



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

COMPENSATED DENSITY NEUTRON LOG

Company	XTO Energy Inc.		
Well	Apache Canyon 03-13		
Field	Purgatoire River		
County	Las Animas	State	Colorado
Location:	API # : 05 071 09571 00		Other Services DIL
SEC 3 TWP 34S RGE 67W			
Permanent Datum	Ground Level	Elevation	7546'
Log Measured From	Ground Level		
Drilling Measured From	Ground Level		
Date	7-26-08		
Run Number	One		
Depth Driller	2200'		
Depth Logger	2194'		
Bottom Logged Interval	2172'		
Top Log Interval	Surface Casing		
Casing Driller	8 5/8" @ 480'		
Casing Logger	480'		
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	12:30 p.m.		
Time Logger on Bottom	1:35 p.m.		
Maximum Recorded Temperature	108 DEG F		
Equipment Number	T697		
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

Density Neutron Porosity Presented on Sandstone Matrix.
ABHV Calculated for 5 1/2" Casing.
Neutron porosity invalid from 1688' to 1816' due to foam.

First Bosque Entrance to Alamacito Canyon, stay on main road, turn left at Apache Canyon 04-07,
drive thru a location and take left to location.



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

Main Pass

Database File: xtoac0313.db
Dataset Pathname: pass4.1
Presentation Format: cdl
Dataset Creation: Sat Jul 26 16:33:59 2008 by Calc Open-Cased 071220
Charted by: Depth in Feet scaled 1:240

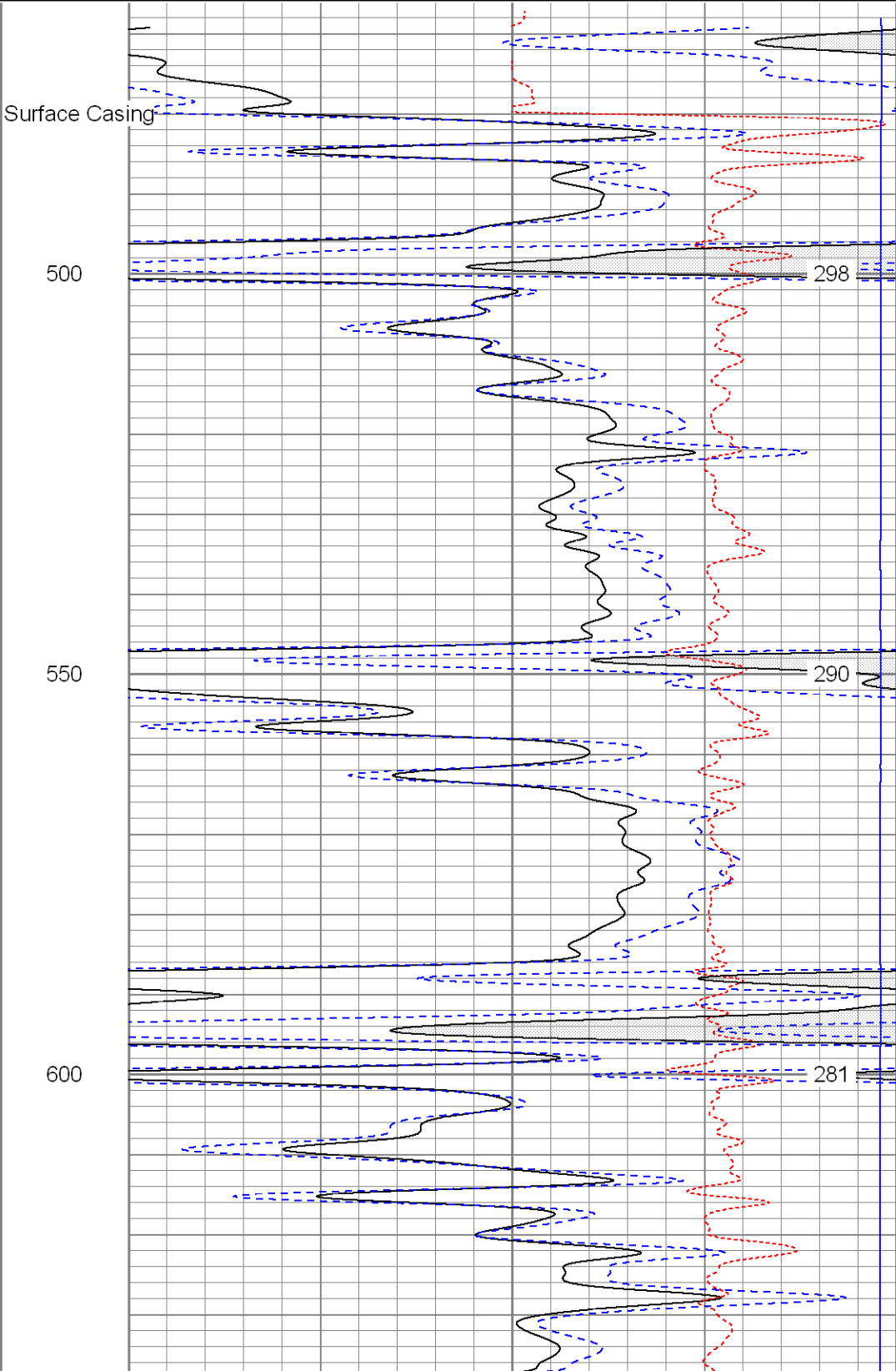
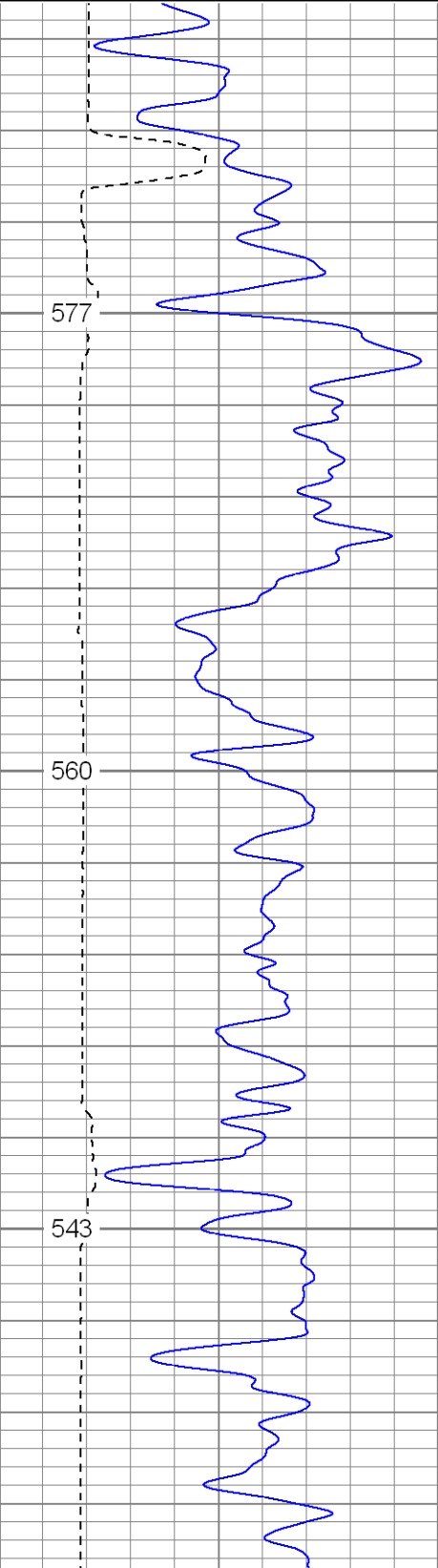
0	GR (GAPI)	200
6	DCAL (in)	16

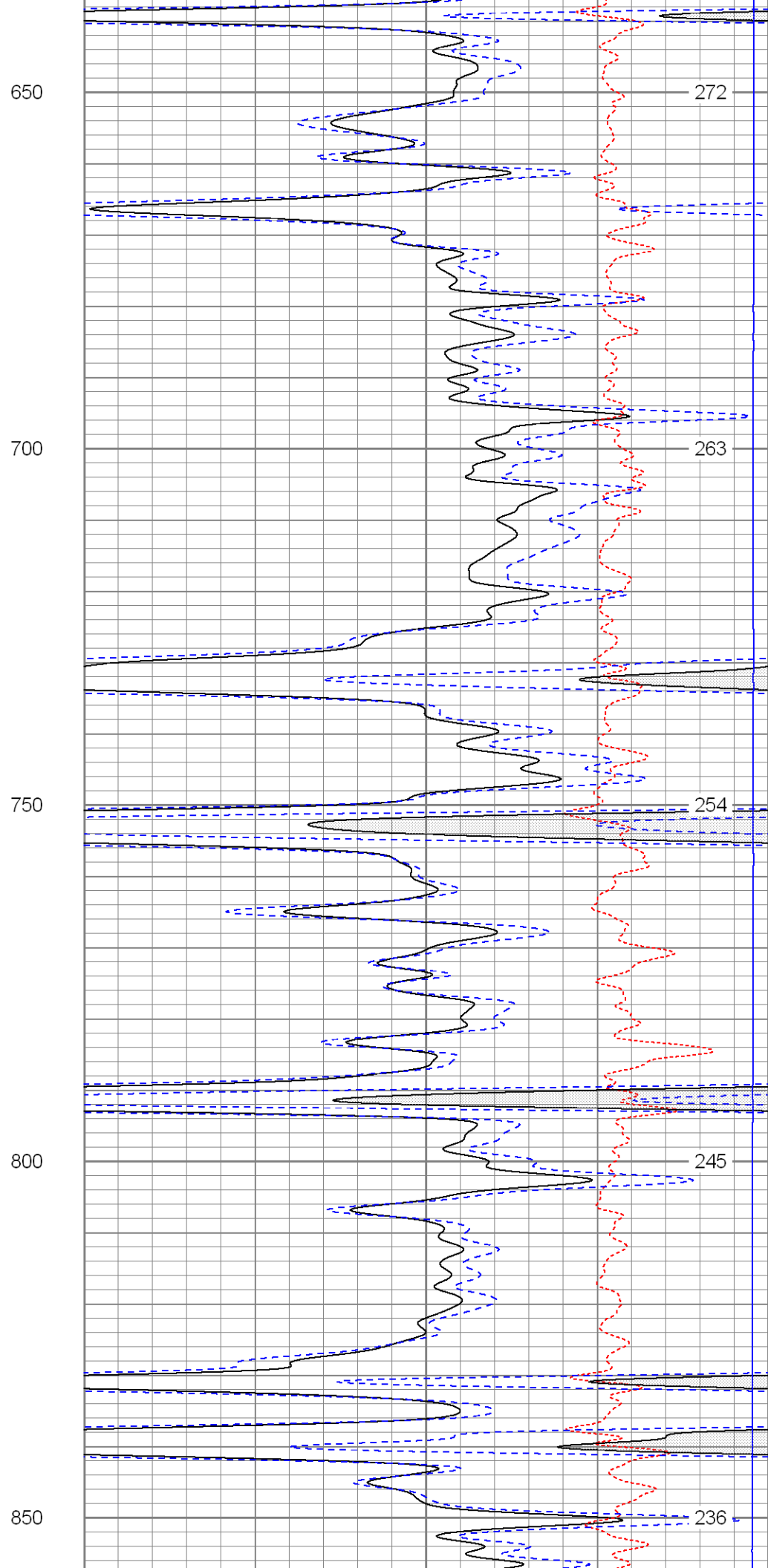
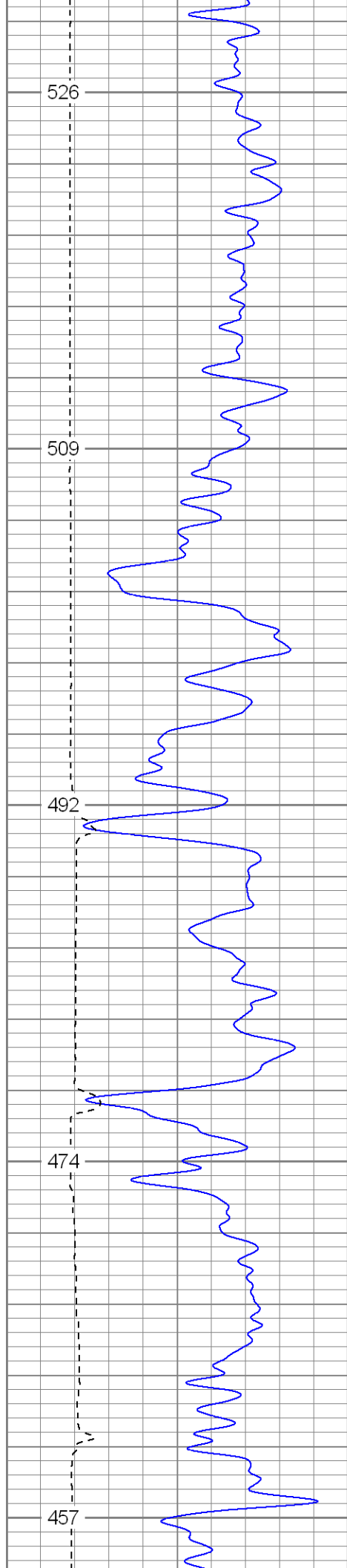
TBHV (ft3)		

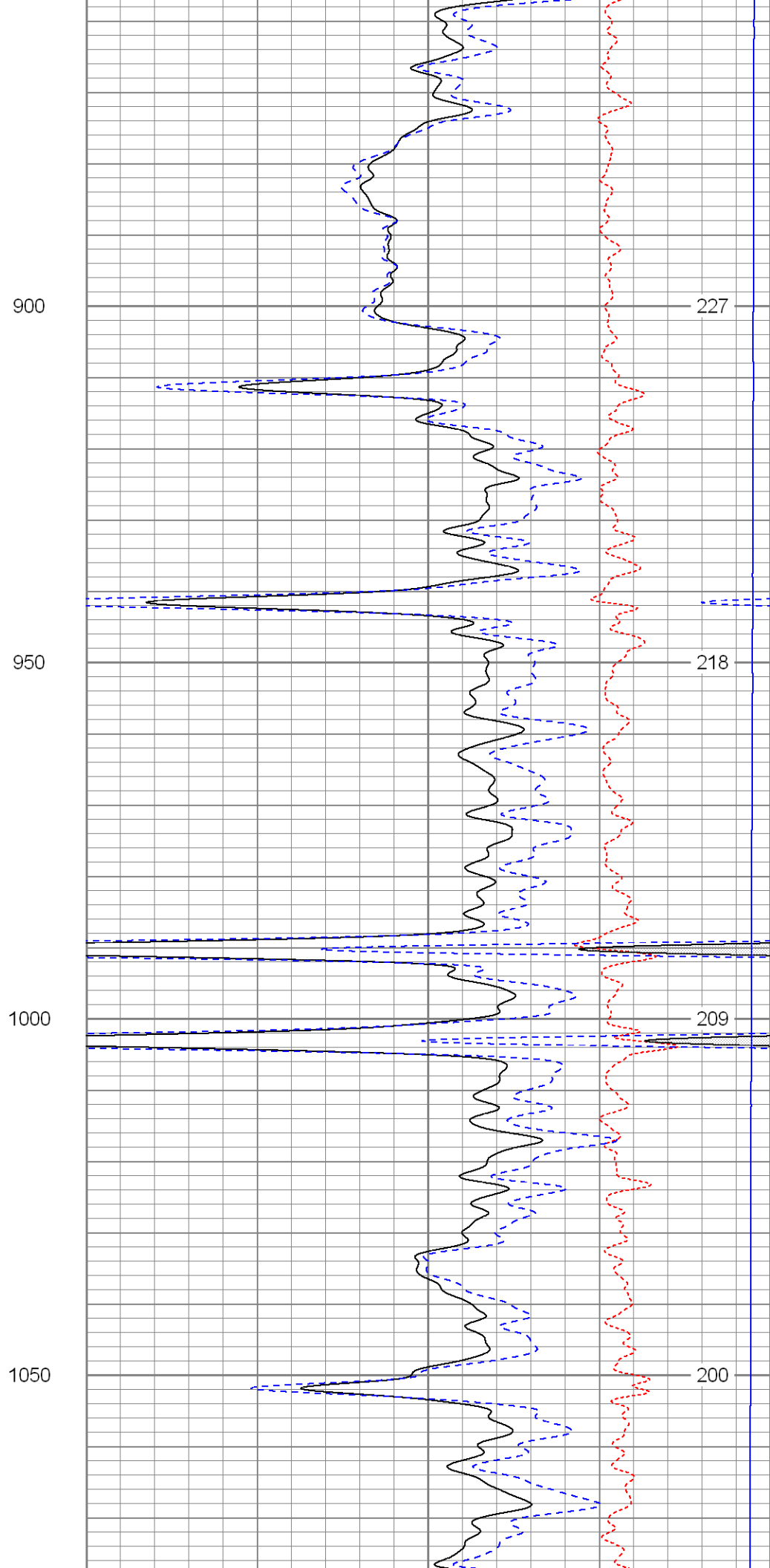
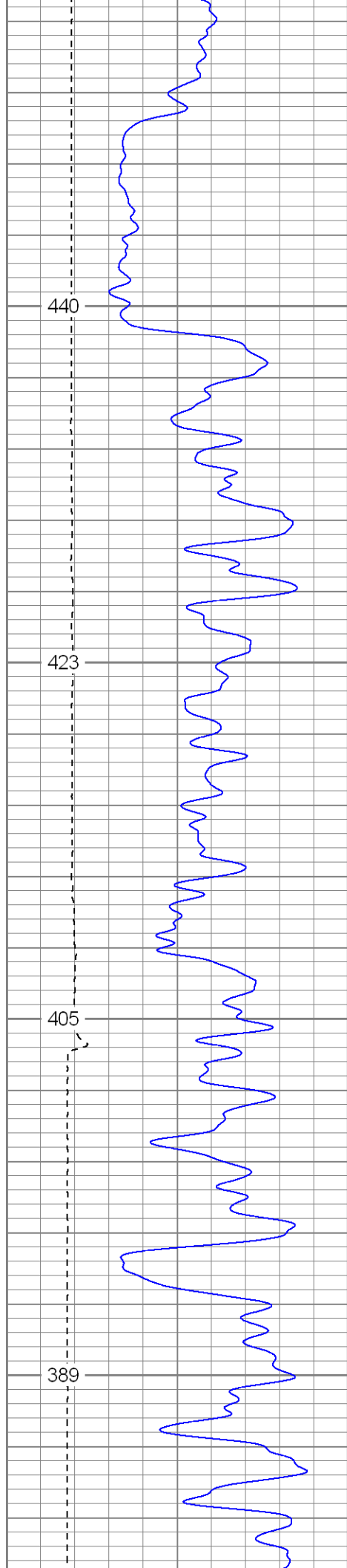
2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10

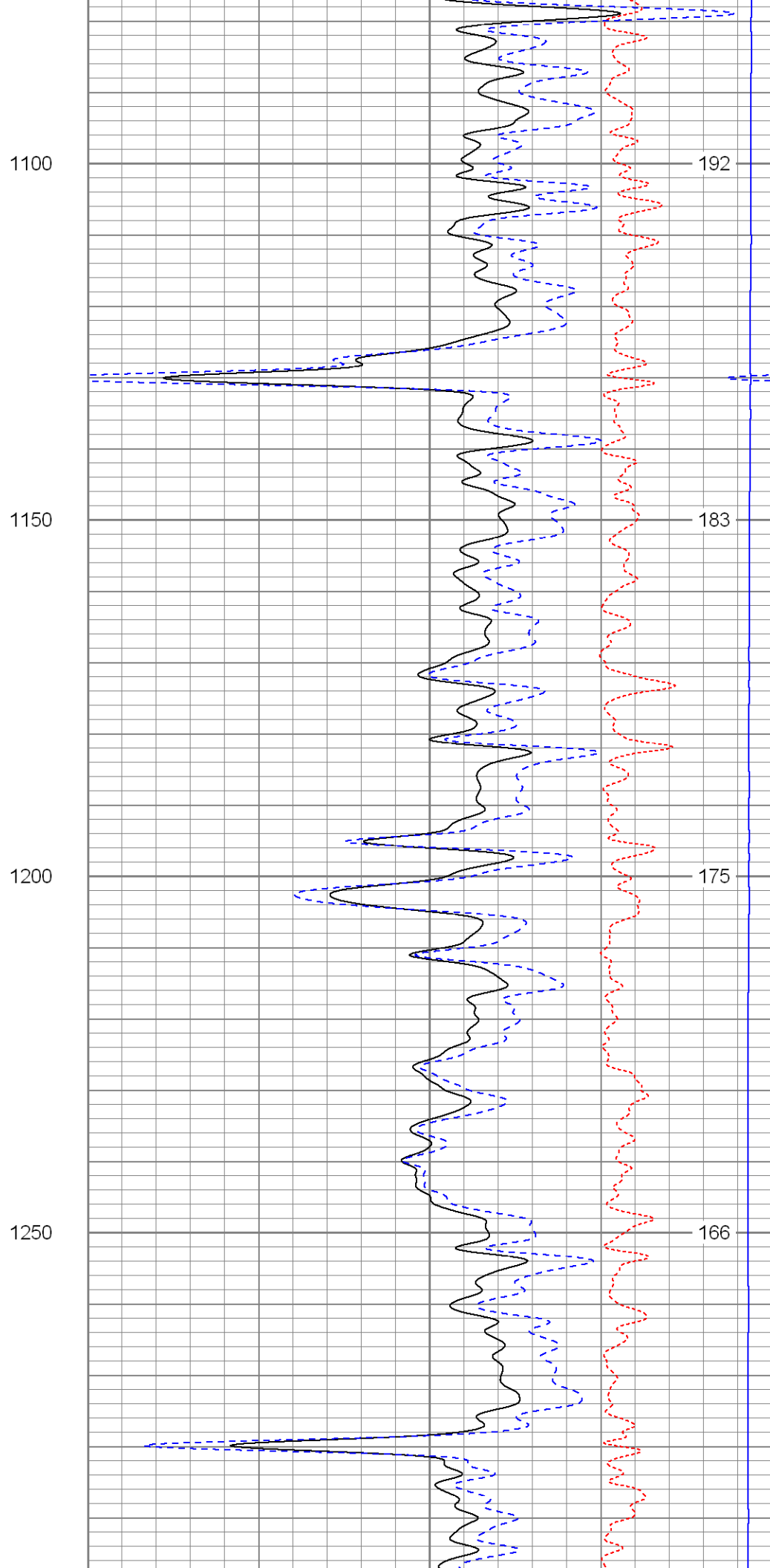
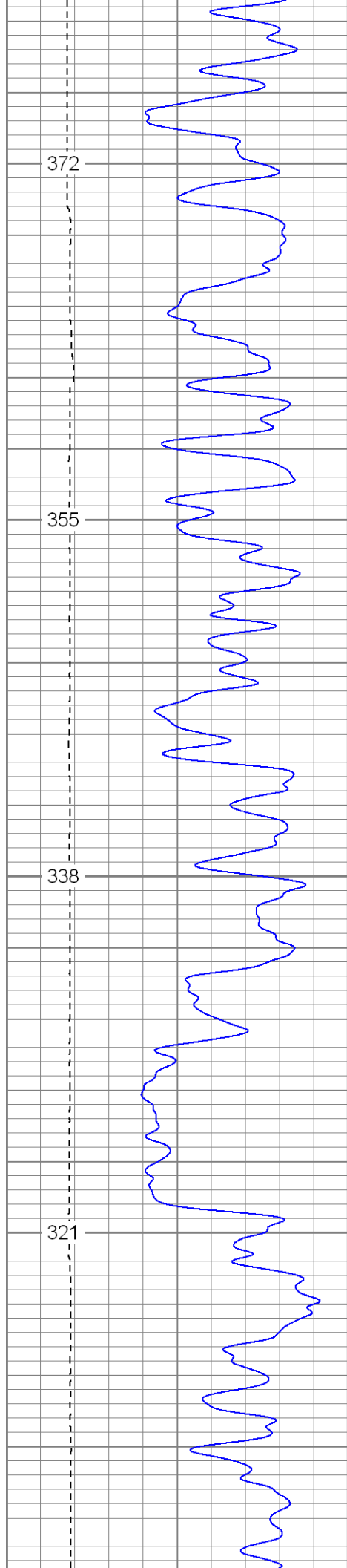
-0.5	RHOC (g/cc)	0.5
7000	LTEN (lb)	0

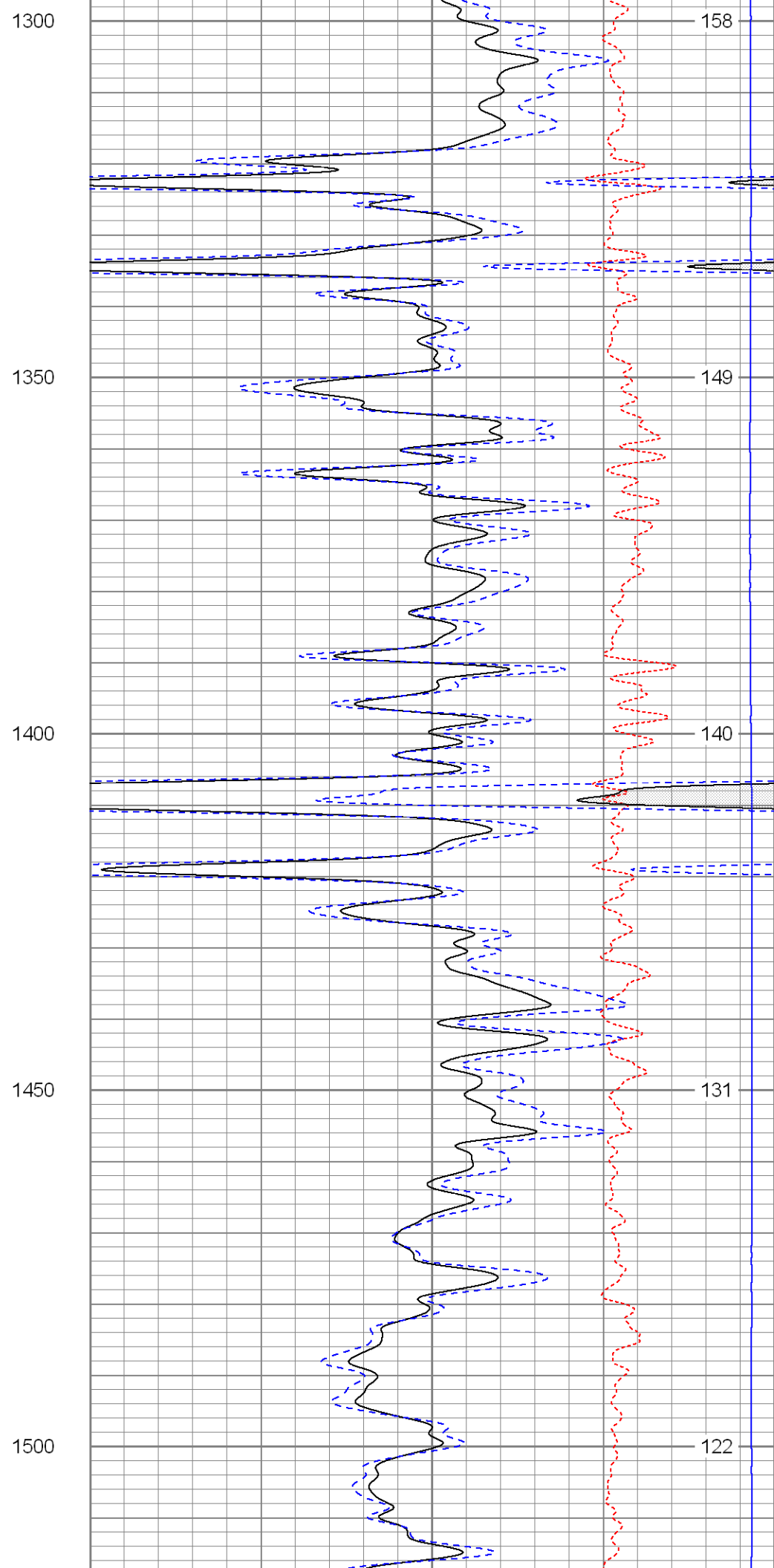
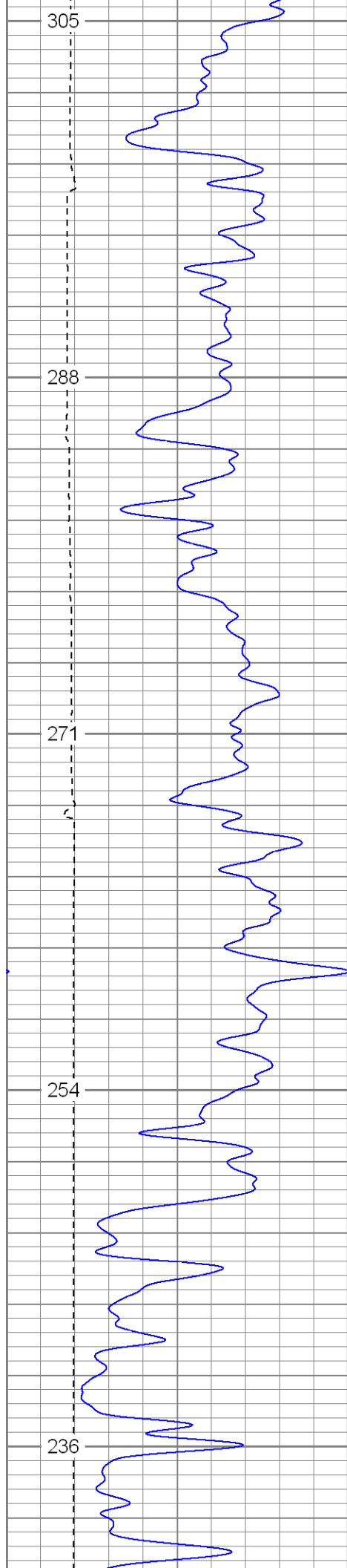
		ABHV (ft3)

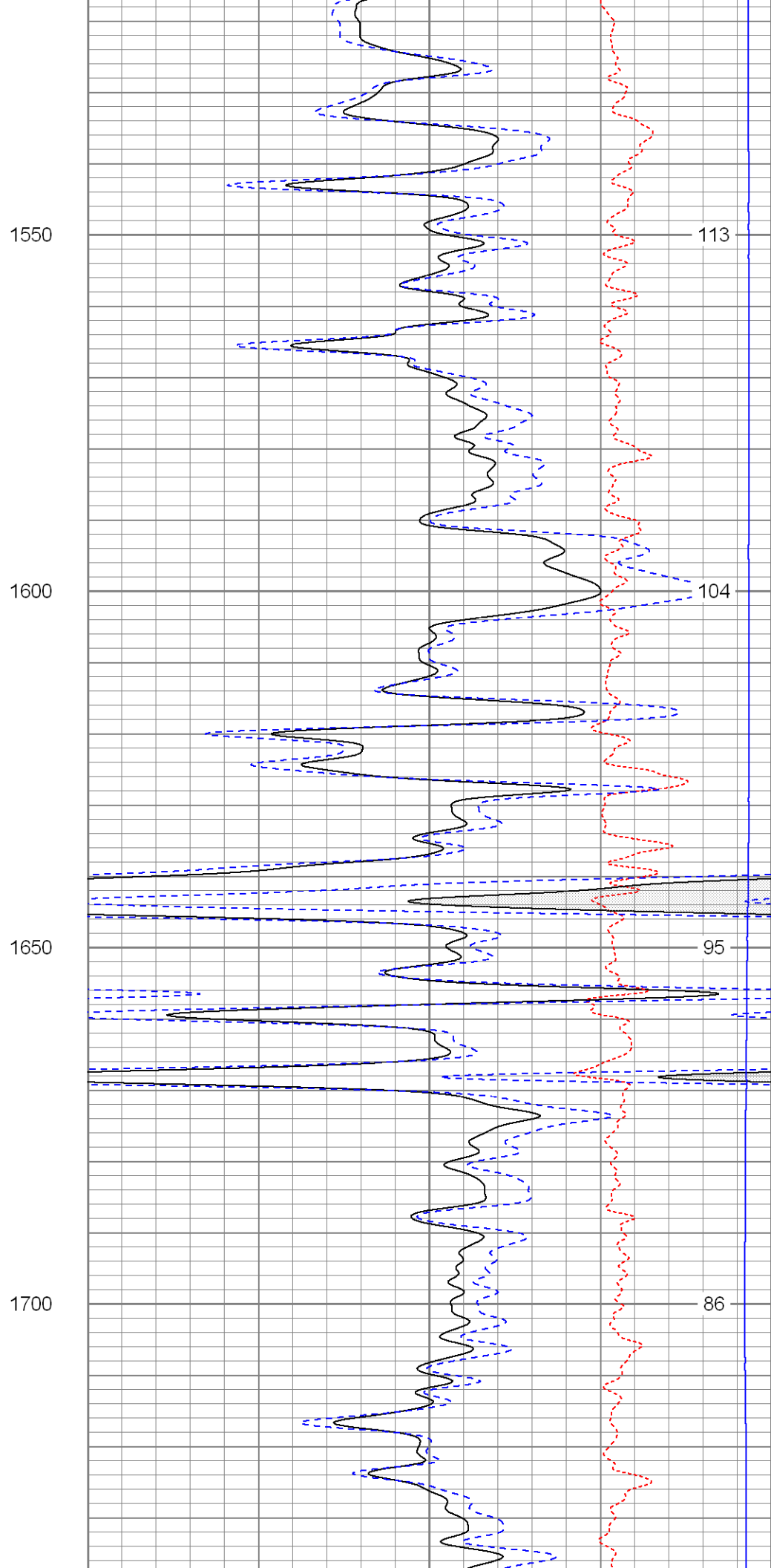
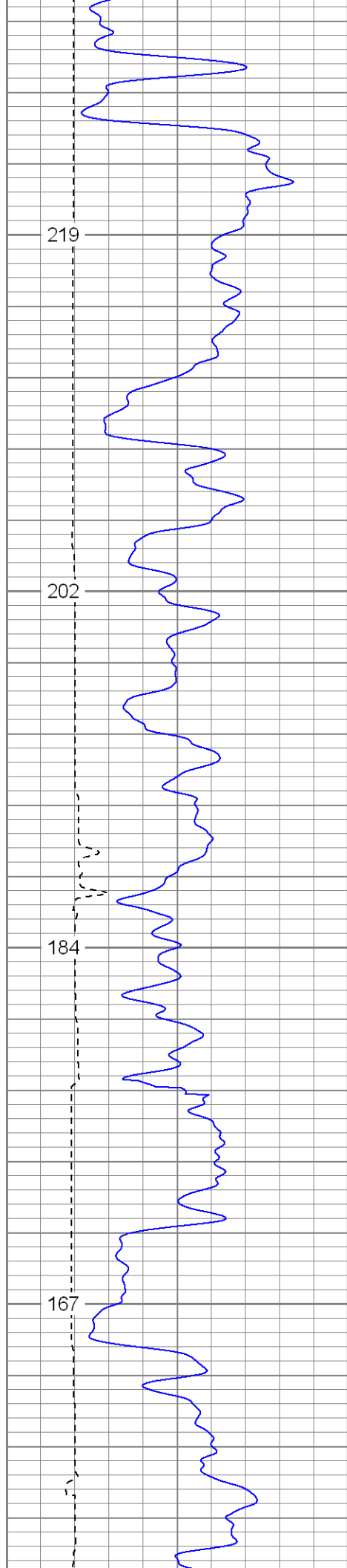


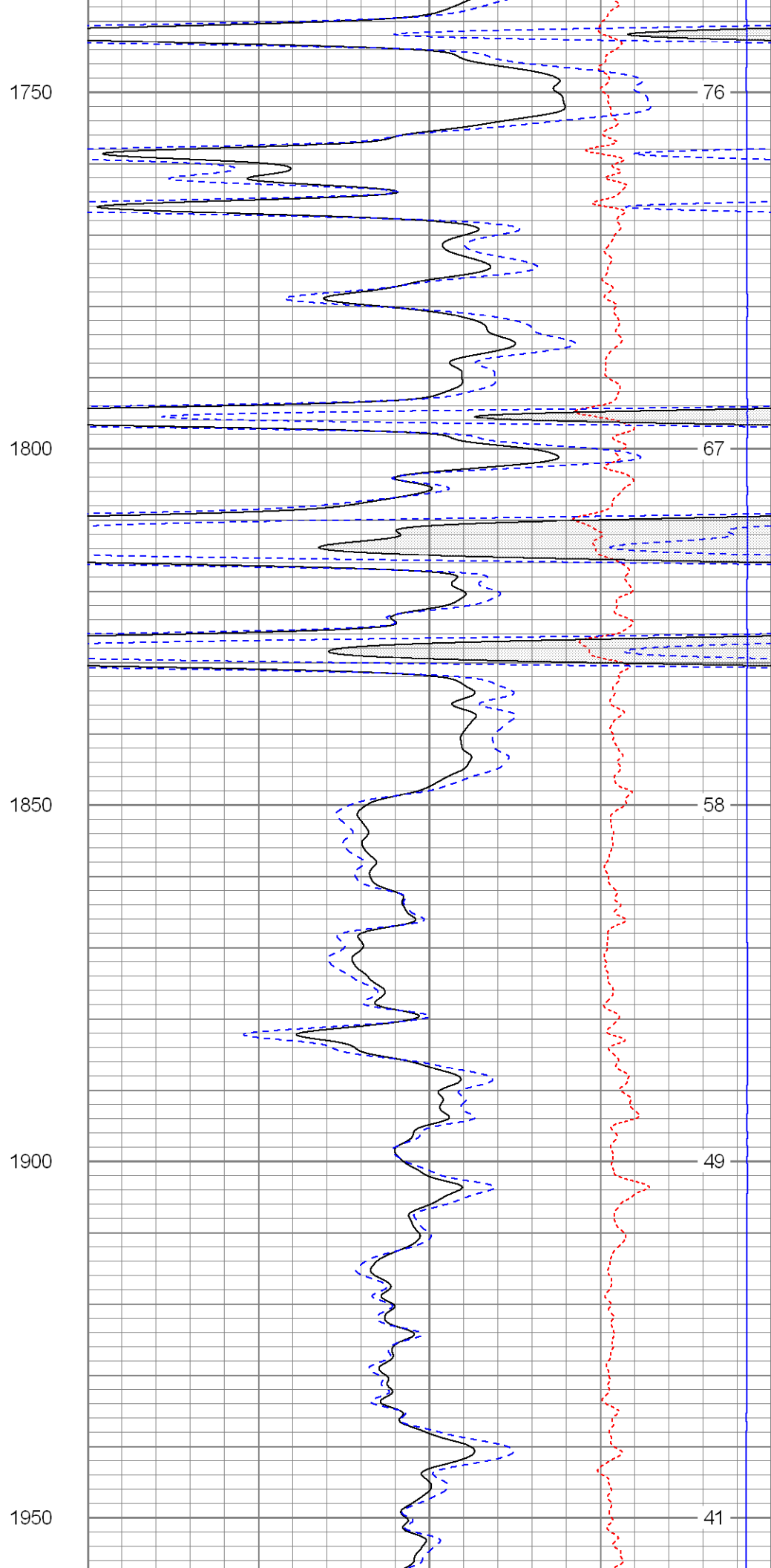
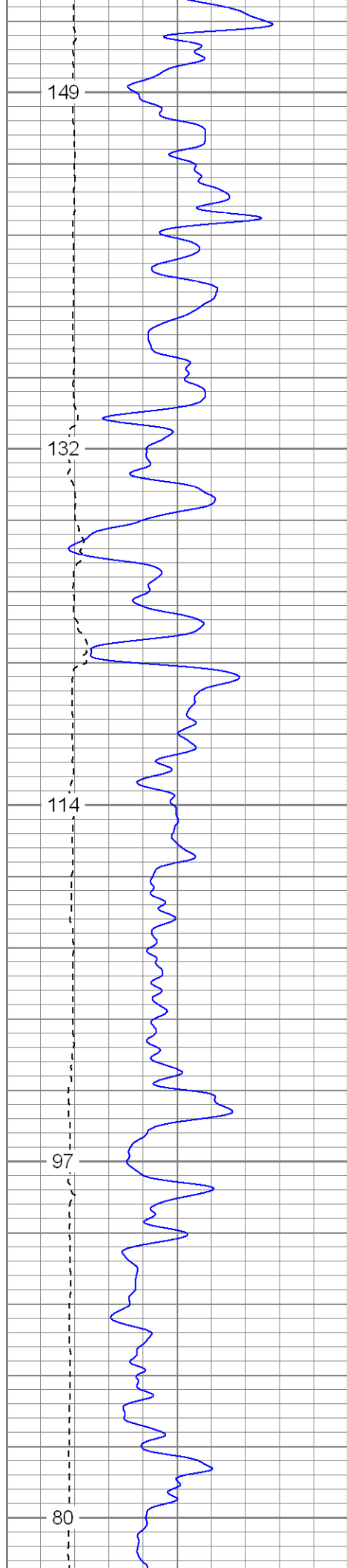


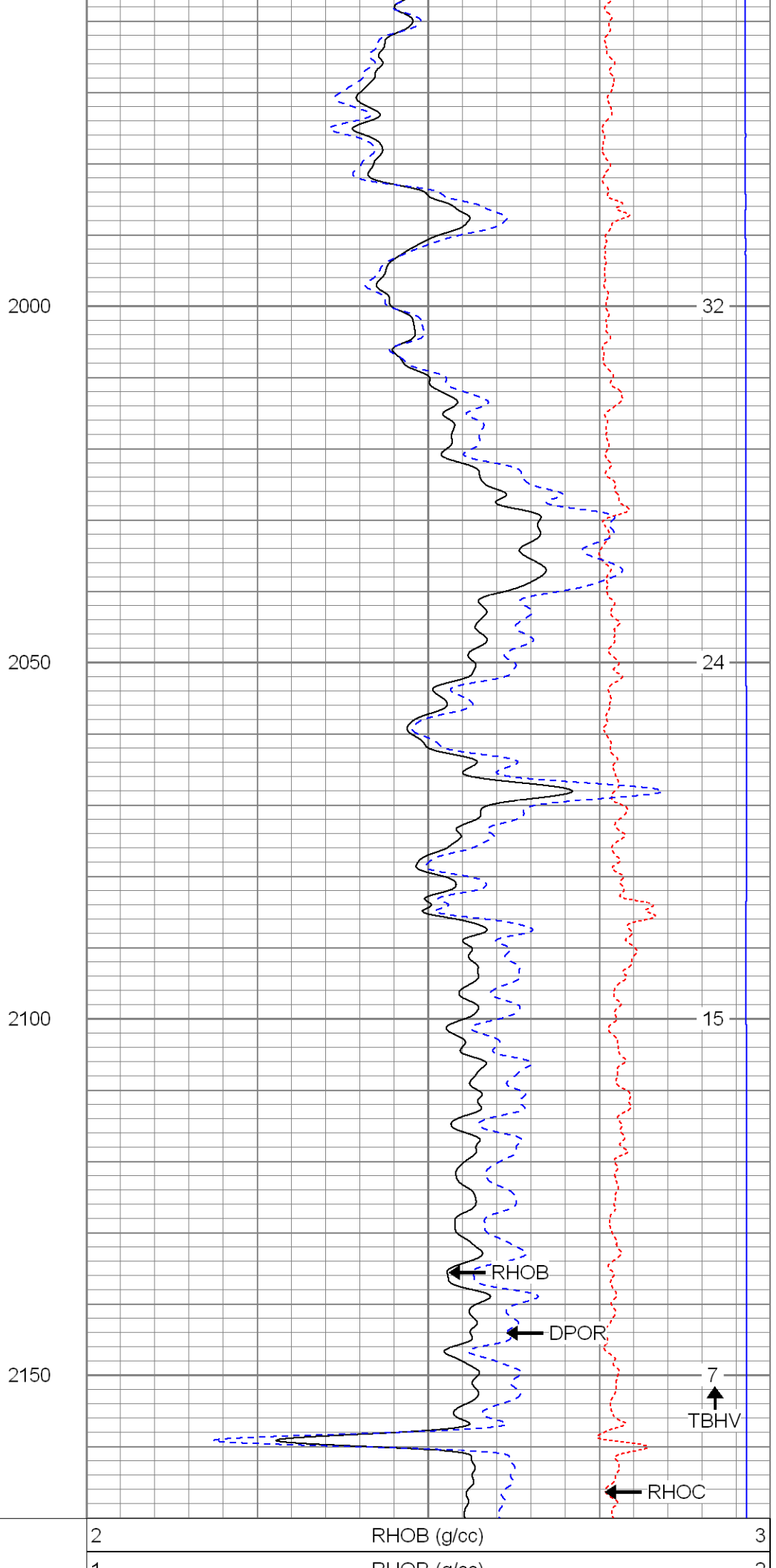
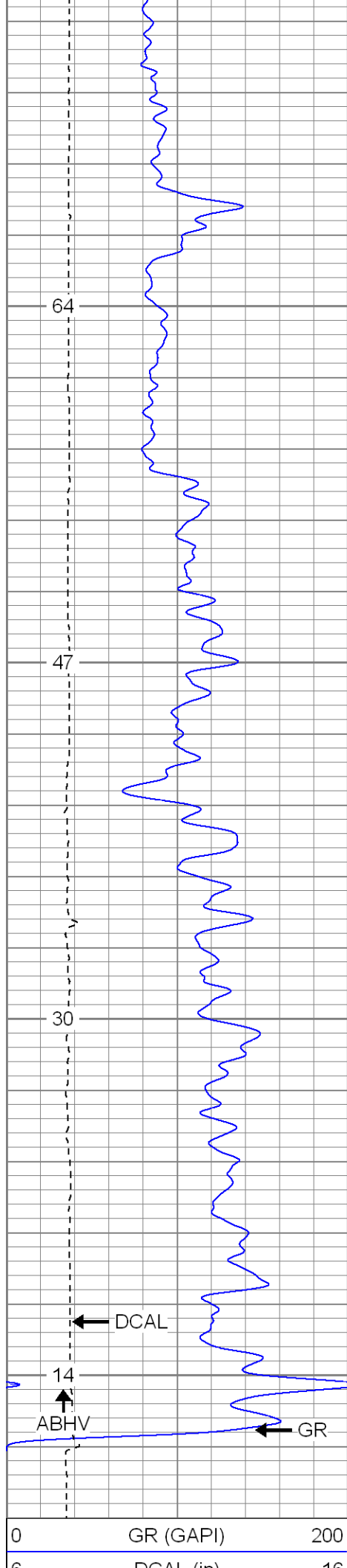












6	DCAL (in)	16	1	RHOB (g/cc)	2
TBHV (ft3)			30	DPOR (pu)	-10
				-0.5	RHOC (g/cc) 0.5
				7000	LTEN (lb) 0
					ABHV (ft3)



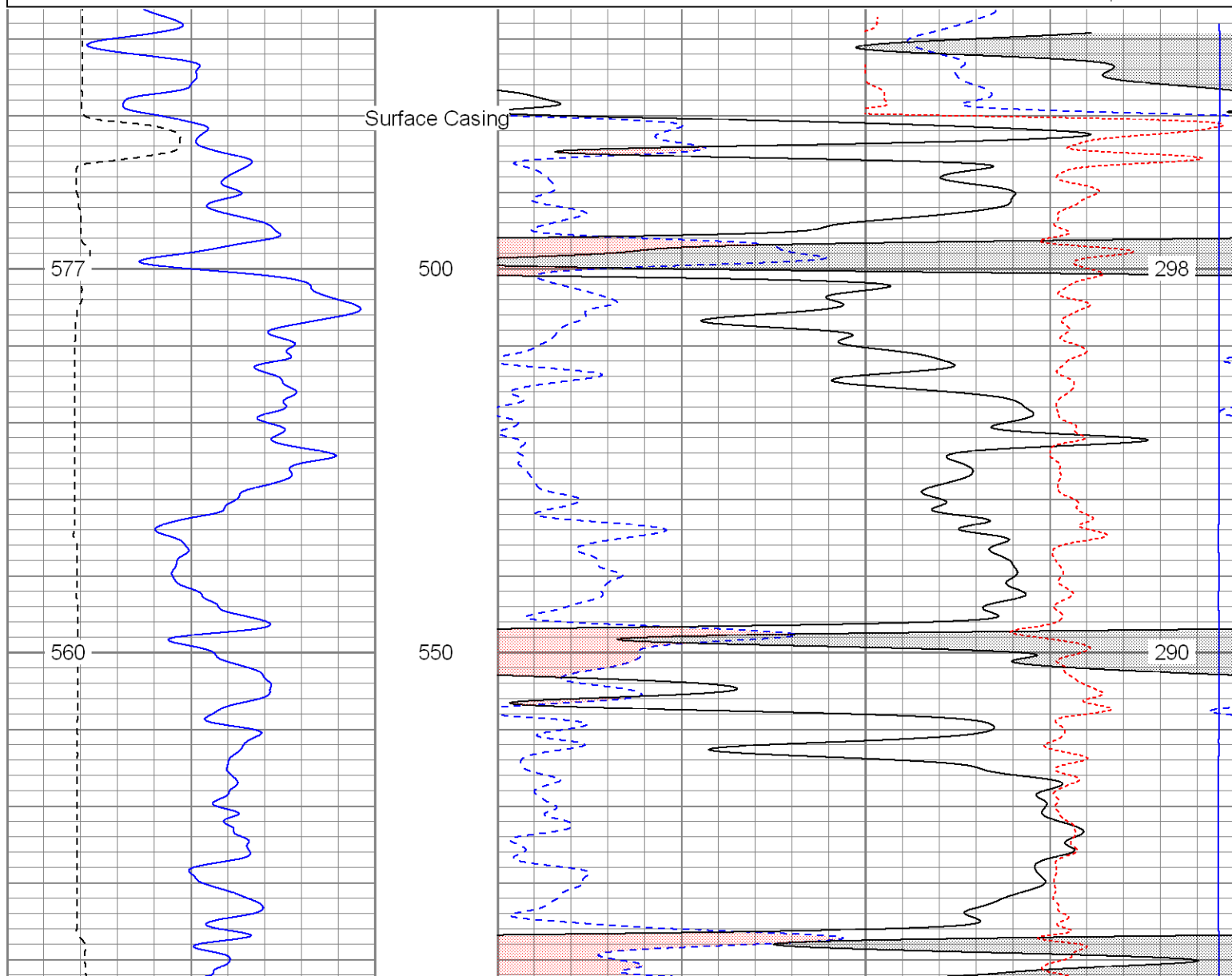
SUPERIOR

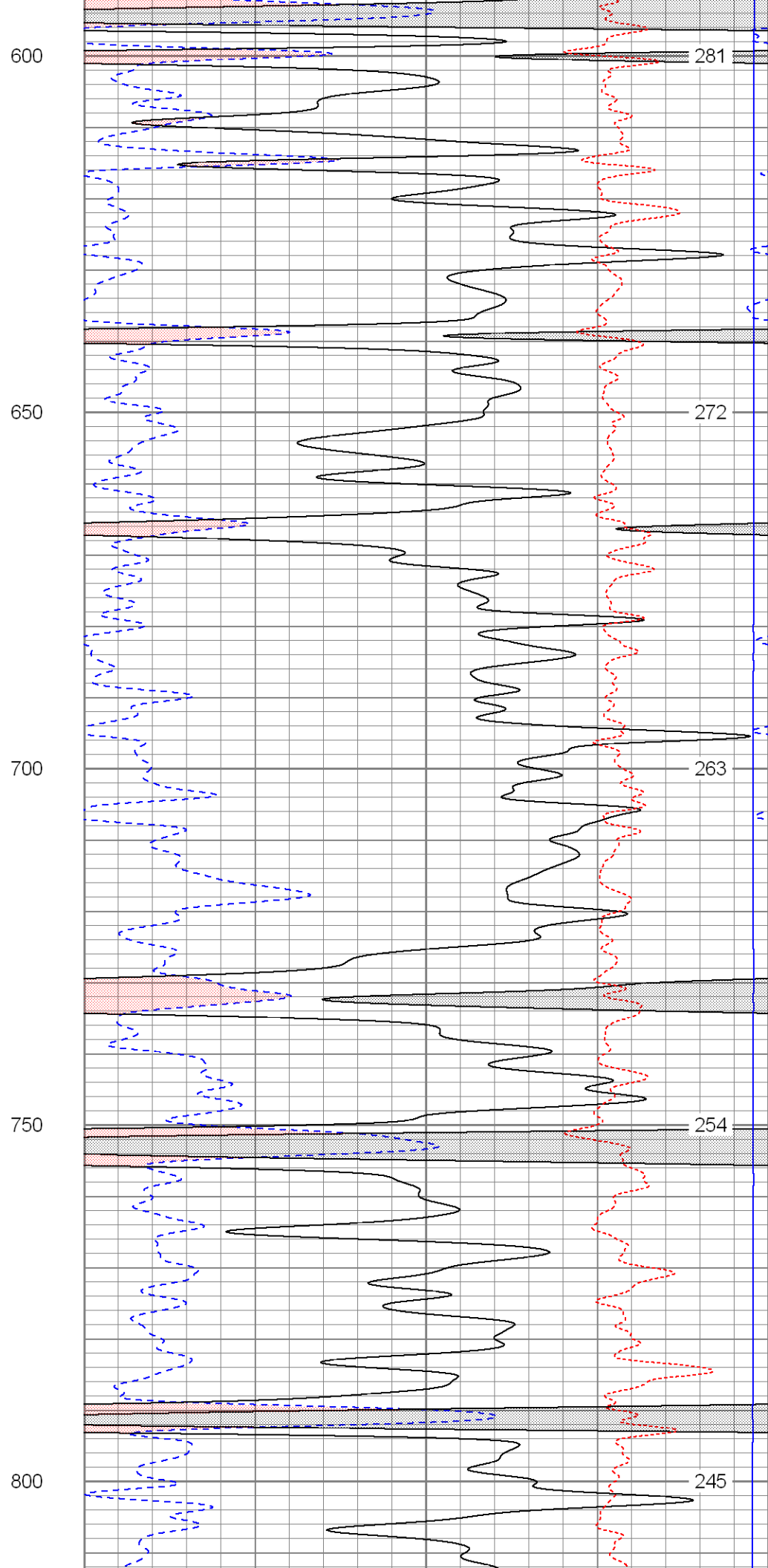
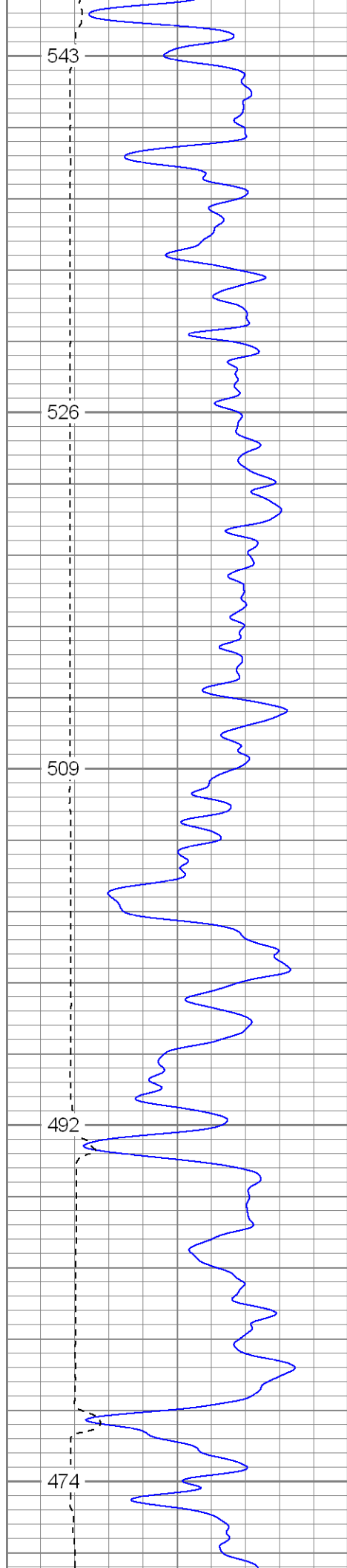
Black Lick, Pa.
Mercer, Pa.
Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

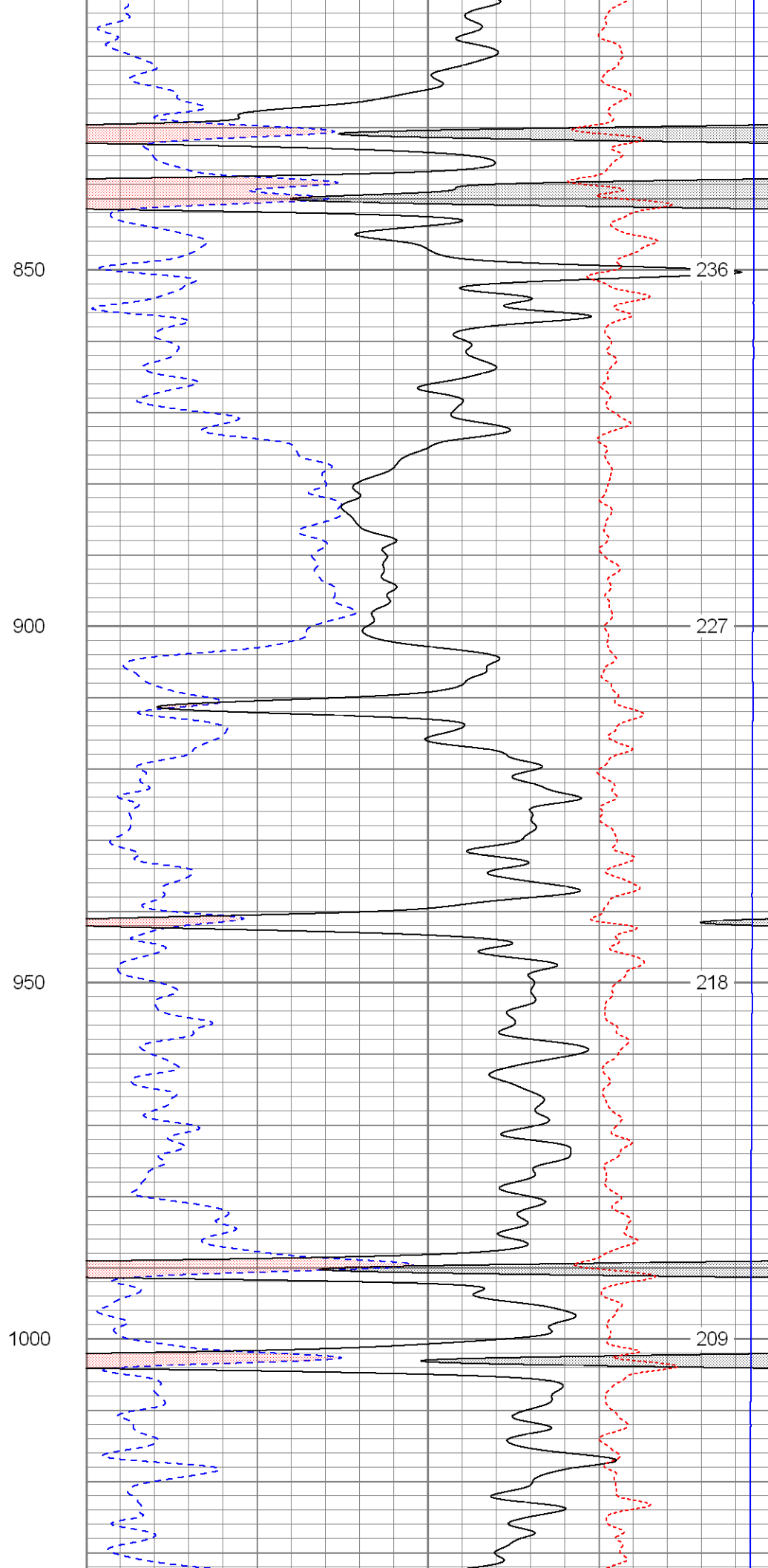
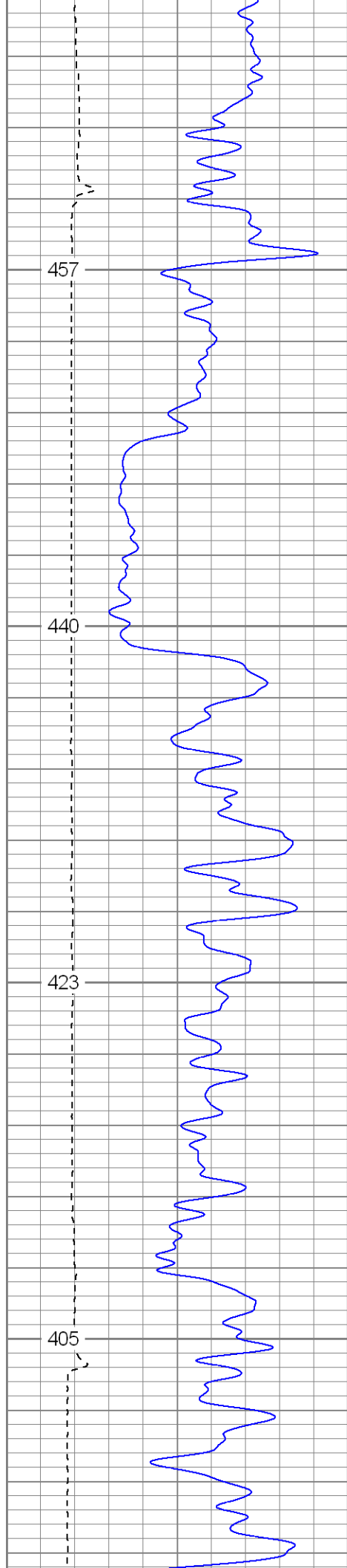
Main Pass

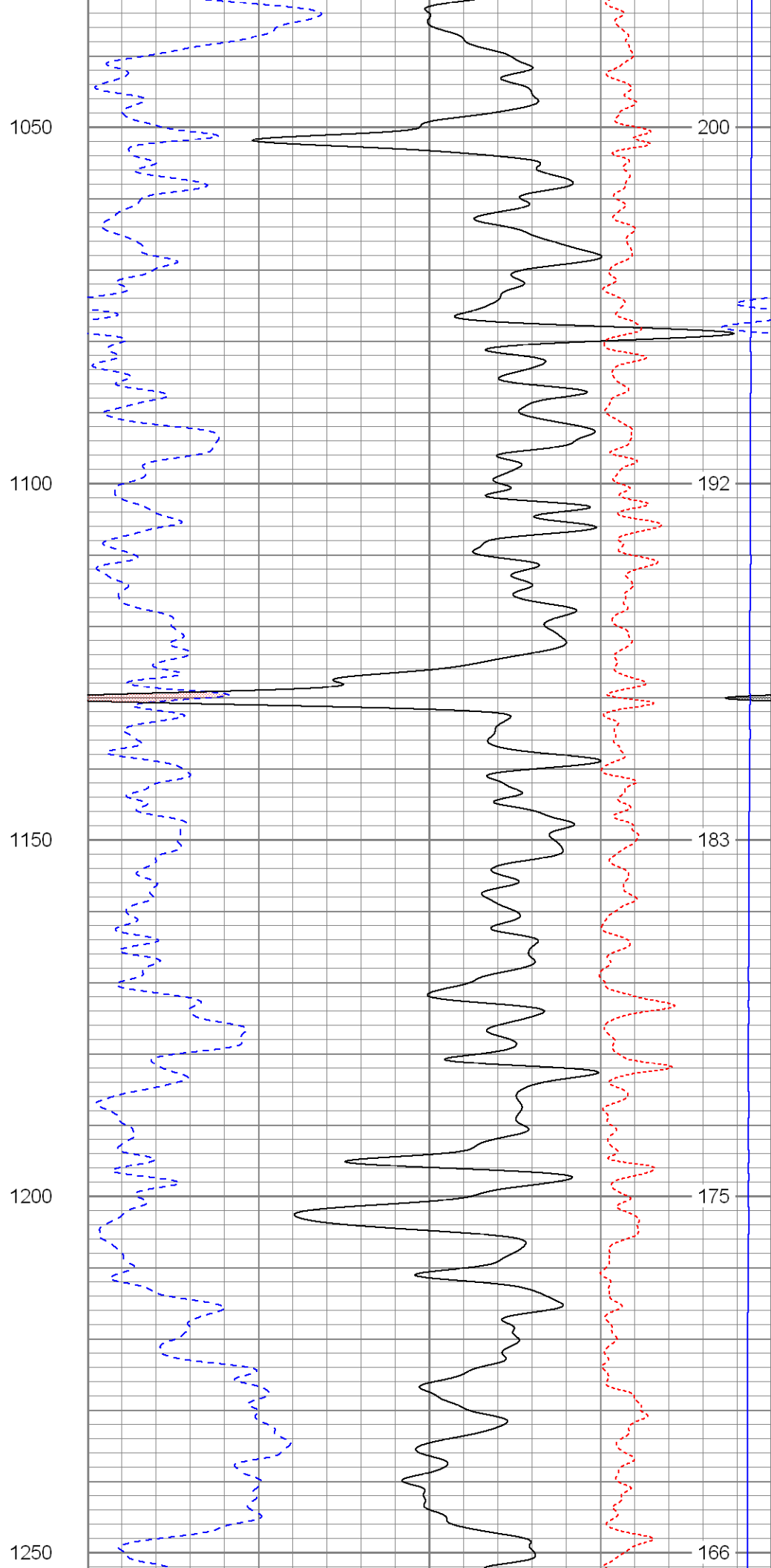
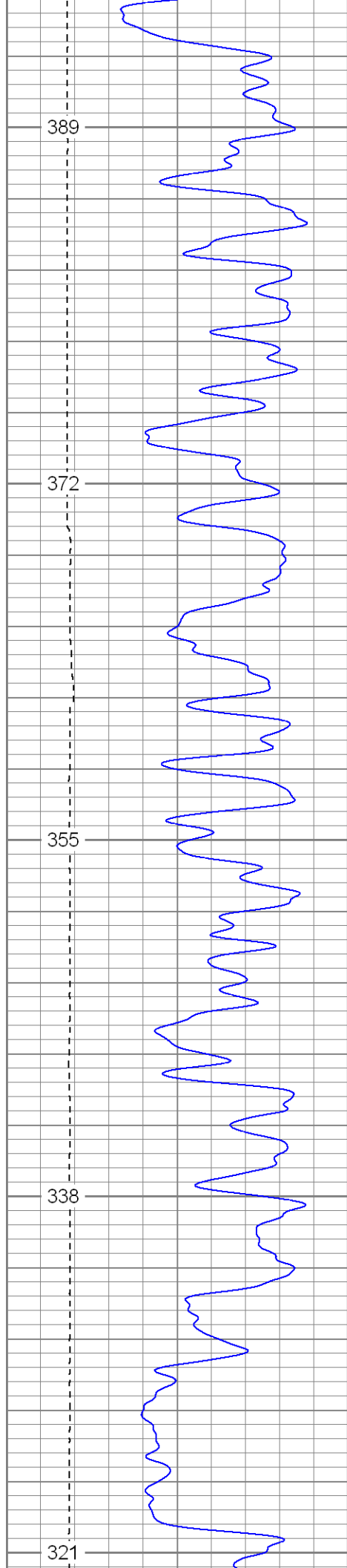
Database File: xtoac0313.db
Dataset Pathname: pass4.1
Presentation Format: cdnl
Dataset Creation: Sat Jul 26 16:33:59 2008 by Calc Open-Cased 071220
Charted by: Depth in Feet scaled 1:240

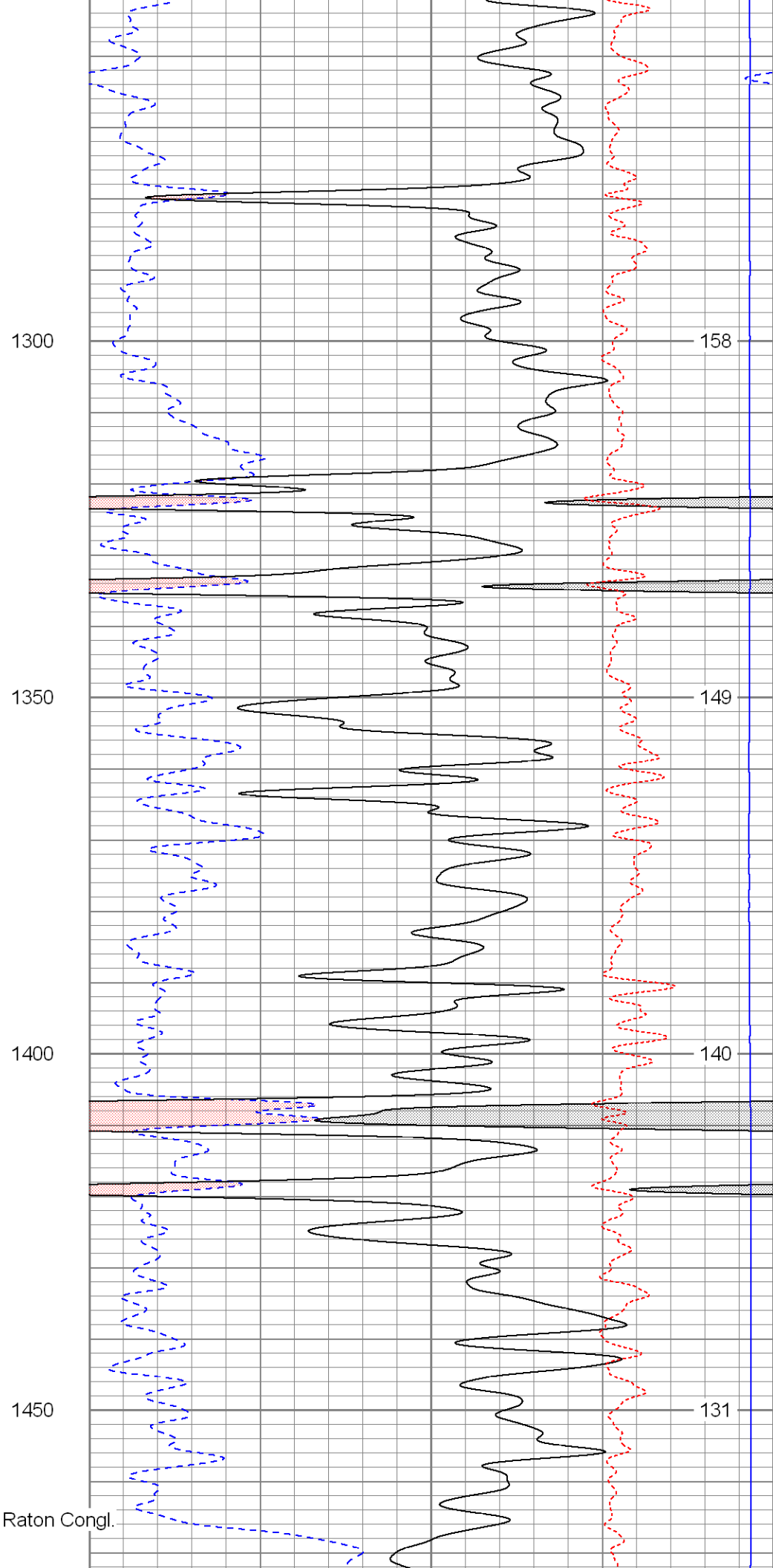
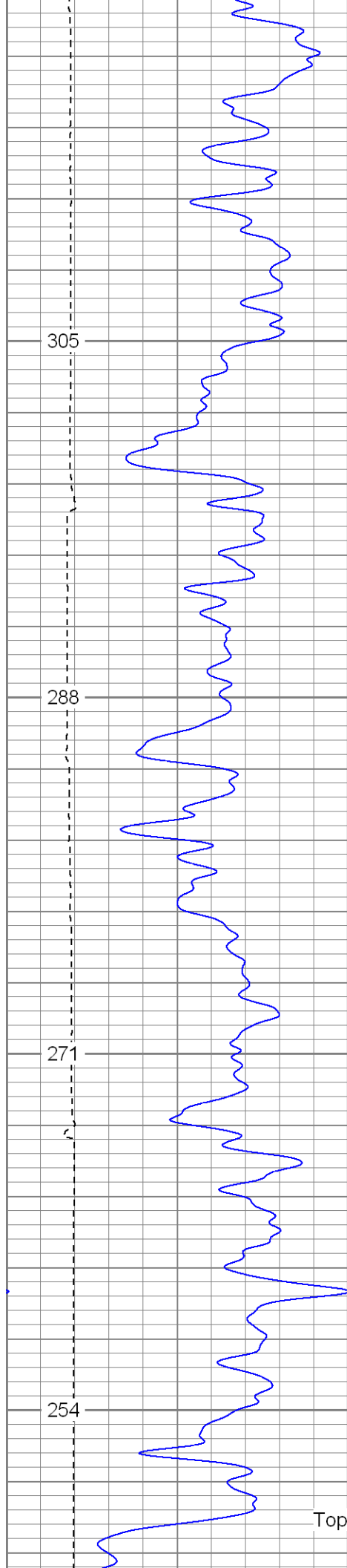
0	GR (GAPI)	200	30	NPOR (pu)	-10
6	DCAL (in)	16	30	DPOR (pu)	-10
TBHV (ft3)				-0.5	RHOC (g/cc) 0.5
				7000	LTEN (lb) 0
					ABHV (ft3)

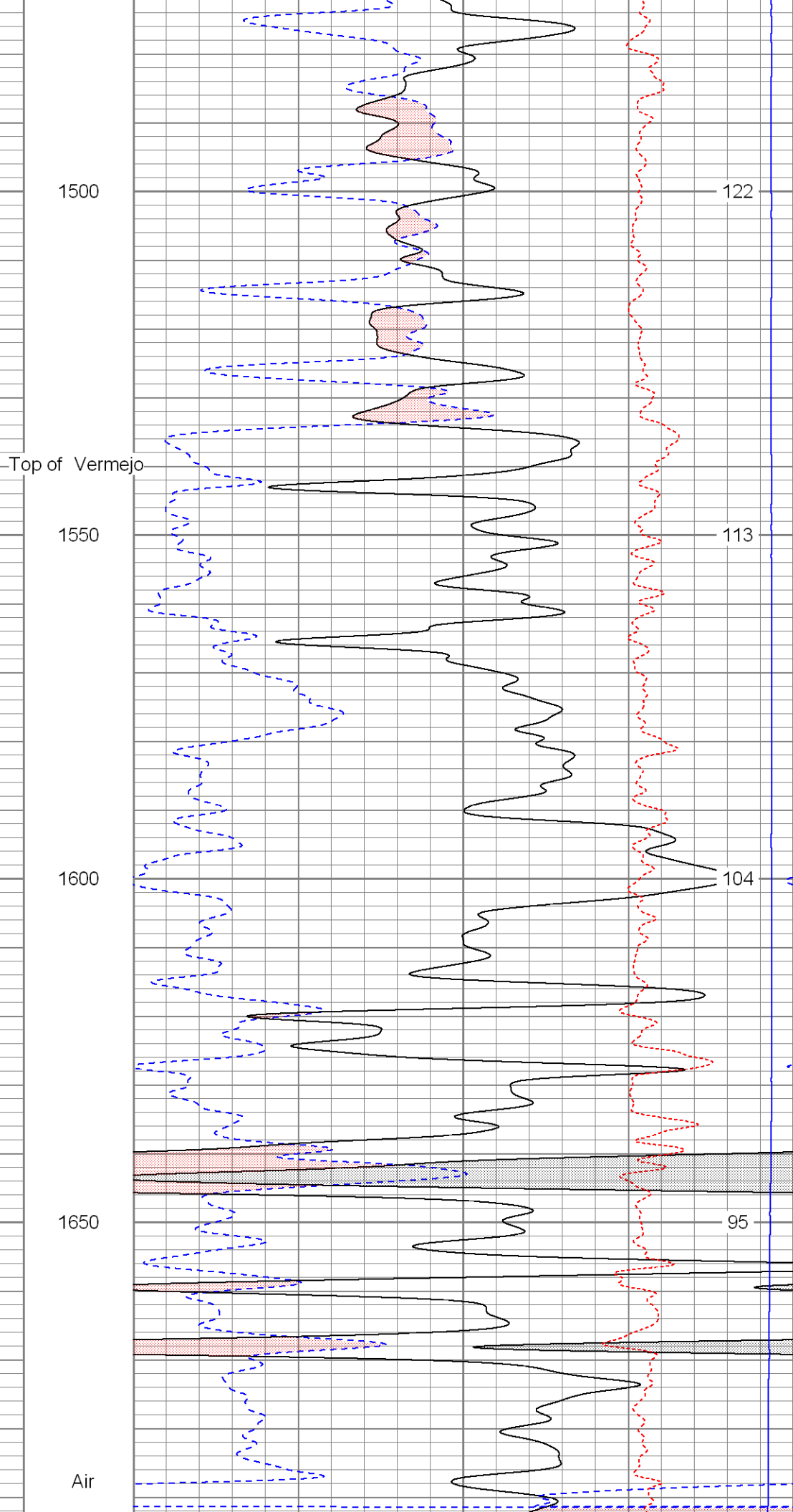
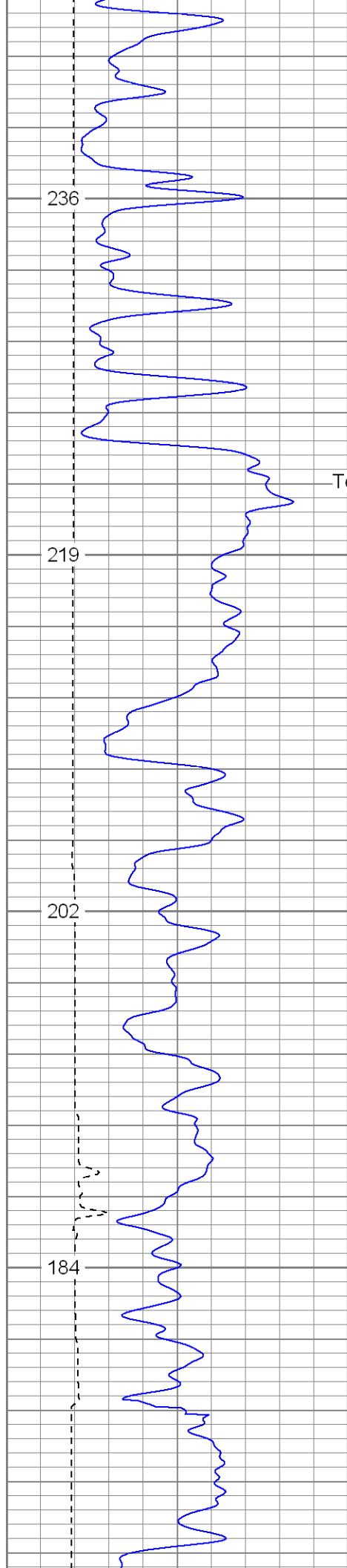


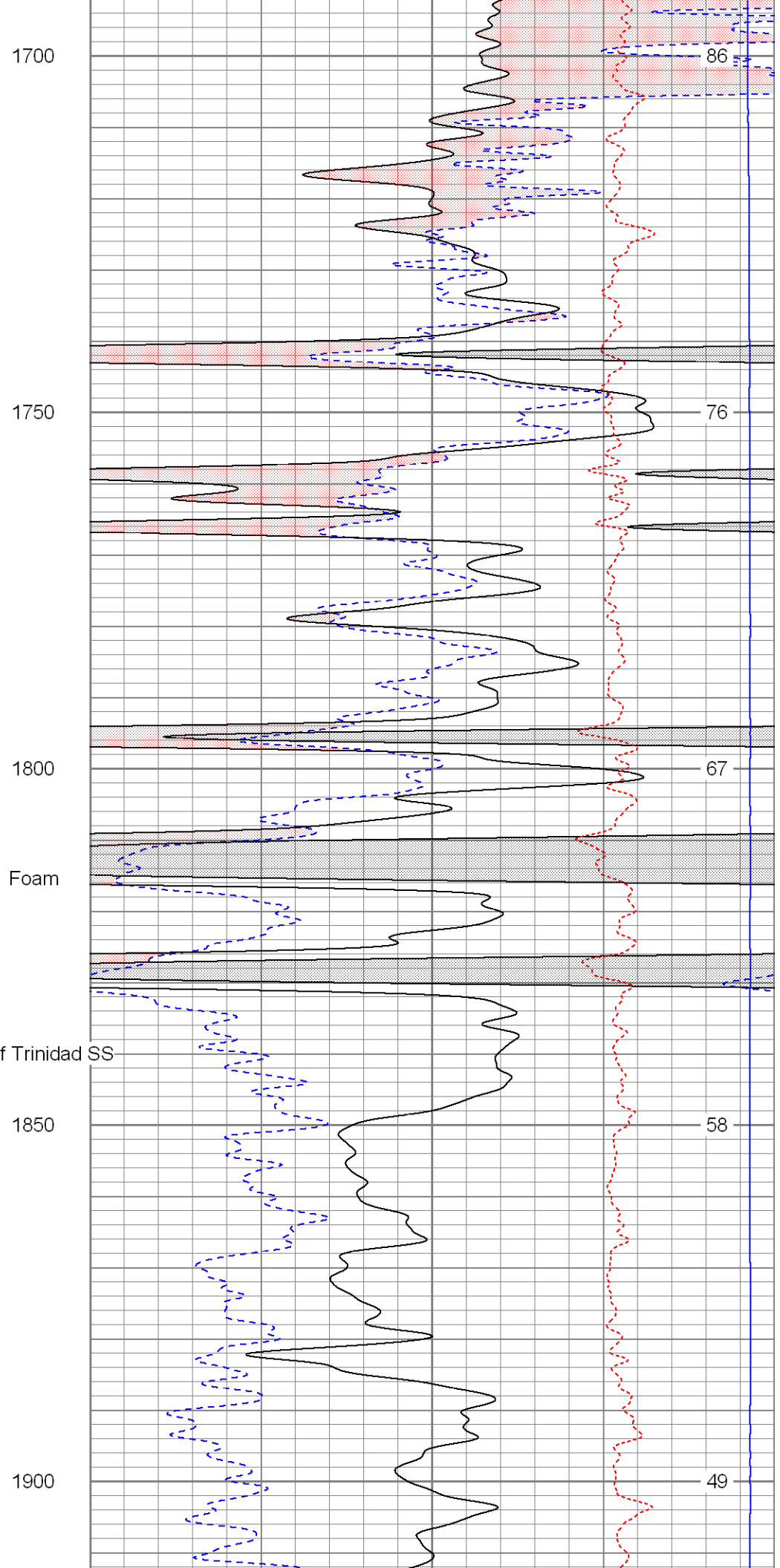
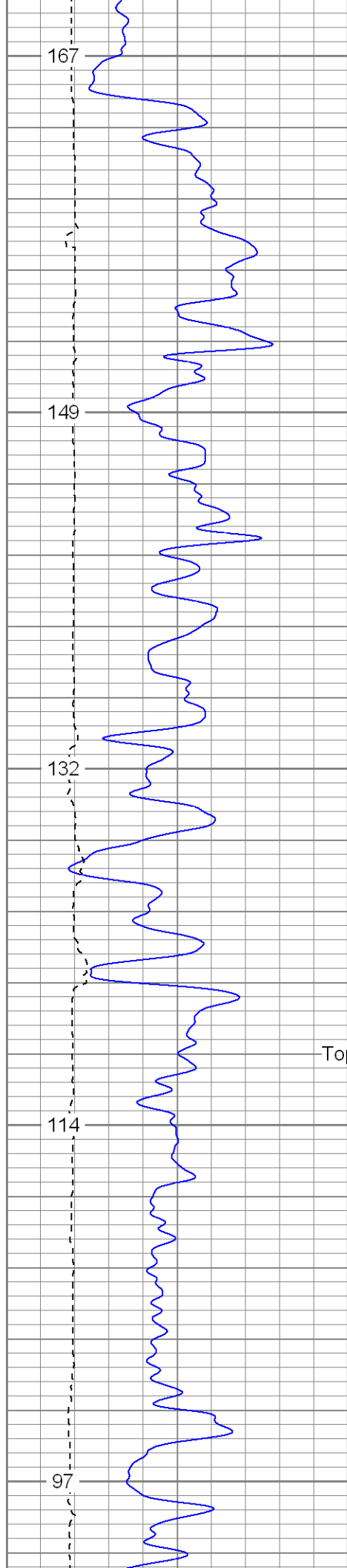


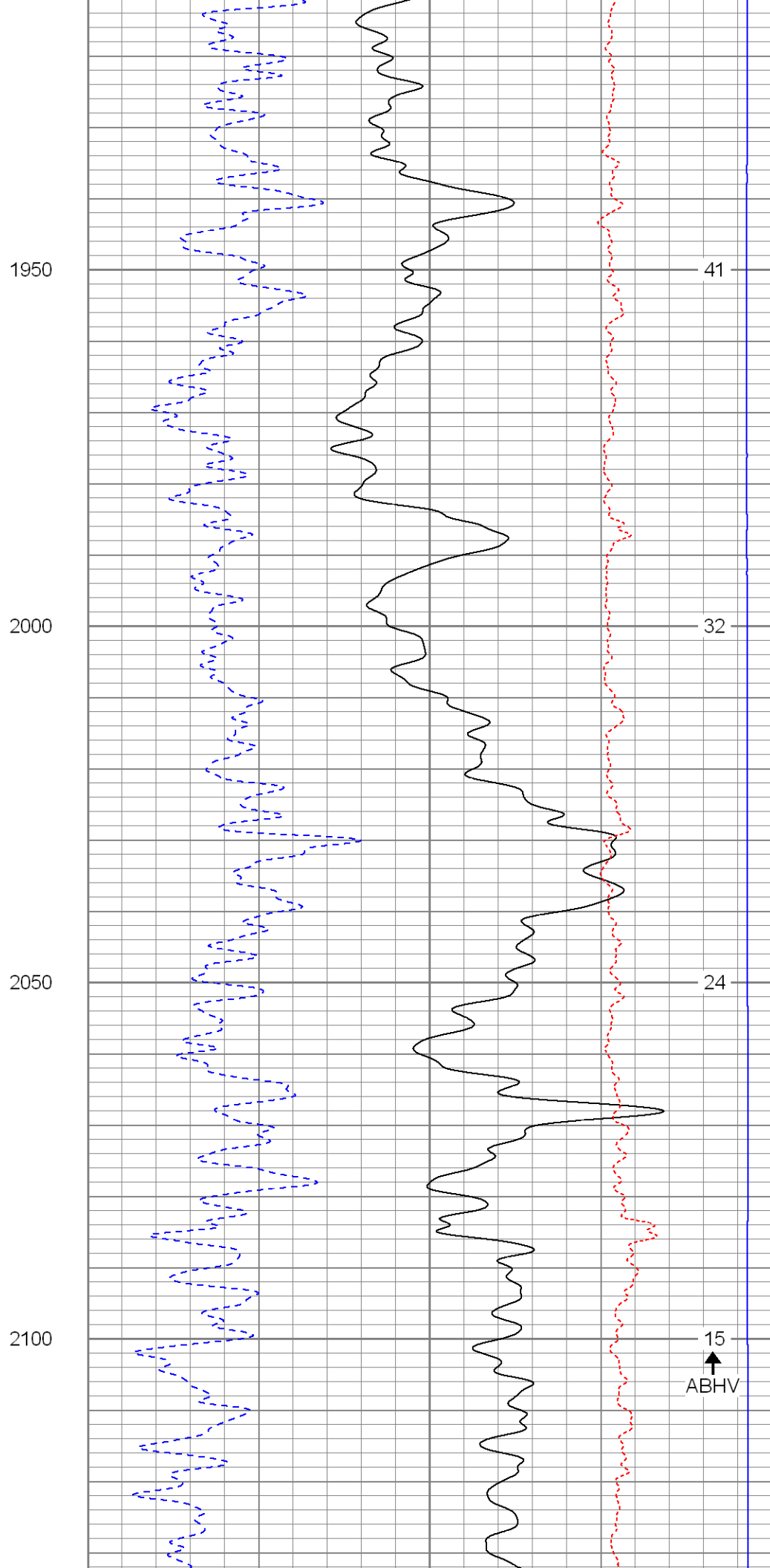
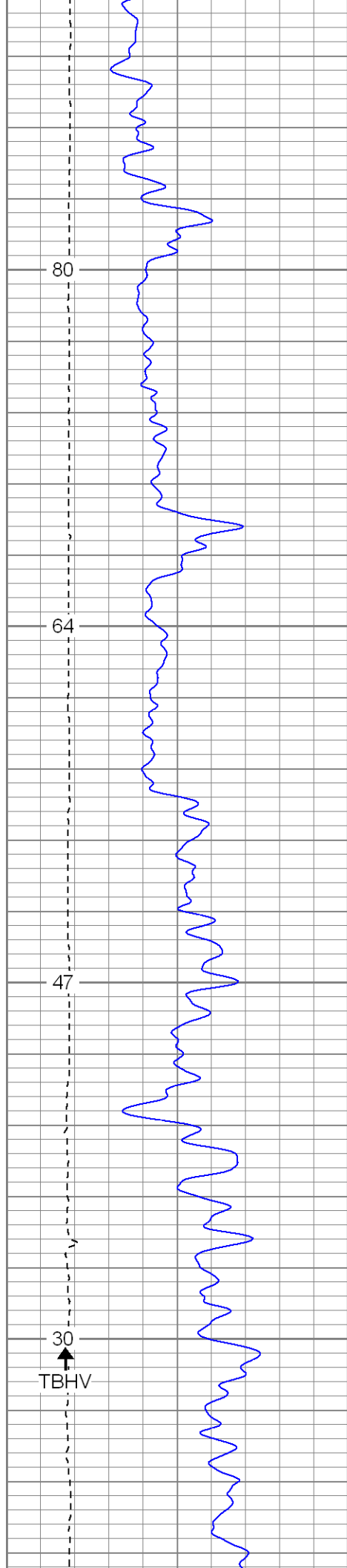


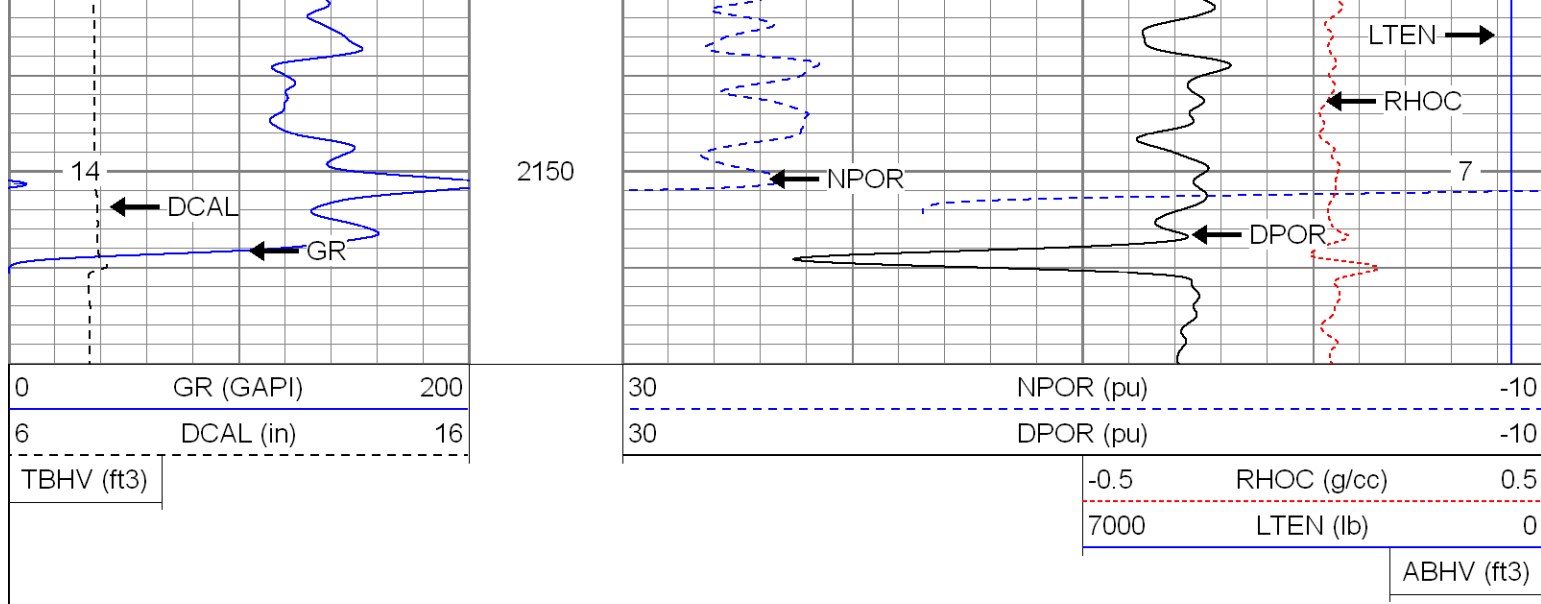










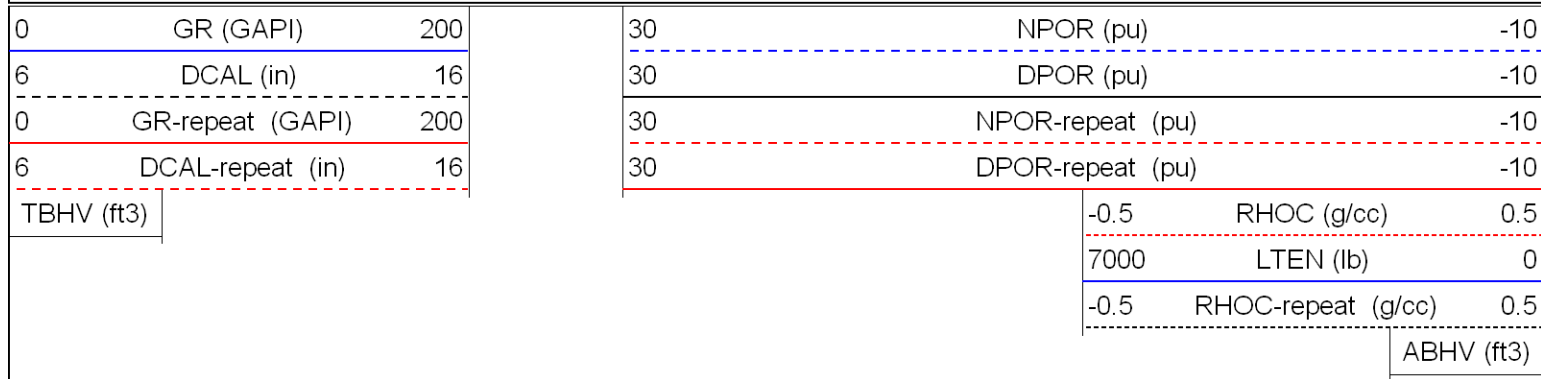


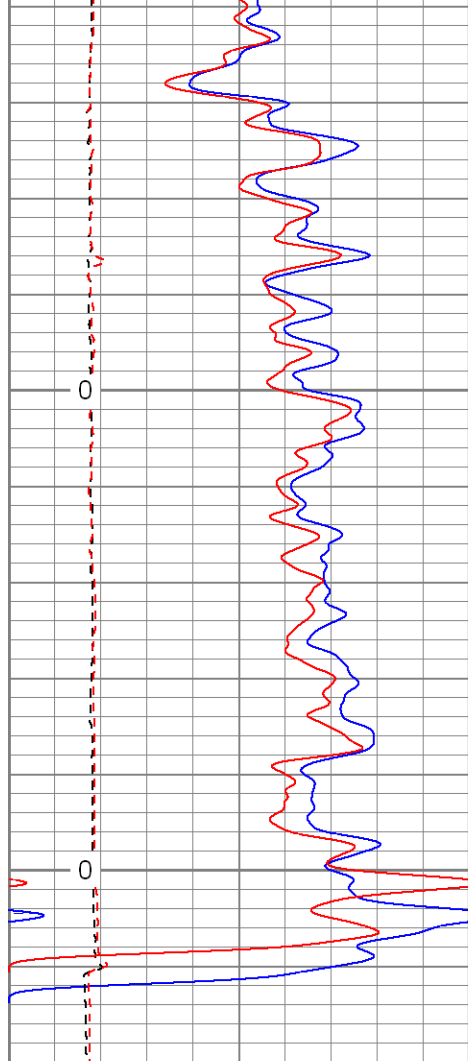
SUPERIOR

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

Repeat Pass

Database File: xtoac0313.db
Dataset Pathname: pass3.1
Presentation Format: cdnl
Dataset Creation: Sat Jul 26 15:35:30 2008 by Calc Open-Cased 071220
Charted by: Depth in Feet scaled 1:240

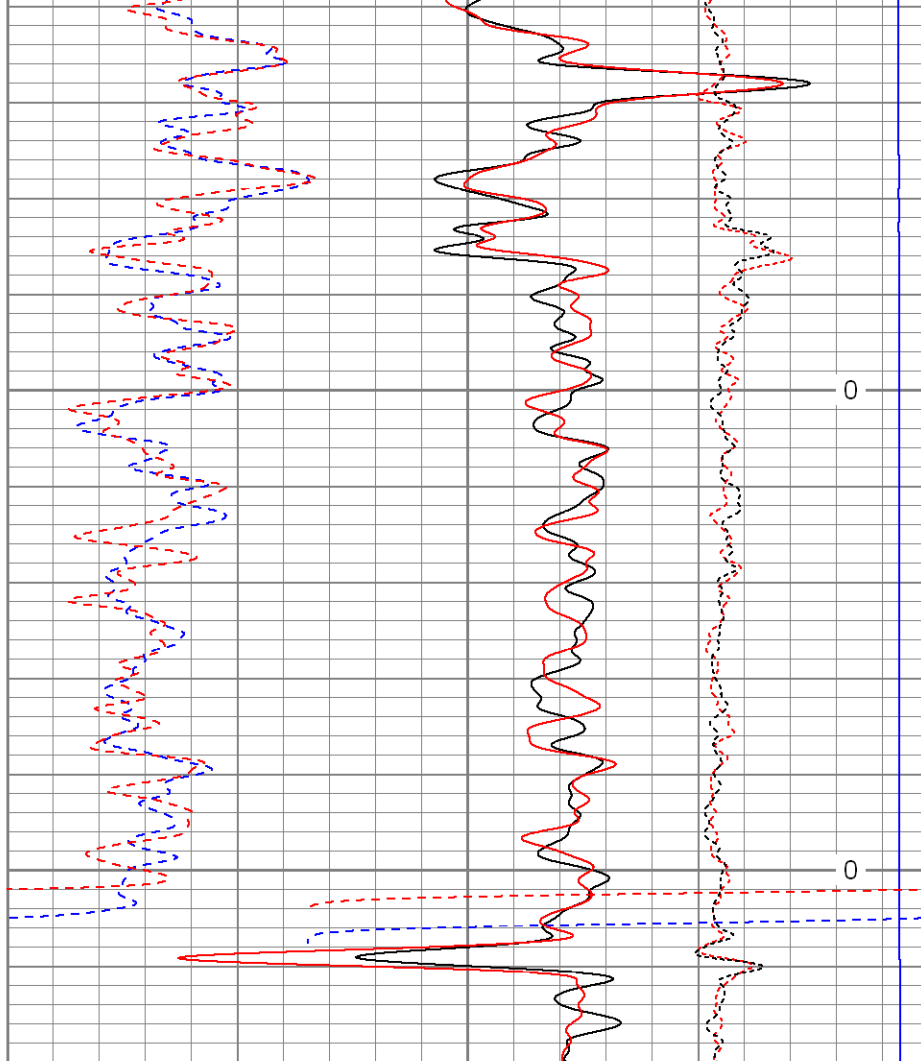




0	GR (GAPI)	200
6	DCAL (in)	16
0	GR-repeat (GAPI)	200
6	DCAL-repeat (in)	16
TBHV (ft3)		

2100

2150



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
7000	LTEN (lb)	0
-0.5	RHOC-repeat (g/cc)	0.5
ABHV (ft3)		



SUPERIOR

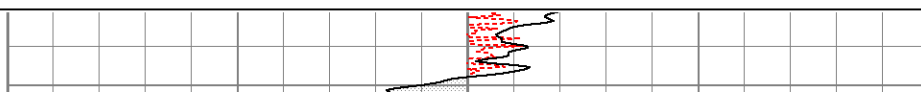
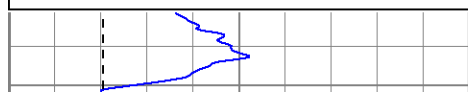
Black Lick, Pa.
Mercer, Pa.
Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

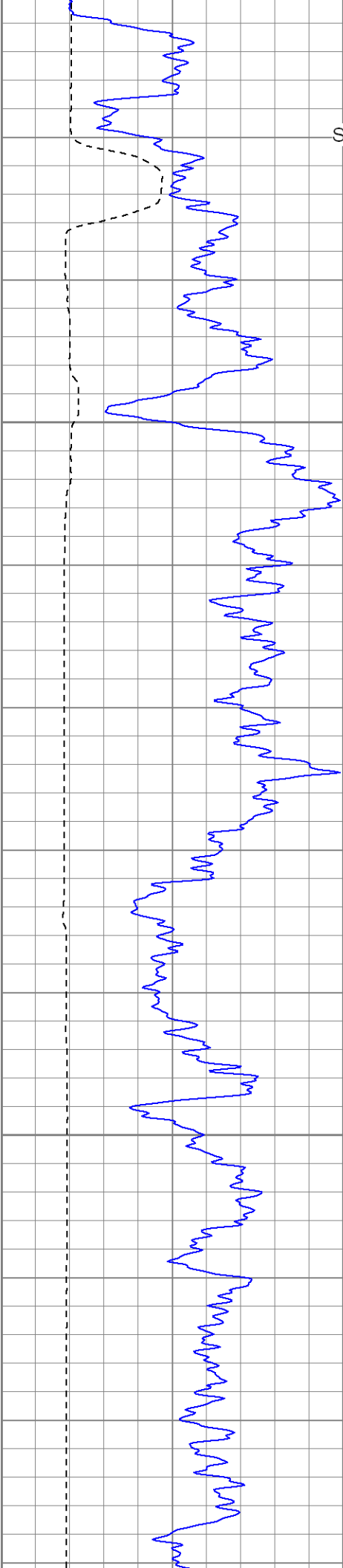
High Resolution Pass

Database File: xtoac0313.db
Dataset Pathname: pass4.2
Presentation Format: cdlhr
Dataset Creation: Sun Jul 27 09:13:04 2008 by Calc Open-Cased 071220
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

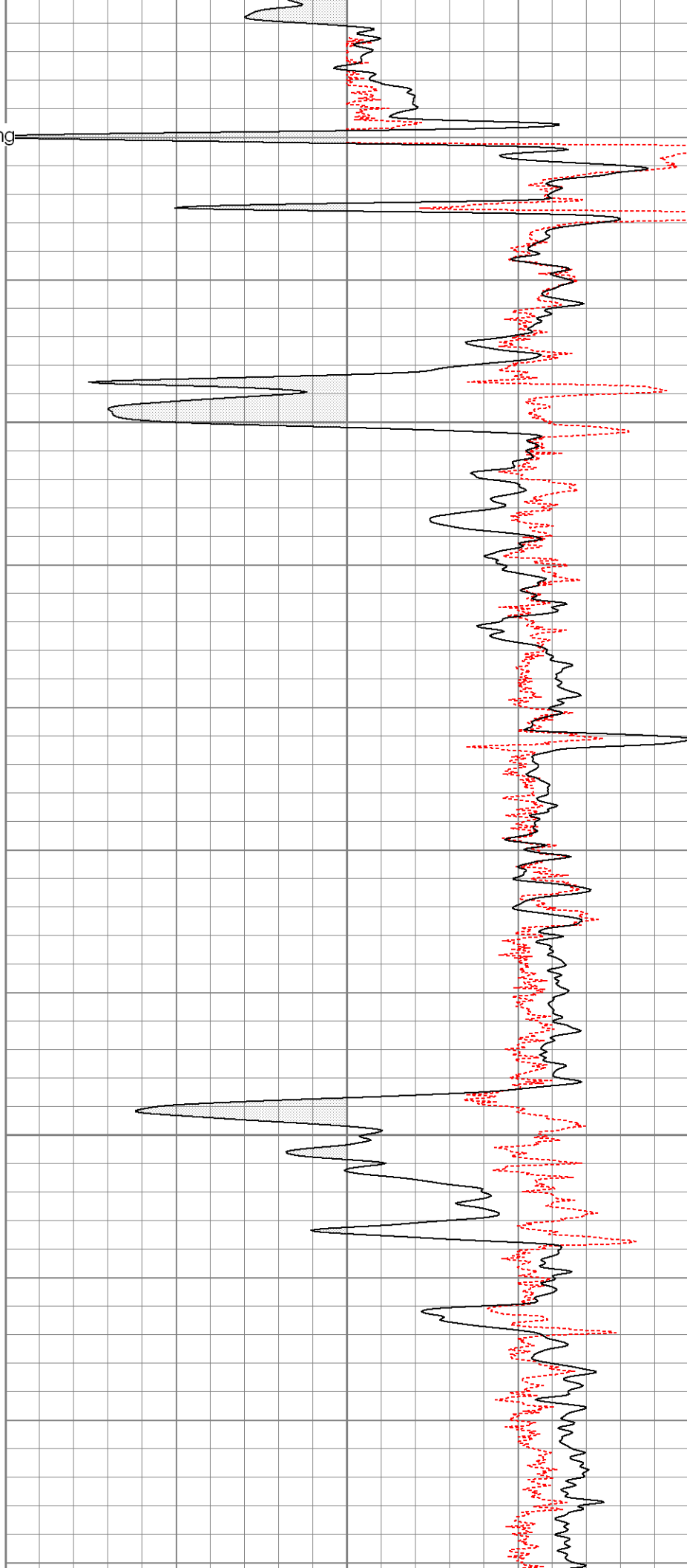




Surface Casing

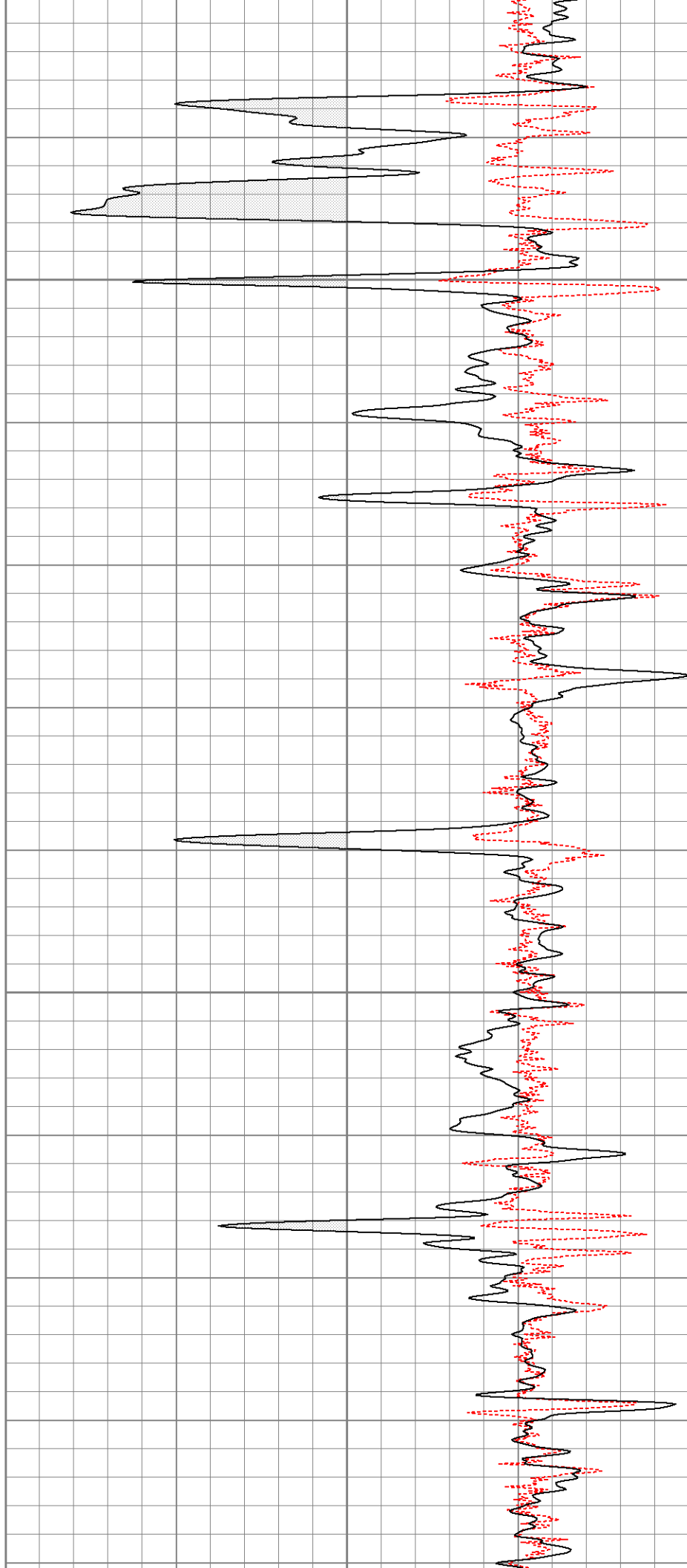
500

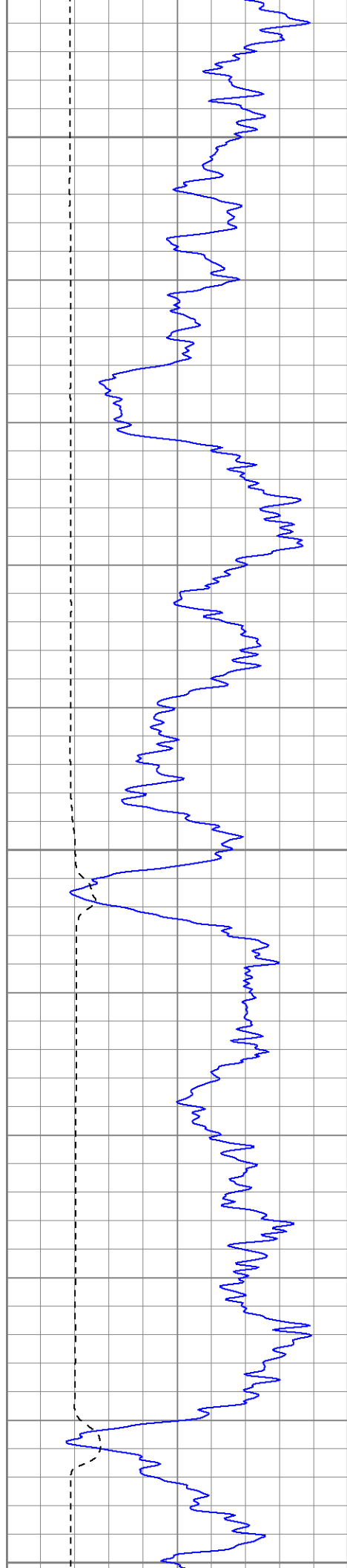
550



600

650

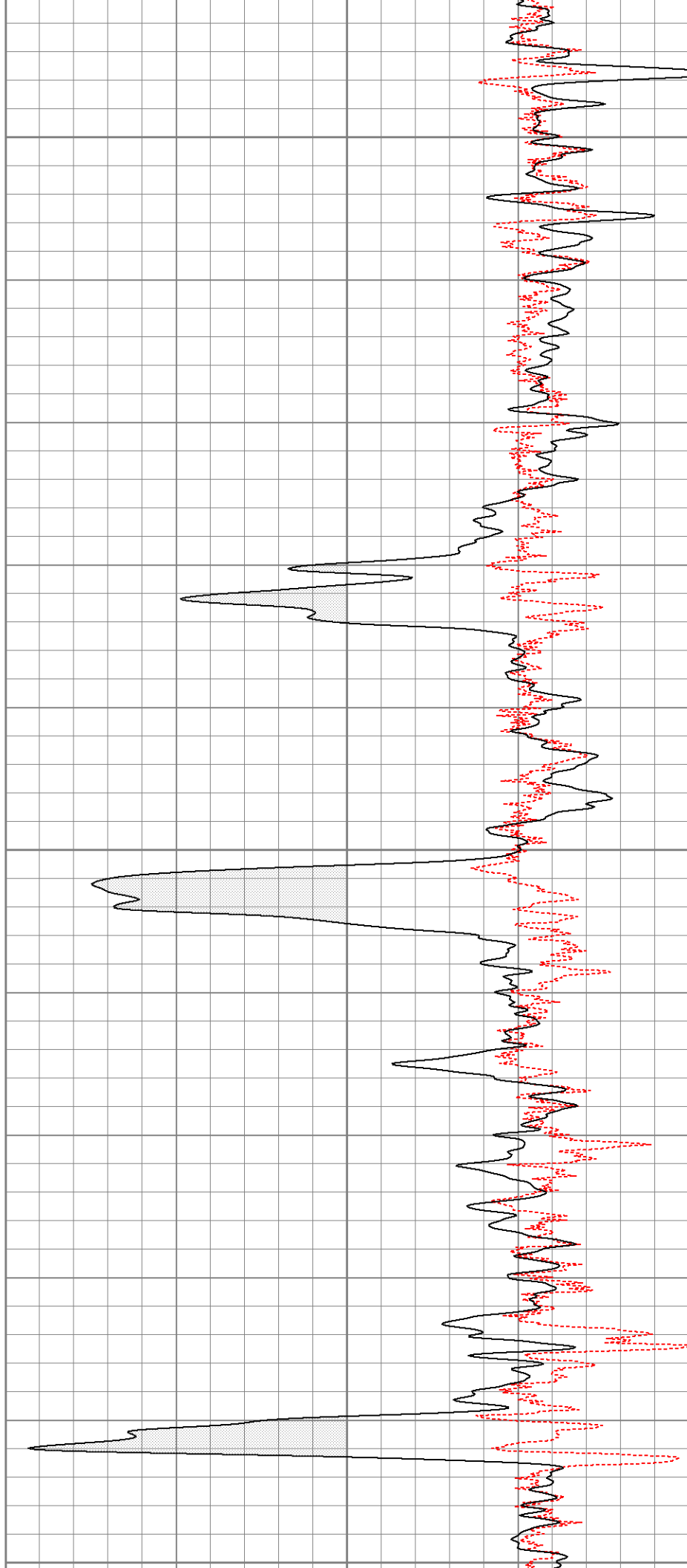


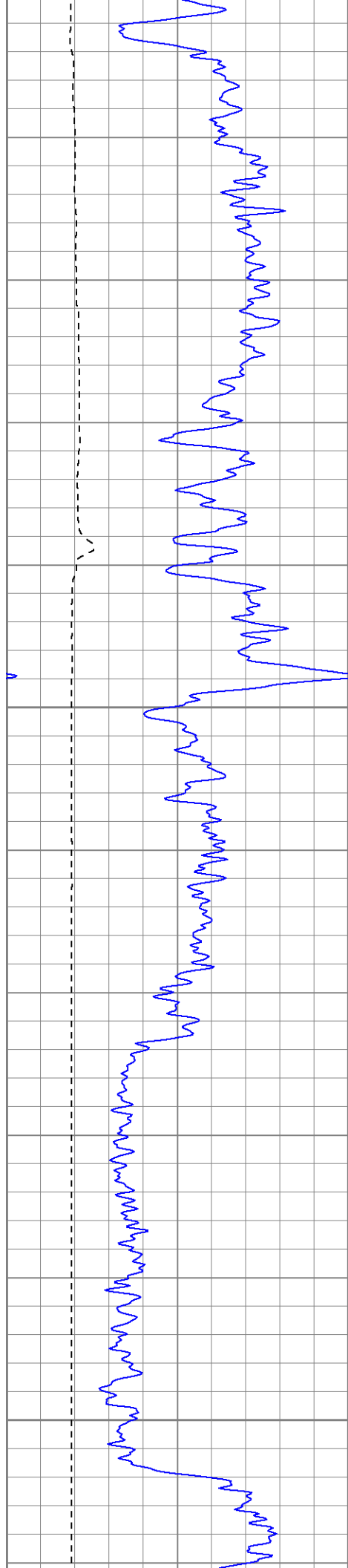


700

750

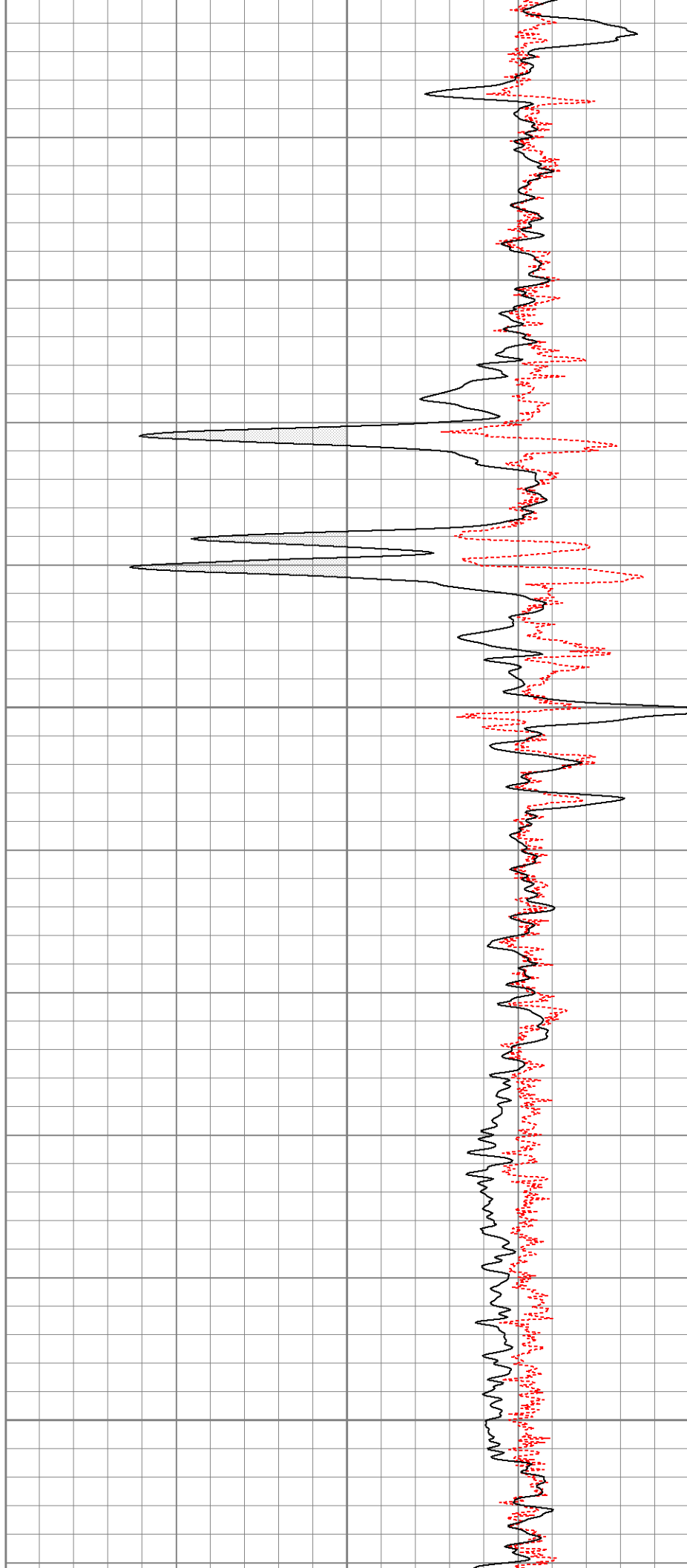
800

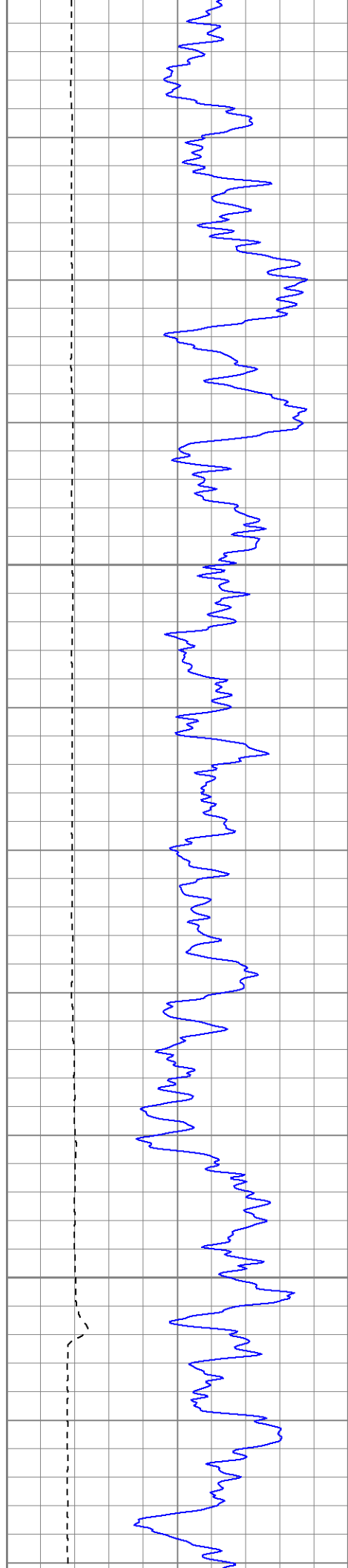




850

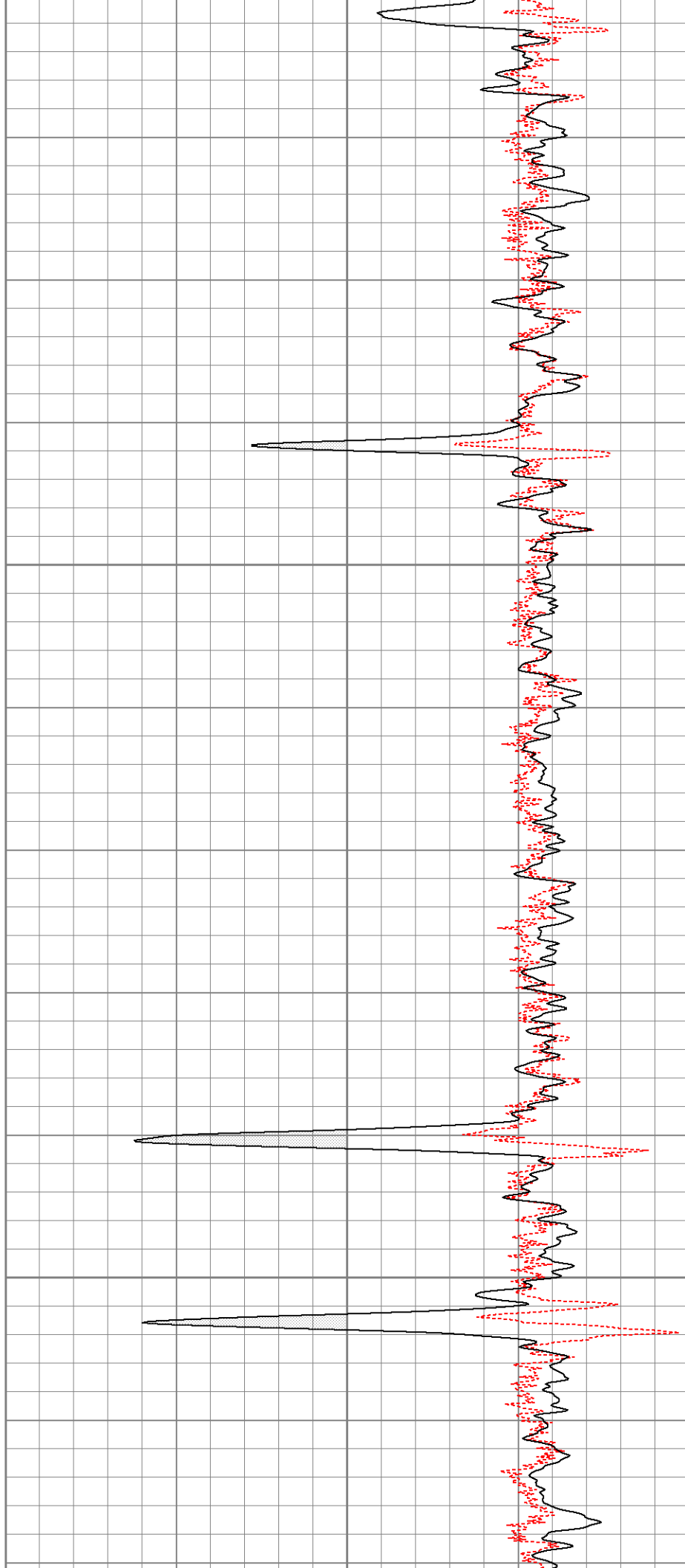
900

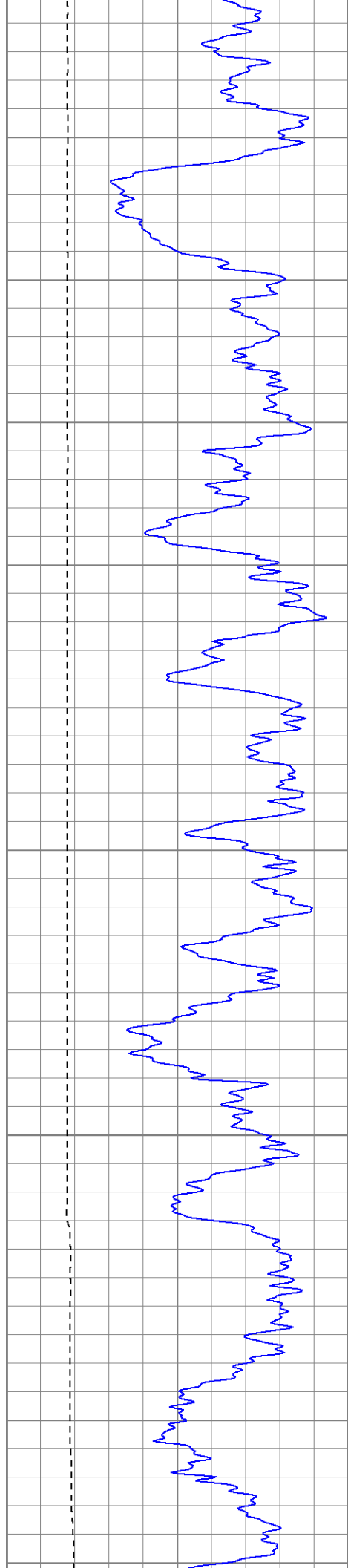




950

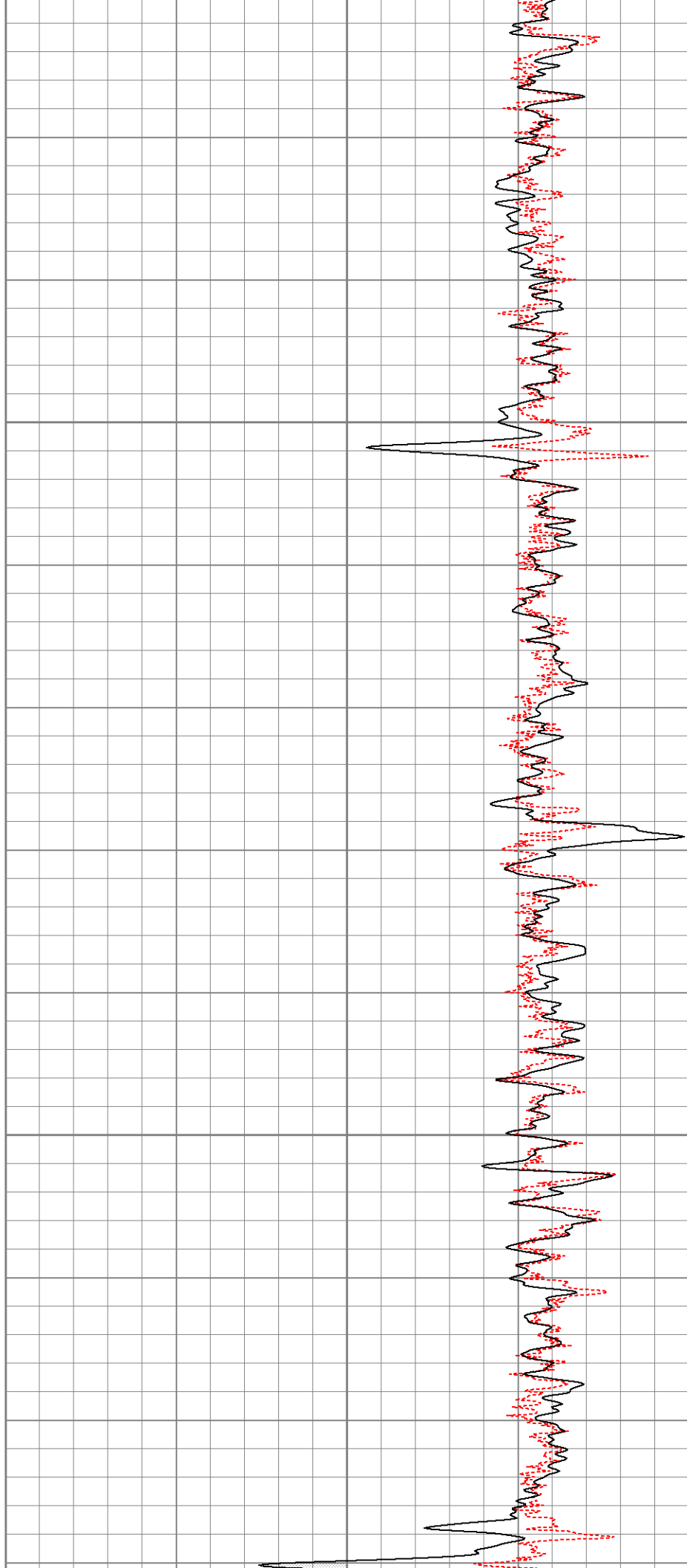
1000

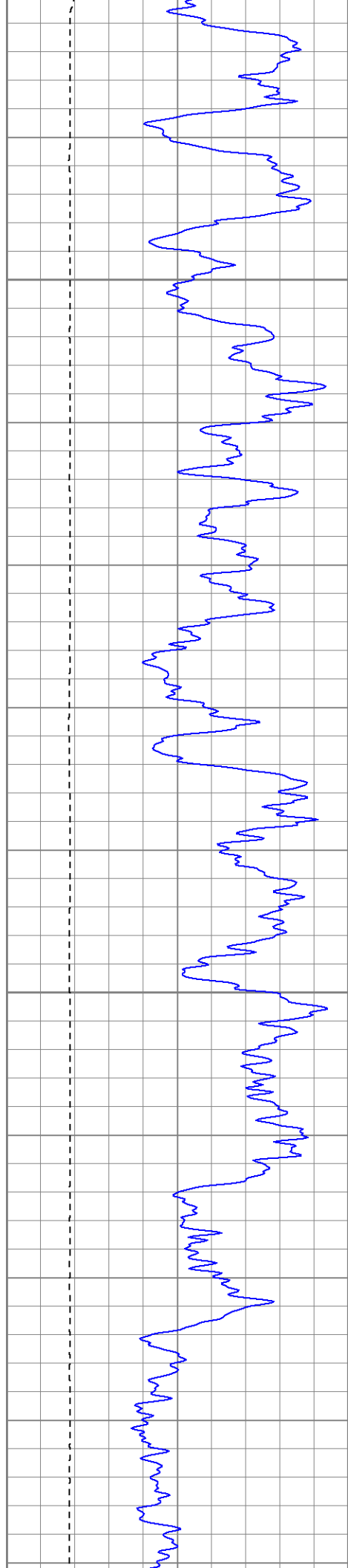




1050

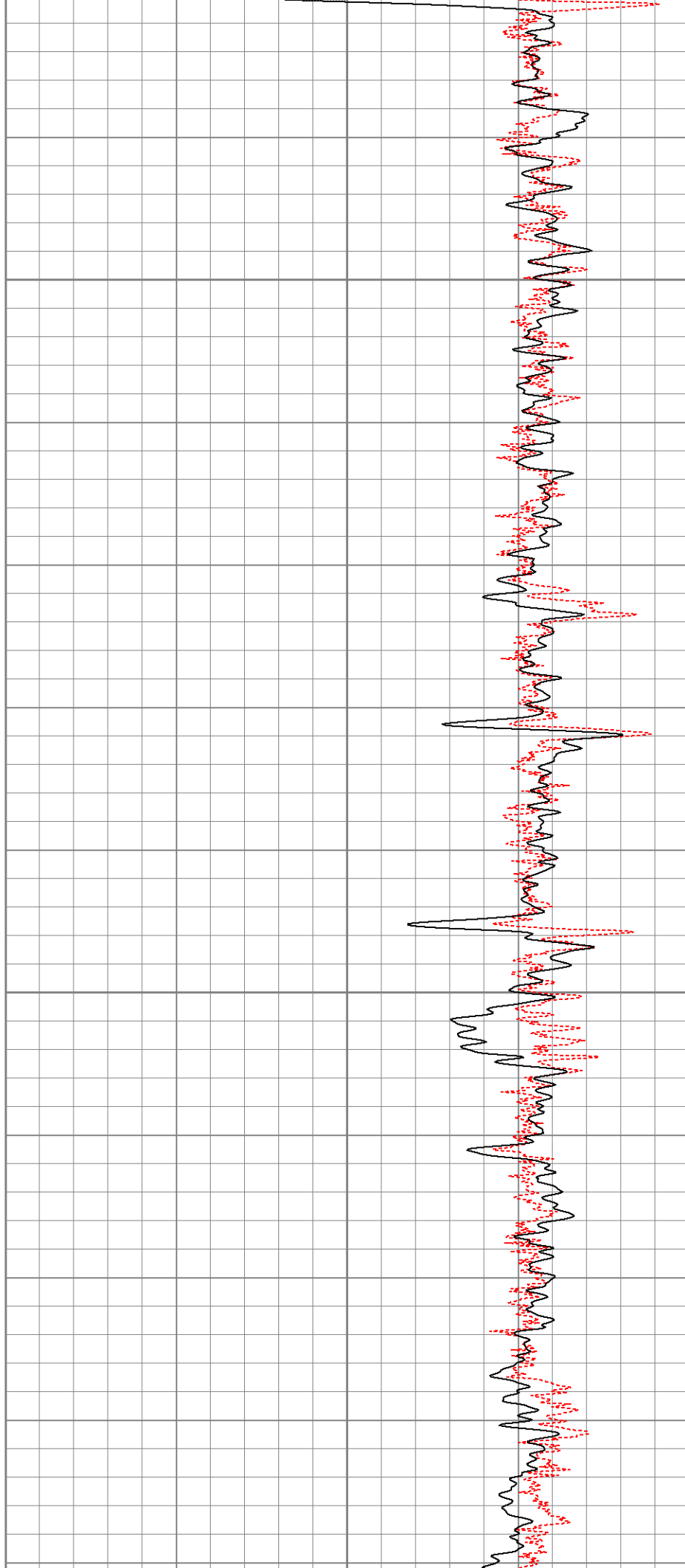
1100

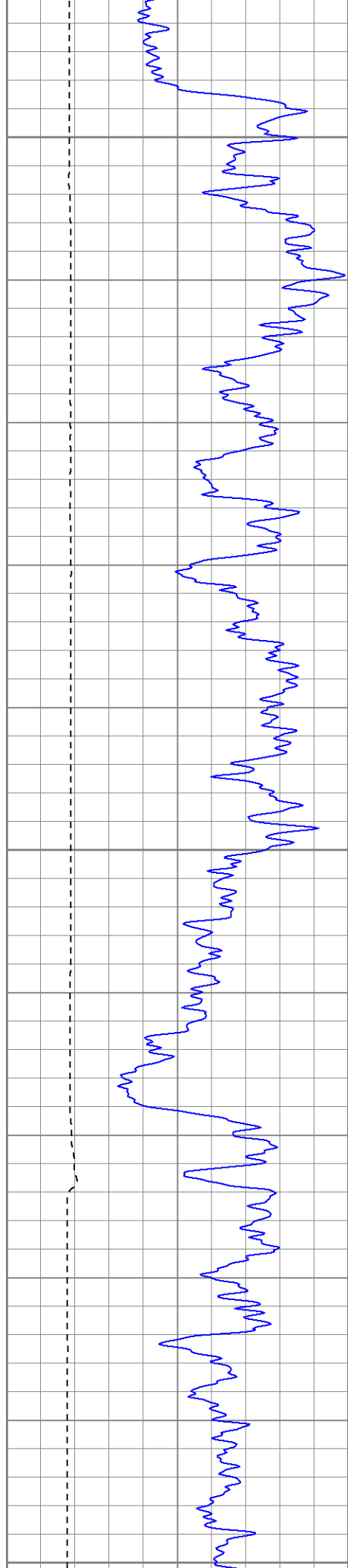




1150

1200

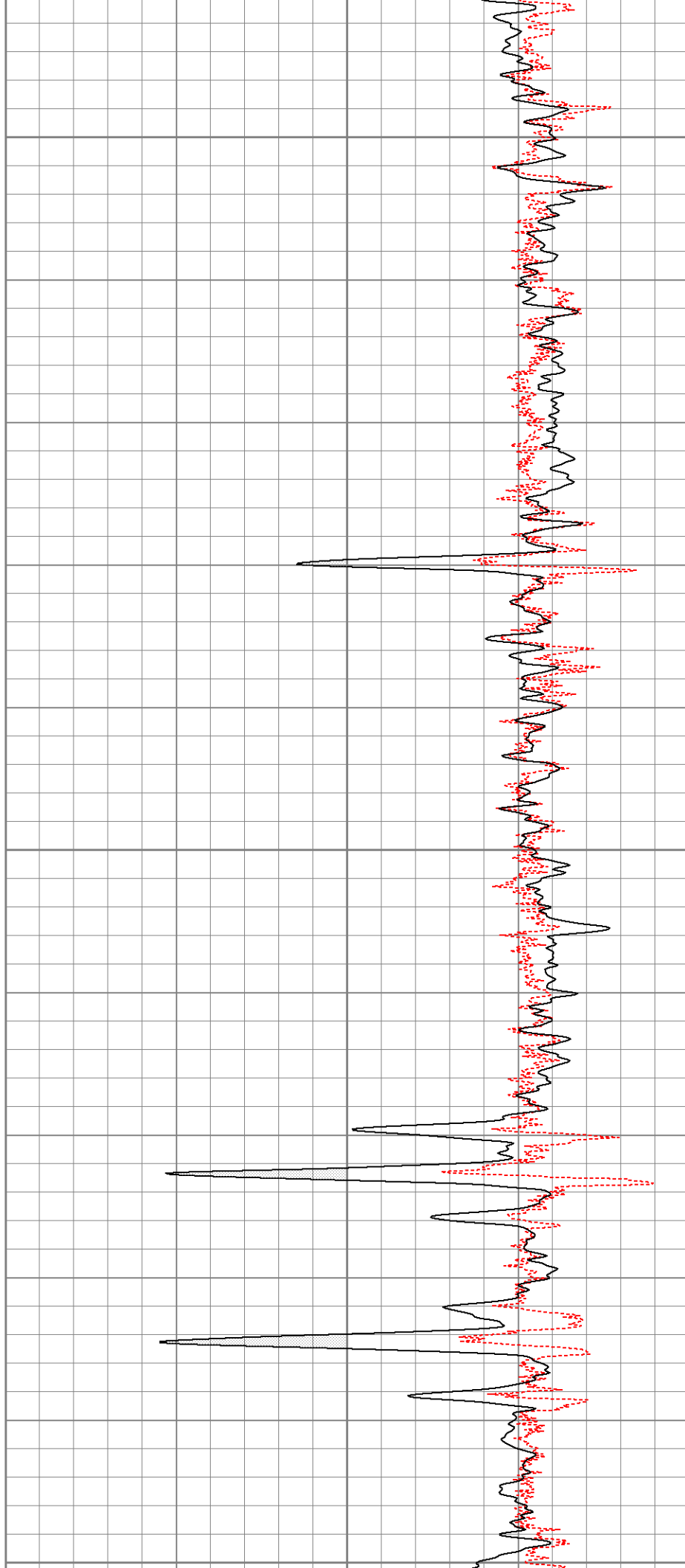


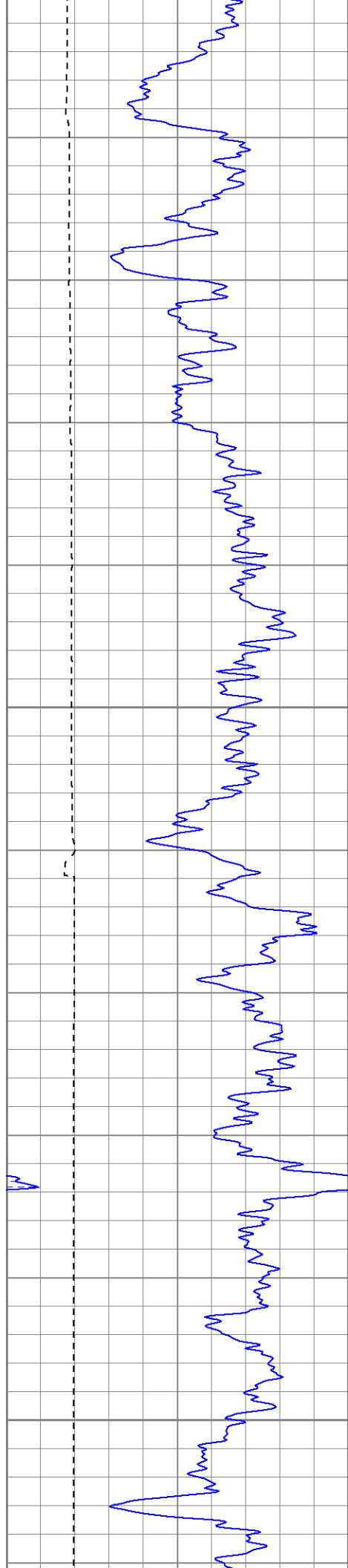


1250

1300

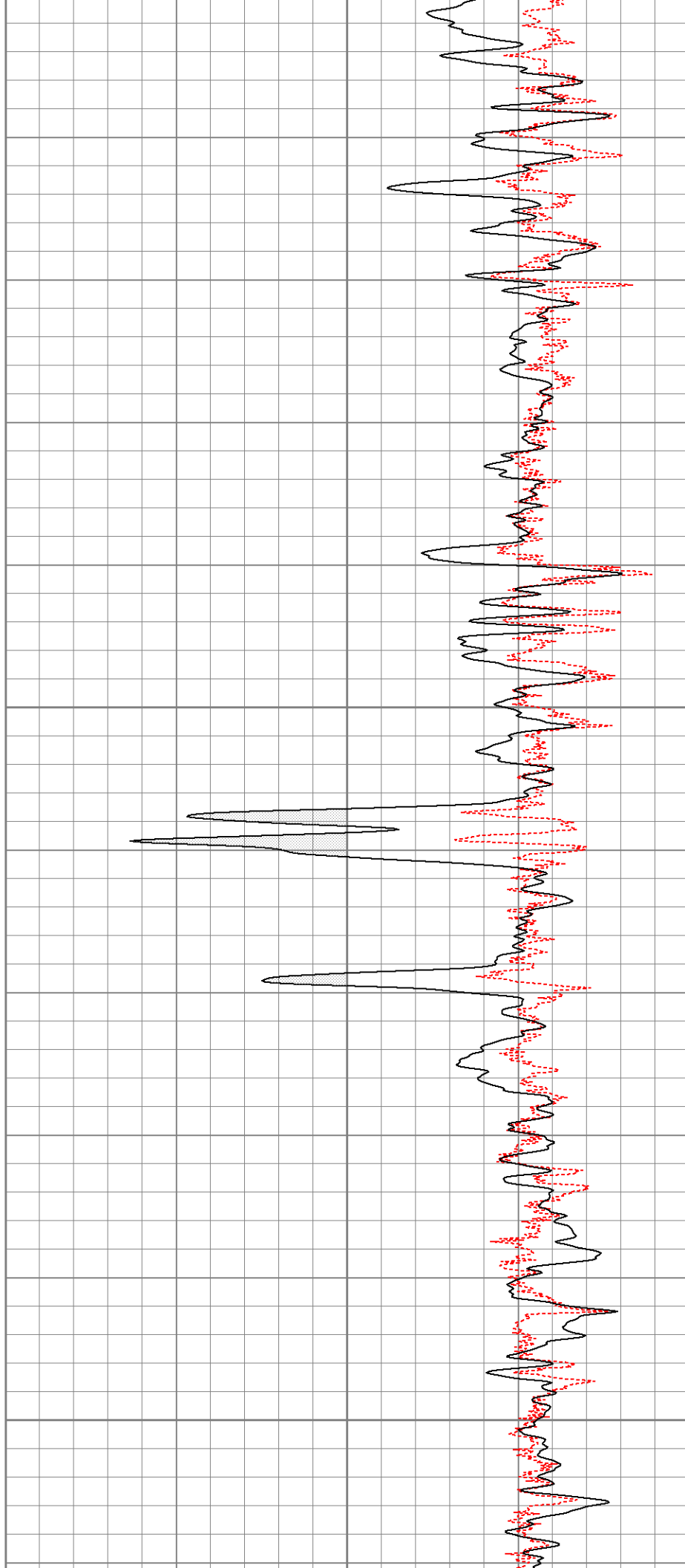
1350

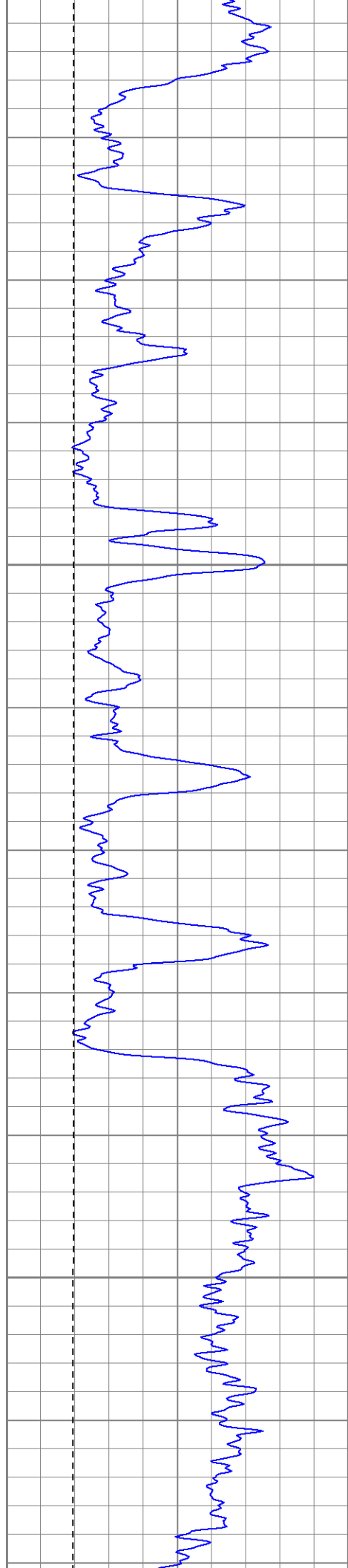




1400

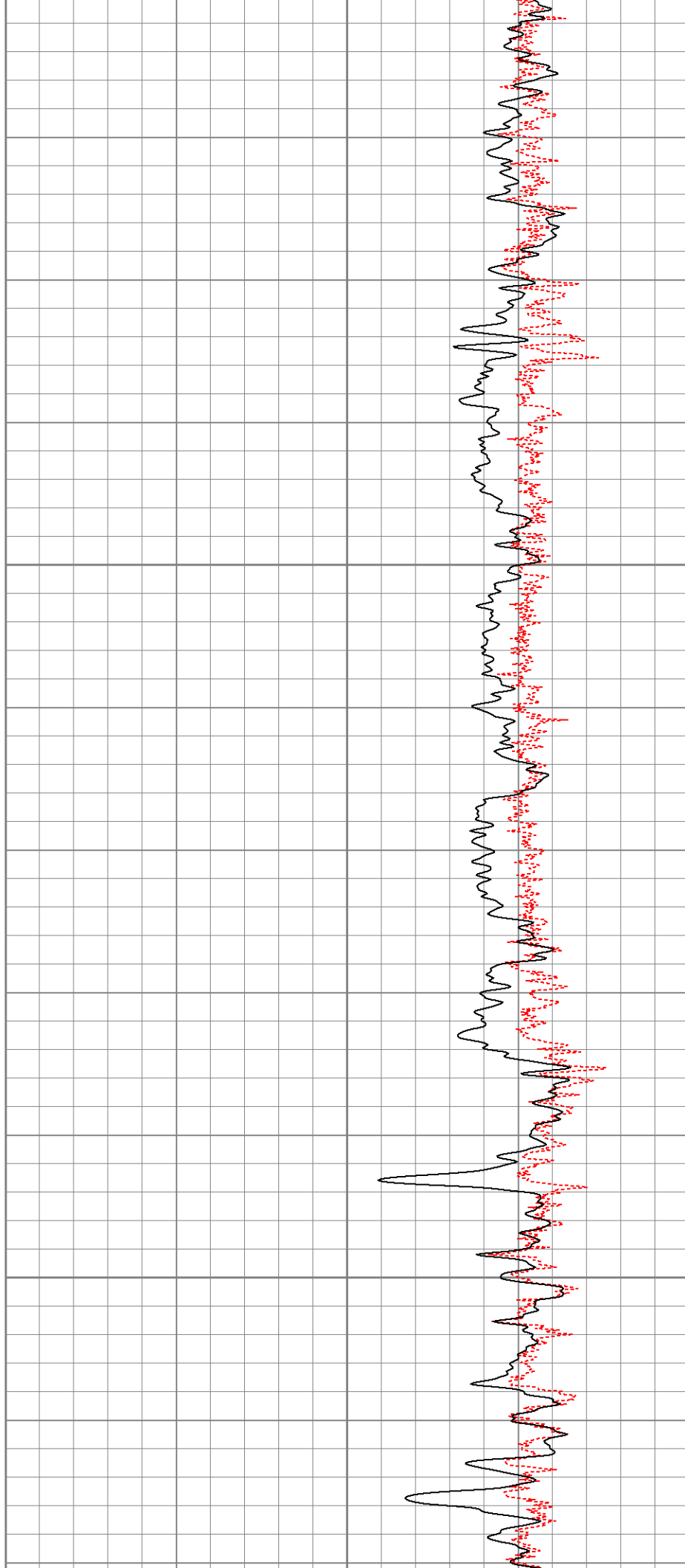
1450

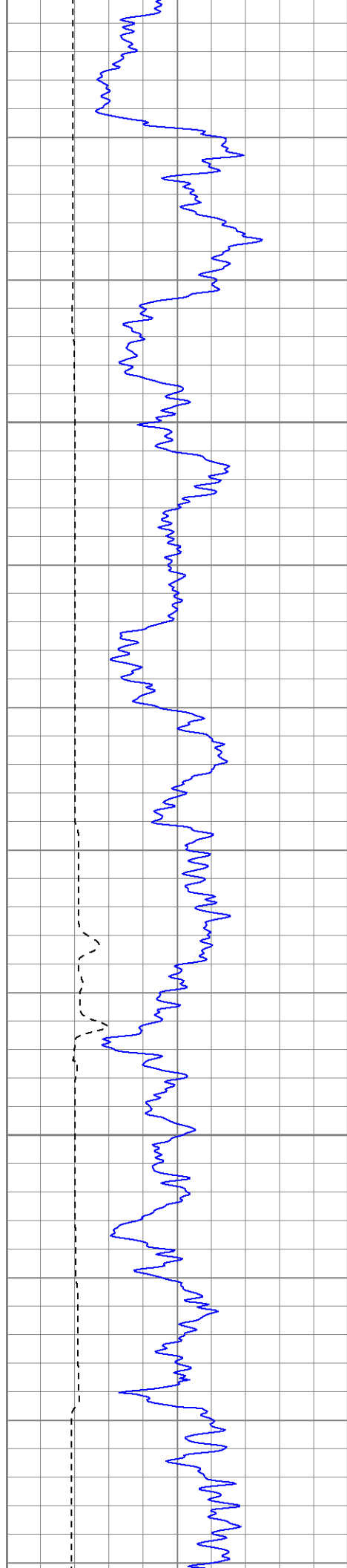




1500

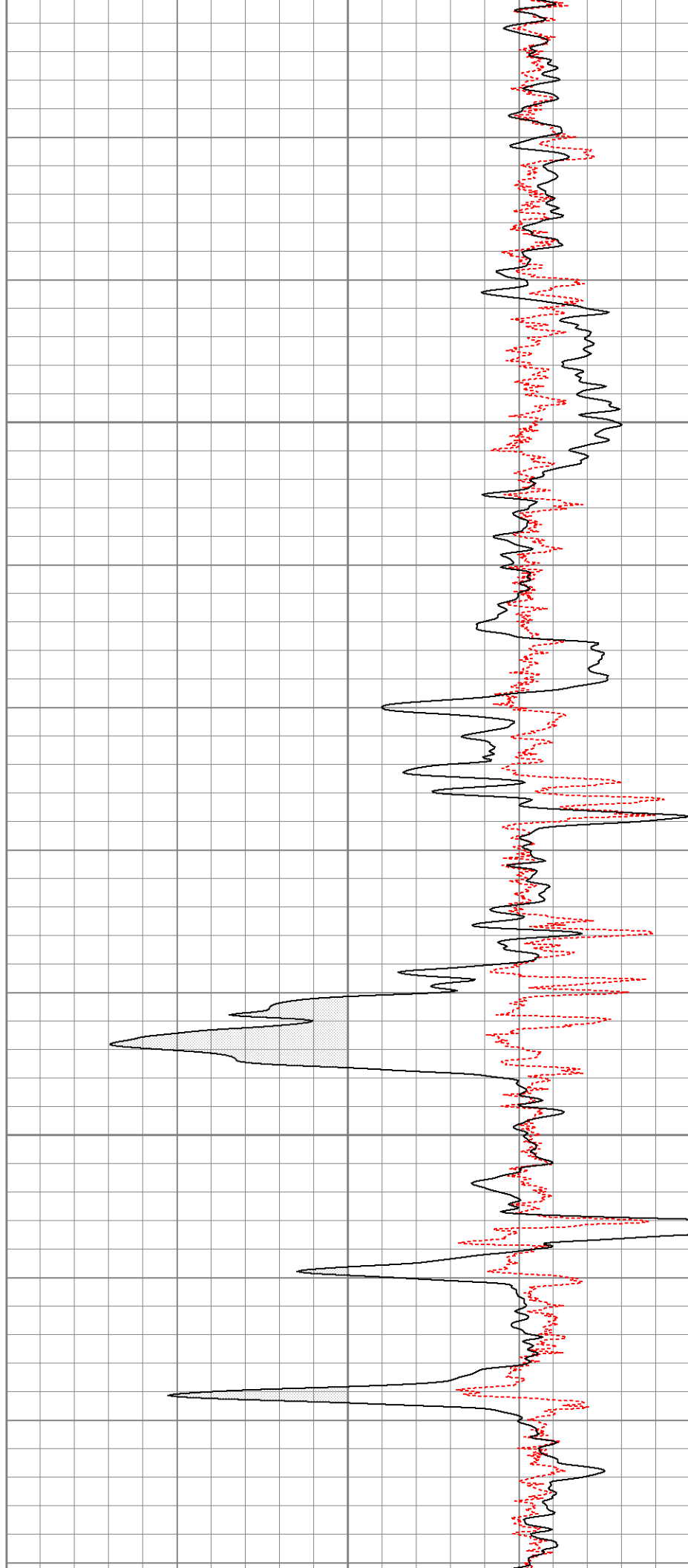
1550

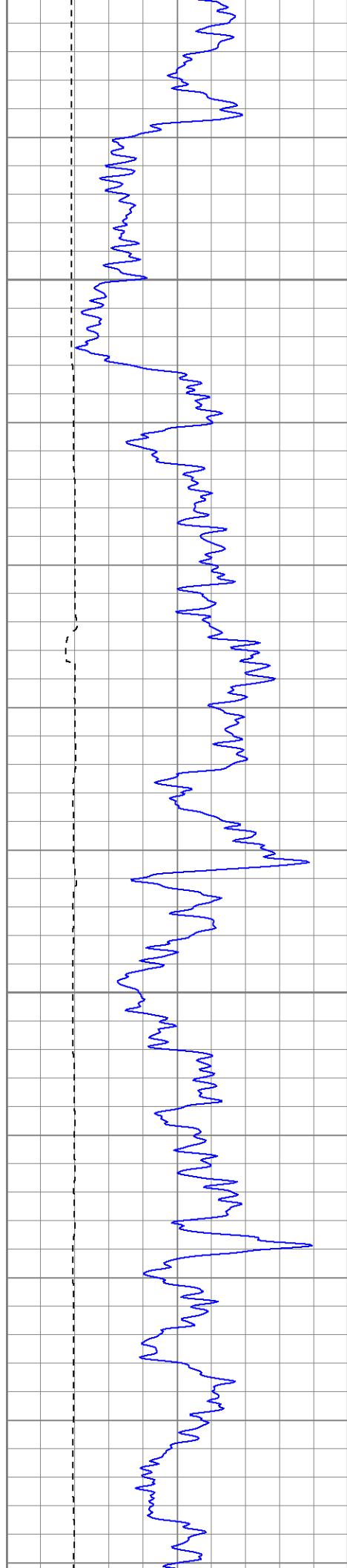




1600

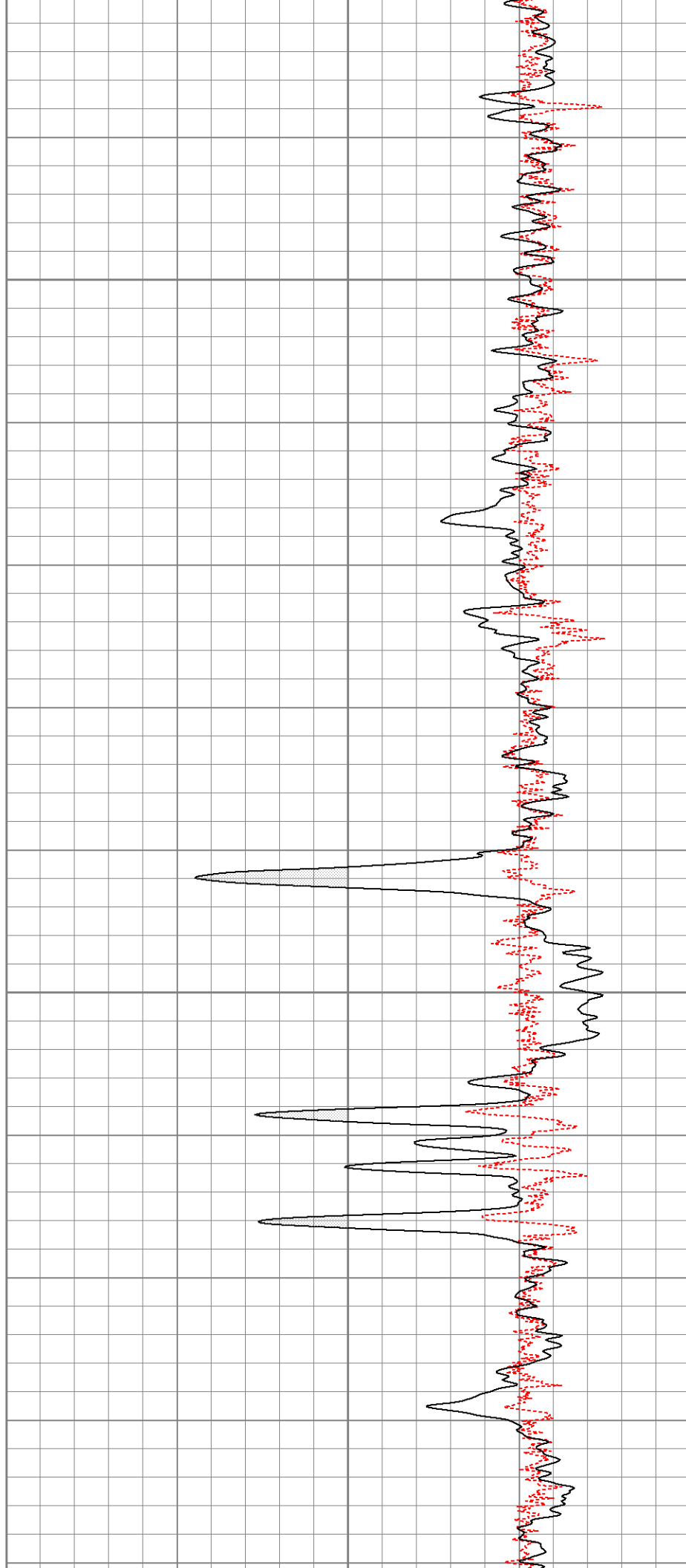
1650

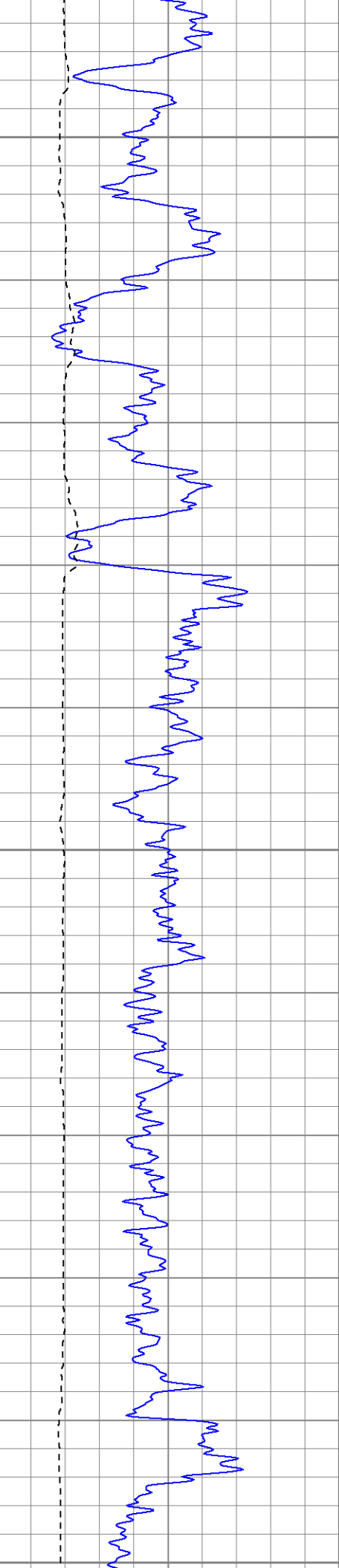




1700

1750

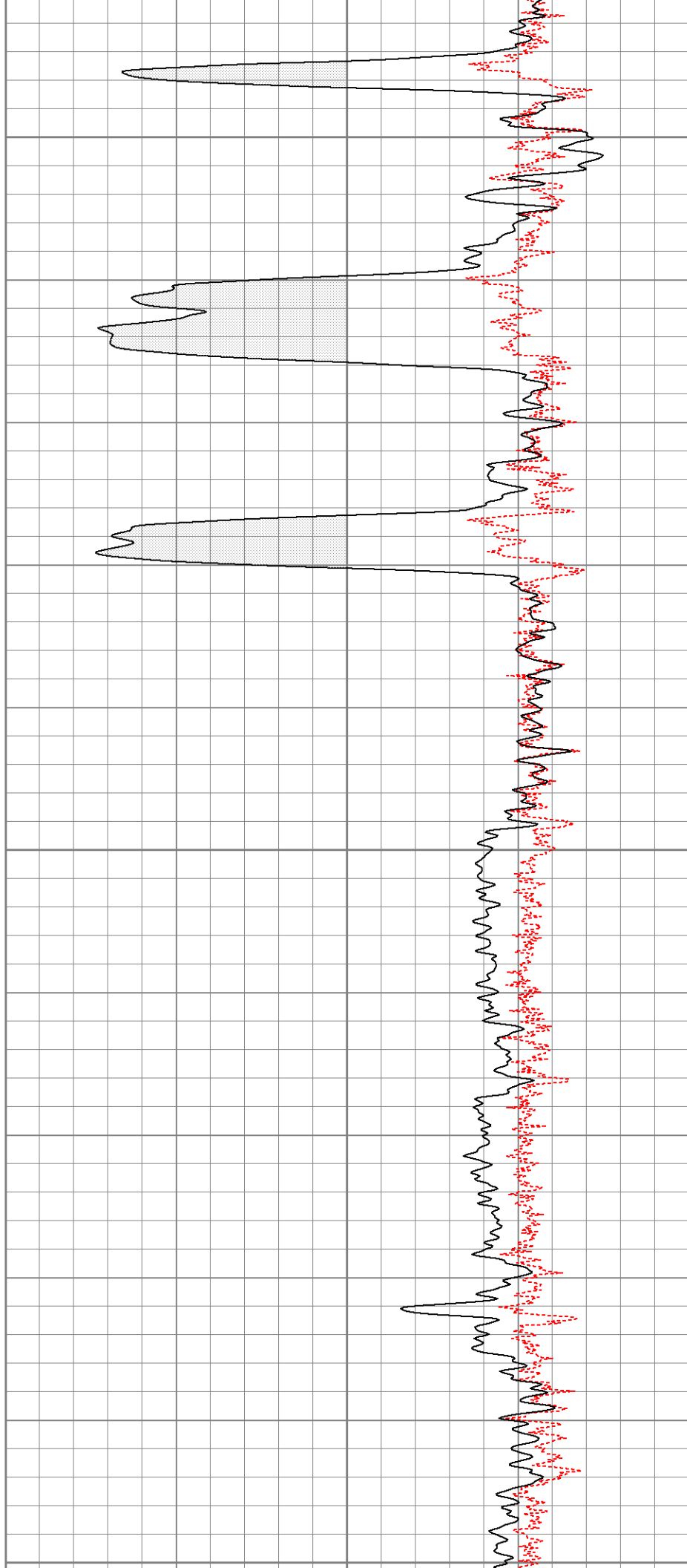




1800

1850

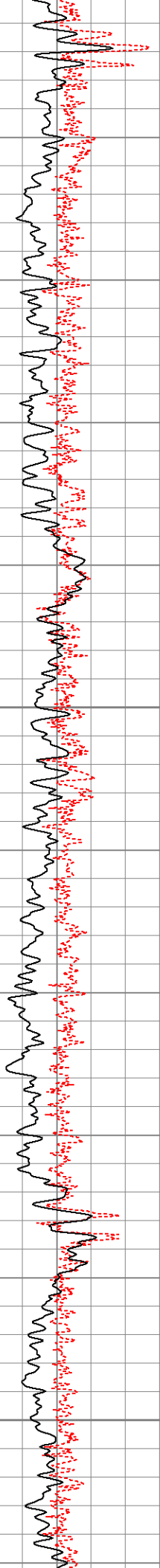
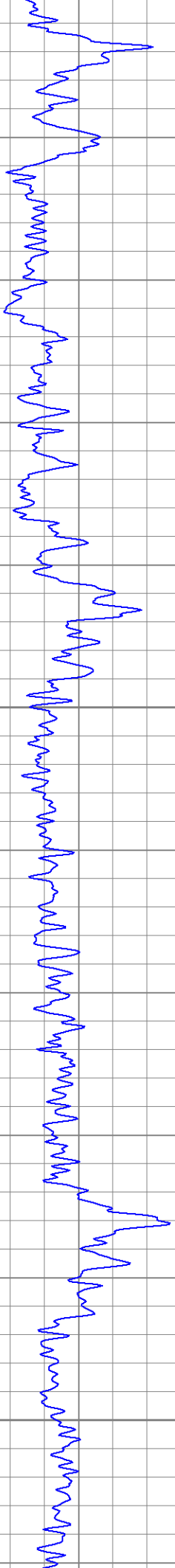
1900

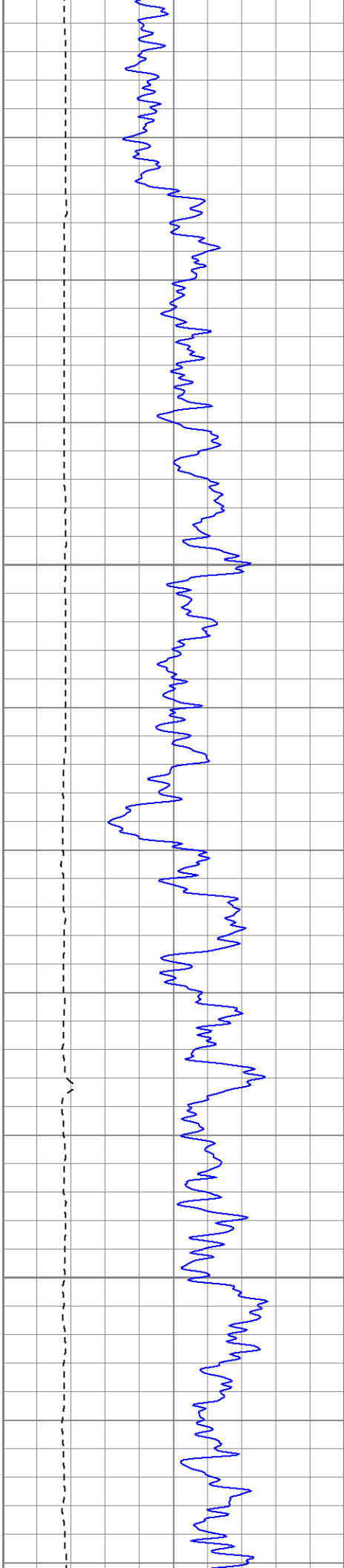


1900

1950

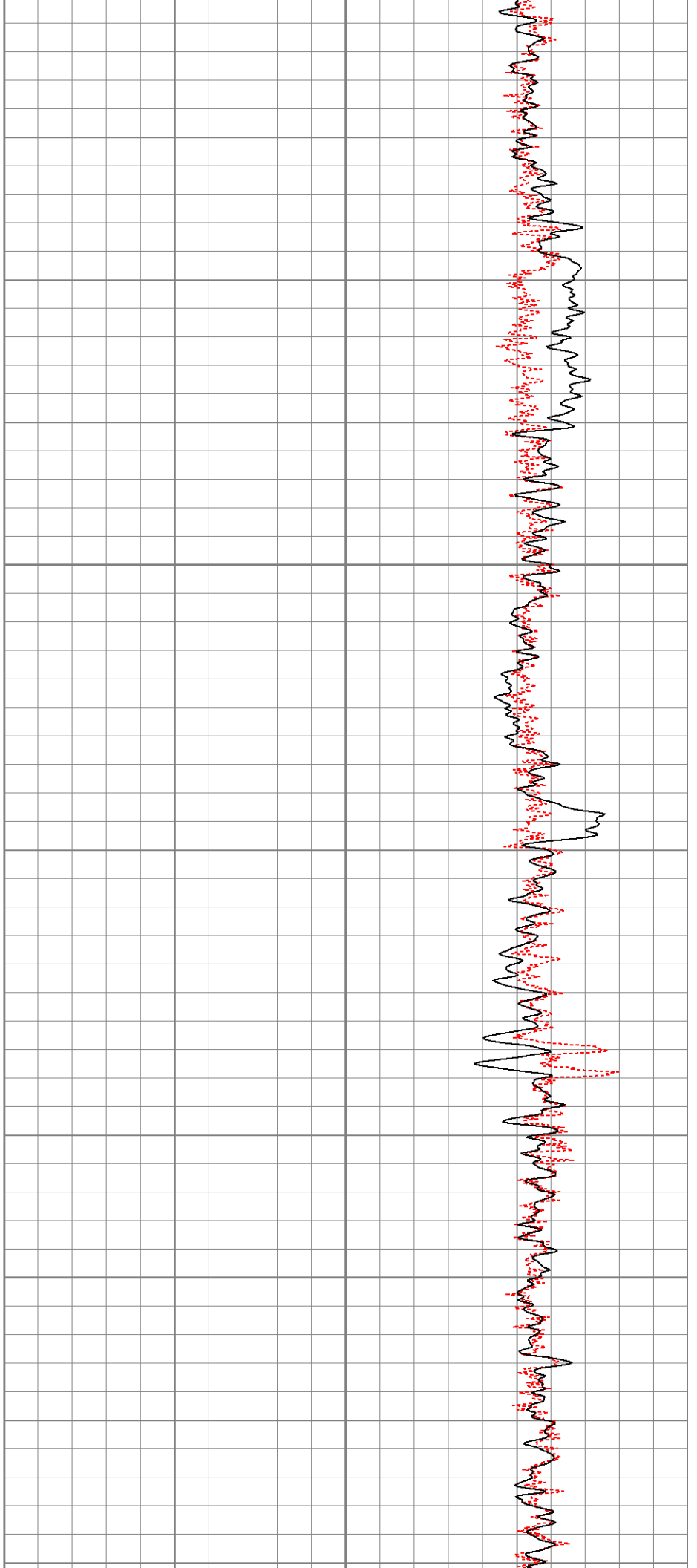
2000

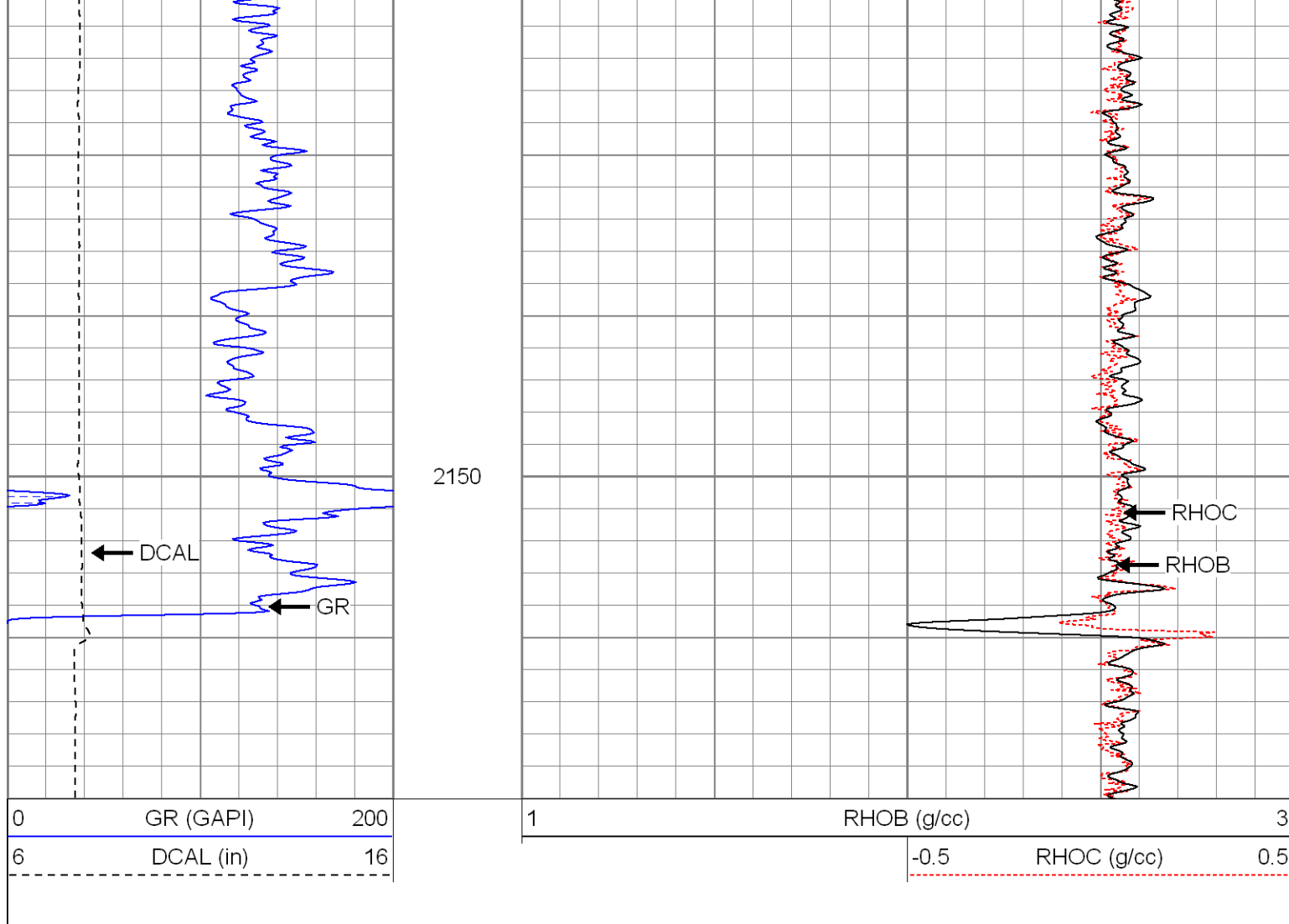




2050

2100





Calibration Report

Database File: xtoac0313.db
 Dataset Pathname: pass1
 Dataset Creation: Sat Jul 26 13:43:14 2008 by Log Open-Cased 071220

Dual Induction Calibration Report

Serial-Model: 5375-G
 Surface Cal Performed: Wed Jul 23 11:29:18 2008
 Downhole Cal Performed: Wed Jul 23 11:29:47 2008

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.026	0.645	V	0.000	500.000	mmho-m	808.472	-21.376
Medium	0.030	0.770	V	0.000	550.000	mmho-m	743.584	-22.316
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.027	0.645	V	0.000	500.000	mmho-m	808.639	-21.534
Medium	0.030	0.770	V	0.000	550.000	mmho-m	743.302	-22.248

Downhole Calibration

Readings			References			Results	
Internal:	Zero	Cal	Zero	Cal		m	b

Deep	-0.271	500.262	mmho-m	0.153	500.049	mmho-m	0.999	0.424
Medium	-0.141	550.313	mmho-m	-0.059	550.150	mmho-m	1.000	0.082
Shallow	2.528	0.036	V	500.000	2.000	Ohm-m	124.000	-3.000

Compensated Density Calibration Report

Serial-Model:	2118-poilex
Source / Verifier:	/
Master Calibration Performed:	Thu Jul 24 15:28:16 2008



Master Calibration						
	Density			Far Detector	Near Detector	
Magnesium	1.710	g/cc		430.93	391.13	cps
Aluminum	2.590	g/cc		97.14	270.75	cps
Spine Angle = 76.13			Density/Spine Ratio = 0.573			
	Size			Reading		
Small Ring	8.00	in		4.21	V	
Large Ring	14.00	in		8.11	V	

Gamma Ray Calibration Report

Serial Number:	2001	
Tool Model:	OH	
Performed:	Thu Jul 24 15:21:22 2008	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2500	GAPI/cps

Neutron Calibration Report

Serial Number:	5145	
Tool Model:	G	
Performed:	Thu Jul 24 15:36:19 2008	
Calibrator Value:	1200	NAPI
Calibrator Reading:	1700	cps
Sensitivity:	0.705882	NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
NEU	37.73		None	0.75	1.50	5.00
			NEU-G (5145) Gearhart Epithermal	5.65	3.50	85.00
GR	31.47		GR-OH (2001) 2001	3.56	3.25	40.00

Item	Length (ft)	Weight (lb)	Notes
LSD	23.30		
DCAL	22.89		
SSD	22.72		
CDL-poilex (2118)			
	8.83	4.00	275.00
CILD	10.60		
SP	10.60		
DIL-G (5375) Gearhart			
	21.47	4.00	345.00
CILM	6.89		
RLL3	1.70		
Dataset: xtoac0313.db: field/well/run1/pass1 Total Length: 40.26 ft Total Weight: 750.00 lb O.D. 4.00 in			