



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

# COMPENSATED DENSITY NEUTRON LOG

Company XTO Energy Inc.  
Well New Elk 25-02  
Field Purgatoire River  
County Las Animas State Colorado

Location: API # : 05 071 09474 00

475' FNL & 1931' FEL

SEC 25 TWP 33S RGE 68W

Permanent Datum Ground Level Elevation 7790'  
Log Measured From Ground Level  
Drilling Measured From Ground Level

Elevation  
K.B. -----  
D.F. -----  
G.L. 7790'

DIL

Date 3-18-08

Run Number One

Depth Driller 2350'

Depth Logger 2347'

Bottom Logged Interval 2324'

Top Log Interval Surface Casing

Casing Driller 8 5/8" @ 586'

Casing Logger 586'

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 11:30 A.M.

Time Logger on Bottom 2:15 P.M.

Maximum Recorded Temperature 112 DEG F

Equipment Number T697

Location Trinidad

Recorded By J. Cappellucci

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

Neutron Density Porosity Presented On Sandstone Matrix.

ABHV Calculated For 5 1/2" Casing.

Neutron Porosity Invalid from 1640' to 1579', due to Foam.

Well Directions:

Second Bosque Entrance, straight across railroad tracks, at Y stay left to Apache canyon, take first right past windmill, follow up the hill, through one location, at fork stay right to location.



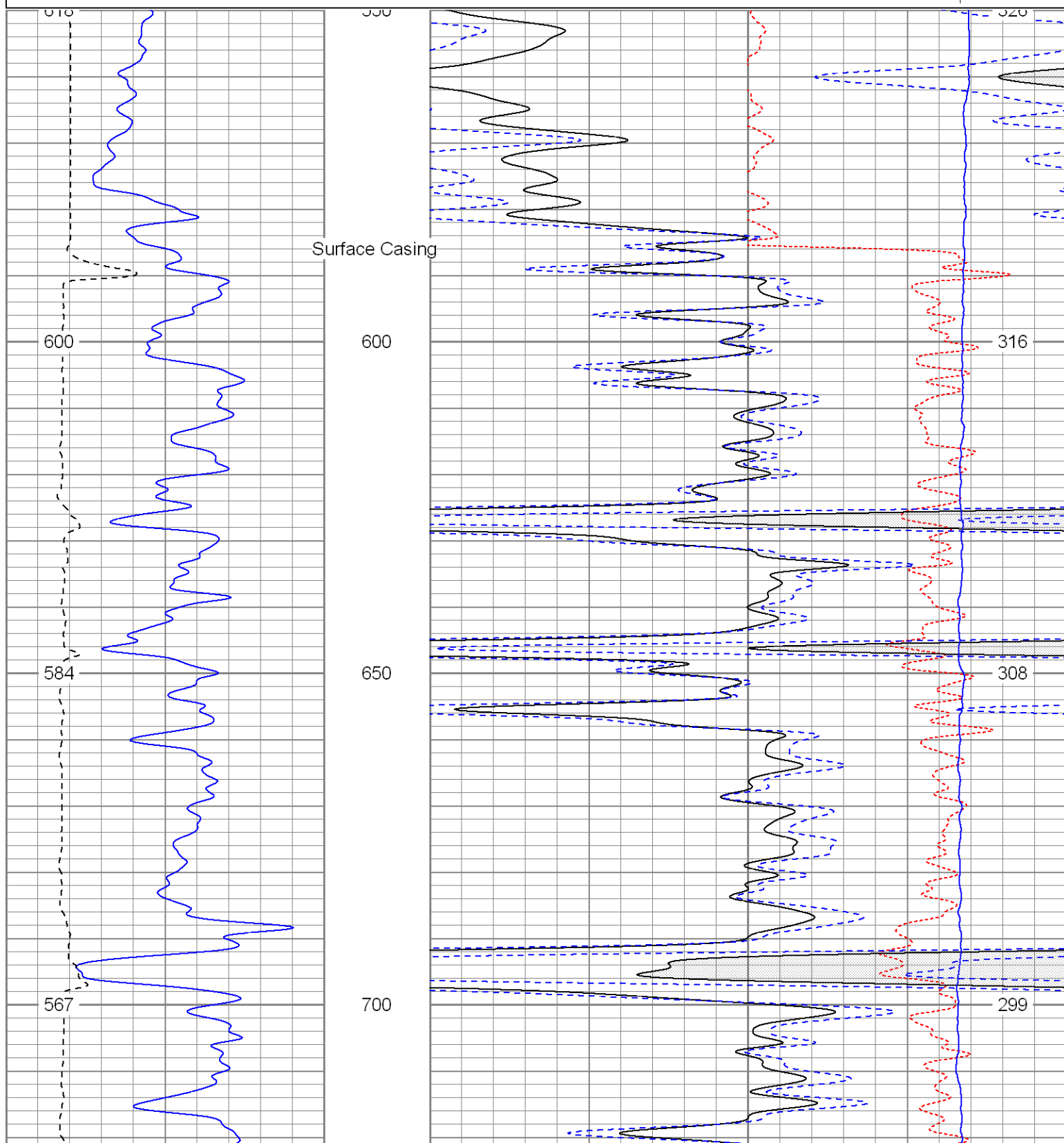
**SUPERIOR**

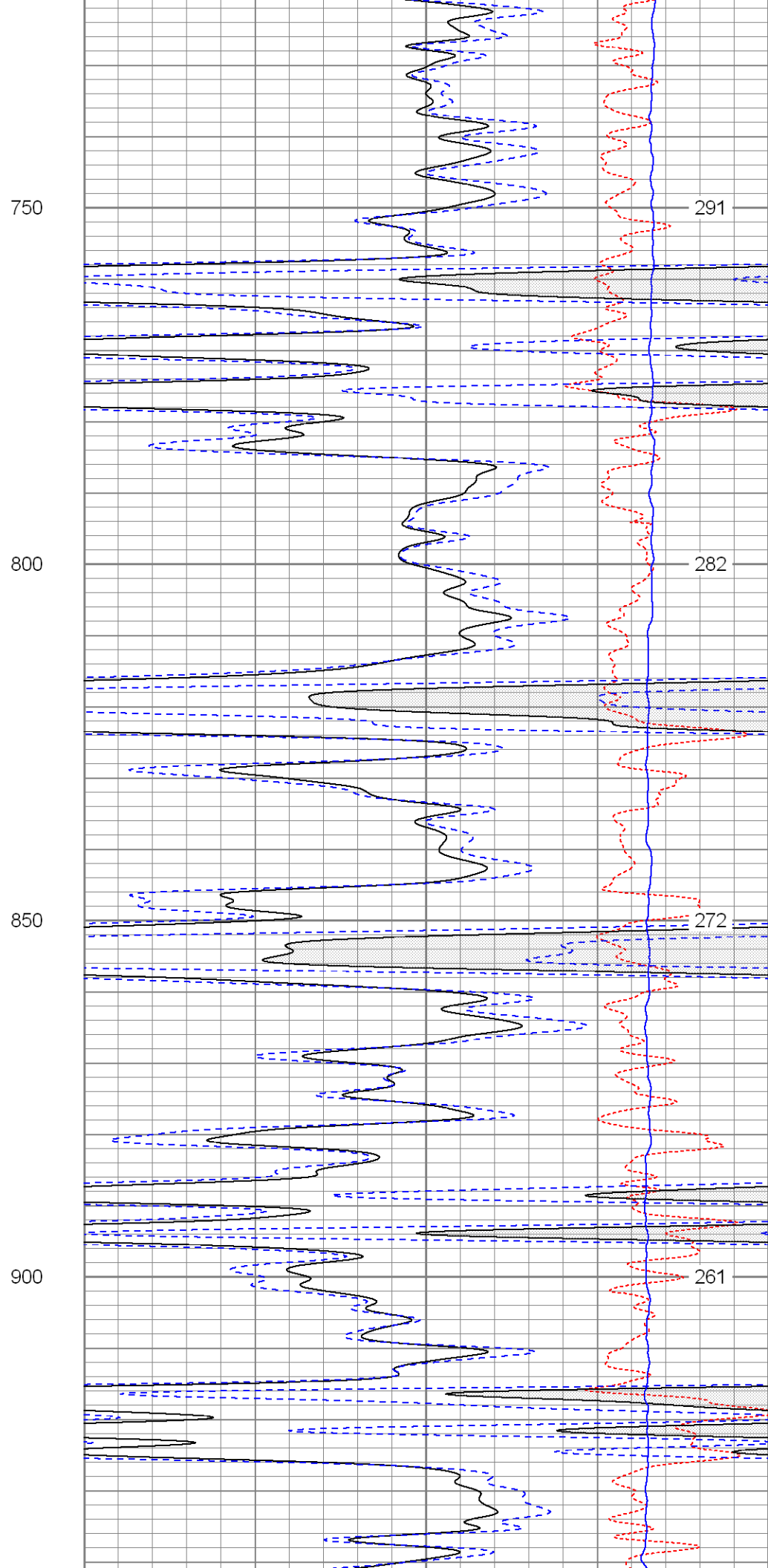
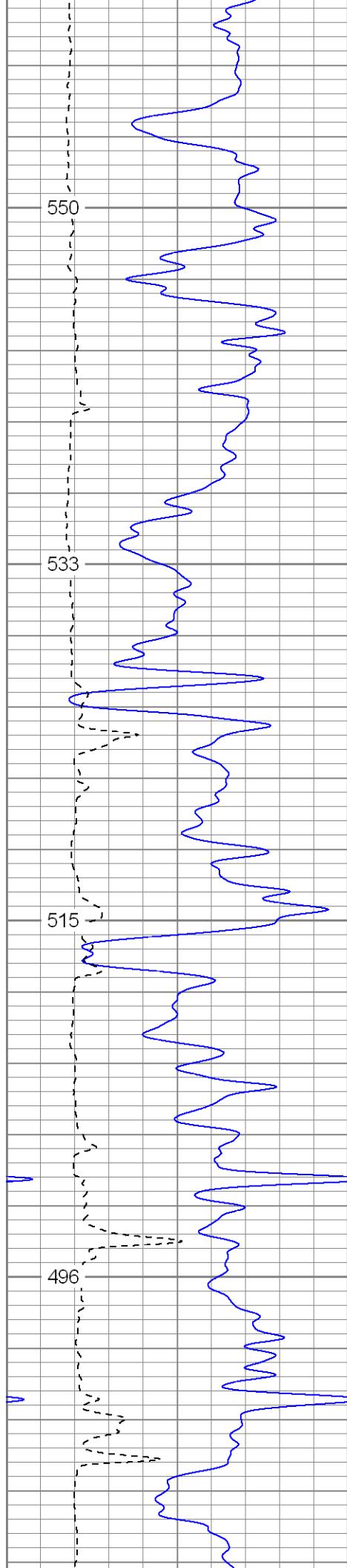
Black Lick, Pa.  
Mercer, Pa.  
Wooster, Oh.  
Cleveland, Ok.  
Trinidad, Co.

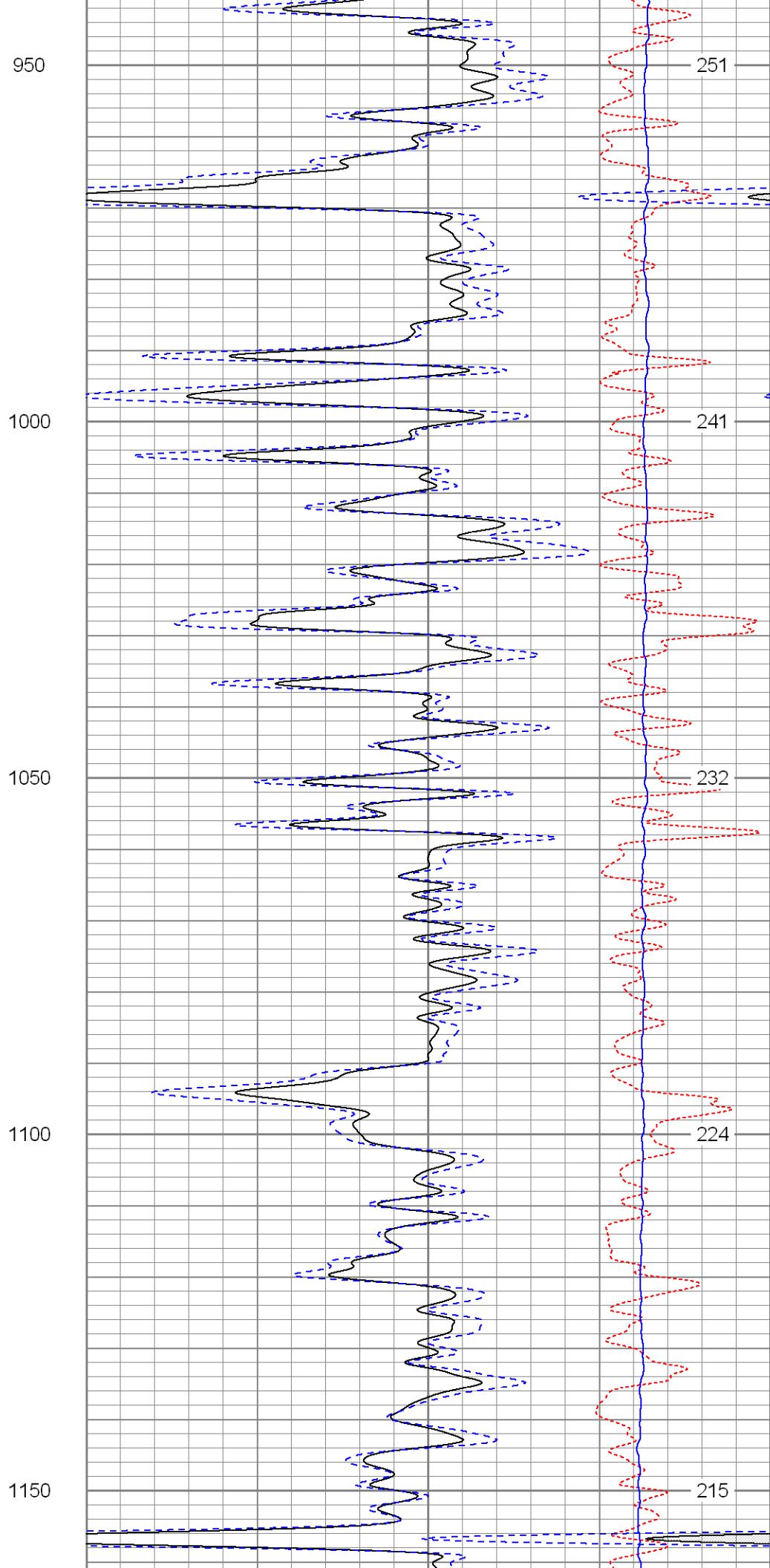
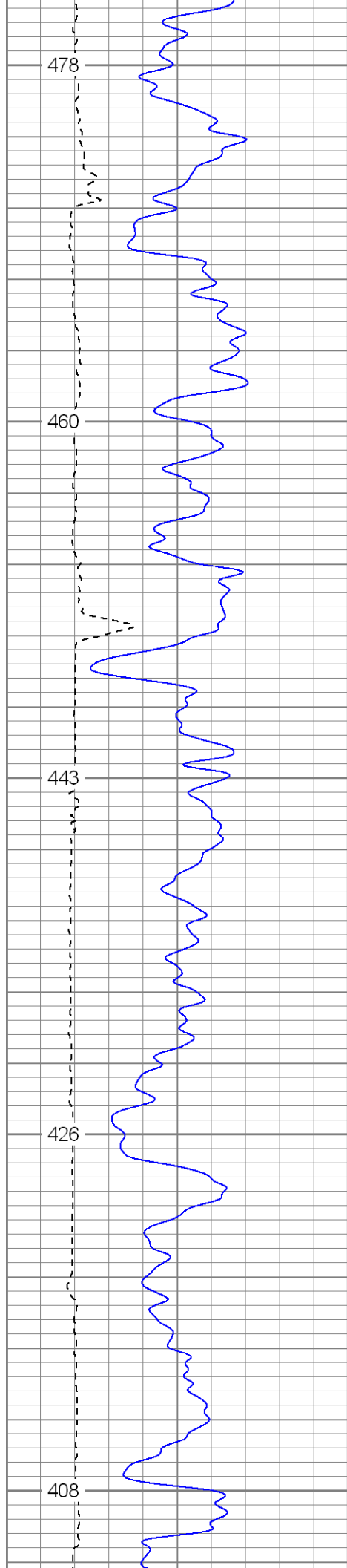
# Main Pass

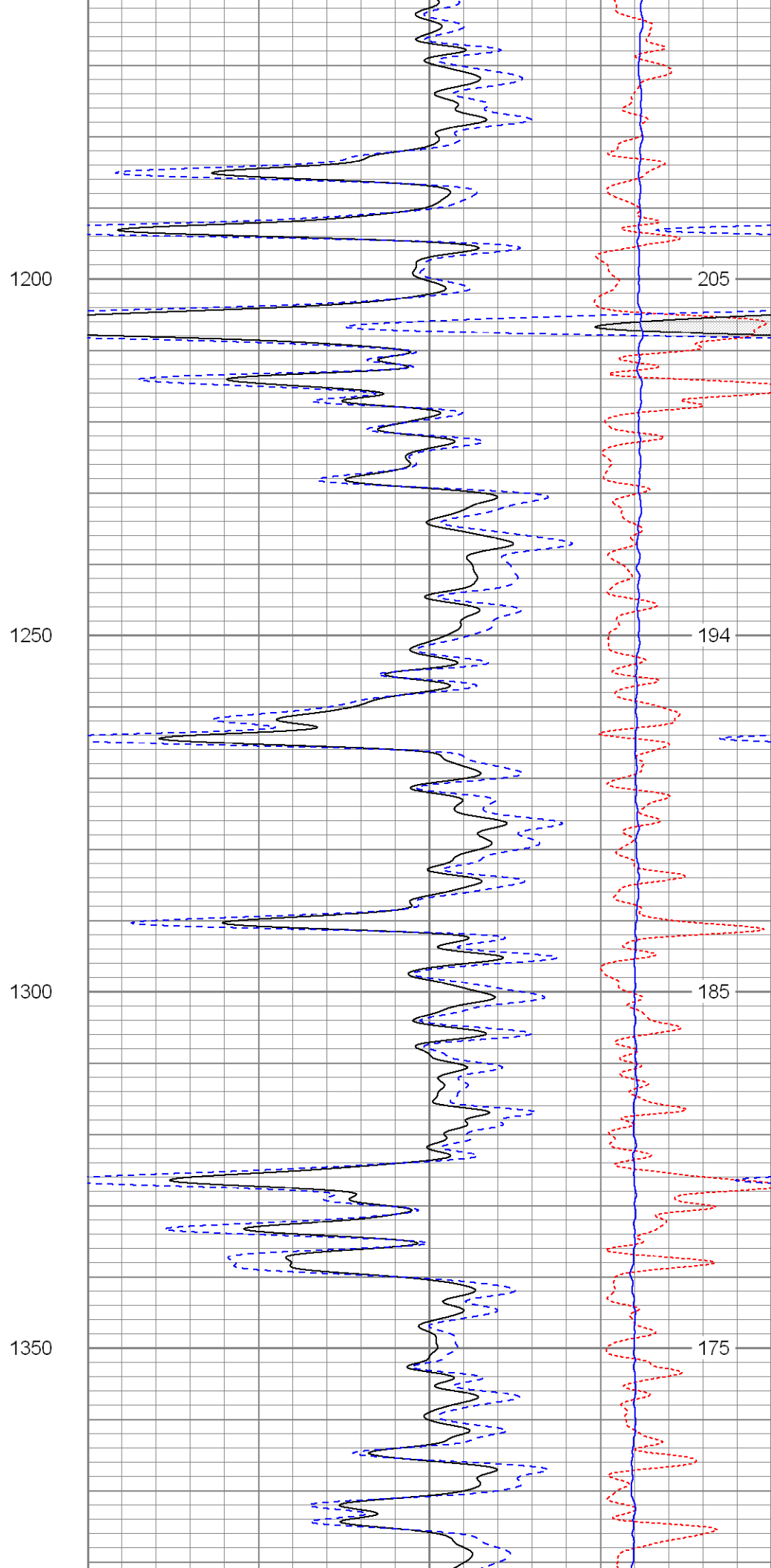
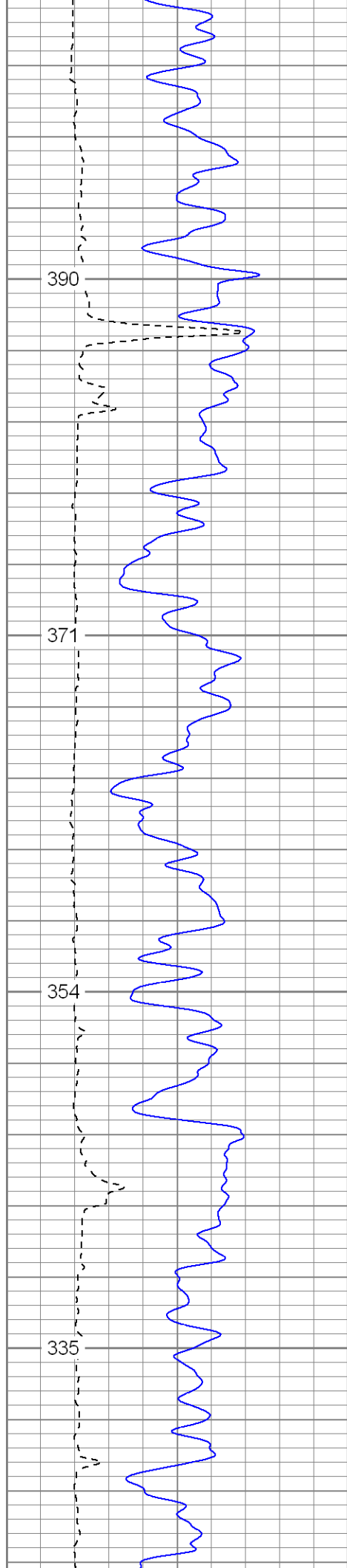
Database File: xtone2502.db  
Dataset Pathname: pass2.4  
Presentation Format: cdl  
Dataset Creation: Wed Mar 19 08:15:31 2008  
Charted by: Depth in Feet scaled 1:240

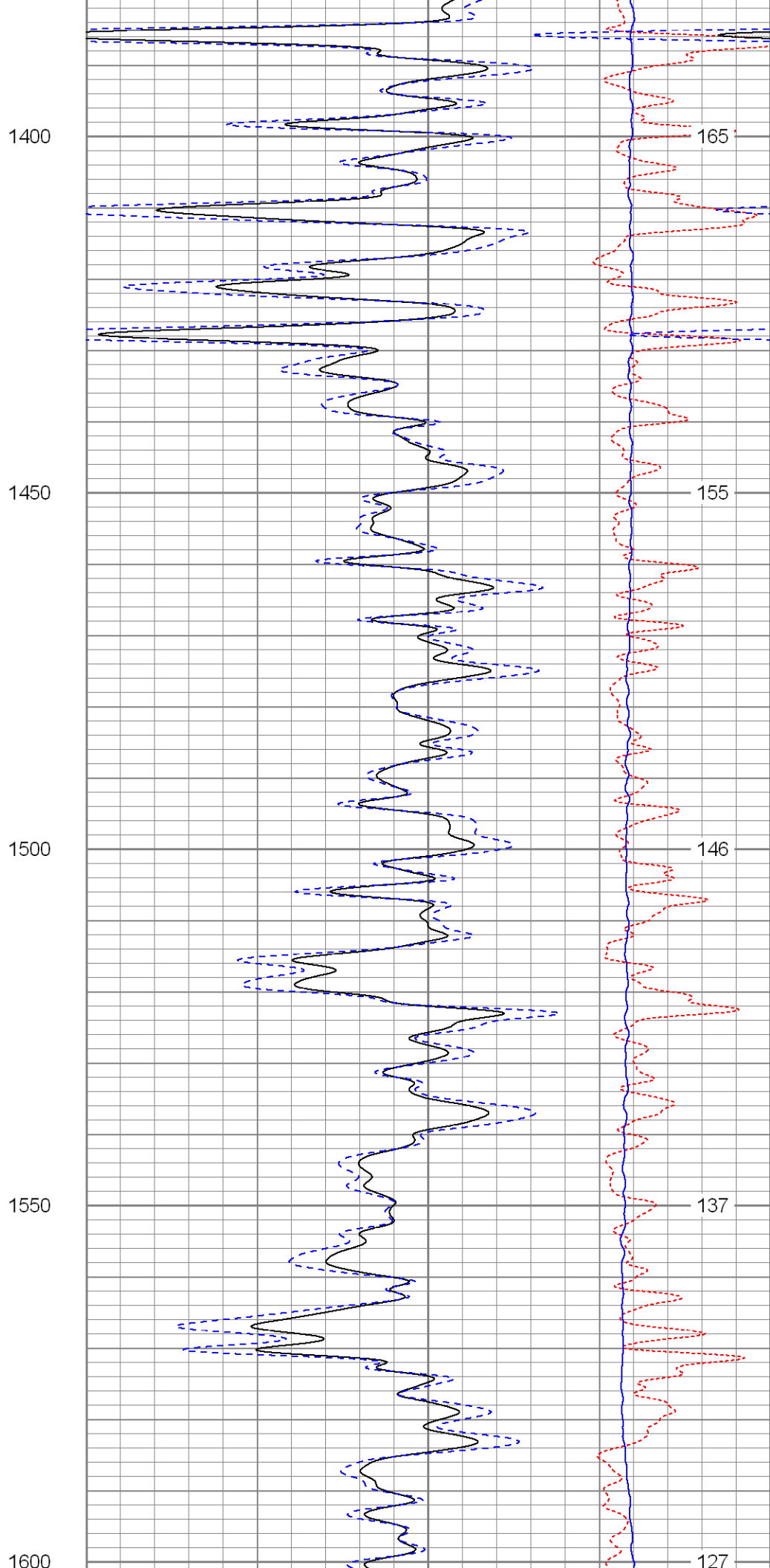
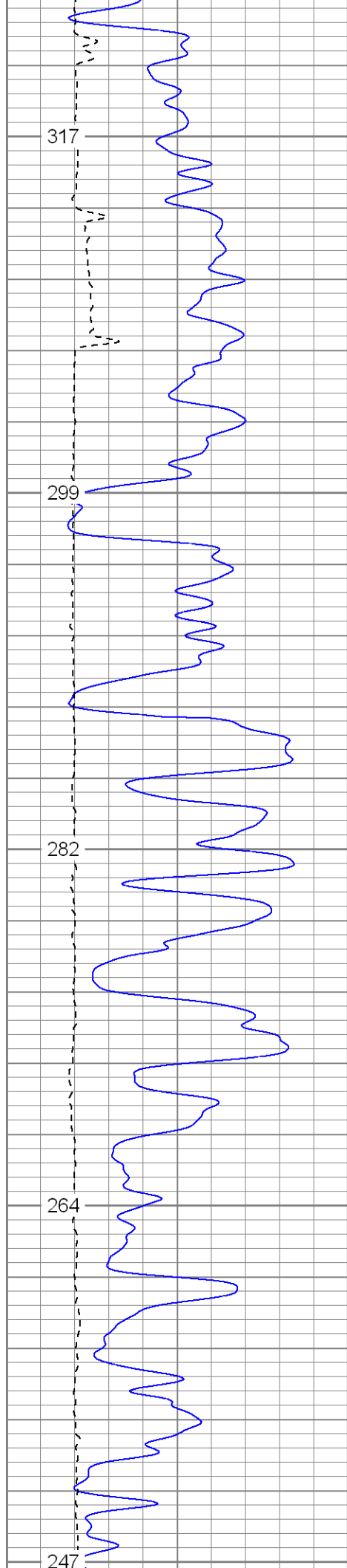
0	GR (GAPI)	200	2	RHOB (g/cc)		3
6	DCAL (in)	16	1	RHOB (g/cc)		2
TBHV (ft3)			30	DPOR (pu)		-10
				-0.5	RHOC (g/cc)	0.5
				4000	LTEN (lb)	0
						ABHV (ft3)

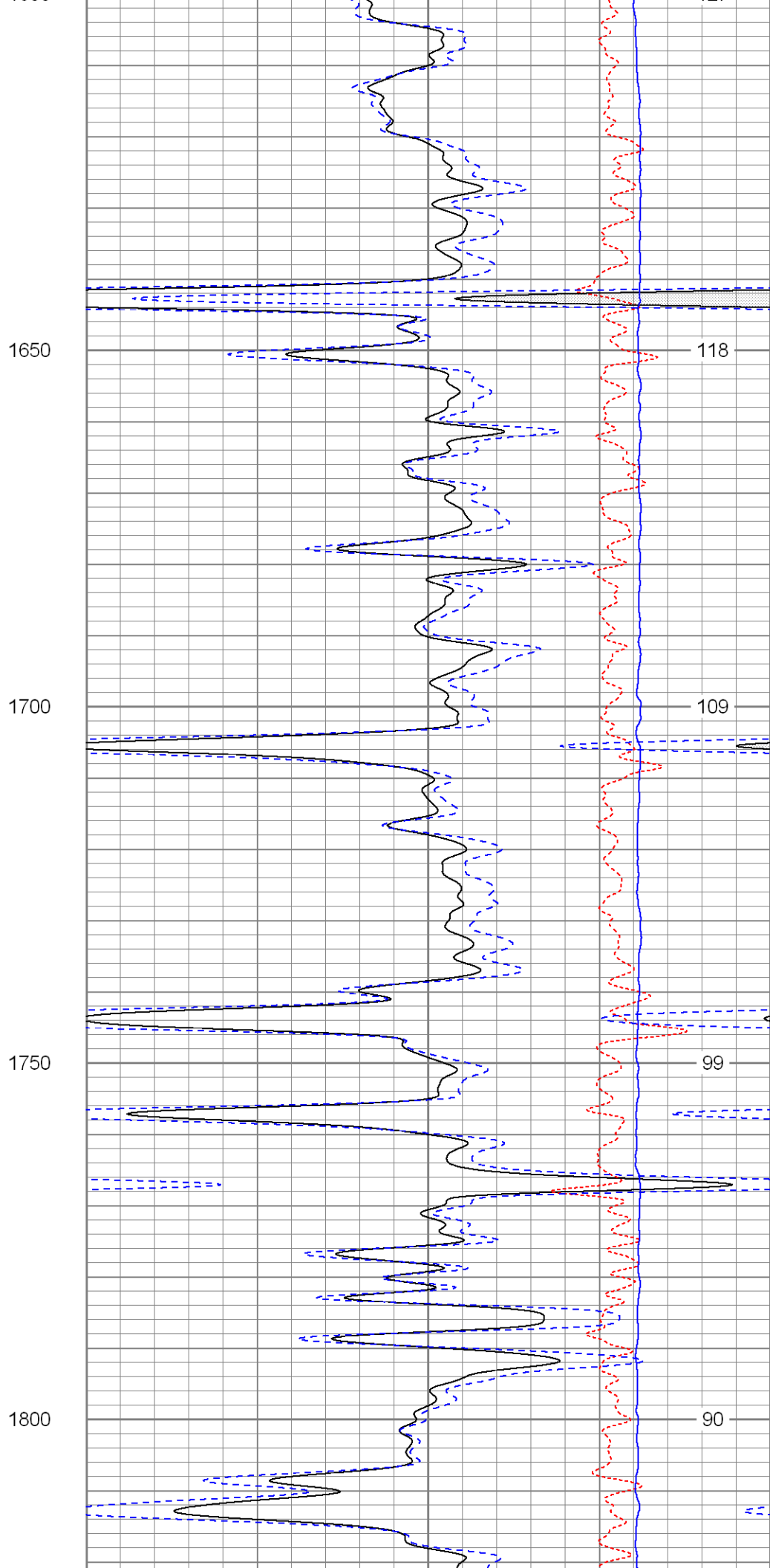
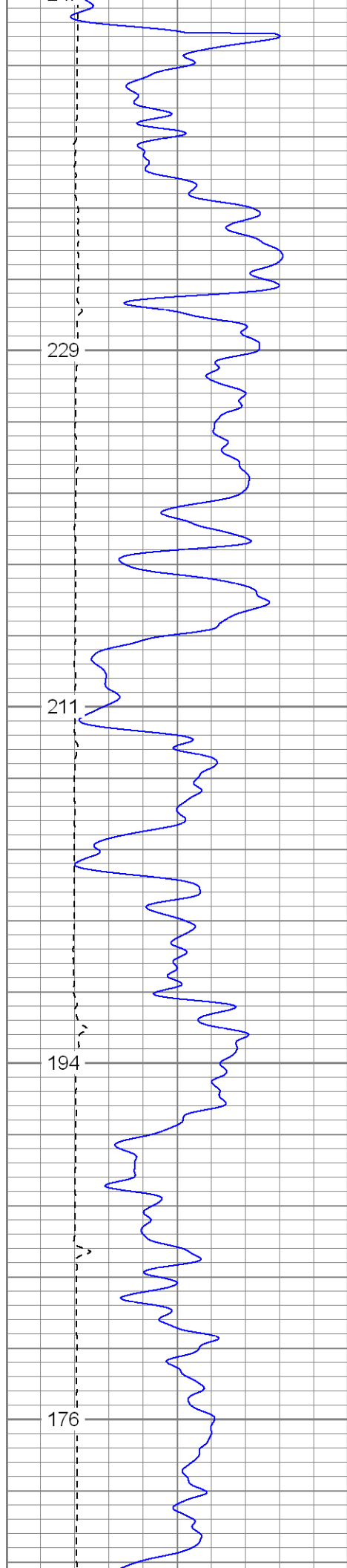


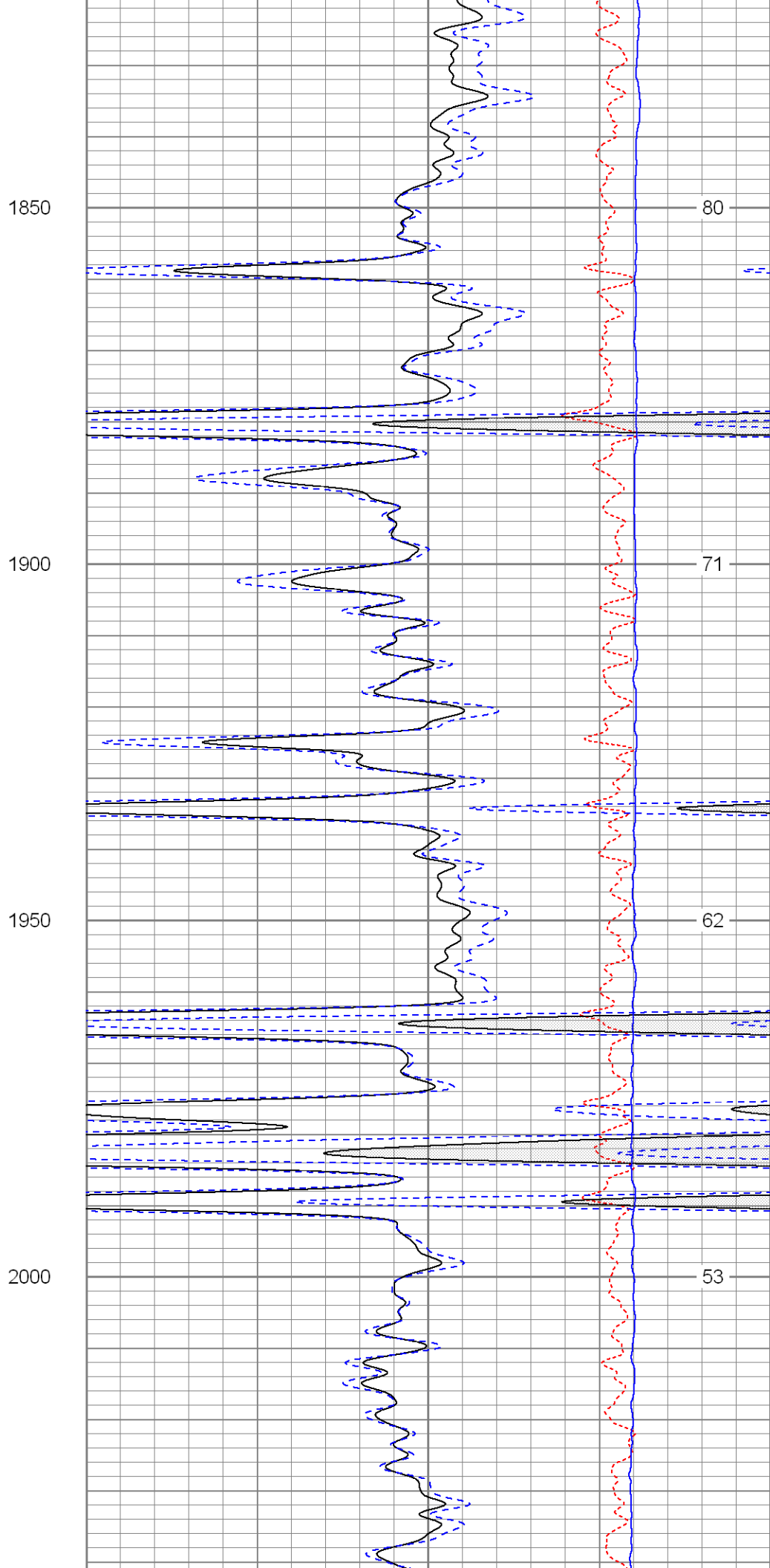
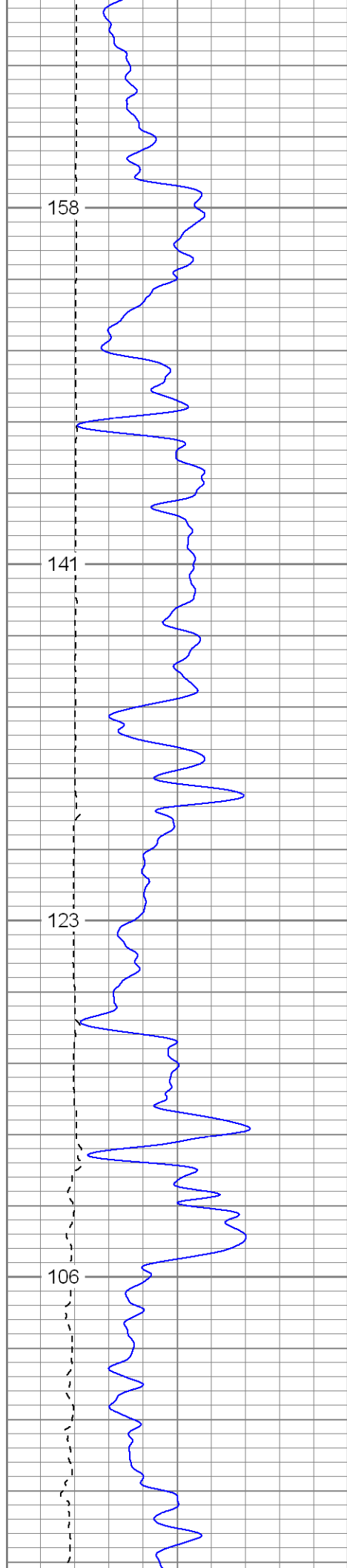




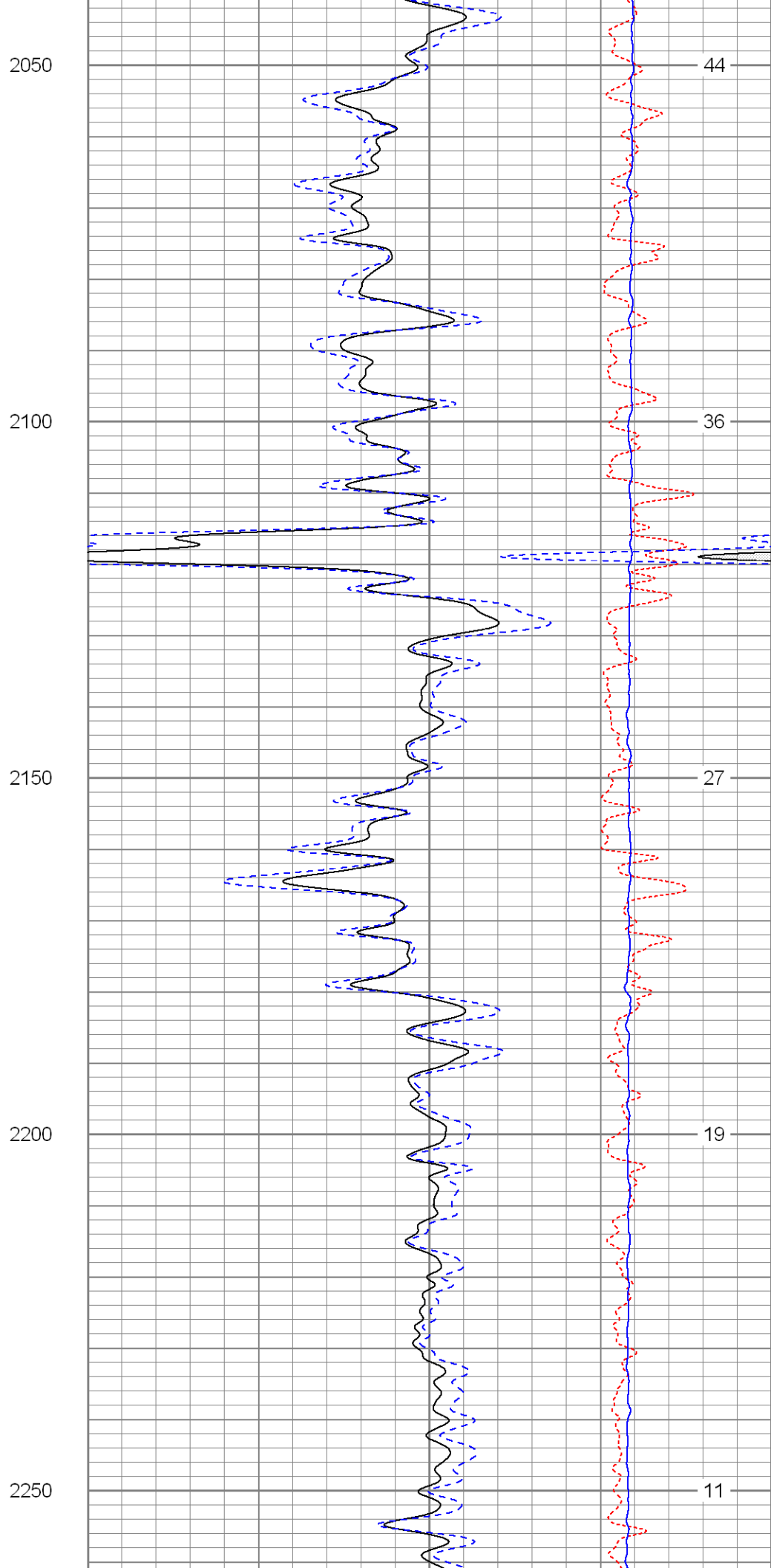
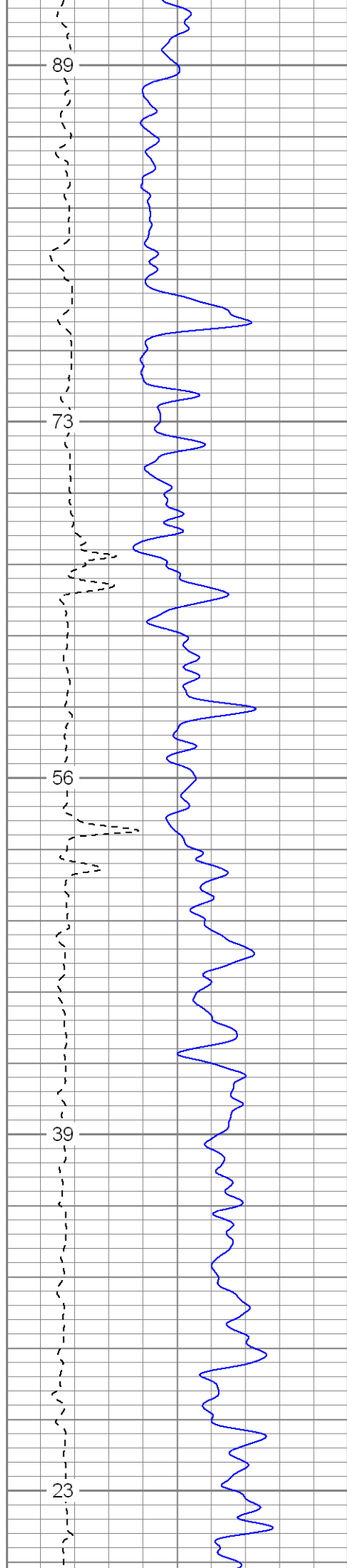


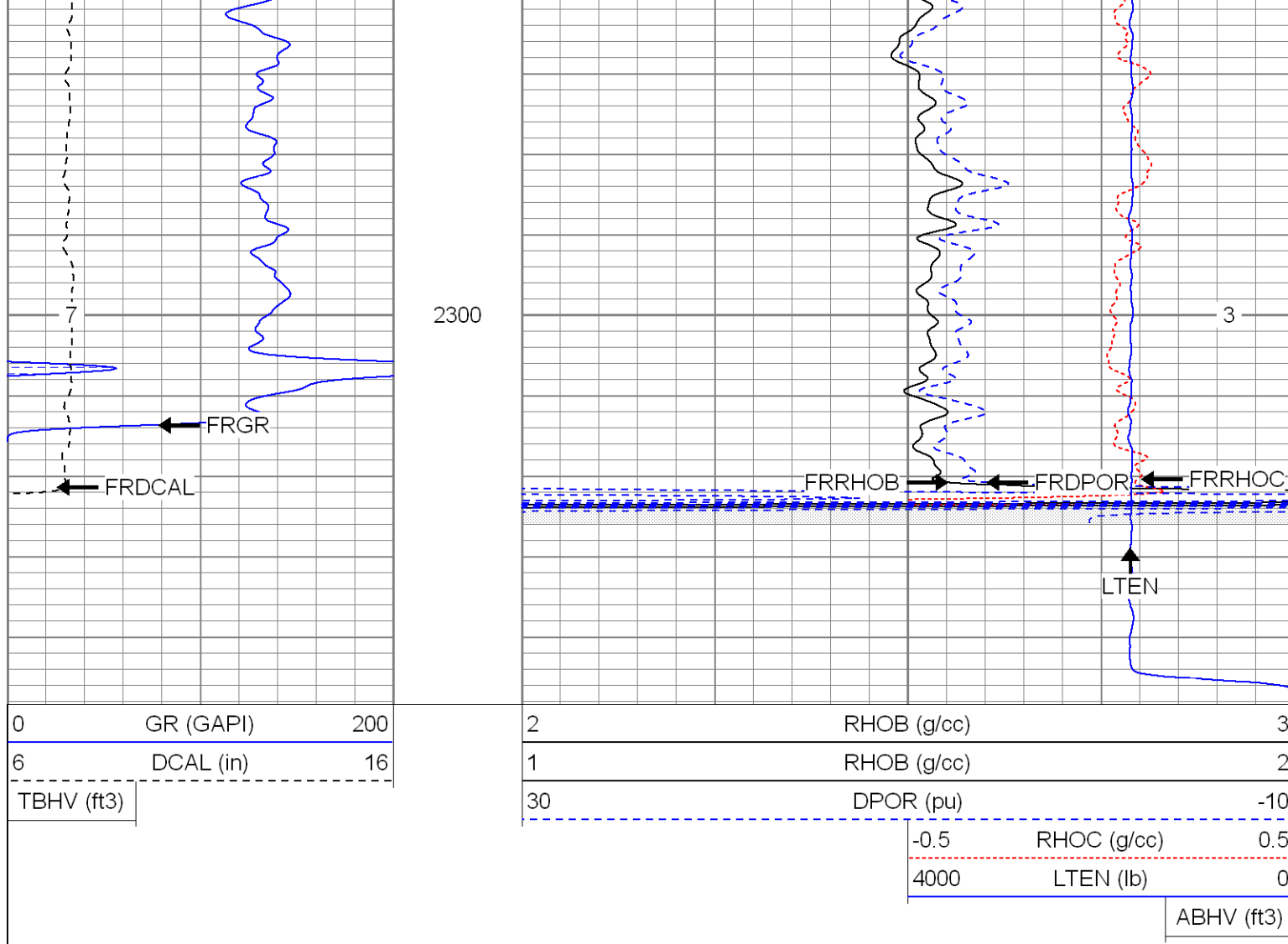










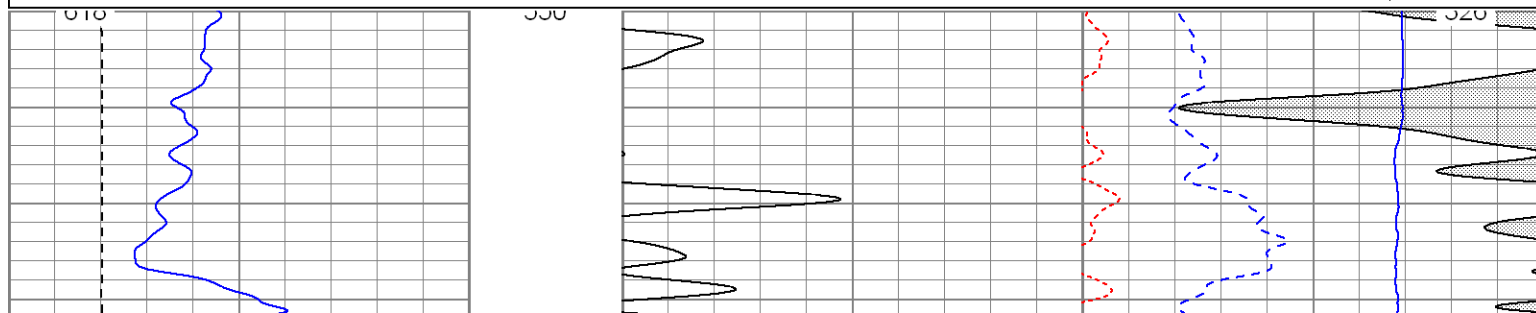
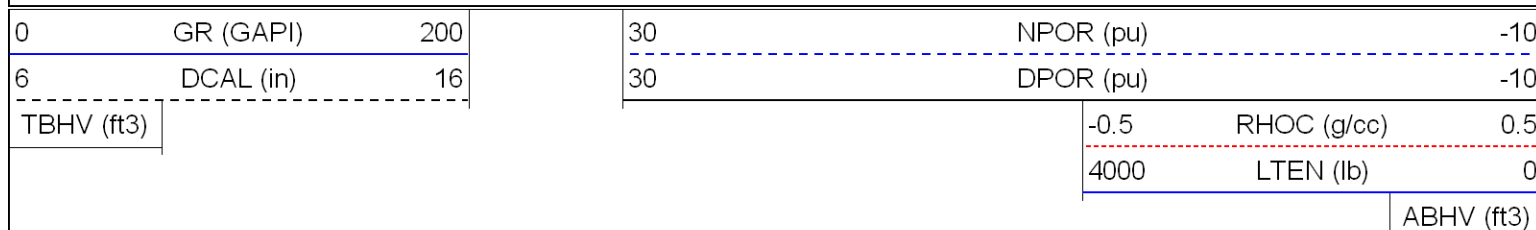


**SUPERIOR**

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

# Main Pass

Database File: xtone2502.db  
Dataset Pathname: pass2.4  
Presentation Format: cdnl  
Dataset Creation: Wed Mar 19 08:15:31 2008  
Charted by: Depth in Feet scaled 1:240



Surface Casing

600

584

567

550

533

600

650

700

750

800

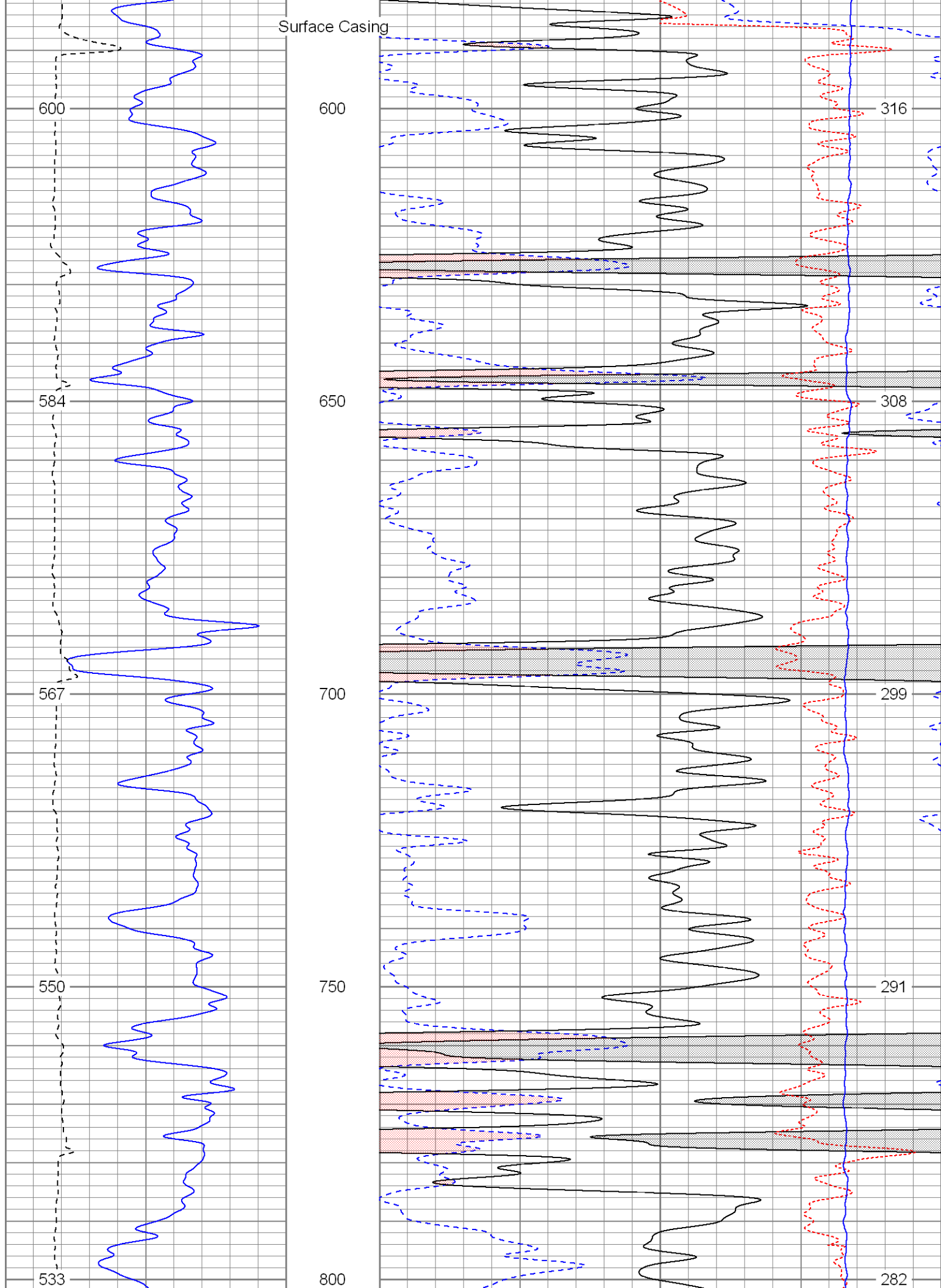
316

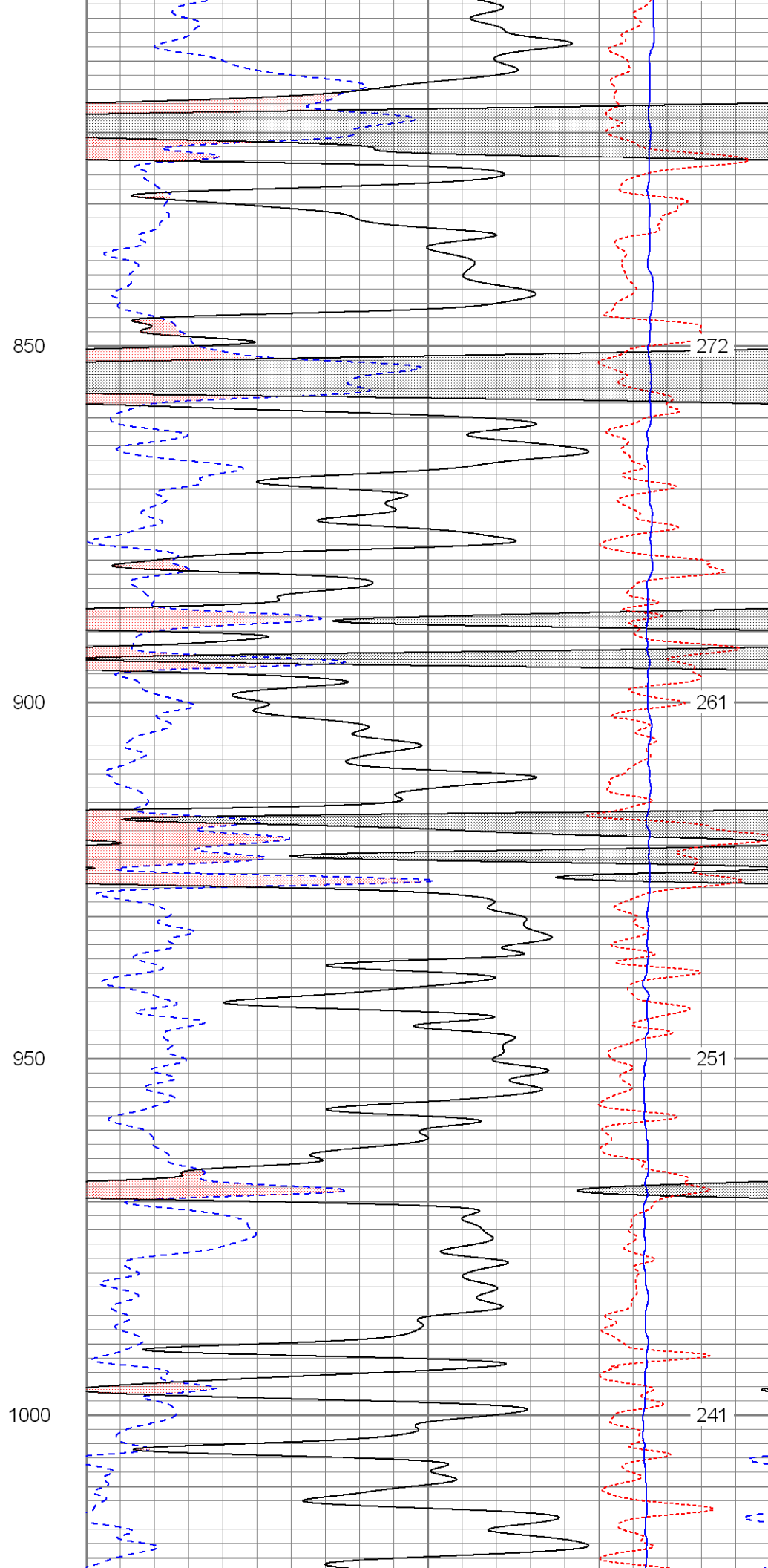
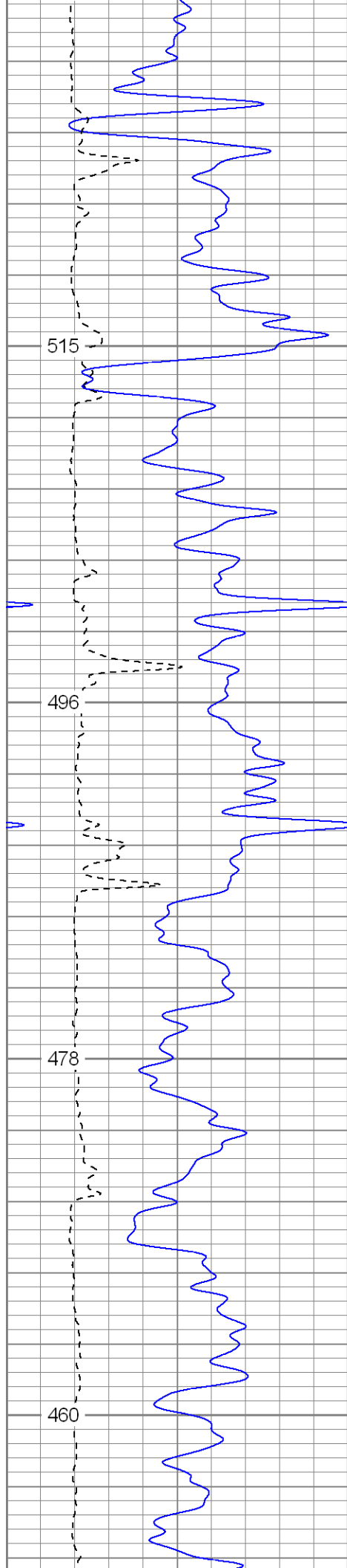
308

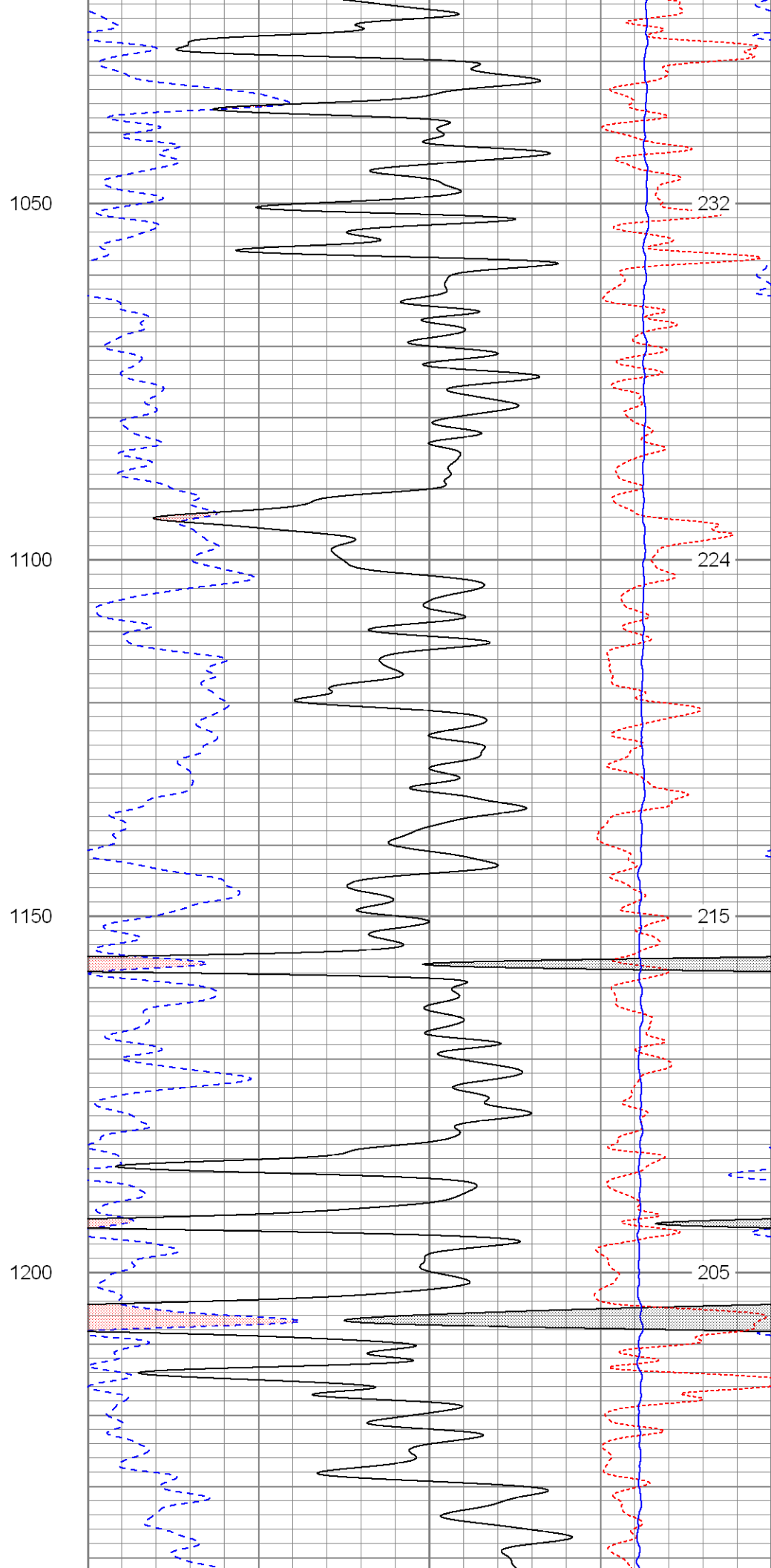
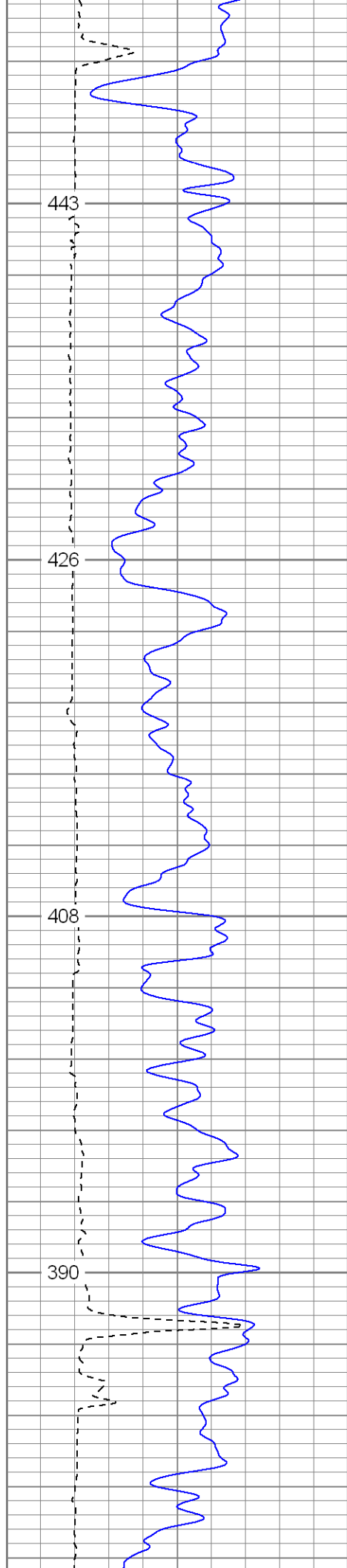
299

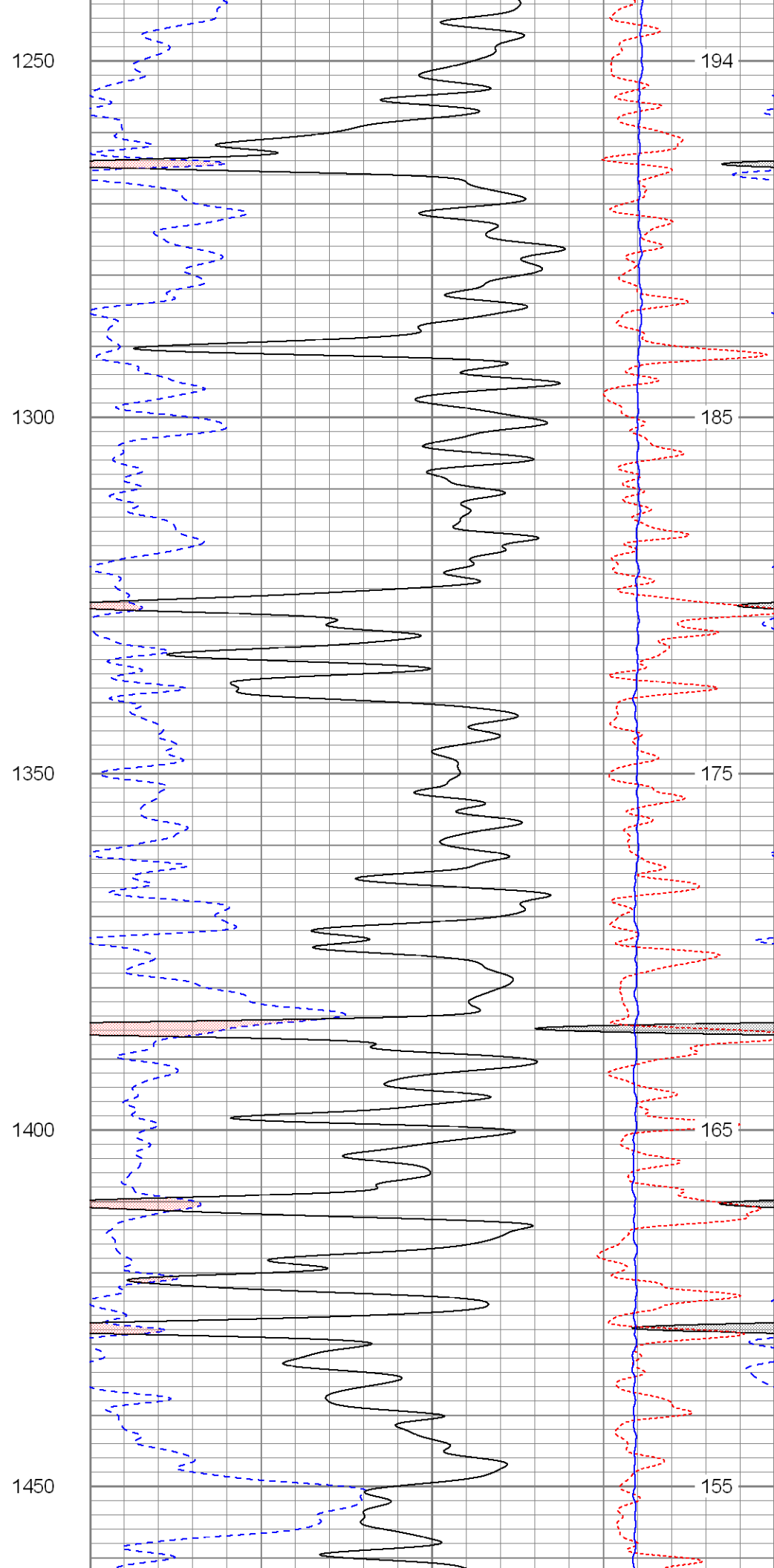
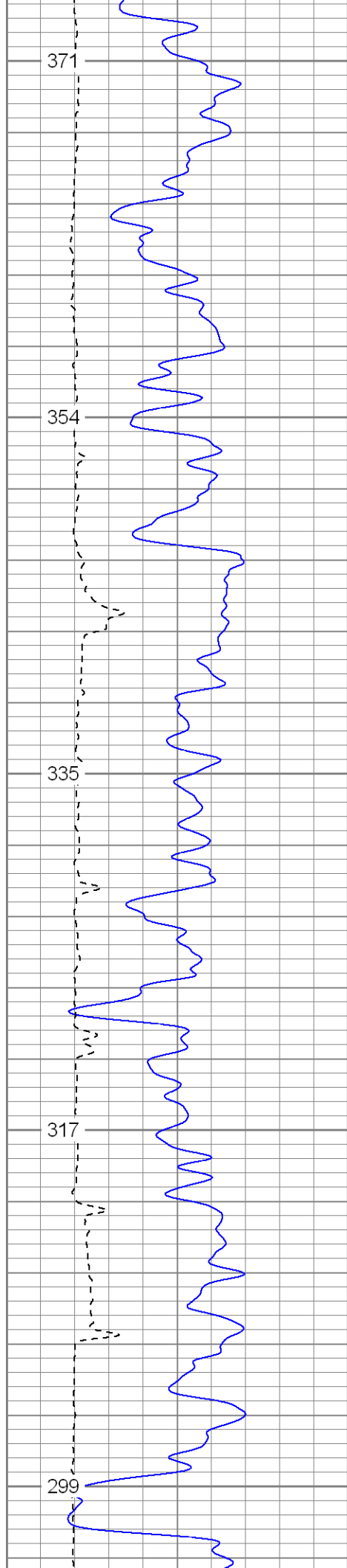
291

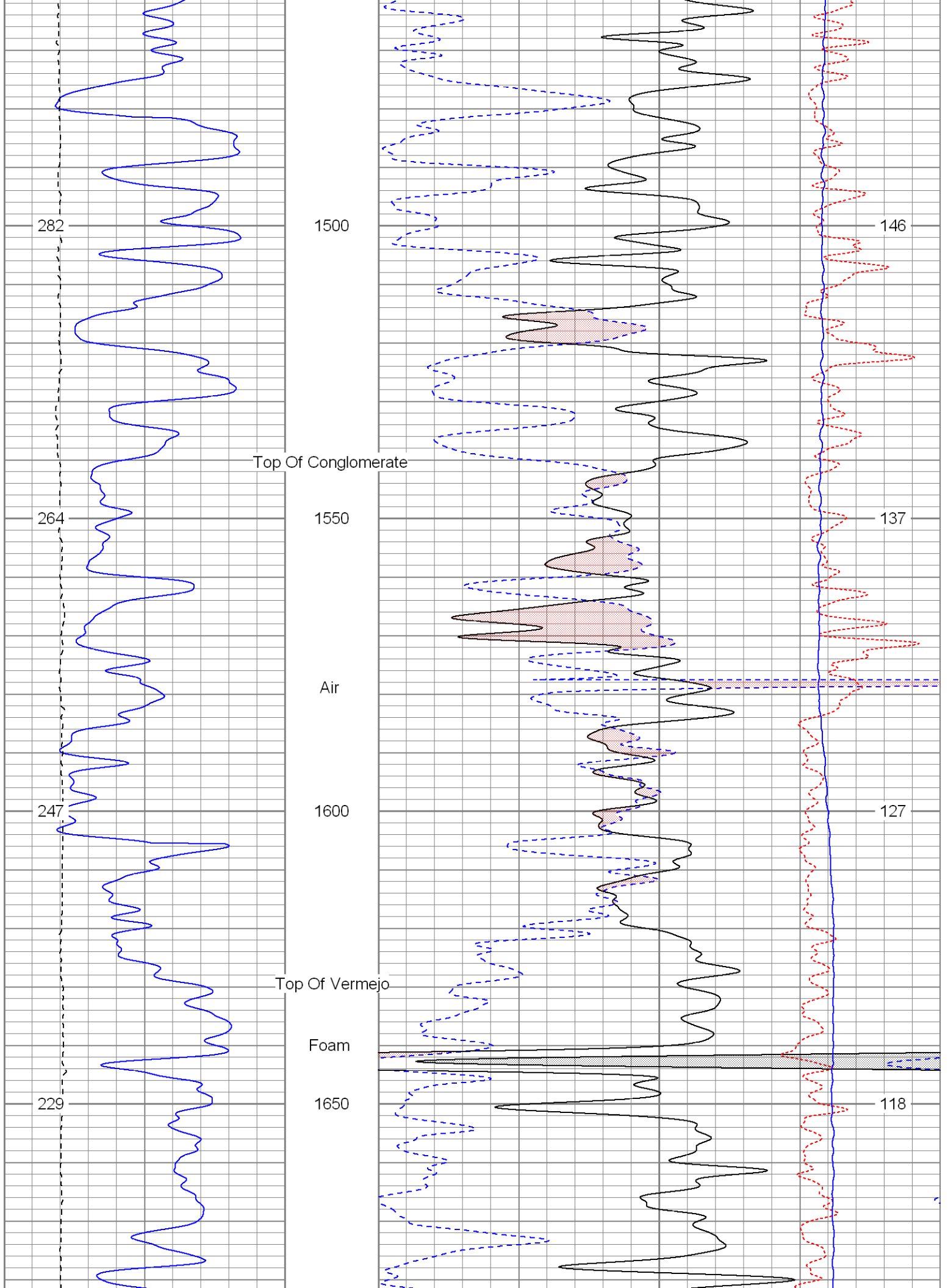
282

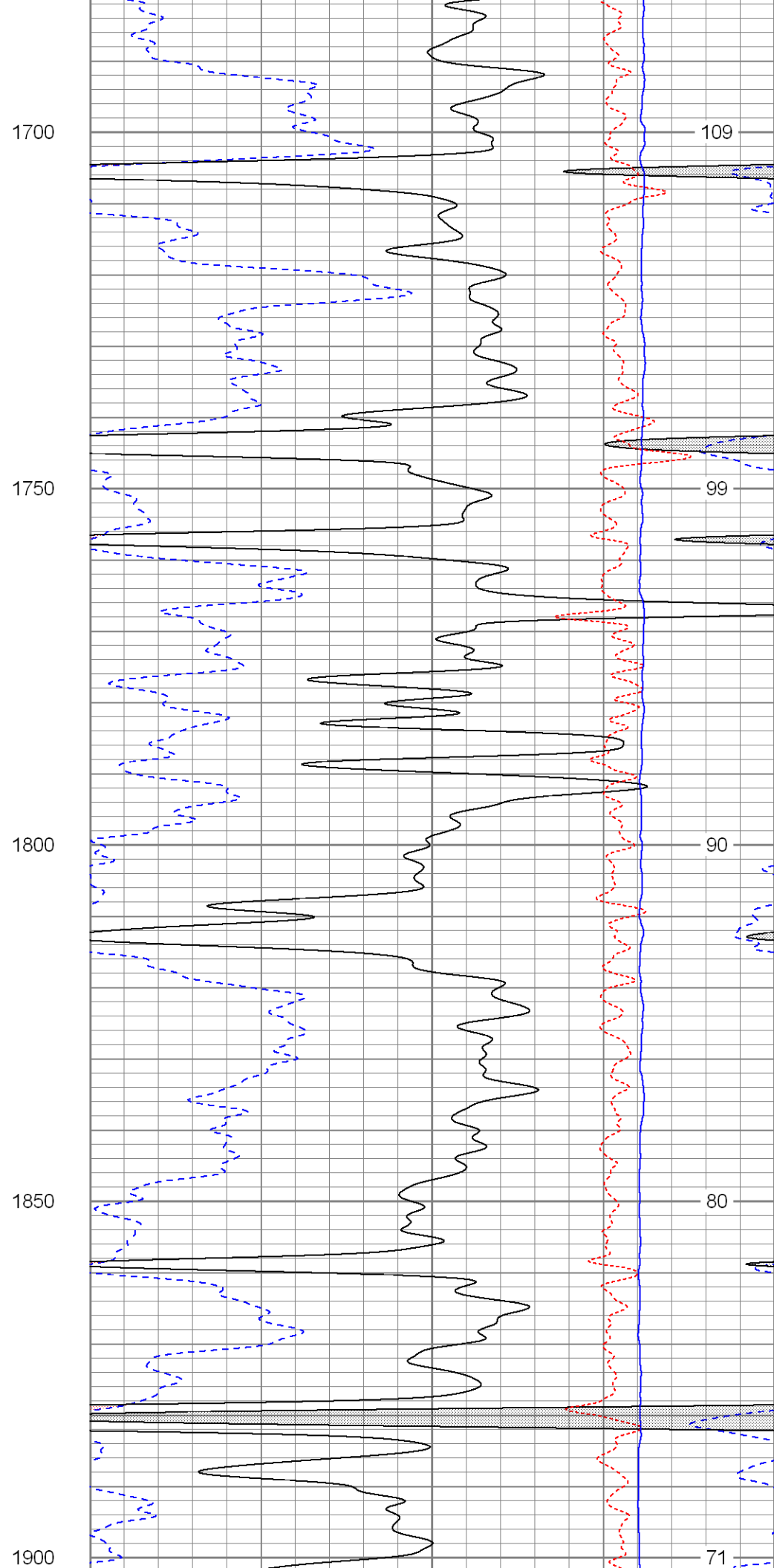
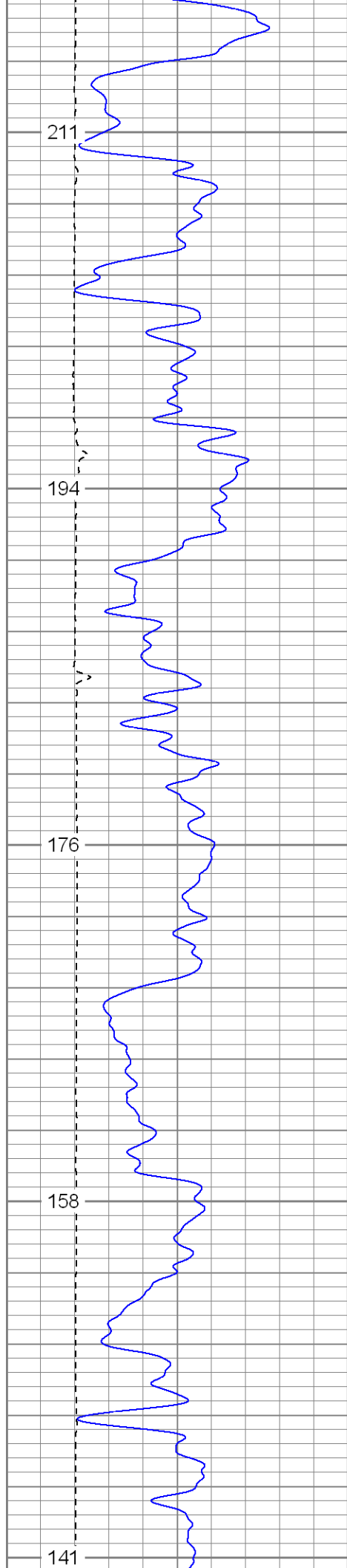




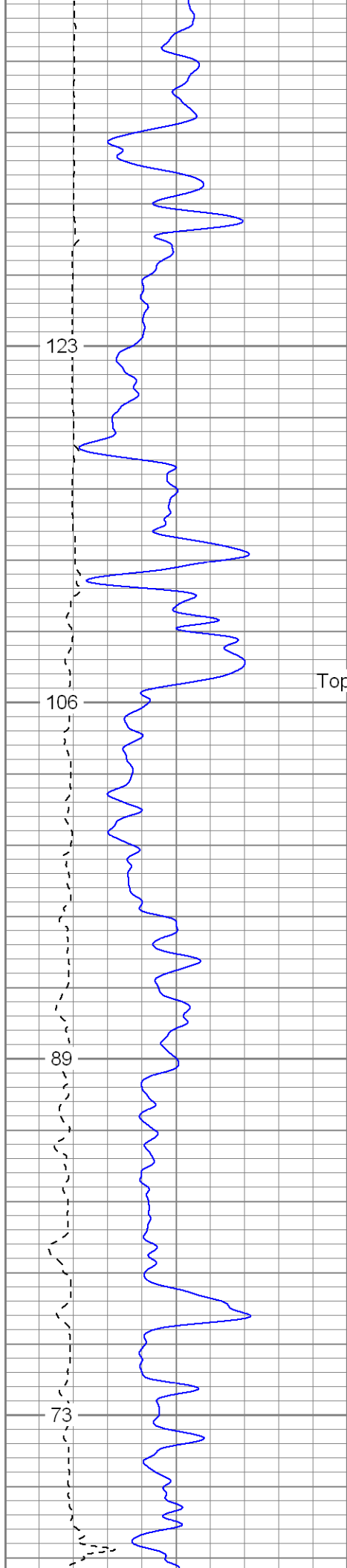










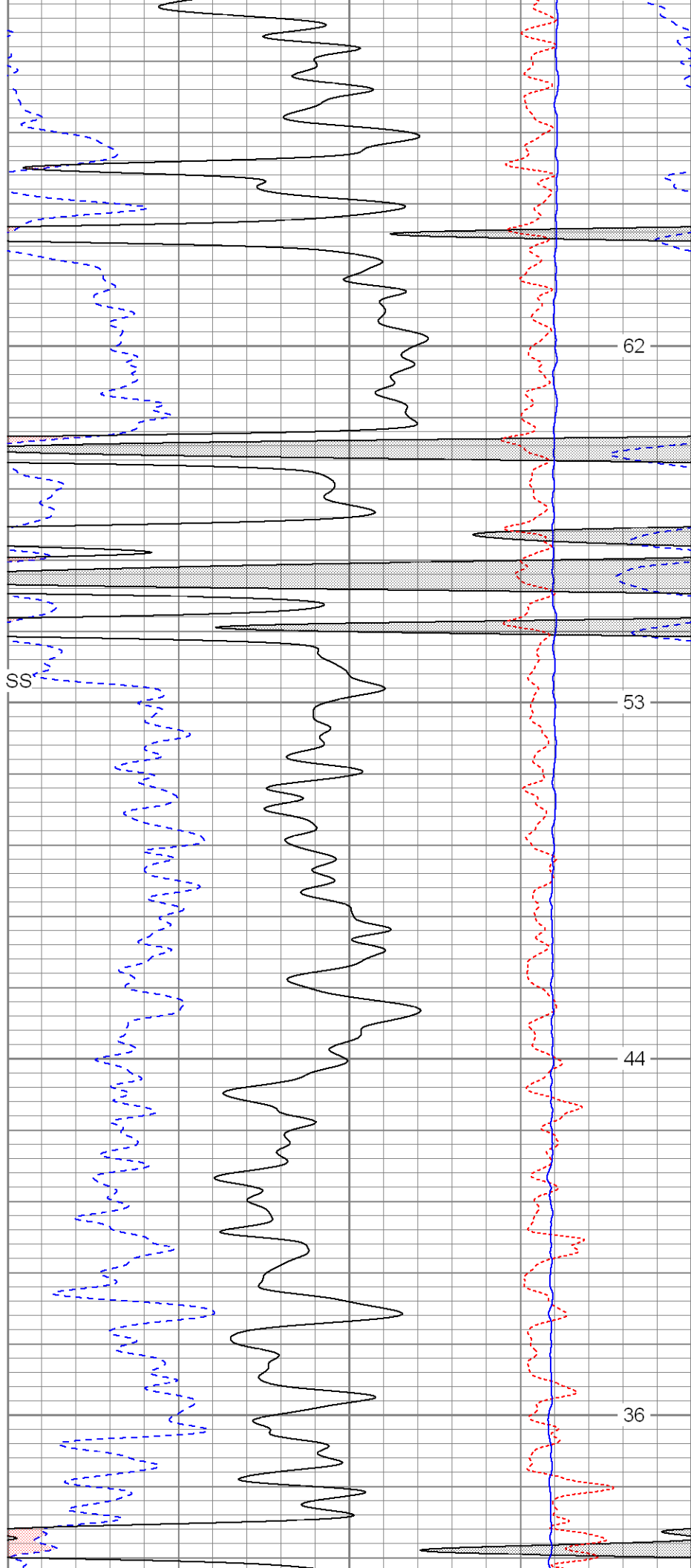


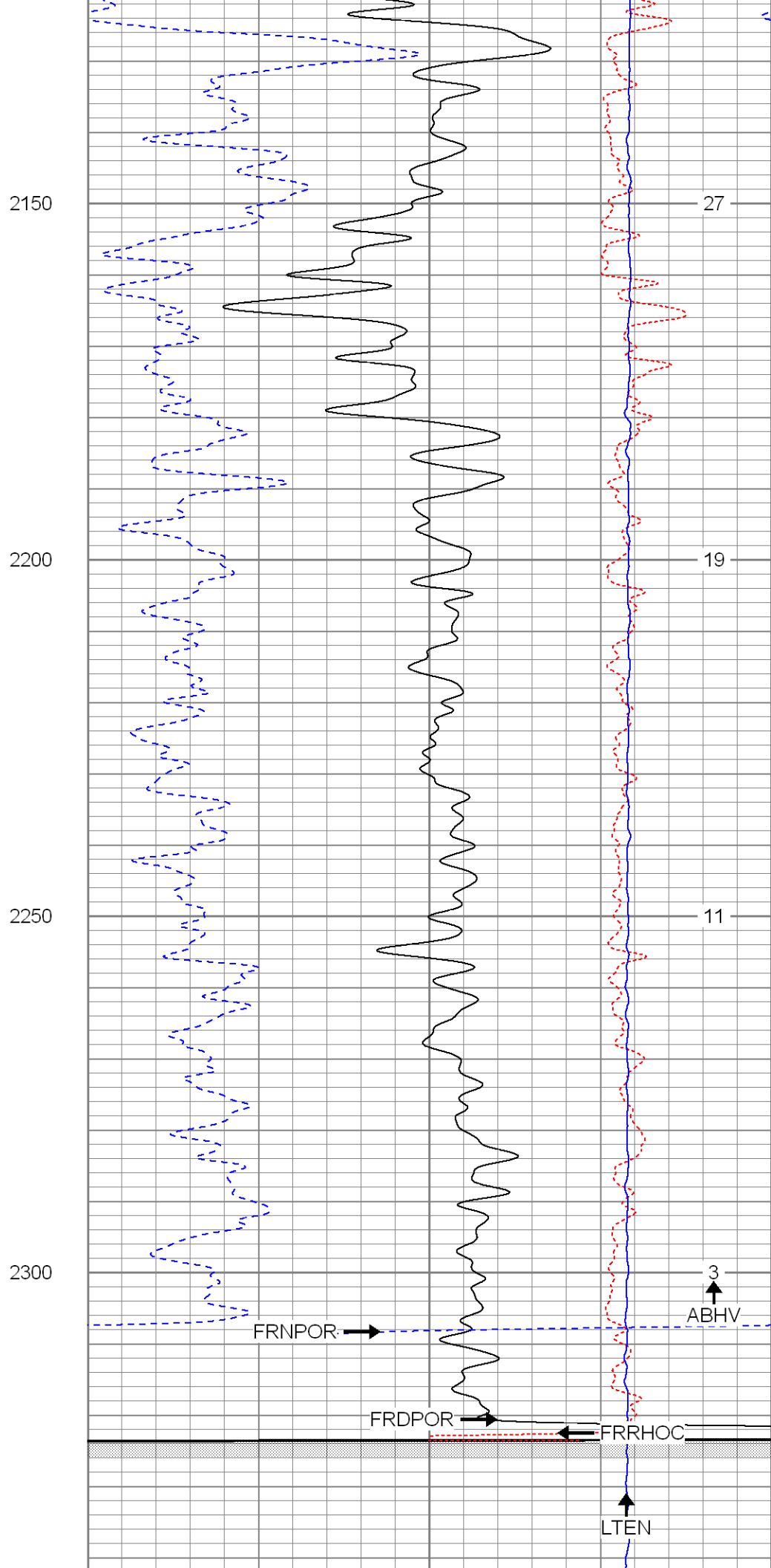
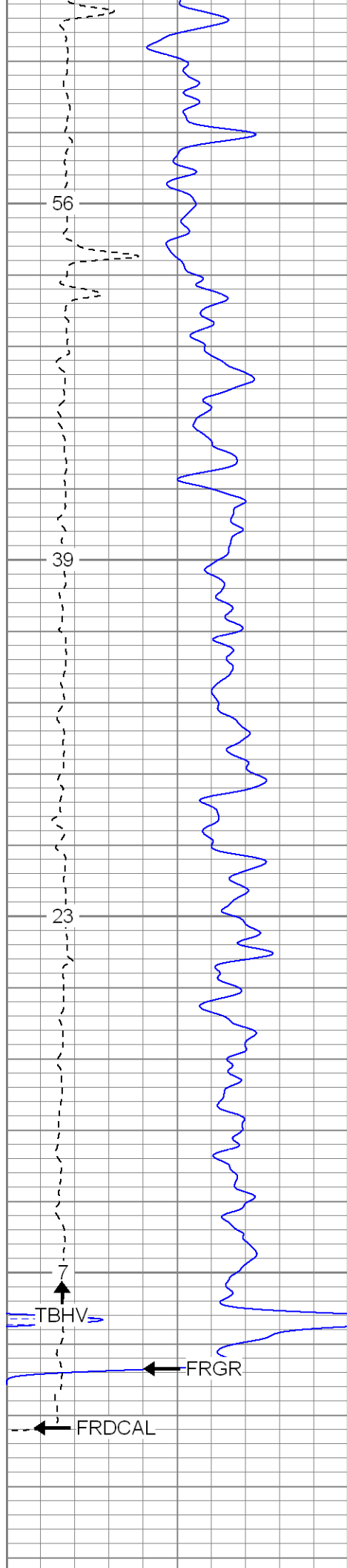
1950

Top Of Trinidad SS  
2000

2050

2100





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
						4000	LTEN (lb) 0
							ABHV (ft3)



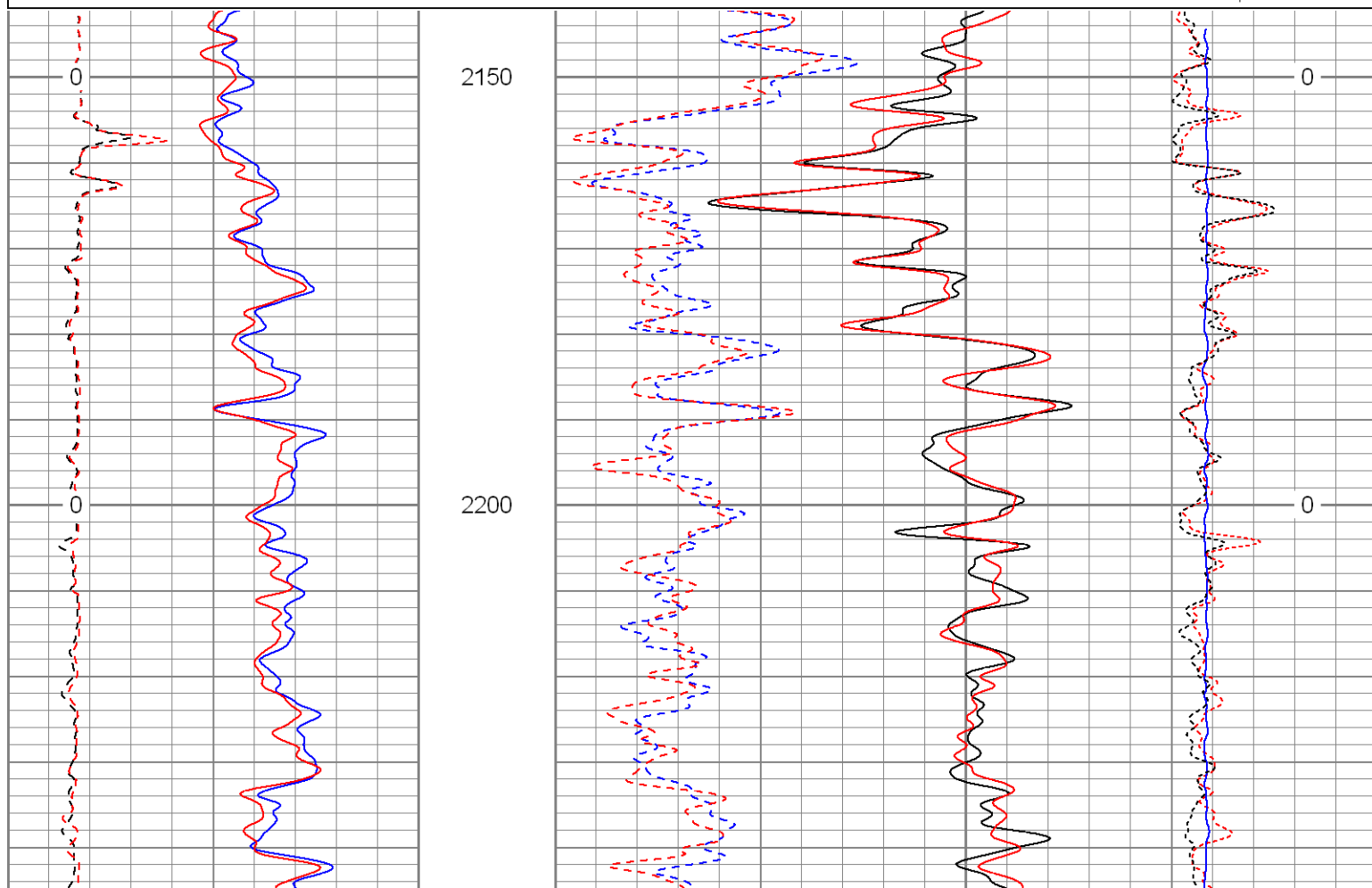
## SUPERIOR

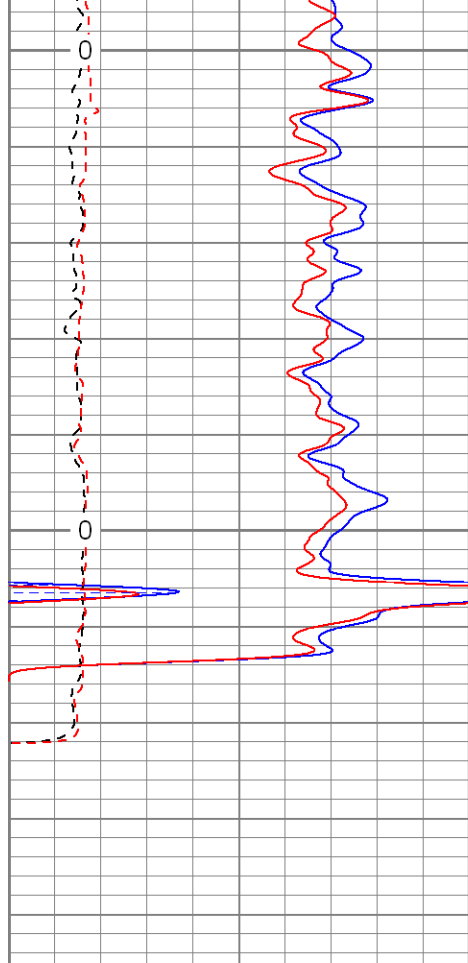
Black Lick, Pa.  
Mercer, Pa.  
Wooster, Oh.  
Cleveland, Ok.  
Trinidad, Co.

# Repeat Pass

Database File: xtone2502.db  
Dataset Pathname: pass1.1  
Presentation Format: cdnl  
Dataset Creation: Tue Mar 18 14:51:03 2008 by Calc Open-Cased 070814  
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200	30	NPOR (pu)	-10		
6	DCAL (in)	16	30	DPOR (pu)	-10		
0	GR-repeat (GAPI)	200	30	NPOR-repeat (pu)	-10		
6	DCAL-repeat (in)	16	30	DPOR-repeat (pu)	-10		
TBHV (ft3)						-0.5	RHOC (g/cc) 0.5
						4000	LTEN (lb) 0
						-0.5	RHOC-repeat (g/cc) 0.5
							ABHV (ft3)

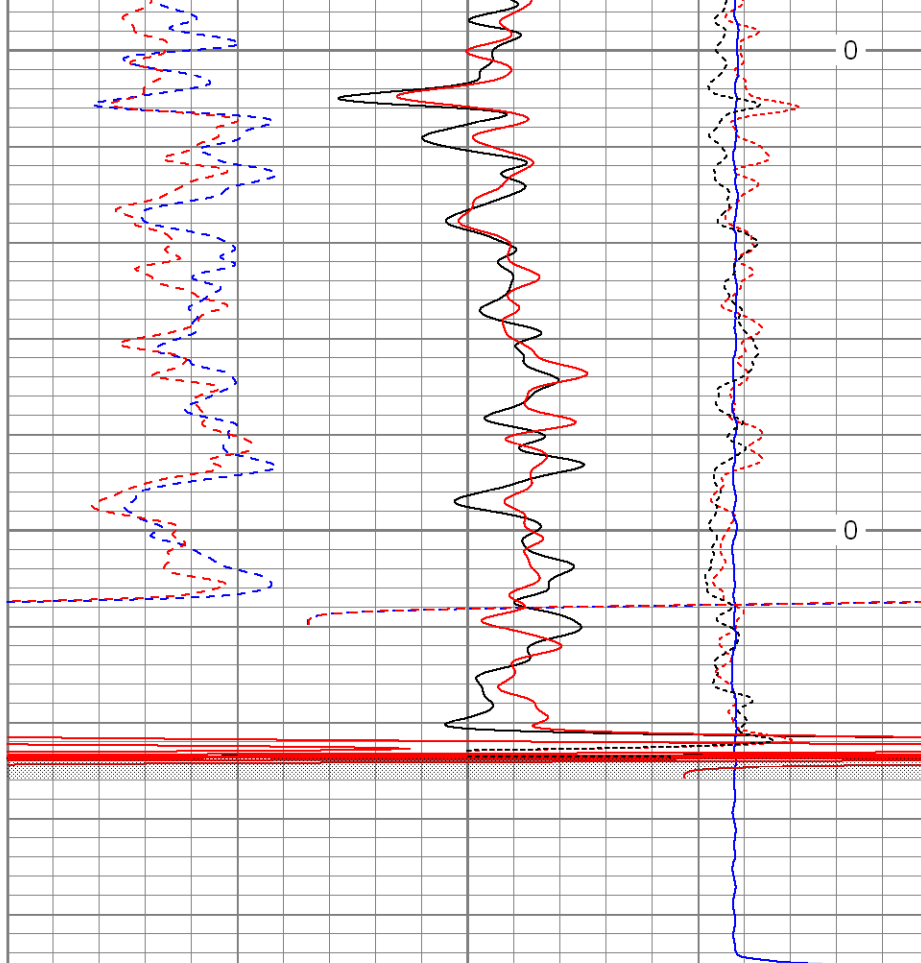




0	GR (GAPI)	200
6	DCAL (in)	16
0	GR-repeat (GAPI)	200
6	DCAL-repeat (in)	16
TBHV (ft3)		

2250

2300



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
ABHV (ft3)		



**SUPERIOR**

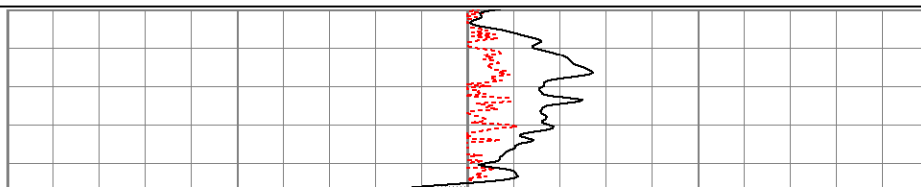
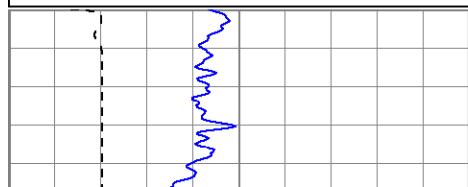
Black Lick, Pa.  
Mercer, Pa.  
Wooster, Oh.  
Cleveland, Ok.  
Trinidad, Co.

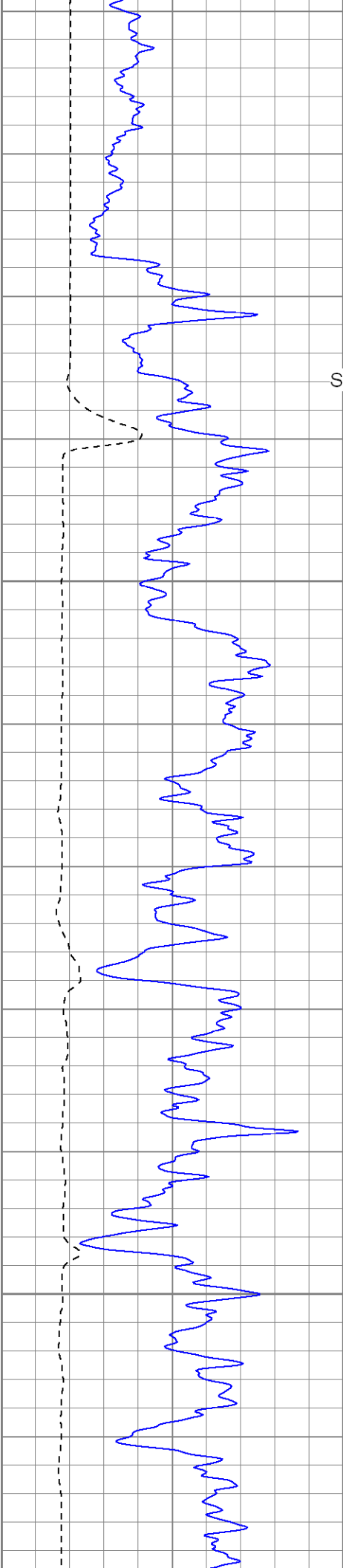
# High Resolution Pass

Database File: xtone2502.db  
Dataset Pathname: pass2.3  
Presentation Format: cdlhr  
Dataset Creation: Wed Mar 19 07:17:59 2008 by Calc Open-Cased 070814  
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

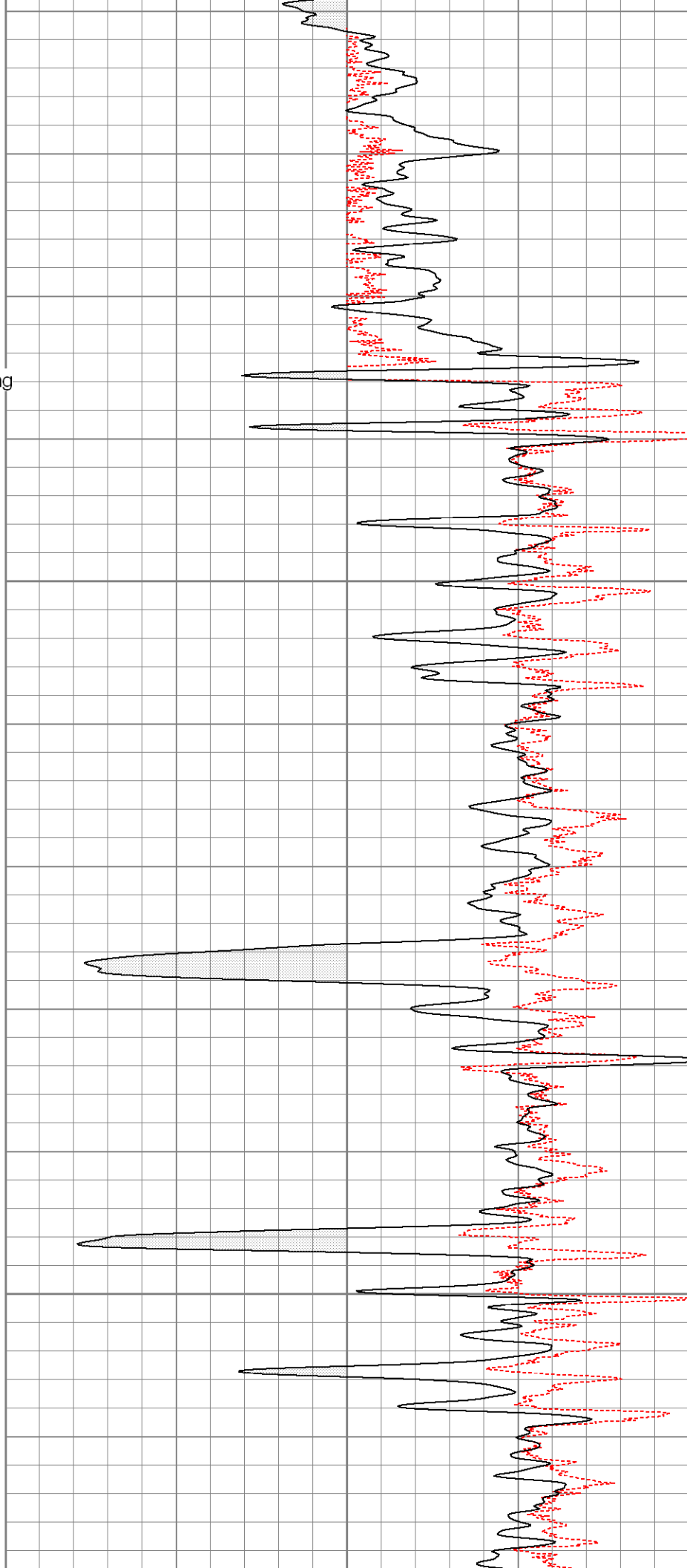


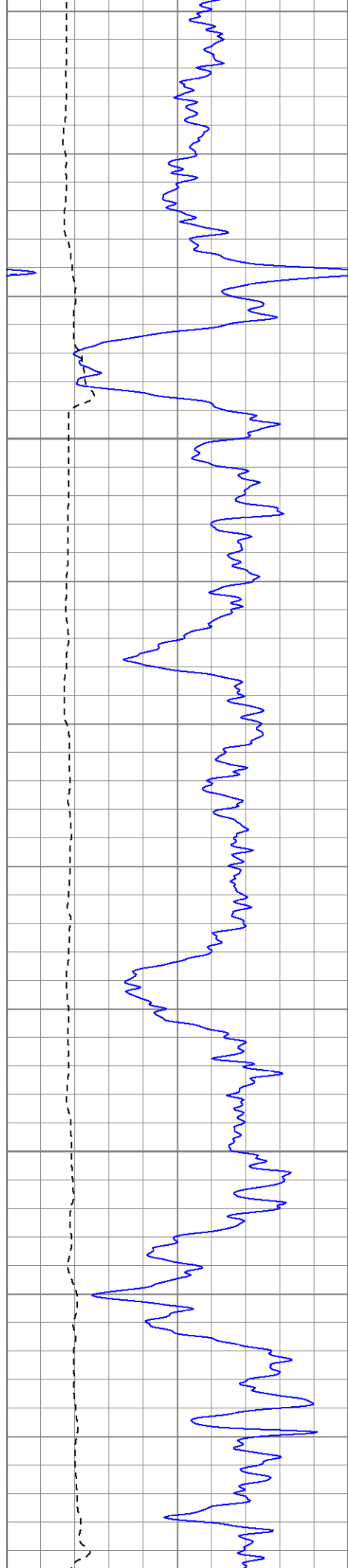


Surface Casing

600

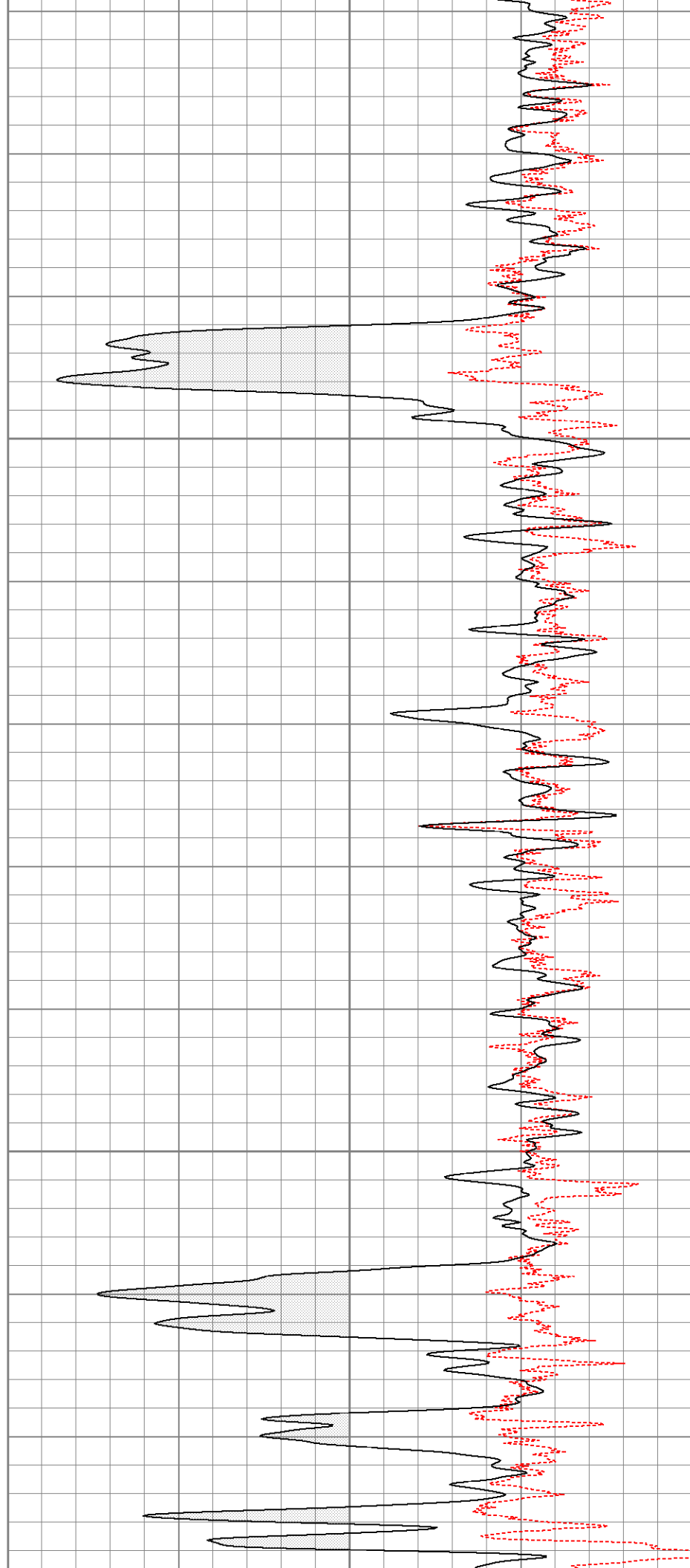
650

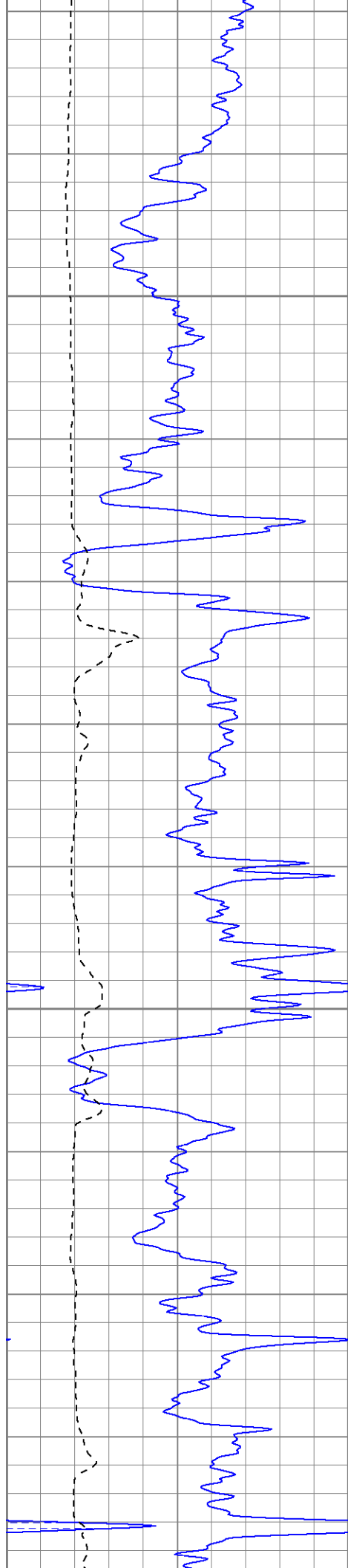




700

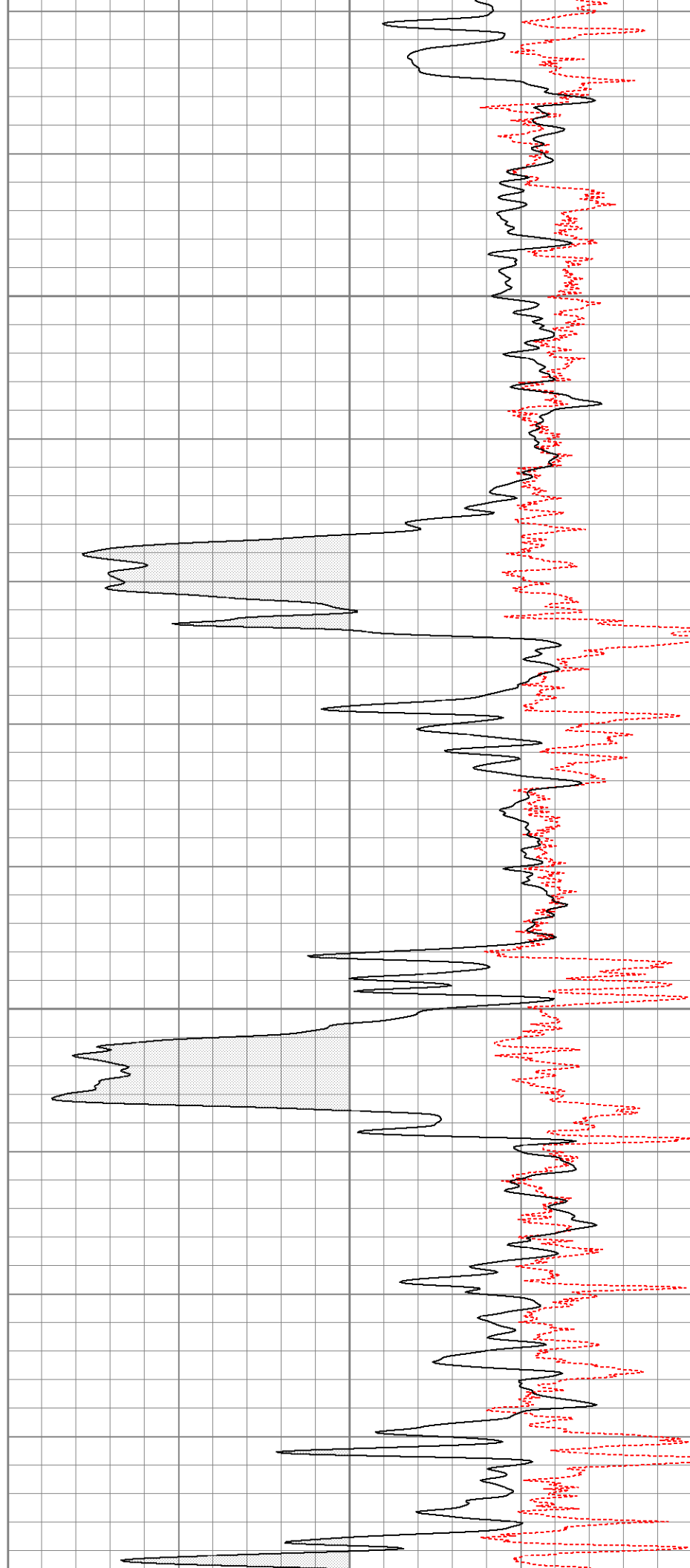
750

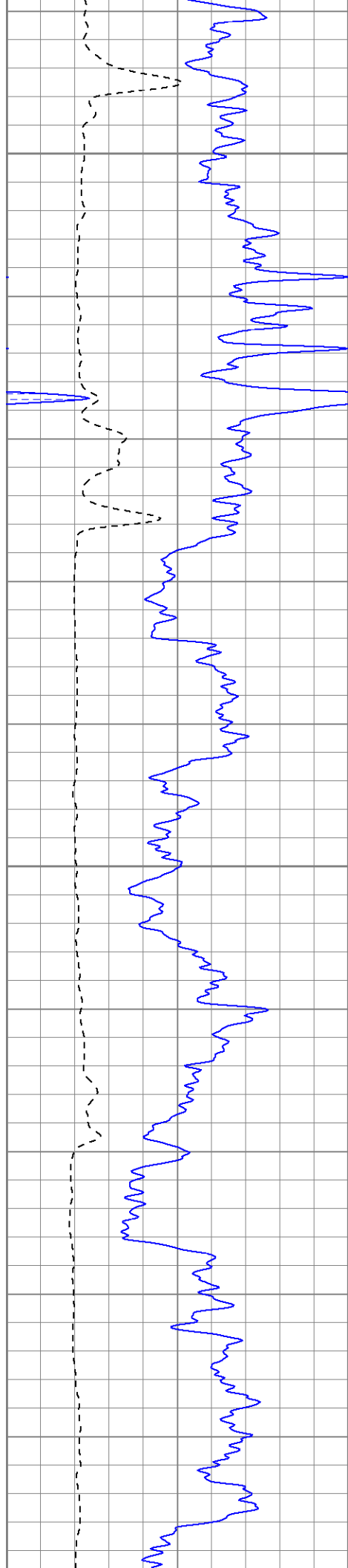




800

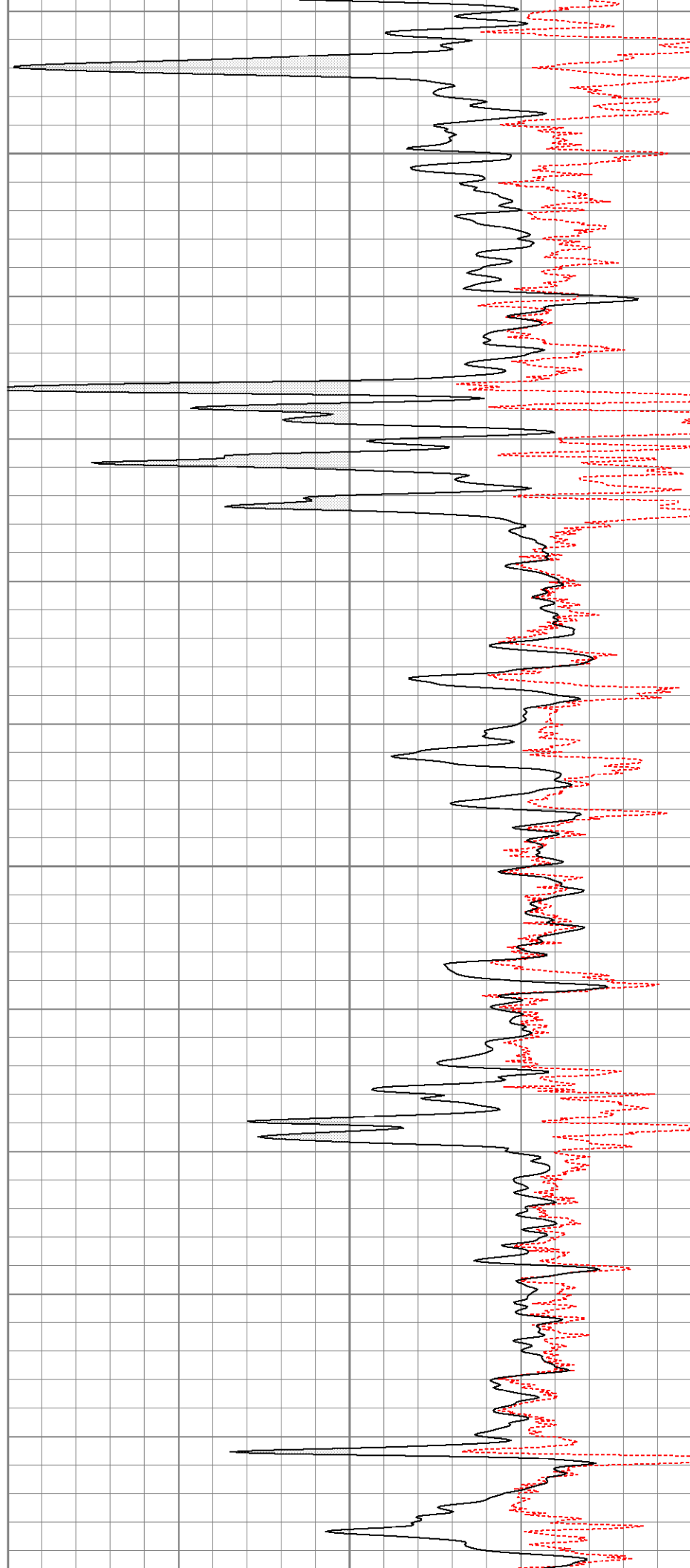
850





900

950

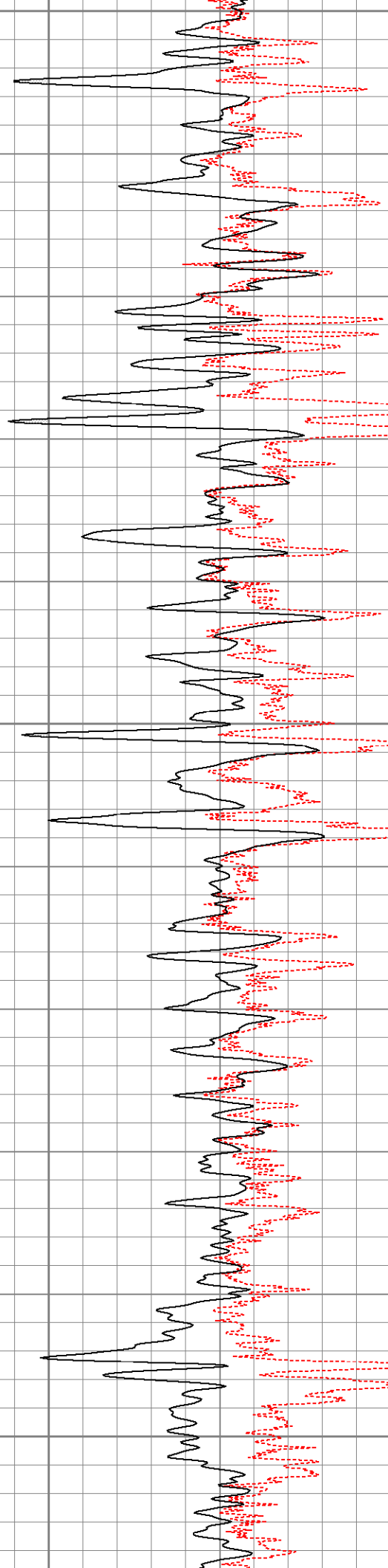


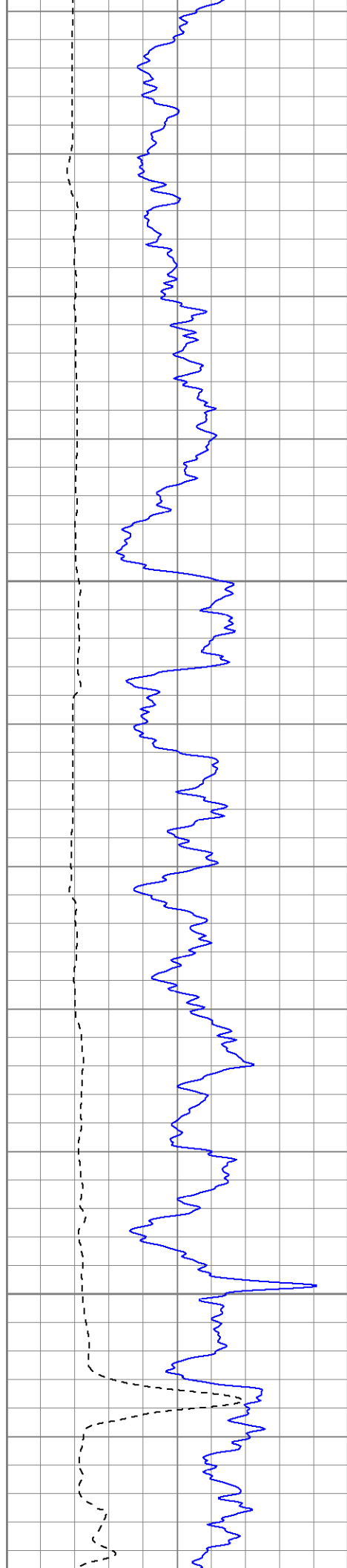


1000

1050

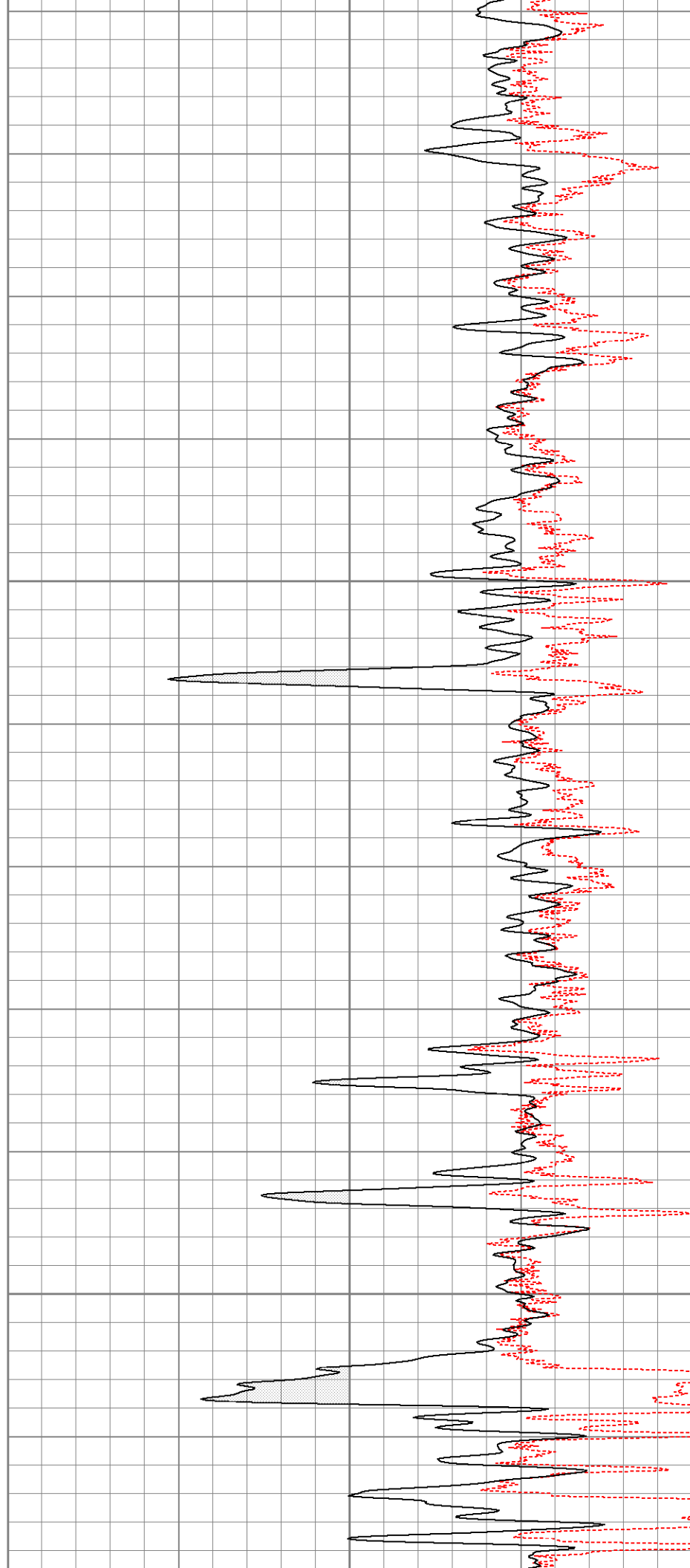
1100

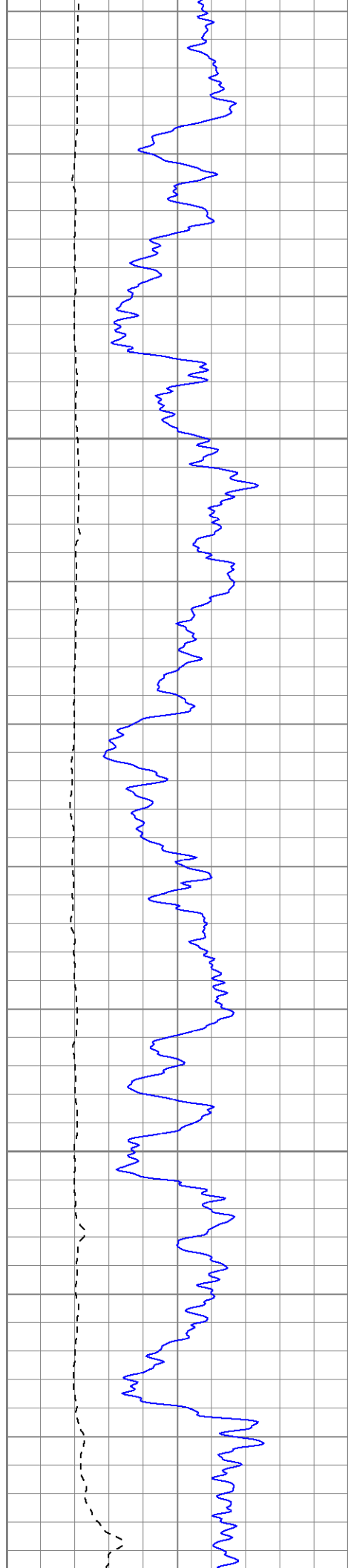




1150

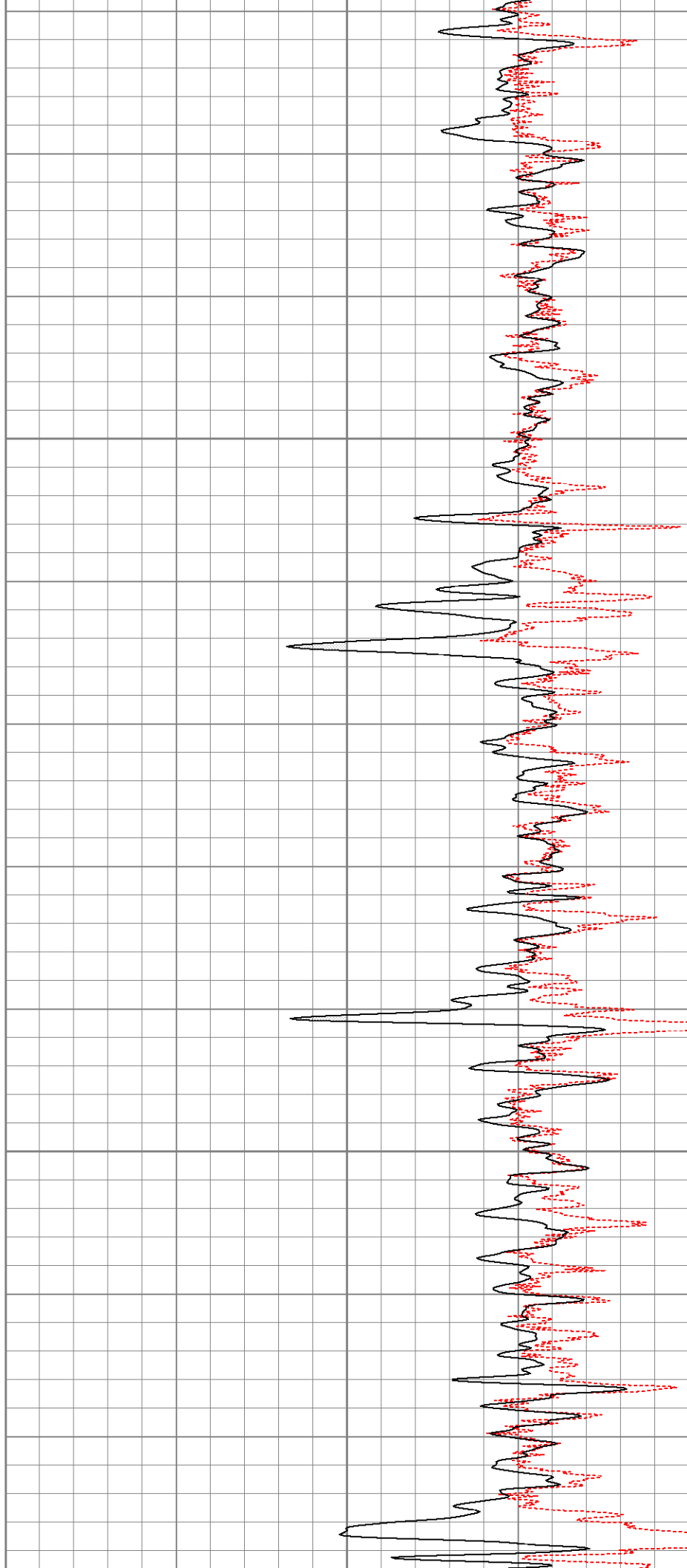
1200

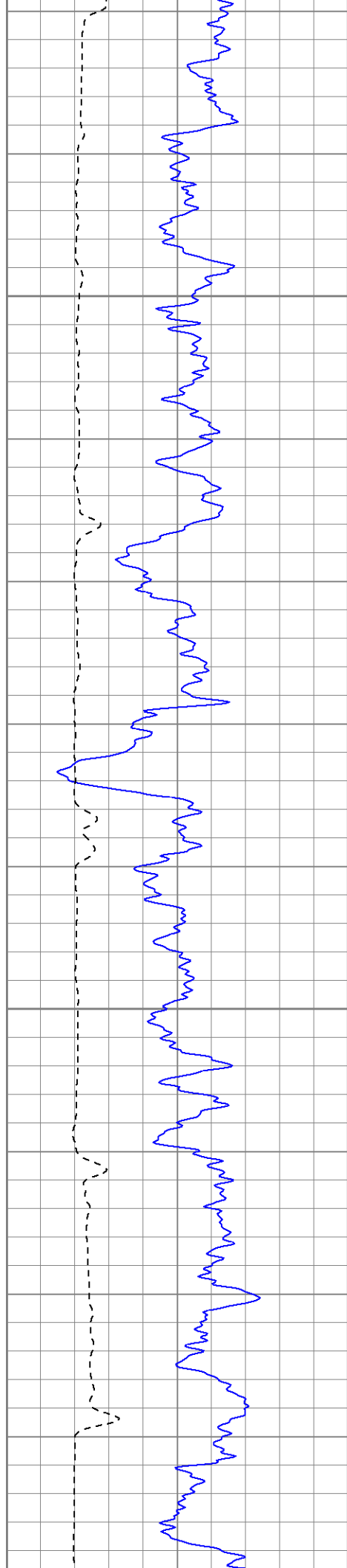




1250

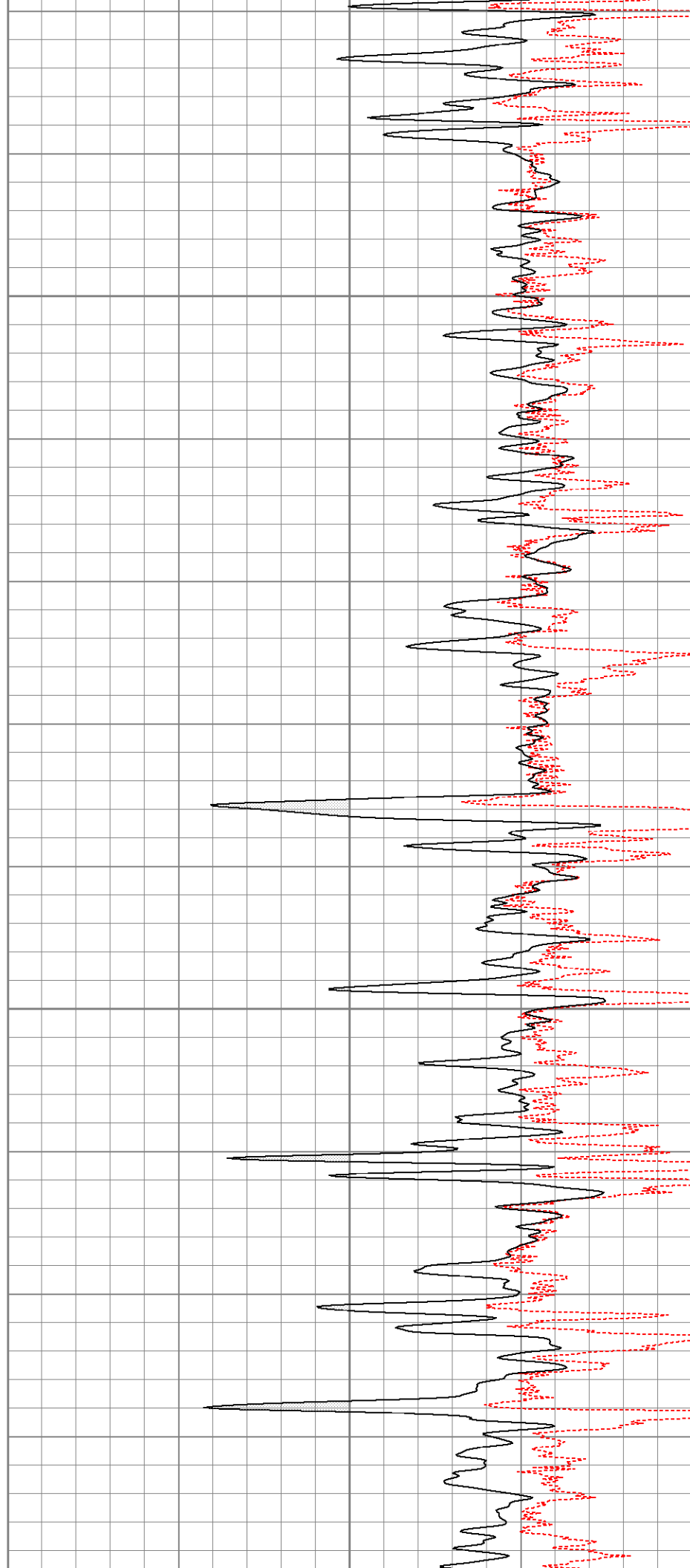
1300

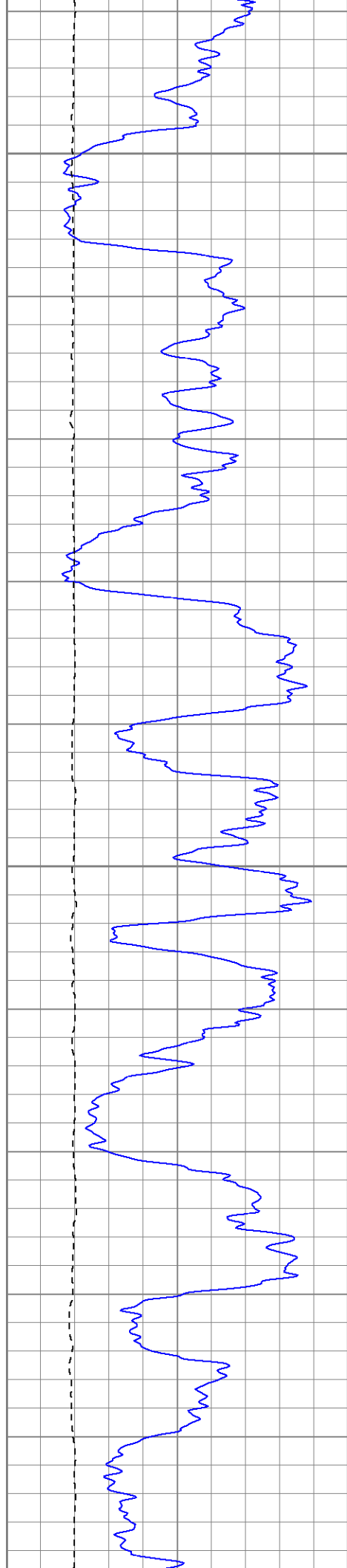




1350

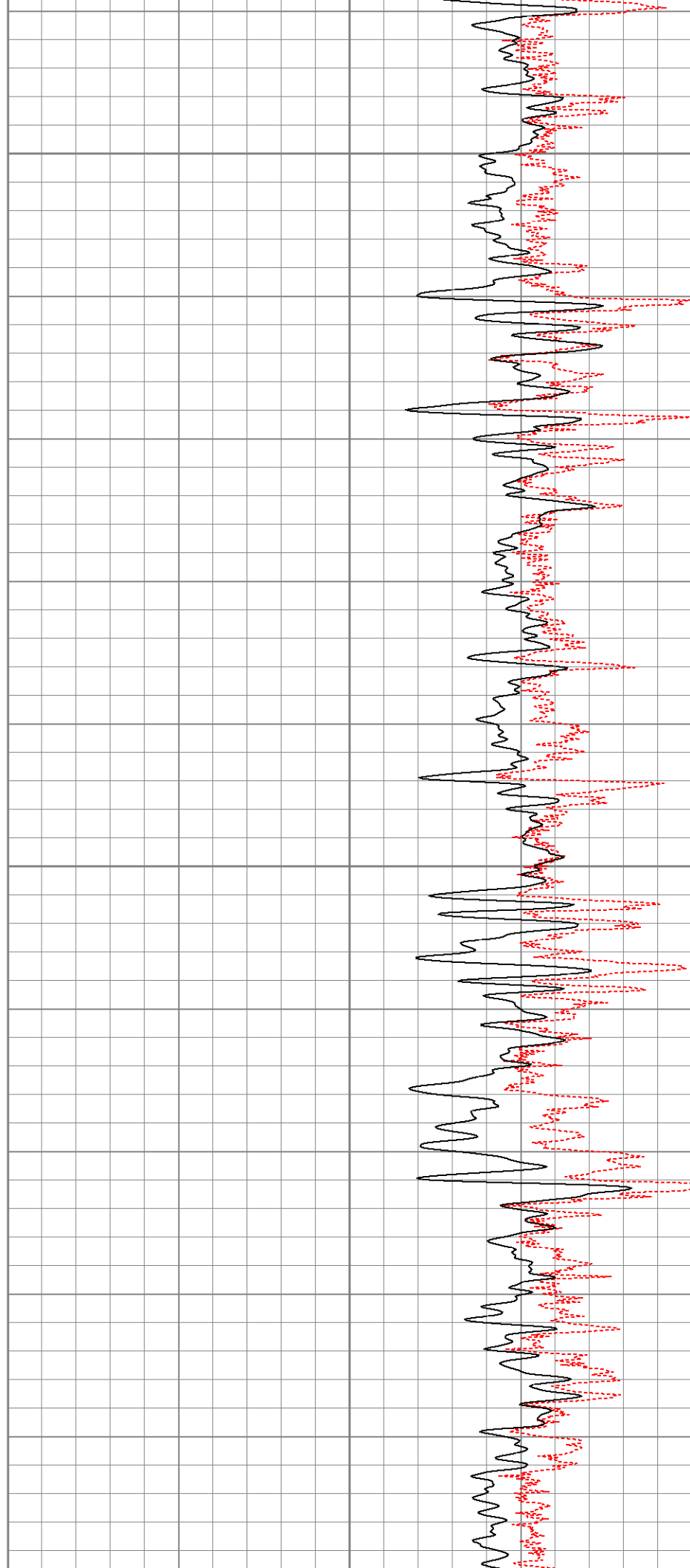
1400





1450

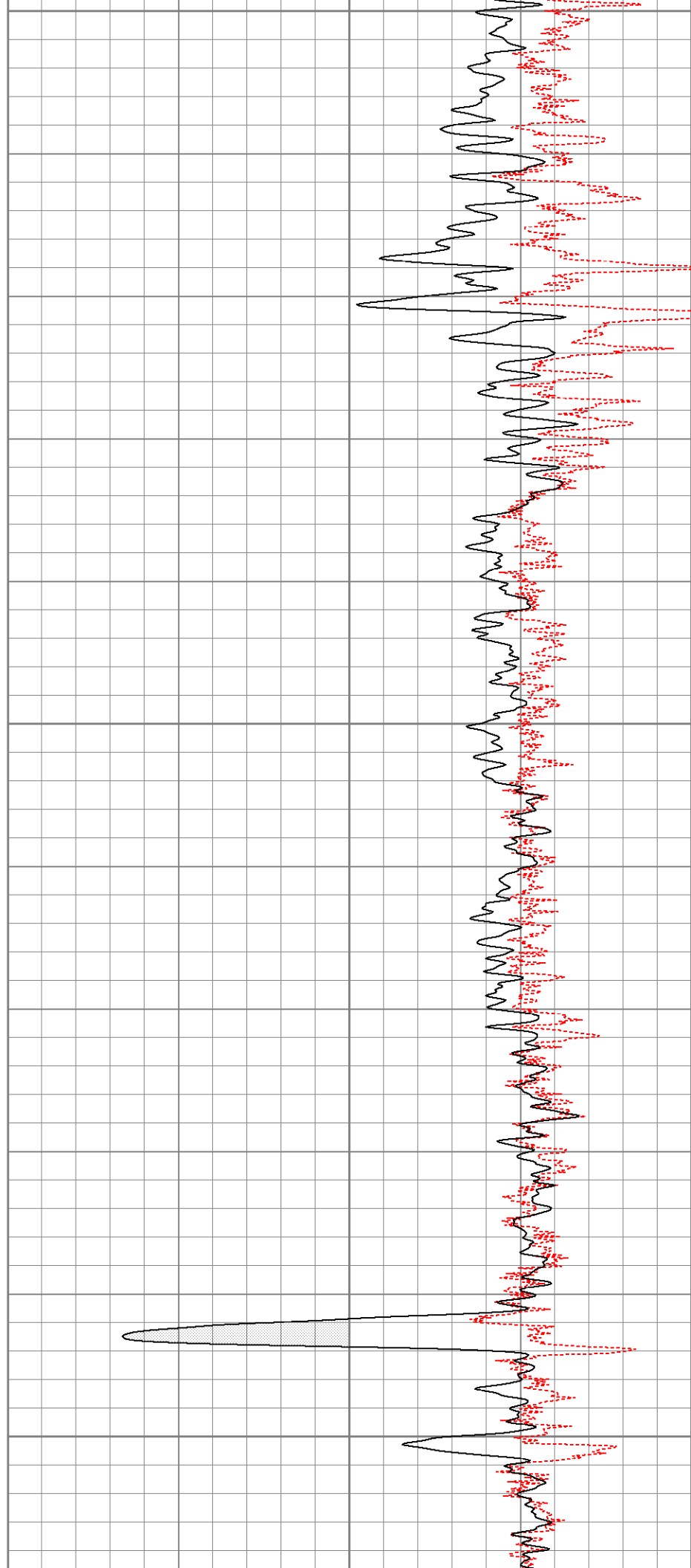
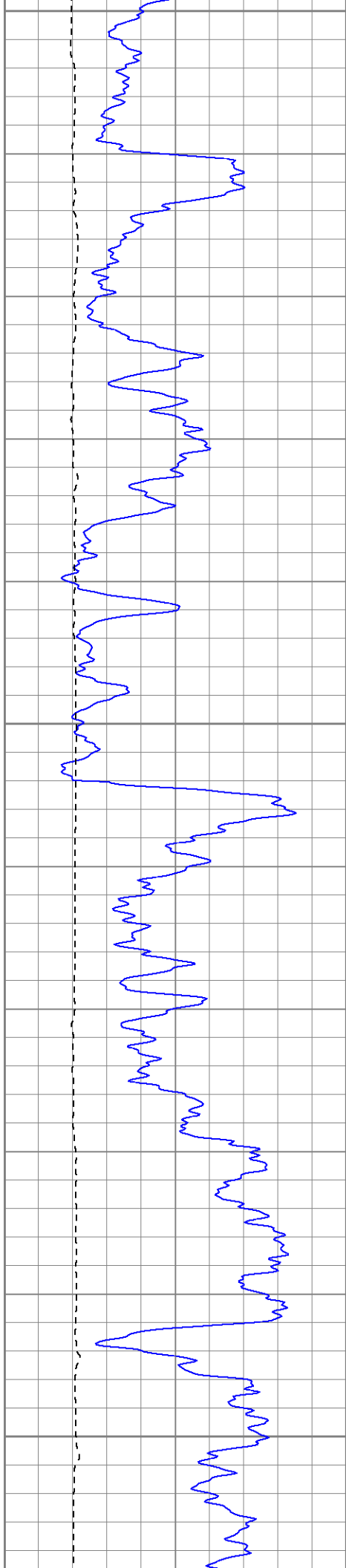
1500

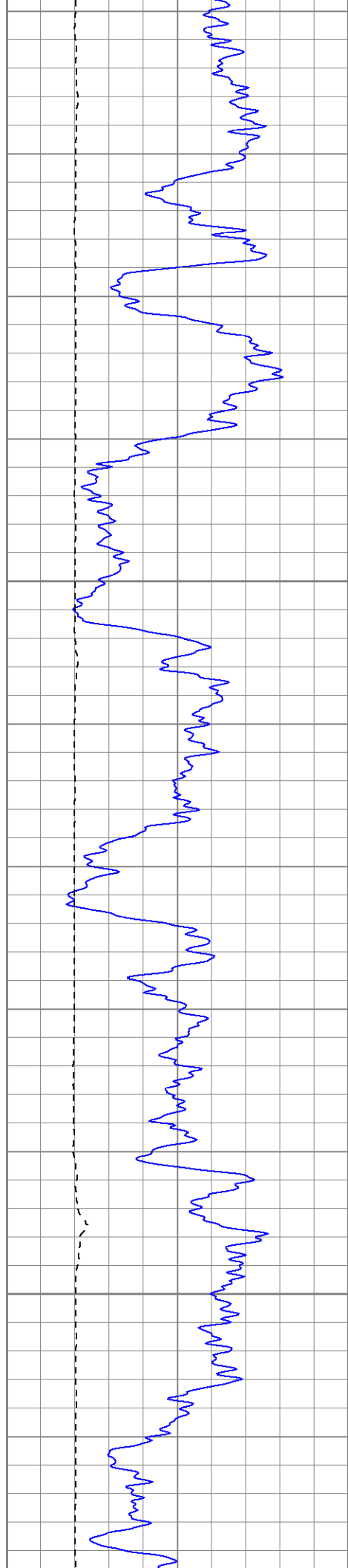


1550

1600

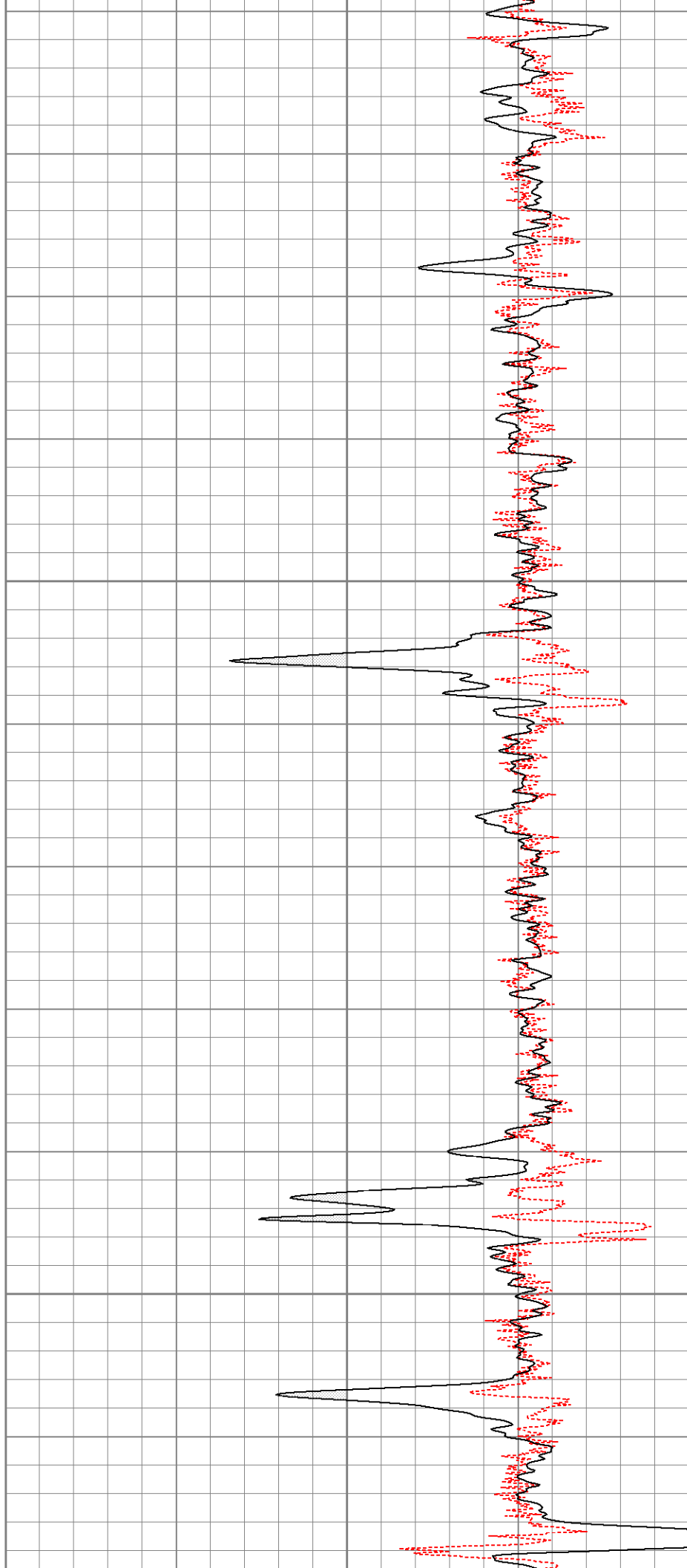
1650

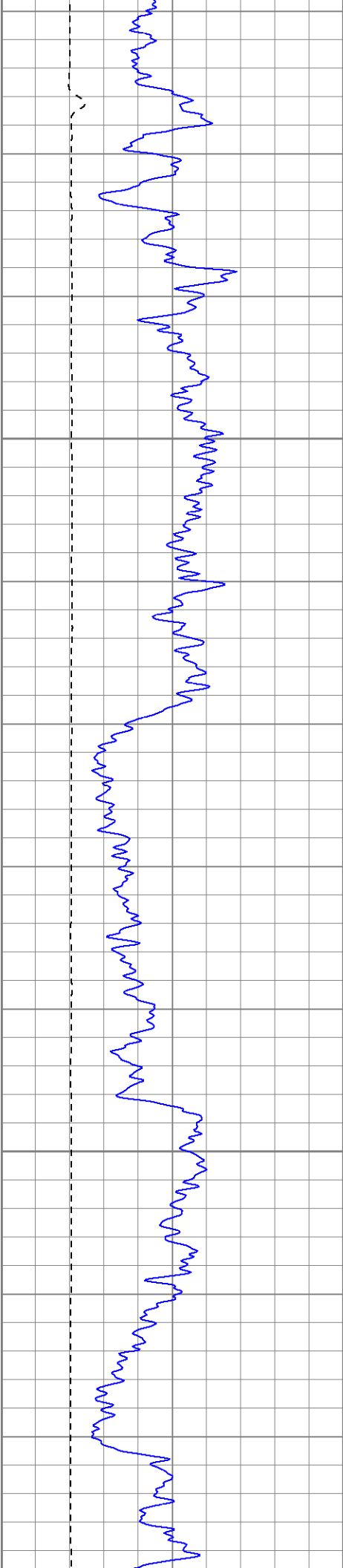




1700

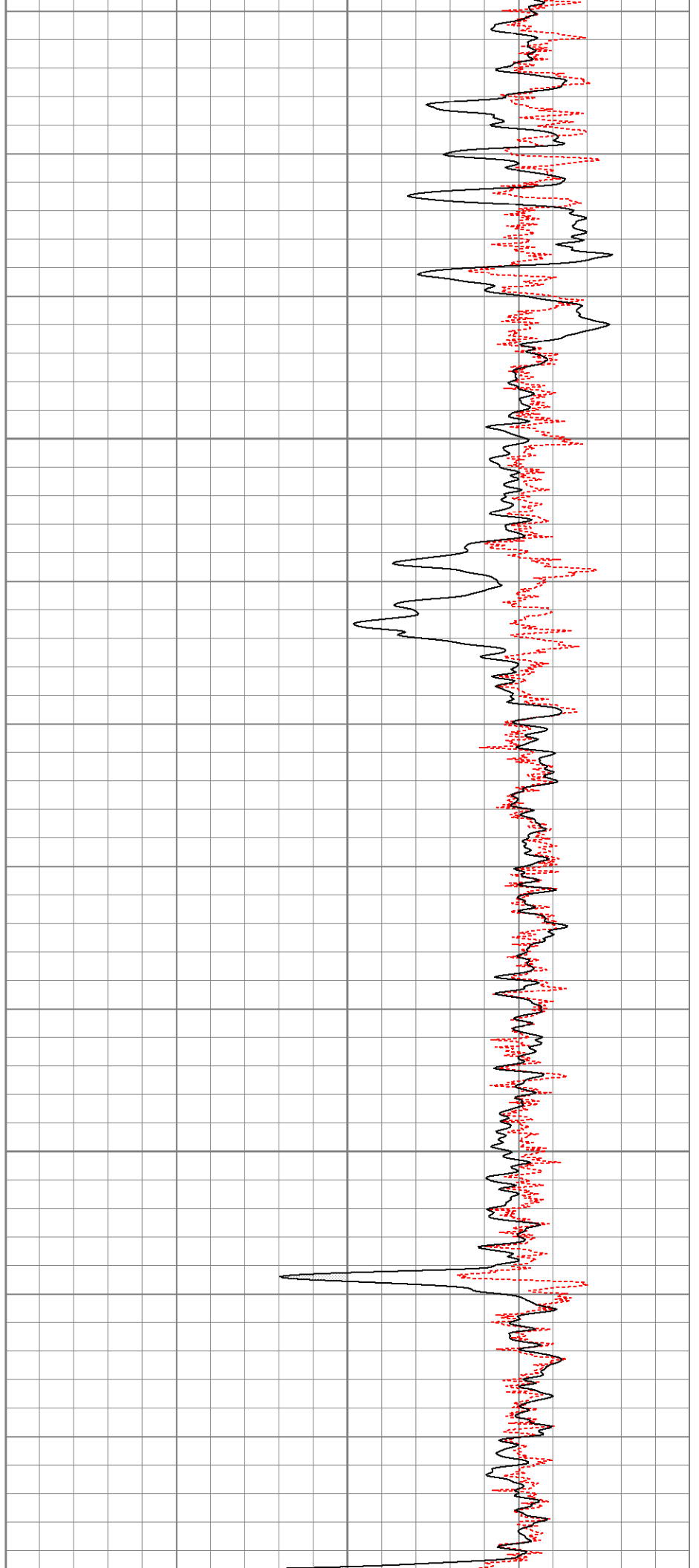
1750



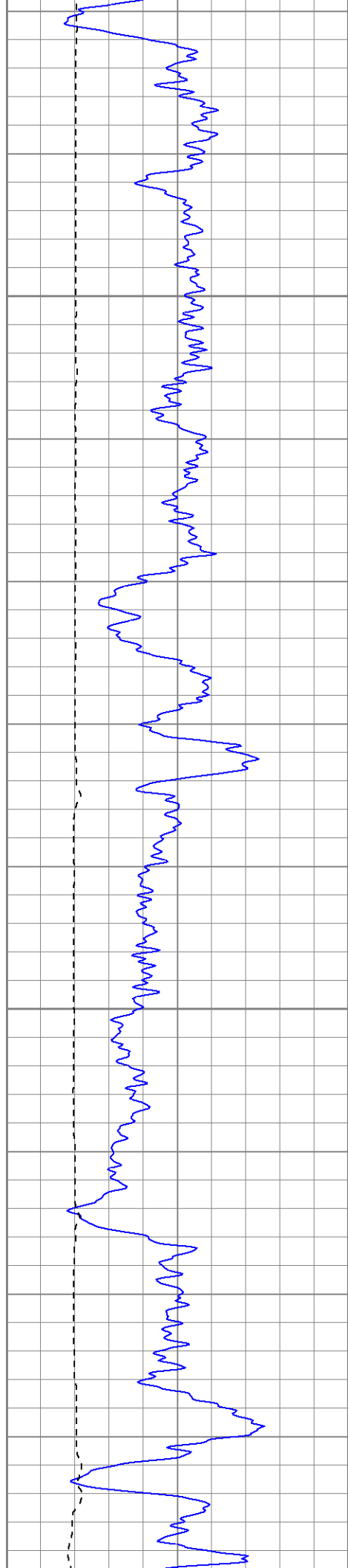


1800

1850

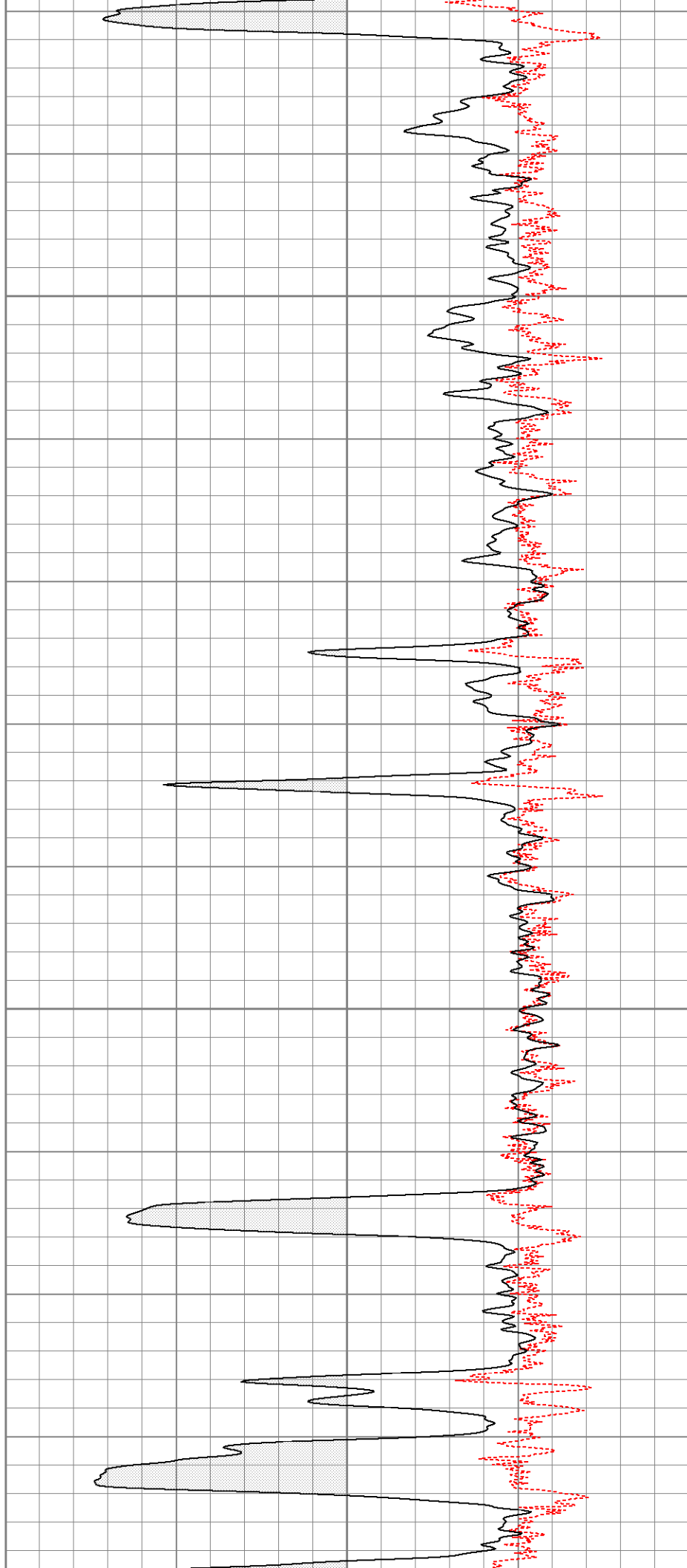


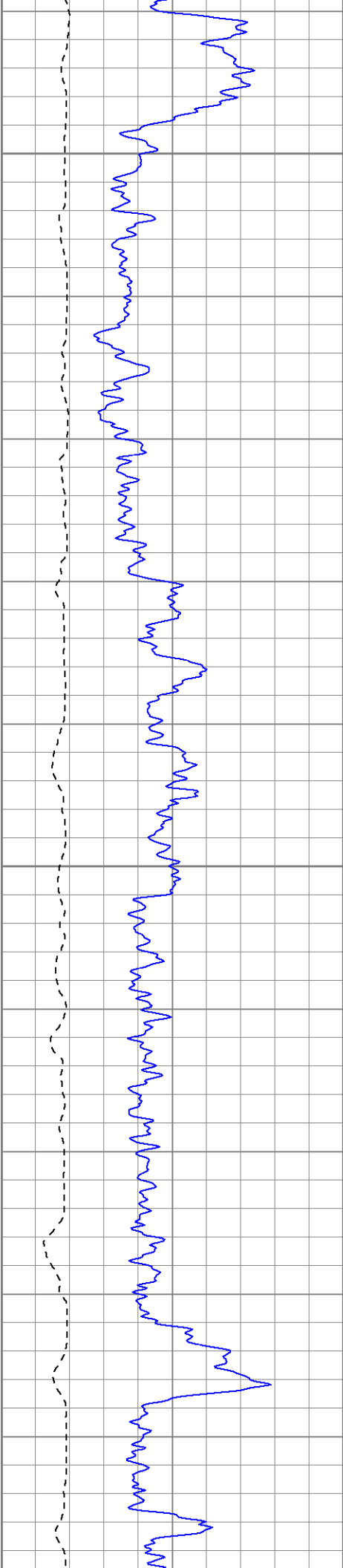




1900

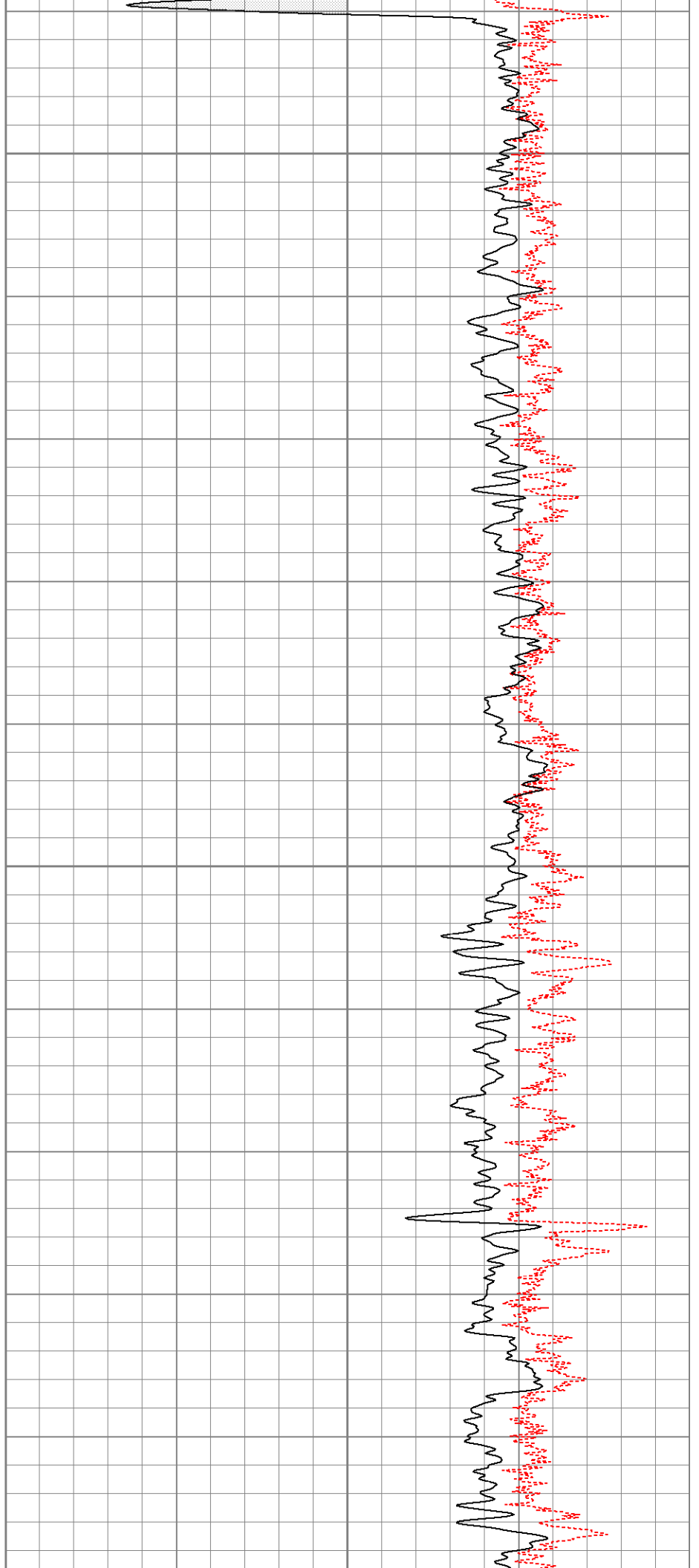
1950





2000

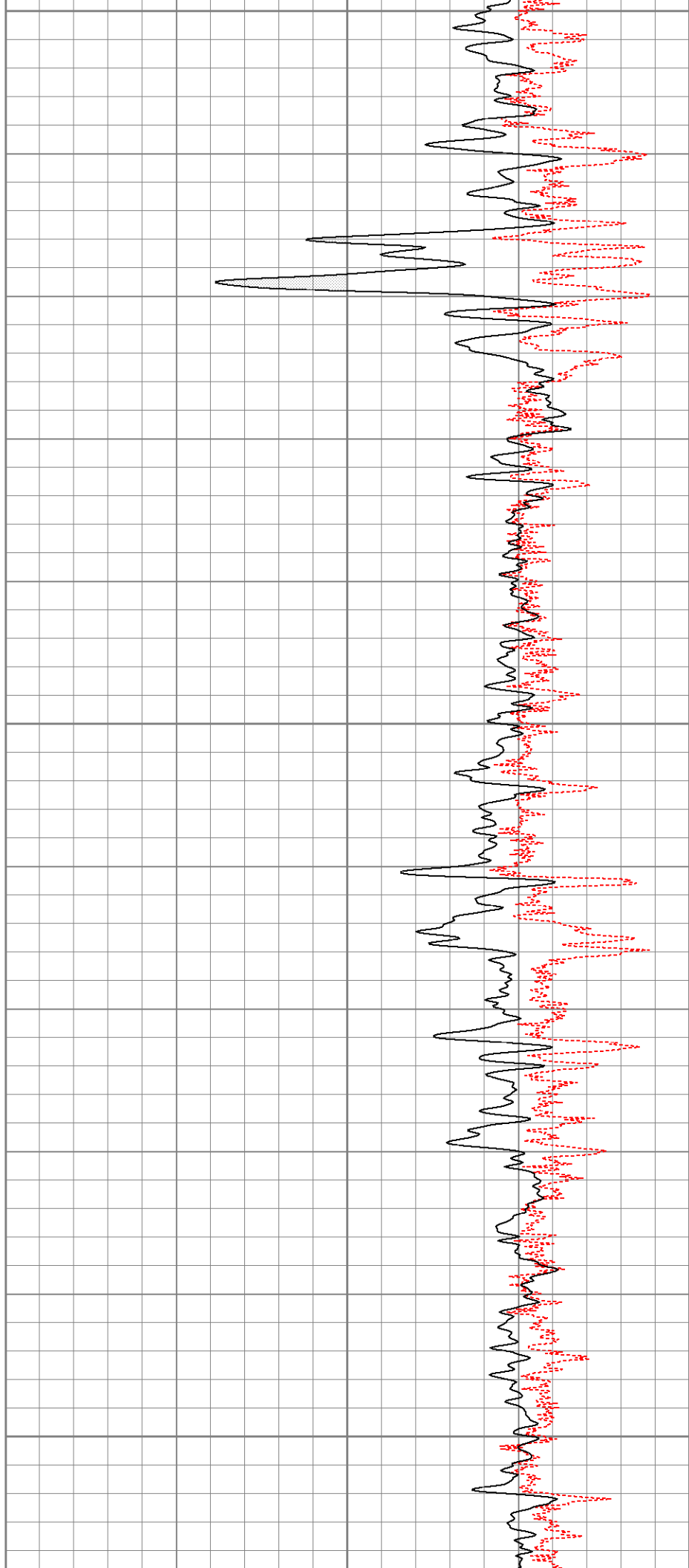
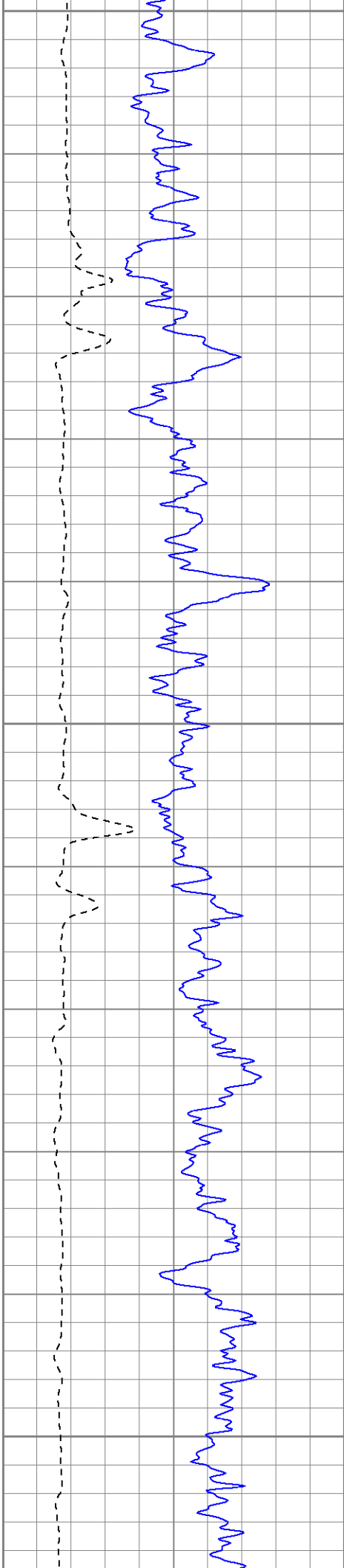
2050

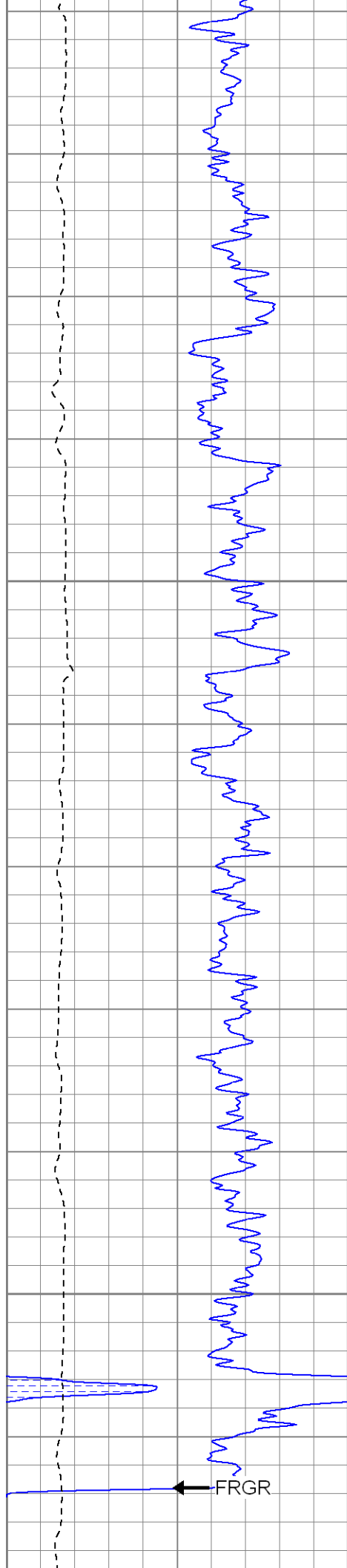


2100

2150

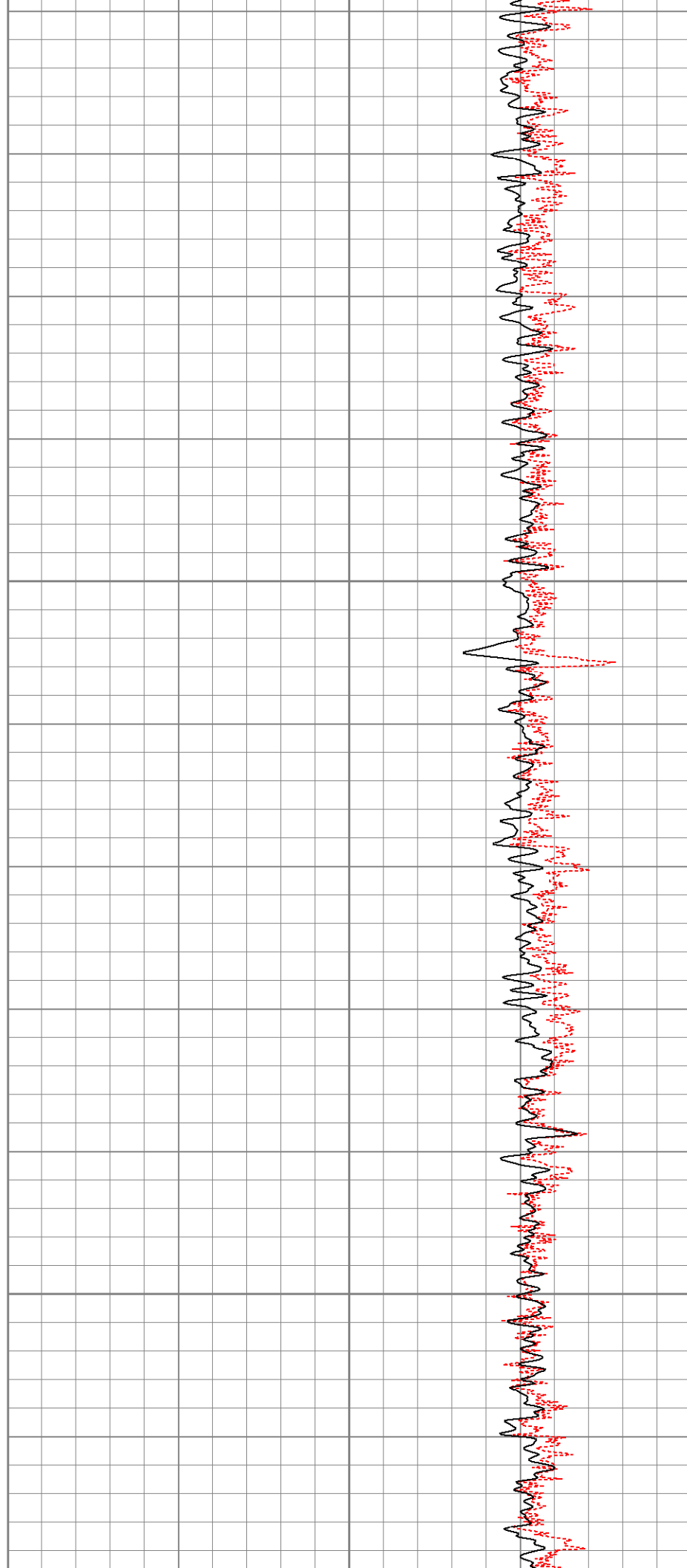
2200

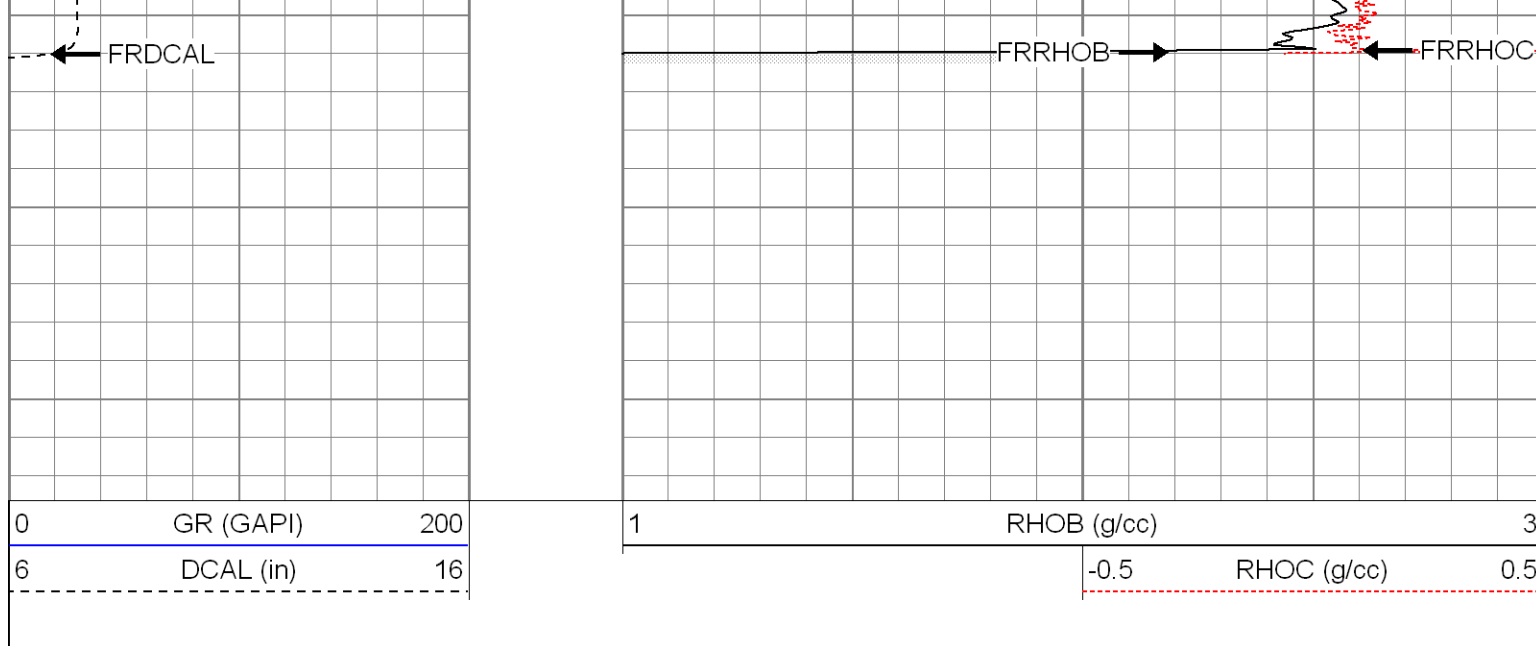




2250

2300








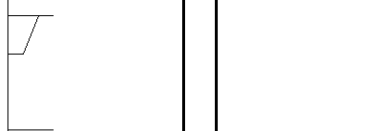
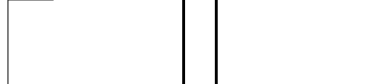
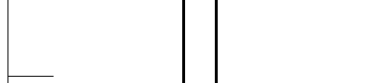
Calibration Report									
Database File:		xtone2502.db							
Dataset Pathname:		pass1							
Dataset Creation:		Tue Mar 18 14:17:09 2008 by Log Open-Cased 070814							
Dual Induction Calibration Report									
Serial-Model:		5375-G							
Surface Cal Performed:		Wed Mar 05 01:17:28 2008							
Downhole Cal Performed:		Wed Mar 05 01:18:19 2008							
Surface Calibration									
		Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b	
Deep	0.000	0.619	V	0.000	500.000	mmho-m	808.416	-0.143	
Medium	0.003	0.740	V	0.000	550.000	mmho-m	746.121	-2.291	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.000	0.618	V	0.000	500.000	mmho-m	809.686	-0.193	
Medium	0.003	0.740	V	0.000	550.000	mmho-m	746.925	-2.612	
Downhole Calibration									
		Readings			References			Results	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.133	499.798	mmho-m	0.049	499.265	mmho-m	0.999	-0.084	
Medium	0.460	549.973	mmho-m	0.319	549.727	mmho-m	1.000	-0.141	
Shallow	2.510	0.008	V	500.000	2.000	Ohm-m	124.000	-3.000	

Compensated Density Calibration Report			
Serial-Model:		2118-poilex	
Source / Verifier:		/	
Master Calibration Performed:		Mon Mar 17 09:00:21 2008	
Master Calibration			
Density		Far Detector	Near Detector

Magnesium	1.710	g/cc	689.13	662.28	cps
Aluminum	2.590	g/cc	156.84	466.09	cps
Spine Angle = 76.65			Density/Spine Ratio = 0.578		
	Size		Reading		
Small Ring	8.50	in	4.33	V	
Large Ring	14.00	in	8.24	V	

Gamma Ray Calibration Report					
Serial Number:	2001				
Tool Model:	OH				
Performed:	Wed Mar 05 01:30:07 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:	Tue Mar 04 08:46:08 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	37.31		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
			CDL-poilex (2118)	8.83	4.00	275.00
LSD	23.30					
DCAL	22.89					
SSD	22.72					

CILD SP	10.60 10.60		DIL-G (5375) Gearhart	21.47	4.00	345.00
CILM	6.89					
RLL3	1.70					
Dataset: xtone2502.db: field/well/run1/pass1 Total Length: 40.26 ft Total Weight: 750.00 lb O.D. 4.00 in						