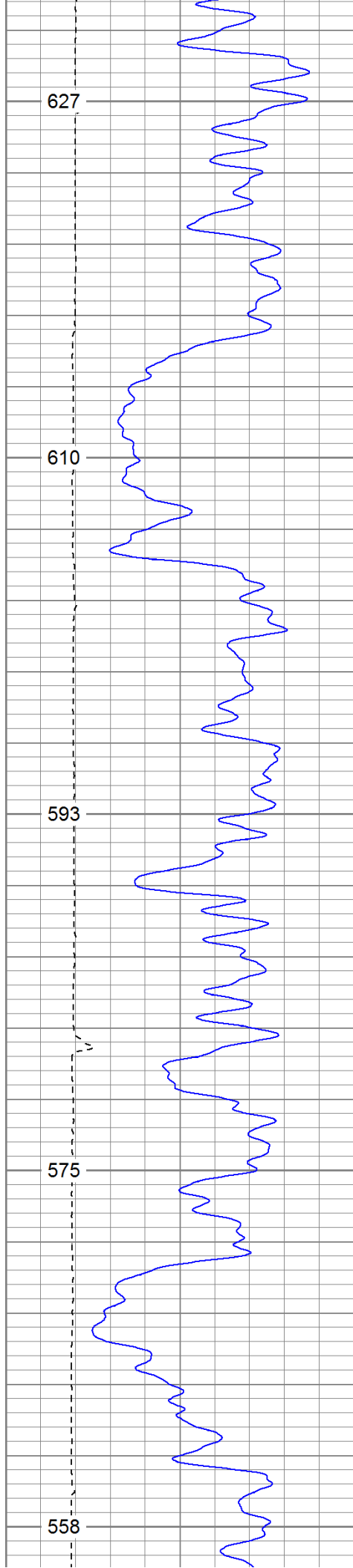
Database File: pointer.db  
Dataset Pathname: pass2  
Presentation Format: cdl  
Dataset Creation: Tue Aug 23 21:38:34 2011 by Calc Open-Cased 110302  
Charted by: Depth in Feet scaled 1:240

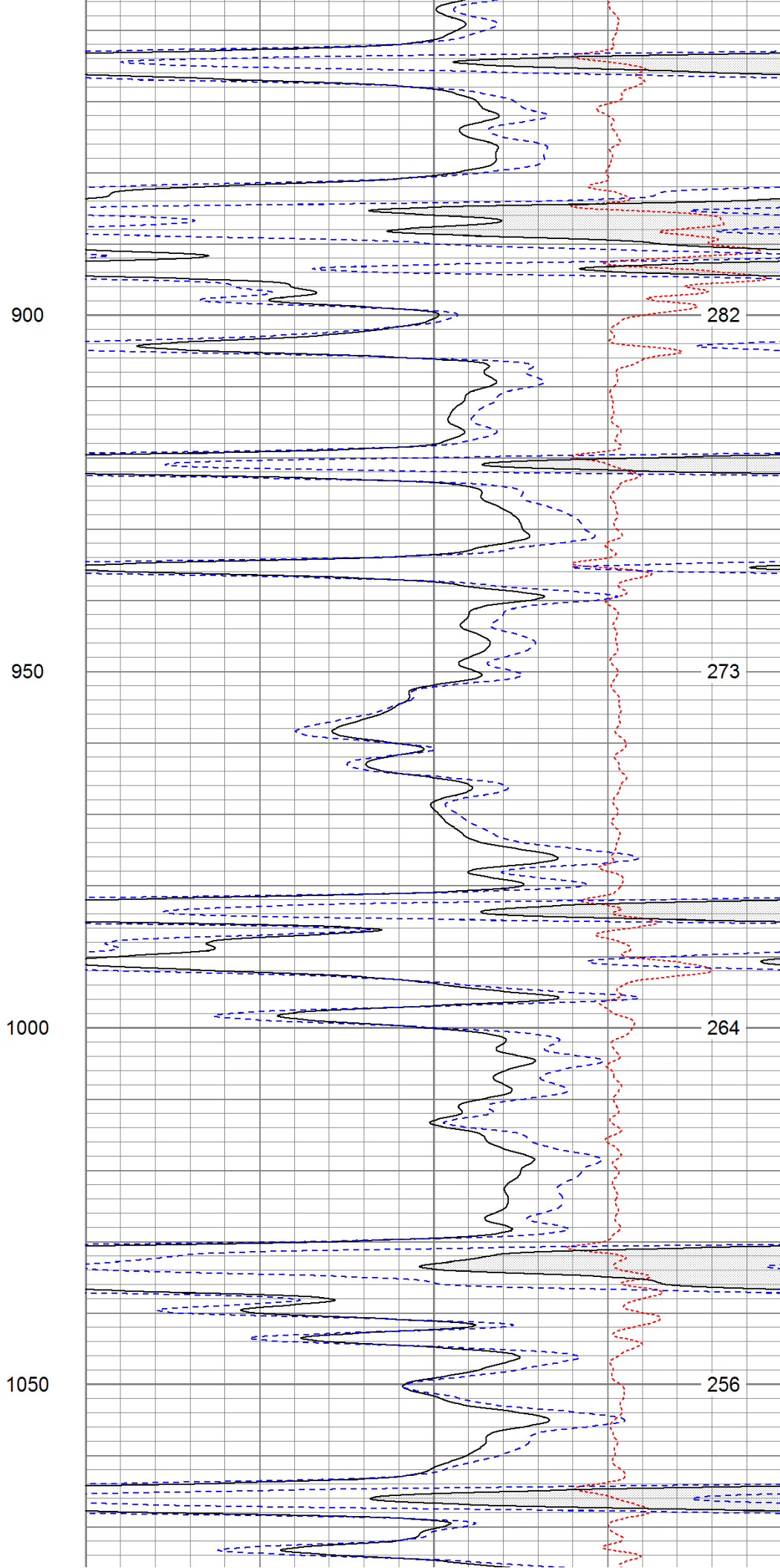
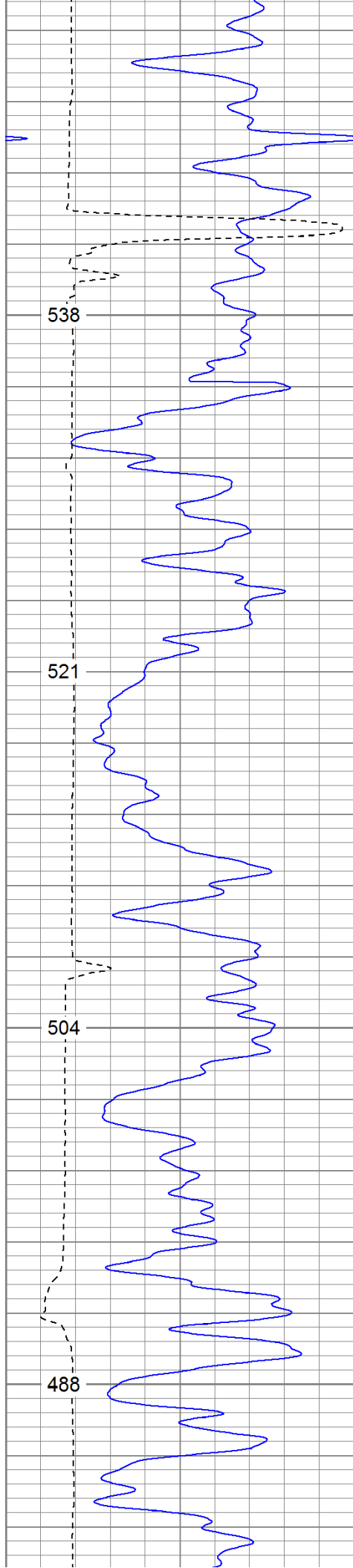
0	GR (GAPI)	200
6	DCAL (in)	16
TBHV (ft3)		

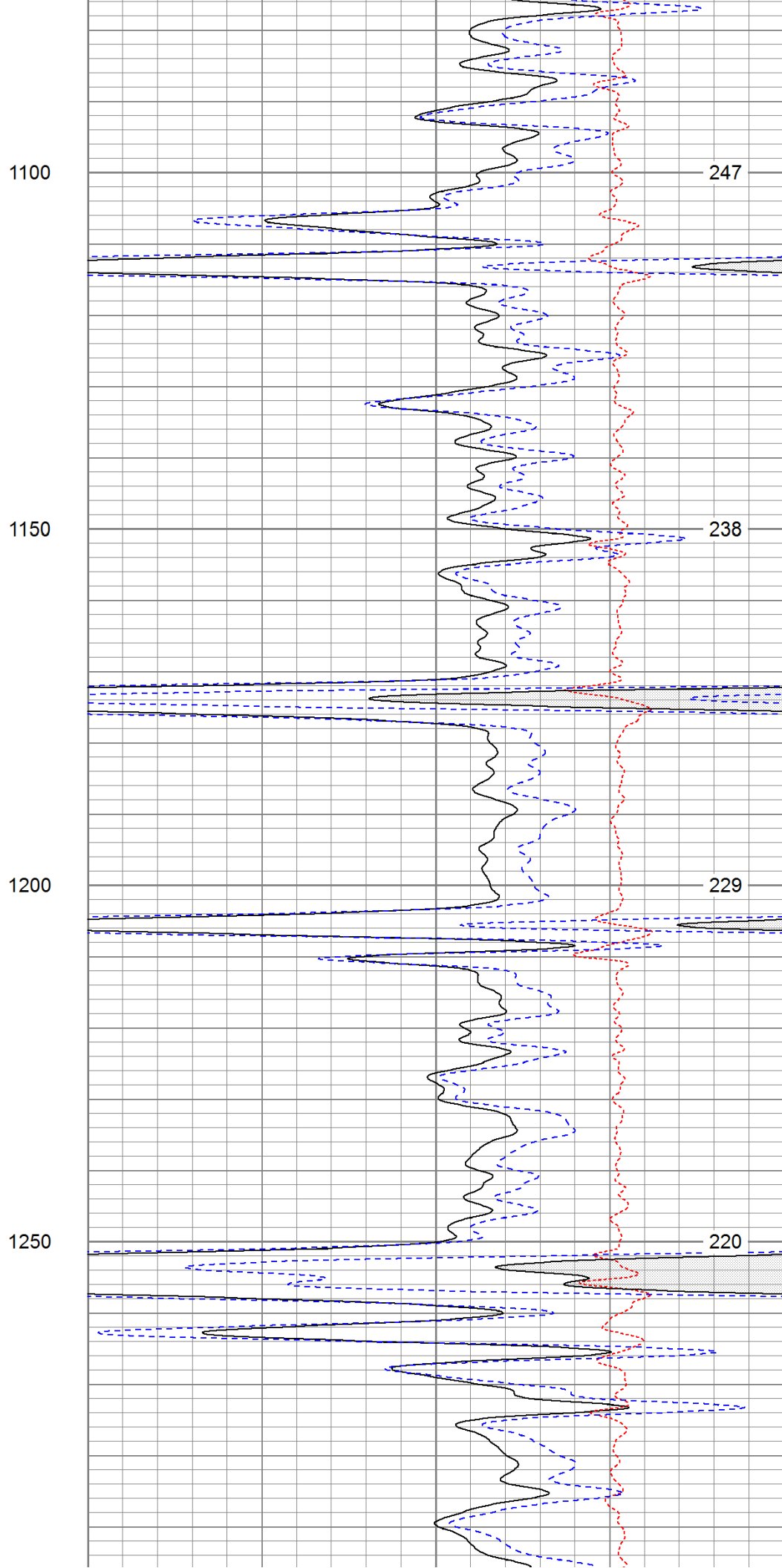
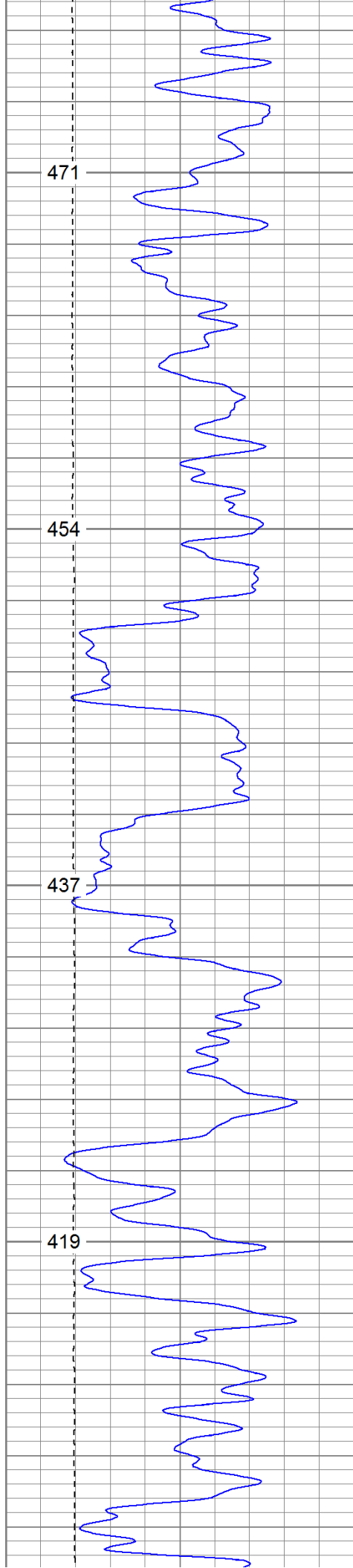
2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10
-0.5 RHOC (g/cc) 0.5		
7000 LTEN (lb) 0		
ABHV (ft3)		

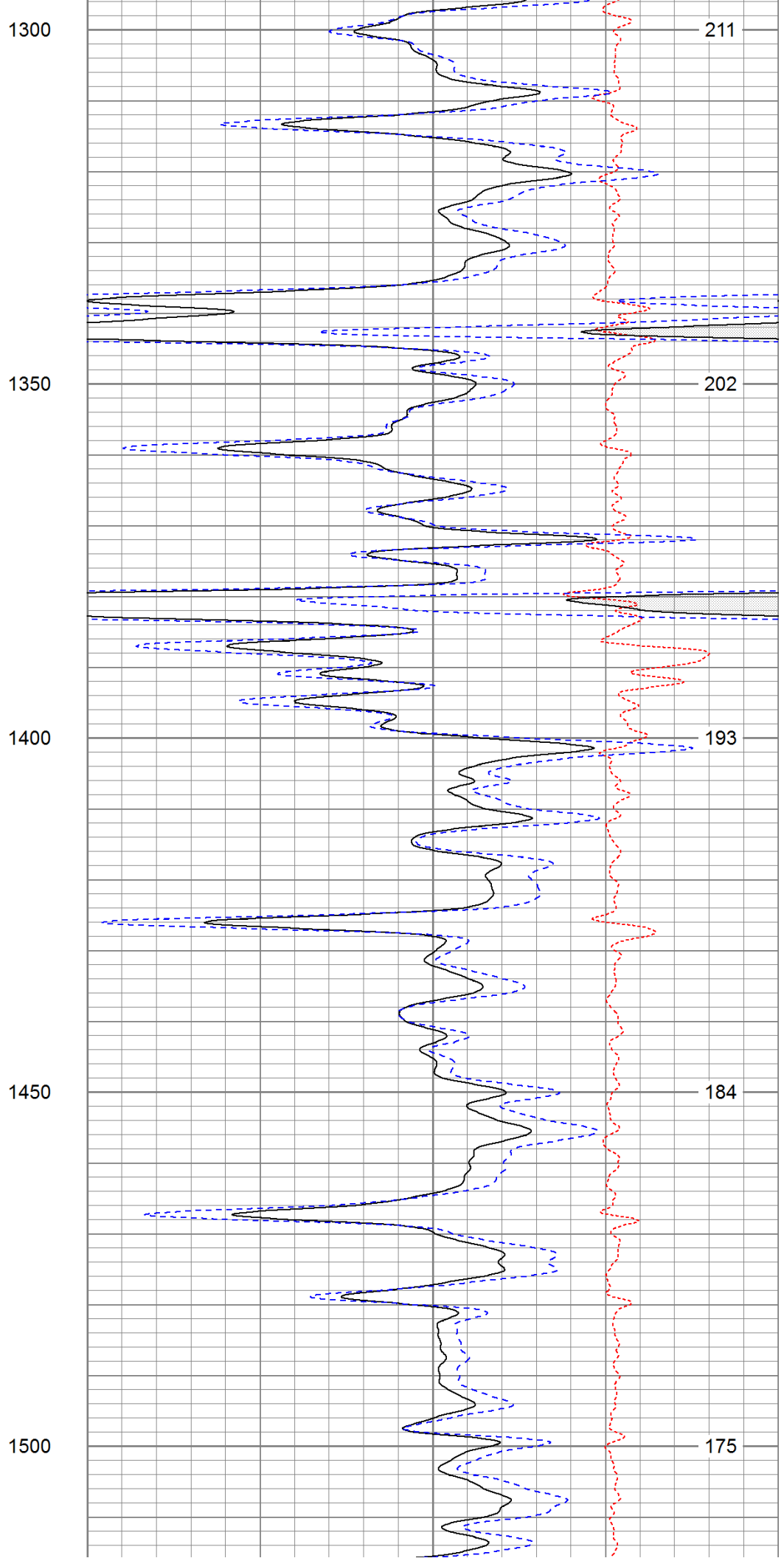
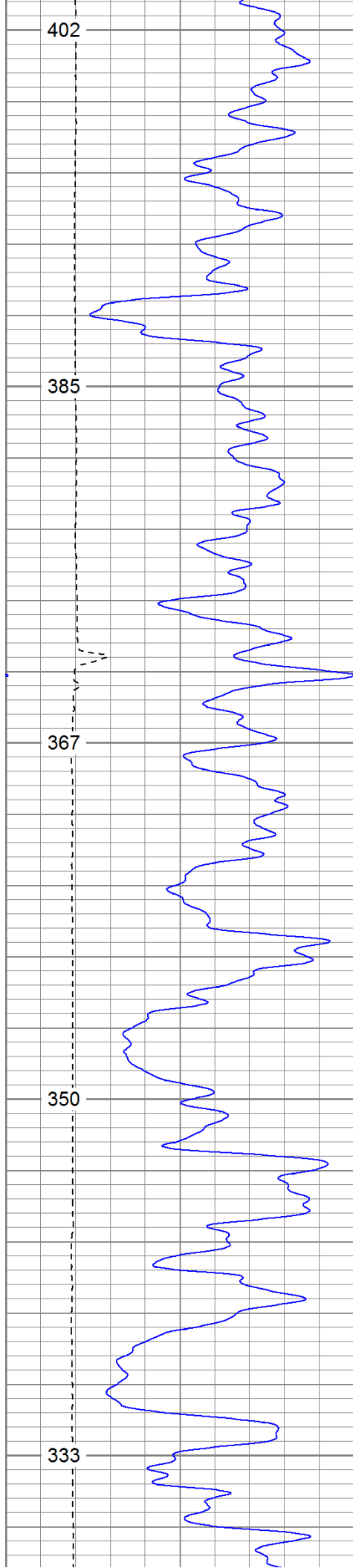


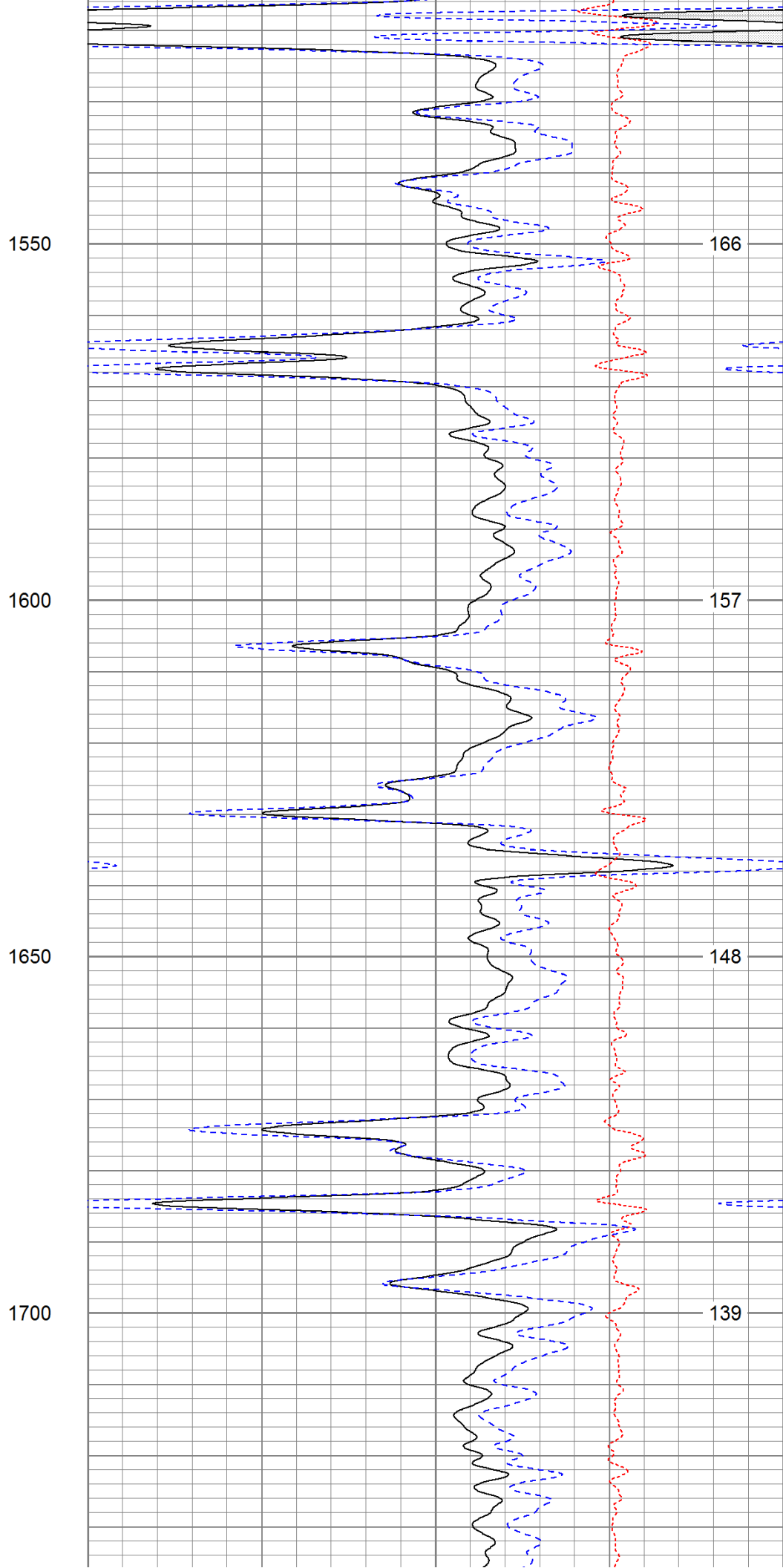
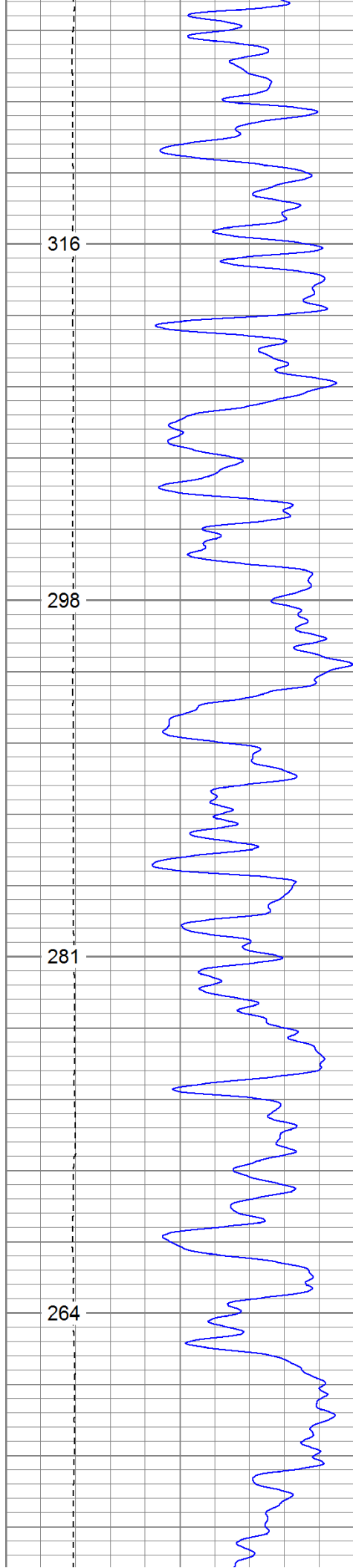




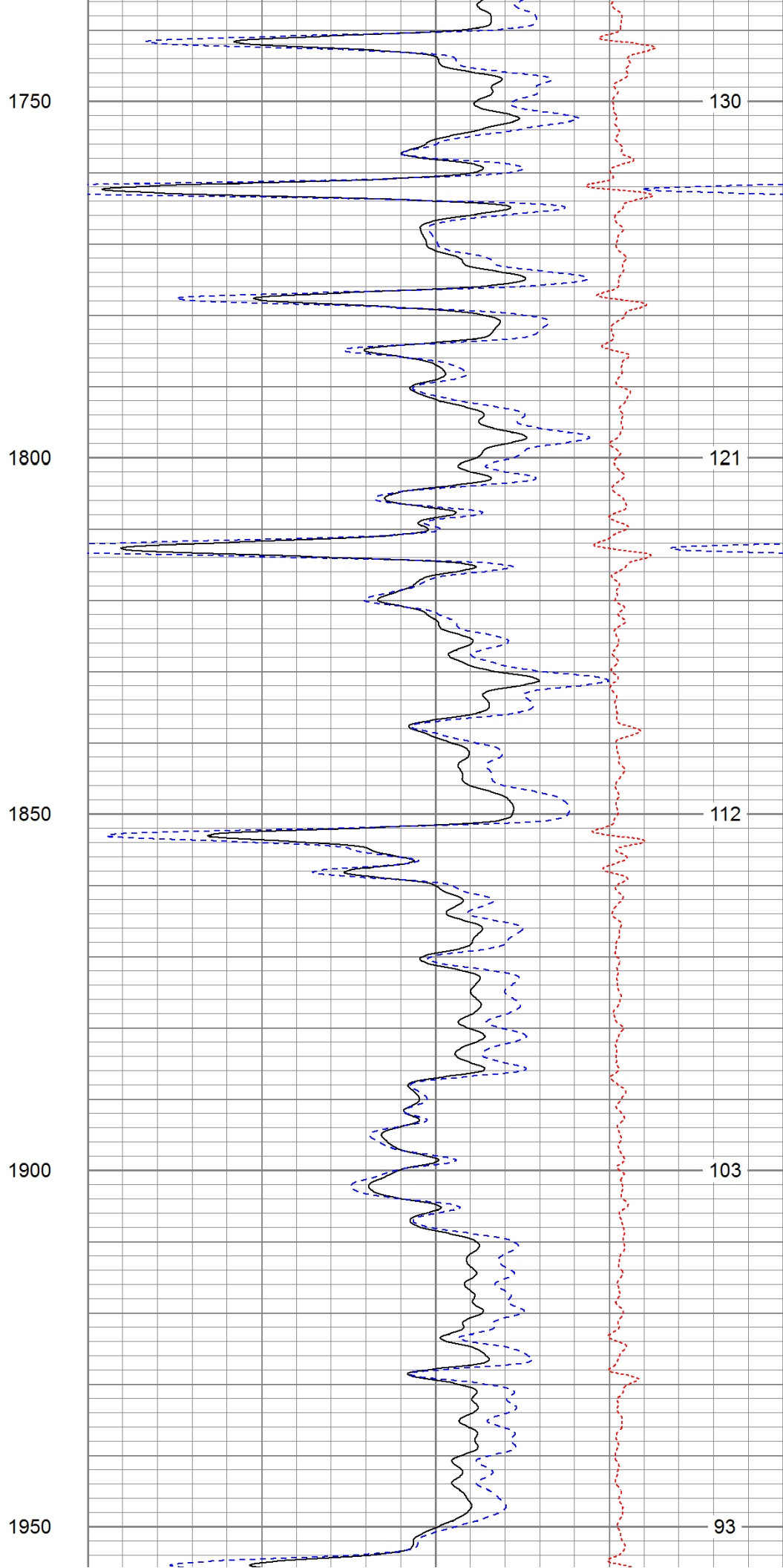
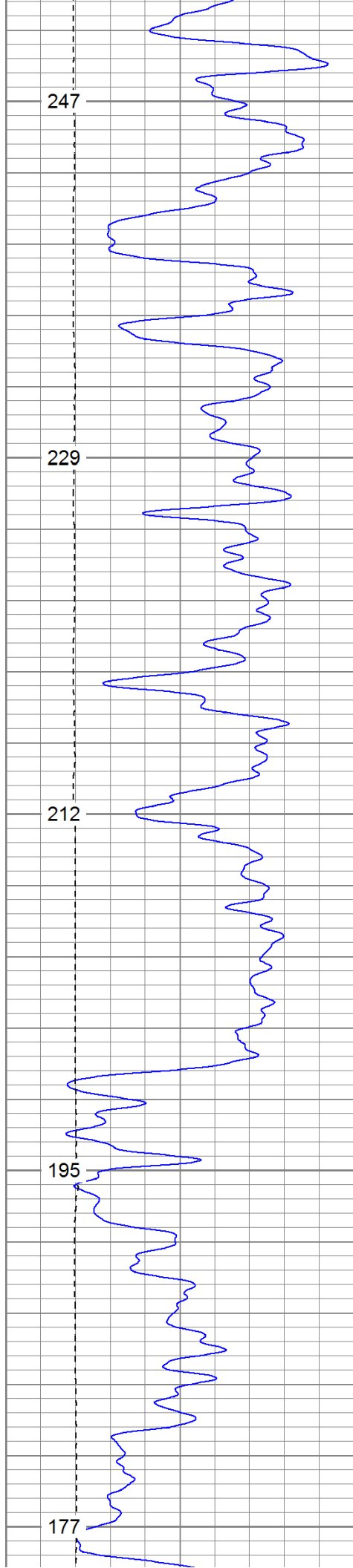


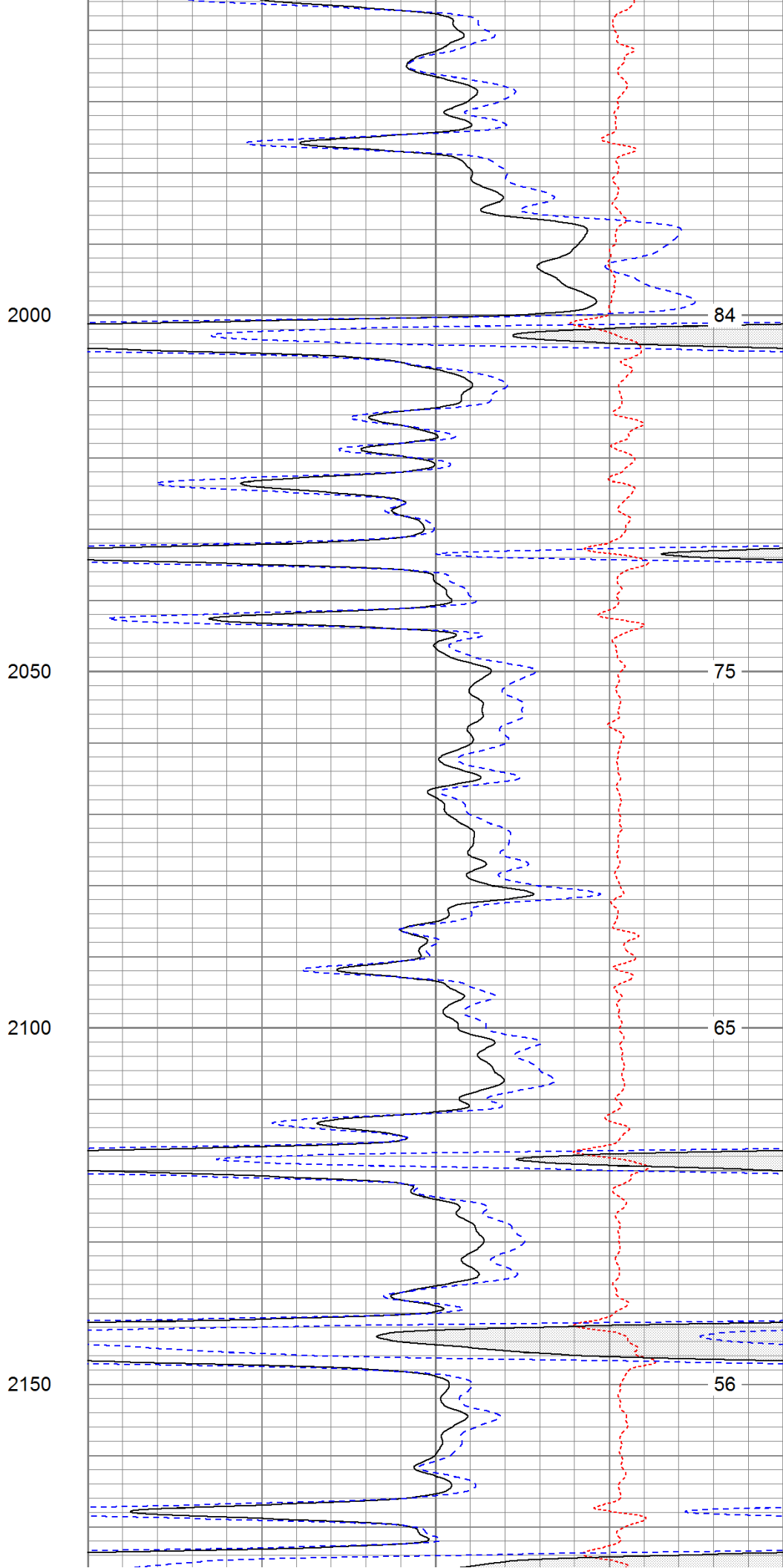
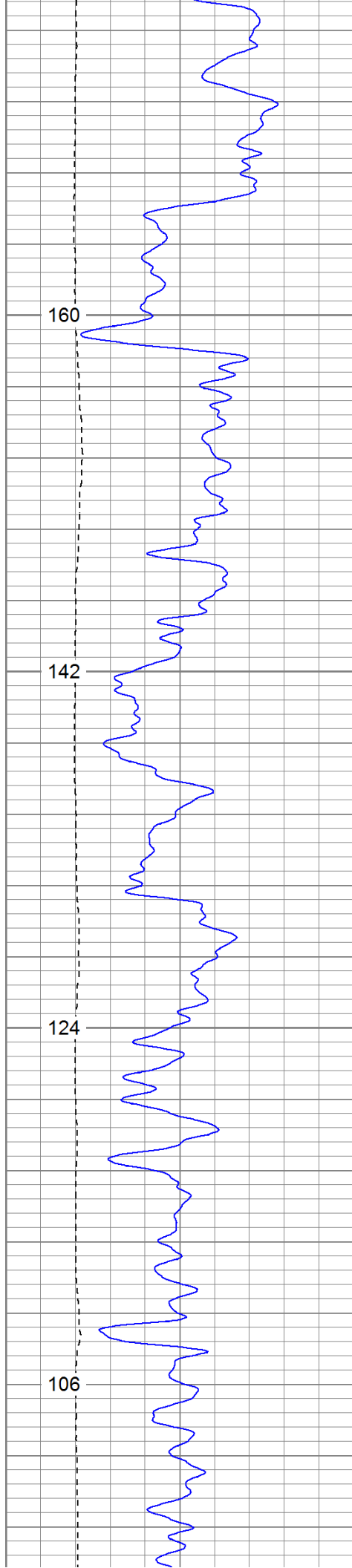


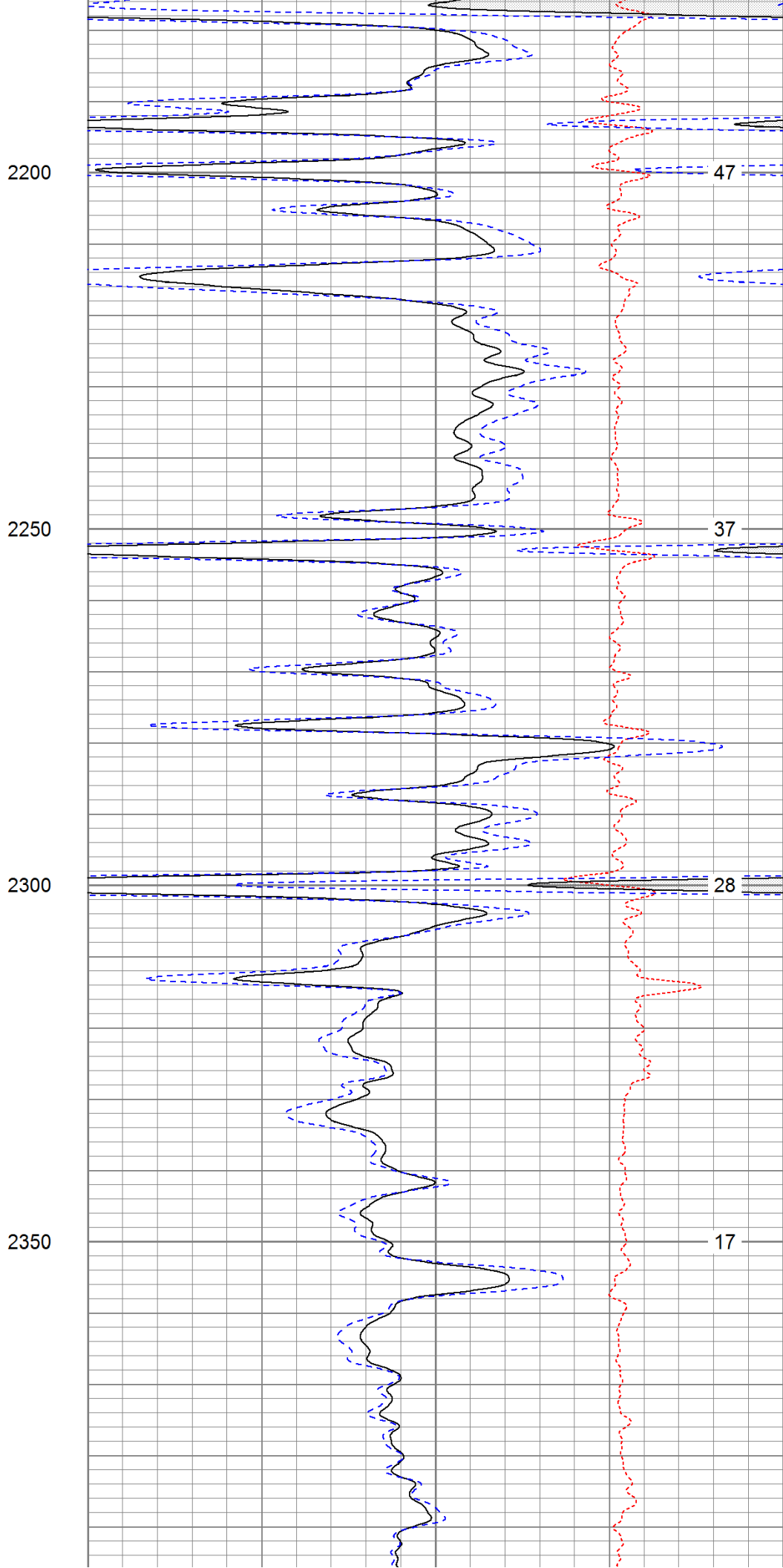
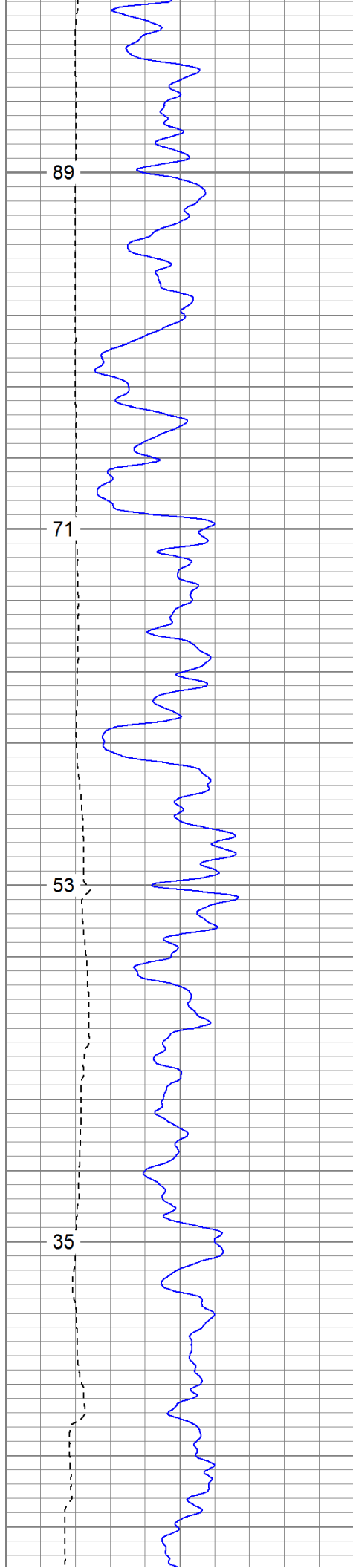


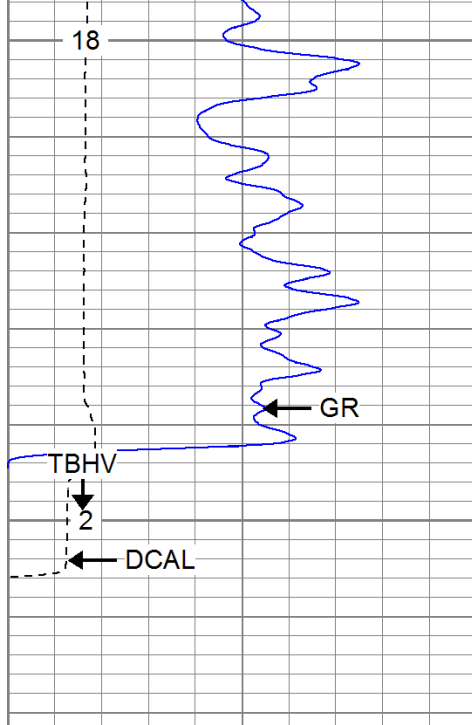




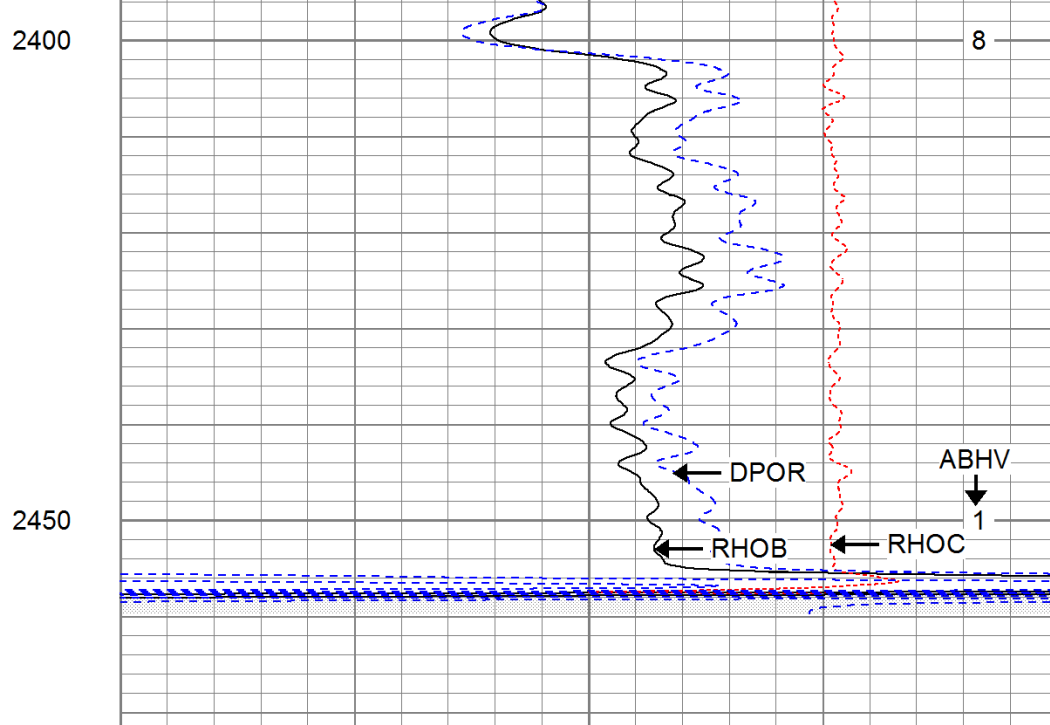








0	GR (GAPI)	200
6	DCAL (in)	16
TBHV (ft3)		



2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
7000	LTEN (lb)	0
ABHV (ft3)		

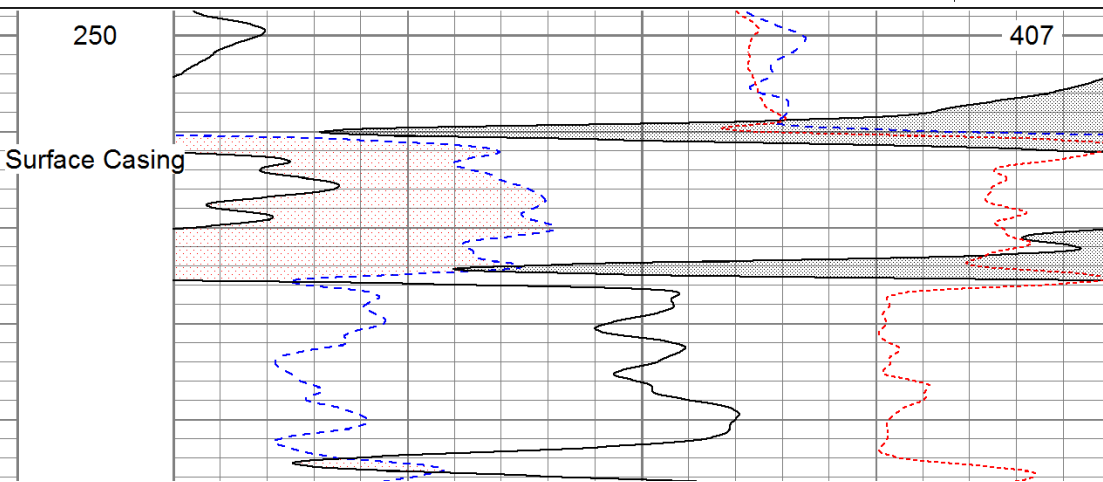
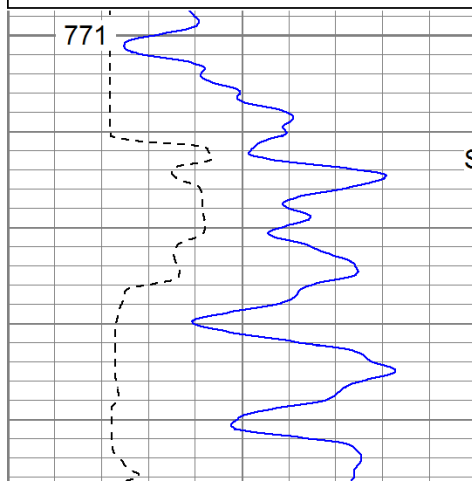


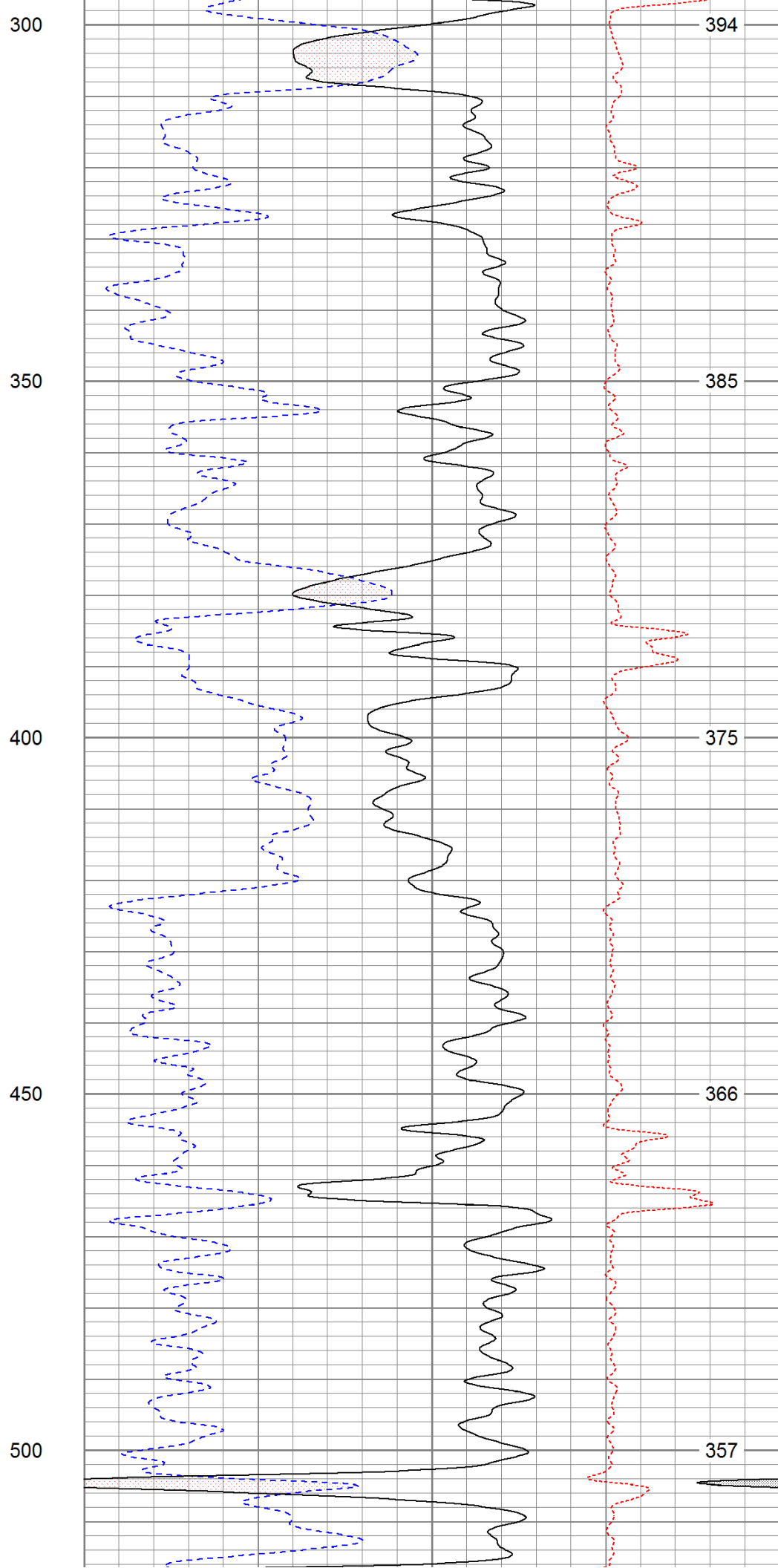
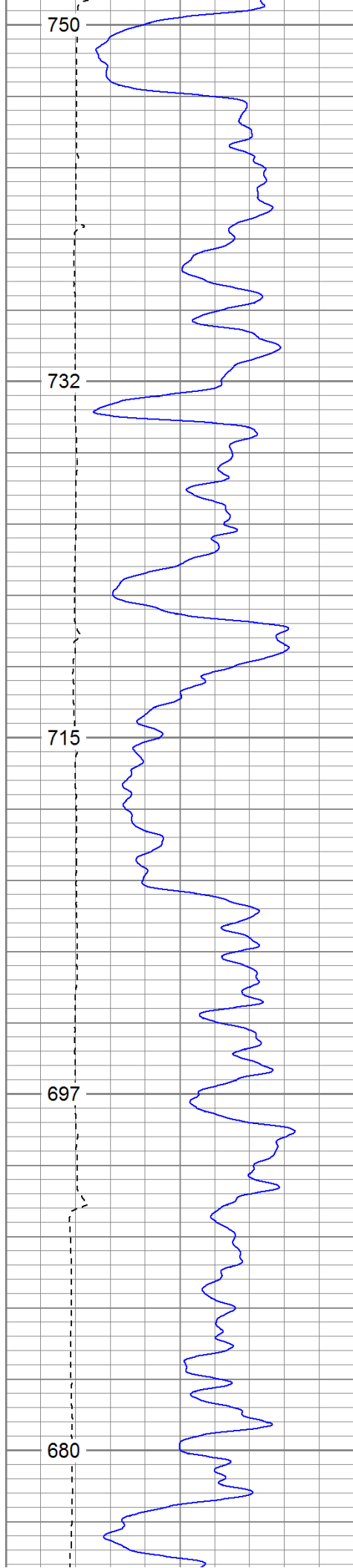
## Main Pass

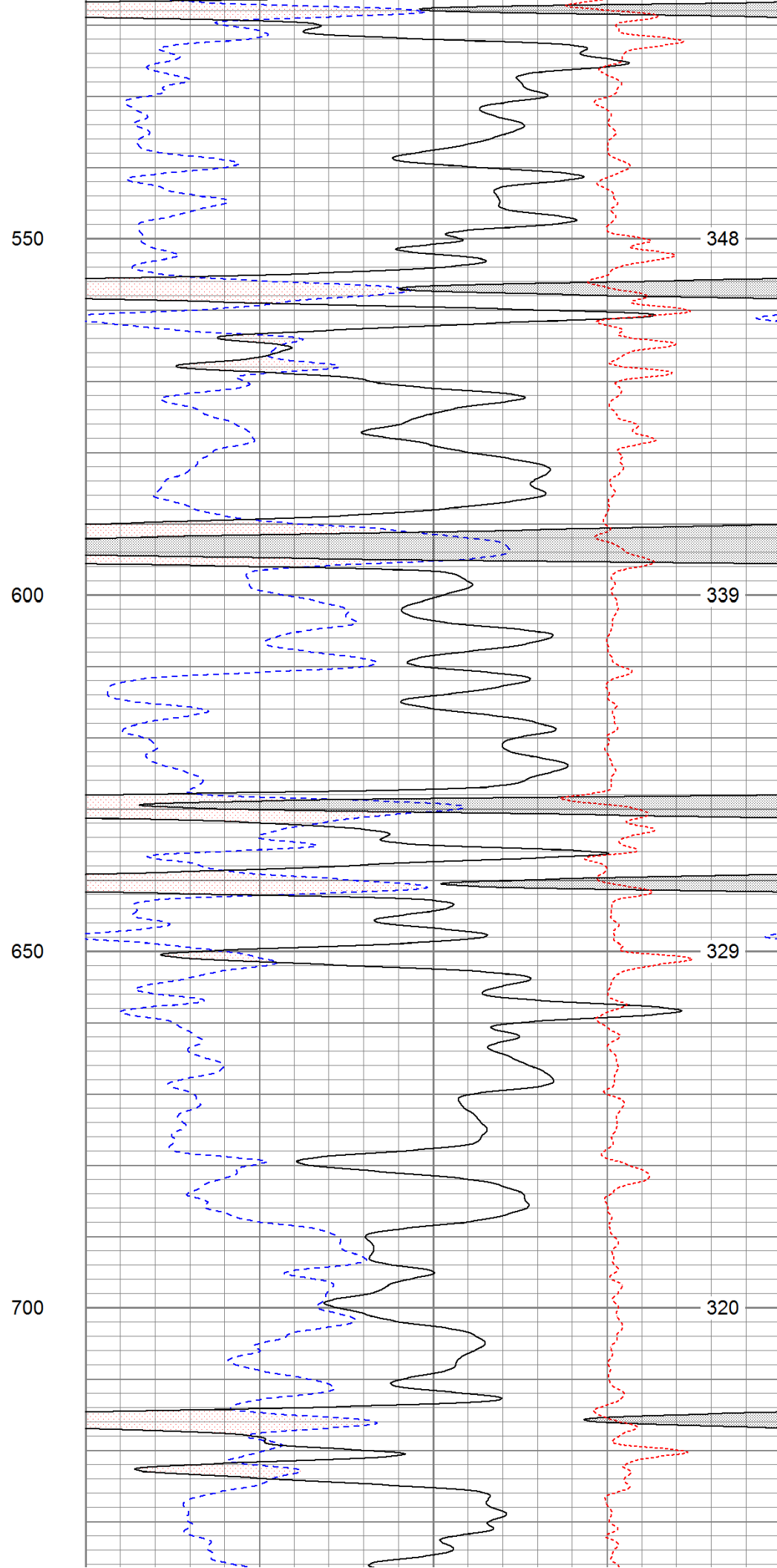
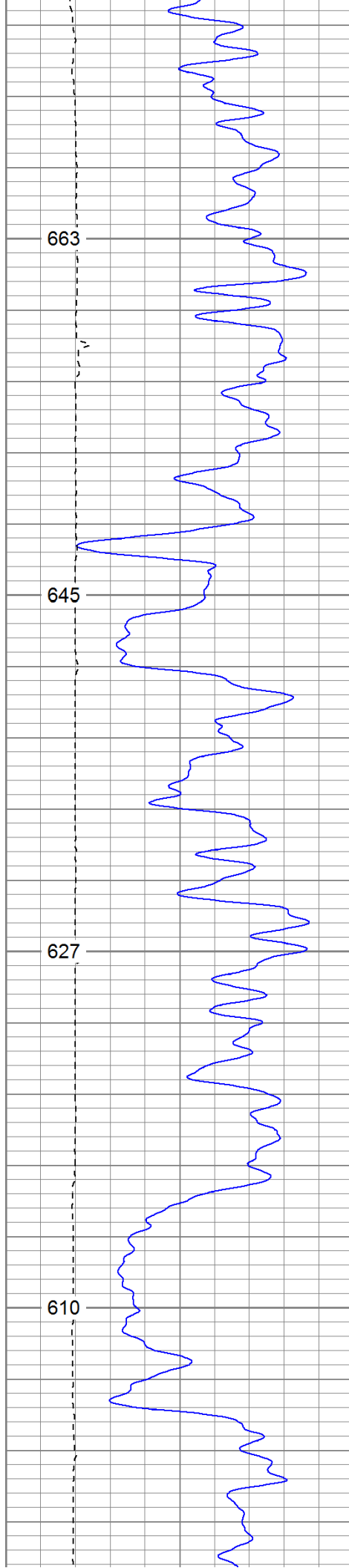
Database File: pointer.db  
 Dataset Pathname: pass2  
 Presentation Format: cdnl  
 Dataset Creation: Tue Aug 23 21:38:34 2011 by Calc Open-Cased 110302  
 Charted by: Depth in Feet scaled 1:240

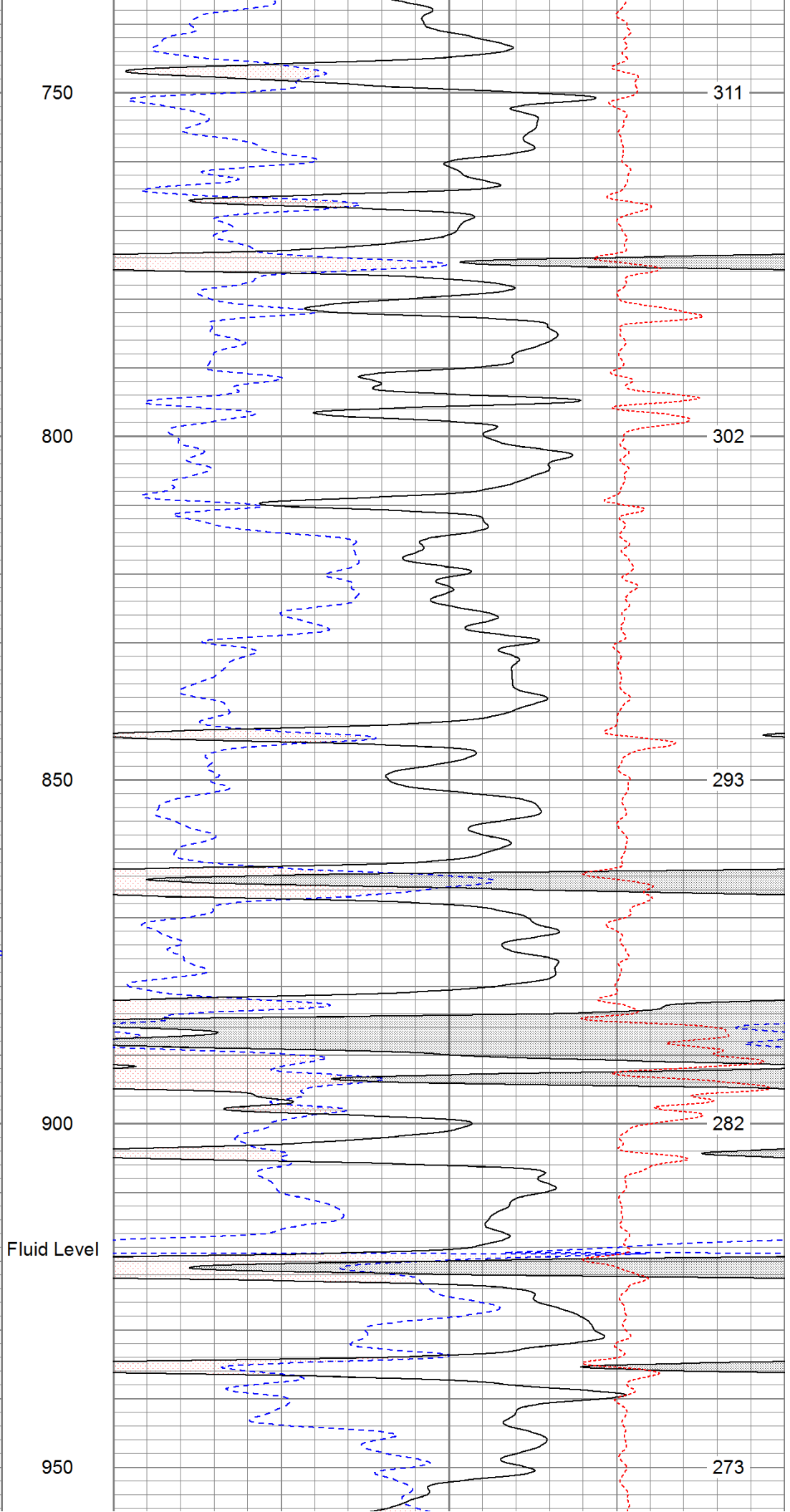
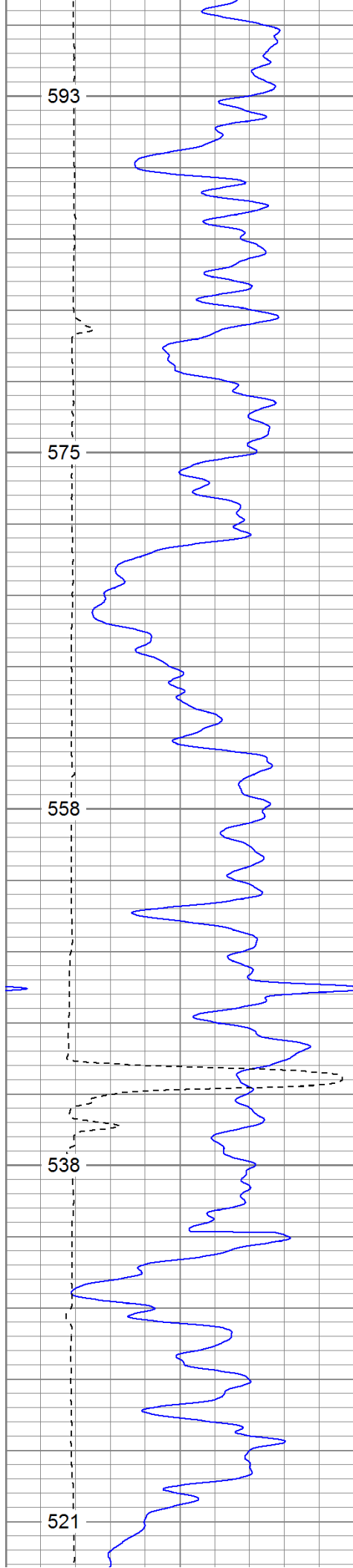
0	GR (GAPI)	200
6	DCAL (in)	16
TBHV (ft3)		

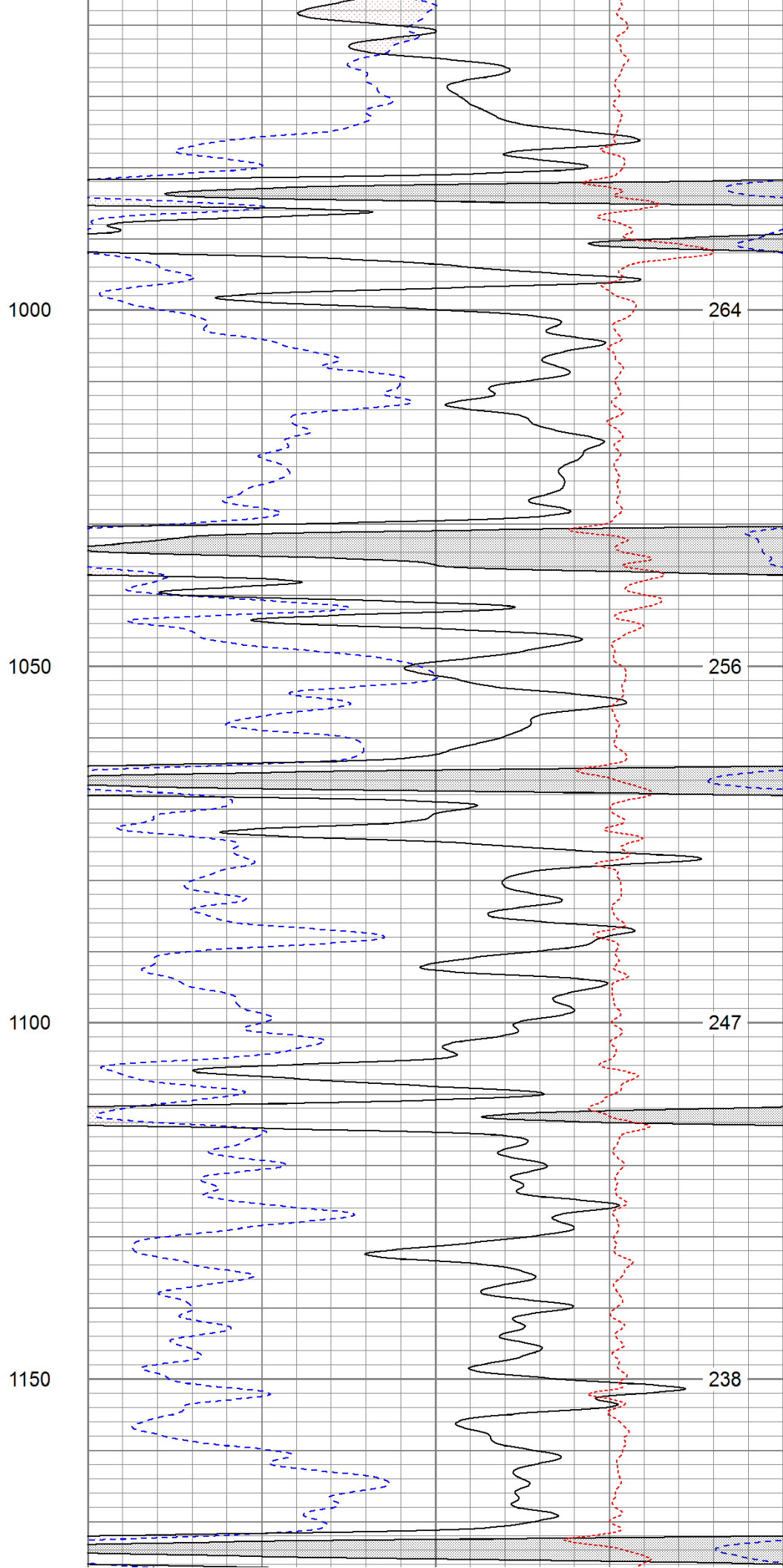
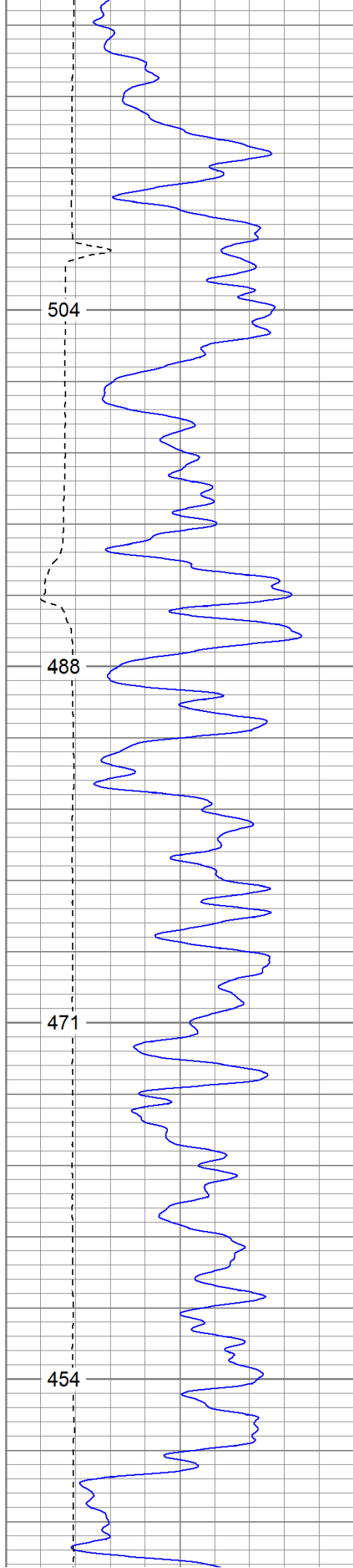
30	NPOR (pu)	-10
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
ABHV (ft3)		



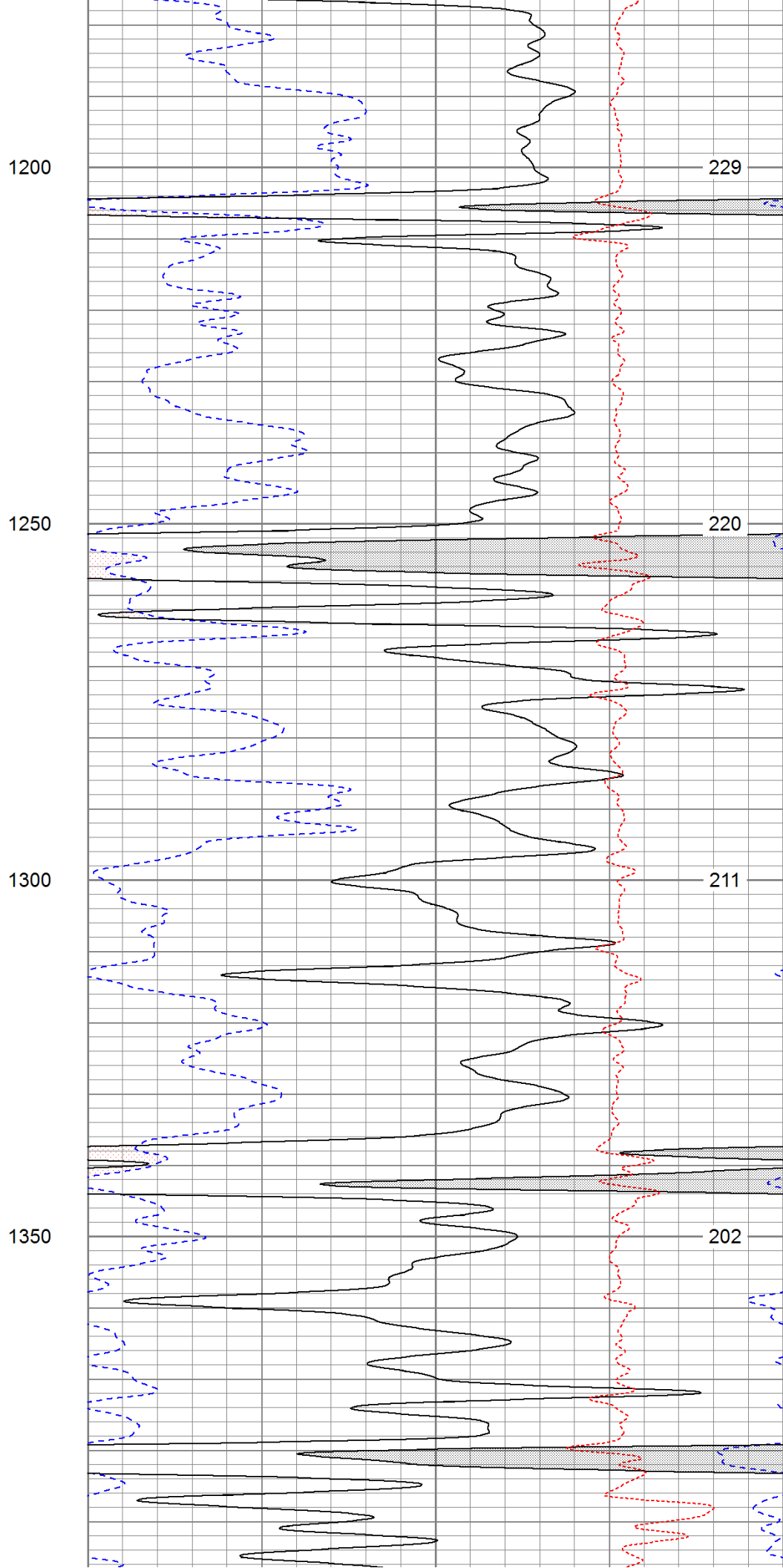
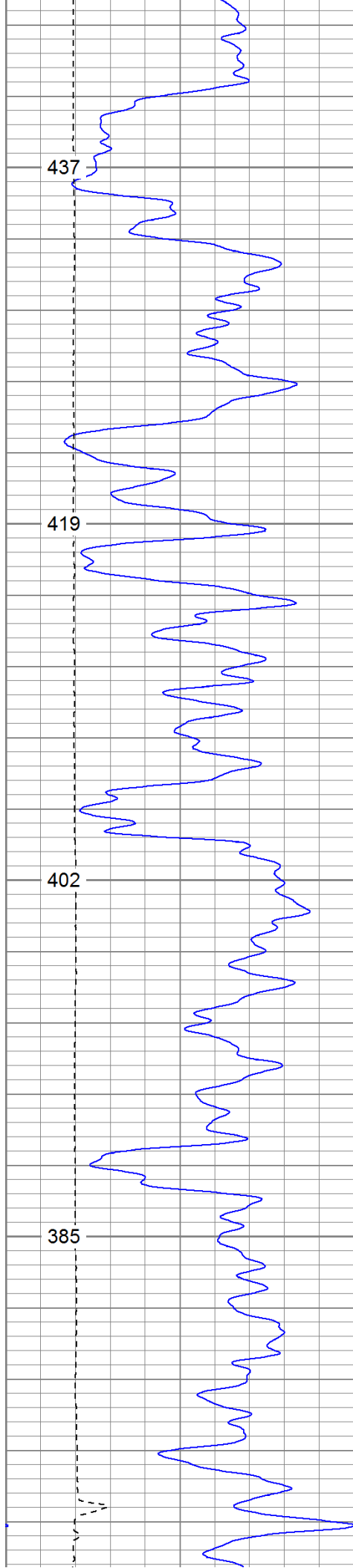


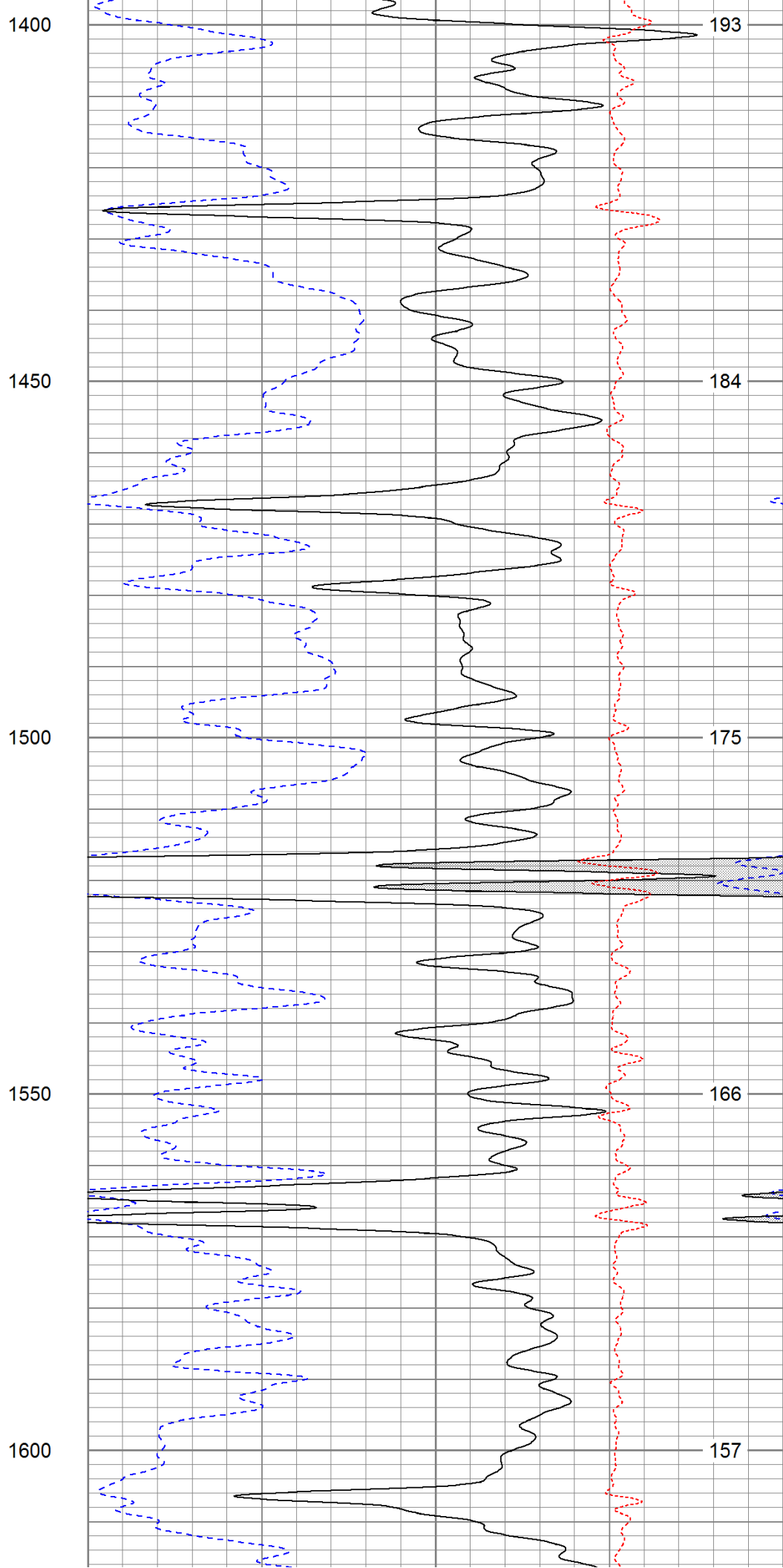
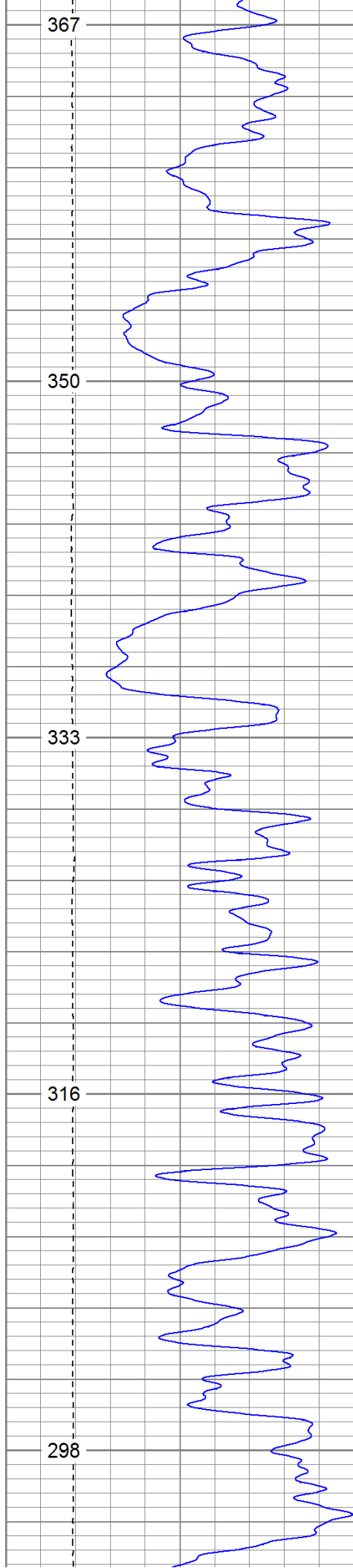


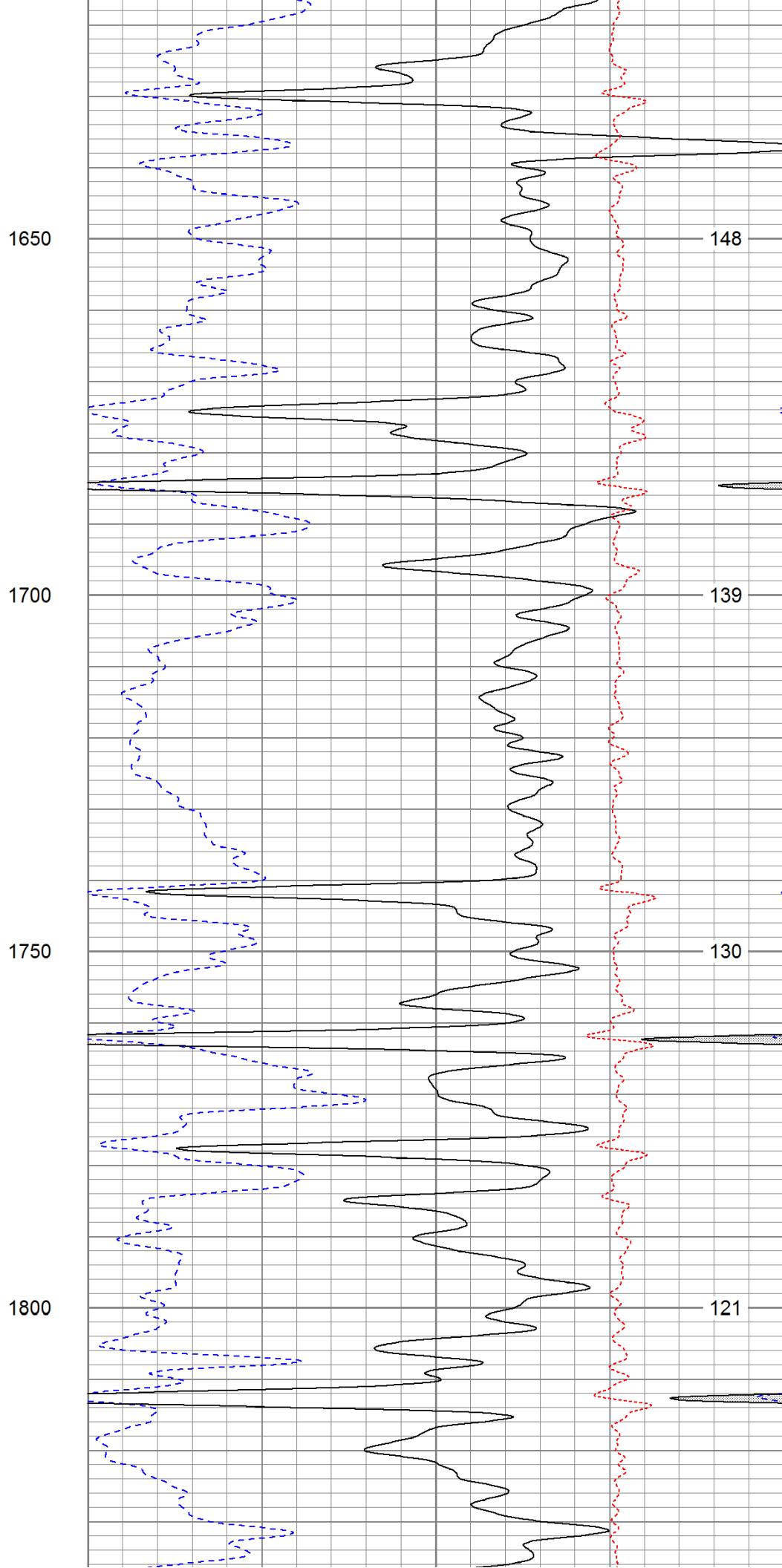
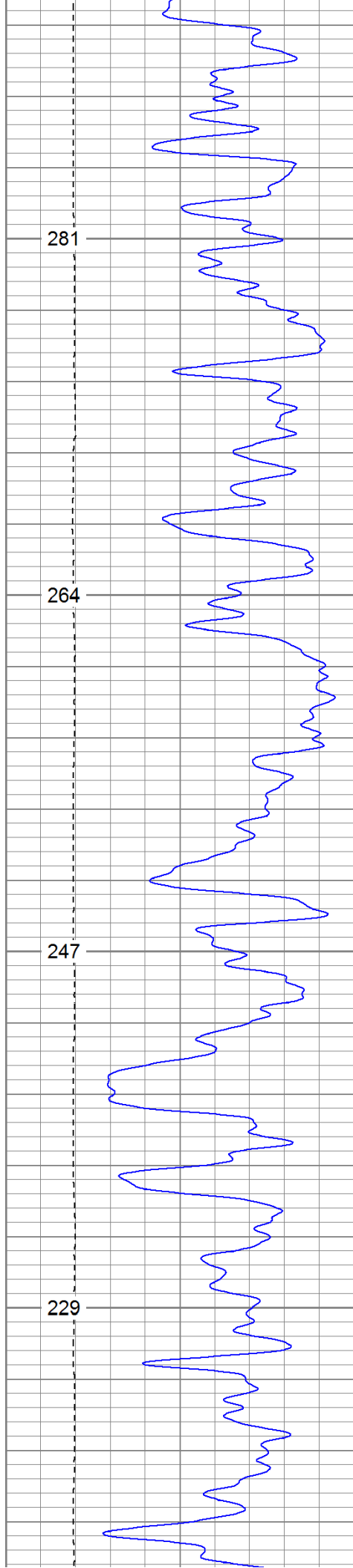


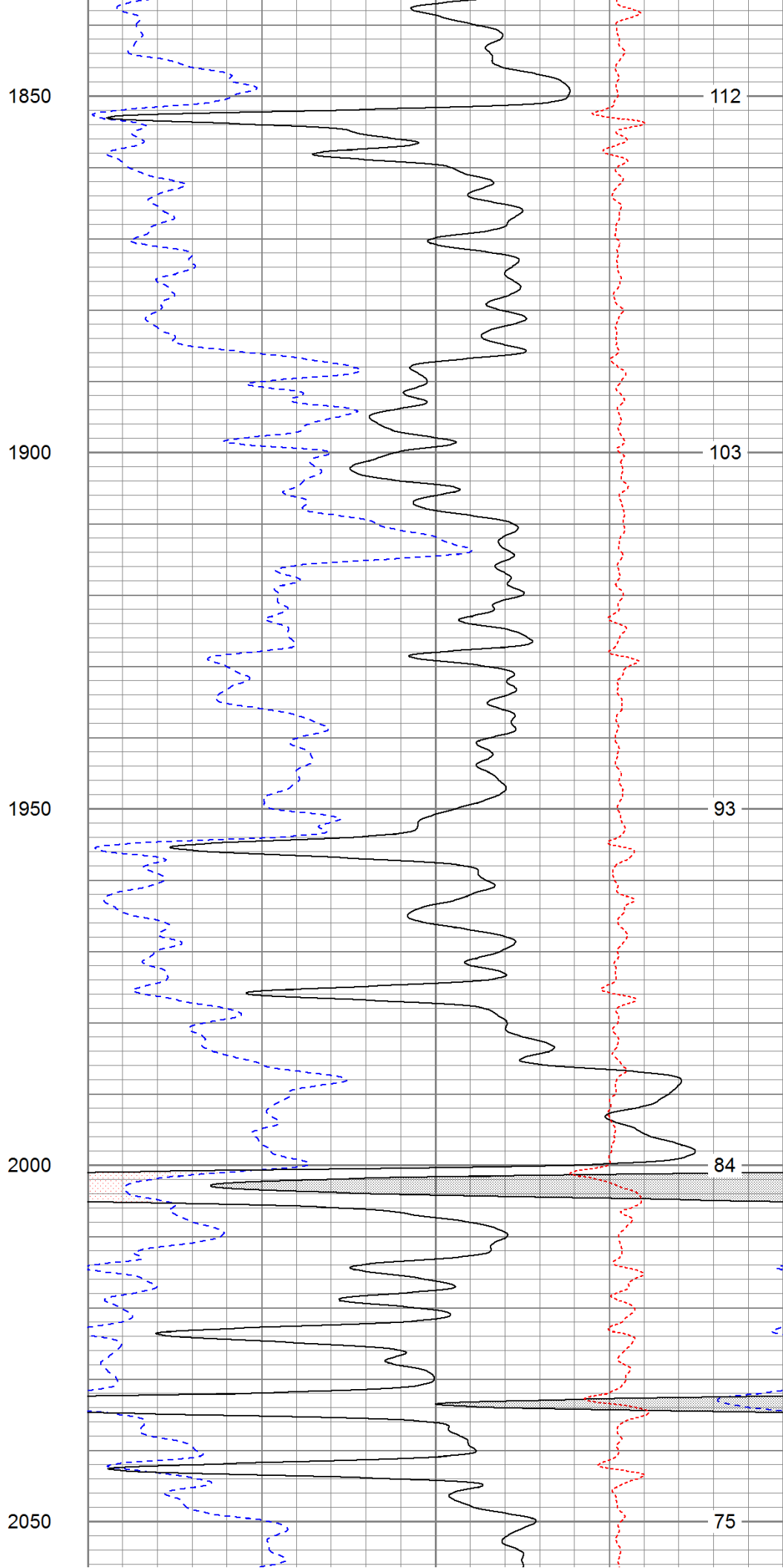
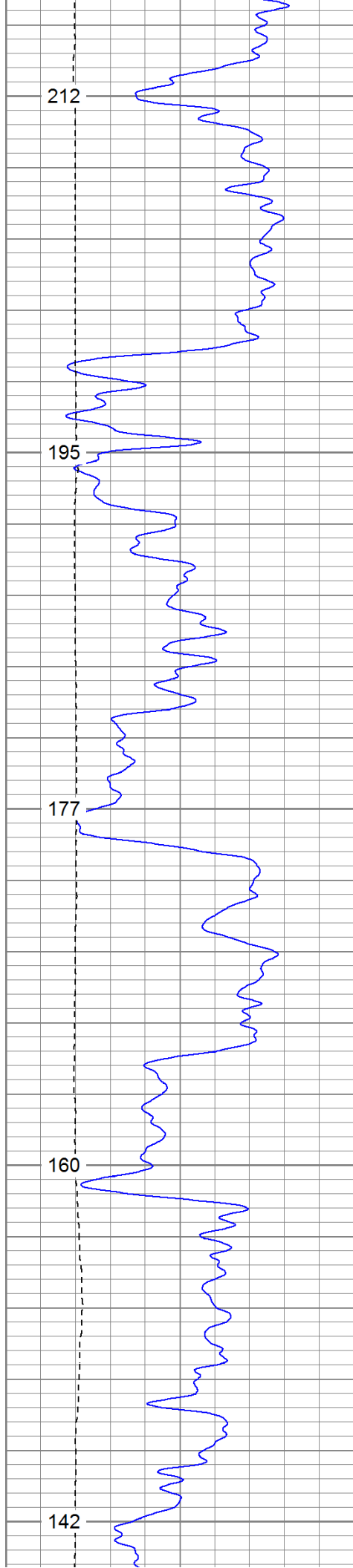


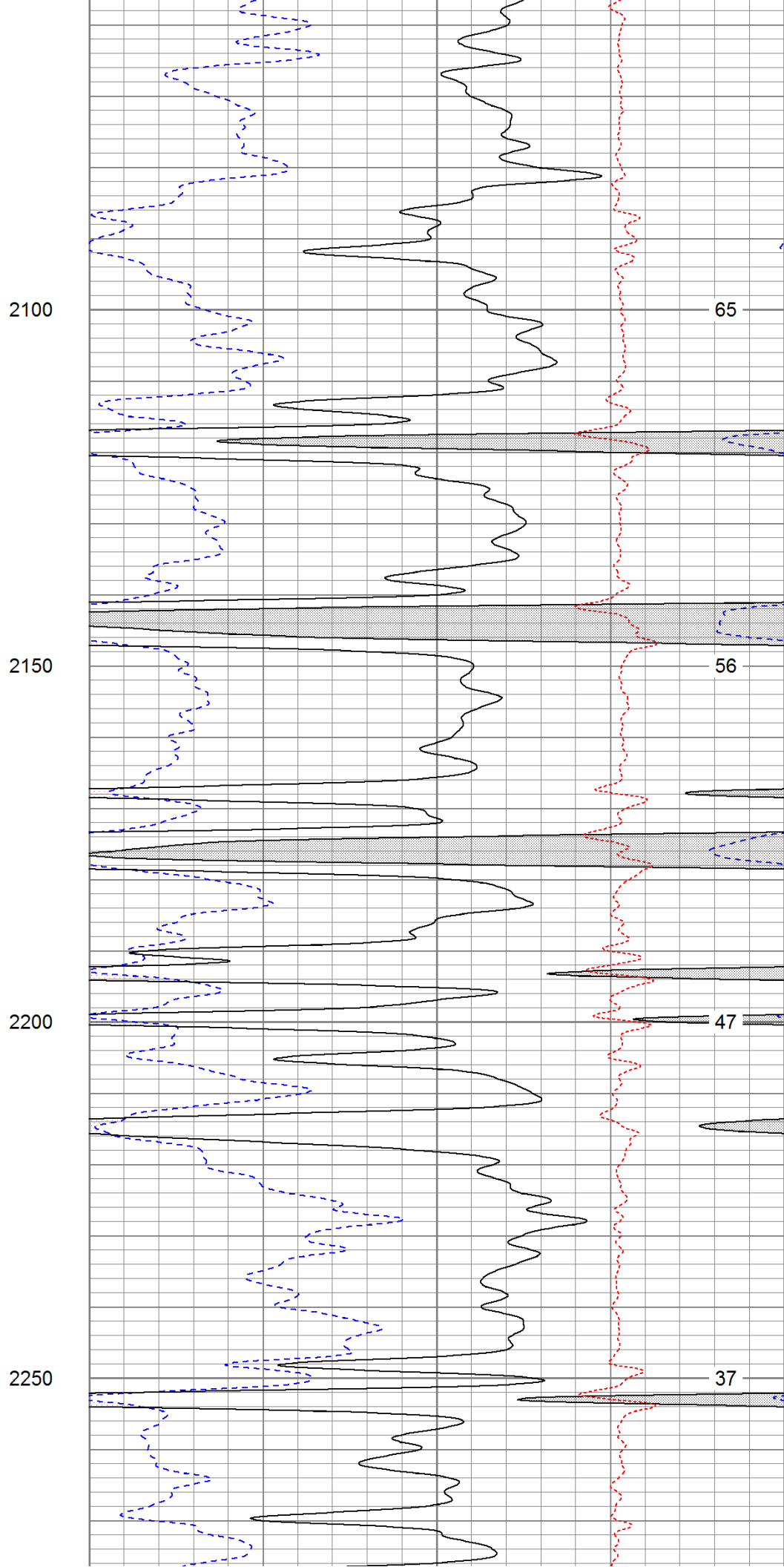
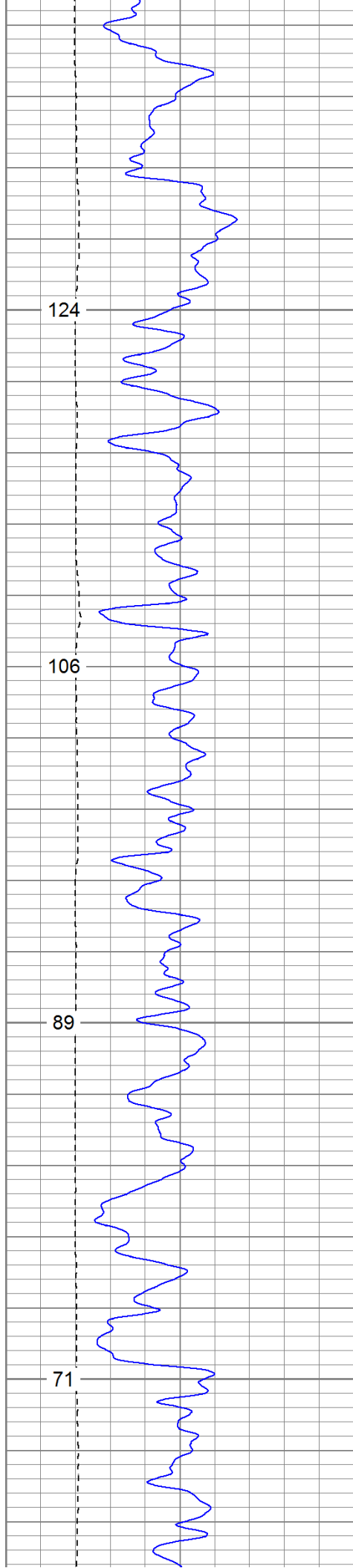


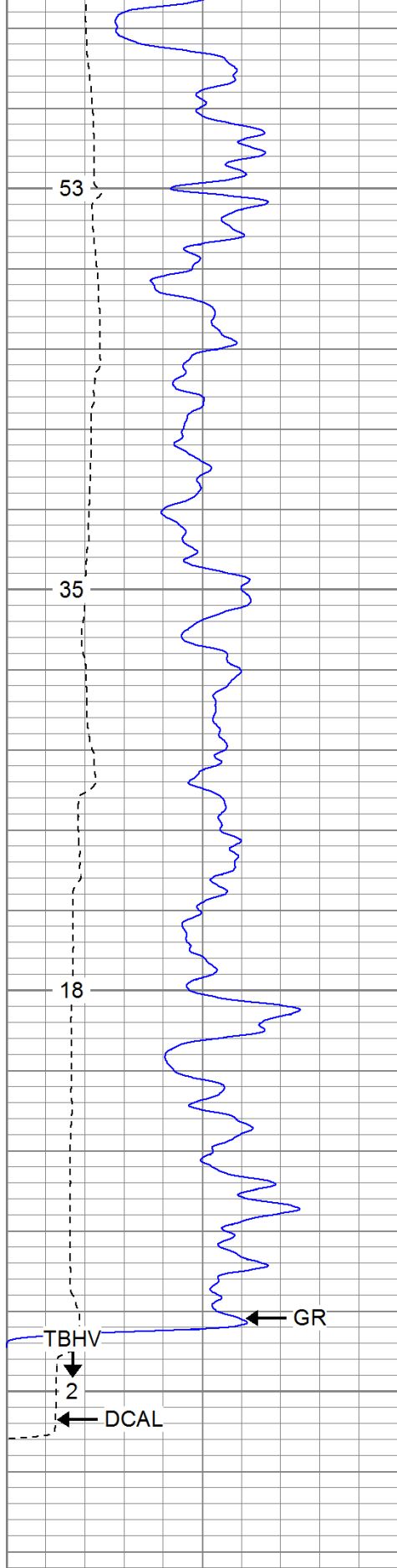




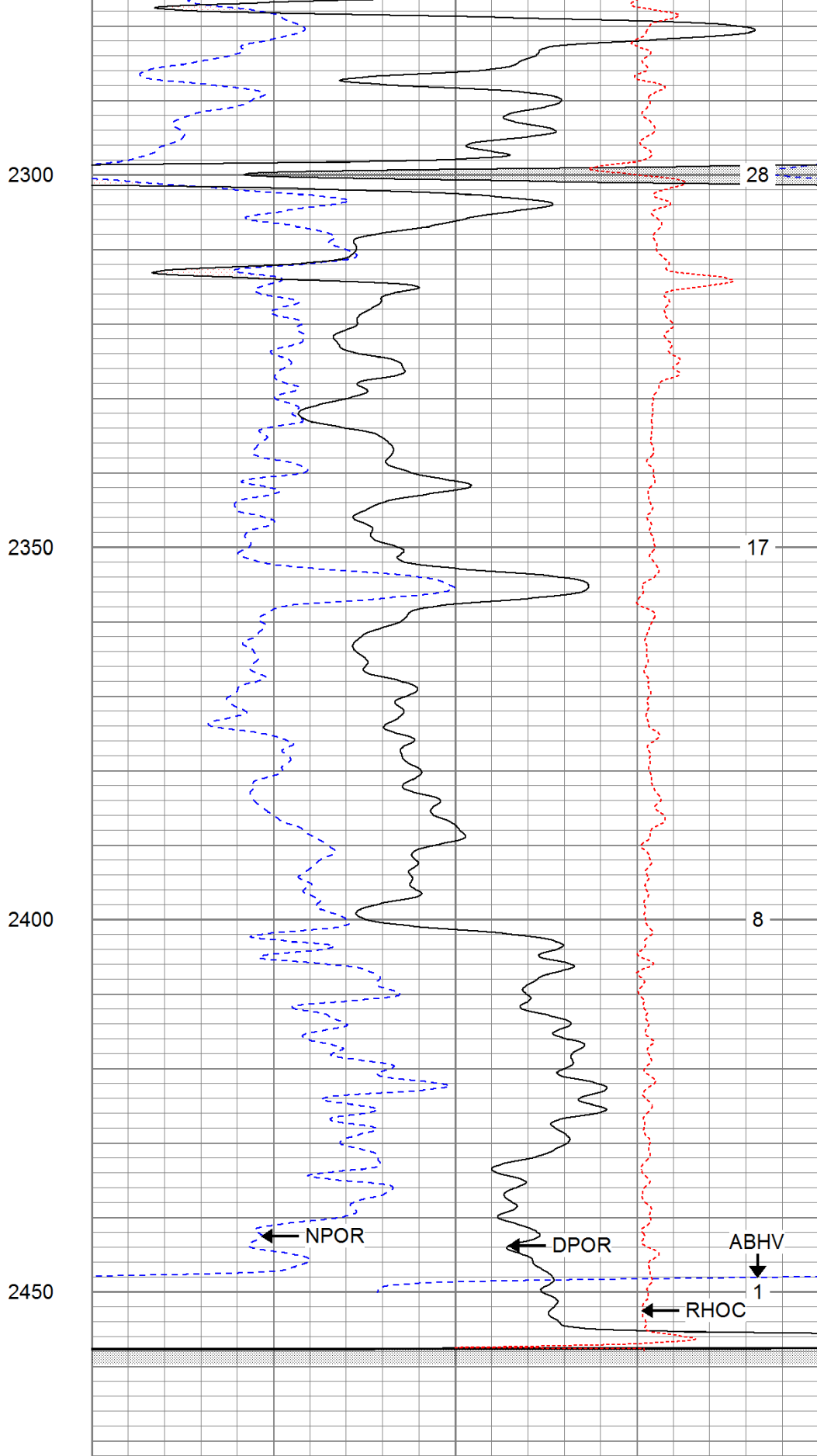








0	GR (GAPI)	200
6	DCAL (in)	16
TBHV (ft3)		

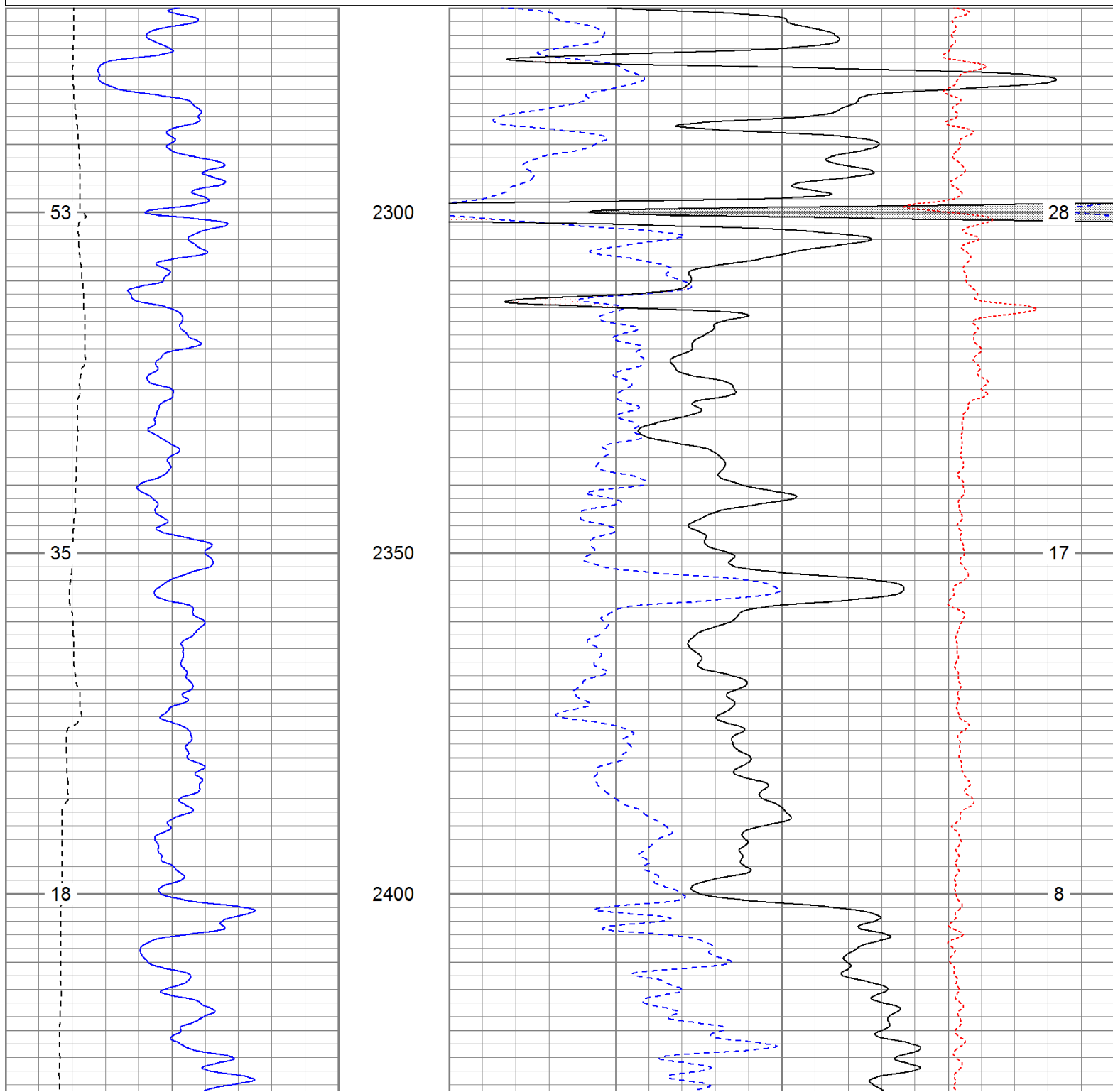


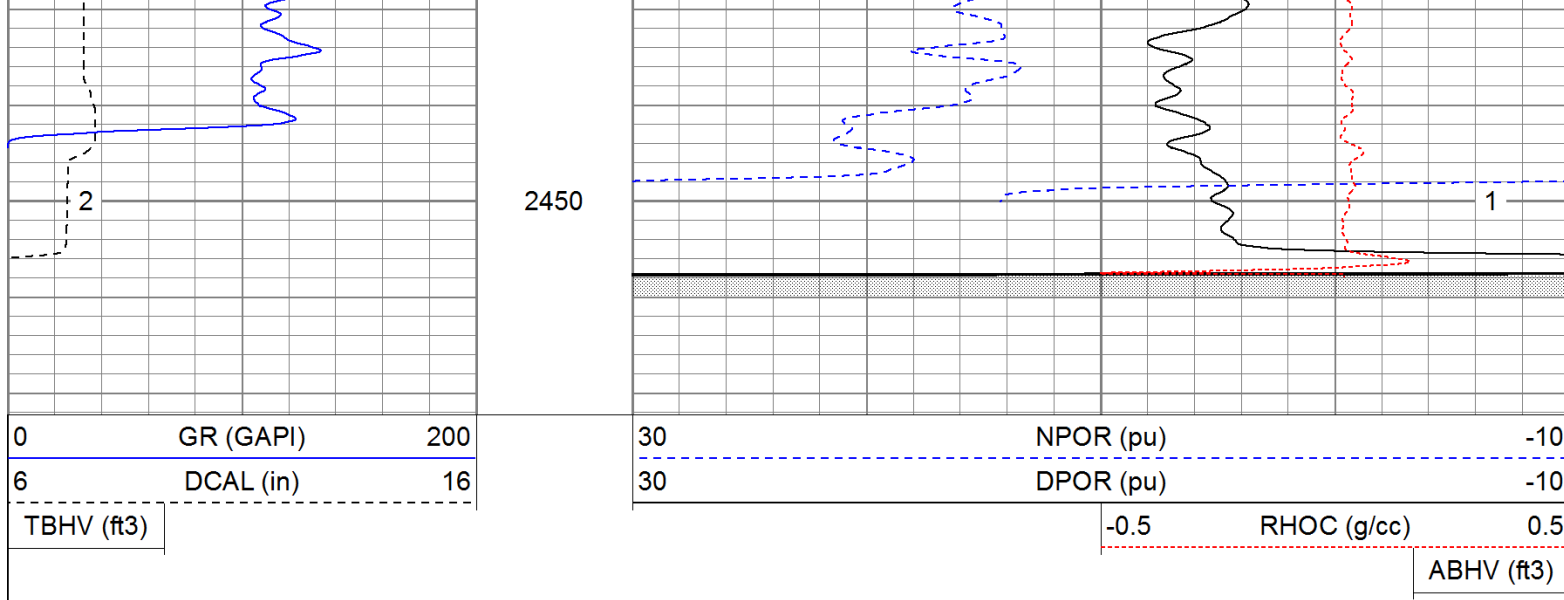
30	NPOR (pu)	-10
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
ABHV (ft3)		

# Repeat Pass

Database File: pointer.db  
 Dataset Pathname: pass1.1  
 Presentation Format: cdnl  
 Dataset Creation: Tue Aug 23 21:40:42 2011 by Calc Open-Cased 110302  
 Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200	30	NPOR (pu)	-10
6	DCAL (in)	16	30	DPOR (pu)	-10
TBHV (ft3)			-0.5	RHOC (g/cc)	0.5
					ABHV (ft3)

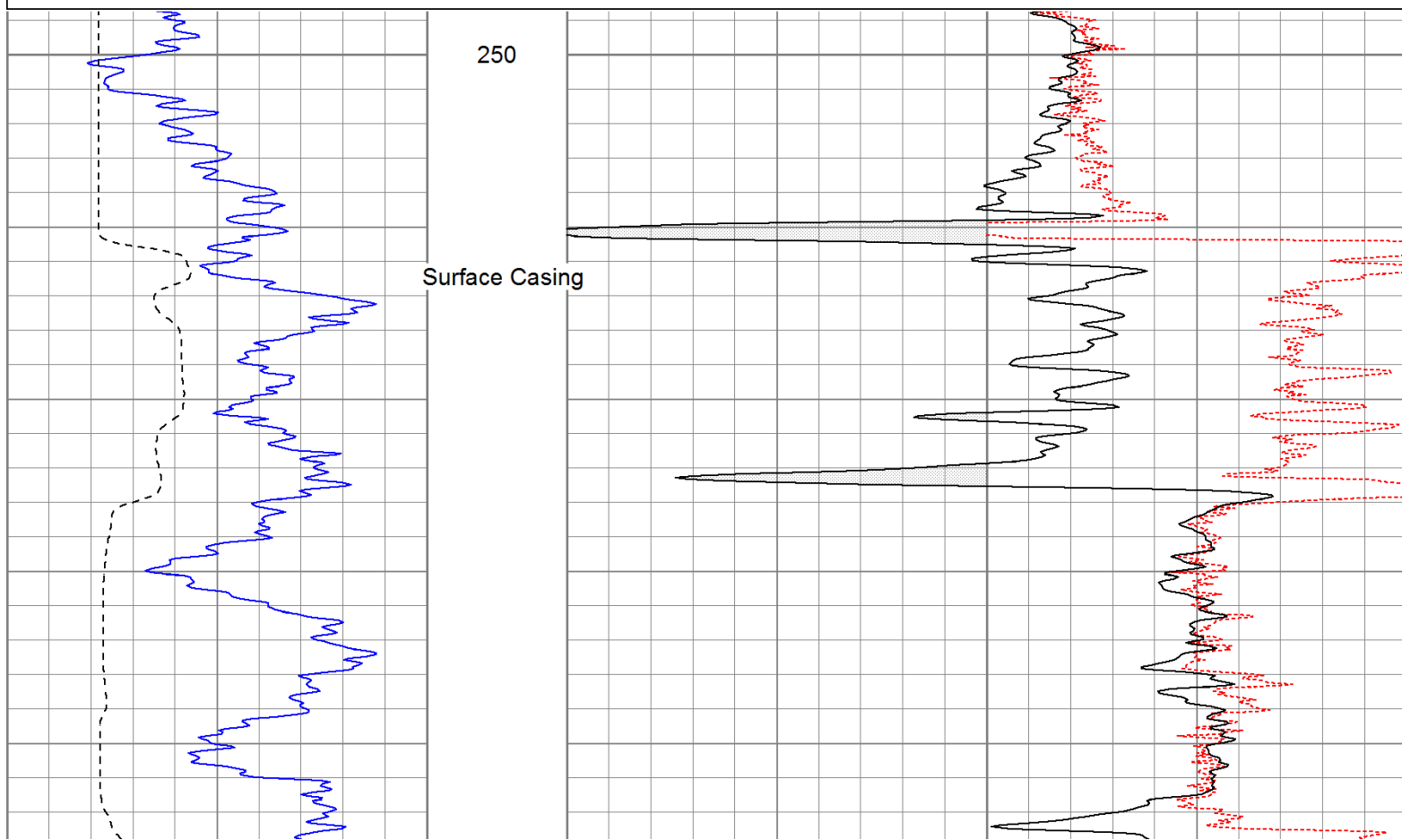




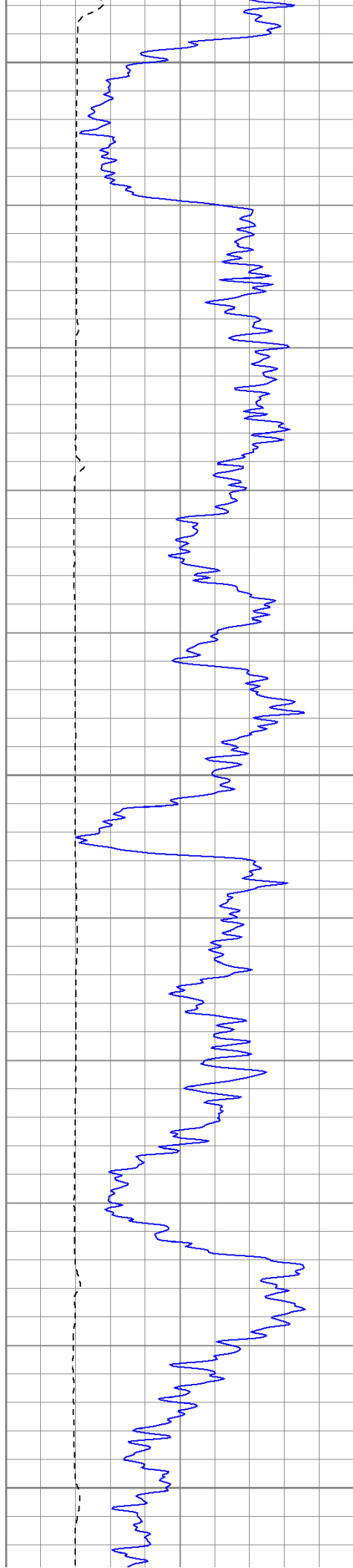
# High Resolution Pass

Database File: pointer.db  
 Dataset Pathname: pass2.1  
 Presentation Format: cdlhr  
 Dataset Creation: Thu Aug 25 15:36:15 2011 by Calc Open-Cased 110302  
 Charted by: Depth in Feet scaled 1:120

0	GR (GAPI)	200	1	RHOB (g/cc)		3
6	DCAL (in)	16		-0.5	RHOC (g/cc)	0.5



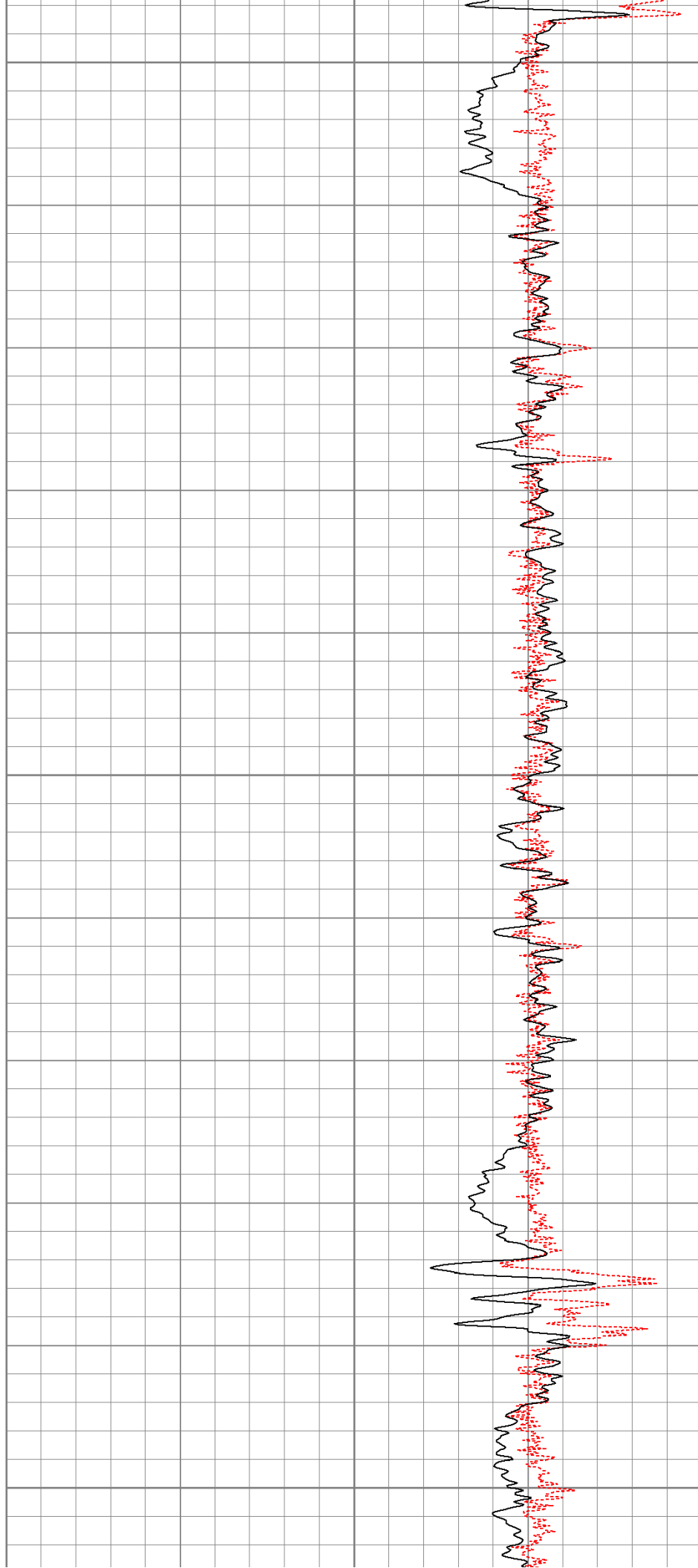


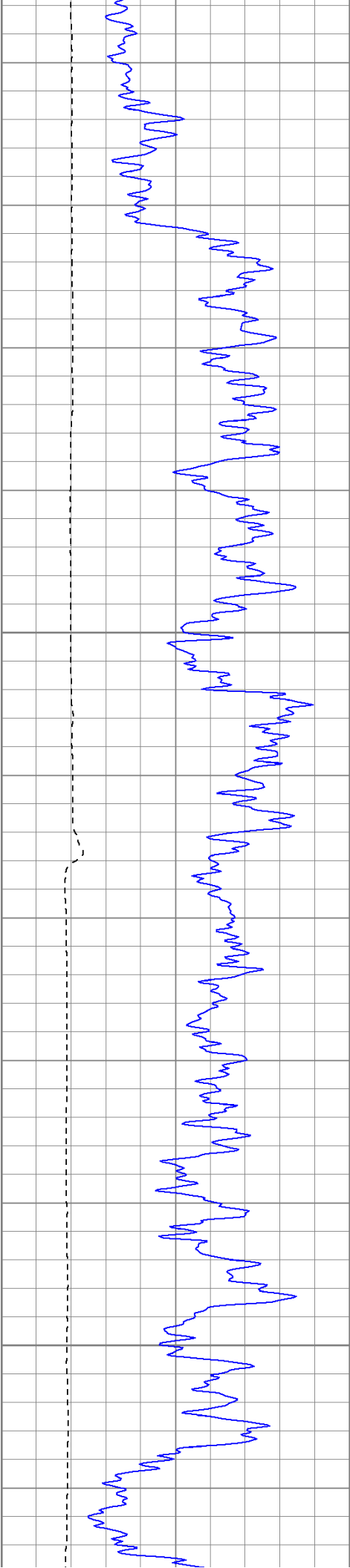


300

350

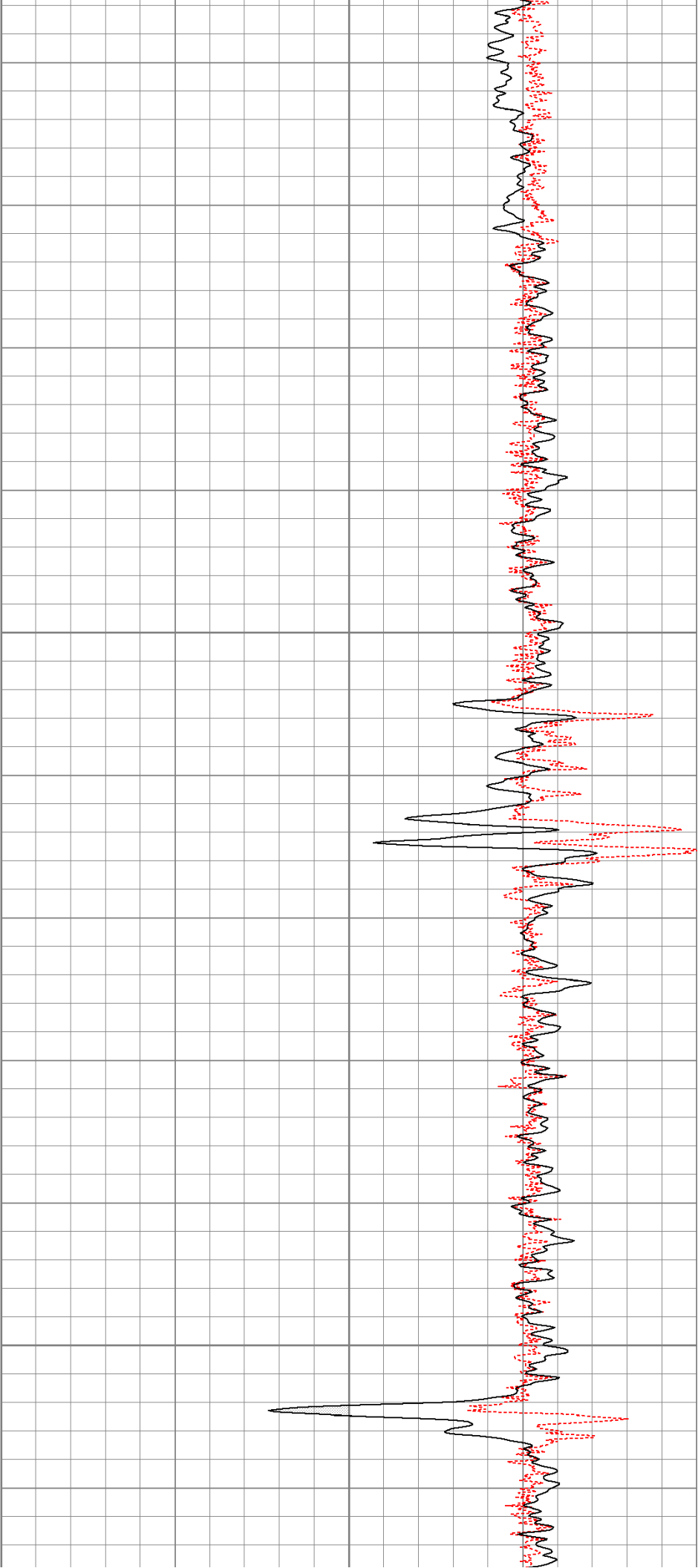
400

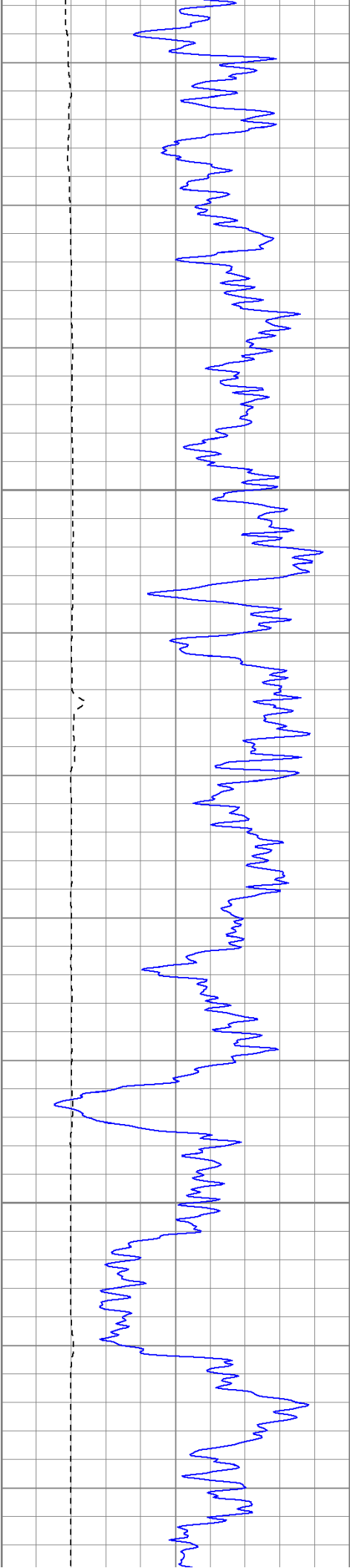




450

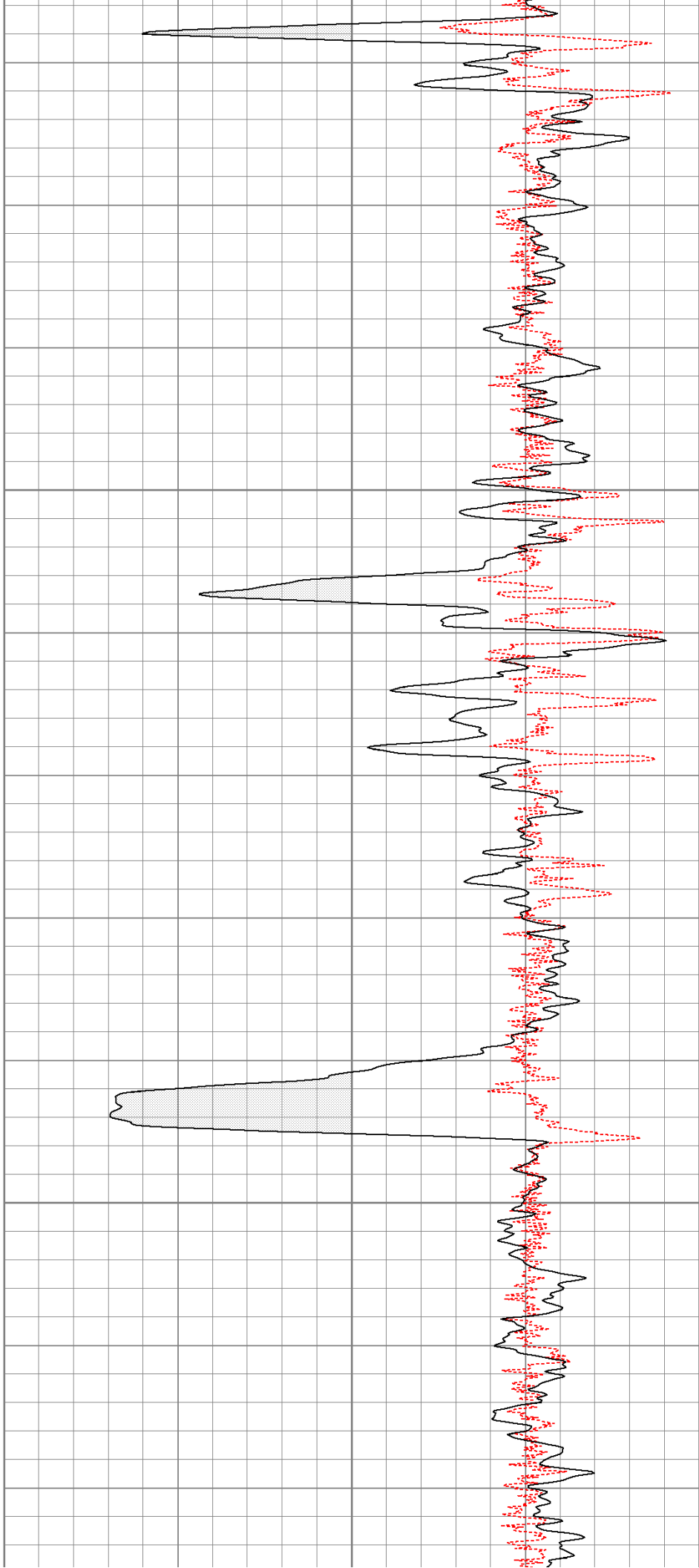
500

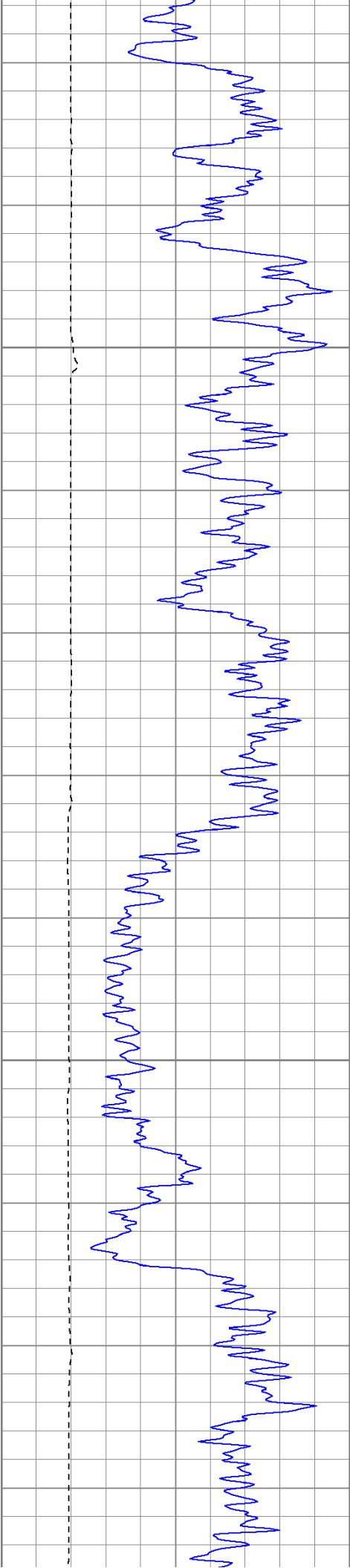




550

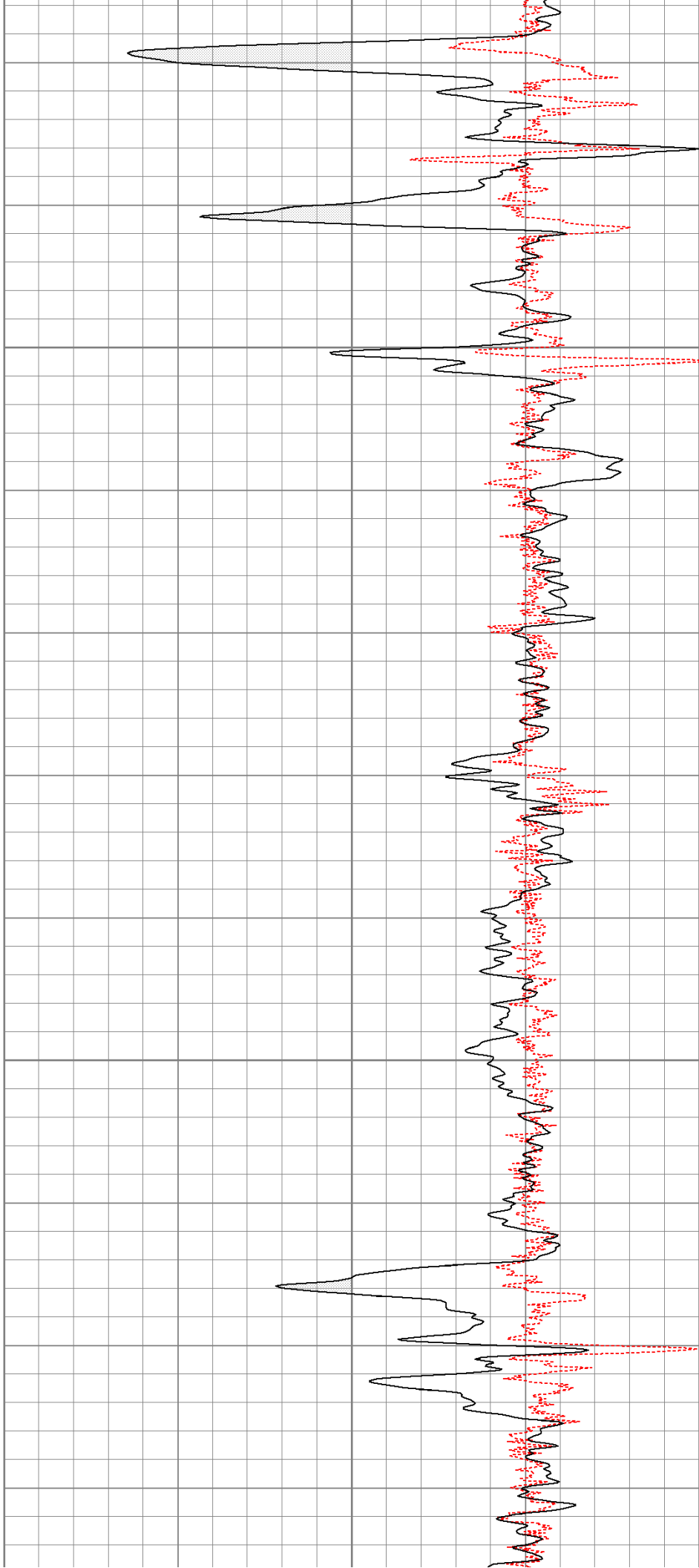
600

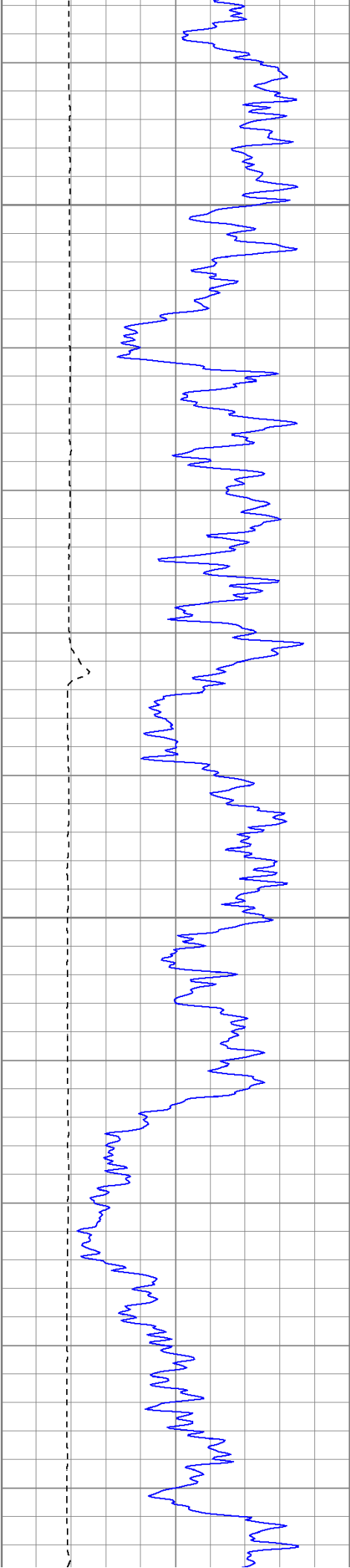




650

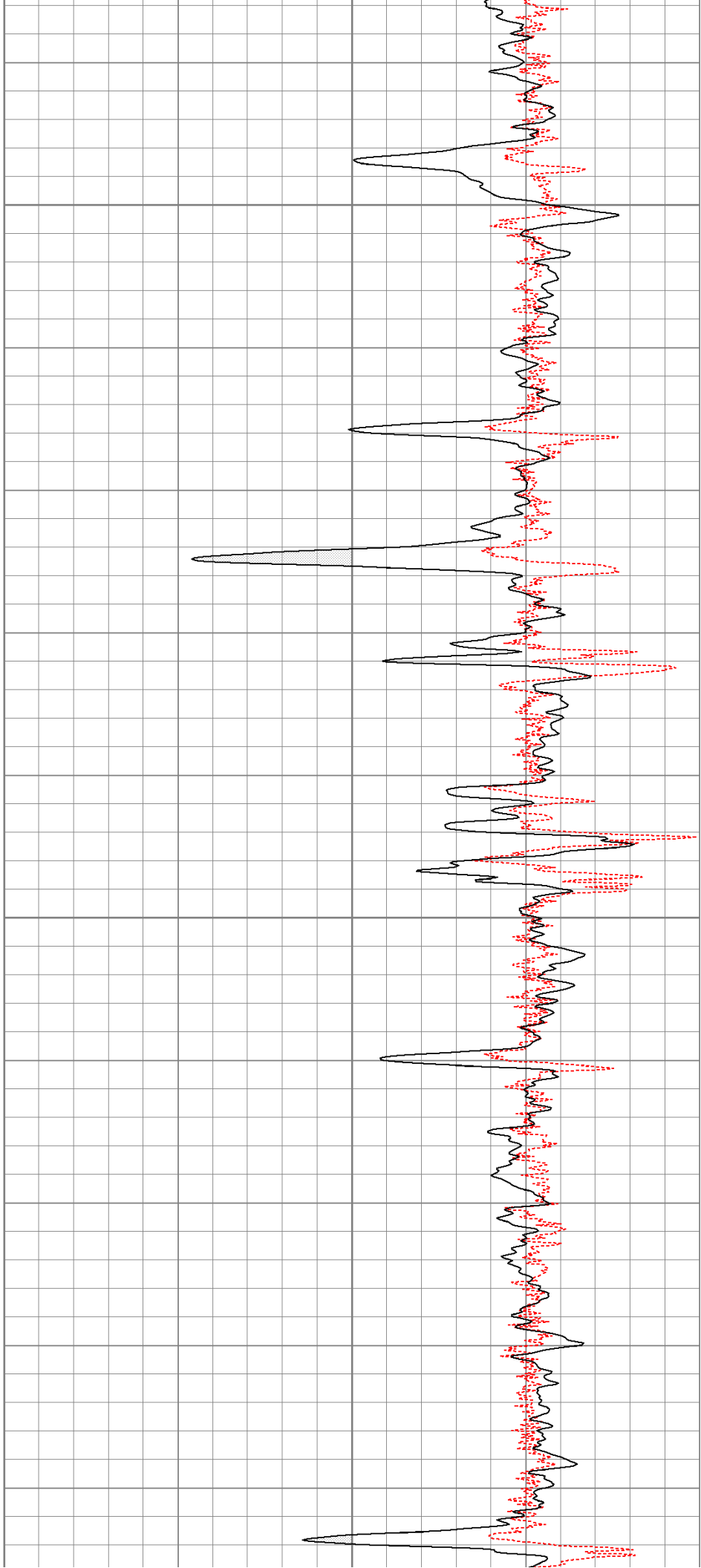
700

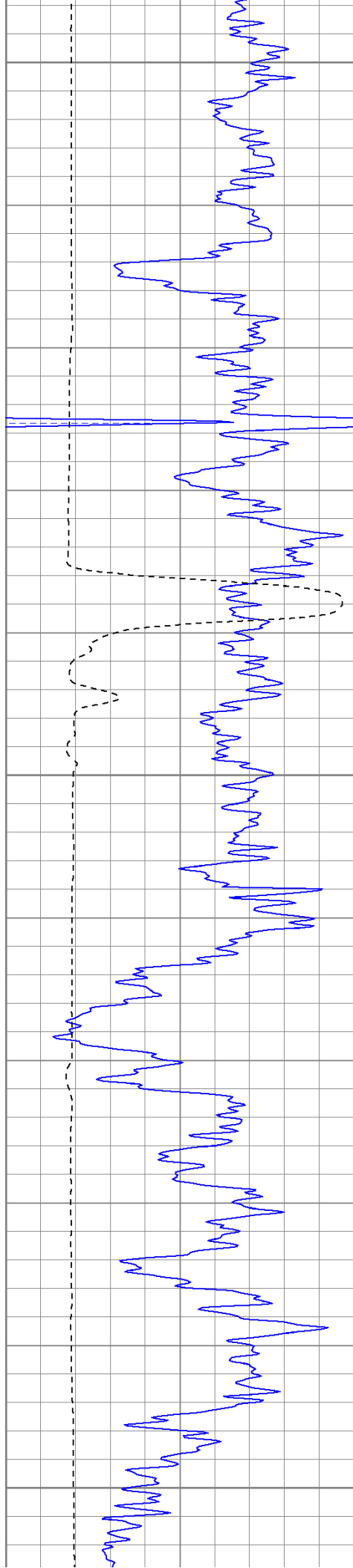




750

800

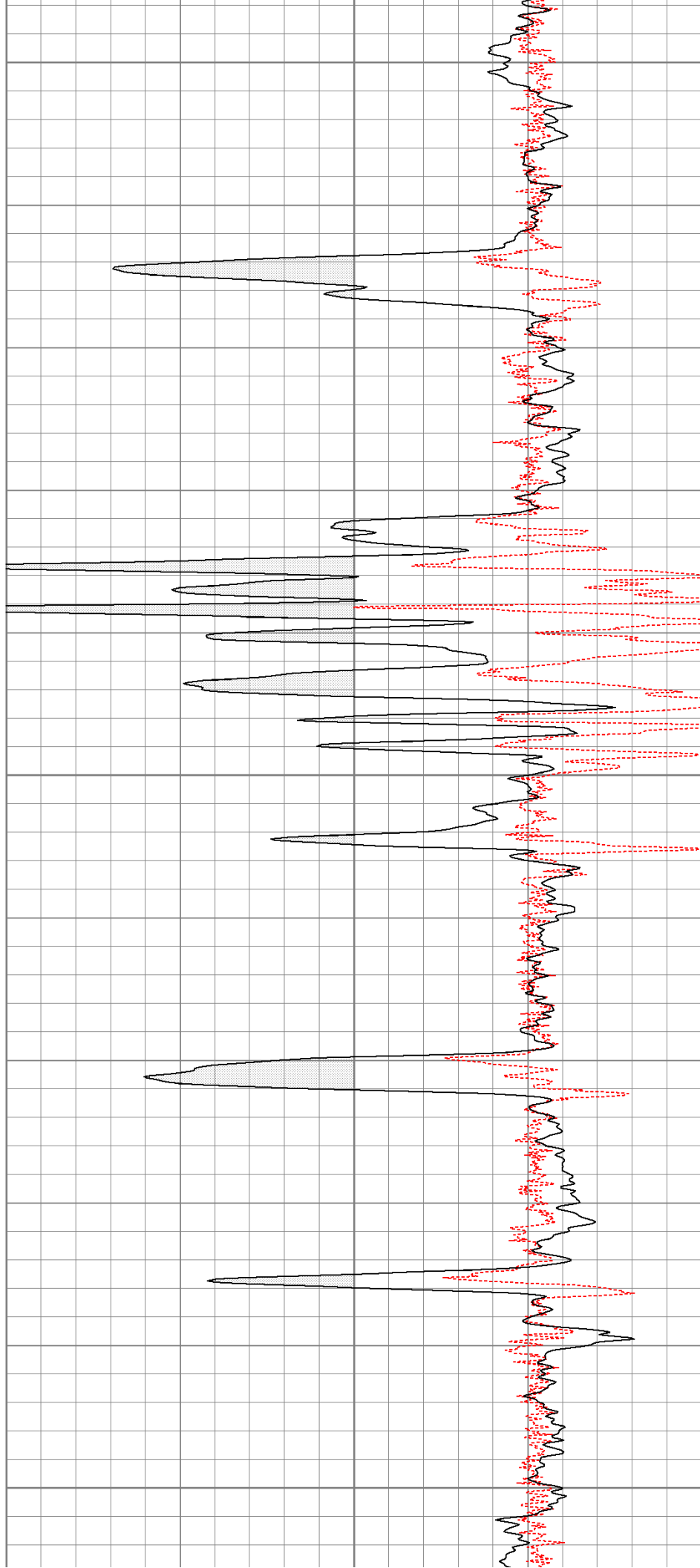


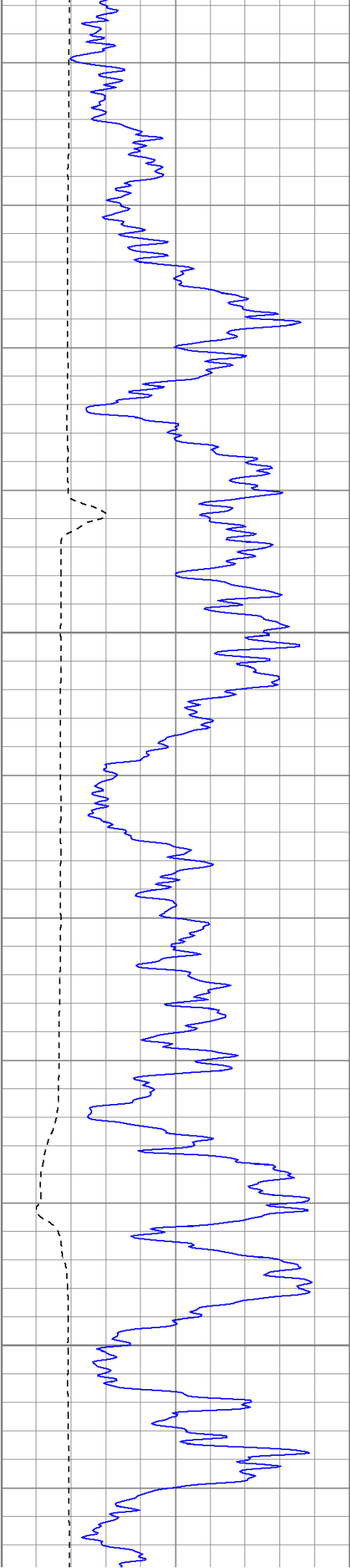


850

900

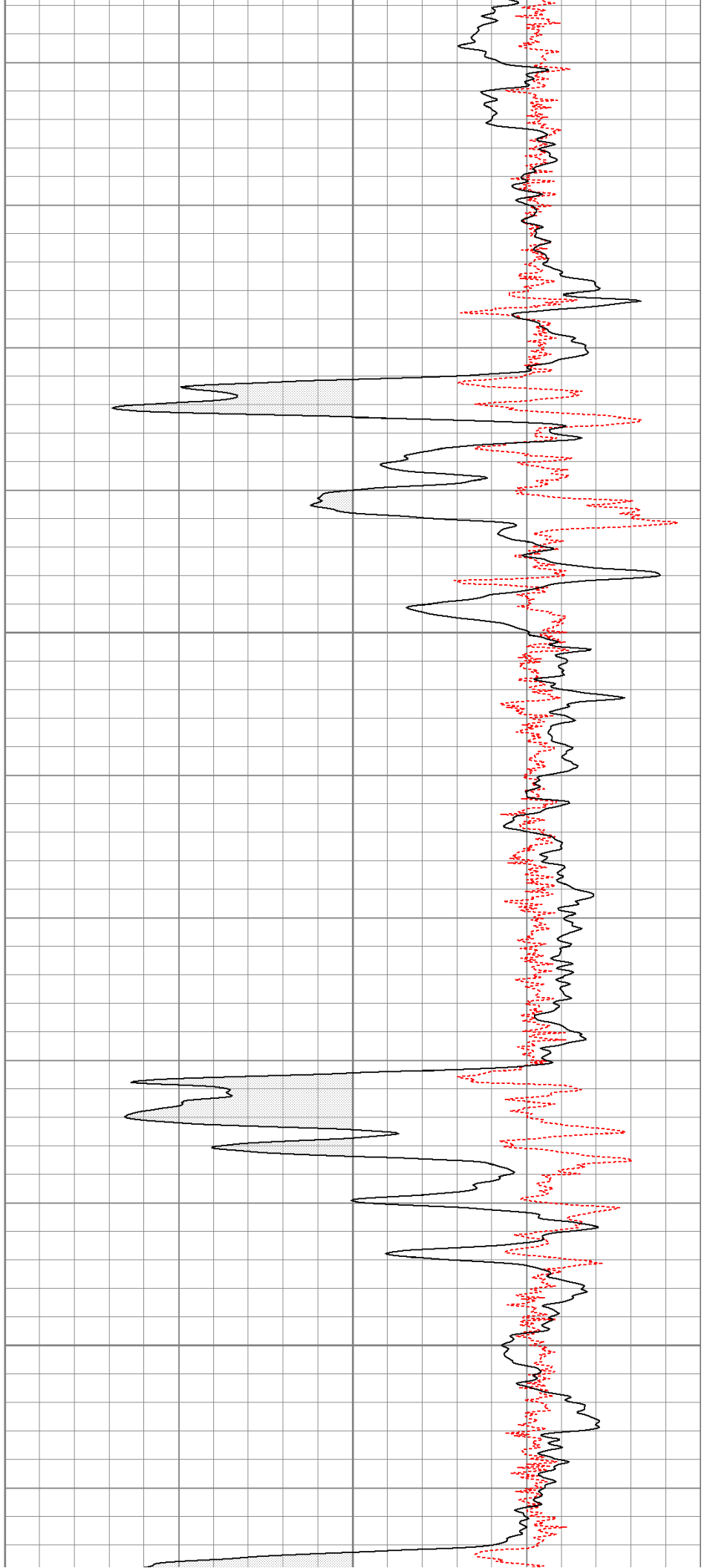
950

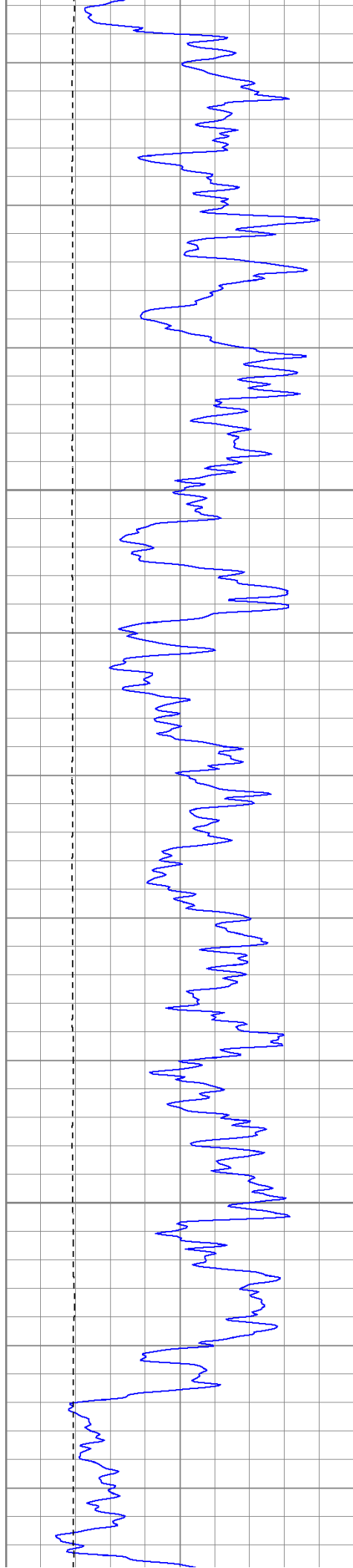




1000

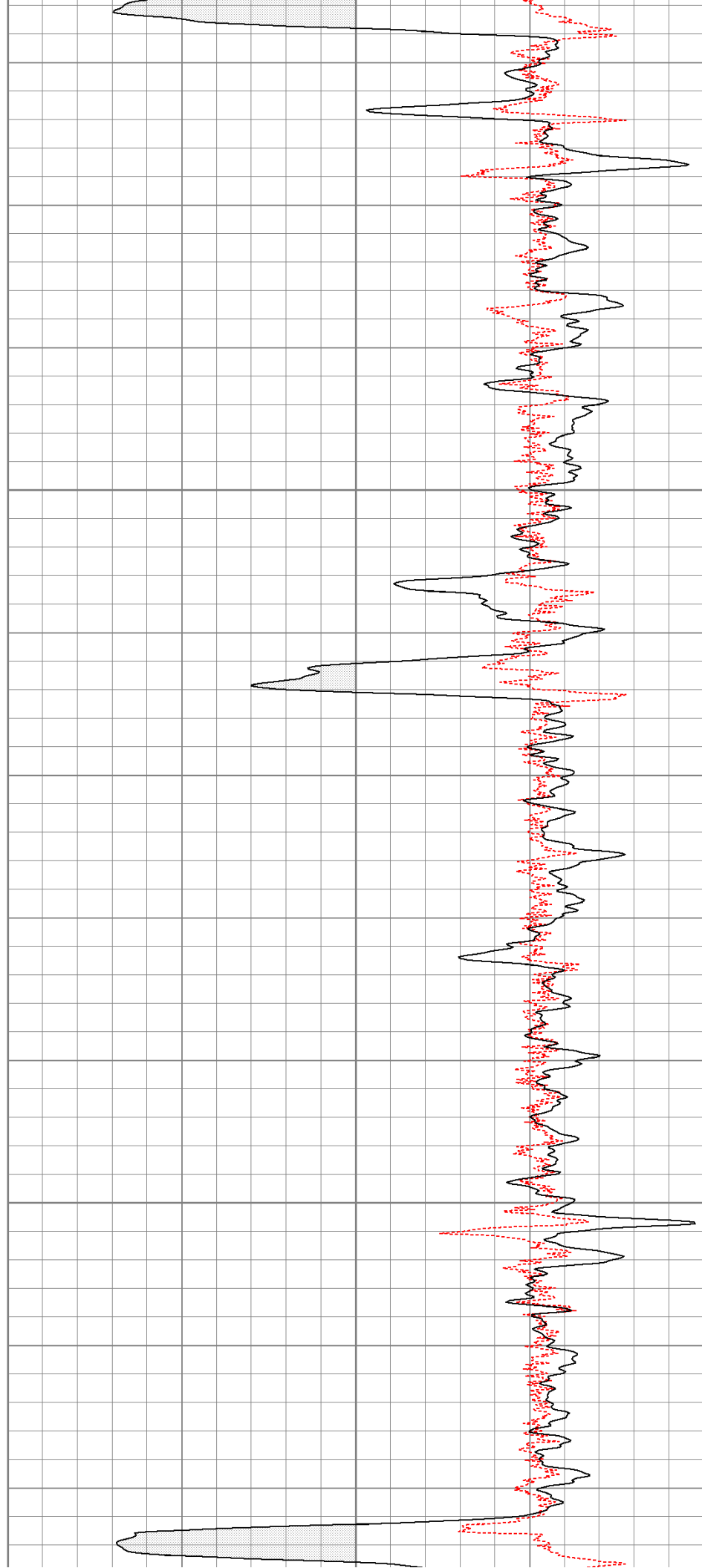
1050



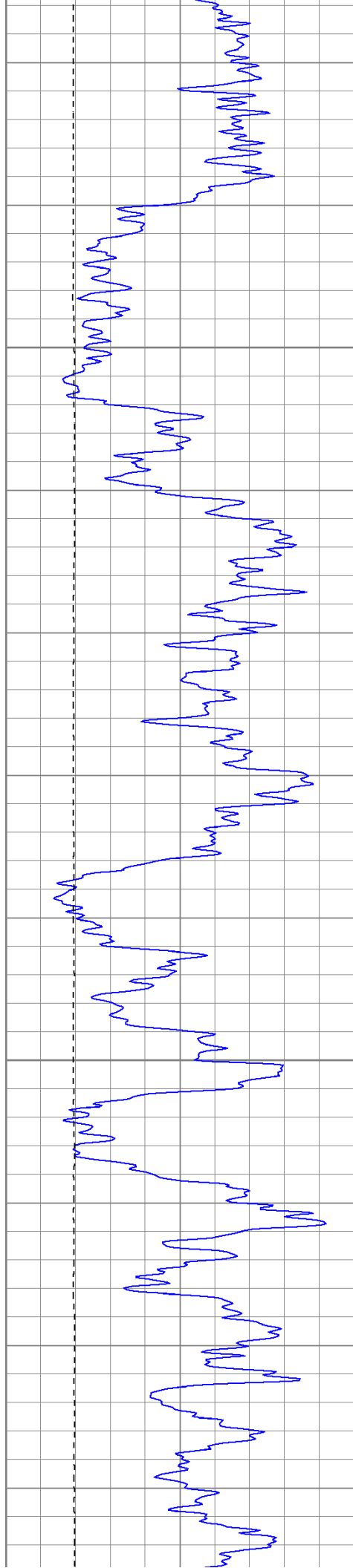


1100

1150

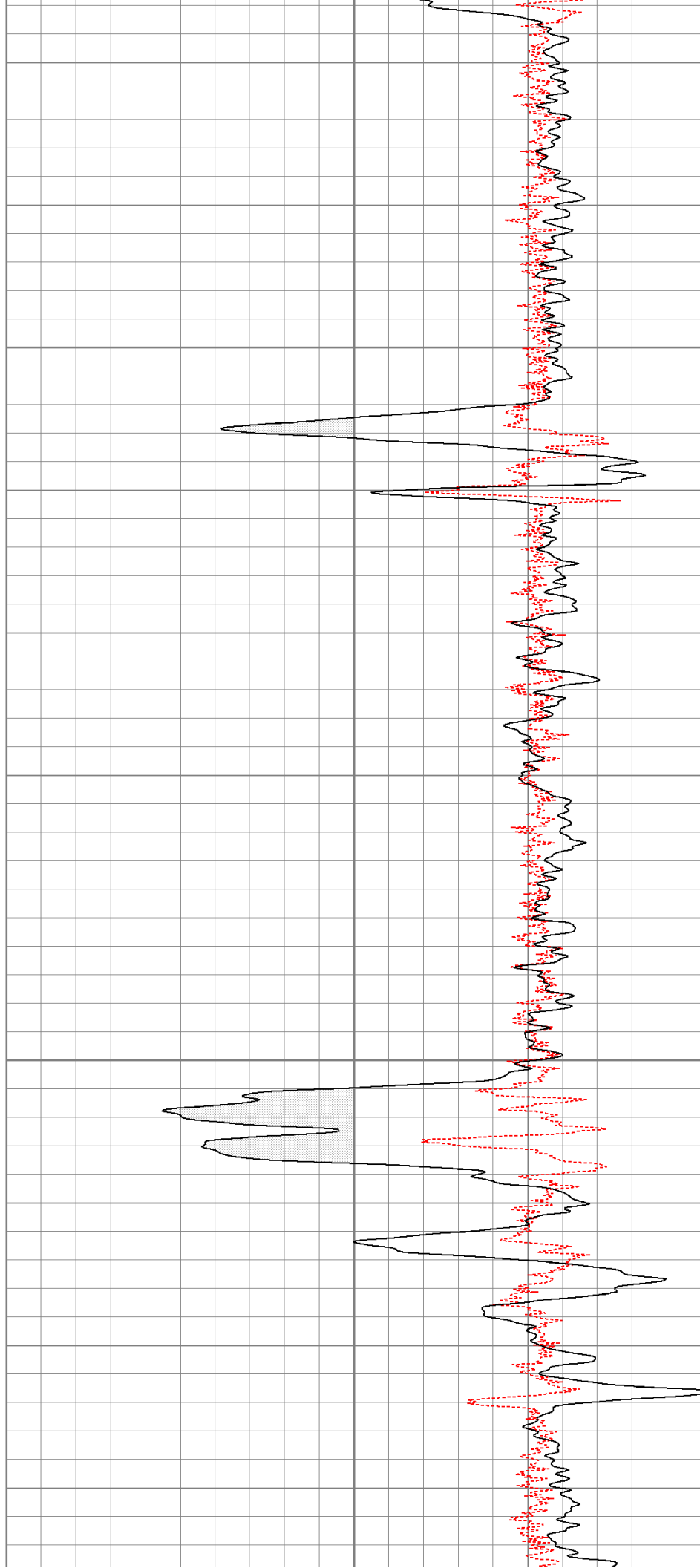


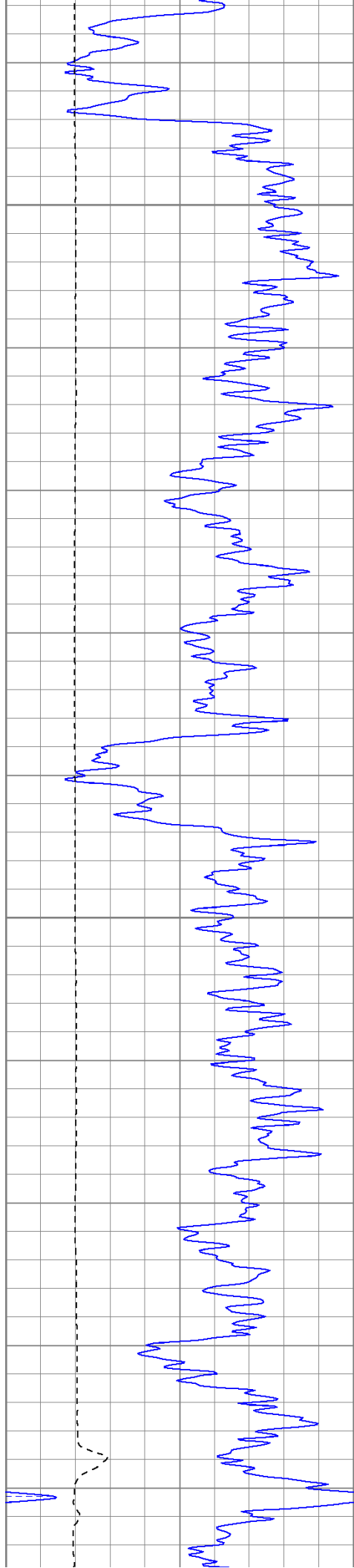




1200

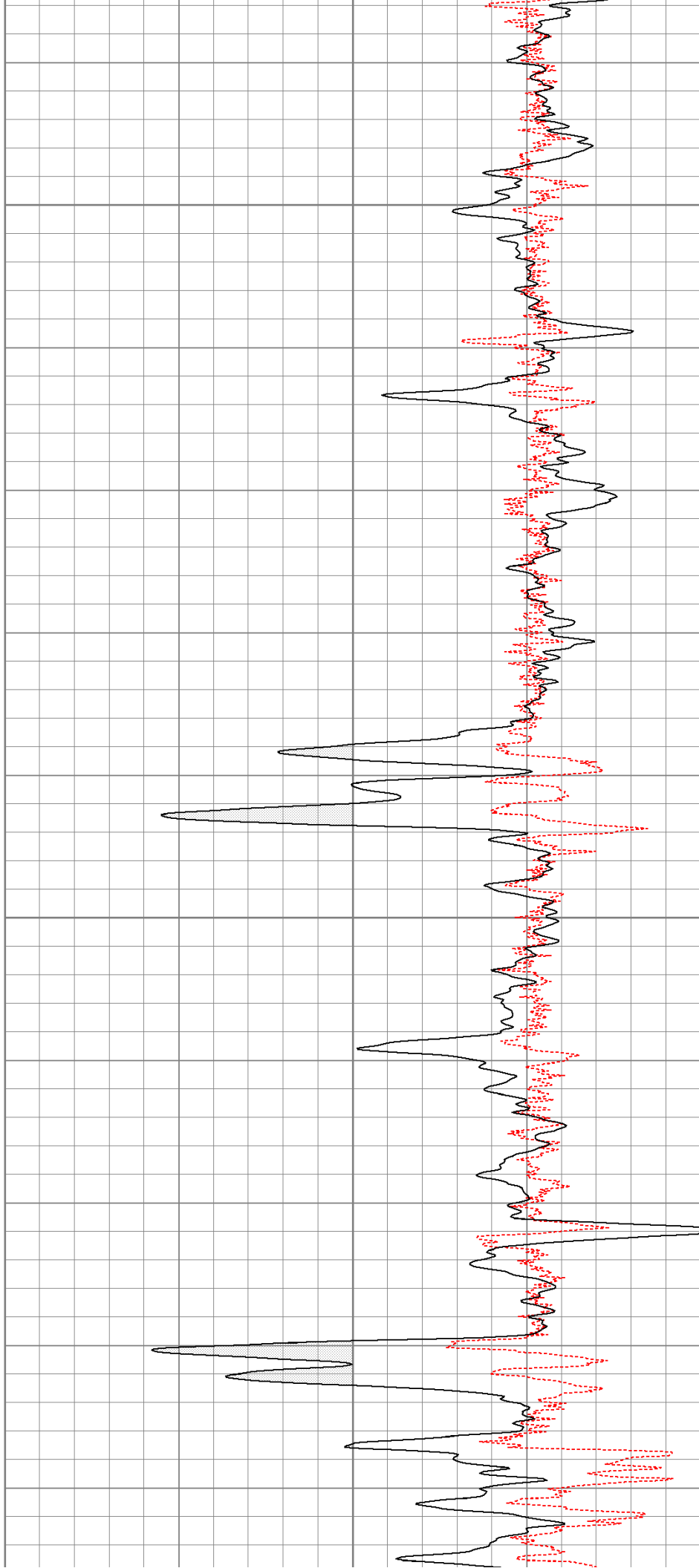
1250

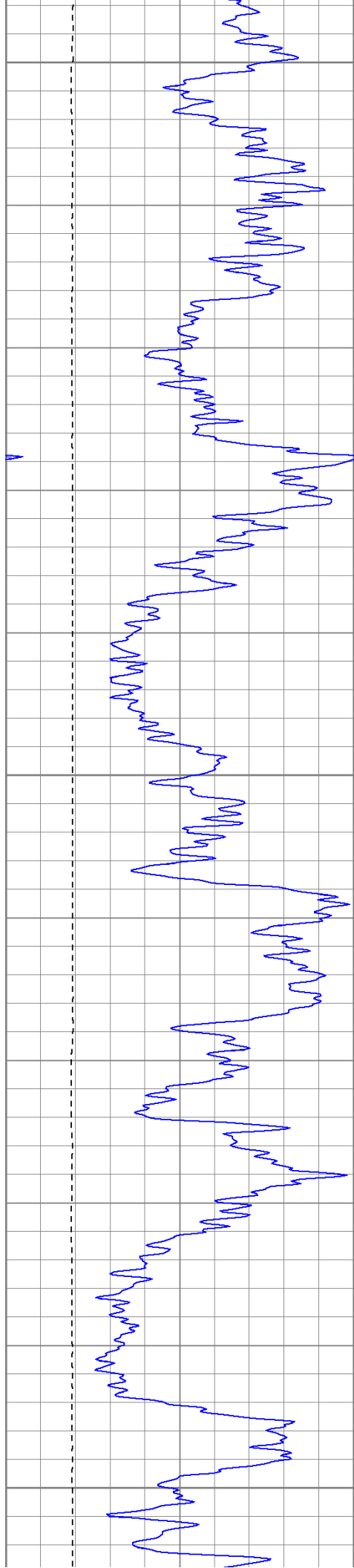




1300

1350

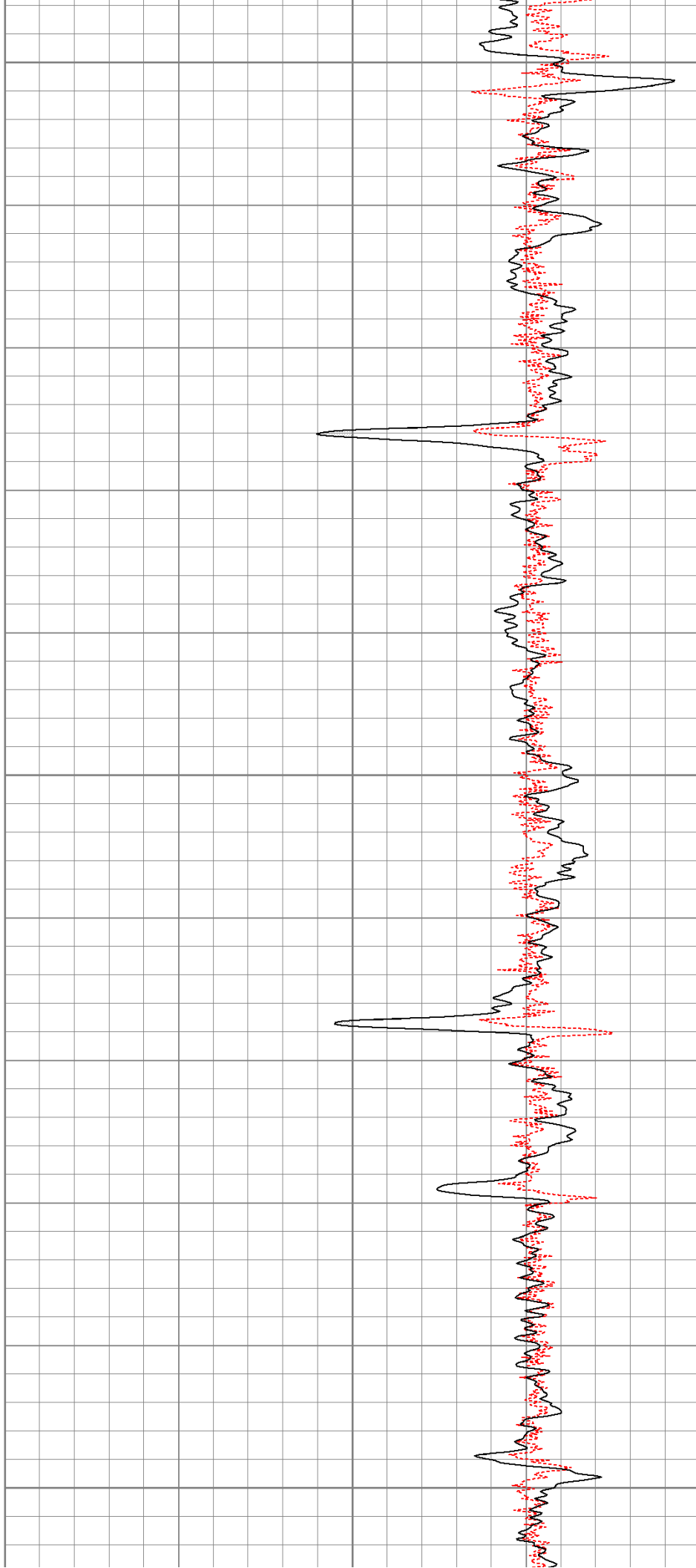


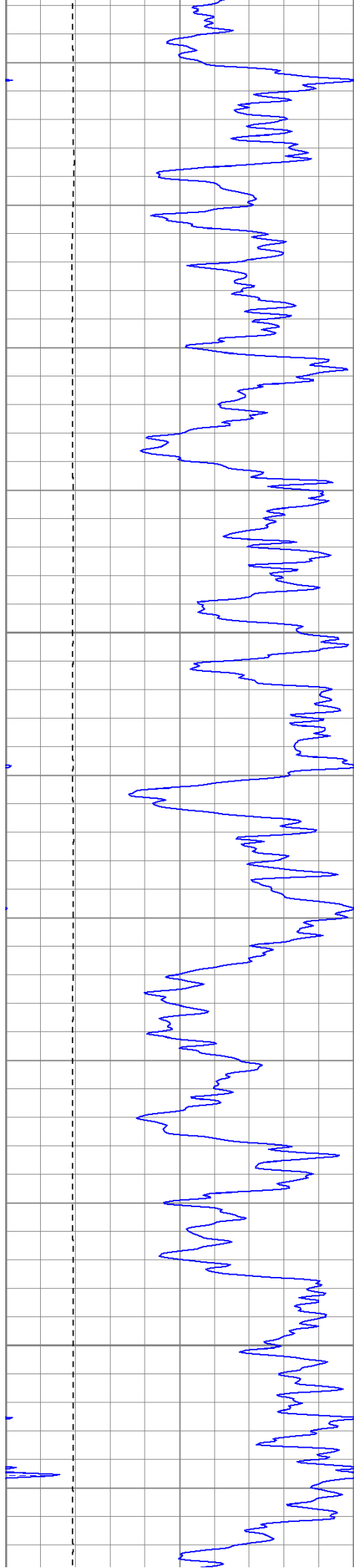


1400

1450

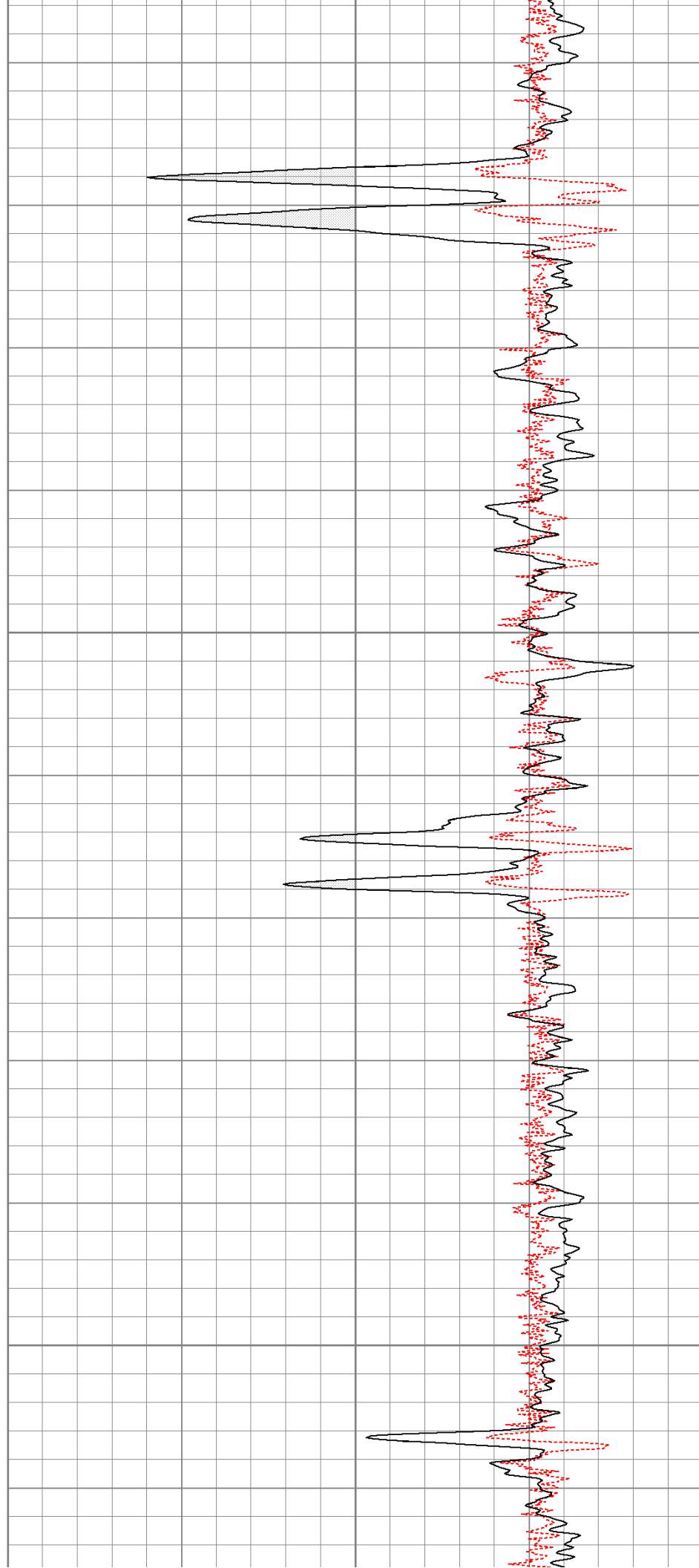
1500

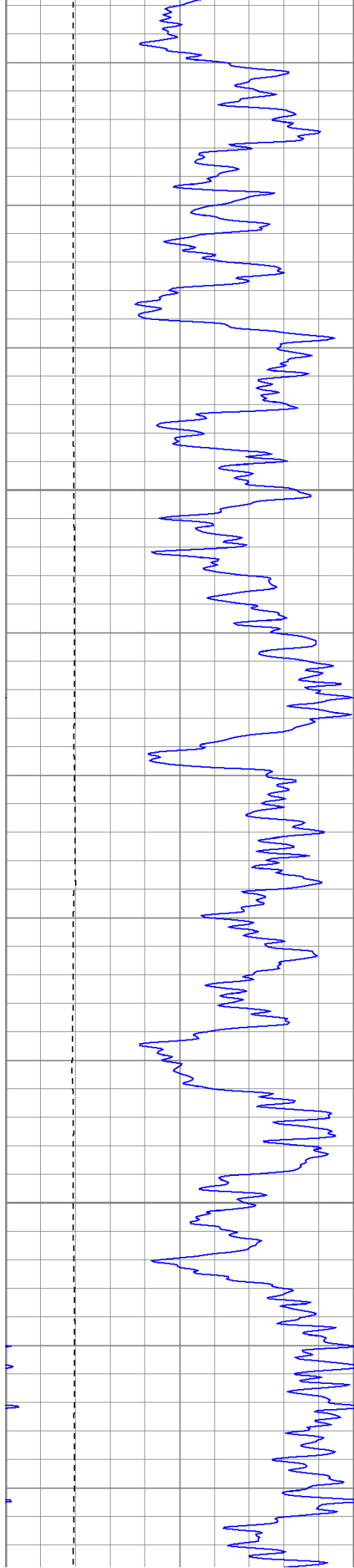




1550

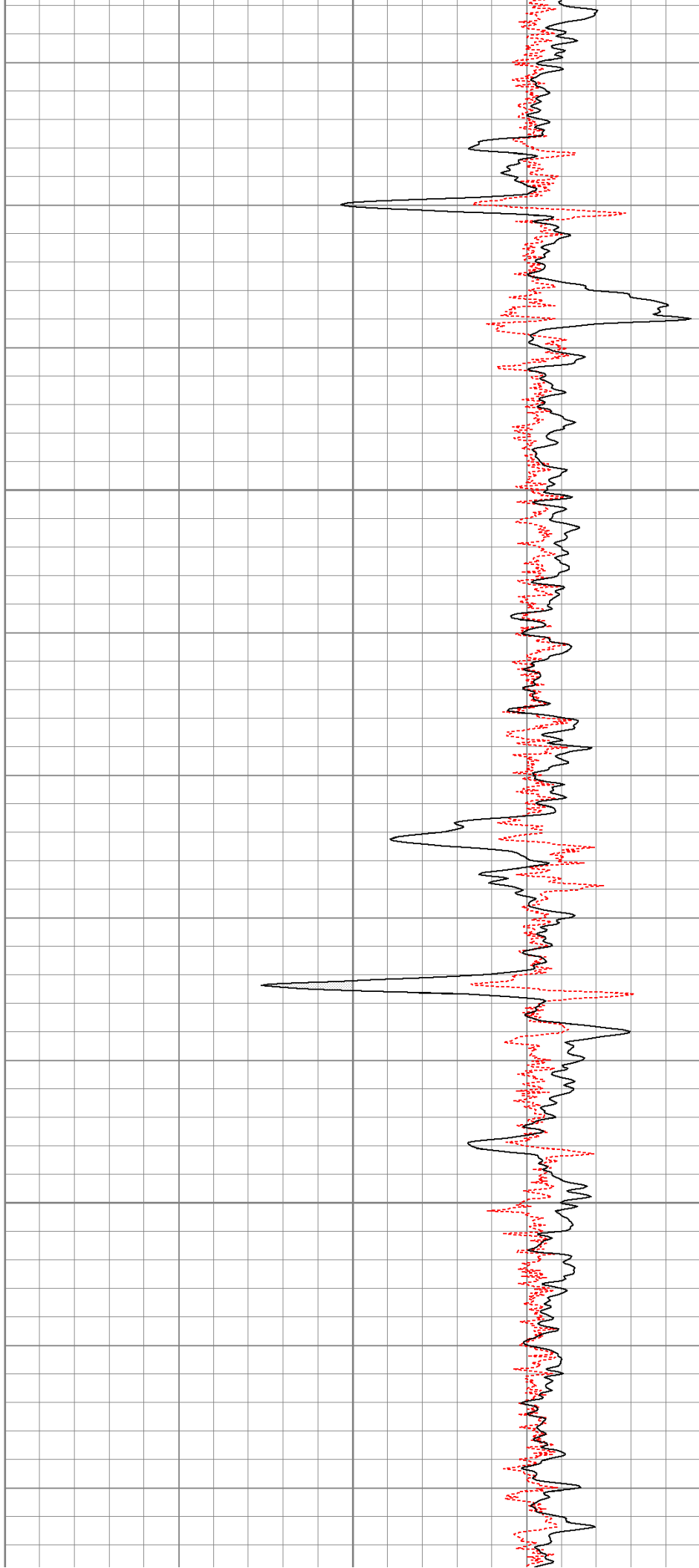
1600





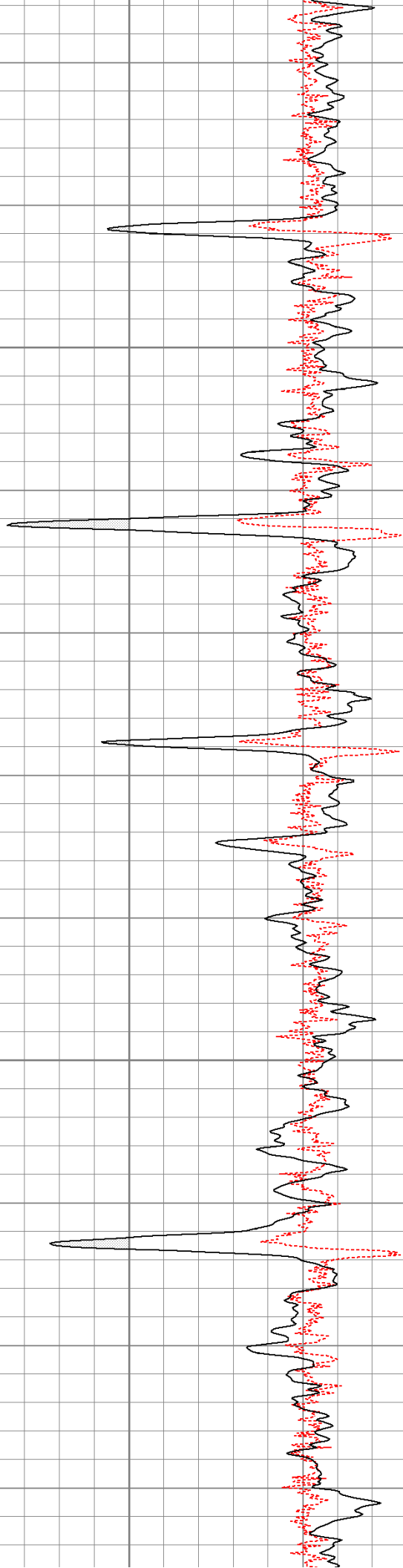
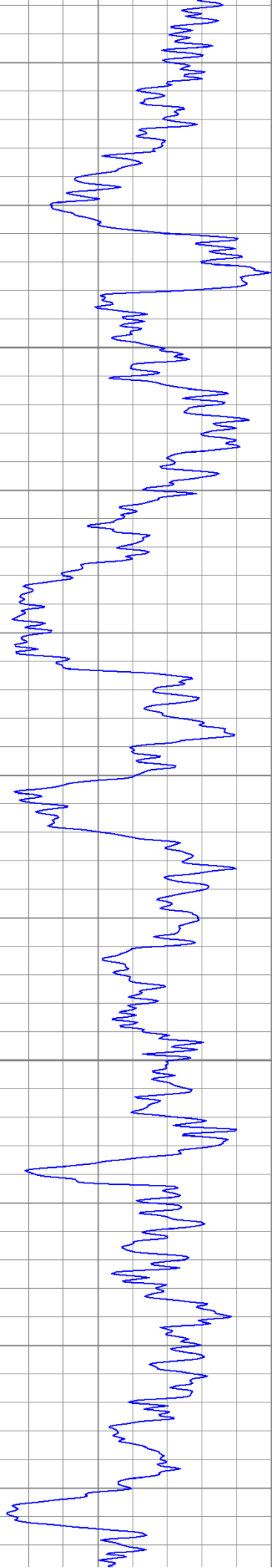
1650

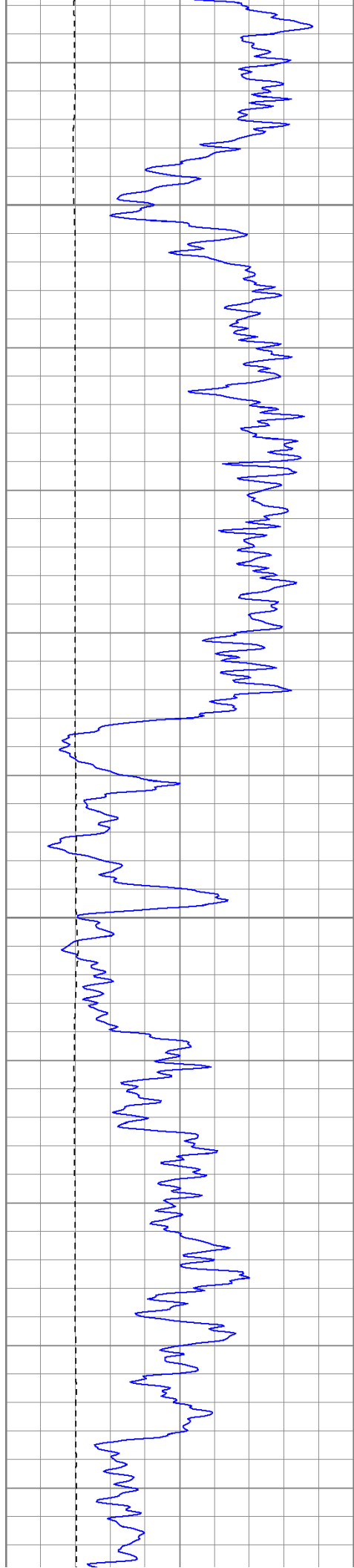
1700



1750

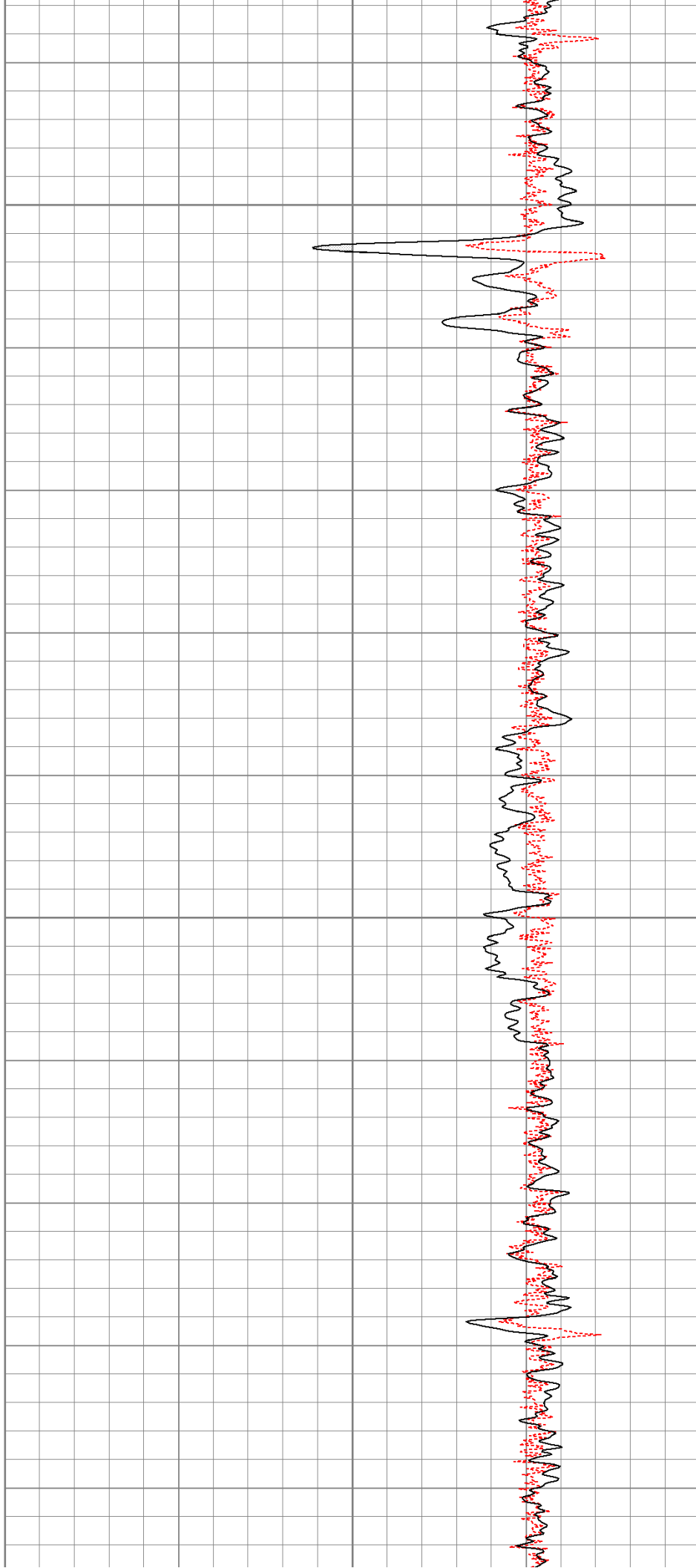
1800

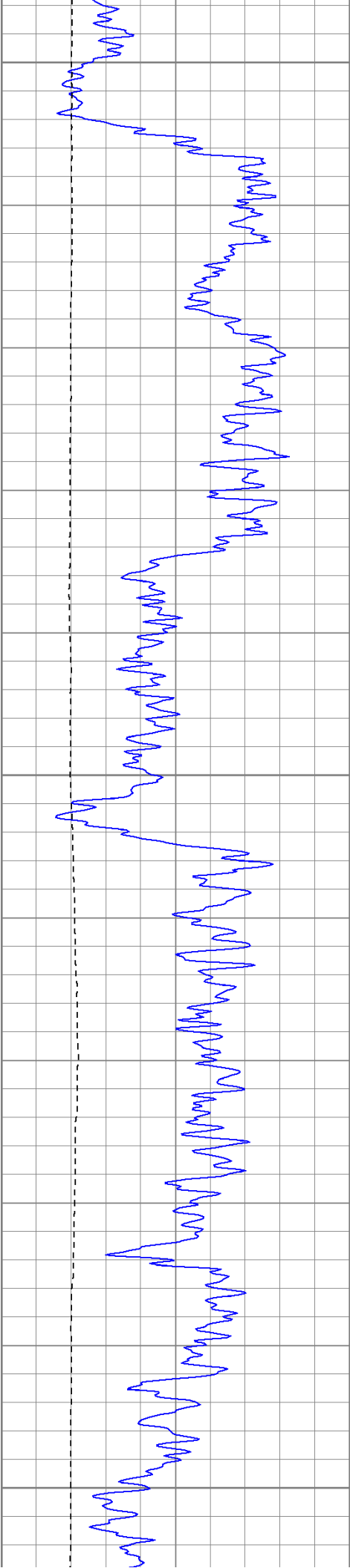




1850

1900

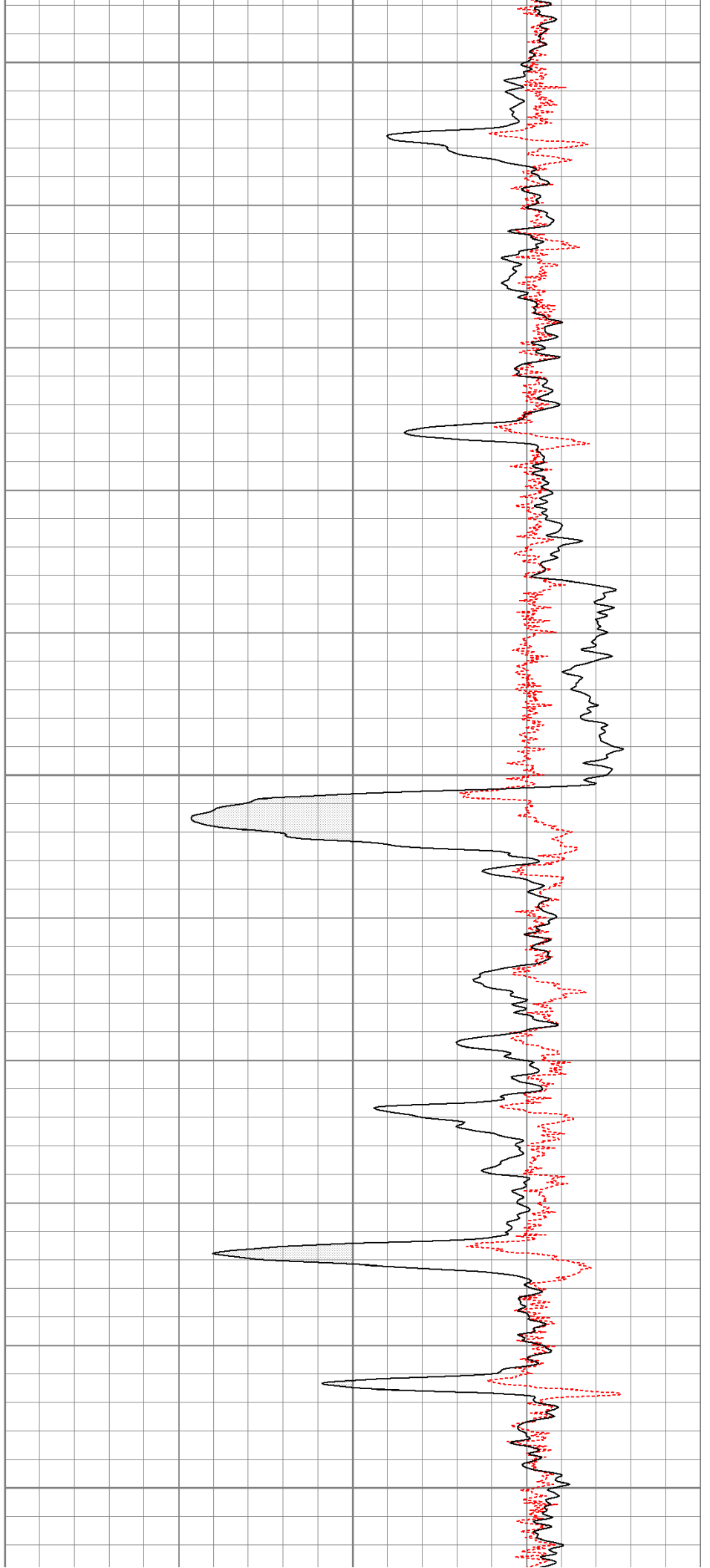




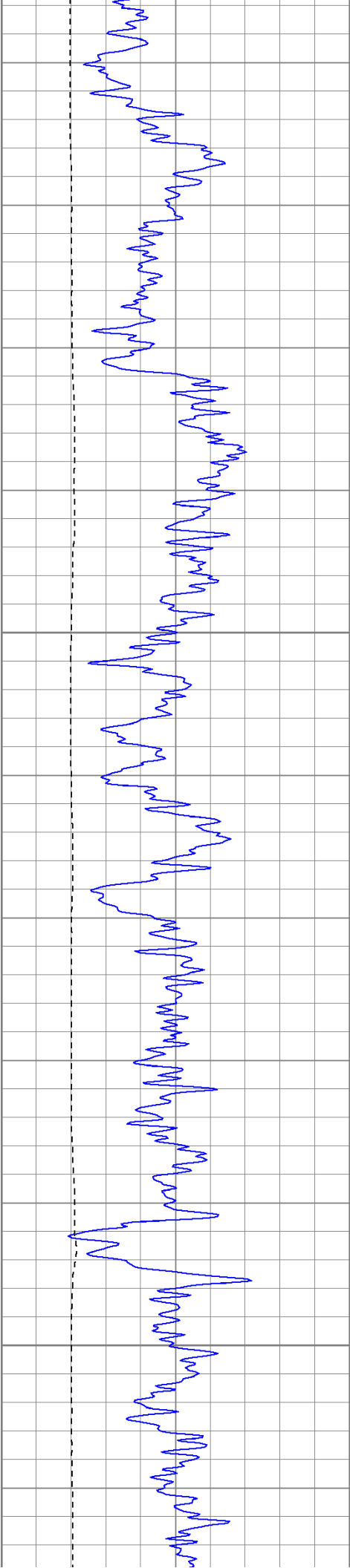
1950

2000

2050

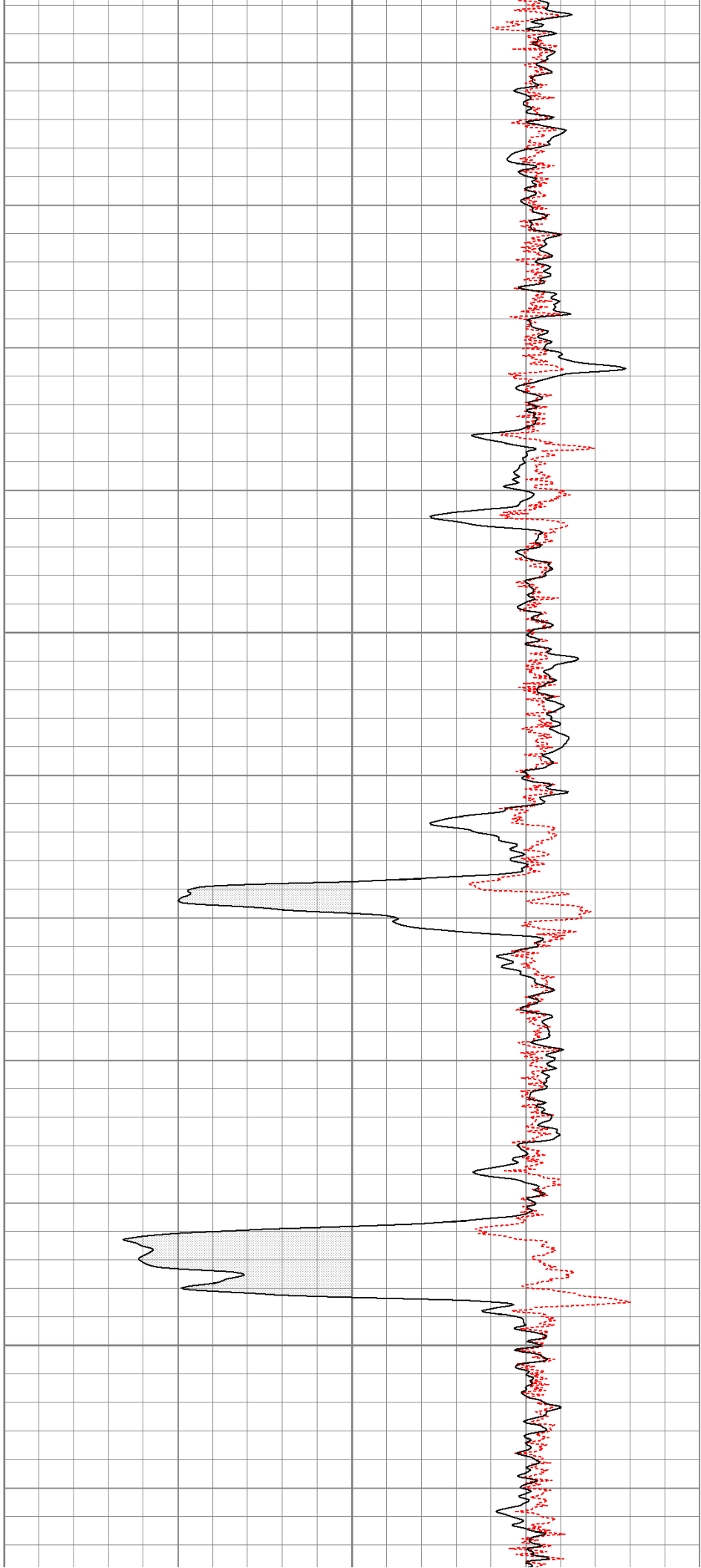


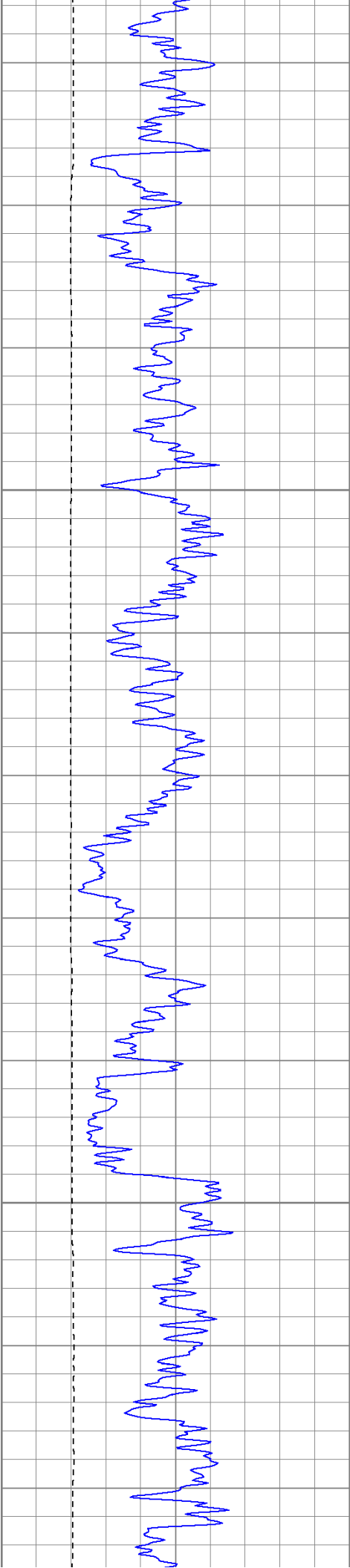




2100

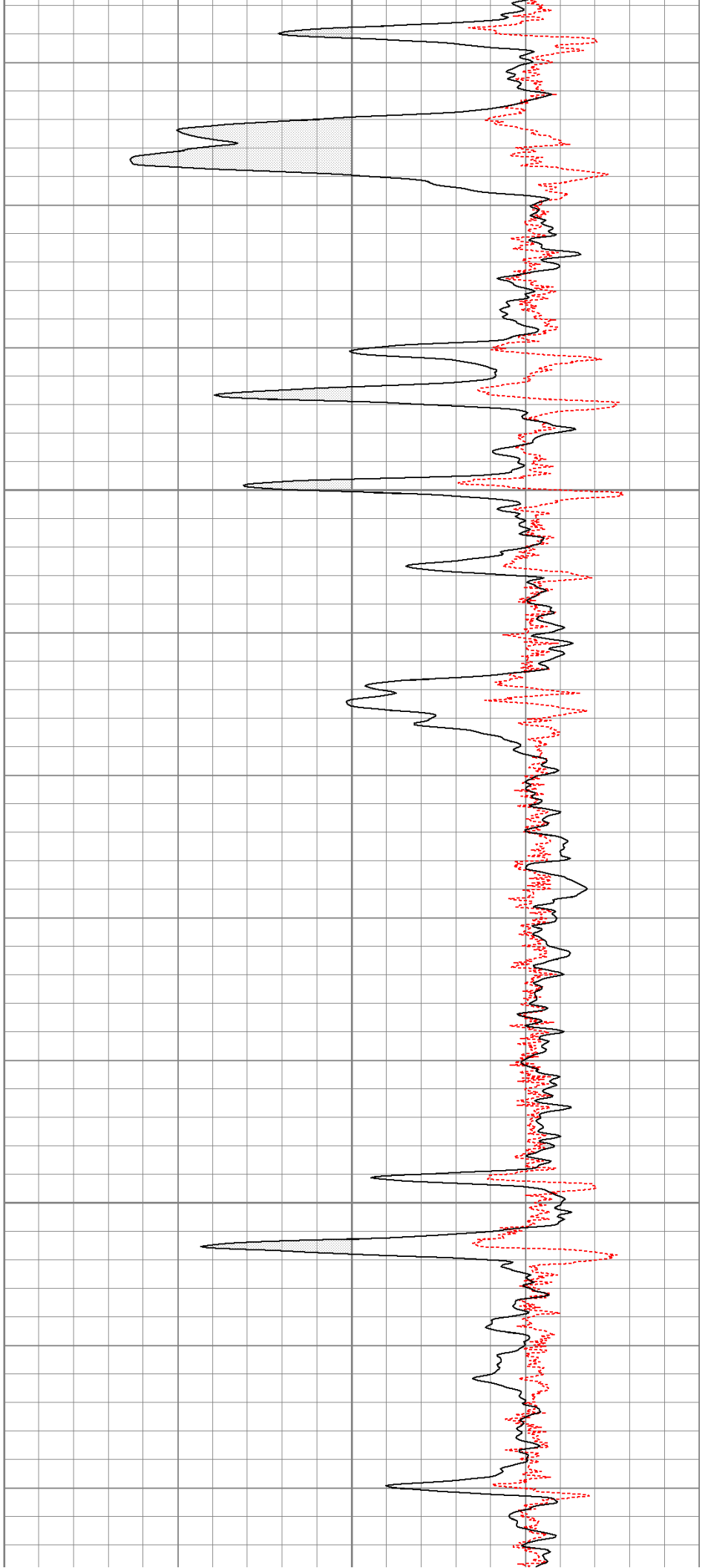
2150

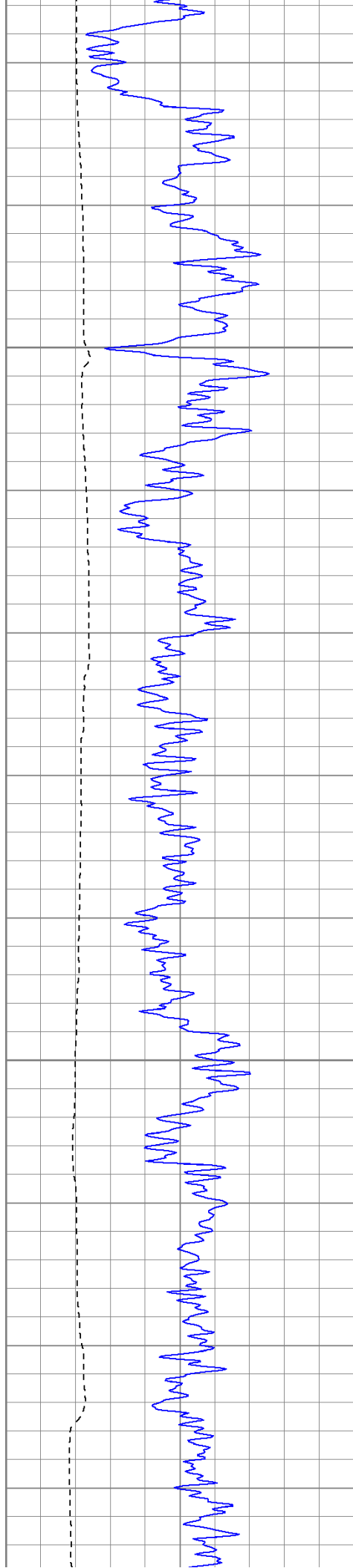




2200

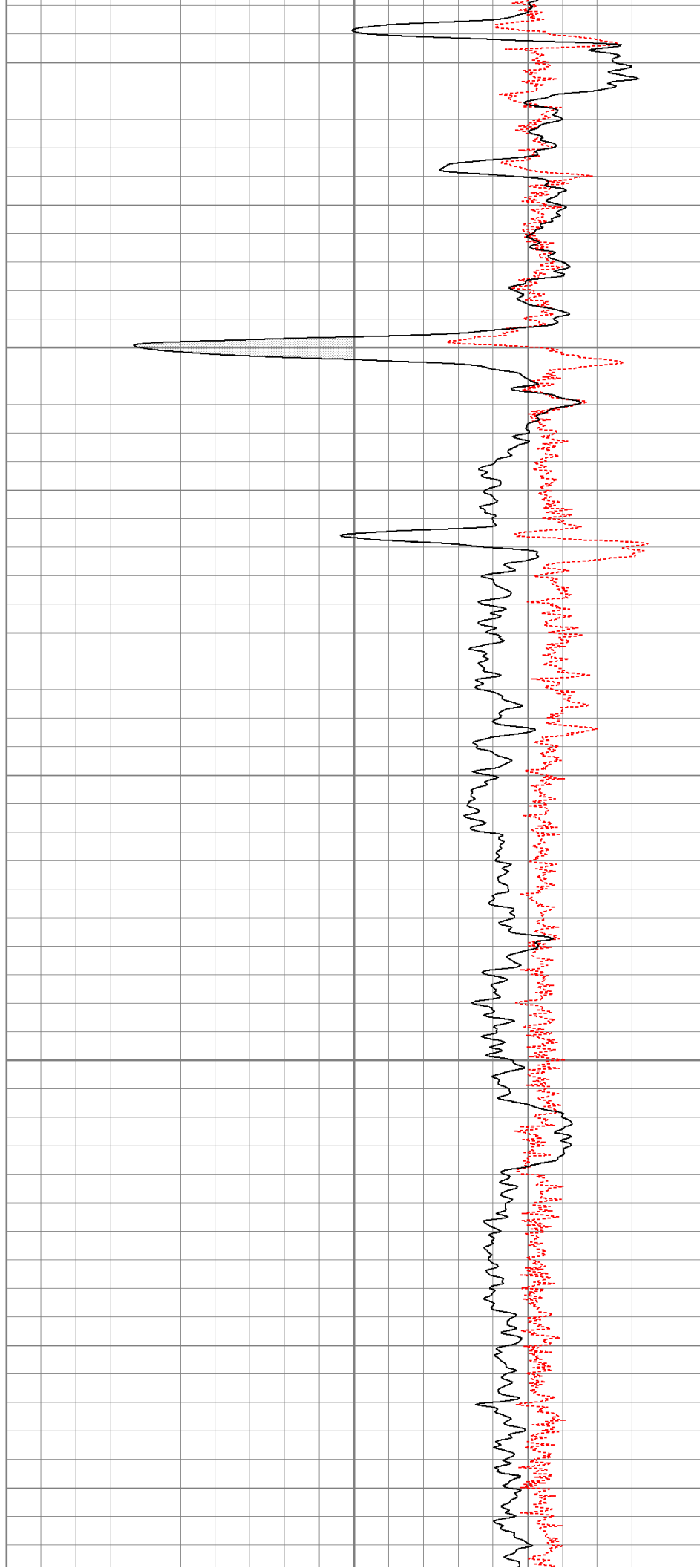
2250

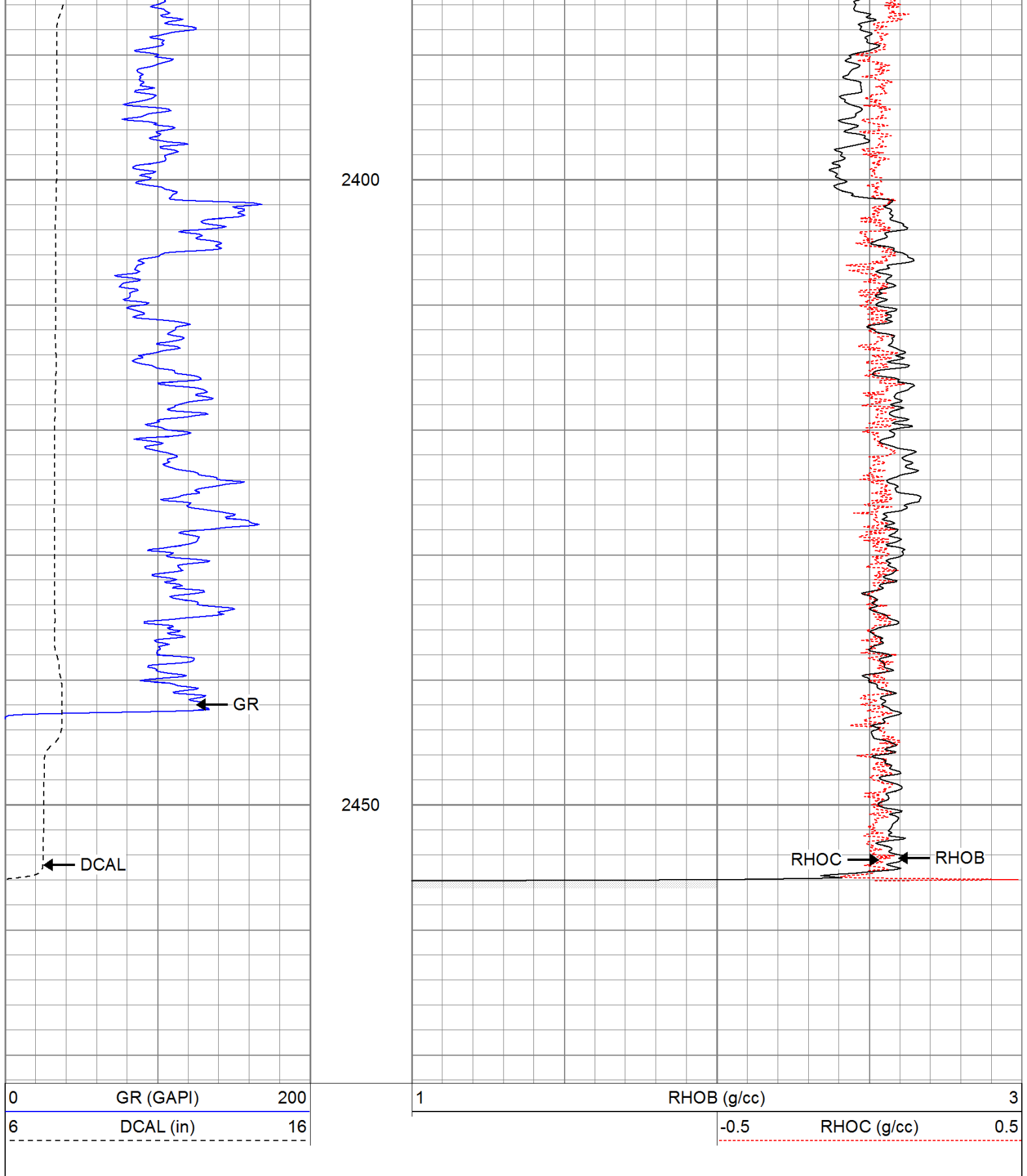




2300

2350





### Calibration Report

Database File: pointer.db  
Dataset Pathname: pass1  
Dataset Creation: Tue Aug 23 20:17:32 2011 by Log Open-Cased 110302

### Induction Tool Calibration Report

Serial Number: 903

Conat Number:		000	Probe	
Tool Model:			Sat Jun 18 15:02:12 2011	
Downhole Cal Performed:			Sat Jun 18 17:40:00 2011	
Surface Cal Performed:				
After Survey Verification Performed:				
Surface Calibration:		Air	Loop	
Conductivity Reference:		0.000	500.000	mmho
Conductivity Reading:		-0.045	0.642	V
Internal Reference:		Zero	Cal	
Conductivity Reference:		0.000	500.000	mmho
Conductivity Reading:		0.006	0.641	V
Downhole Calibration:		Internal Zero	Internal Cal	
Conductivity Reference:		-0.702	499.904	mmho
Conductivity Reading:		-0.082	503.319	V
Short Normal Reference:		0.000	20.000	Ohm-m
Short Normal Reading:		0.006	0.233	V
Results:		Gain	Offset	
Loop Conductivity:		728.211	32.770	
Downhole Correction:		0.994	-0.621	
Short Normal Resistivity:		88.245	-3.000	
After Survey Verification		Internal Zero	Internal Cal	
Conductivity Reading:		0.000	0.000	V
Conductivity Result:		0.000	0.000	mmho
Short Normal Reading:		0.000	0.000	V
Short Normal Result:		0.000	0.000	Ohm-m

Compensated Density Calibration Report

Serial-Model:		901-2.75POH
Source / Verifier:		/
Master Calibration Performed:		Wed Jun 08 09:11:26 2011
Before Survey Verification Performed:		
After Survey Verification Performed:		

Master Calibration					
		Density	Far Detector		Near Detector
Magnesium		1.710 g/cc	1001.79		578.48 cps
	Aluminum	2.590 g/cc	180.36		300.39 cps
Spine Angle = 69.08			Density/Spine Ratio = 0.479		
		Size	Reading		
Small Ring		8.00 in	2.50		V
	Large Ring	16.00 in	4.57		V

Before Survey Verification					
		Target	Measured		
		g/cc	g/cc		
		g/cc	g/cc		
		g/cc	g/cc		


After Survey Verification					
		Target	Measured		
		g/cc	g/cc		
		g/cc	g/cc		
		g/cc	g/cc		

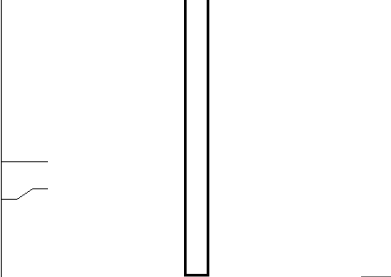
Neutron Calibration Report

Serial Number: 803  
 Tool Model: 2.75POH  
 Performed: Wed Jun 08 13:12:55 2011  
  
 Calibrator Value: 1 NAPI  
  
 Calibrator Reading: 1 cps  
  
 Sensitivity: 1 NAPI/cps

### Gamma Ray Calibration Report

Serial Number: 804  
 Tool Model: 2.75POH  
 Performed: Fri Aug 12 08:39:59 2011  
  
 Calibrator Value: 1.0 GAPI  
  
 Background Reading: 0.0 cps  
 Calibrator Reading: 1.0 cps  
  
 Sensitivity: 0.6500 GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
GR	29.58		None	0.75	1.50	5.00
			GR-2.75POH (804) Probe 2.75" Probe Open Hole Gamma Ray	3.73	2.75	43.00
NEU	24.04		NEU-2.75POH (803) Probe Epithermal	4.75	2.75	58.00
			CDL-2.75POH (901) Probe	8.43	2.75	106.00
LSD DCAL SSD	16.21					
	15.94					
	15.69					
DIC	6.24			IEL-Probe (903)	13.46	2.75

SP SN	2.25 1.71				
Dataset: pointer.db: field/well/run1/pass1 Total Length: 31.11 ft Total Weight: 305.00 lb O.D. 2.75 in					