

**COMPENSATED DENSITY  
NEUTRON  
LOG**

Company	Pioneer Natural Resources	Company	Pioneer Natural Resources
Well	Pete O Federal 14-18	Well	Pete O Federal 14-18
Field	Purgatoire River	Field	Purgatoire River
County	Las Animas	County	Las Animas
State	Colorado	State	Colorado
Location:	API #: 05 071 09483-0000	Other Services	SIL
SEC 18 TWP 33S RGE 65W	693' FSL & 1036' FWL		
Permanent Datum	Ground Level	Elevation	7014'
Log Measured From	Kelly Bushing 9' AGL		
Drilling Measured From	Kelly Bushing		
Date	6-4-11		
Run Number	One		
Depth Driller	1569'		
Depth Logger	1565'		
Bottom Logged Interval	1549'		
Top Log Interval	Surface Casing		
Casing Driller	8 5/8" @ 264"		
Casing Logger	263'		
Bit Size	7 7/8"		
Type Fluid in Hole	Airated 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	5:00 P.M.		
Time Logger on Bottom	8:00 P.M.		
Maximum Recorded Temperature	86 DEG F		
Equipment Number	T590		
Location	Trinidad		
Recorded By	C. Sisneros		
Witnessed By	Mr. Bill 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.

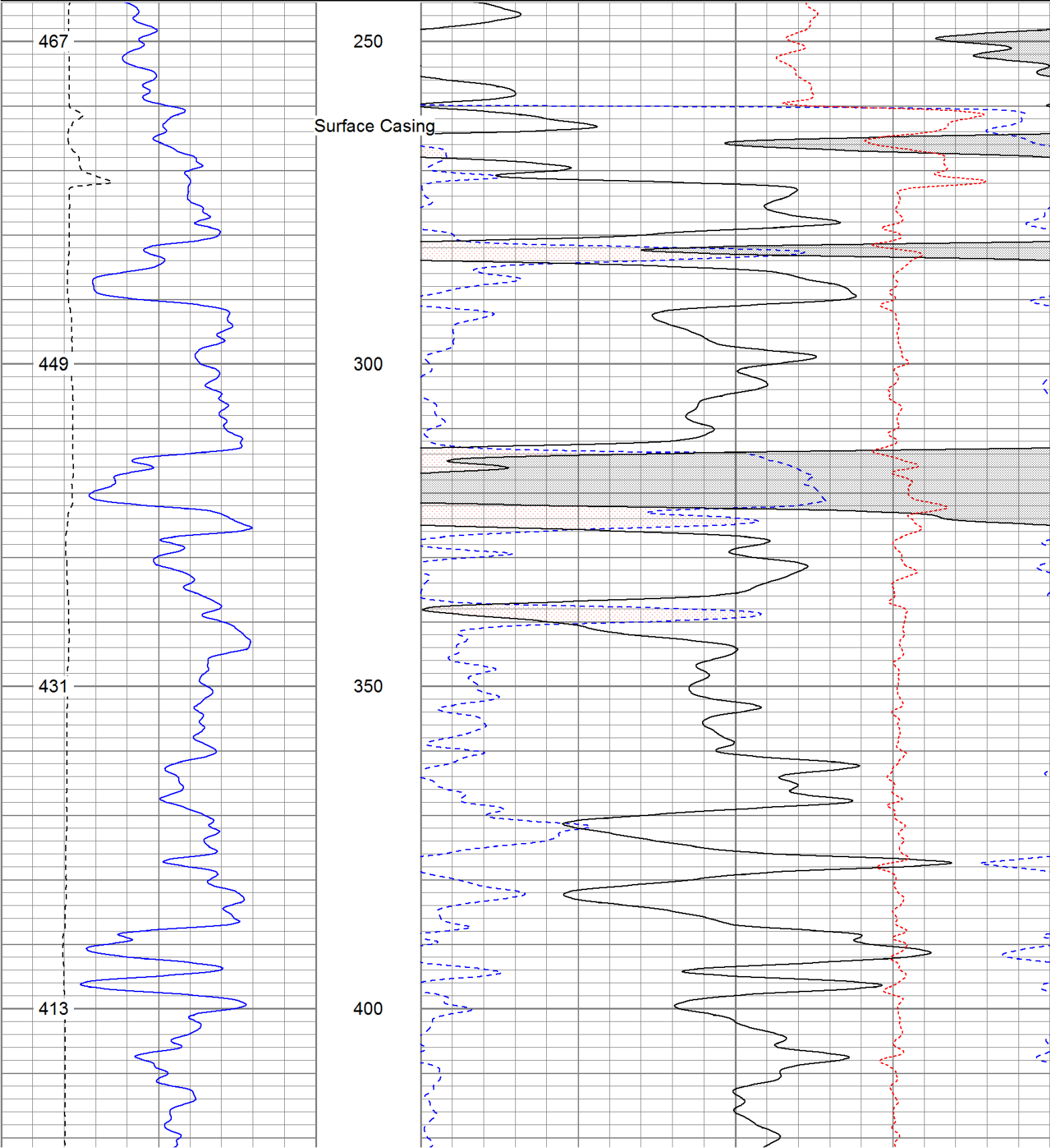
**Directions:**

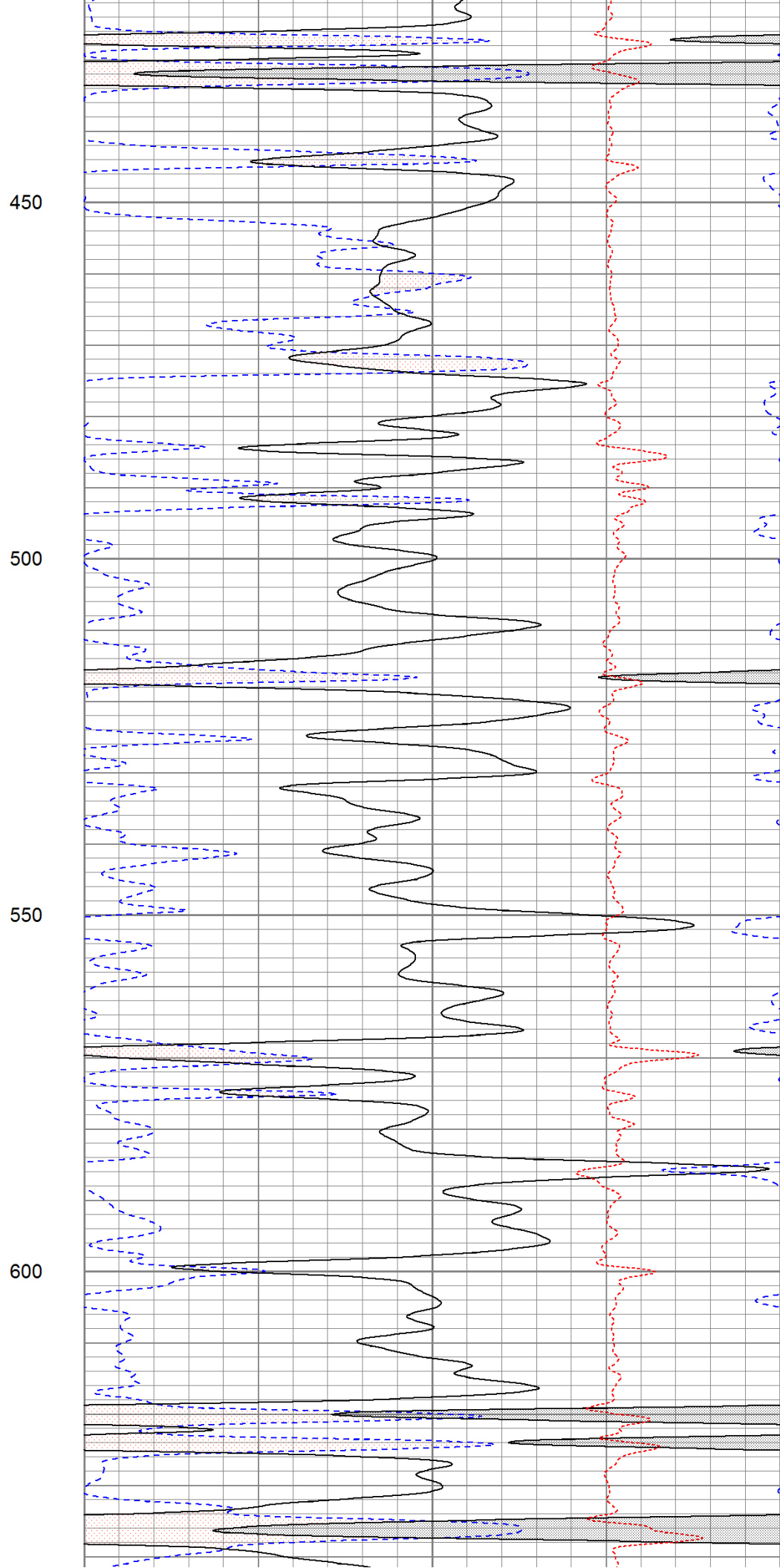
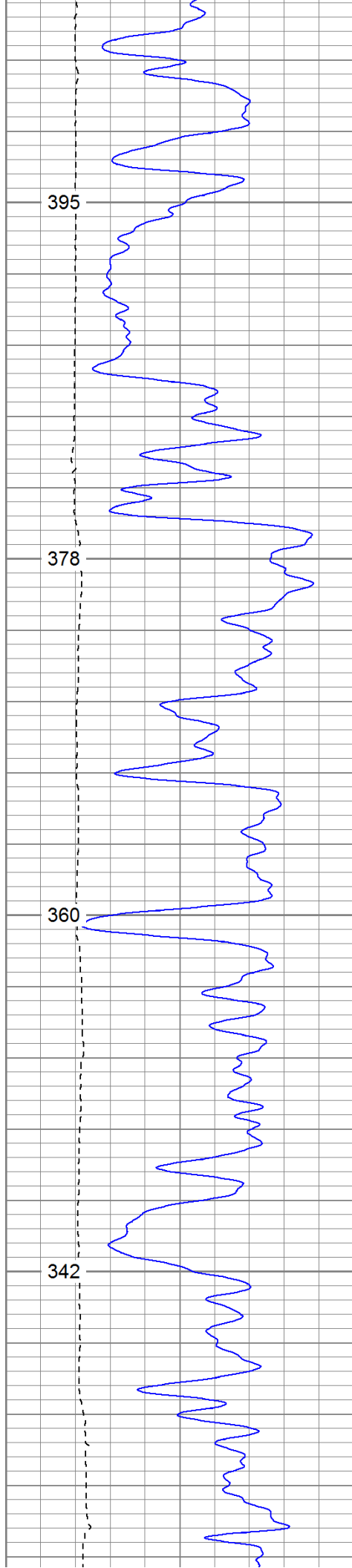
Burro Canyon, after leaving pavement take fourth left thru gate, drive past a location, first right up hill, third left , first right down hill , first right to location.

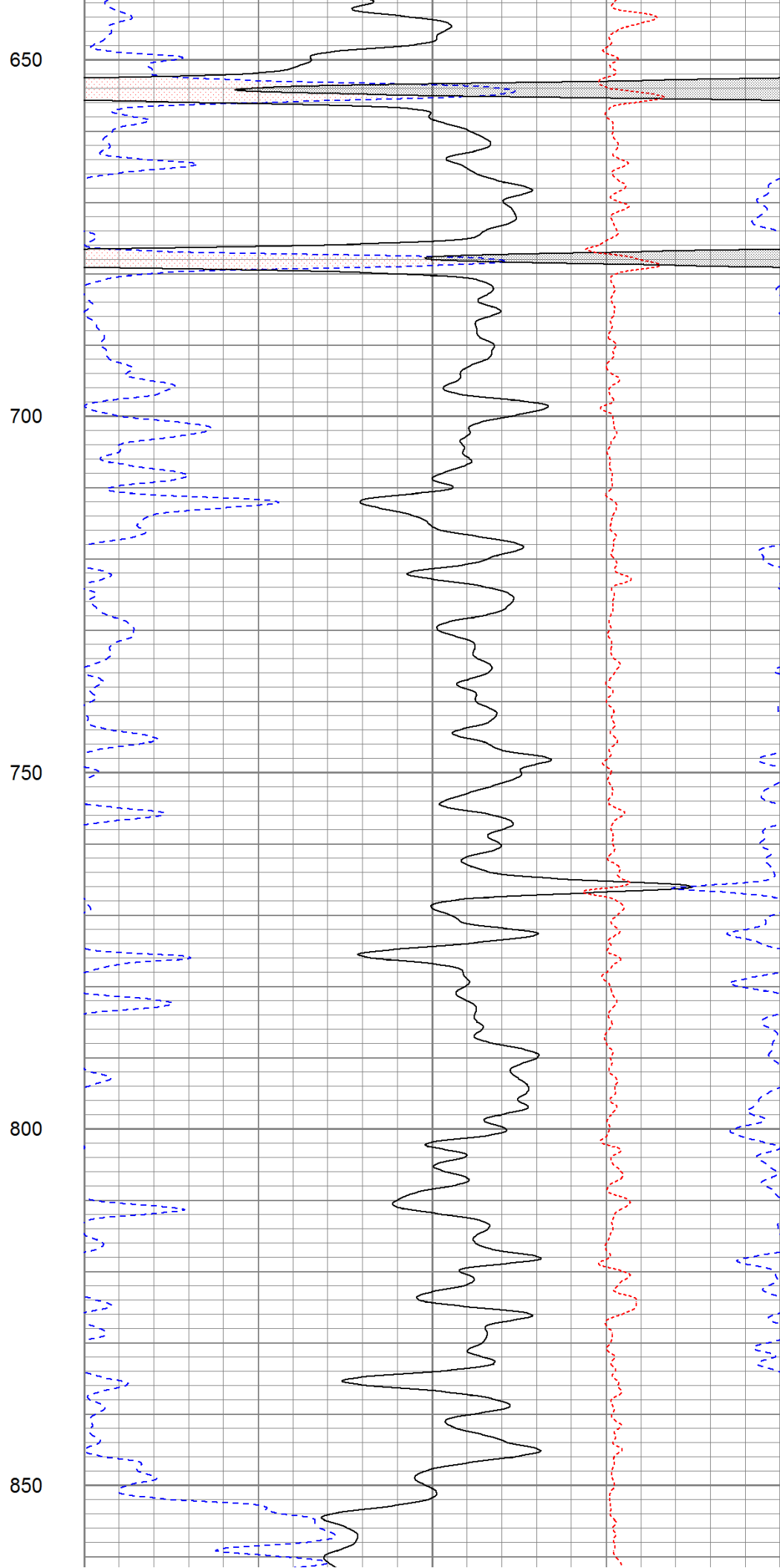
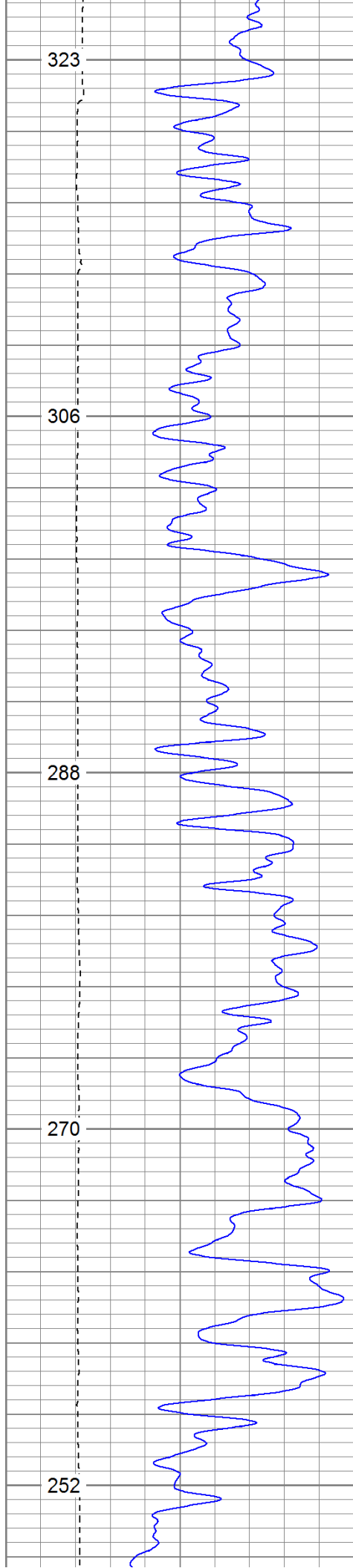
Database File: peteofederal.db  
Dataset Pathname: pass2.1  
Presentation Format: cdnl  
Dataset Creation: Sun Jun 05 17:31:56 2011 by Calc Open-Cased 110302  
Charted by: Depth in Feet scaled 1:240

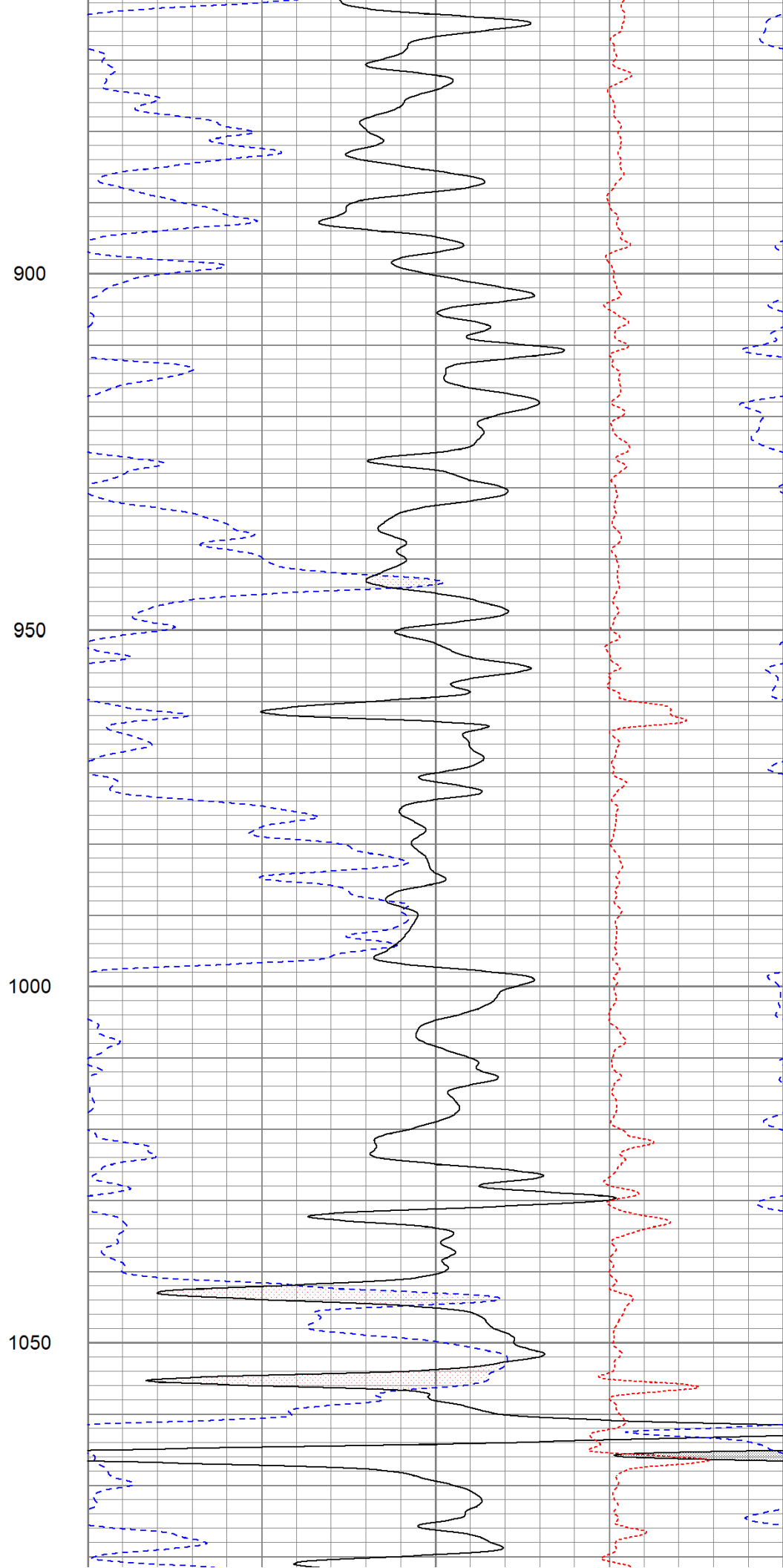
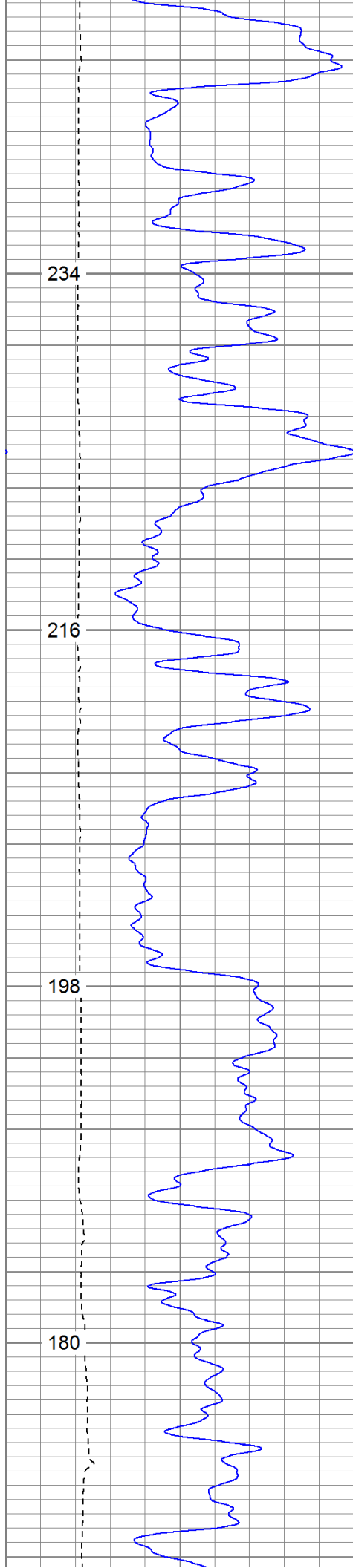
0	GR (GAPI)	200
6	DCAL (in)	16
TBHV (ft3)		

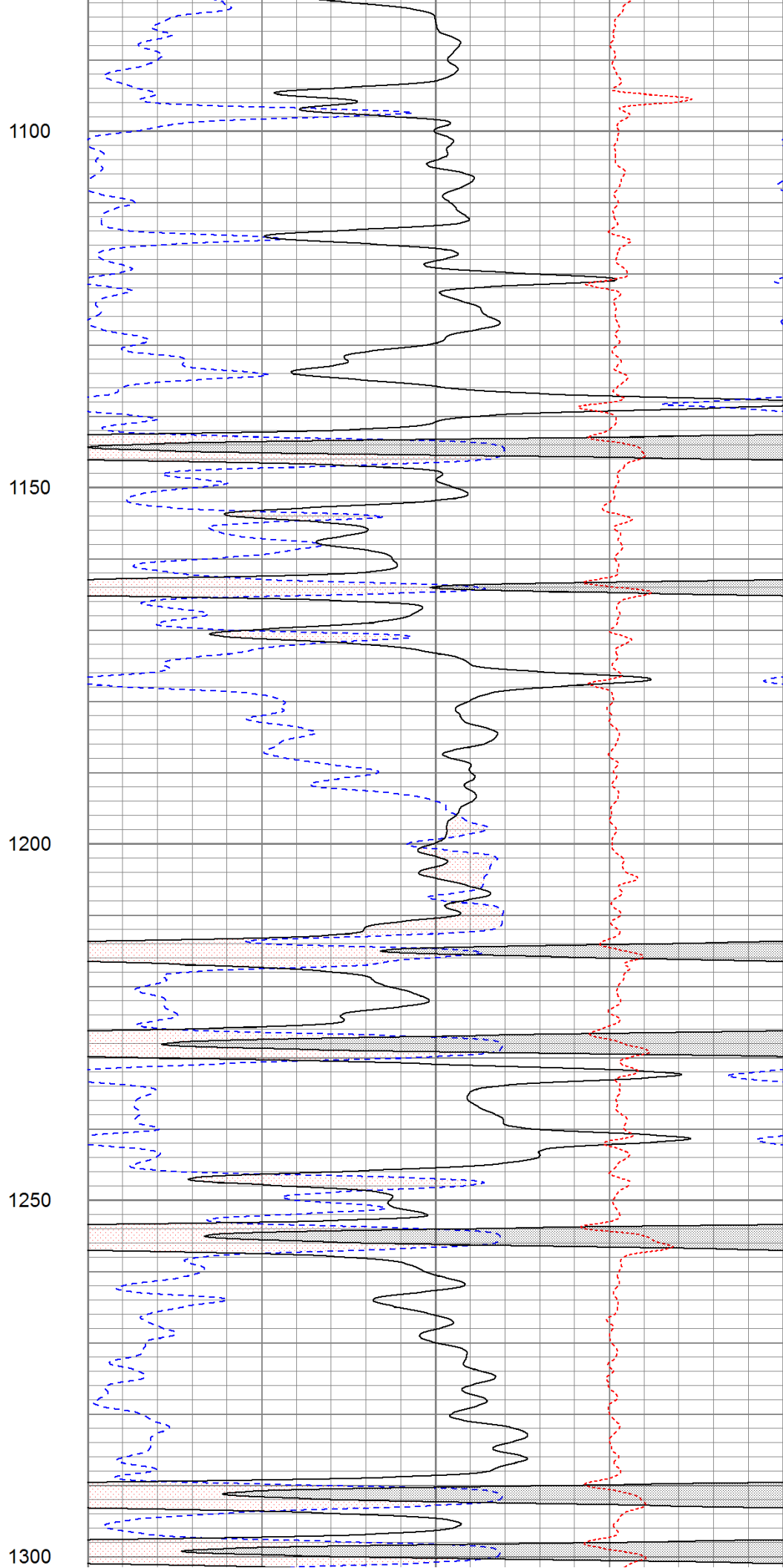
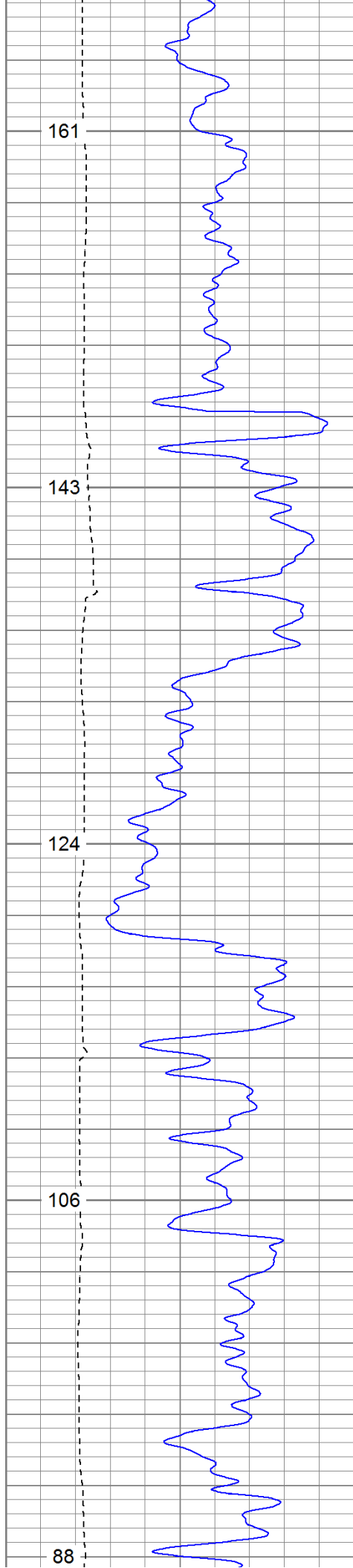
30	NPOR (pu)	-10
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5

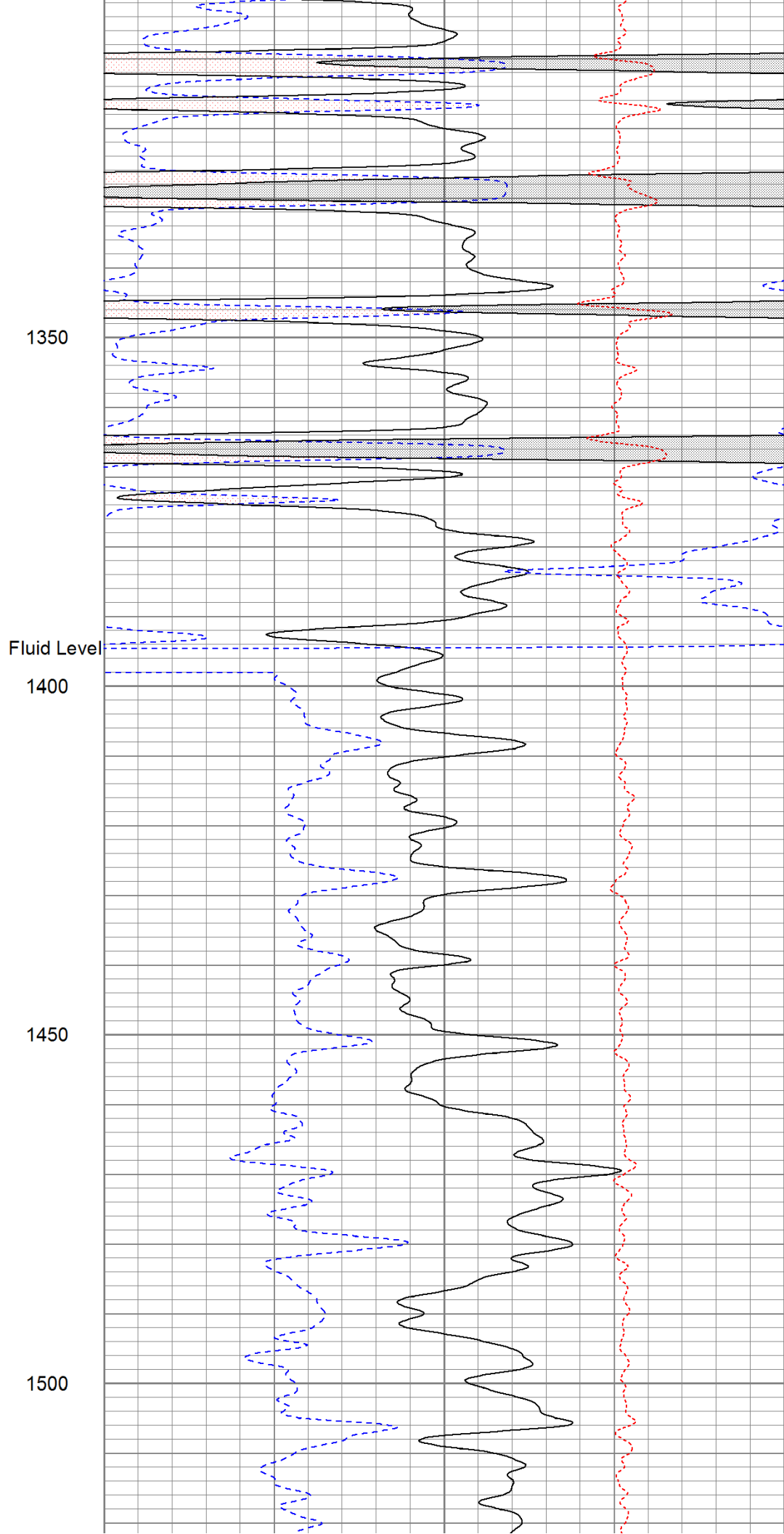
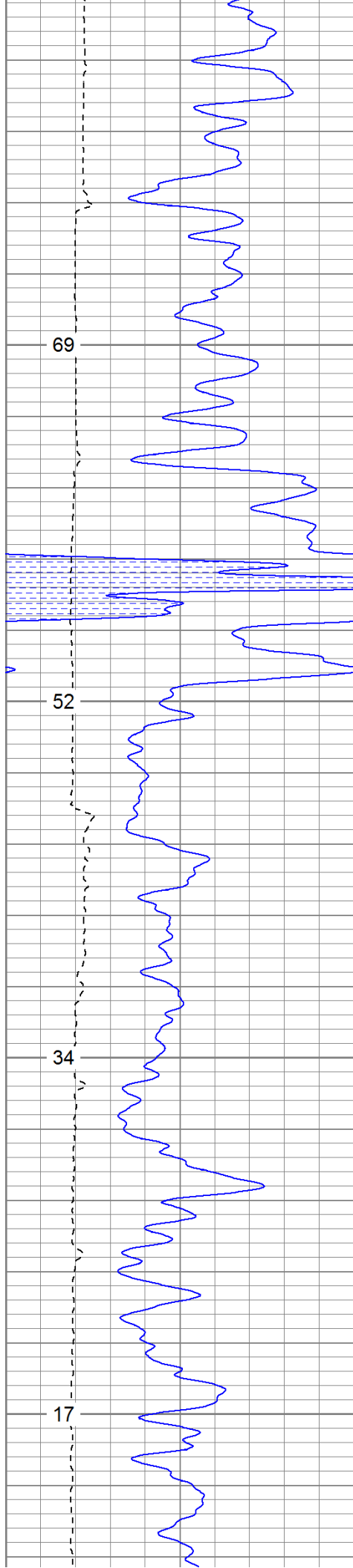


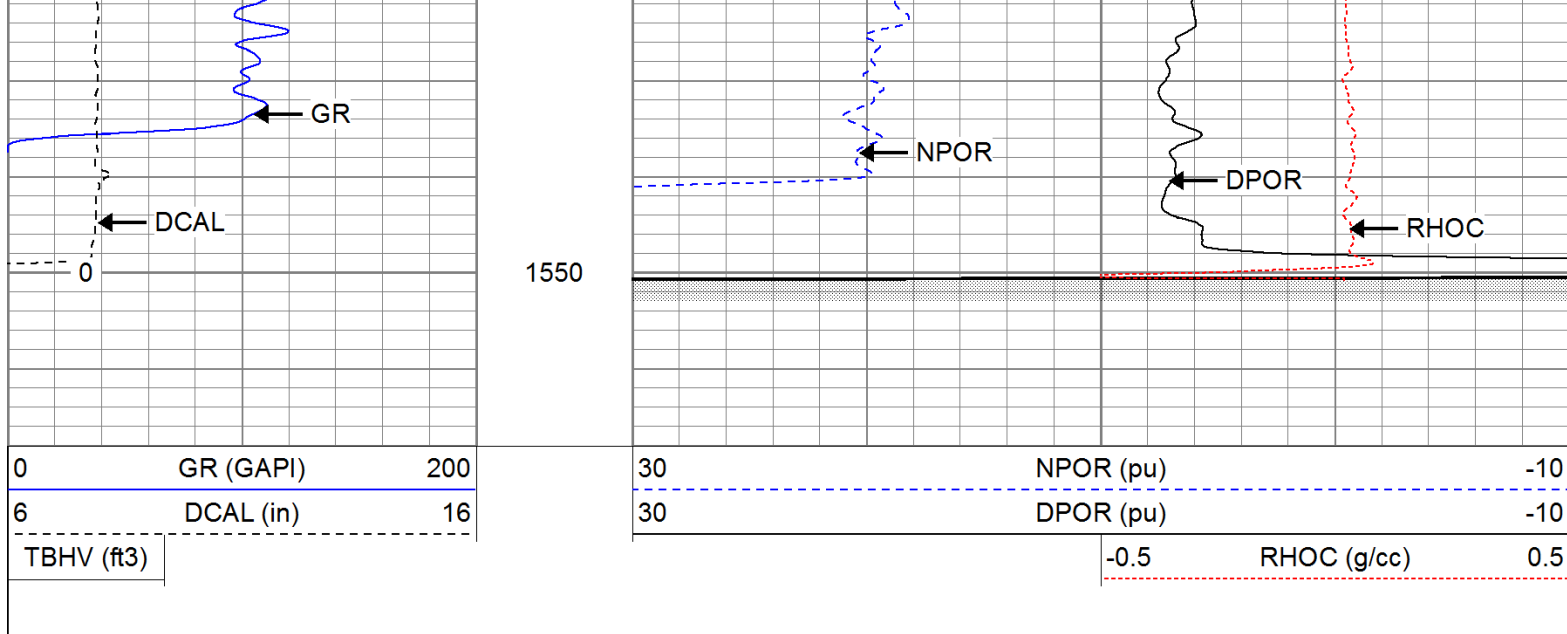








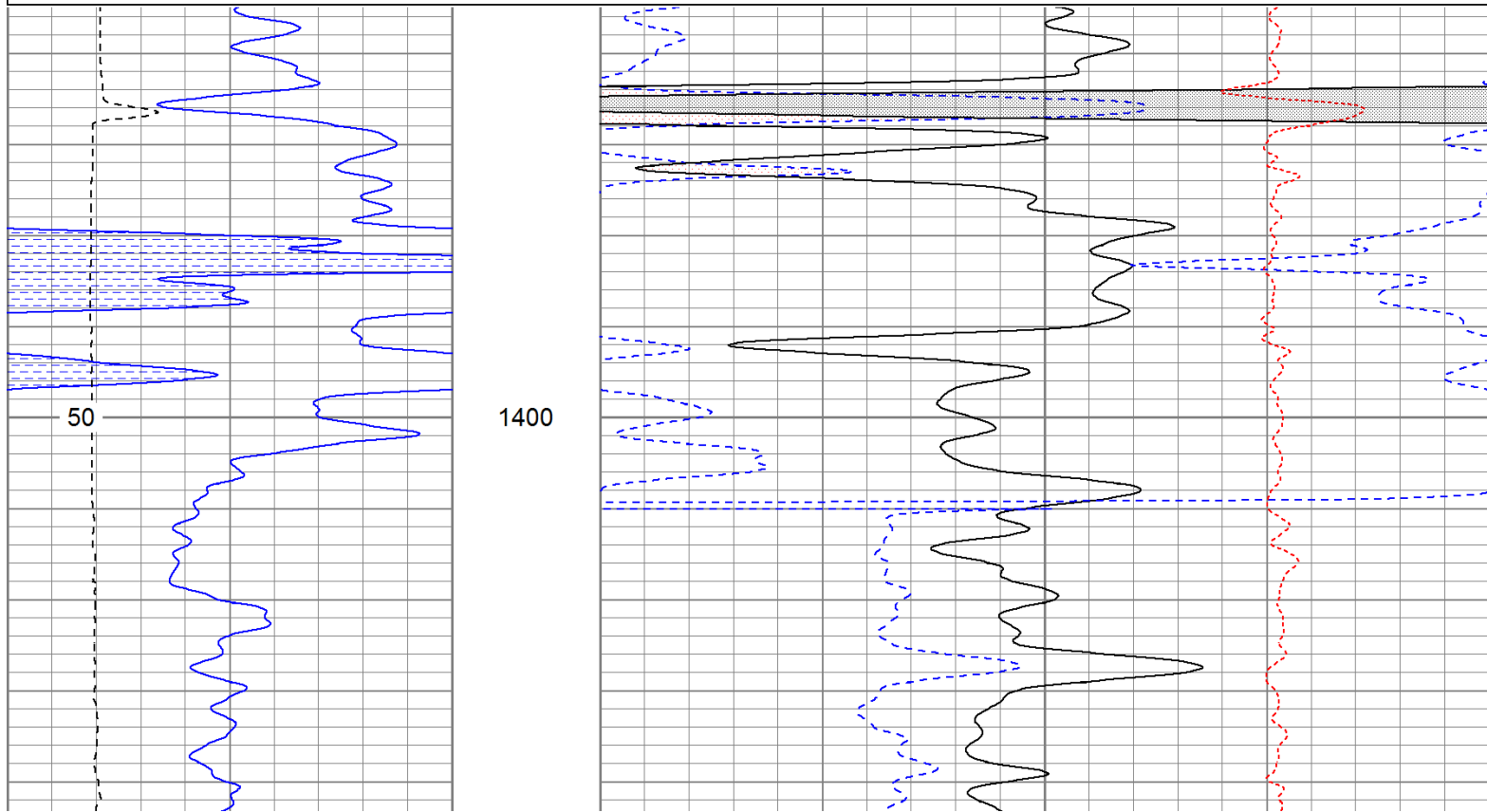




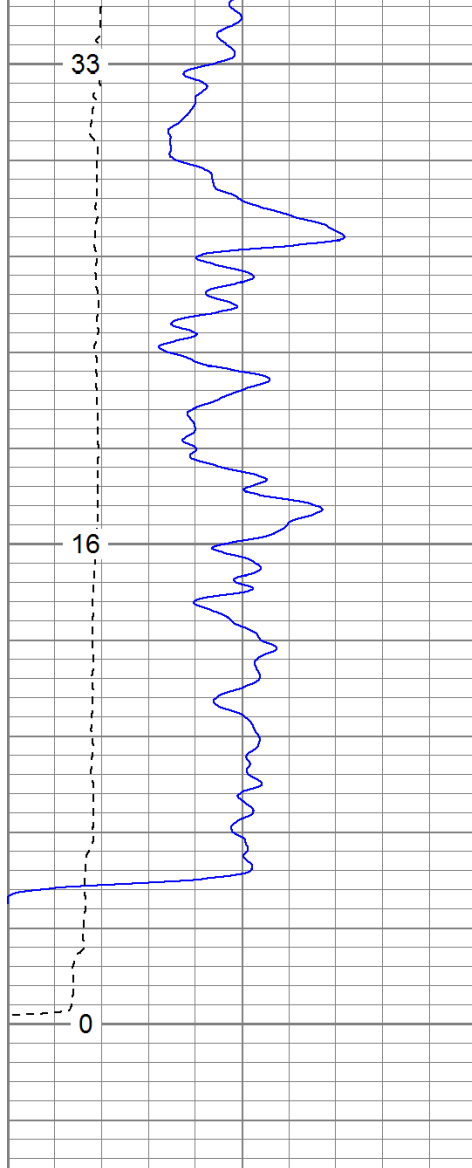
# Repeat Pass

Database File: peteofederal.db  
 Dataset Pathname: pass1.1  
 Presentation Format: cdnl  
 Dataset Creation: Sun Jun 05 18:04:32 2011 by Calc Open-Cased 110302  
 Charted by: Depth in Feet scaled 1:240

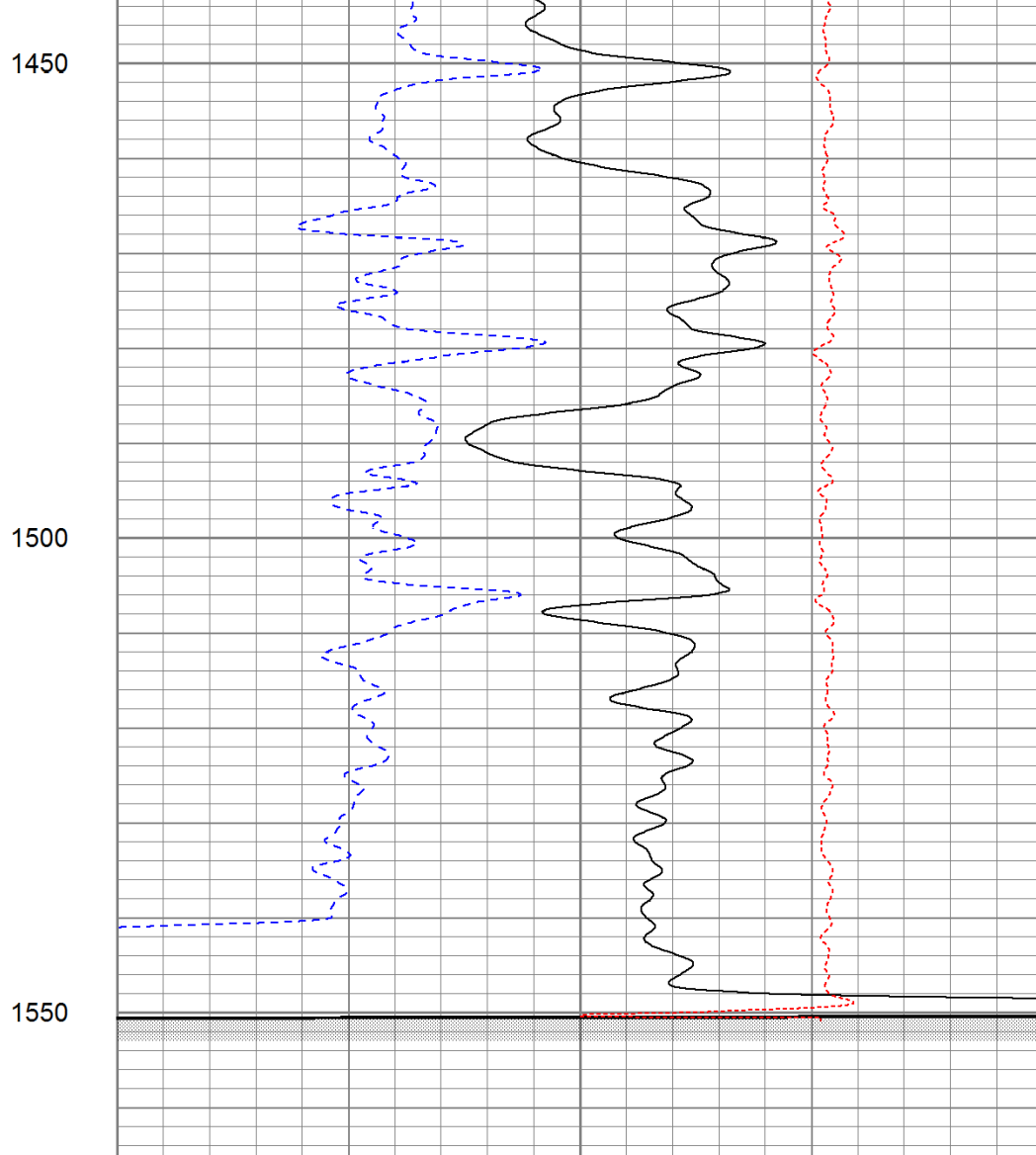
0	GR (GAPI)	200	30	NPOR (pu)	-10
6	DCAL (in)	16	30	DPOR (pu)	-10
TBHV (ft3)			-0.5	RHOC (g/cc)	0.5







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

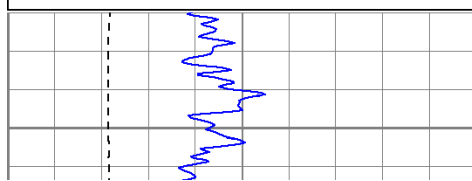


# High Resolution Pass

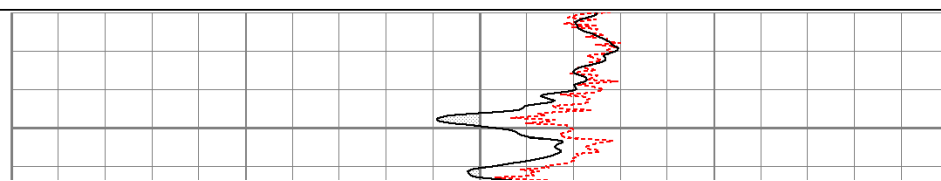
Database File: peteofederal.db  
 Dataset Pathname: pass2.2  
 Presentation Format: cdlhr  
 Dataset Creation: Sun Jun 05 18:12:24 2011 by Calc Open-Cased 110302  
 Charted by: Depth in Feet scaled 1:120

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

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



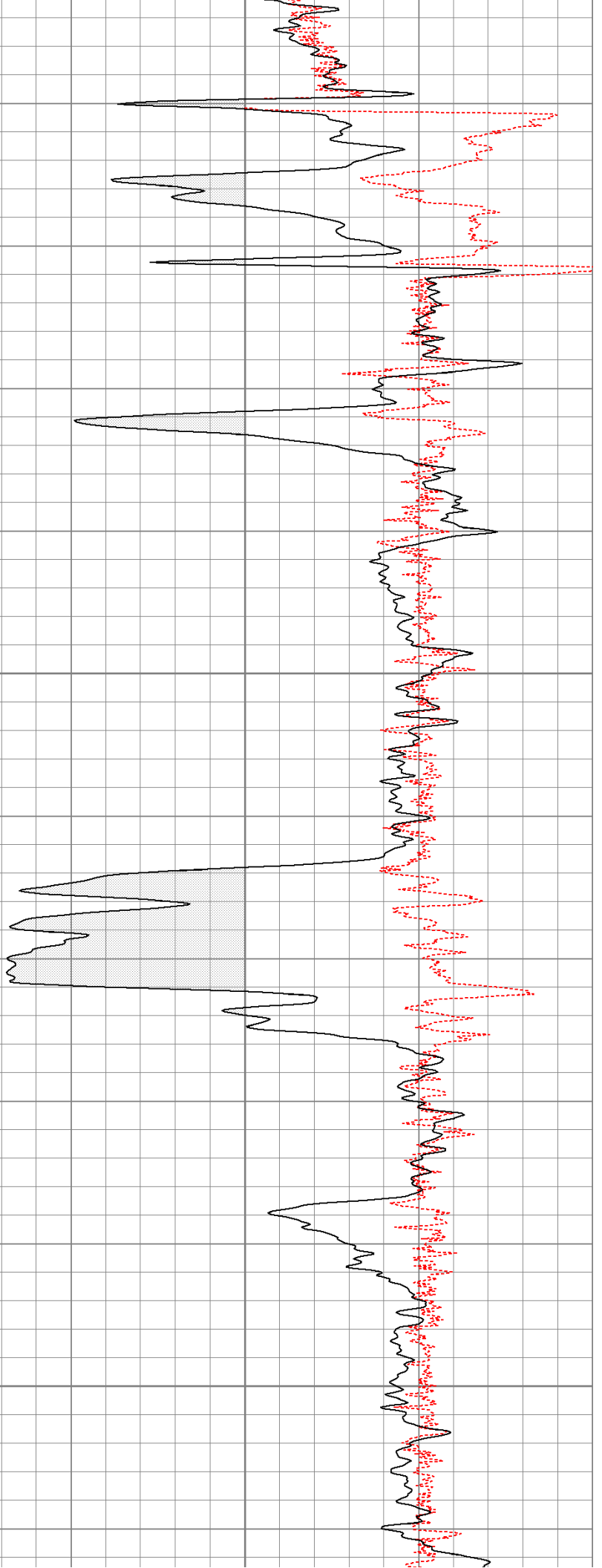
250

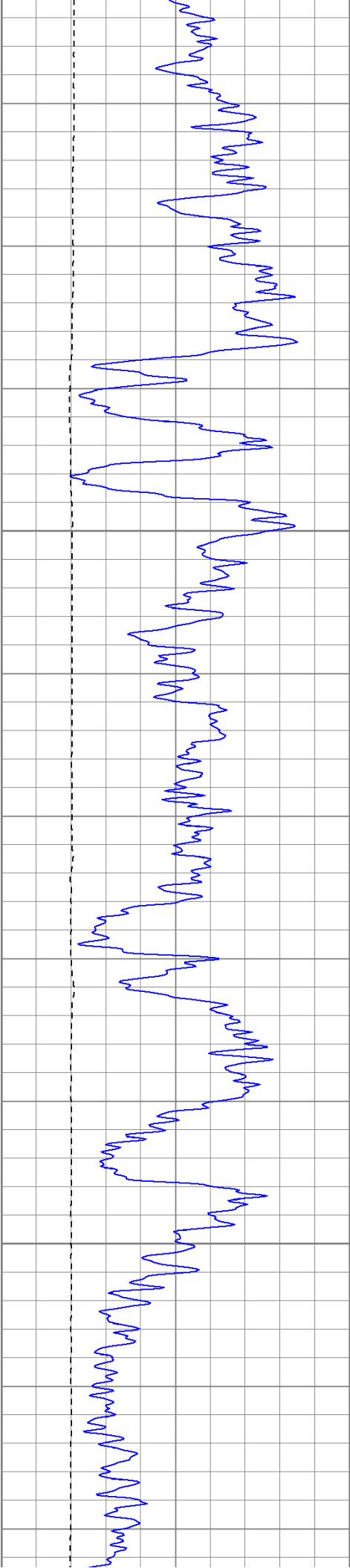


Surface Casing

300

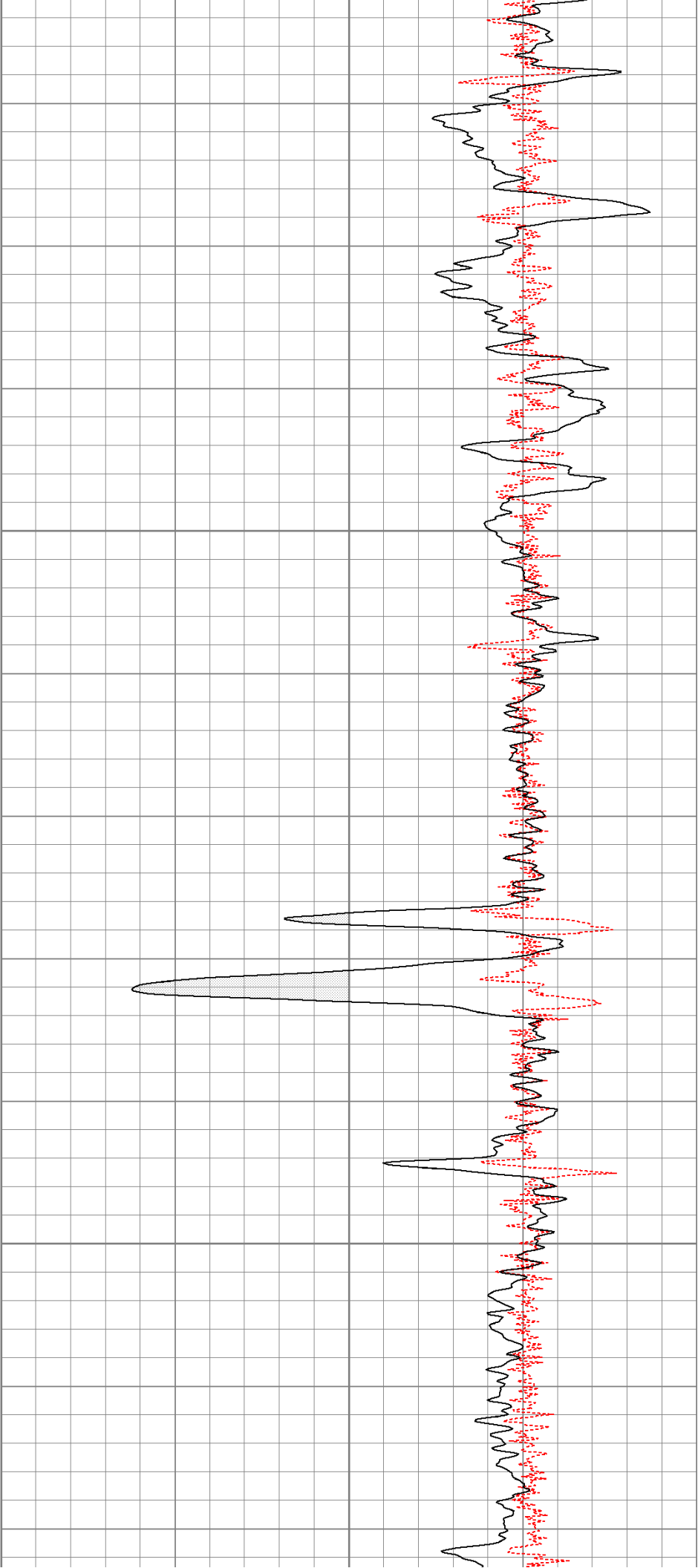
350

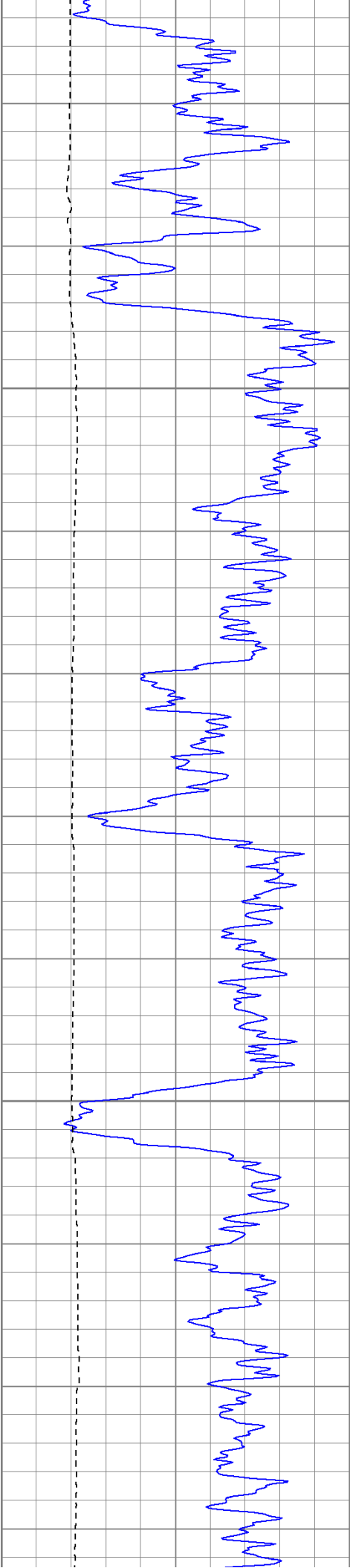




400

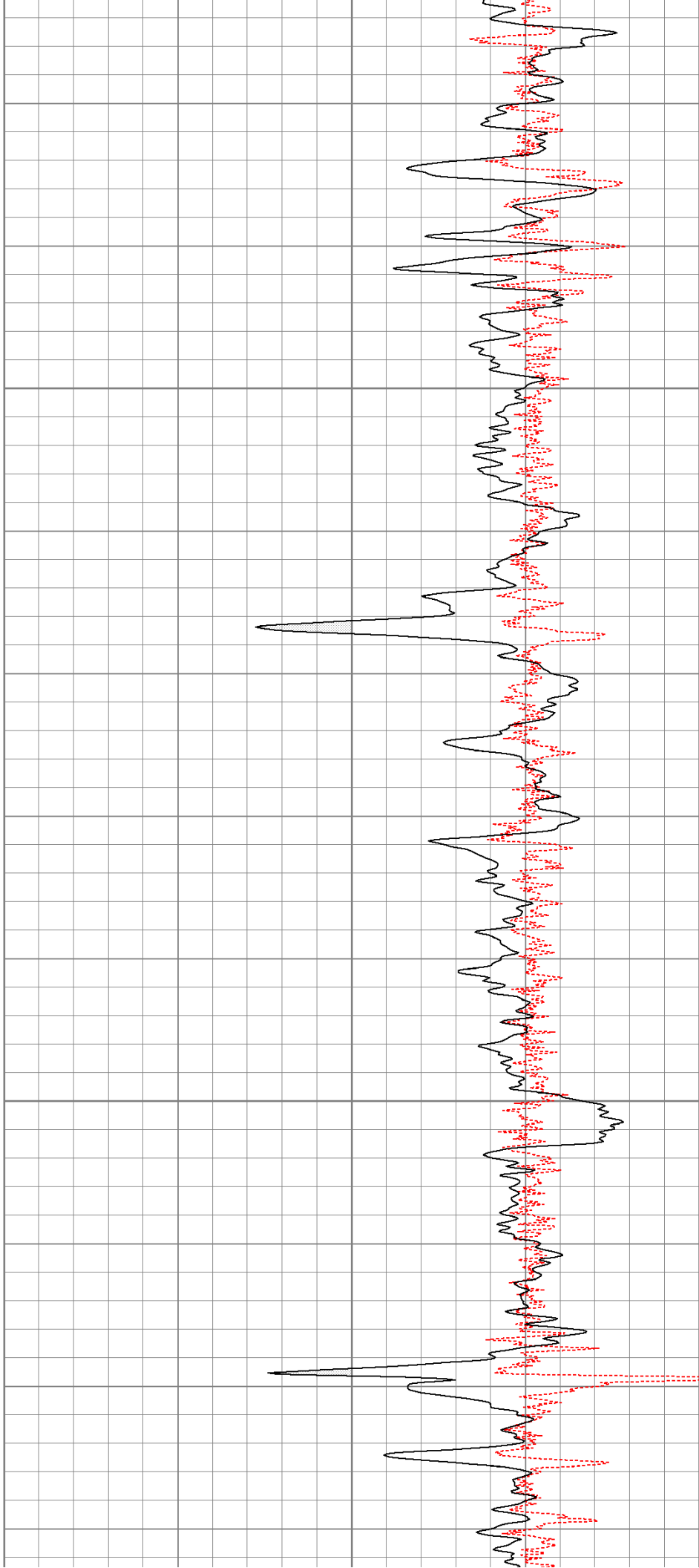
450

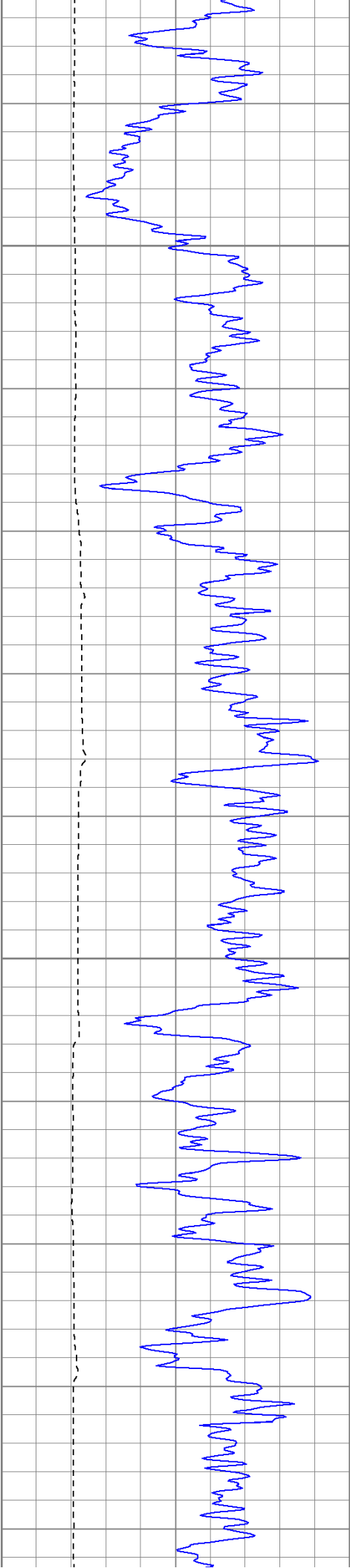




500

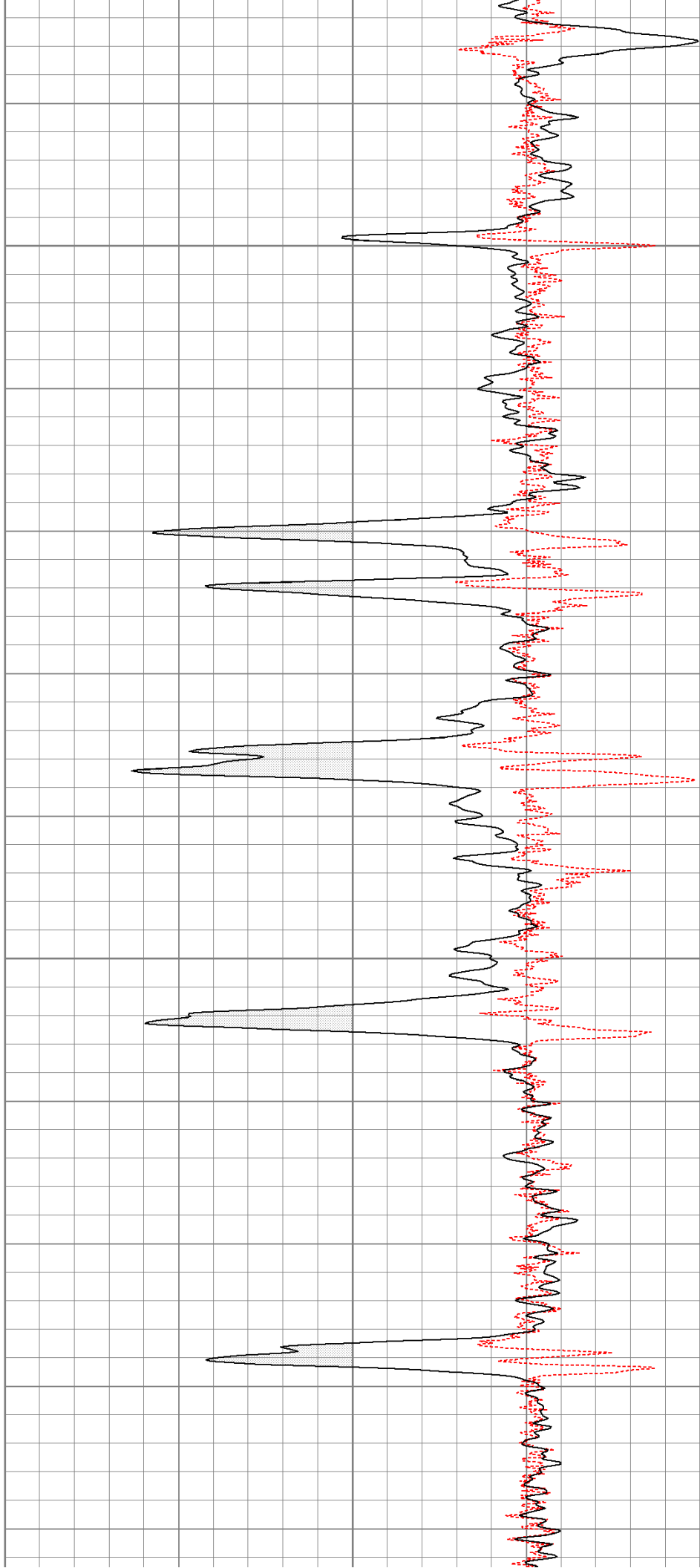
550

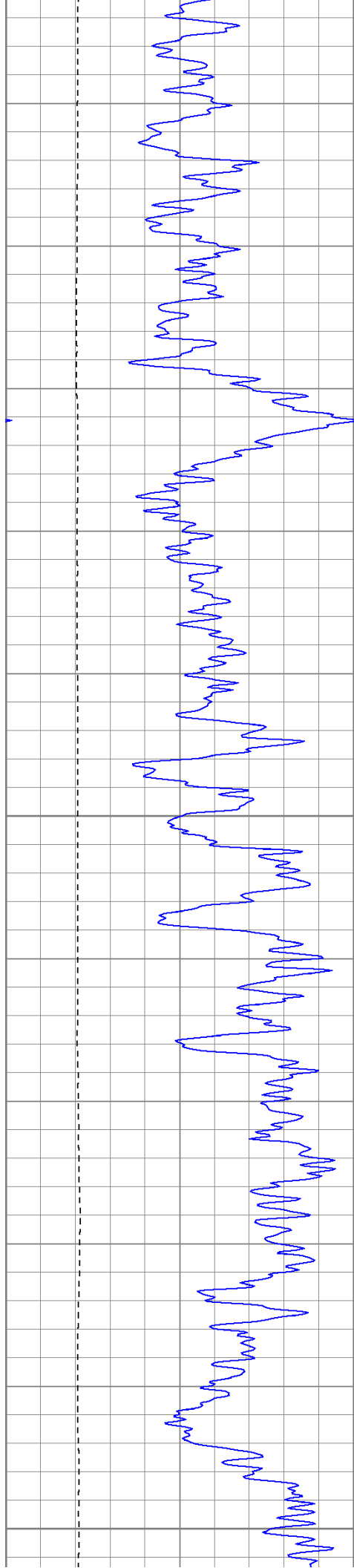




600

650

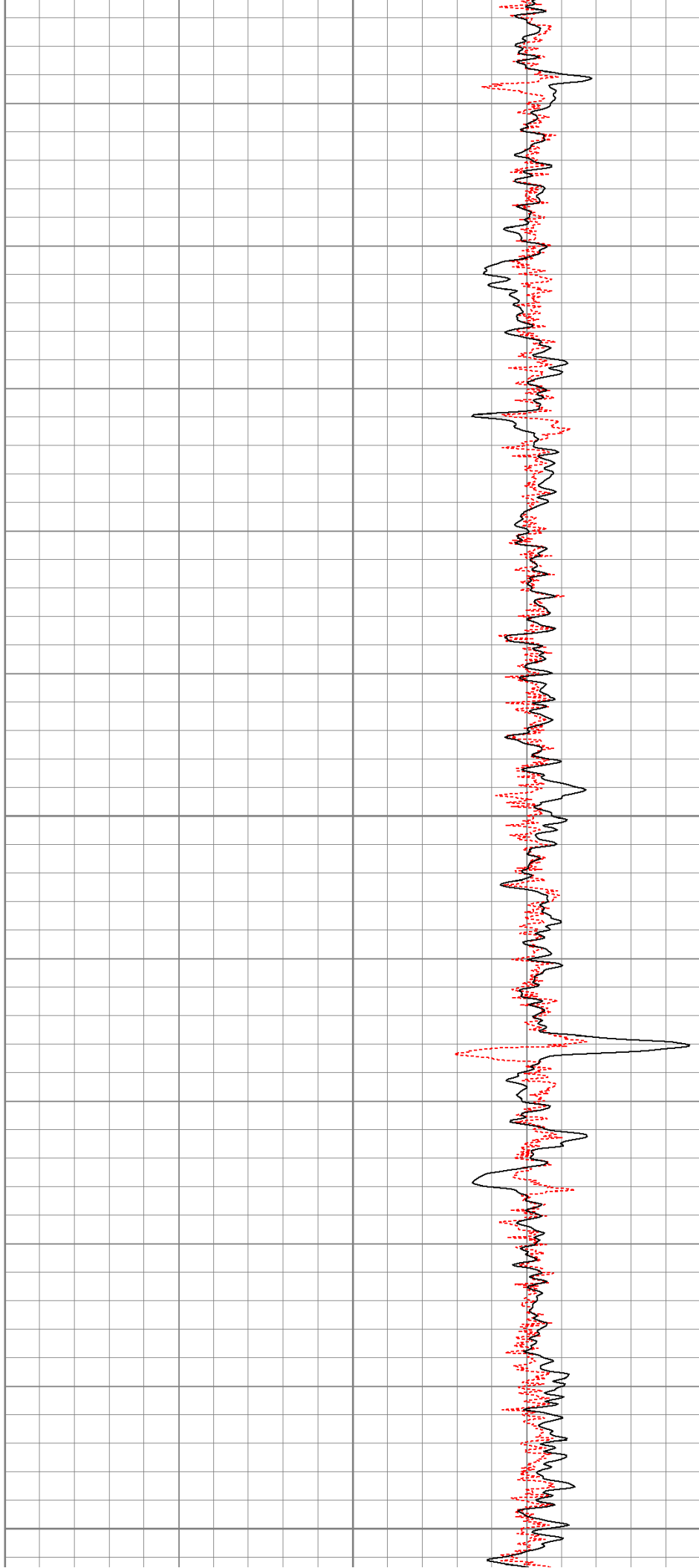


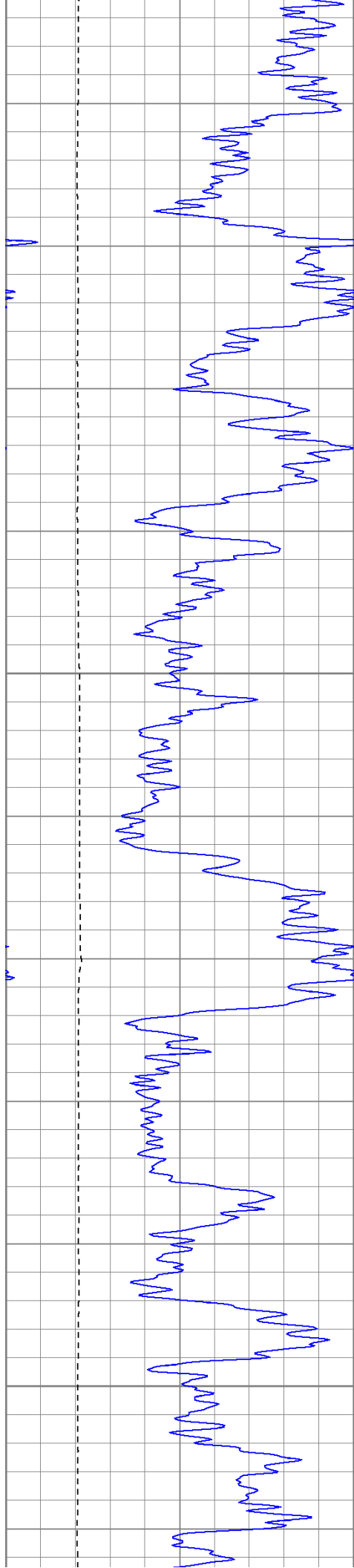


700

750

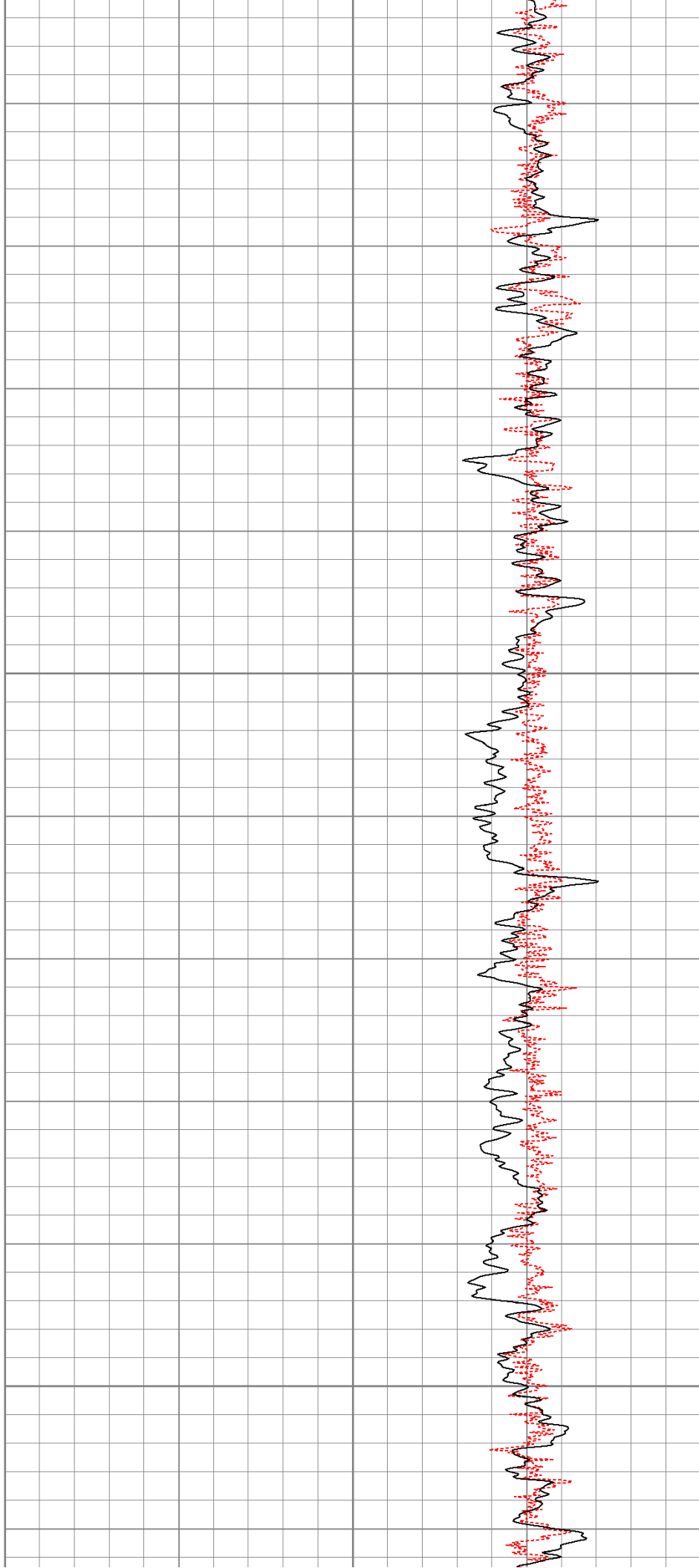
800

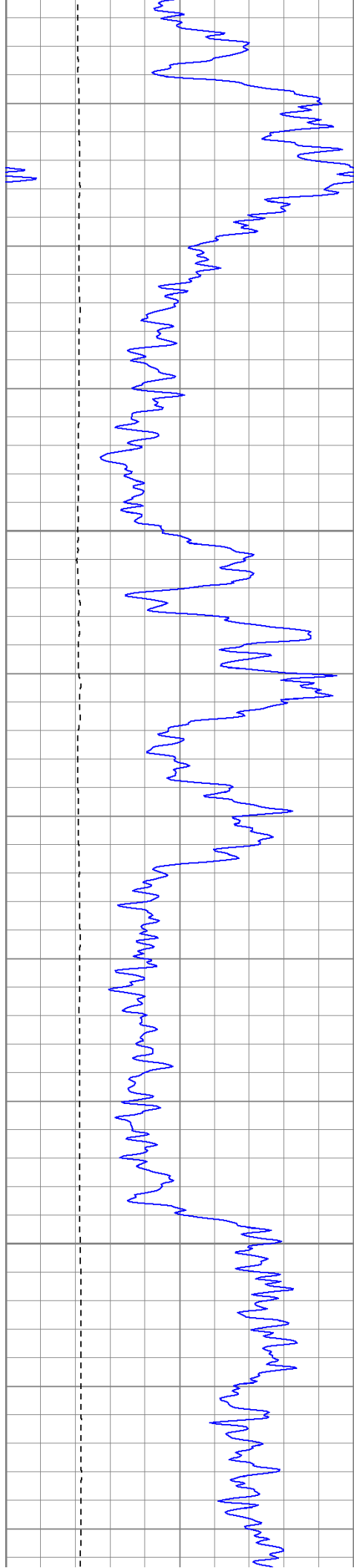




850

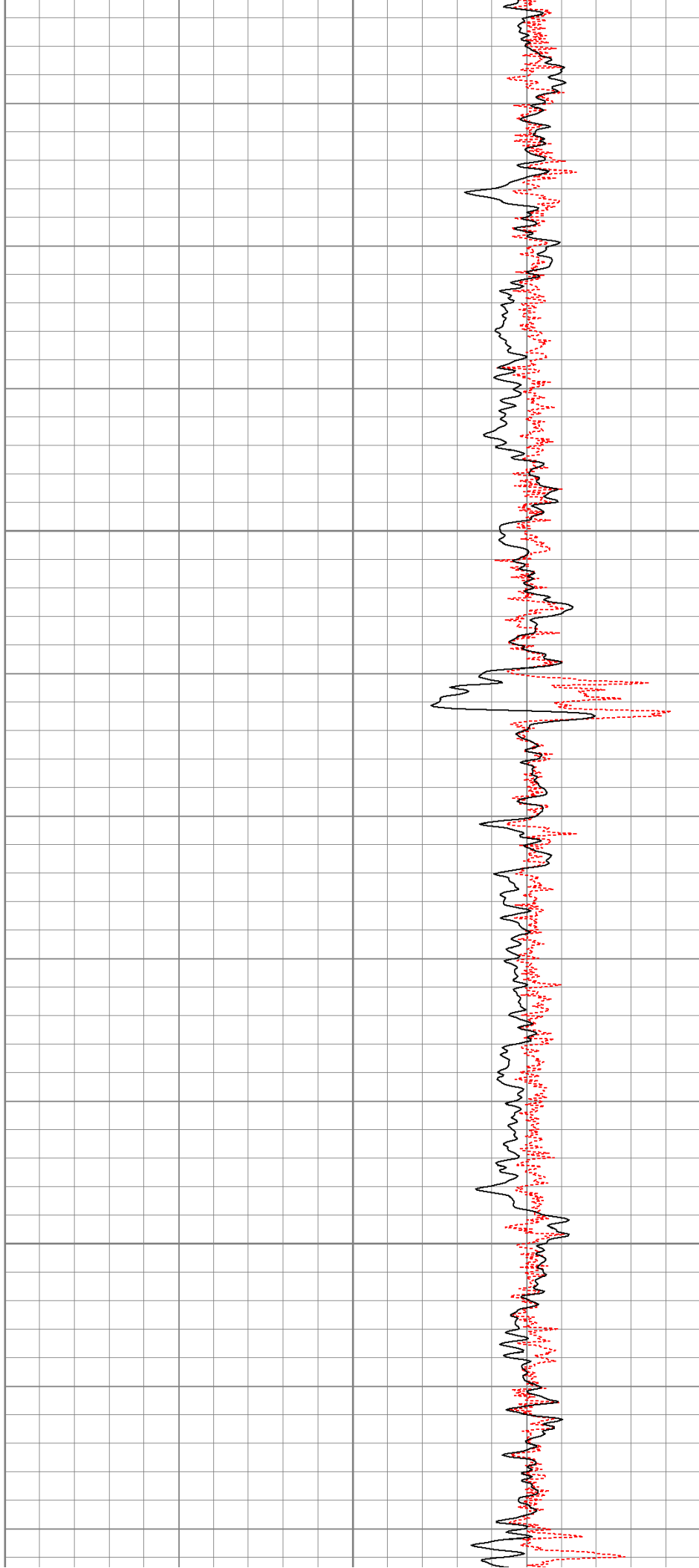
900



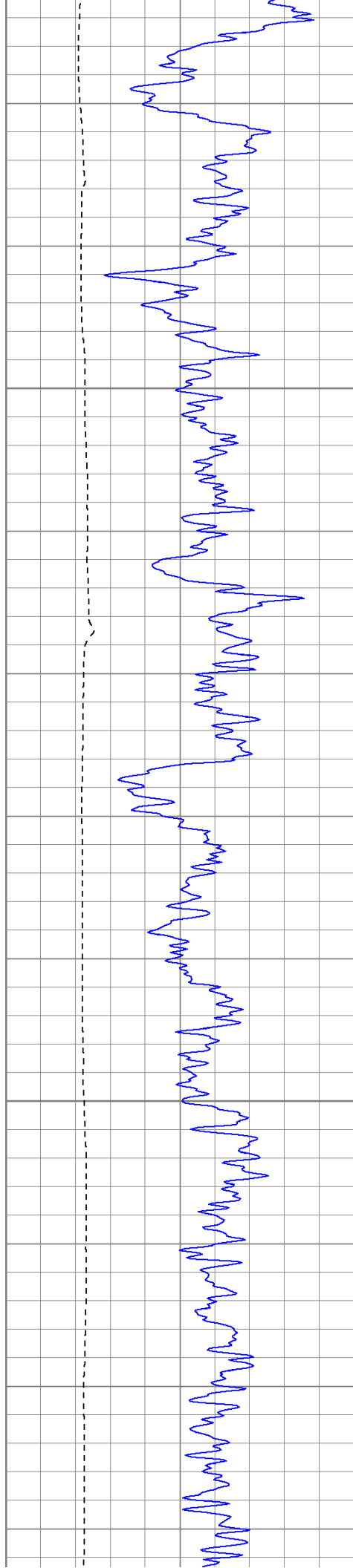


950

1000

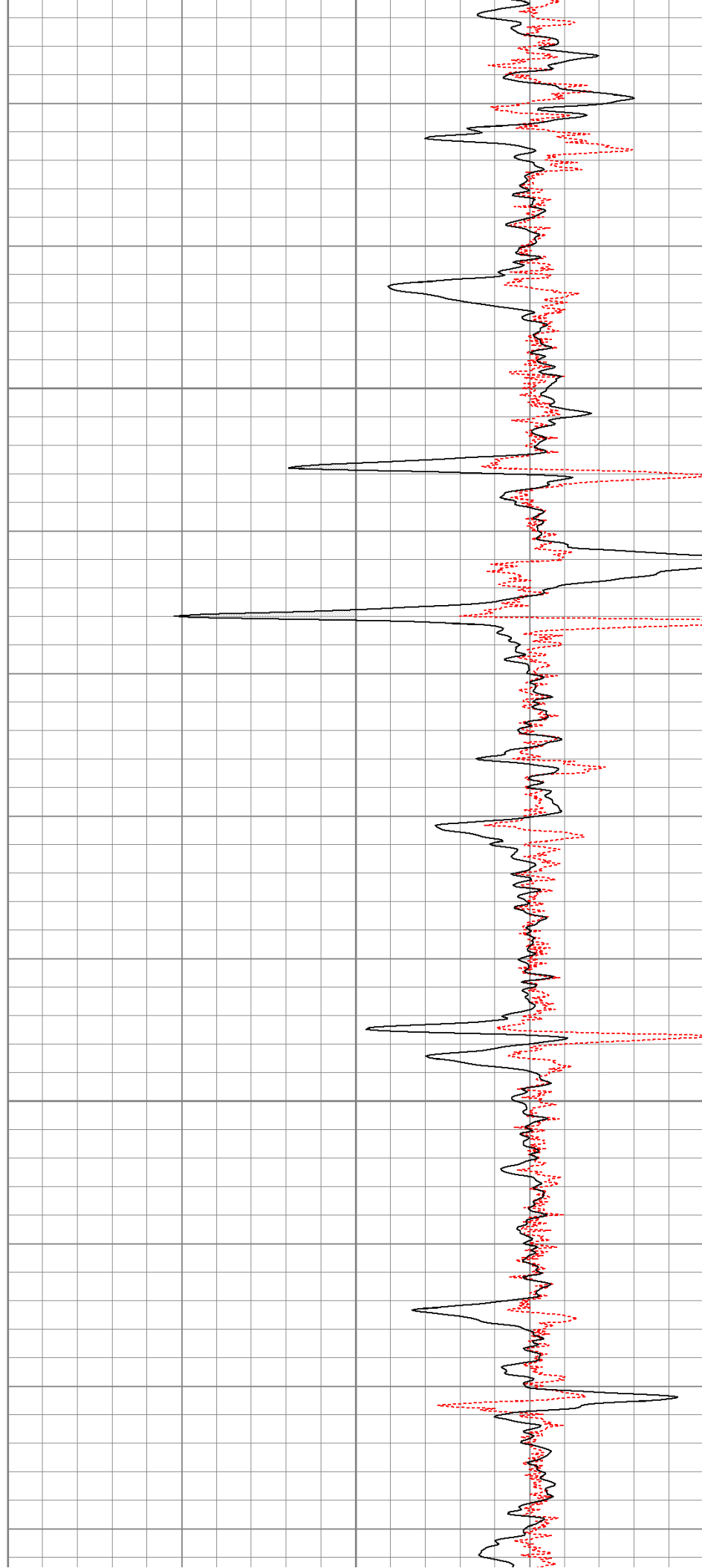


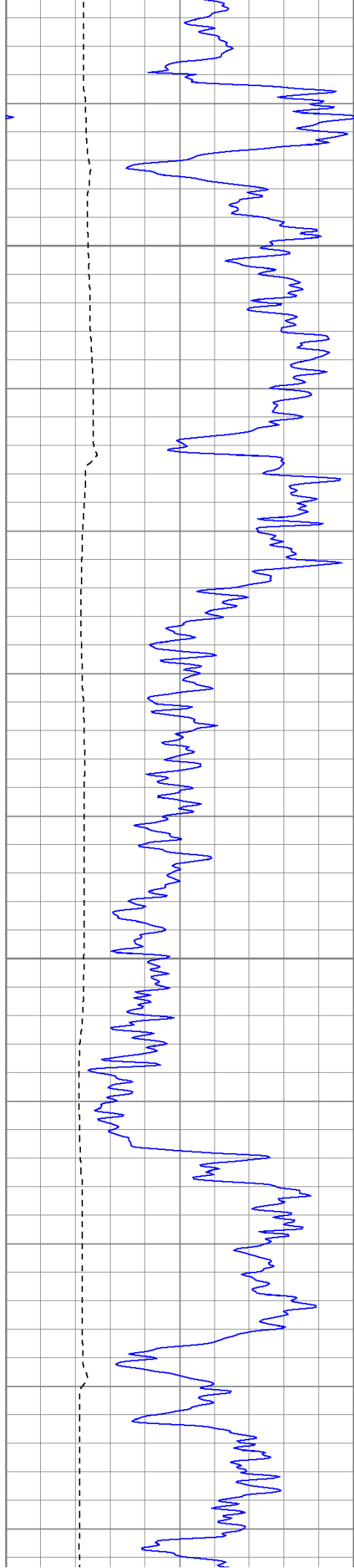




1050

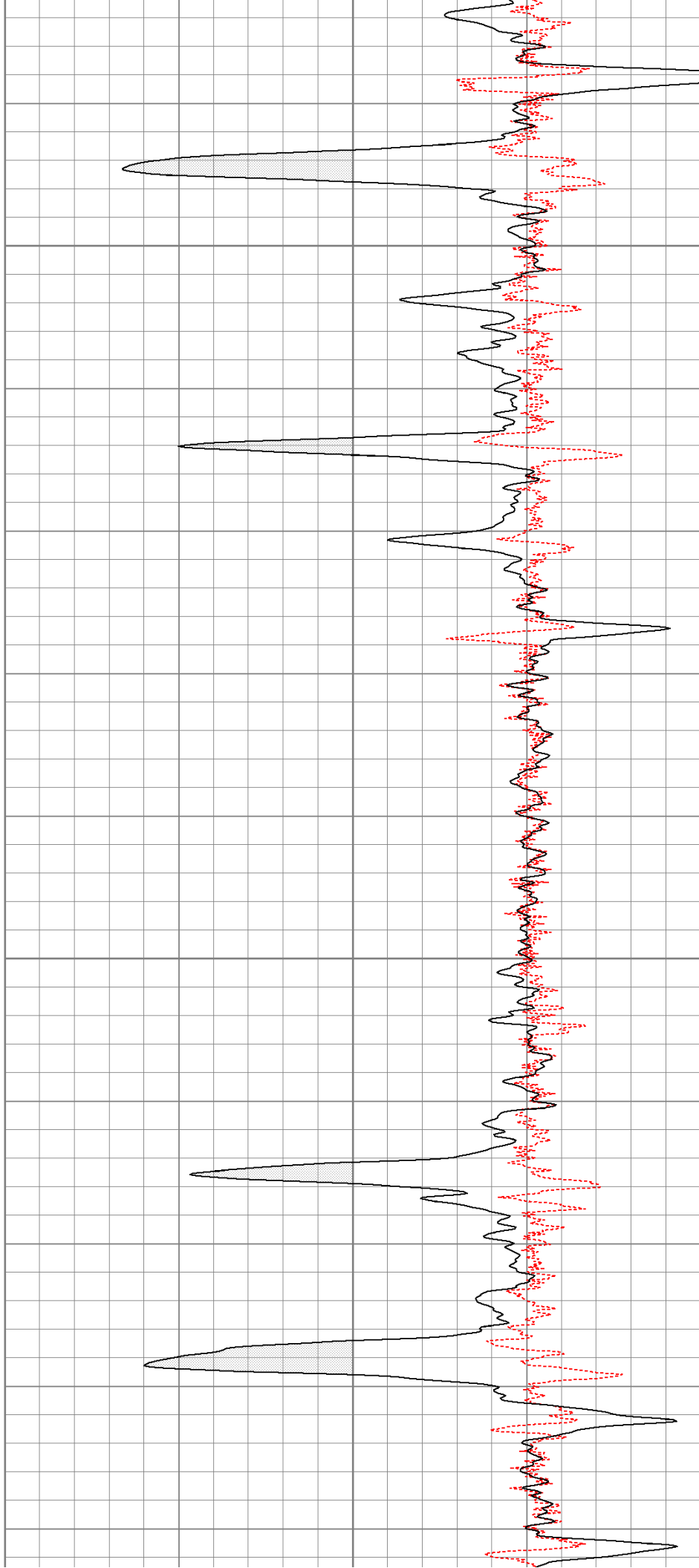
1100

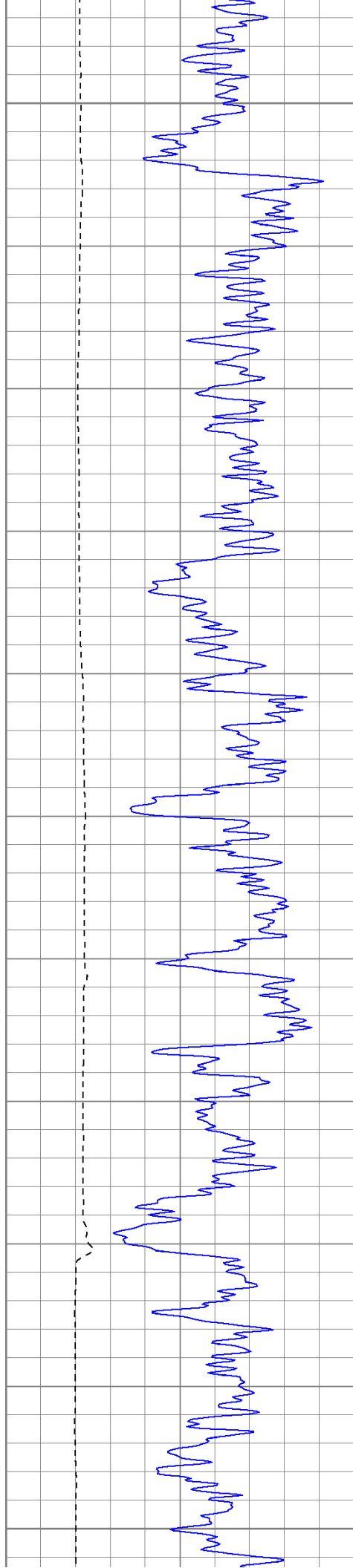




1150

1200

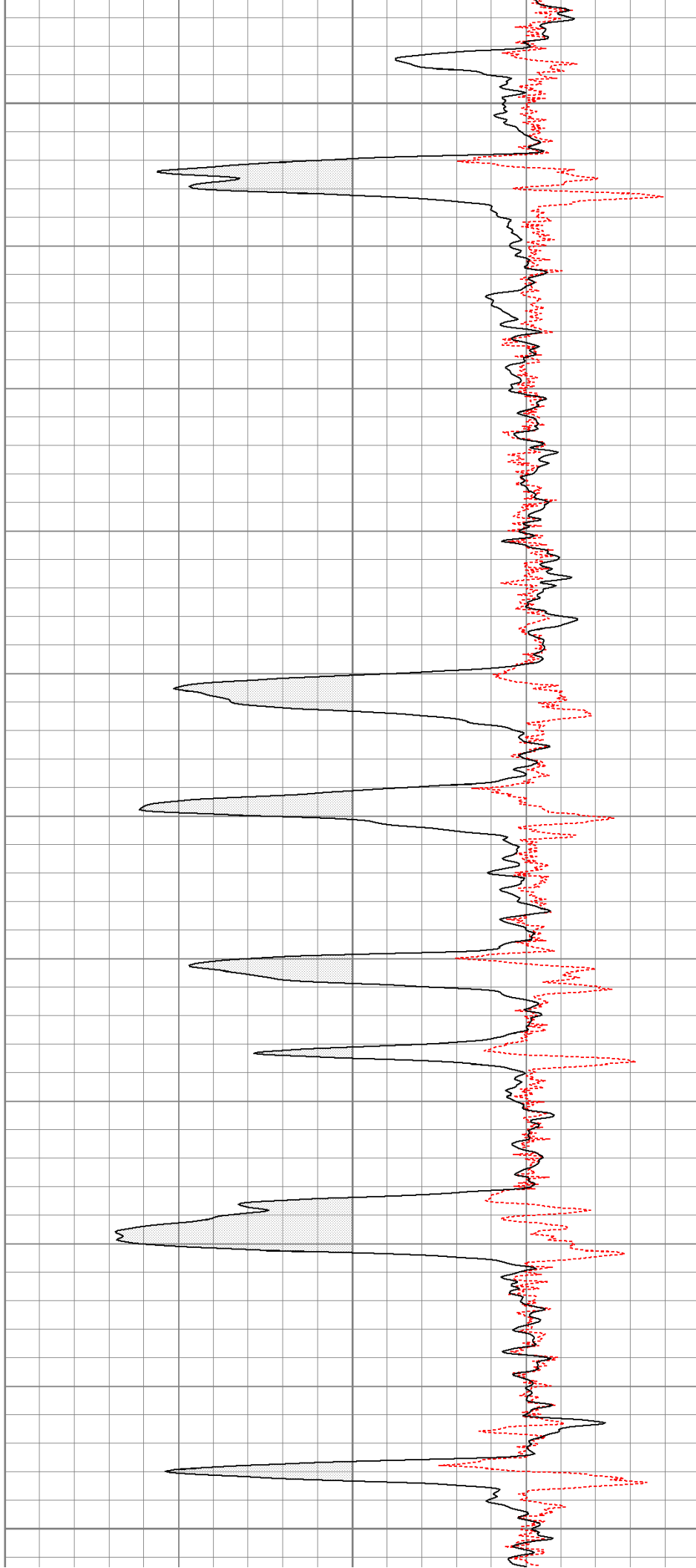


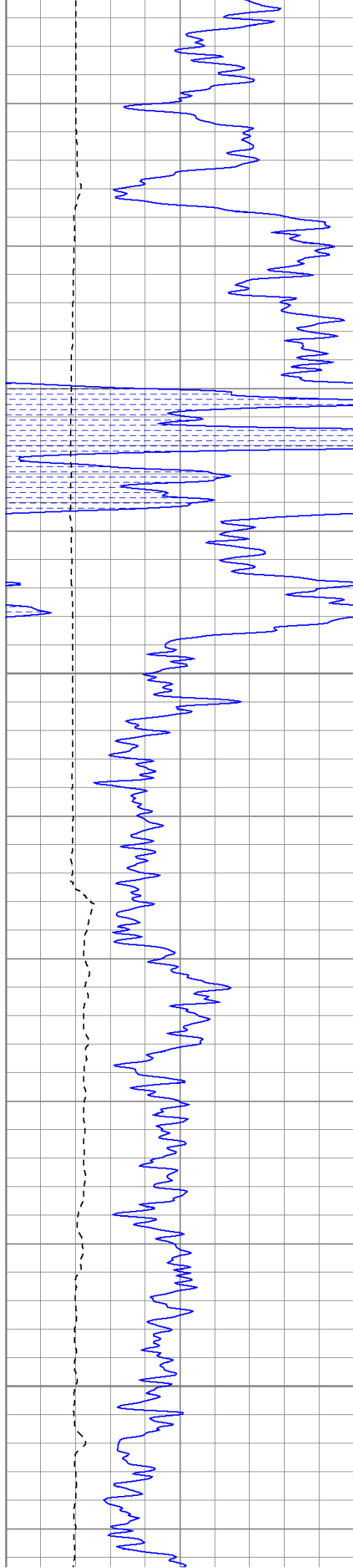


1250

1300

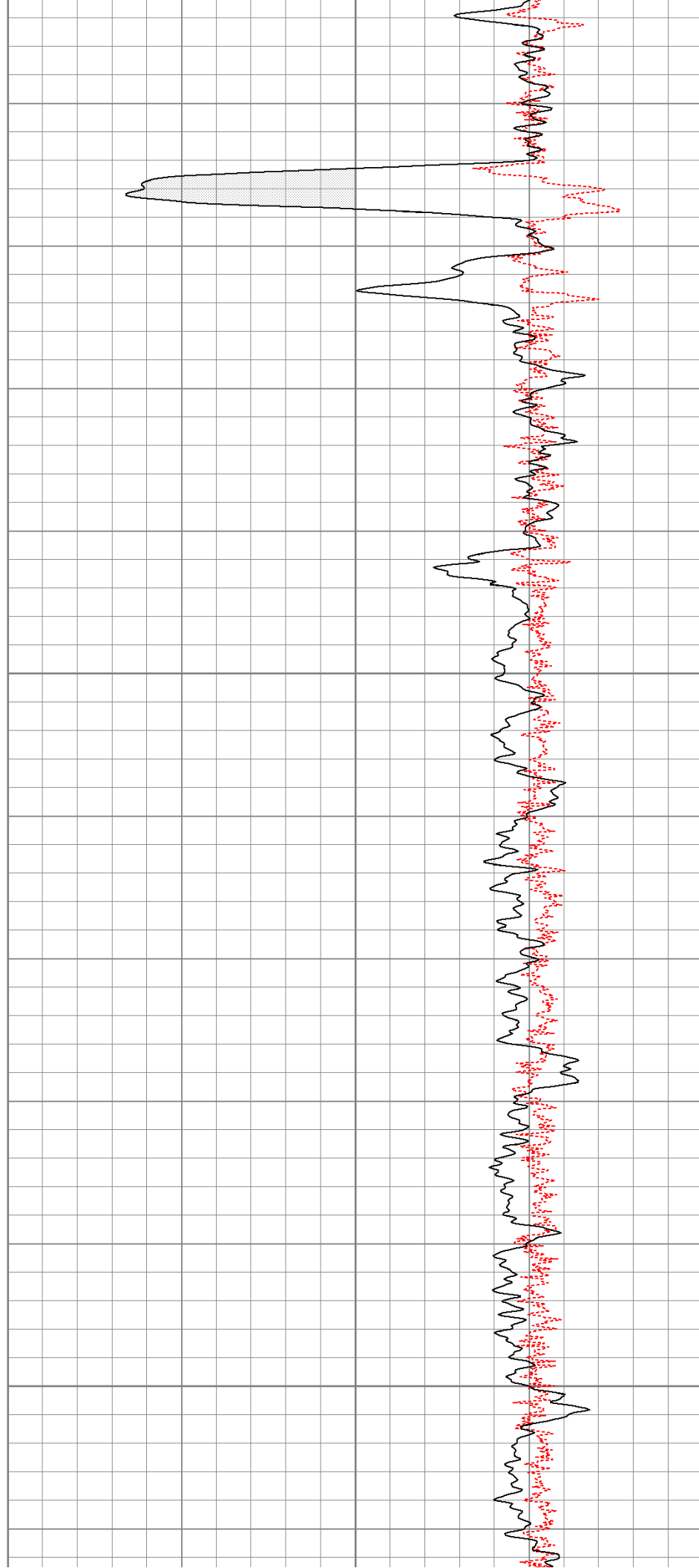
1350

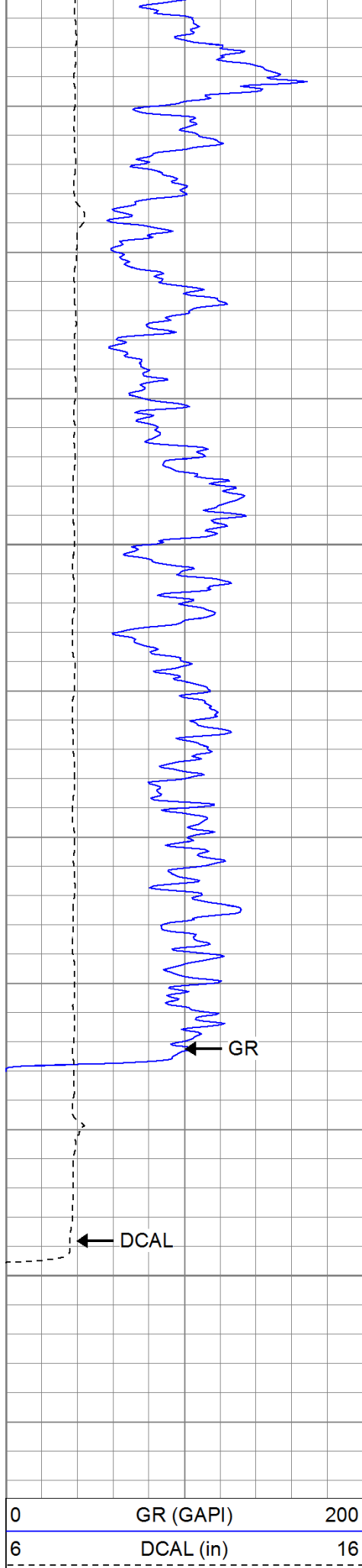




1400

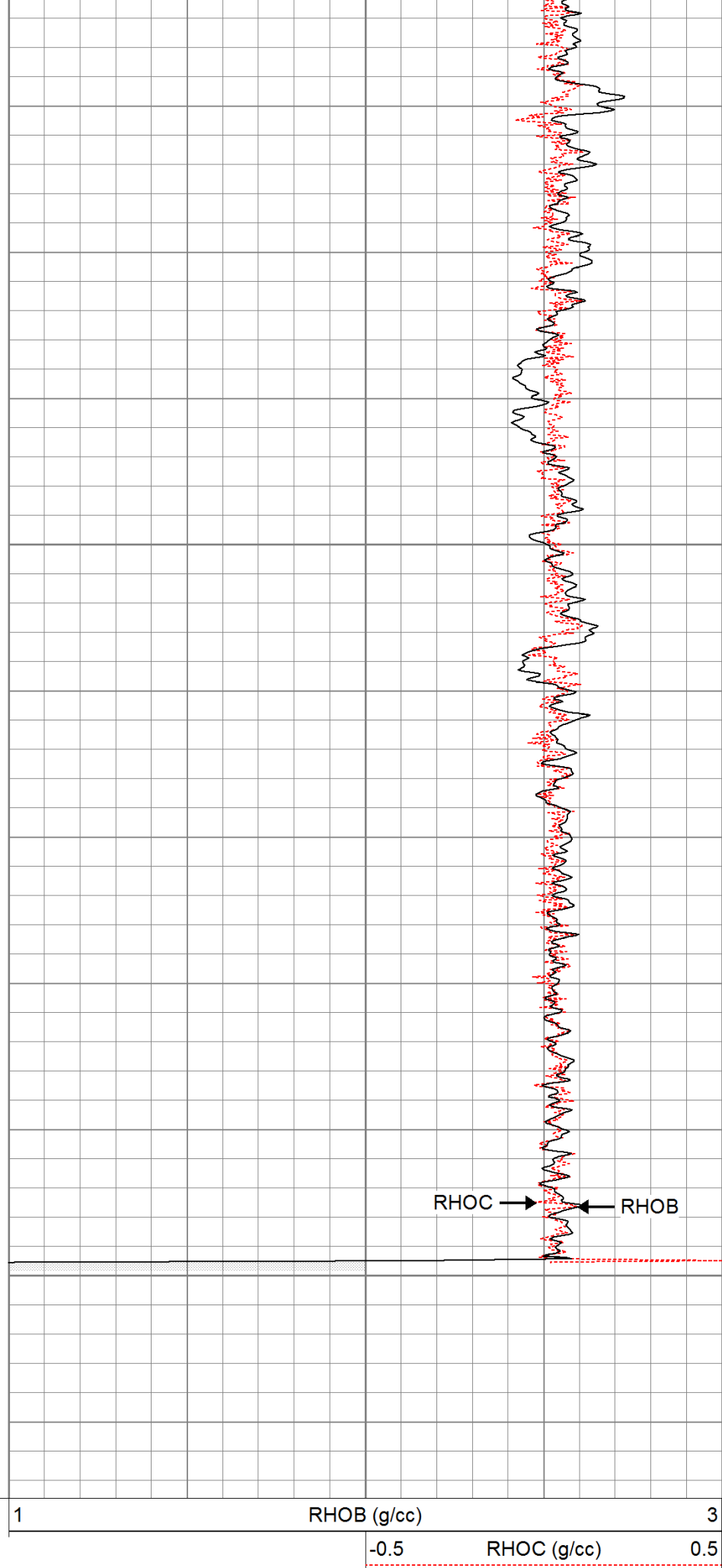
1450









1500

1550



Calibration Report				
Database File:		peteofederal.db		
Dataset Pathname:		pass1		
Dataset Creation:		Sat Jun 04 20:03:56 2011 by Log Open-Cased 110302		
Induction Tool Calibration Report				
Serial Number:		701		
Tool Model:		Probe		
Downhole Cal Performed:		Fri May 13 12:26:14 2011		
Surface Cal Performed:		Wed Apr 27 12:27:07 2011		
After Survey Verification Performed:				
Surface Calibration:		Air	Loop	
Conductivity Reference:		0.000	500.000	mmho
Conductivity Reading:		0.006	0.644	V
Internal Reference:		Zero	Cal	
Conductivity Reference:		0.000	500.000	mmho
Conductivity Reading:		0.007	0.643	V
Downhole Calibration:		Internal Zero	Internal Cal	
Conductivity Reference:		0.703	499.163	mmho
Conductivity Reading:		0.000	0.000	V
Short Normal Reference:		0.000	20.000	Ohm-m
Short Normal Reading:		0.005	0.214	V
Results:		Gain	Offset	
Loop Conductivity:		783.886	-4.674	
Downhole Correction:		1.000	0.000	
Short Normal Resistivity:		95.281	-0.432	
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:		Tue May 17 10:06:24 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:		802	
Tool Model:		2.75POH	
Performed:		Tue May 03 12:28:21 2011	
Calibrator Value:		700	NAPI
Calibrator Reading:		1000	cps
Sensitivity:		0.7	NAPI/cps
Gamma Ray Calibration Report			
Serial Number:		801	
Tool Model:		2.75POH	
Performed:		Thu May 05 13:29:10 2011	
Calibrator Value:		200.0	GAPI
Background Reading:		8.0	cps
Calibrator Reading:		264.7	cps
Sensitivity:		0.6000	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 (801) Probe 2.75" Probe Open Hole Gamma Ray	3.73	2.75	43.00
NEU	24.04		NEU-2.75POH (802) Probe Epithermal	4.75	2.75	58.00
LSD DCAL SSD	16.21		CDL-2.75POH (901) Probe	8.43	2.75	106.00
	15.94					
	15.69					
						

DIC	6.24		IEL-Probe (701)	13.46	2.75	93.00
SP SN	2.25 1.71					

Dataset: peteofederal.db: field/well/run1/pass1

Total Length: 31.11 ft

Total Weight: 305.00 lb

O.D. 2.75 in