



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

COMPENSATED DENSITY/NEUTRON LOG

Company XTO Energy Inc.
Well Hill Ranch 23-04
Field Purgatorie River
County Las Animas State CO

Location: API # : 071-09477-00

32 1/2" FNL & 660' FWL

SEC 23 TWP 34S RGE 67W

Permanent Datum	Ground level	Elevation	7792'
Log Measured From	Ground Level		
Drilling Measured From	Ground Level		

Other Services
DIL
Elevation
K.B. -----
D.F. -----
G.L. 7792'

Date	4-22-08		
Run Number	One		
Depth Driller	2460'		
Depth Logger	2442'		
Bottom Logged Interval	2440'		
Top Log Interval	Surface Casing		
Casing Driller	8.625@470'		
Casing Logger	470'		
Bit Size	7.875"		
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	3:00 PM		
Time Logger on Bottom	5:00 PM		
Maximum Recorded Temperature	110 DEG F		
Equipment Number	T0700		
Location	Trinidad		
Recorded By	Karl Lucero		
Witnessed By	Mr. Dalton King		

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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 1/2" Casing.

Well Directions:

Lorencito 2.2 miles past Compressor station take right, at Y stay right up hill, At top of hill take left, take third left, drive through HRE 14-14, down hill 1st drive through location.

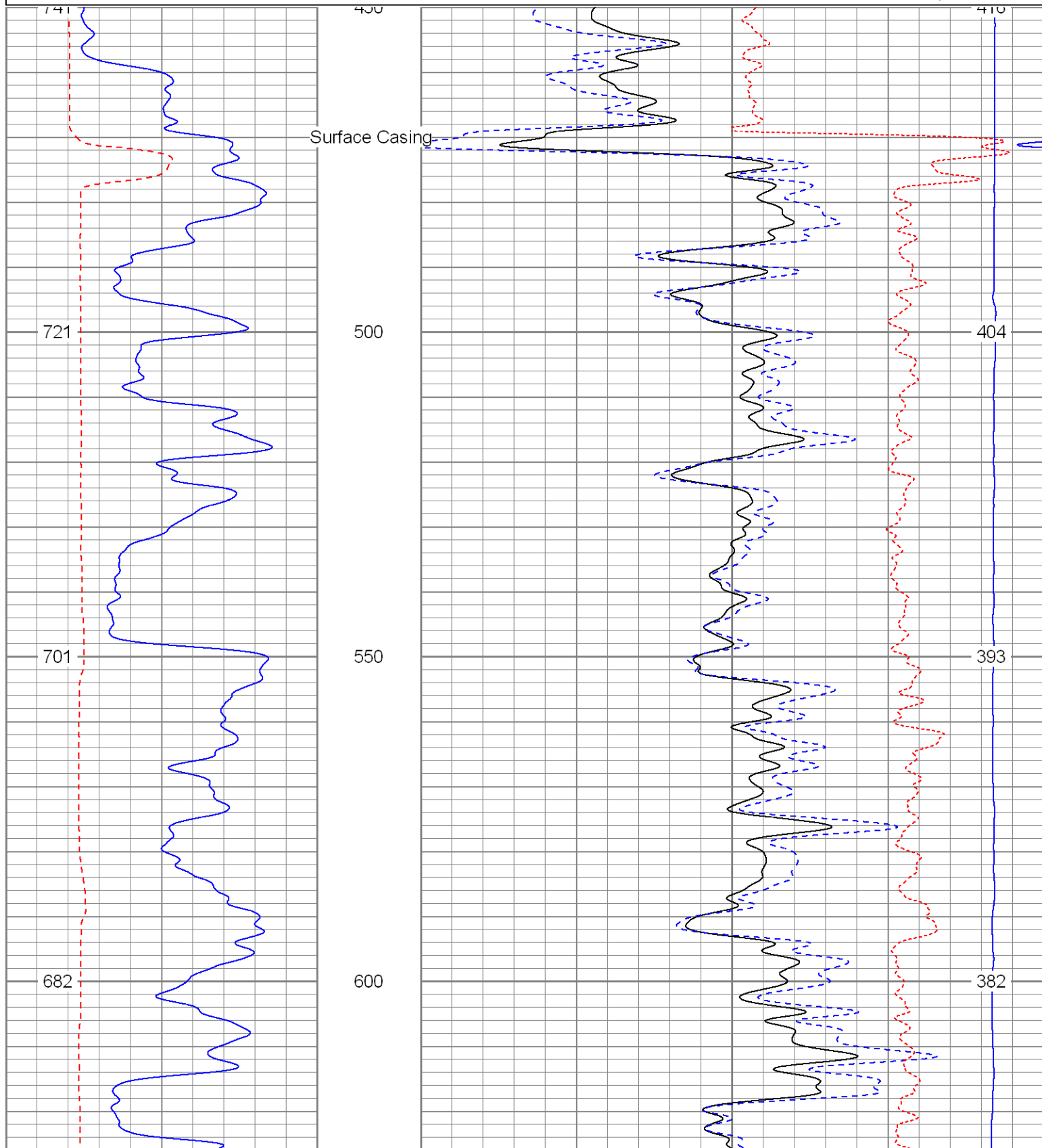


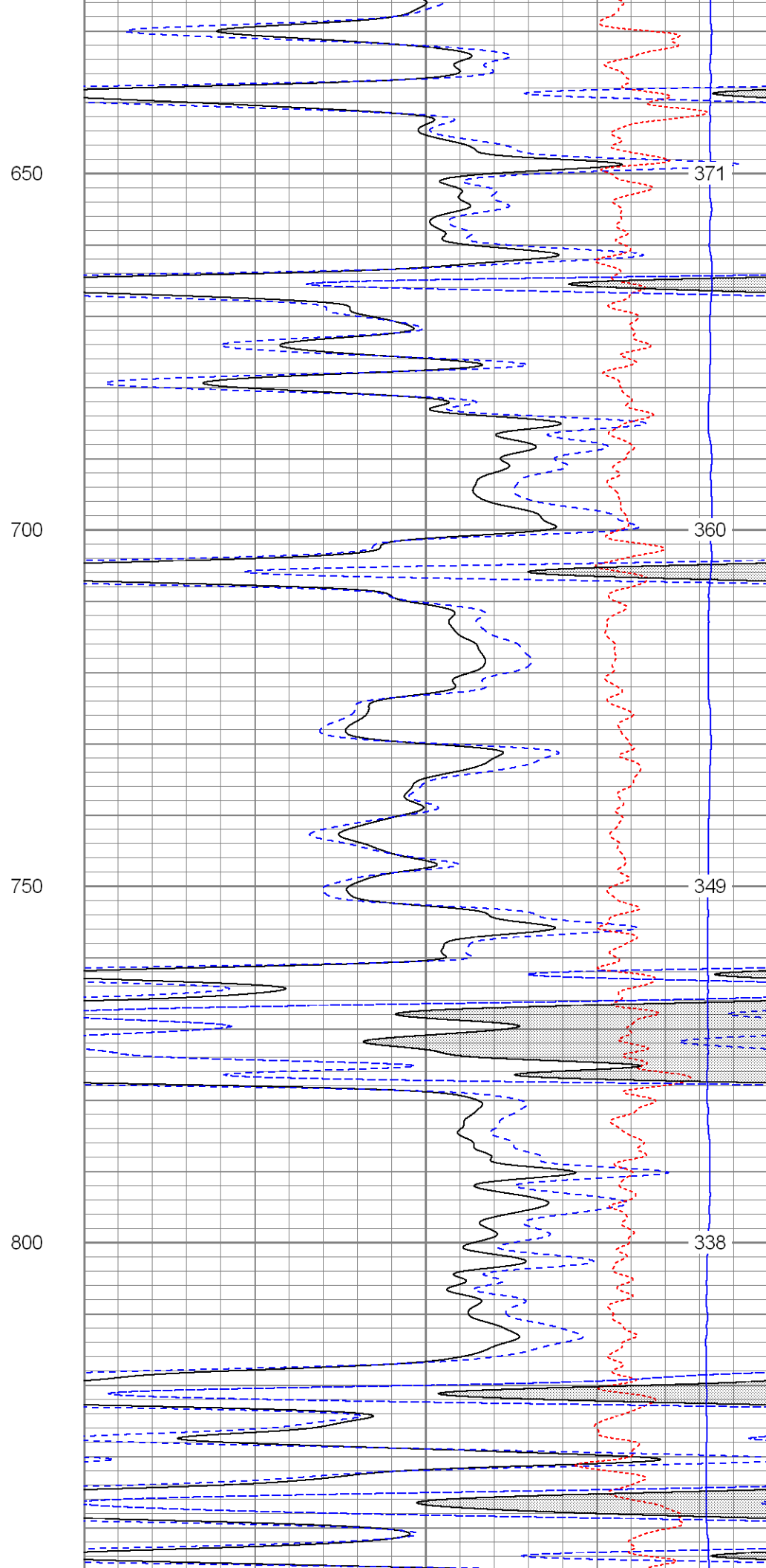
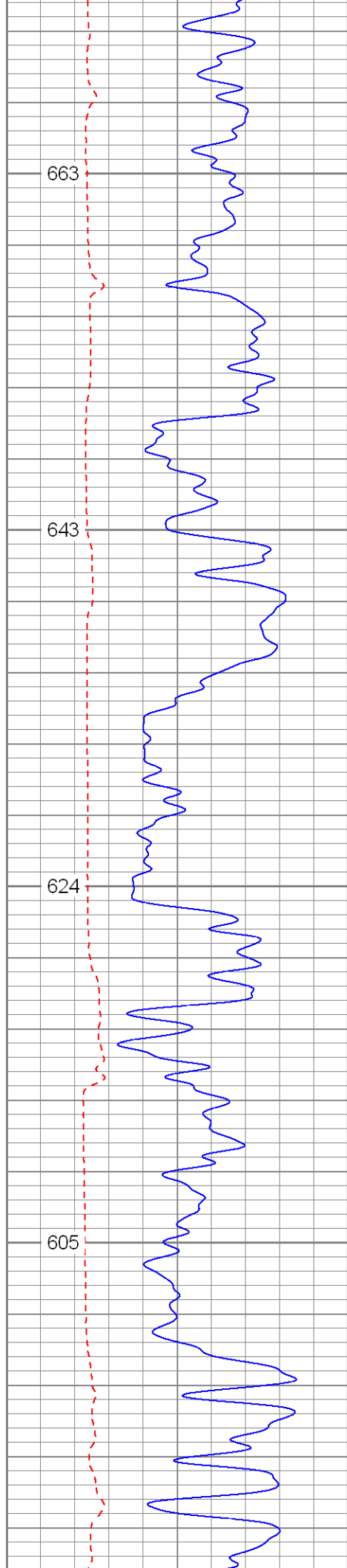
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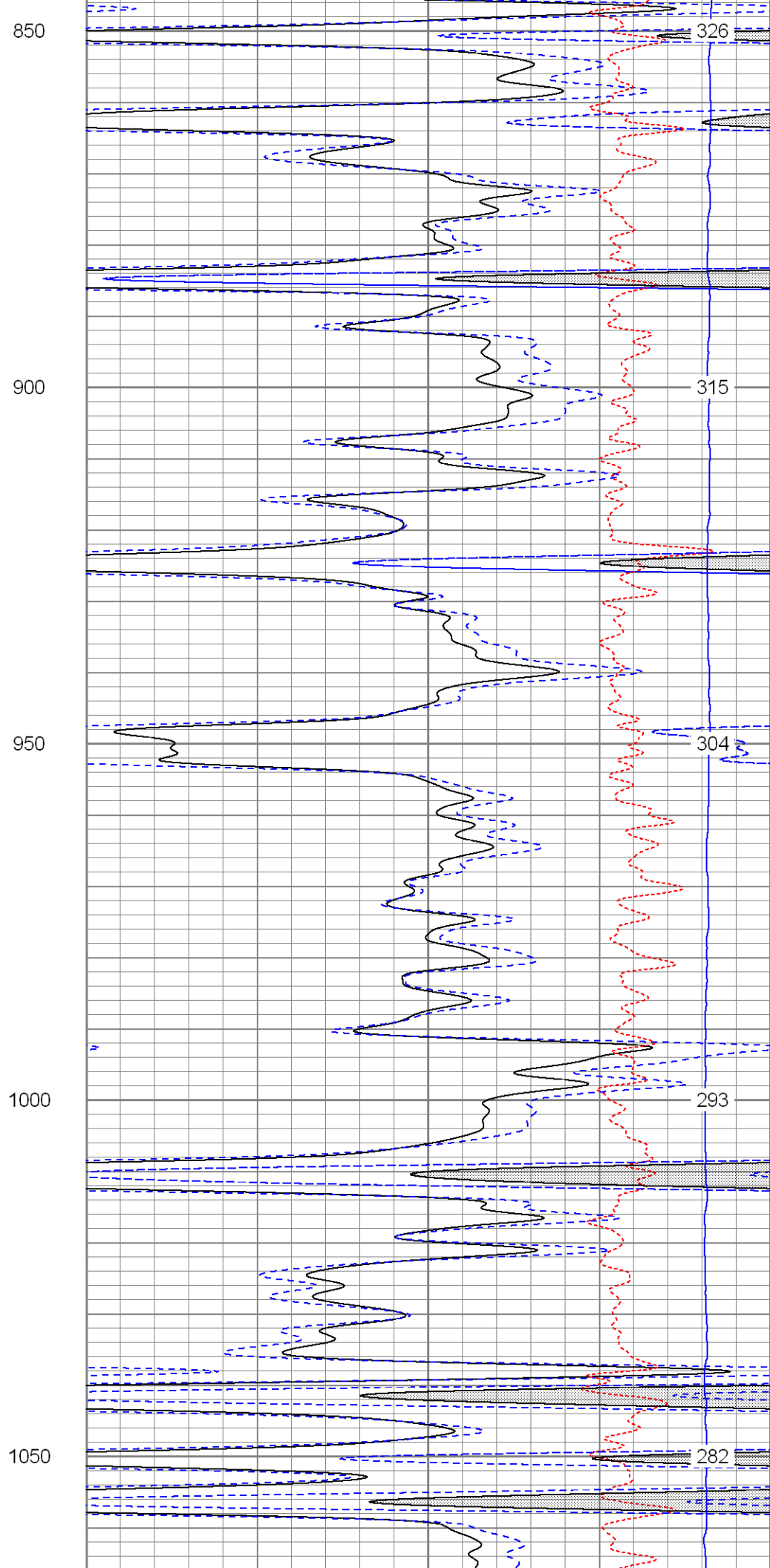
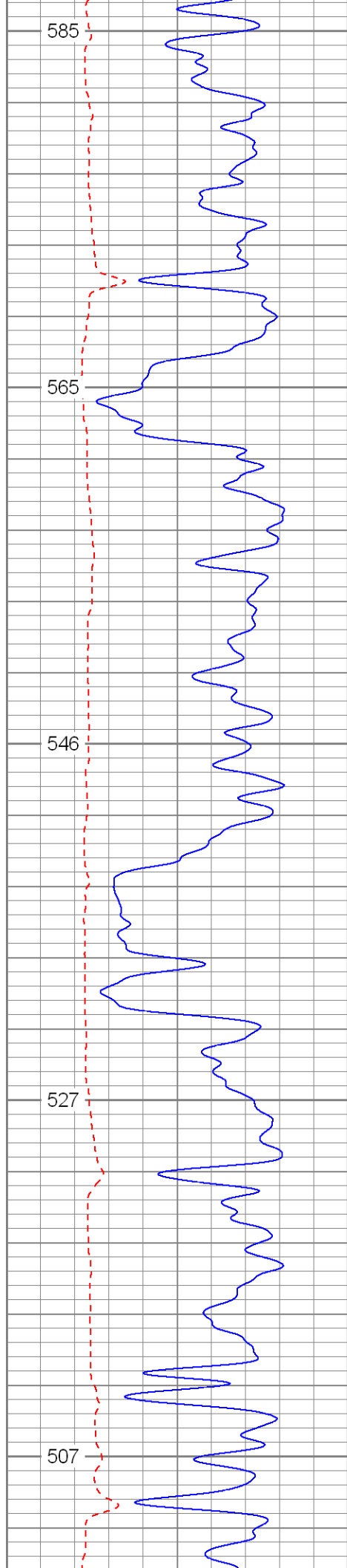
Main Pass

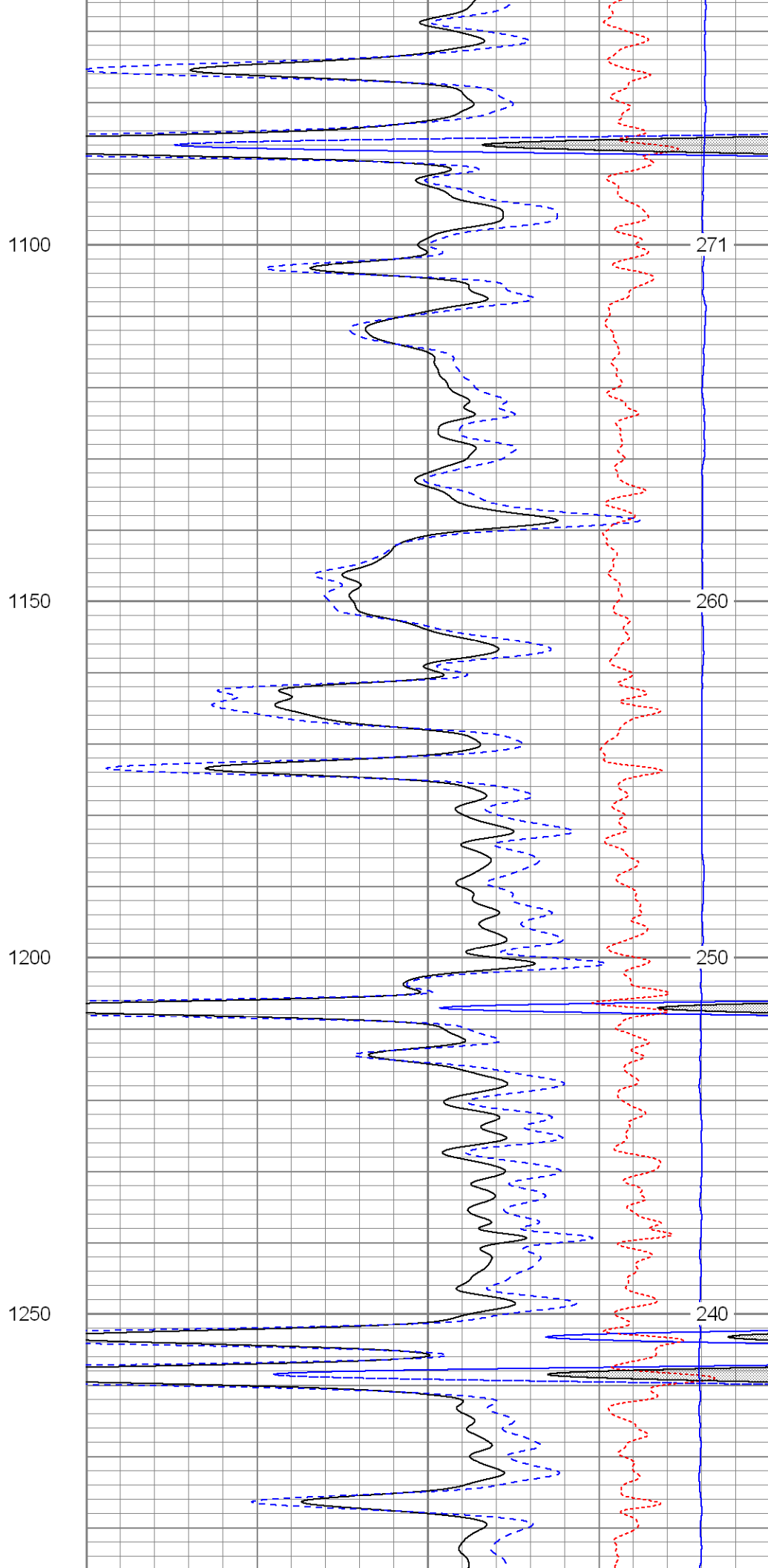
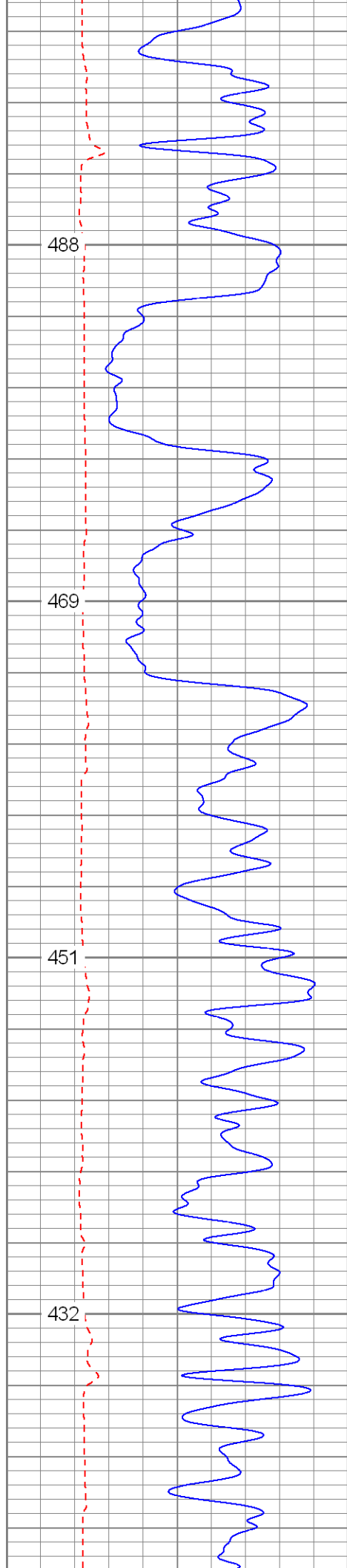
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Dataset Pathname: pass2.1
Presentation Format: cdl
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Charted by: Depth in Feet scaled 1:240

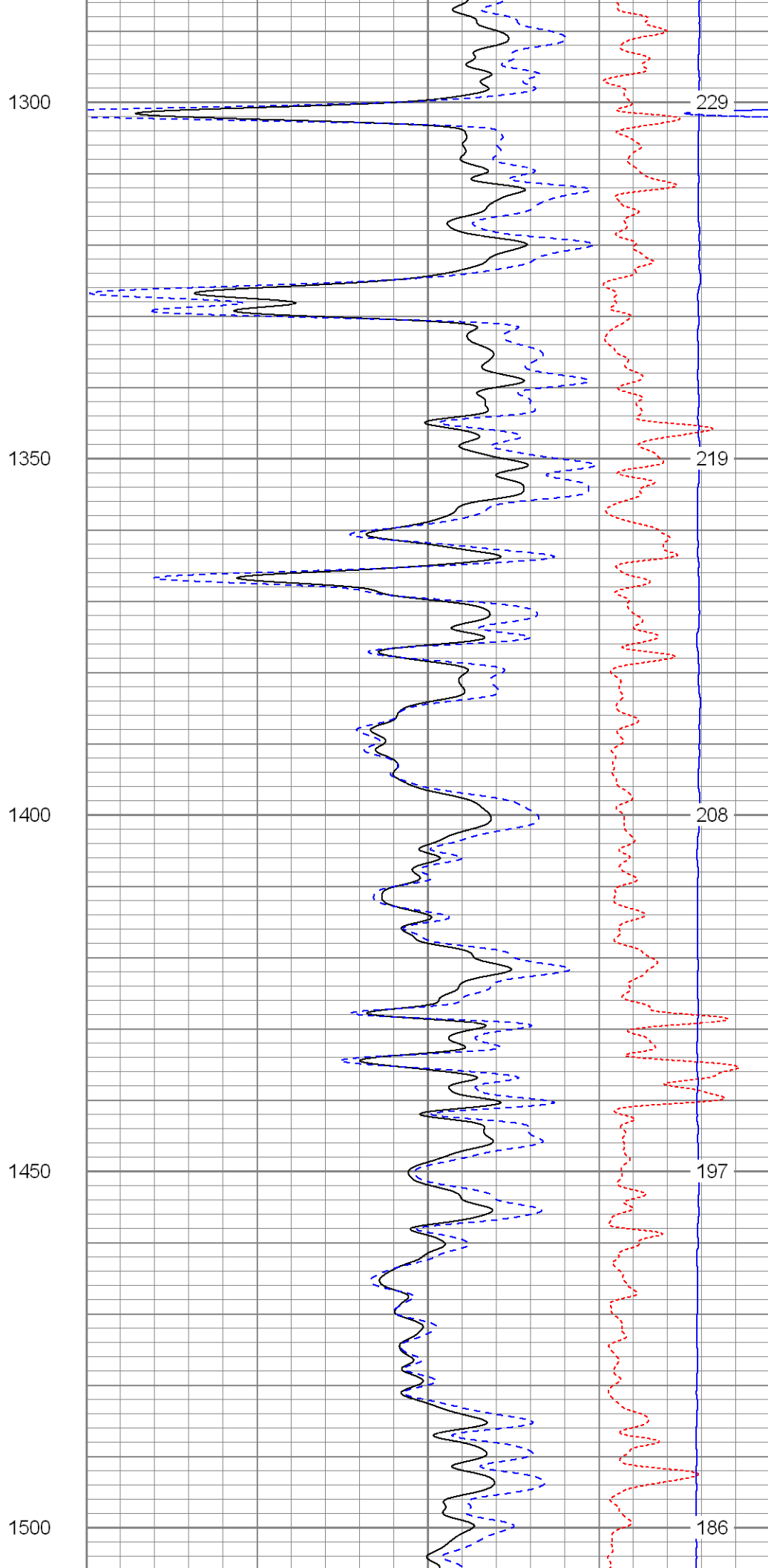
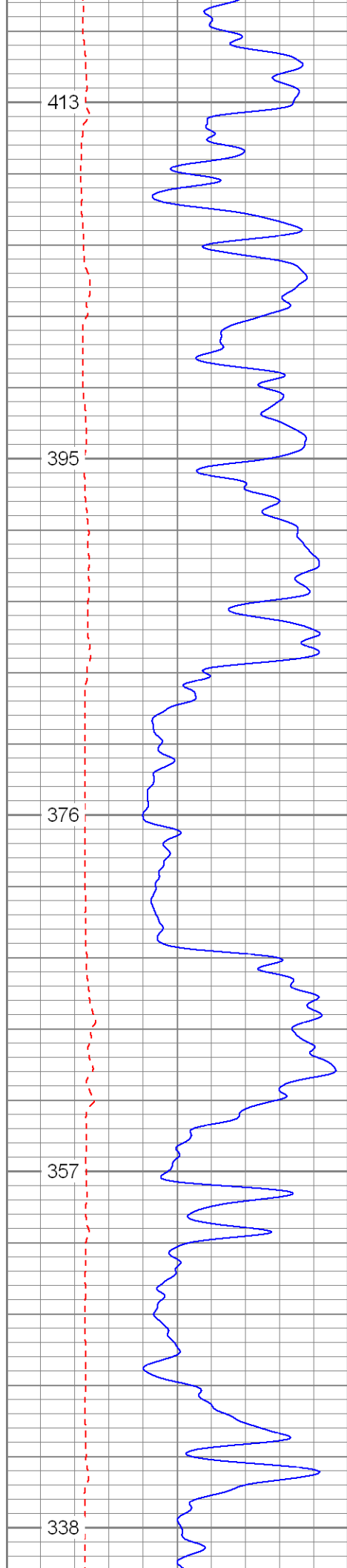
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6	DCAL (in)	16	30	DPOR (pu)		-10
TBHV (ft3)				-0.5	RHOC (g/cc)	0.5
				5000	LTEN (lb)	0
						ABHV (ft3)

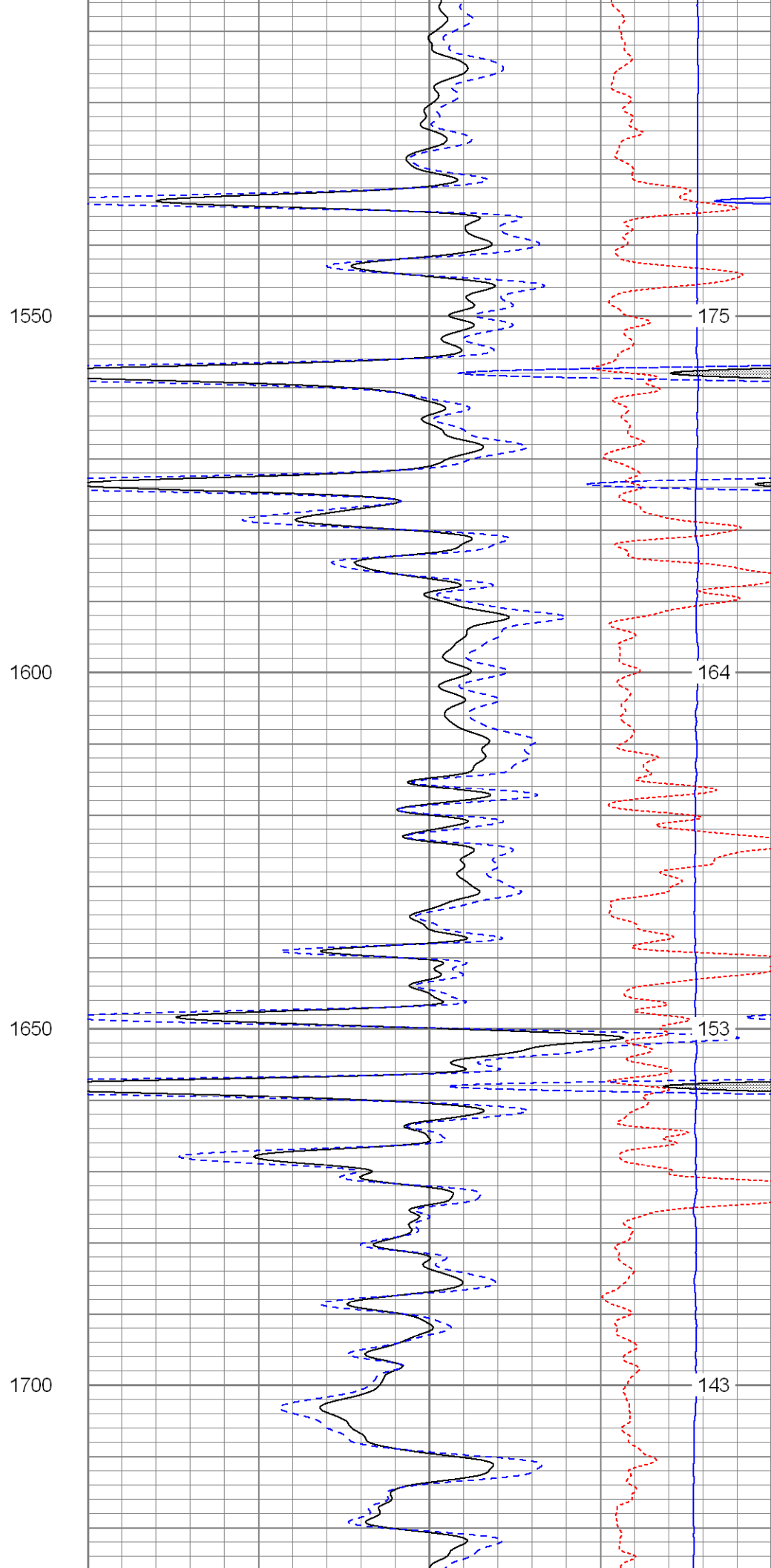
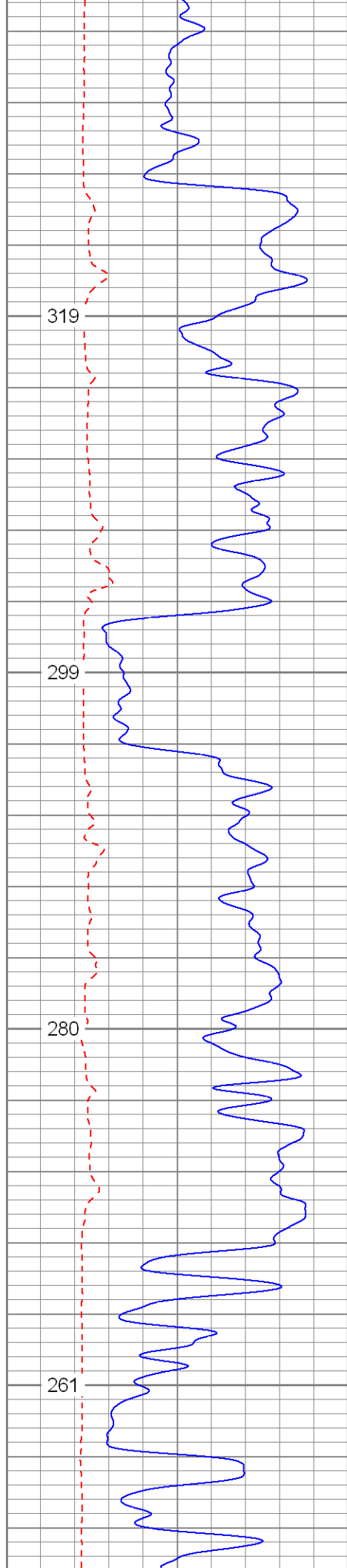


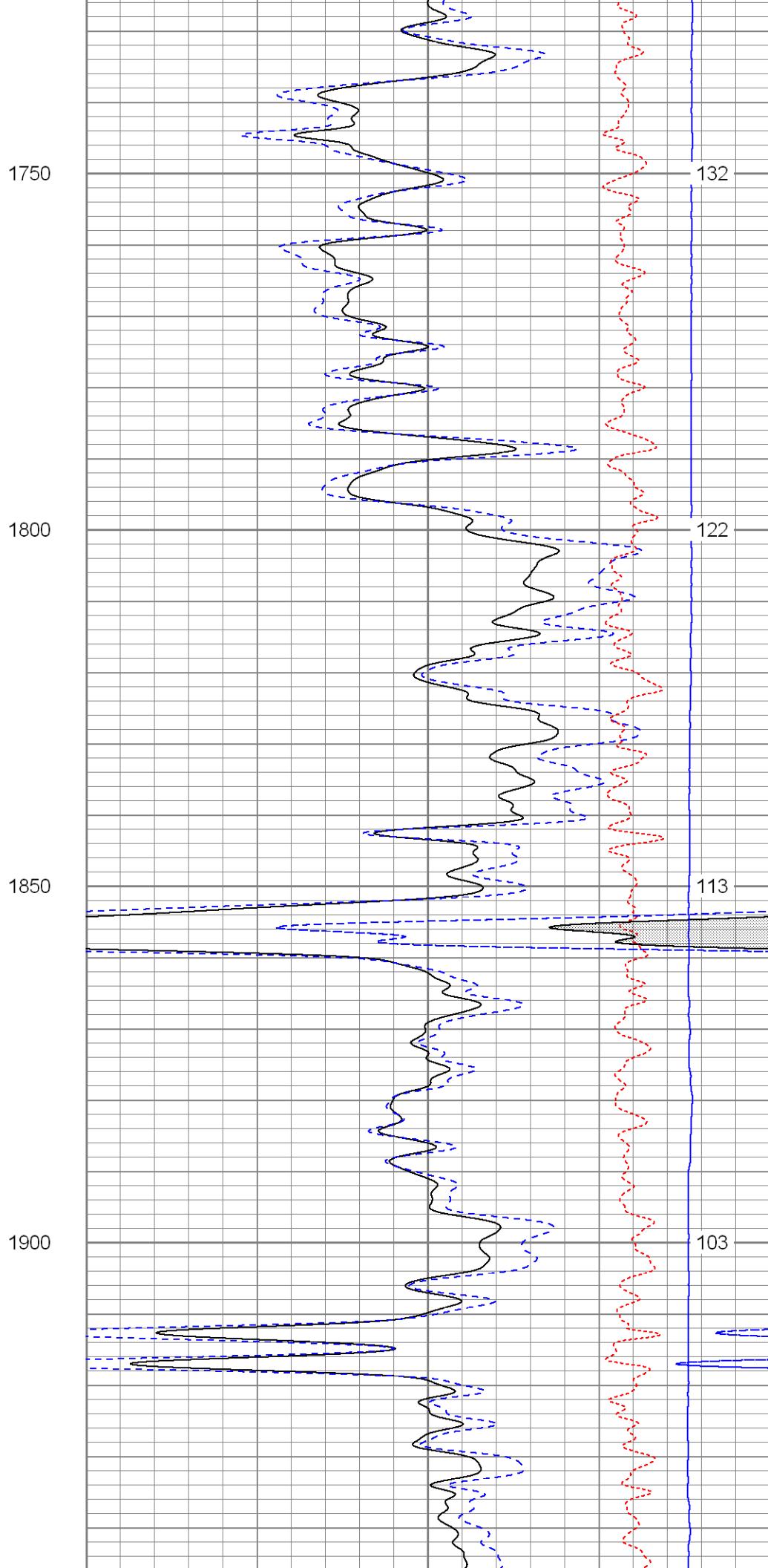
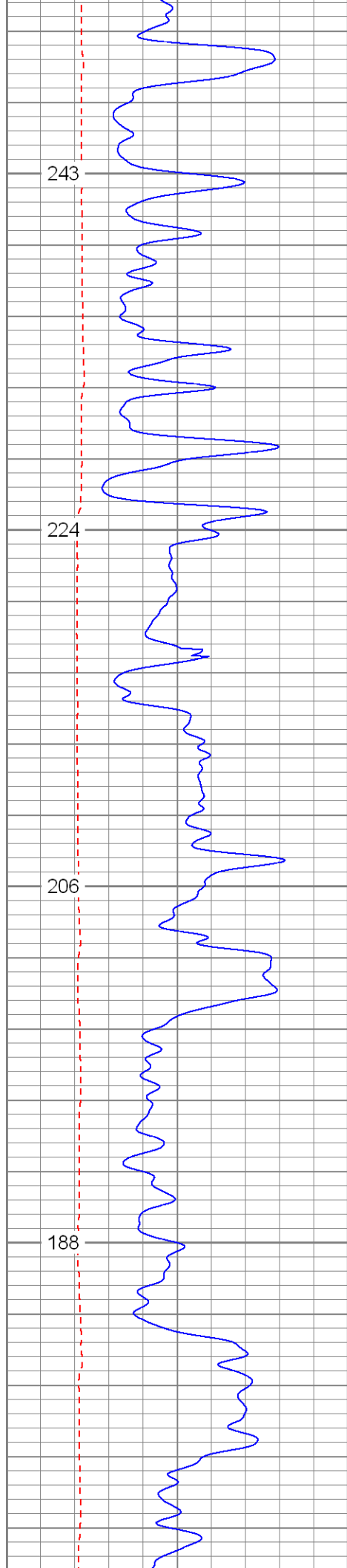


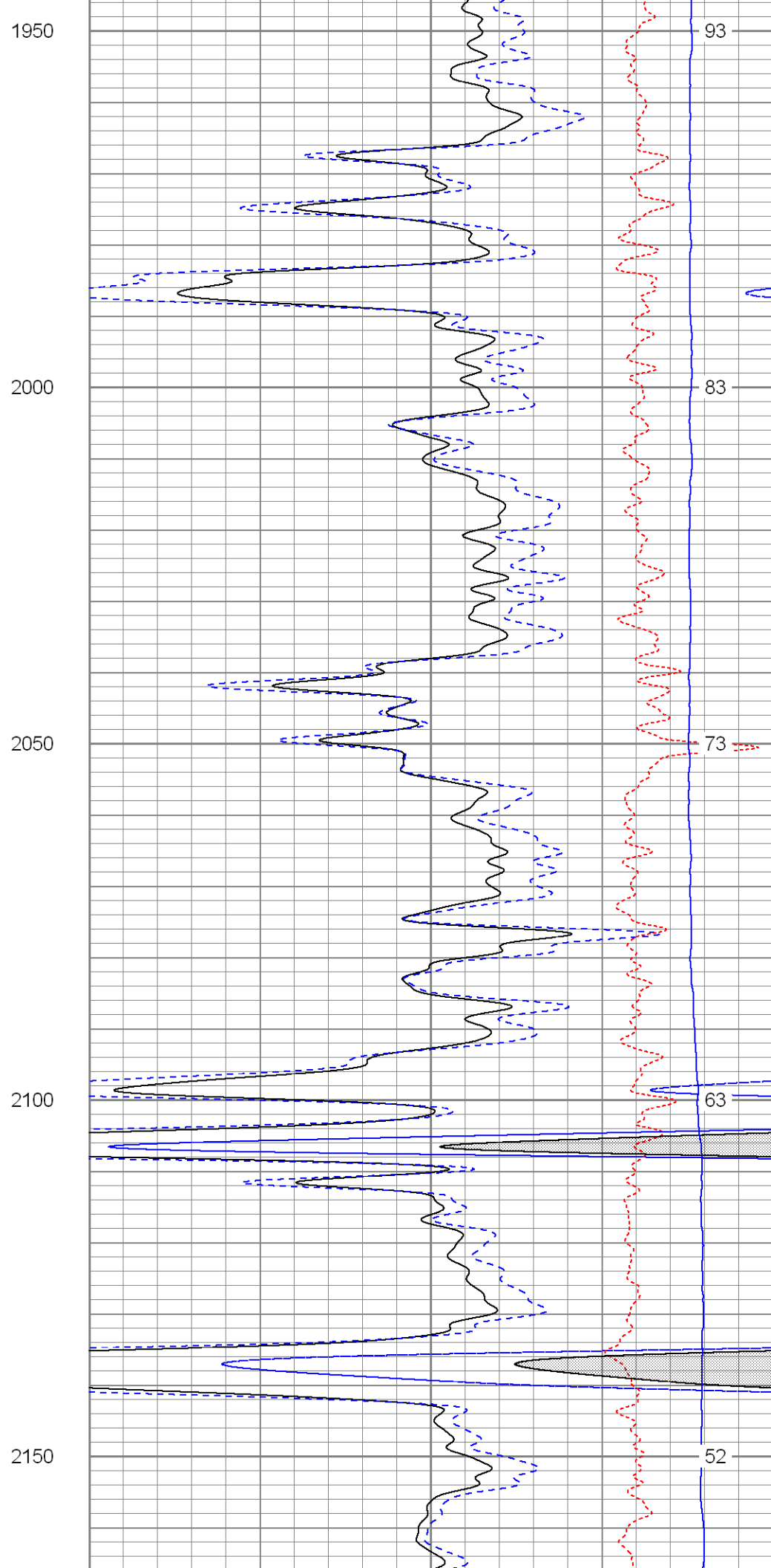
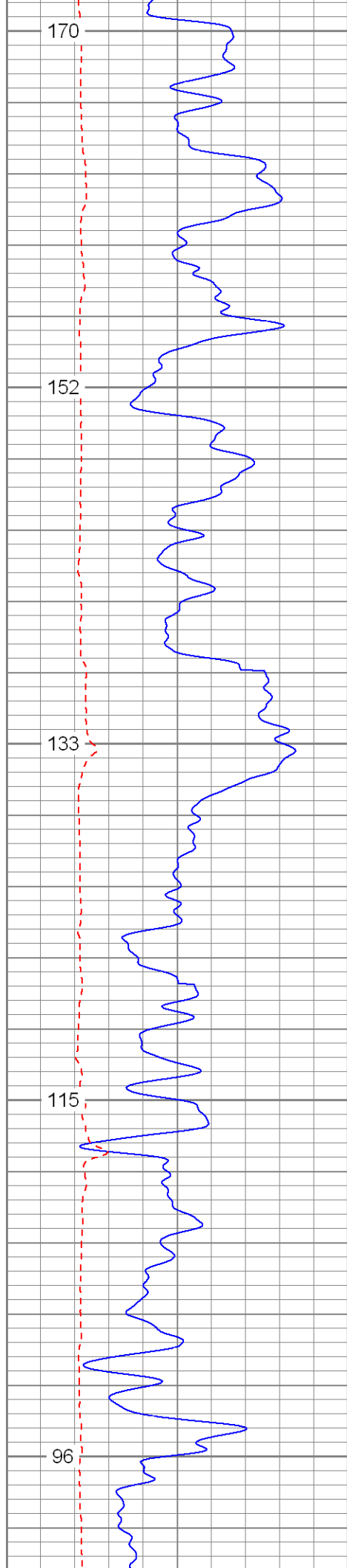


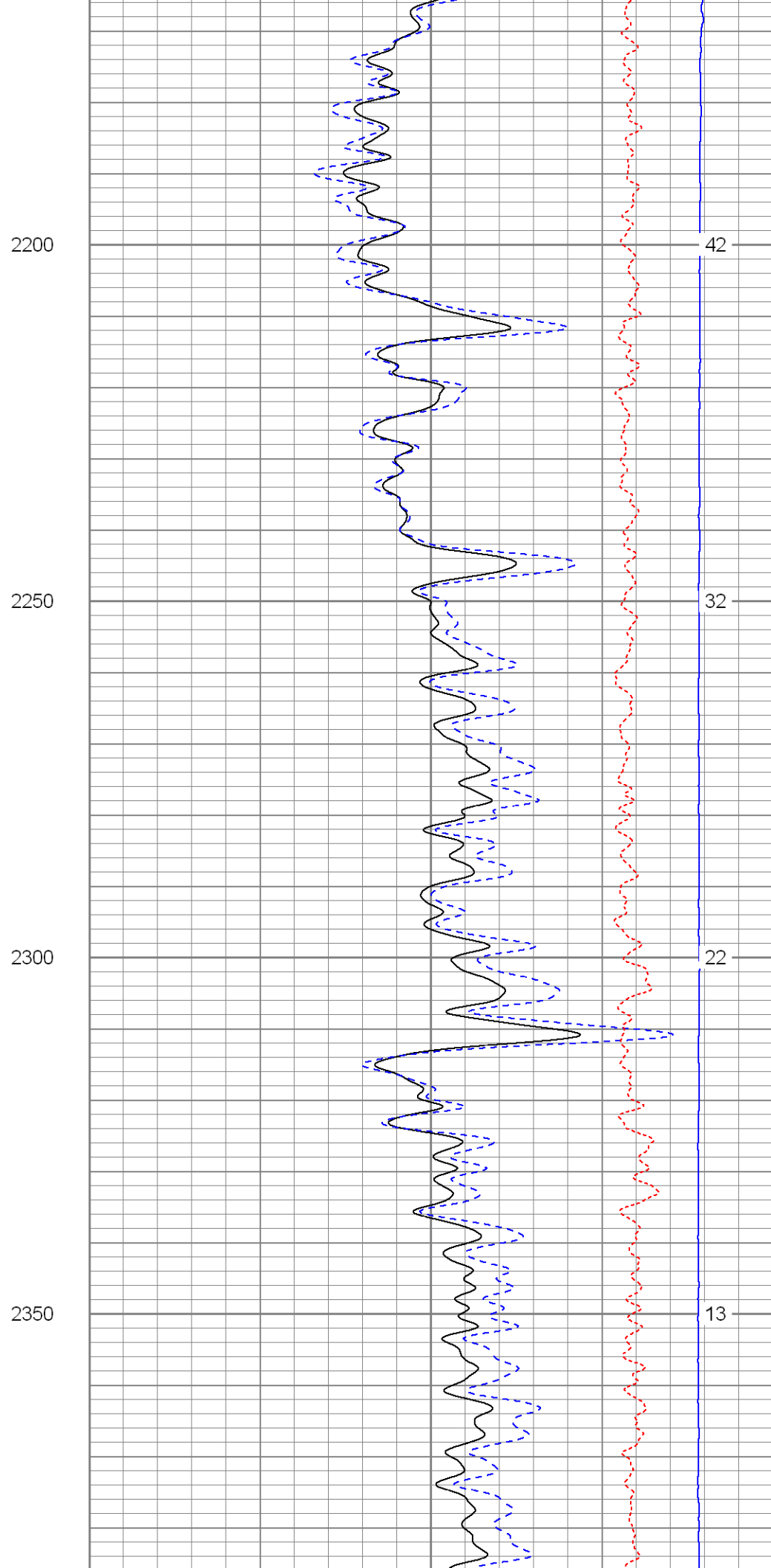
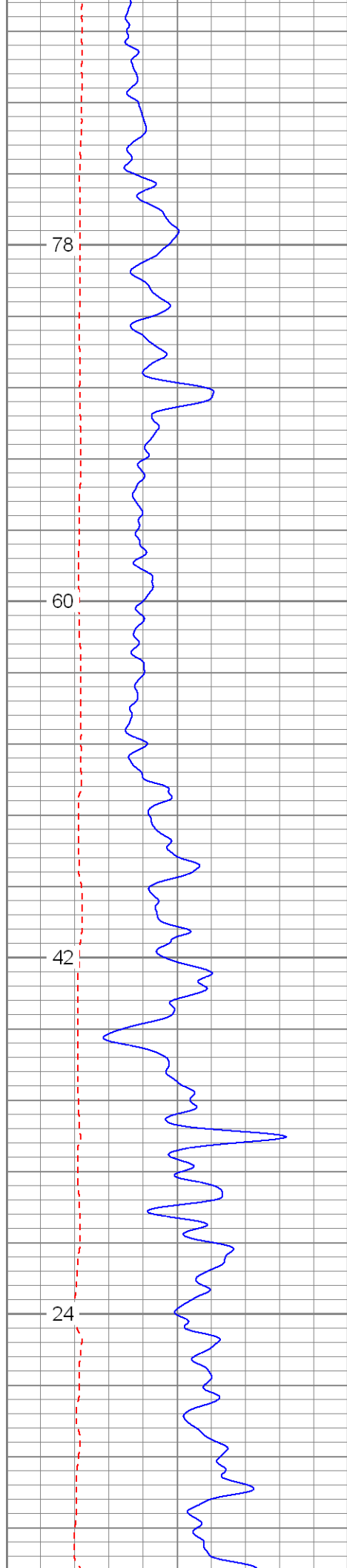


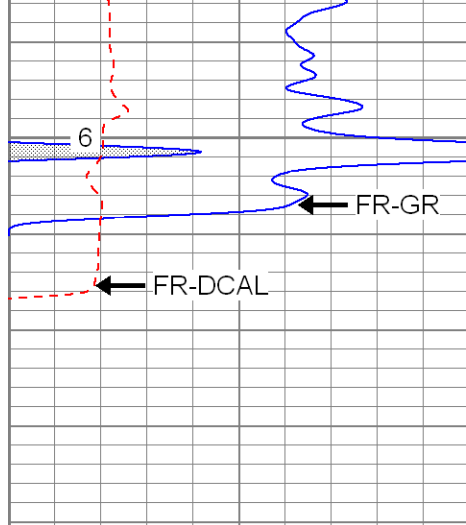






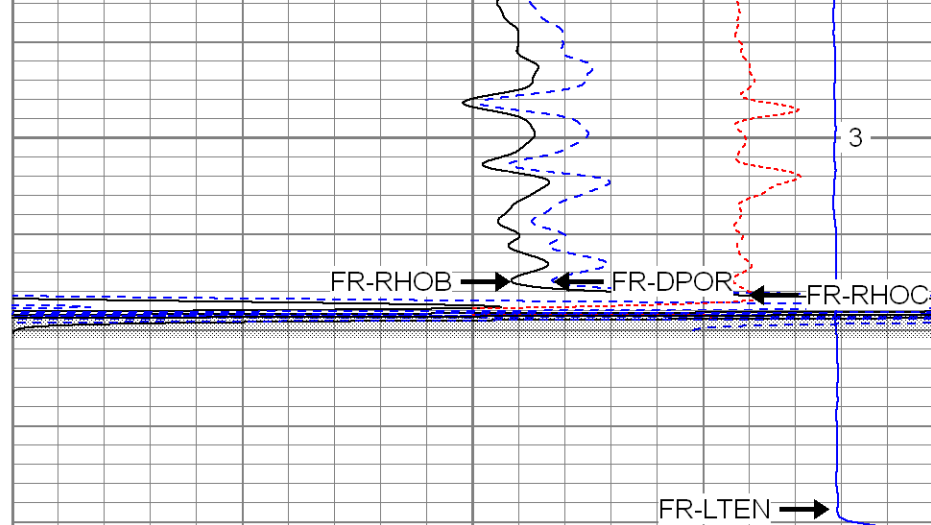






0	GR (GAPI)	200
6	DCAL (in)	16
TBHV (ft3)		

2400



2	RHOB (g/cc)	3
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
5000	LTEN (lb)	0
ABHV (ft3)		



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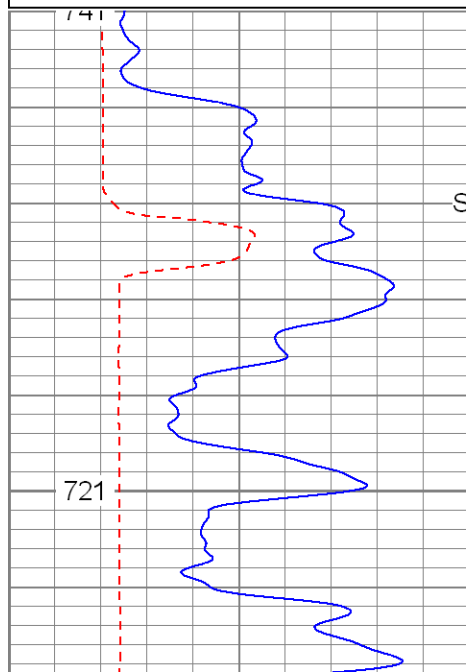
Black Lick, Pa.
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Main Pass

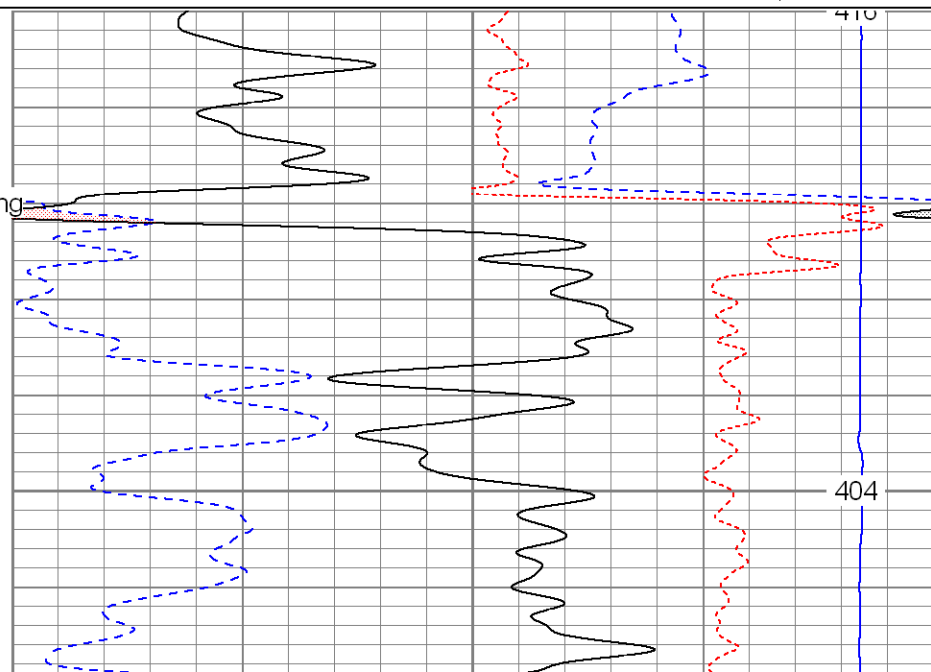
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Presentation Format: cdnl
Dataset Creation: Tue Apr 22 18:48:36 2008 by Calc Open-Cased 070814
Charted by: Depth in Feet scaled 1:240

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

30	NPOR (pu)	-10
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
5000	LTEN (lb)	0
ABHV (ft3)		



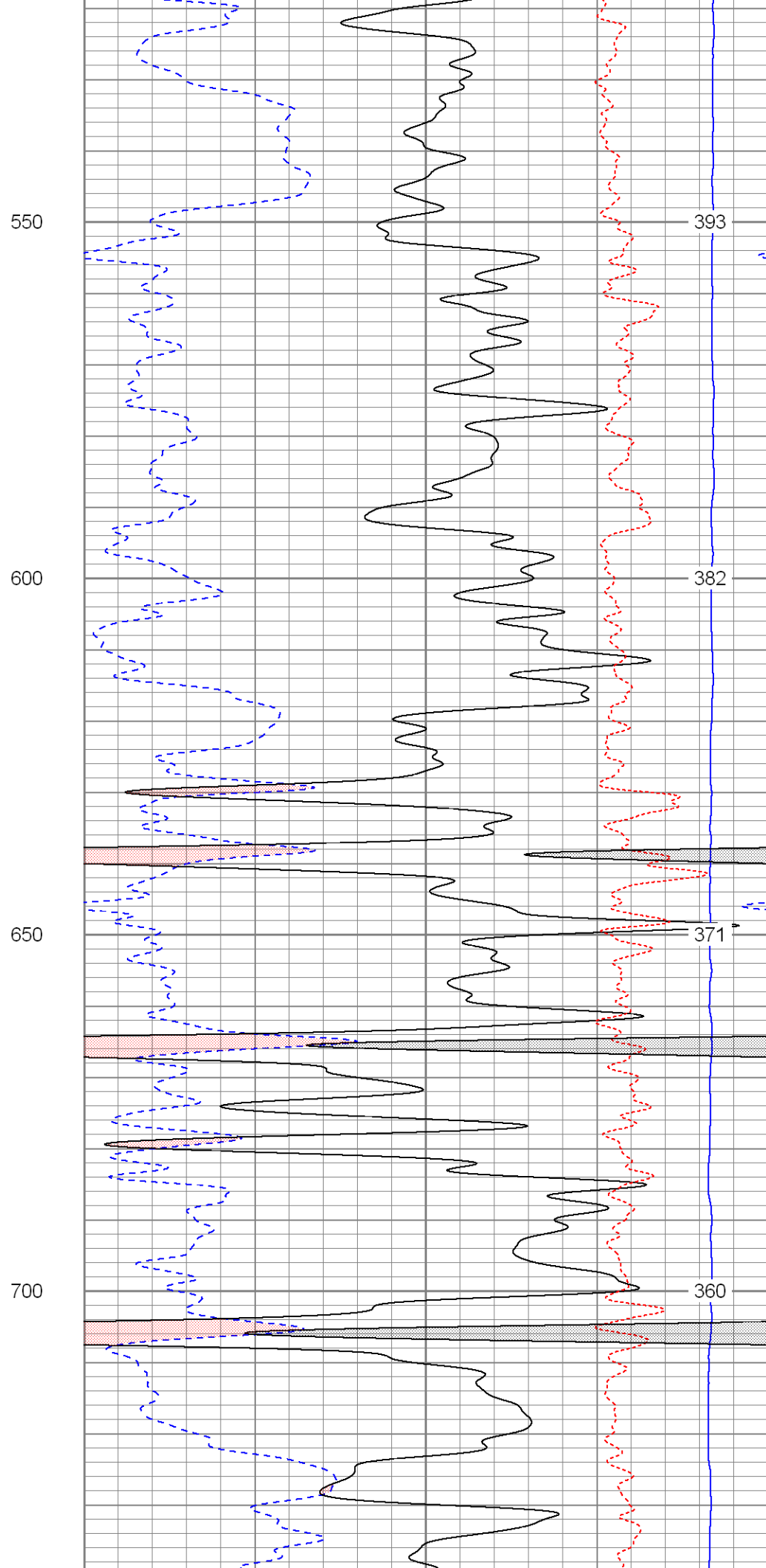
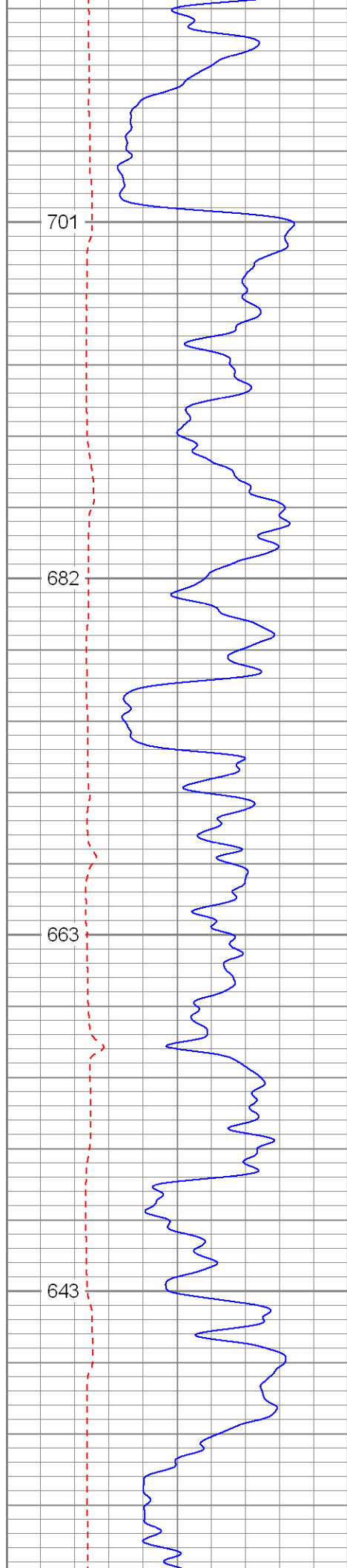
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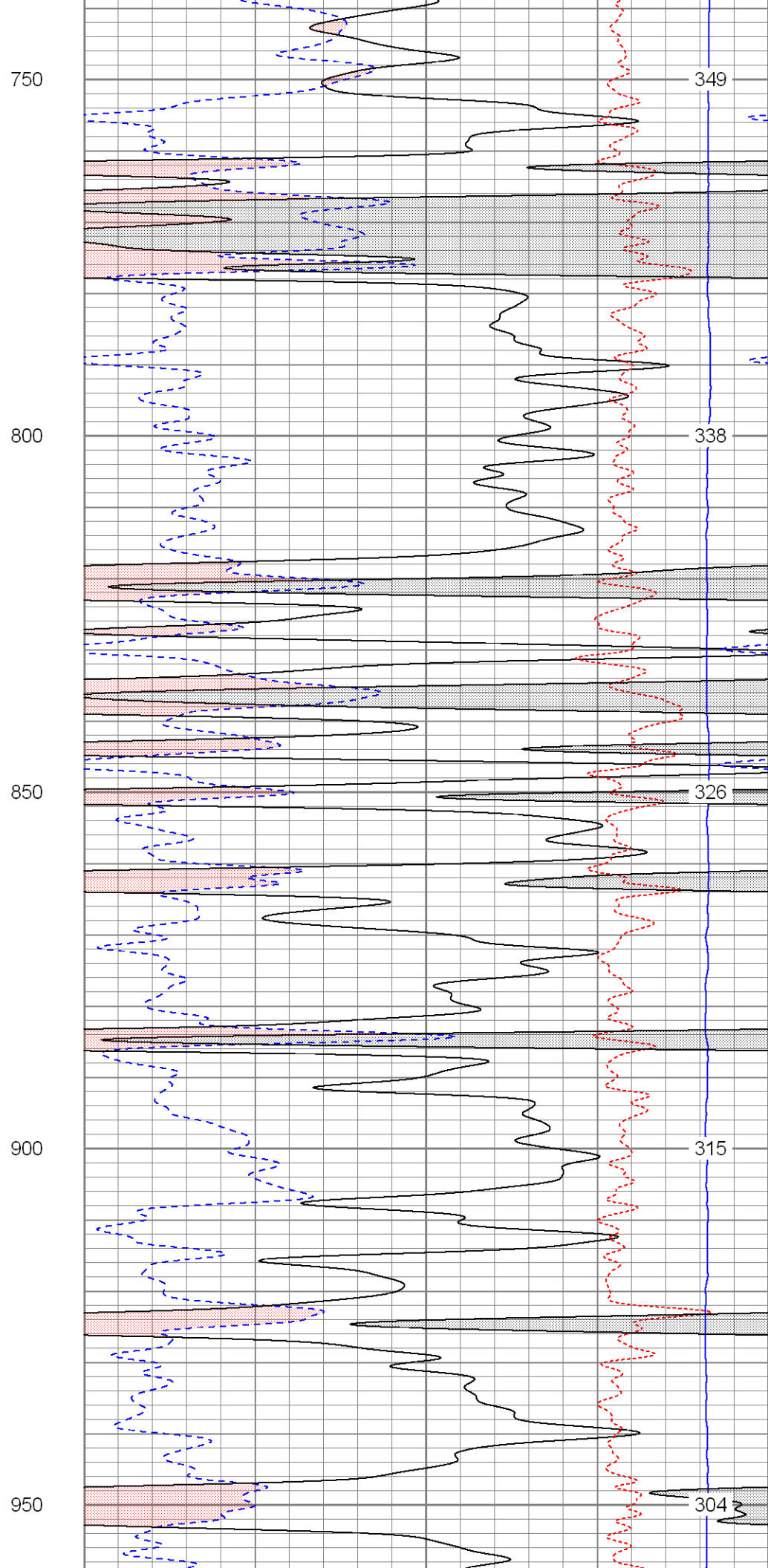
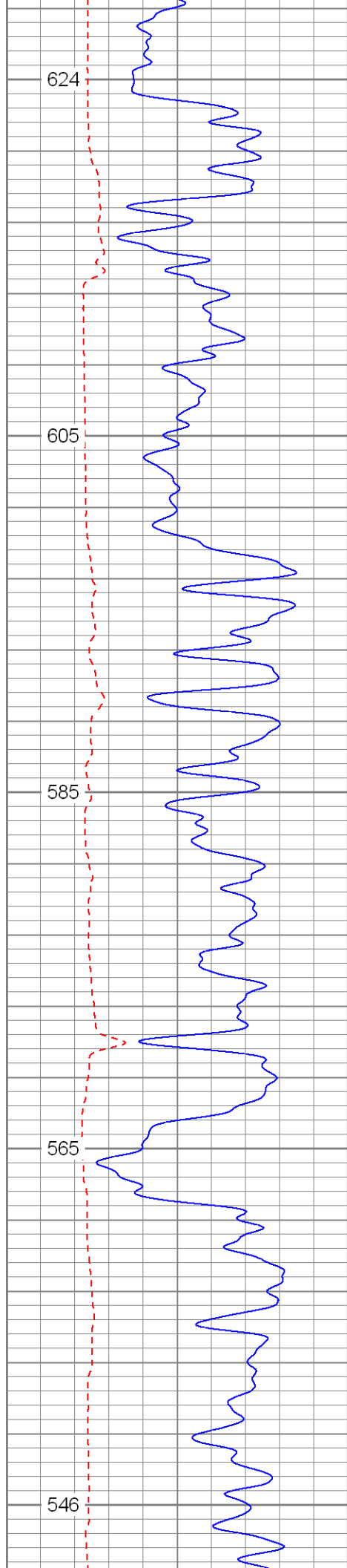


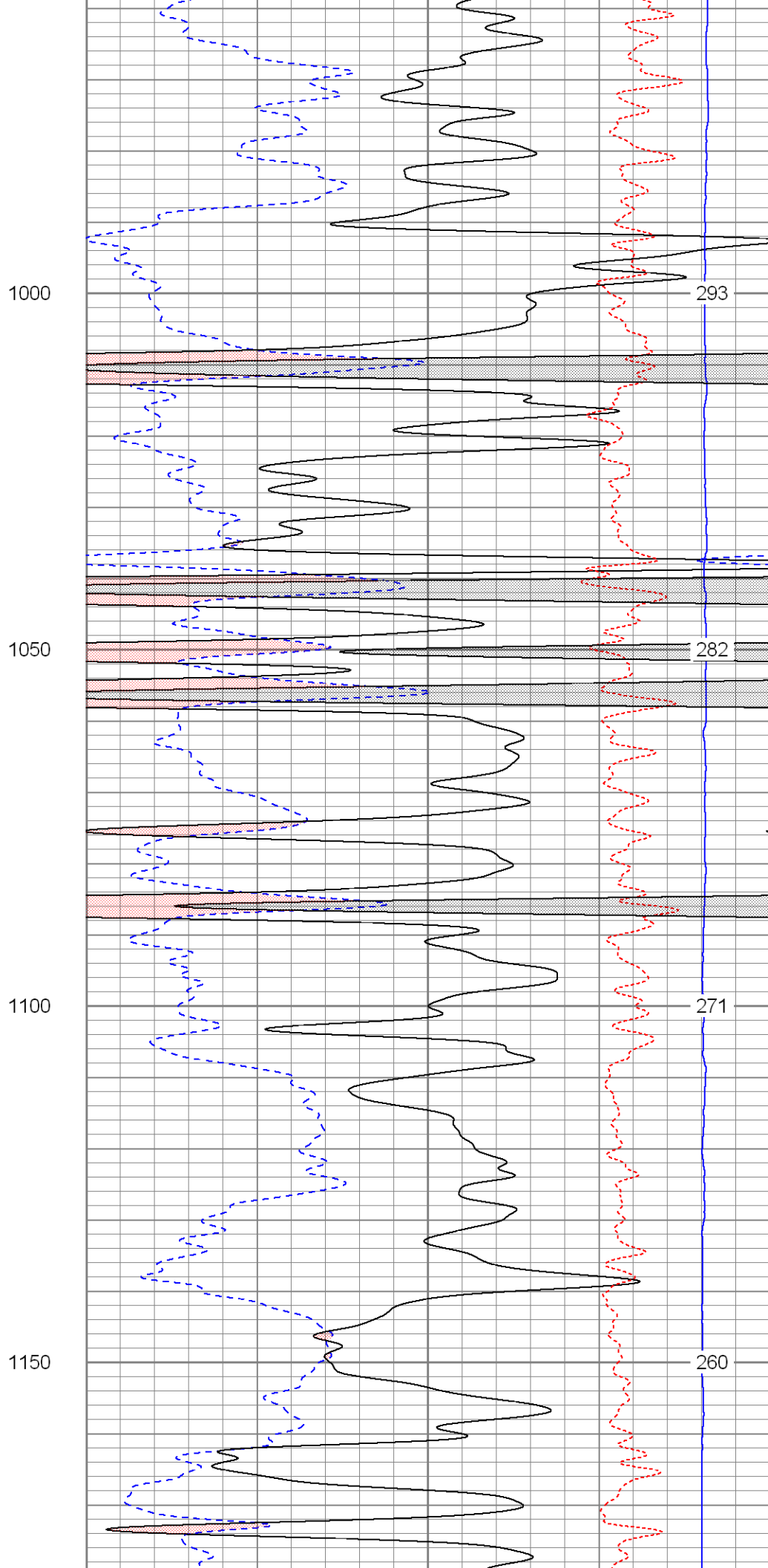
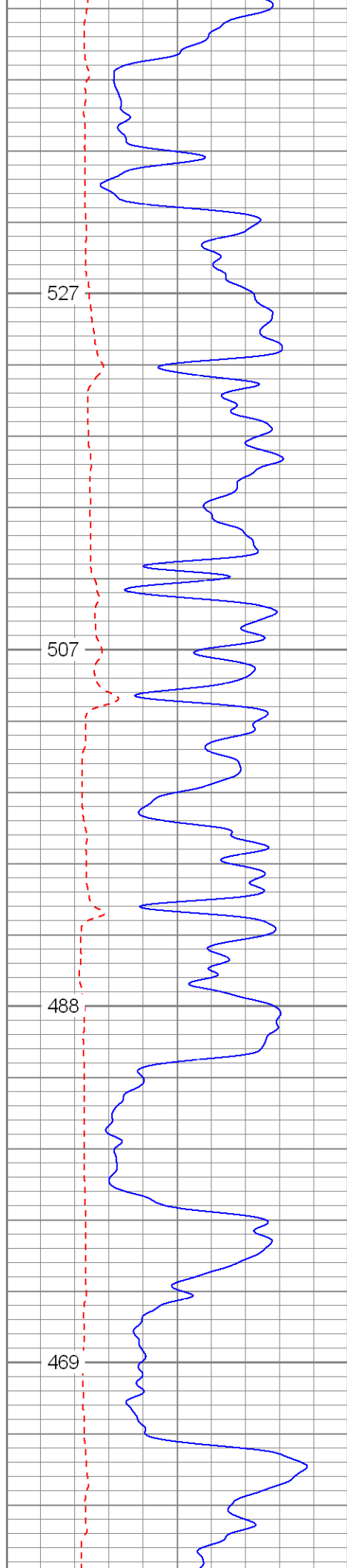
Surface Casing

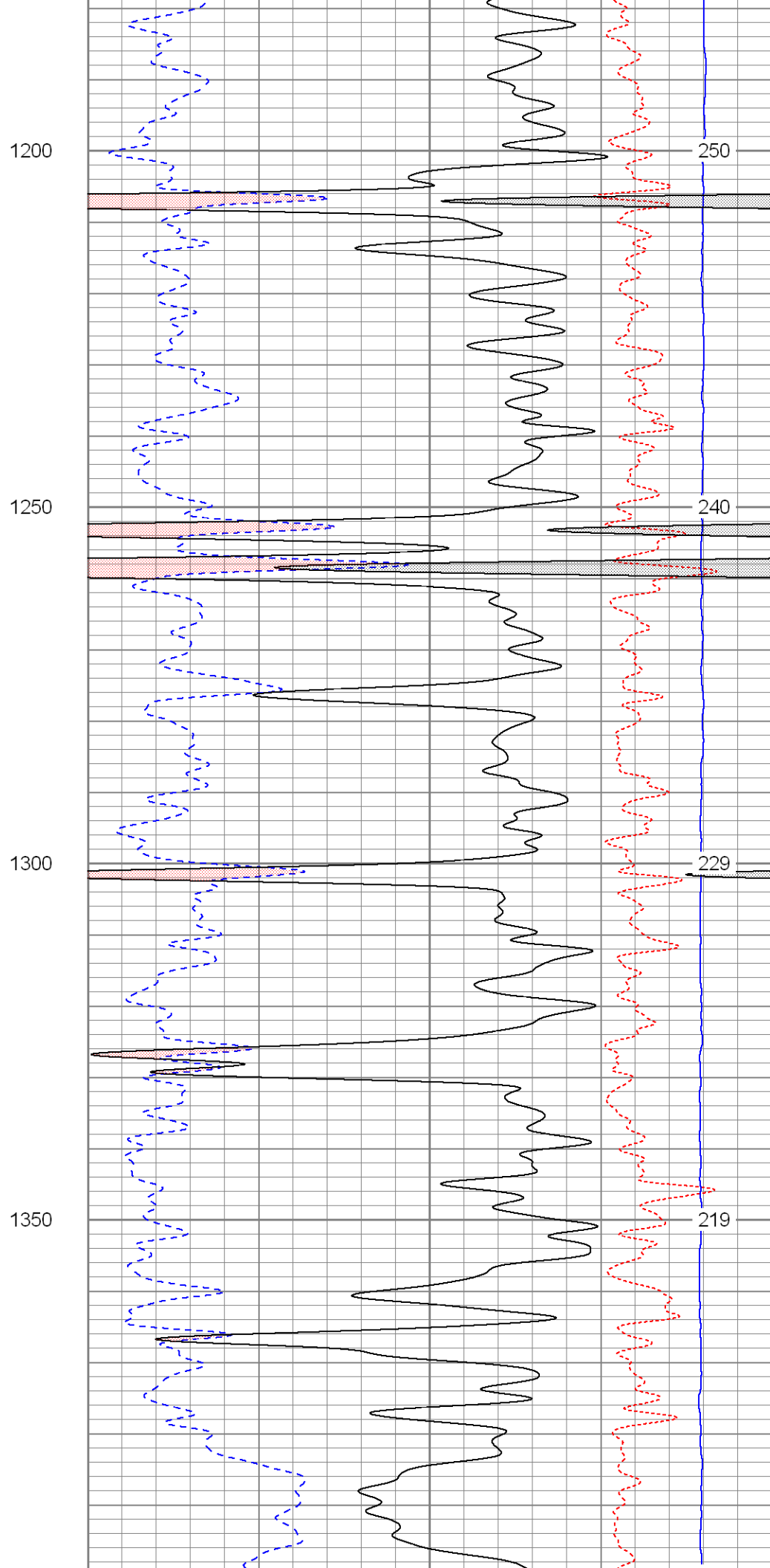
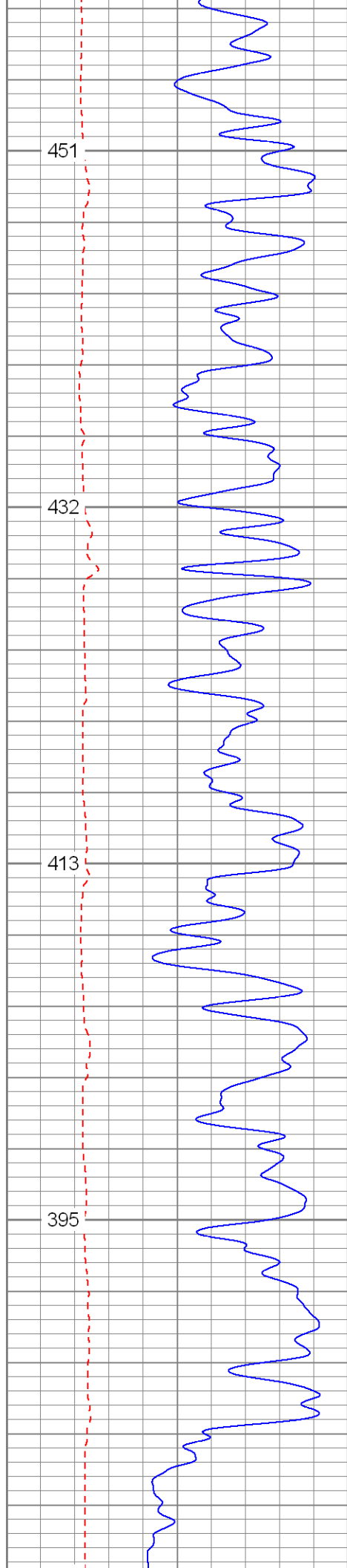
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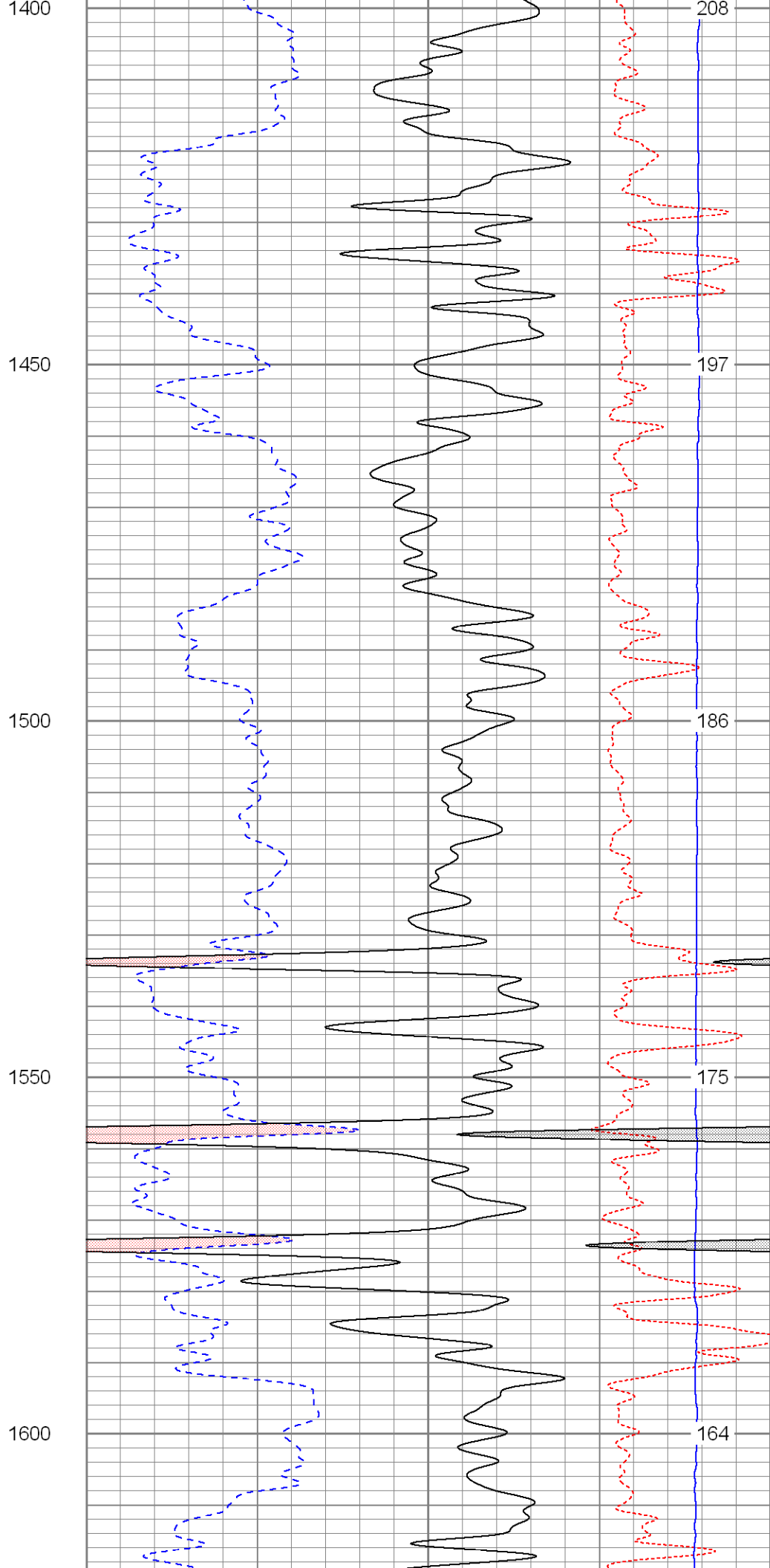
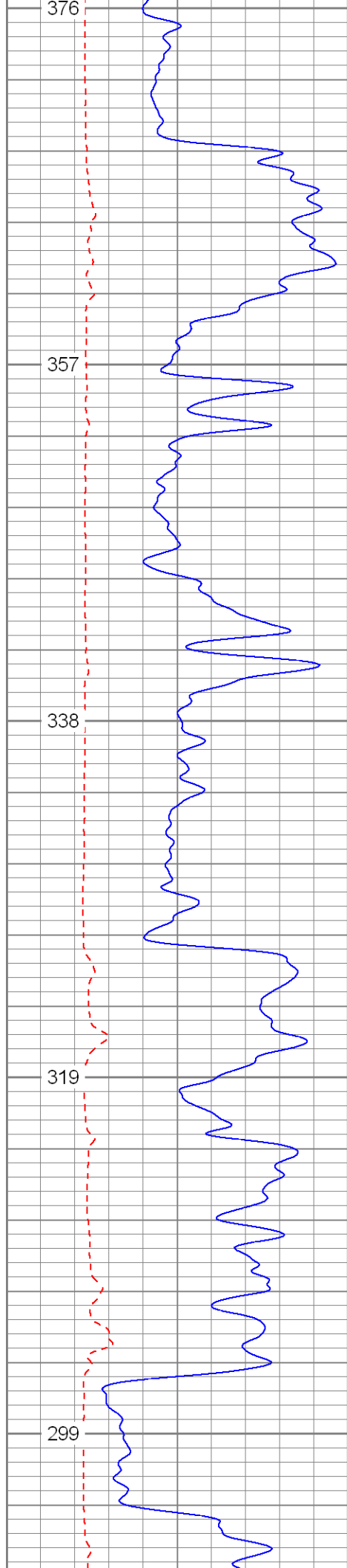
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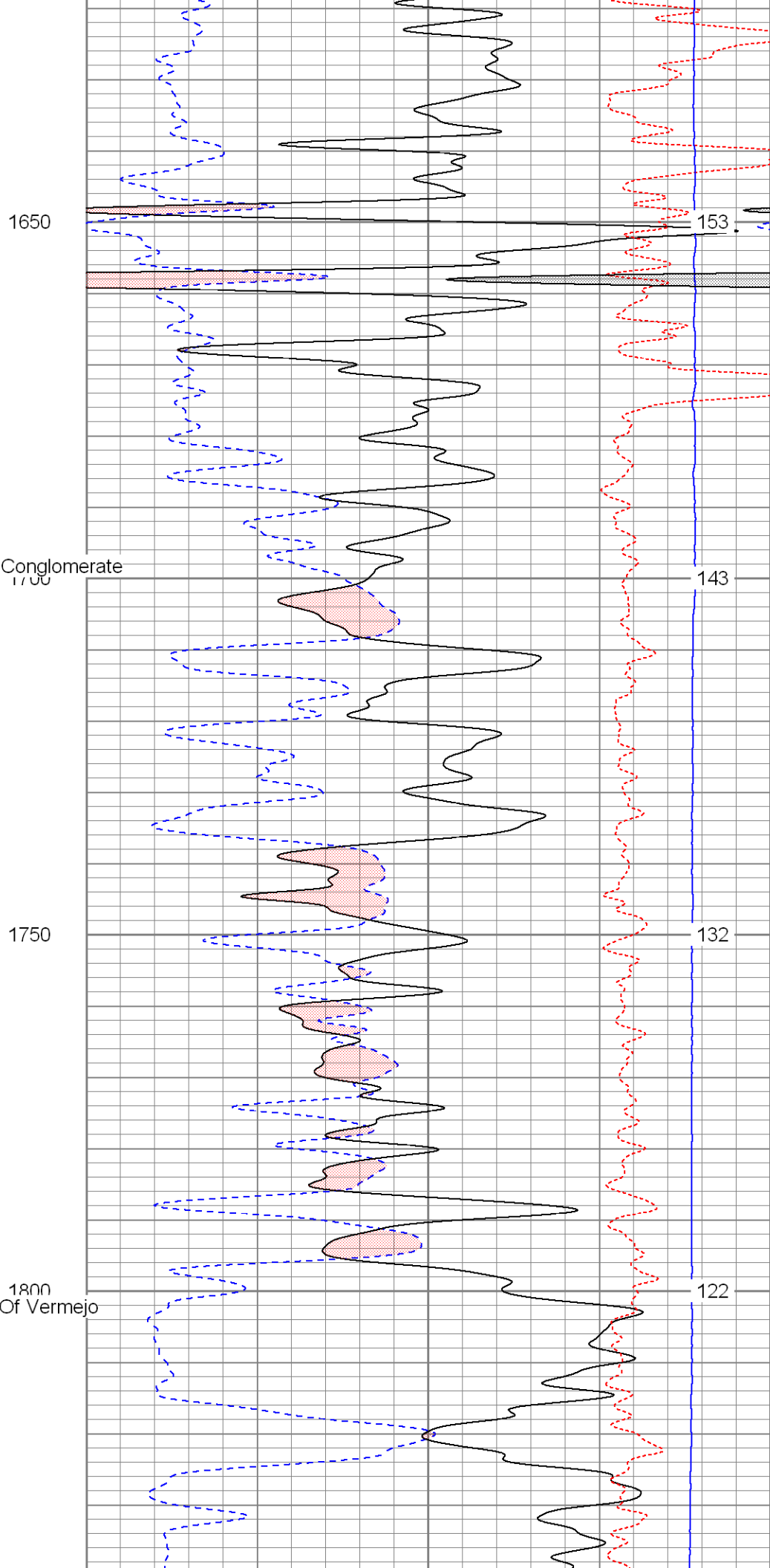
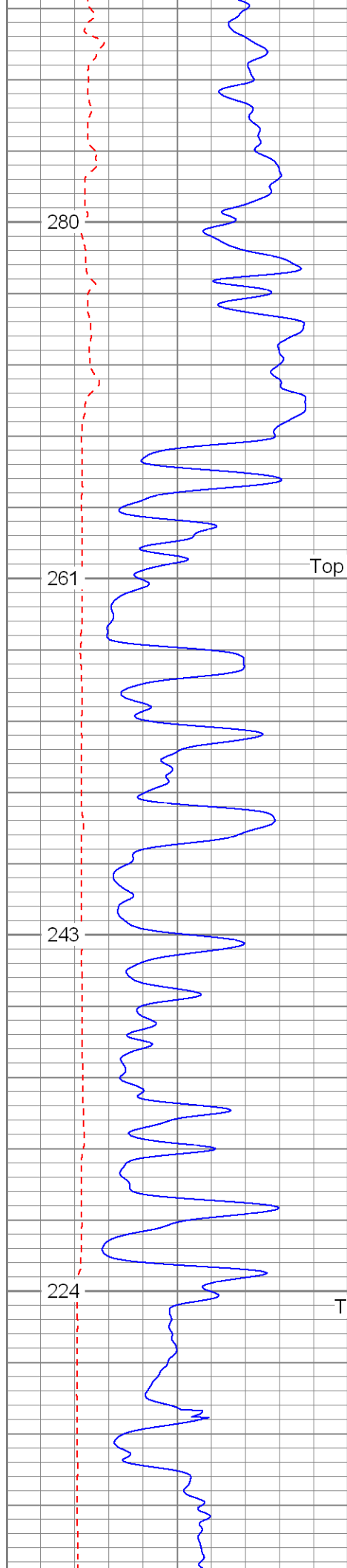


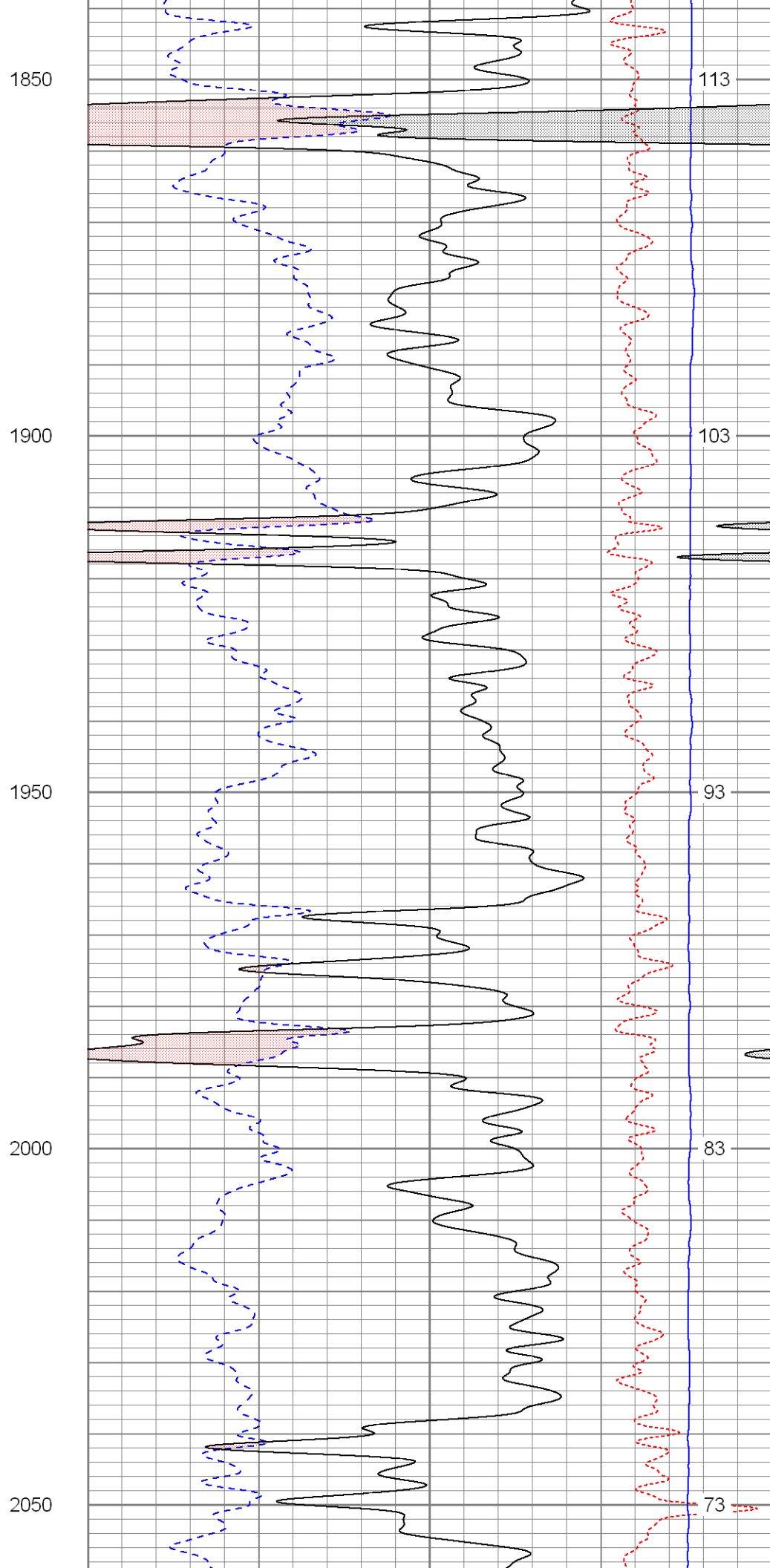
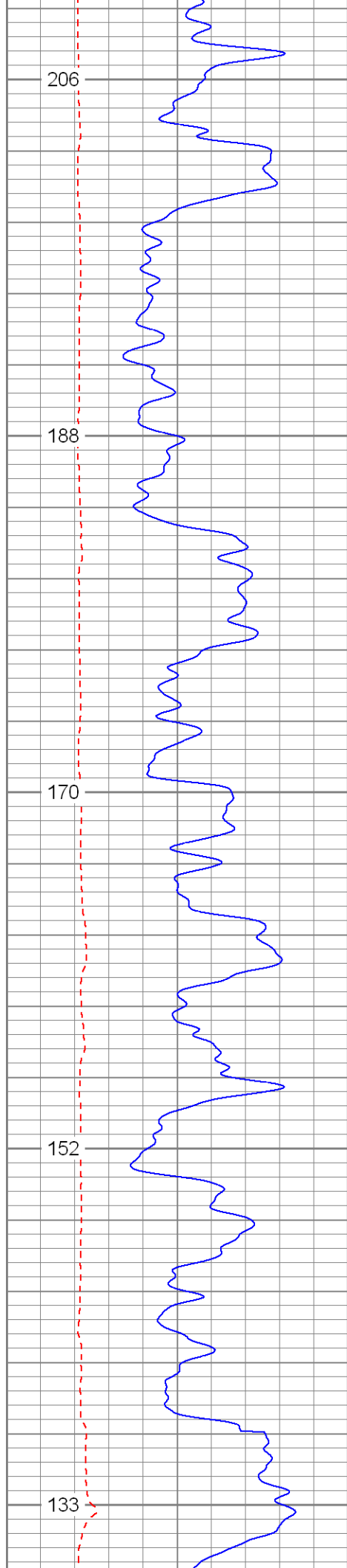


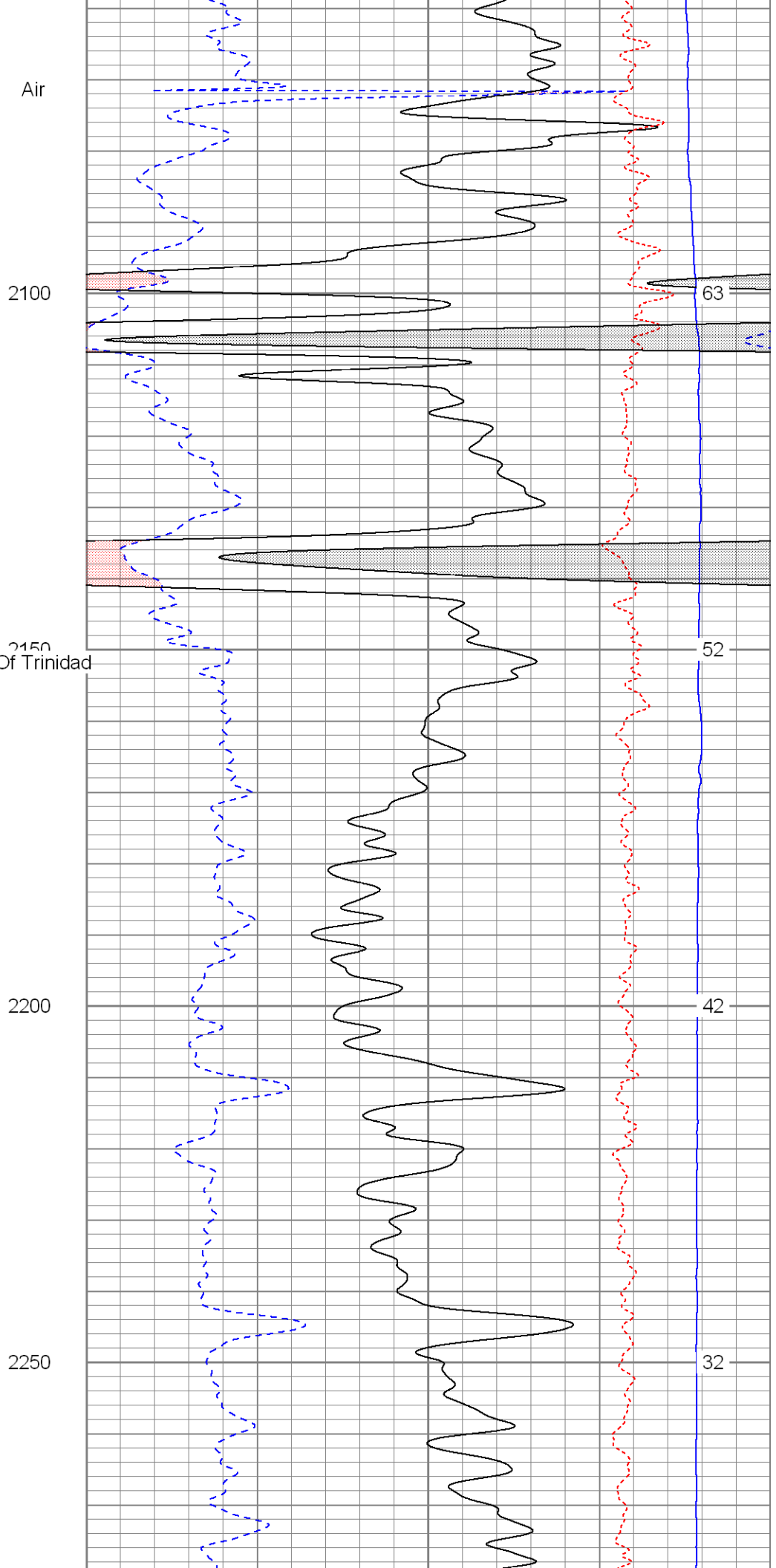
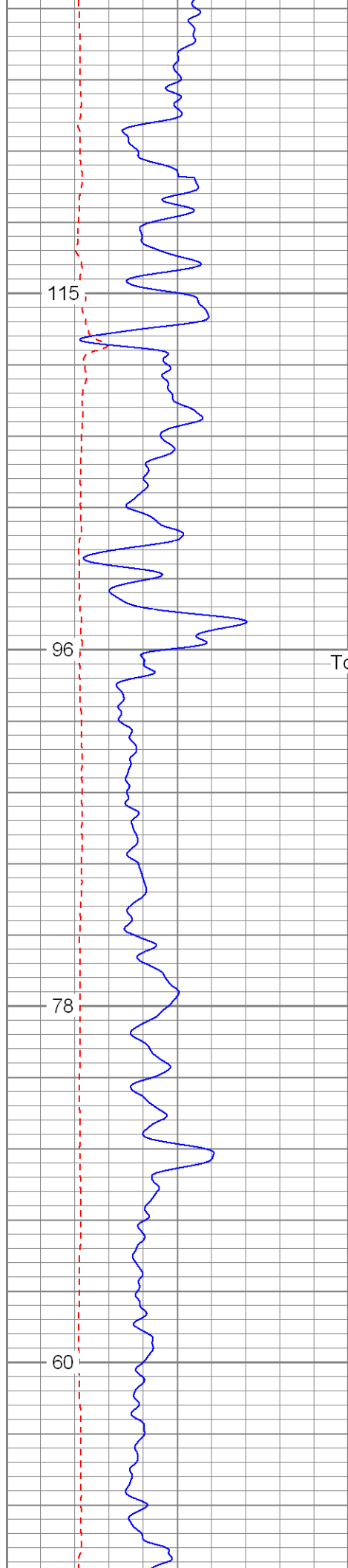


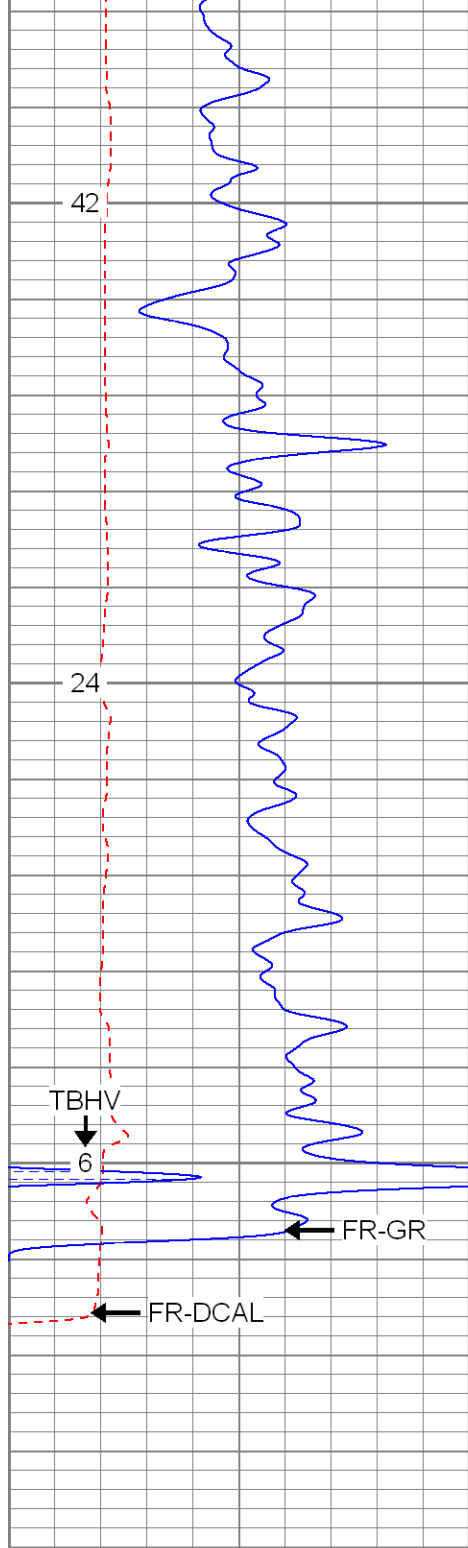






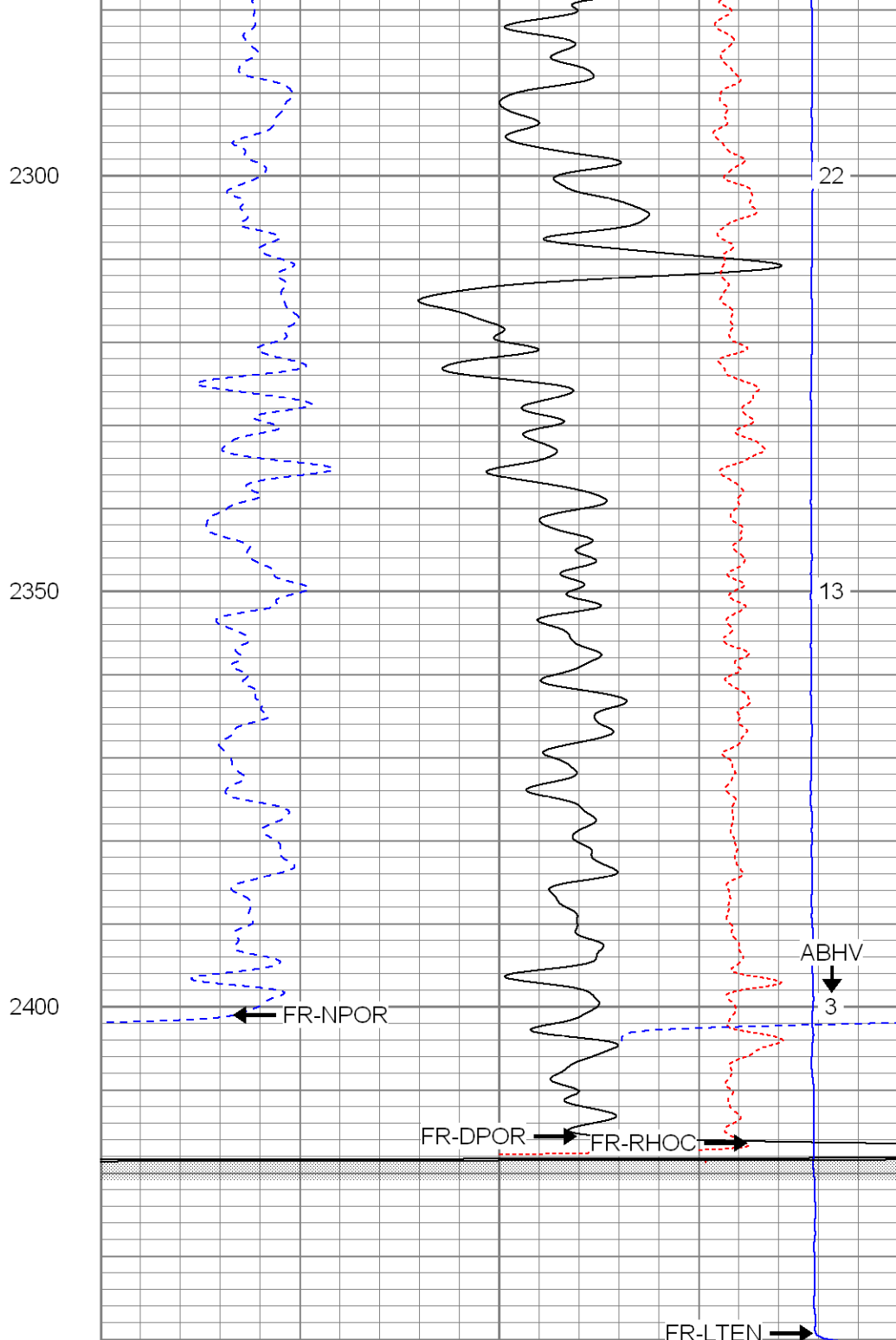






6	DCAL (in)	16
0	GR (GAPI)	200

TBHV (ft3)



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

-0.5	RHOC (g/cc)	0.5
5000	LTEN (lb)	0

ABHV (ft3)



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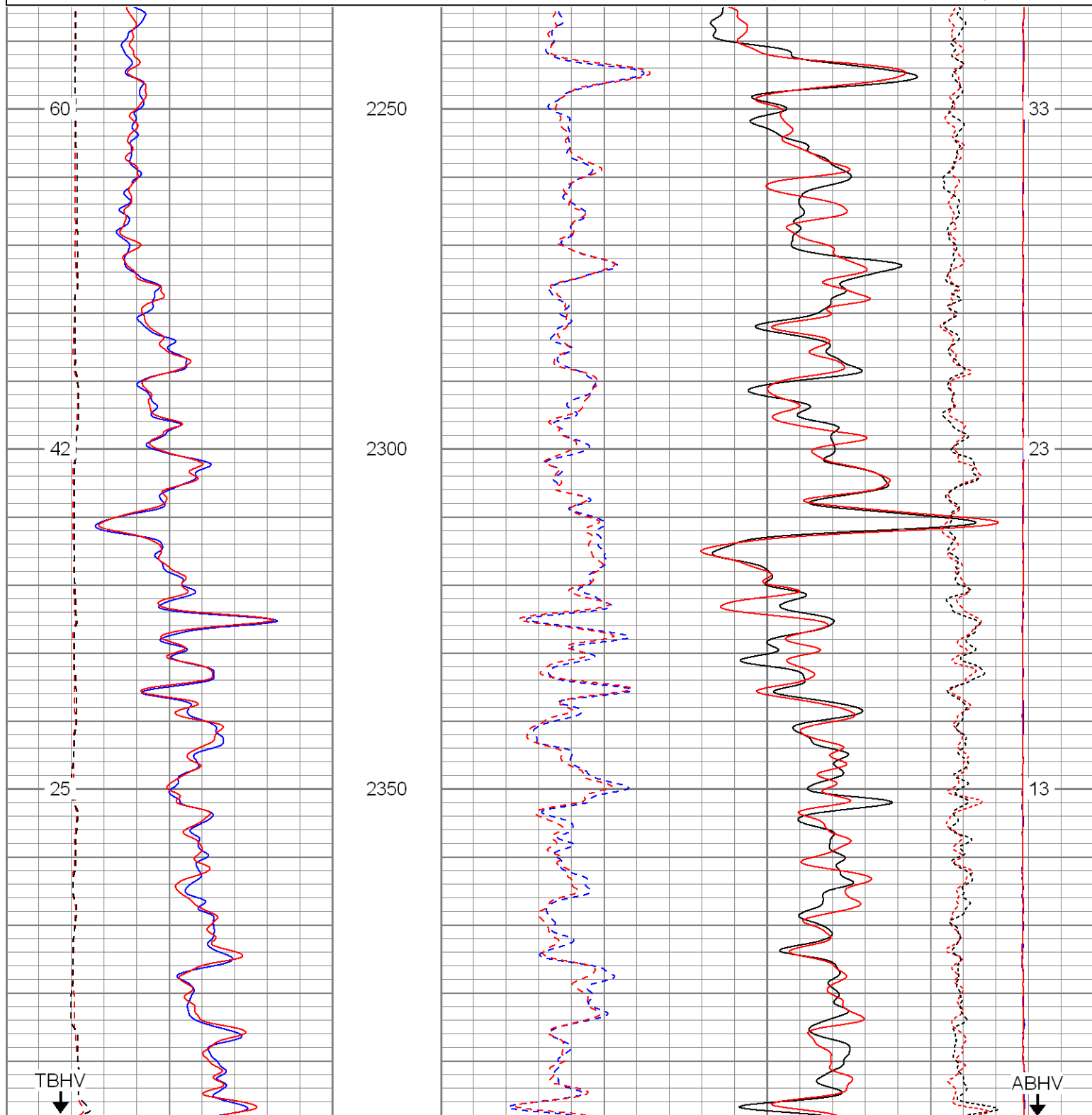
Repeat Pass

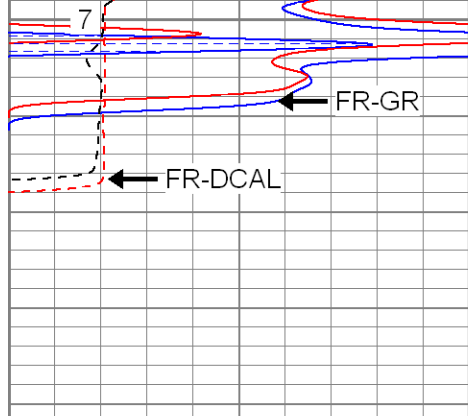
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Dataset Pathname: pass1

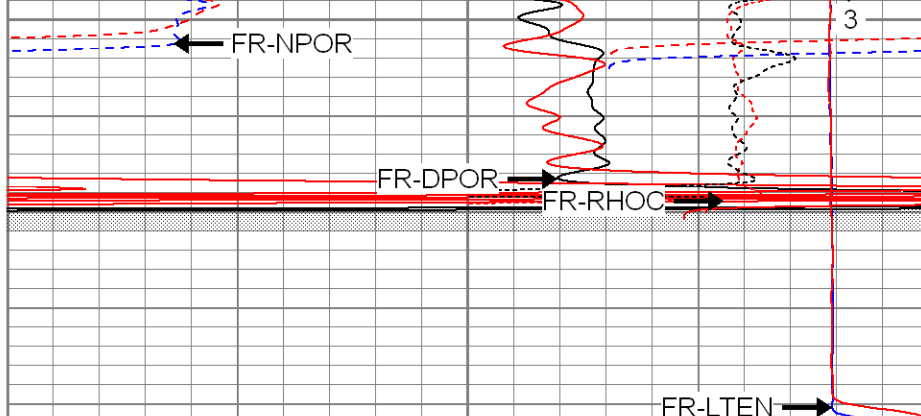
6	DCAL (in)	16
0	GR (GAPI)	200
0	GR-repeat (GAPI)	200
6	DCAL-repeat (in)	16
TBHV (ft3)		

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
5000	LTEN (lb)	0
-0.5	RHOC-repeat (g/cc)	0.5
5000	LTEN-repeat (lb)	0
ABHV (ft3)		





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



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
5000	LTEN (lb)	0
-0.5	RHOC-repeat (g/cc)	0.5
5000	LTEN-repeat (lb)	0
ABHV (ft3)		



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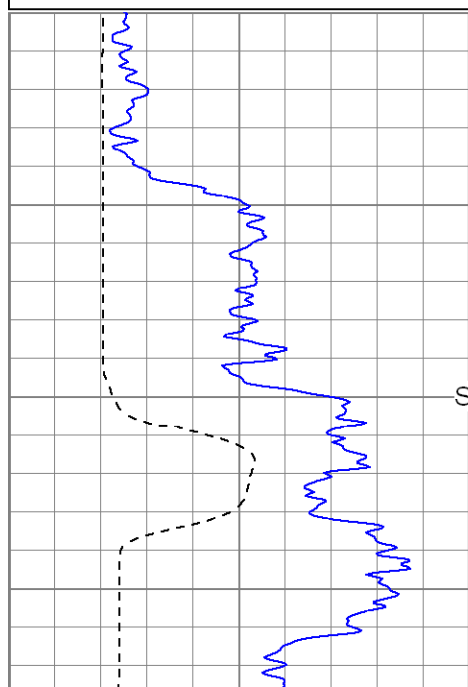
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High Resolution Pass

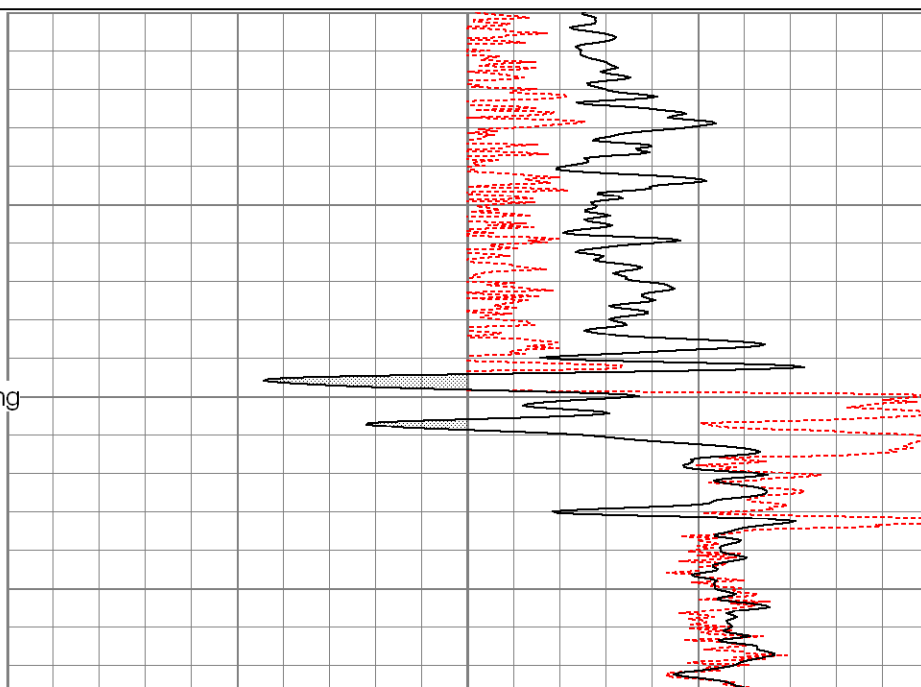
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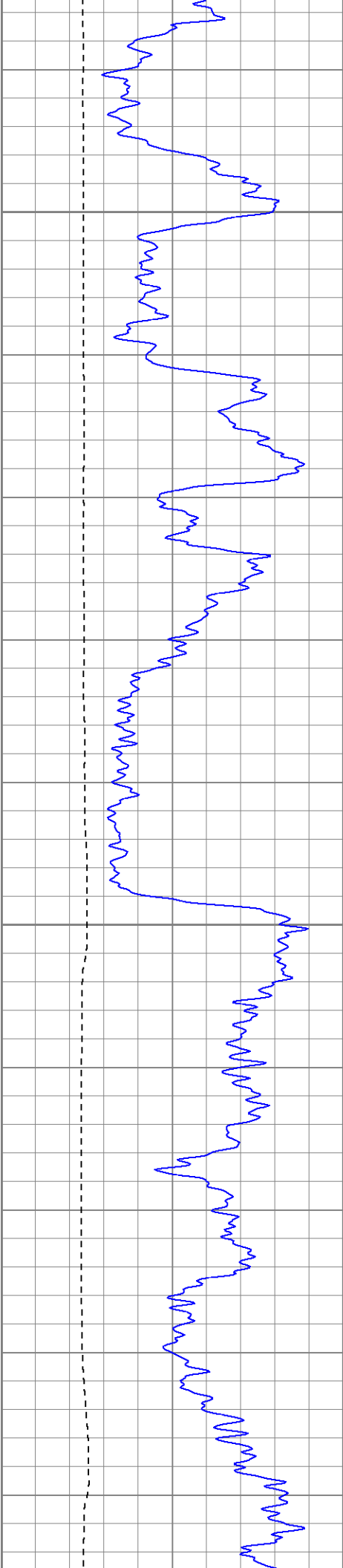
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6	DCAL (in)	16

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



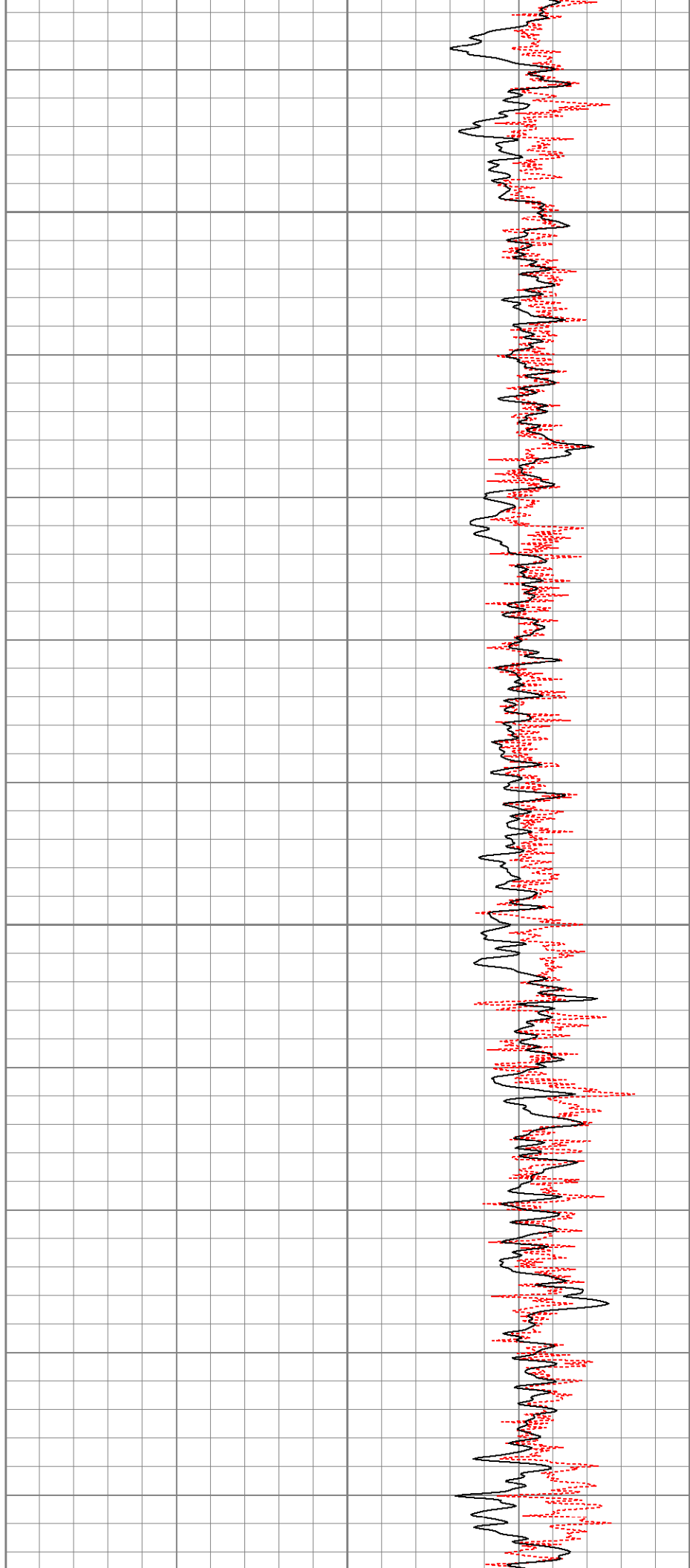
Surface Casing

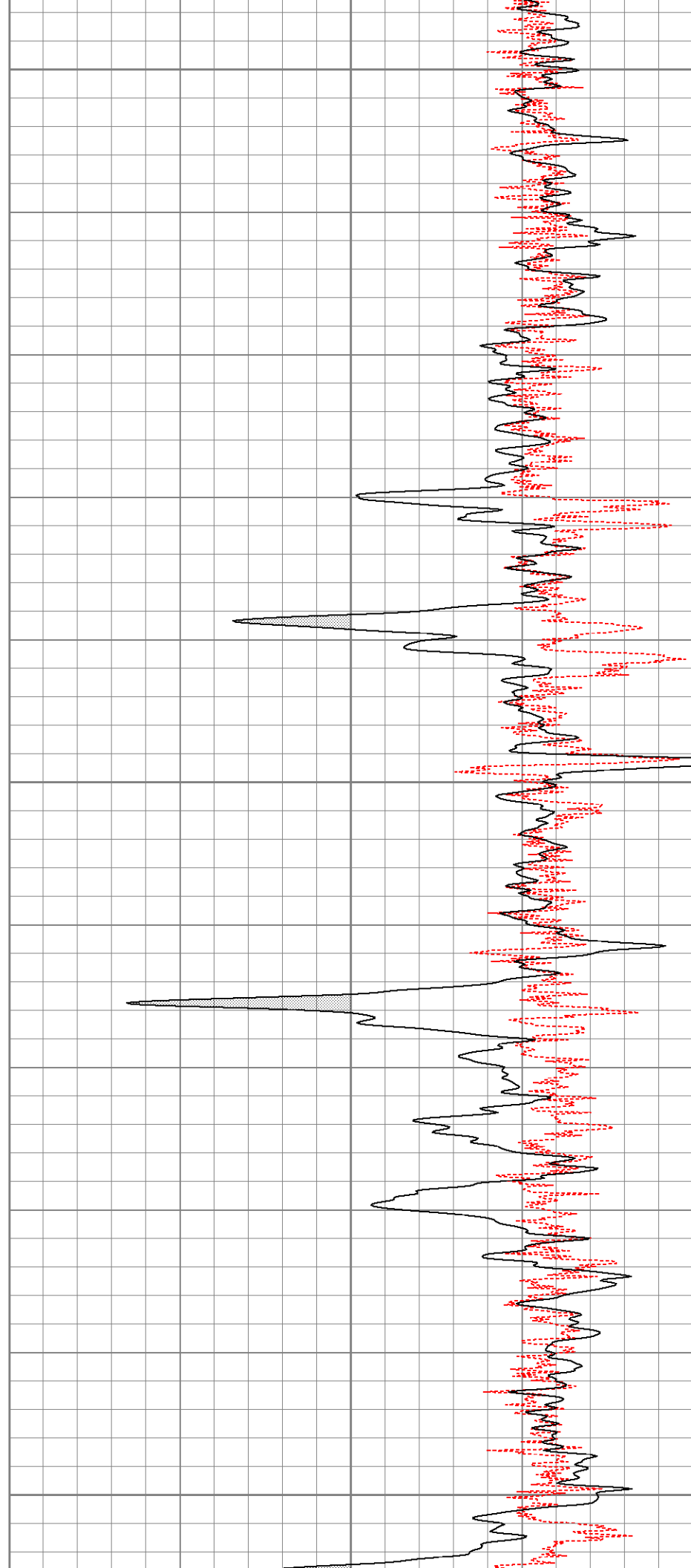
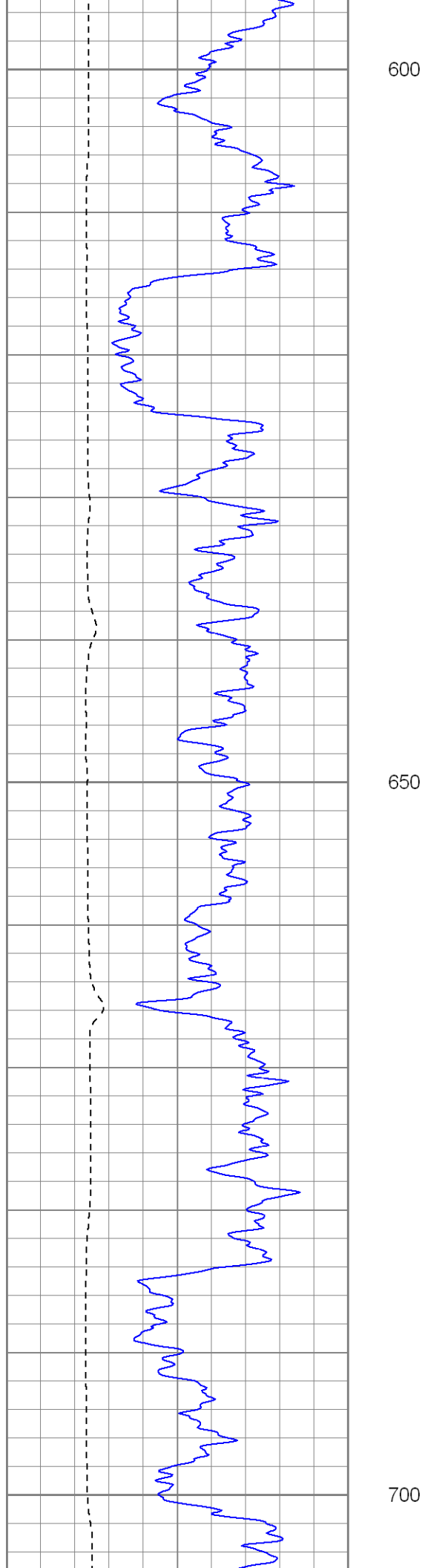


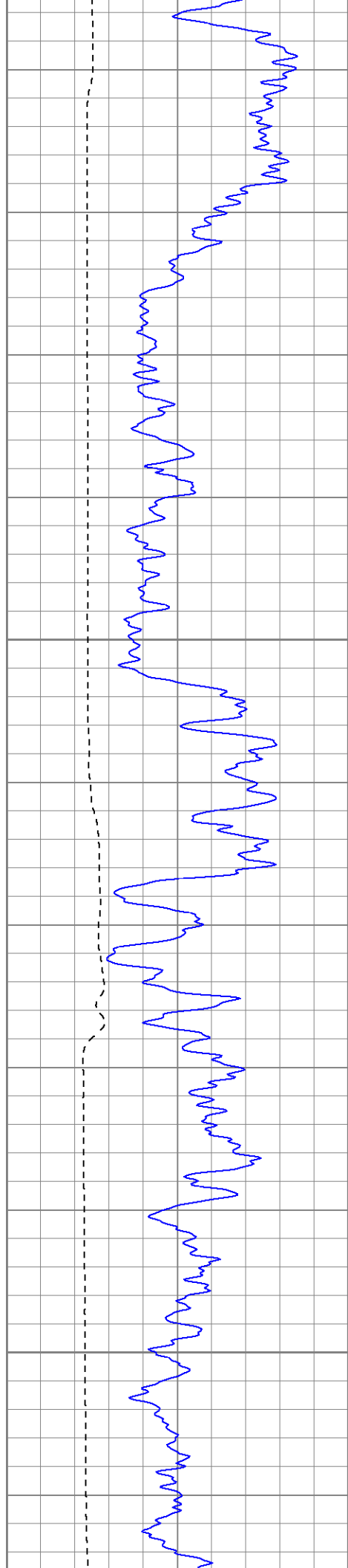


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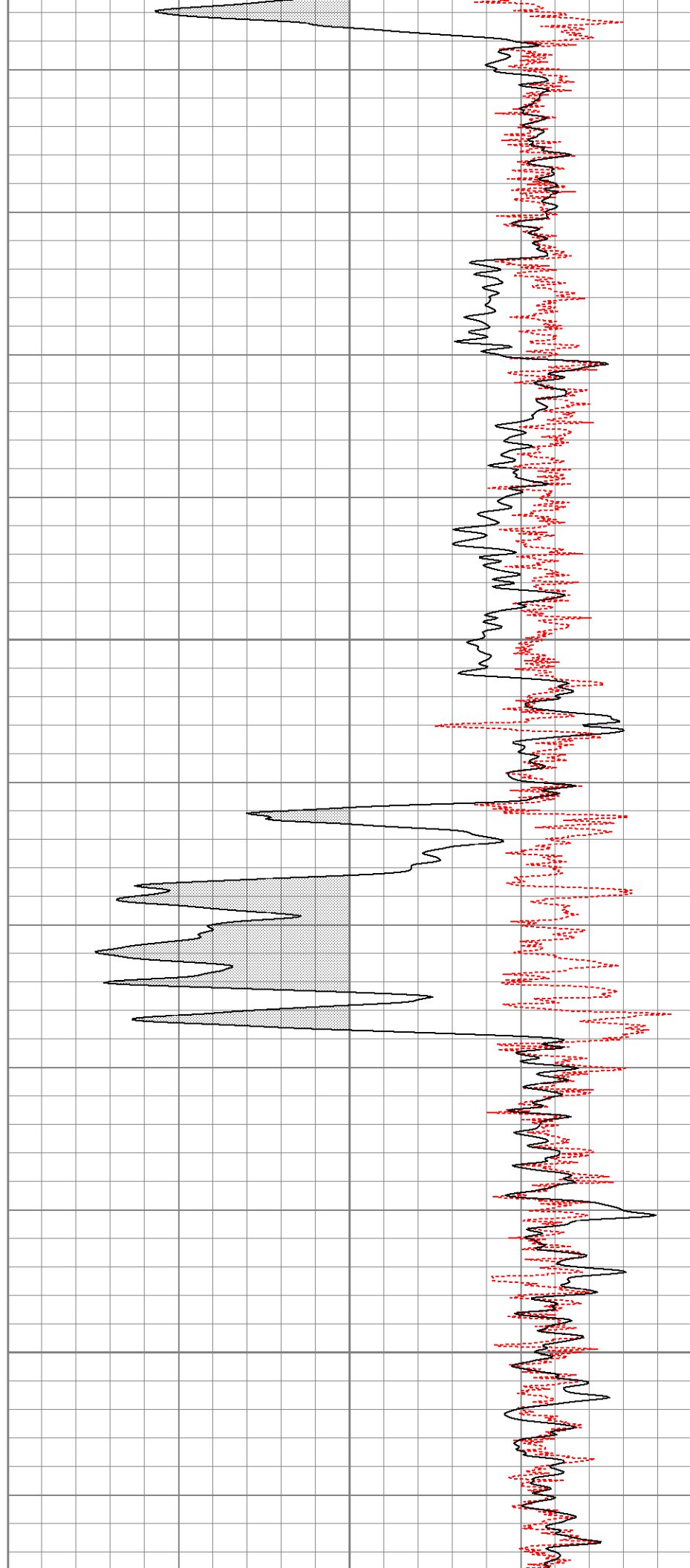


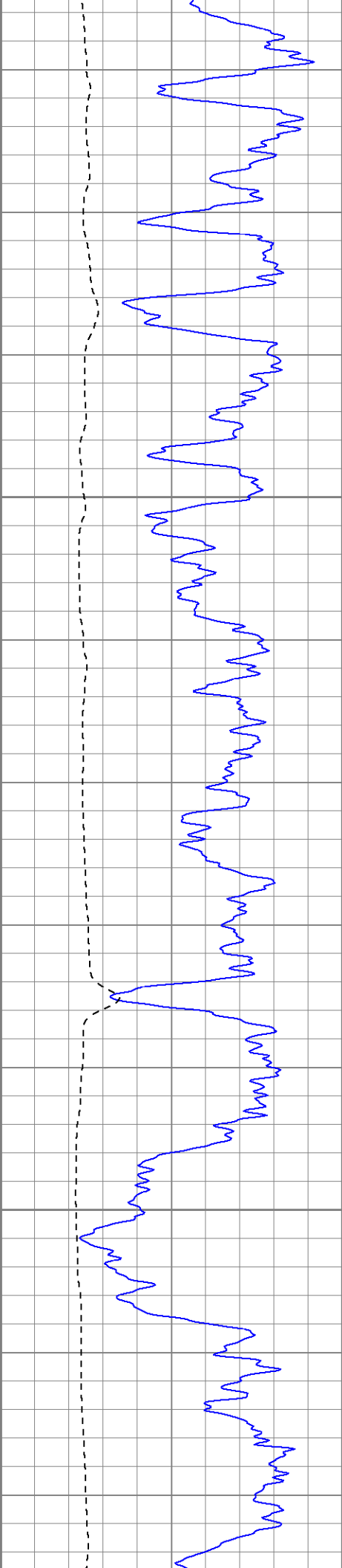




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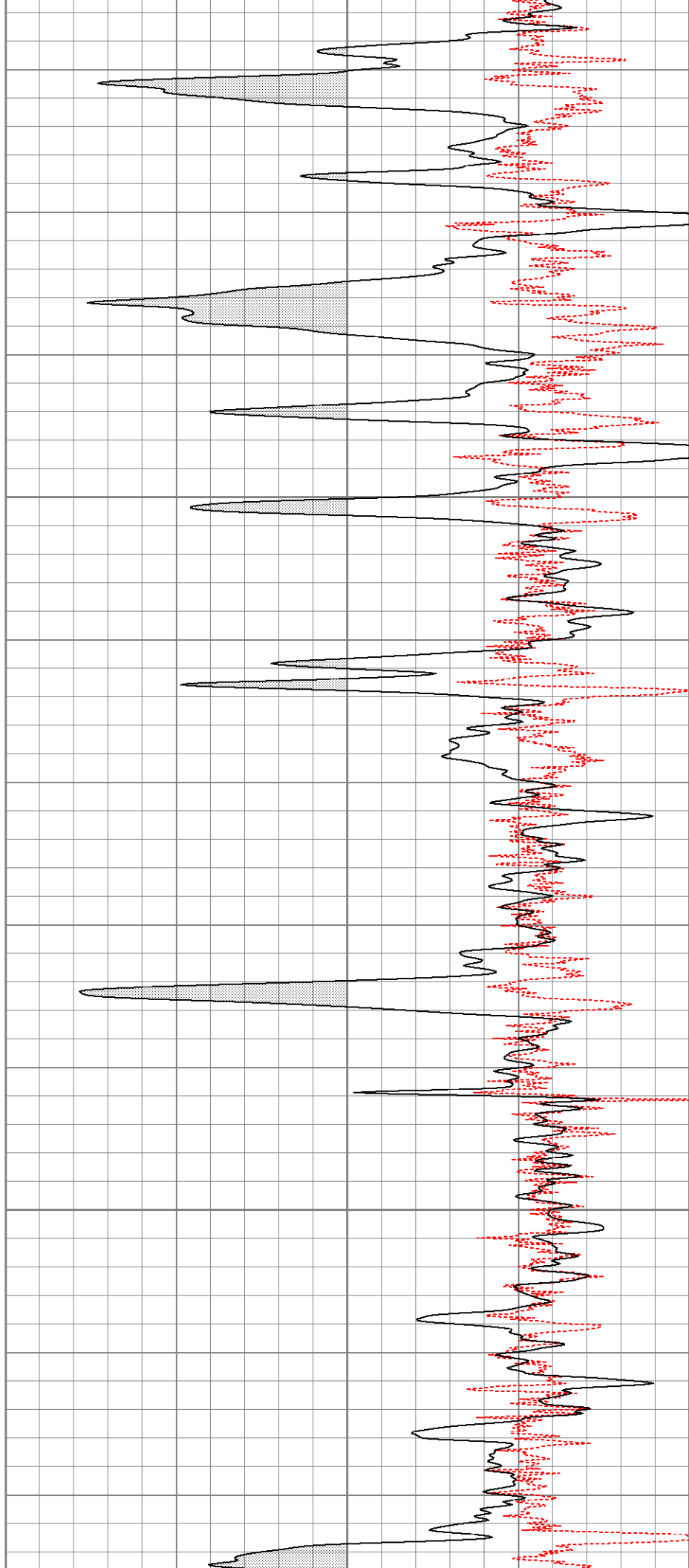
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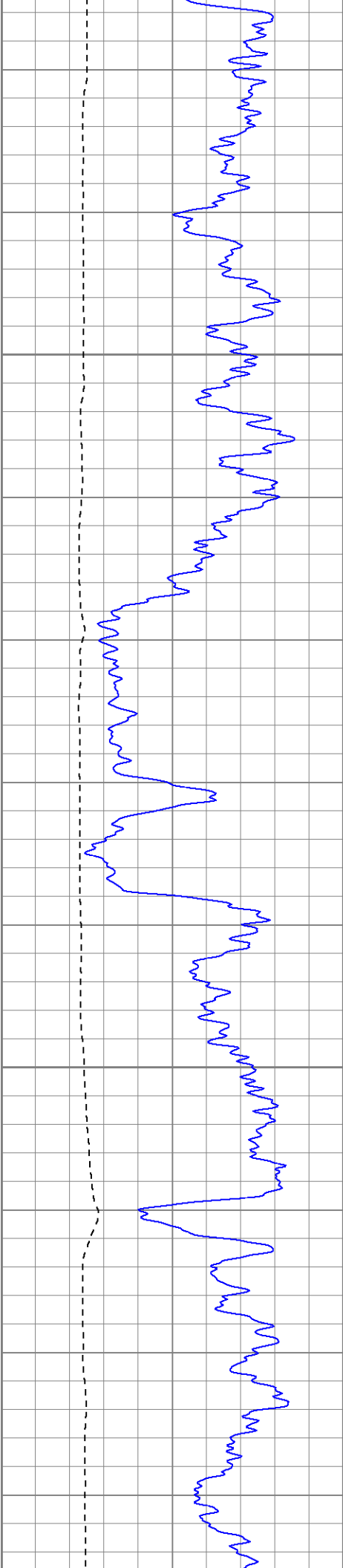




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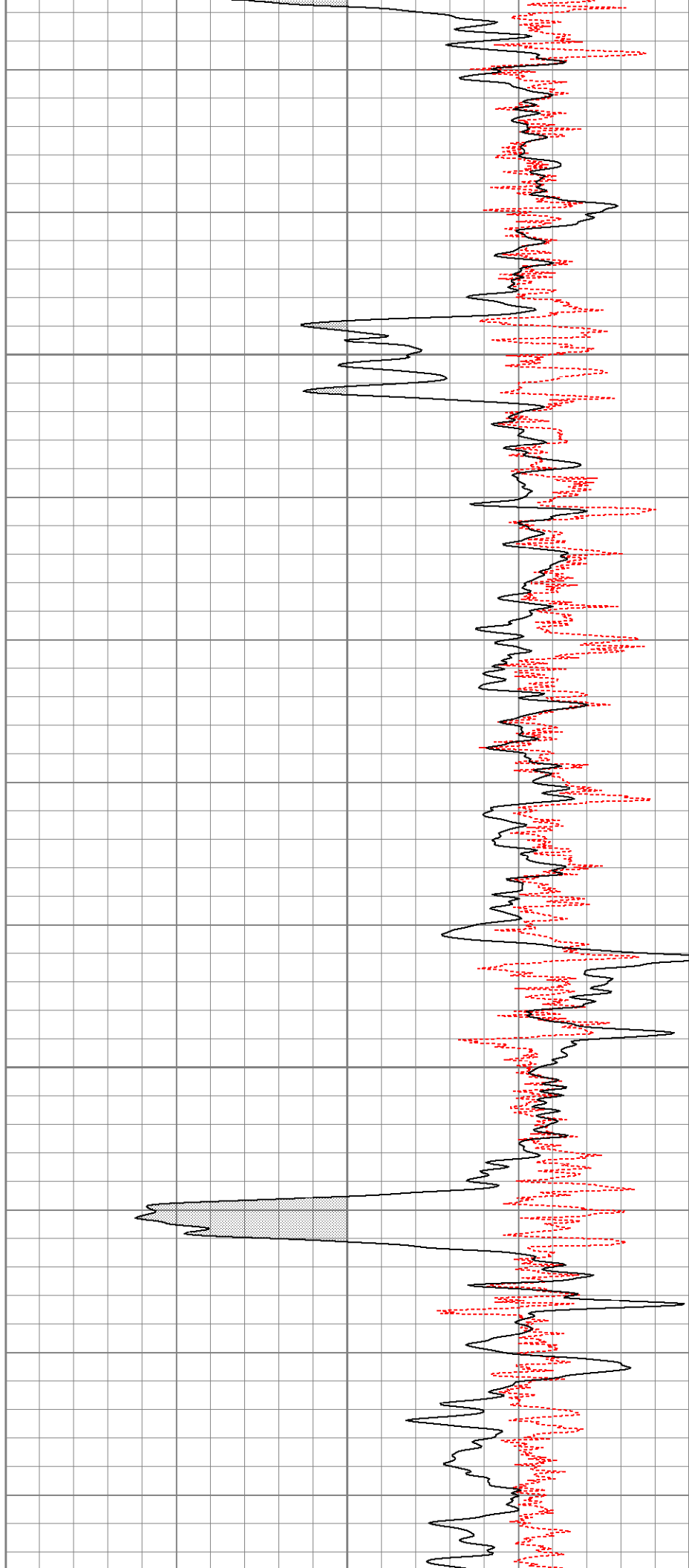
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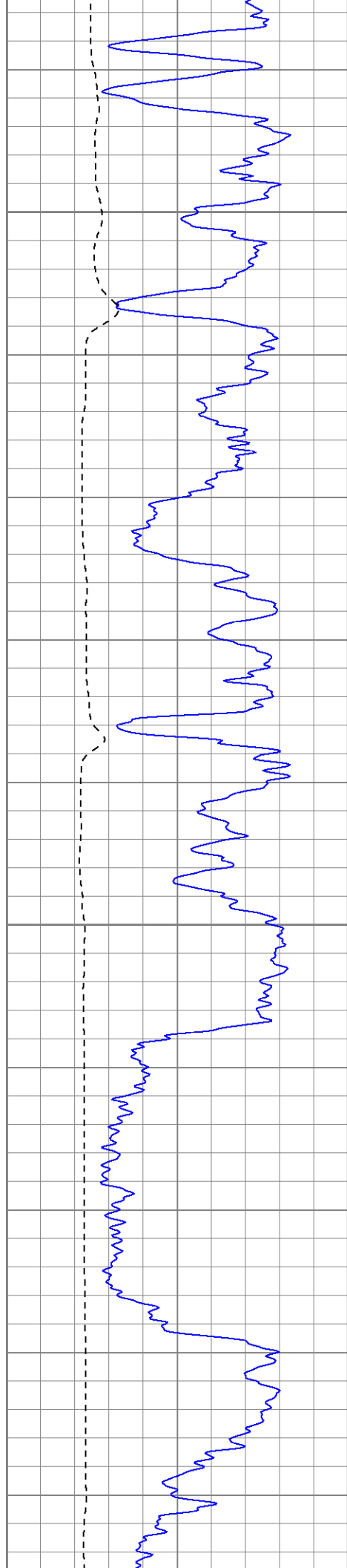




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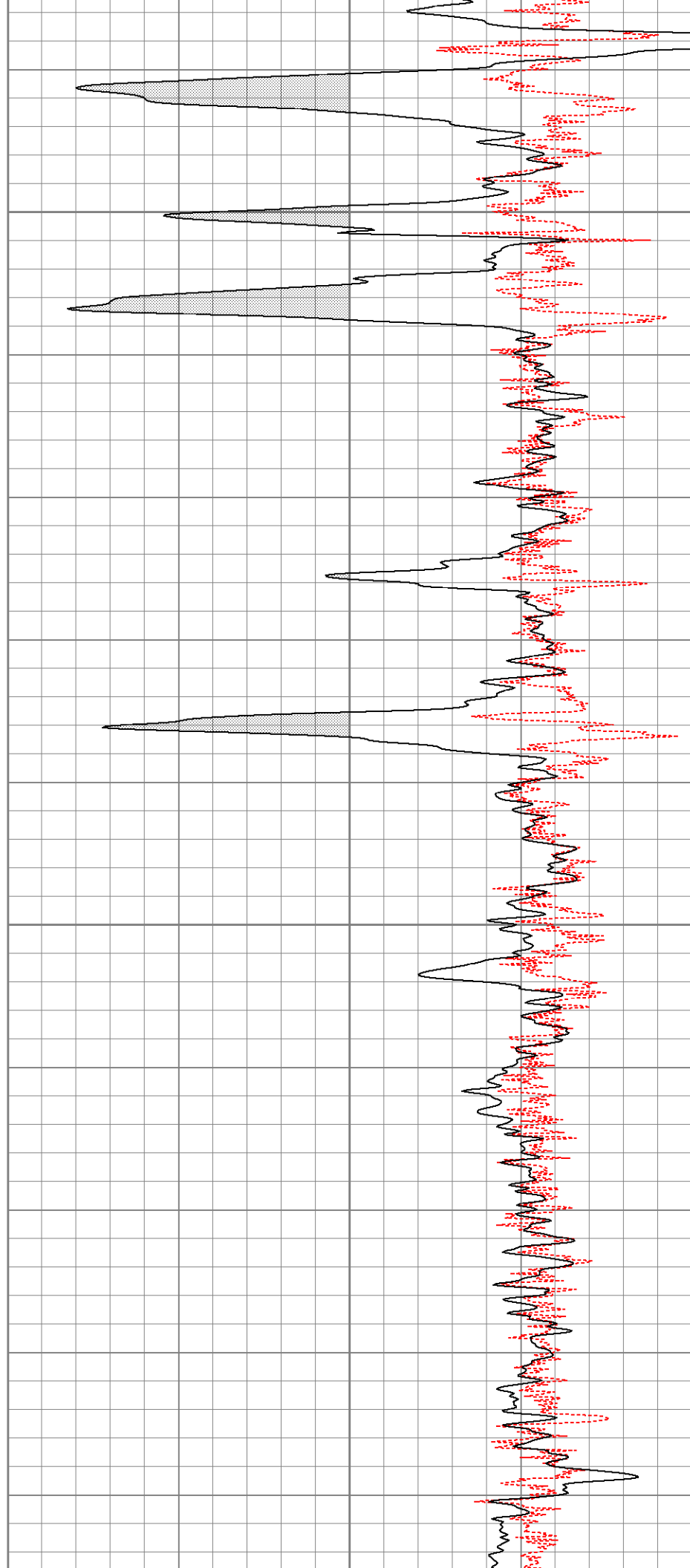
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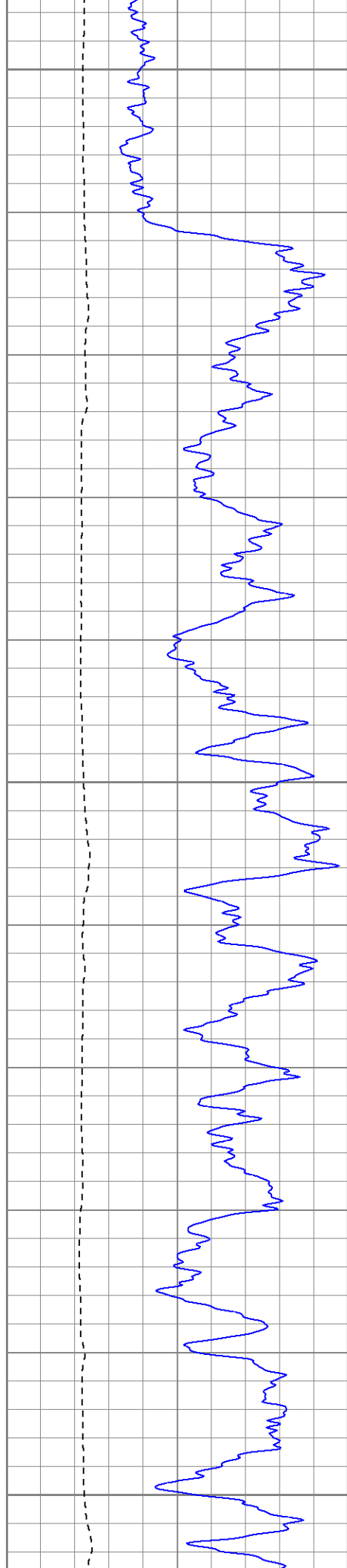




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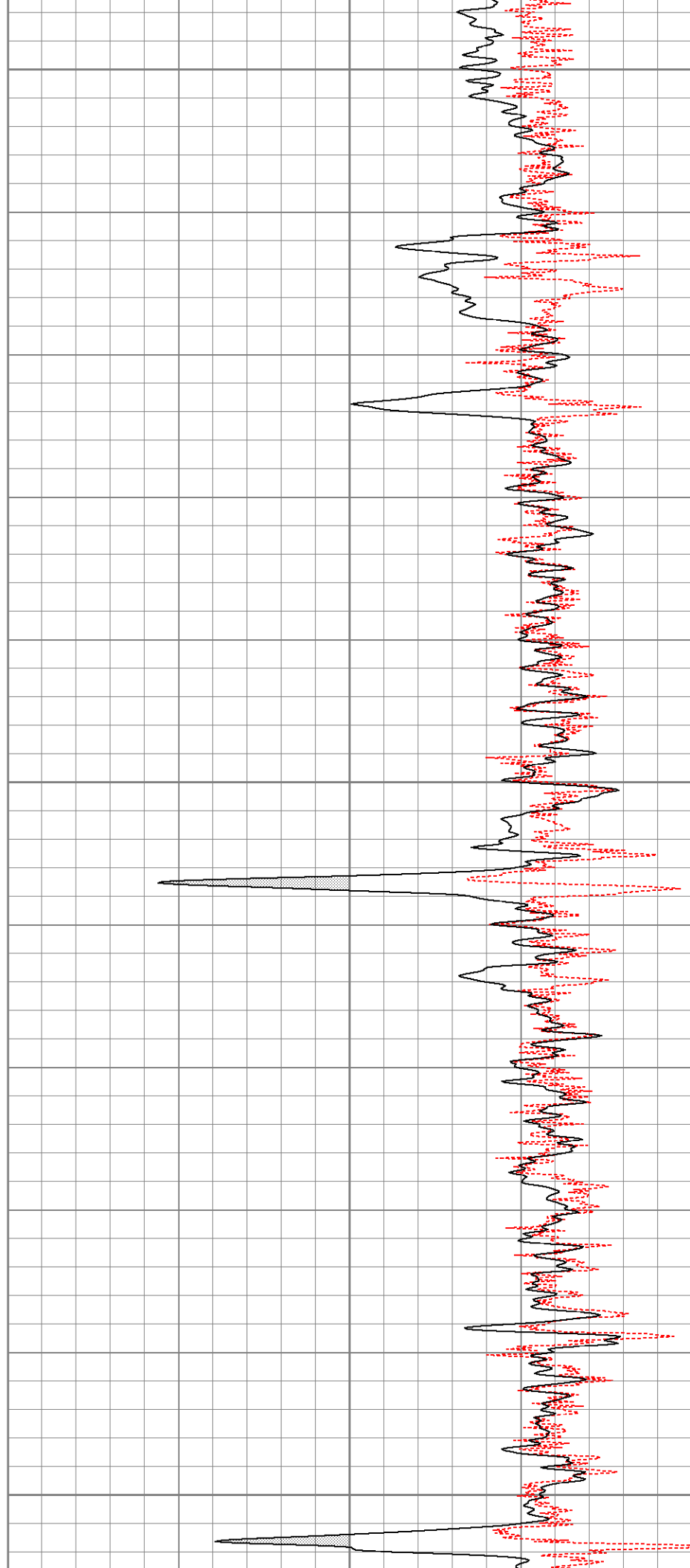


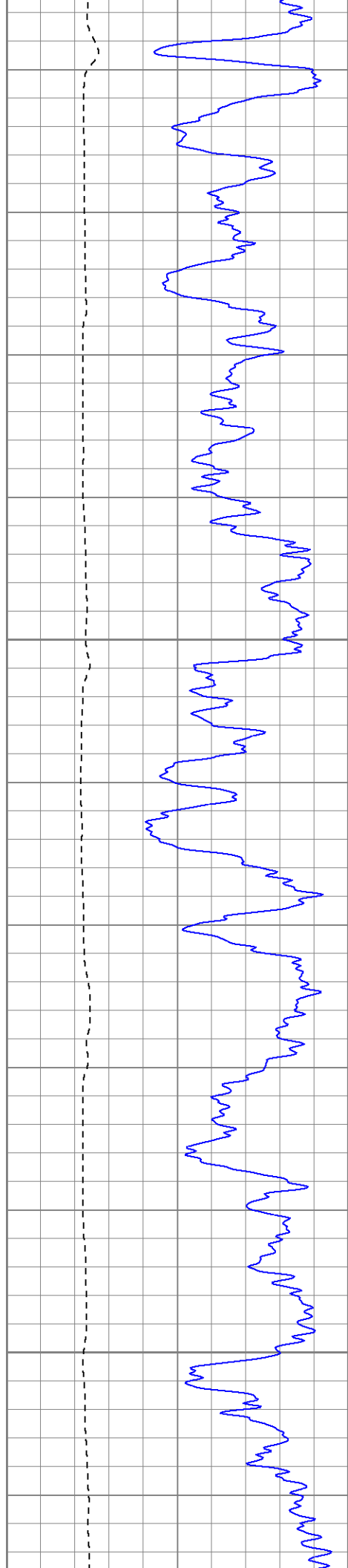


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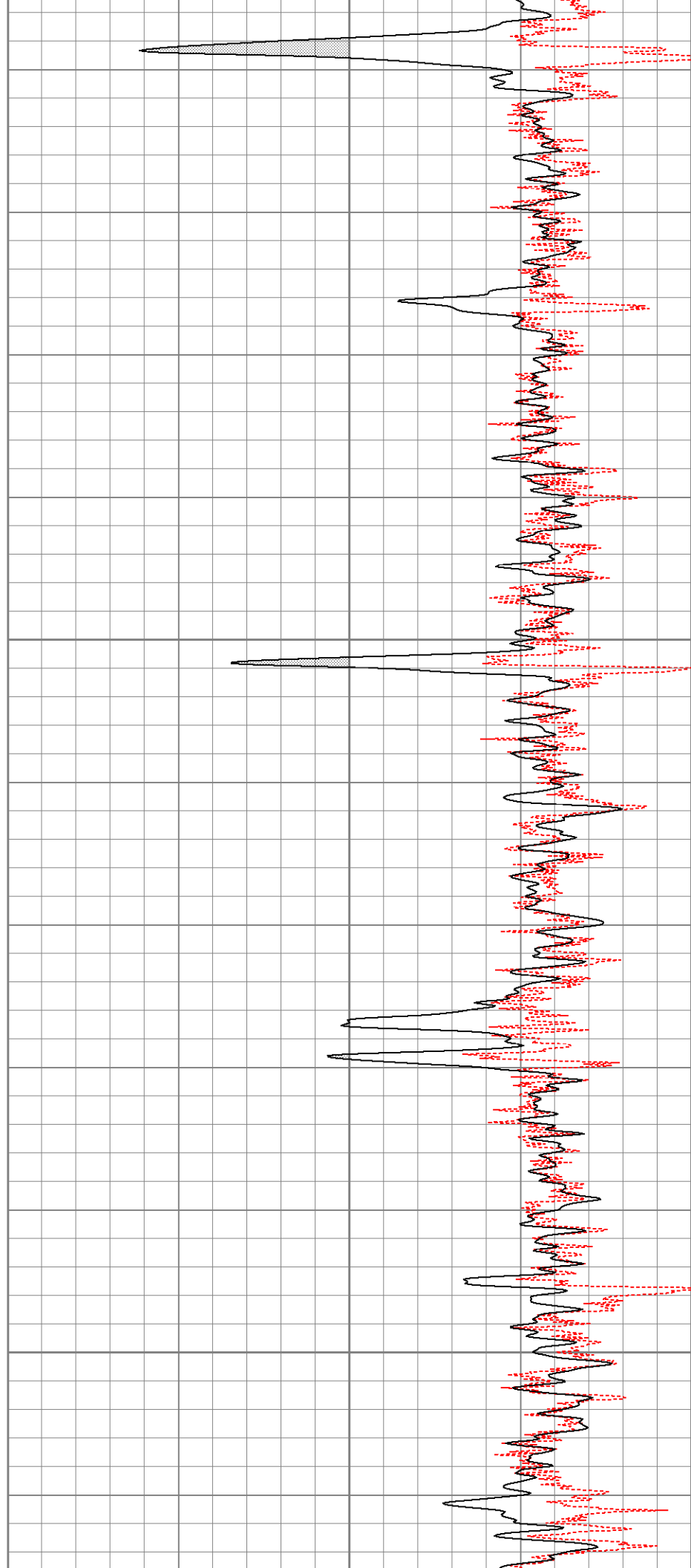
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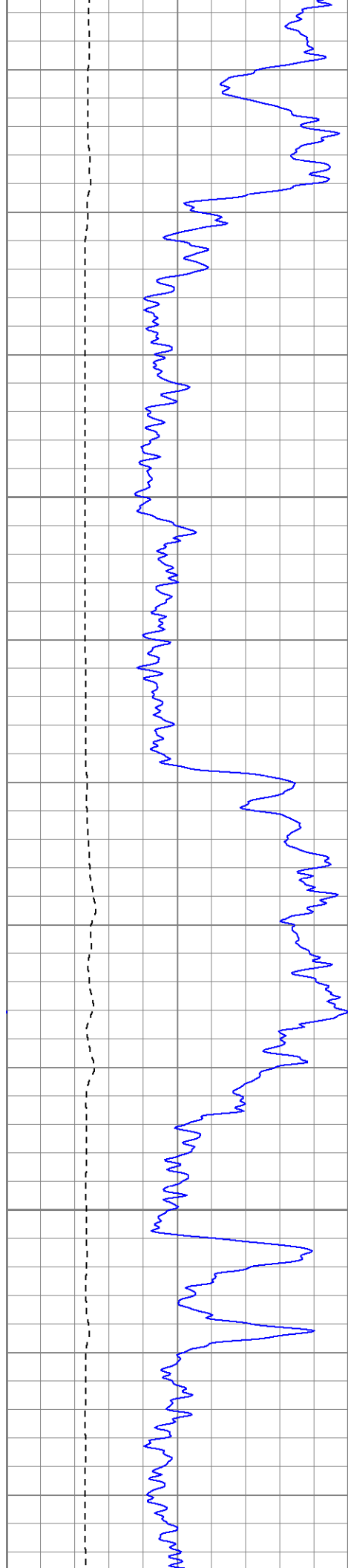




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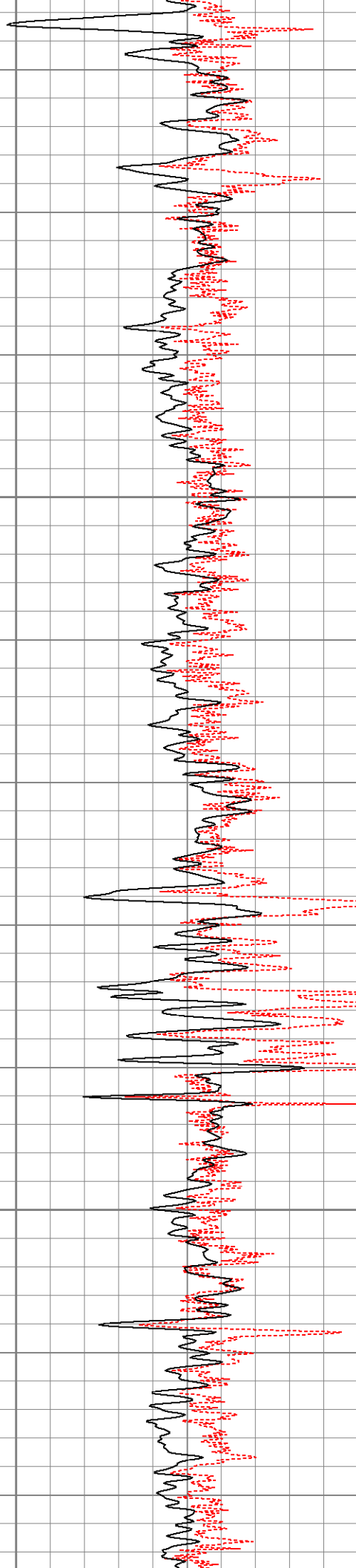
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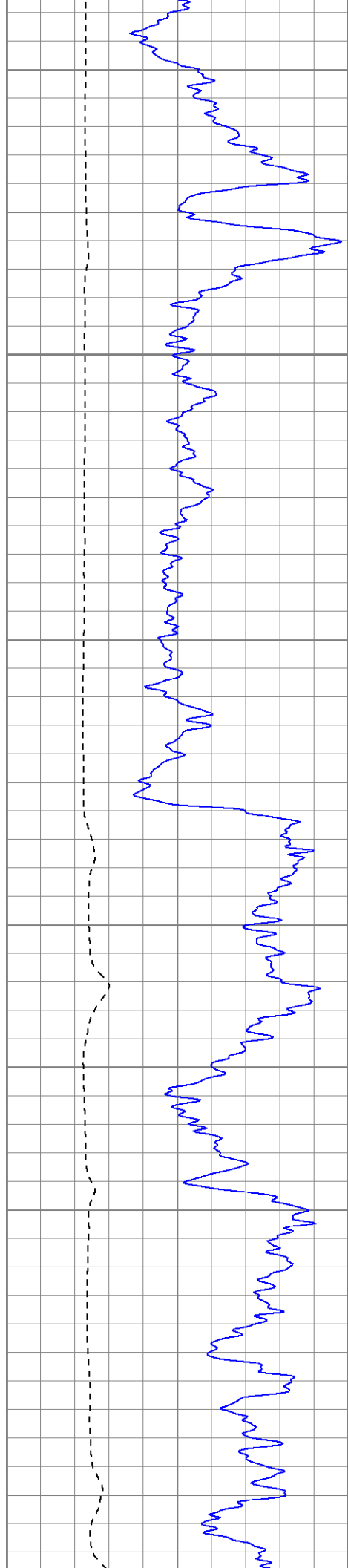




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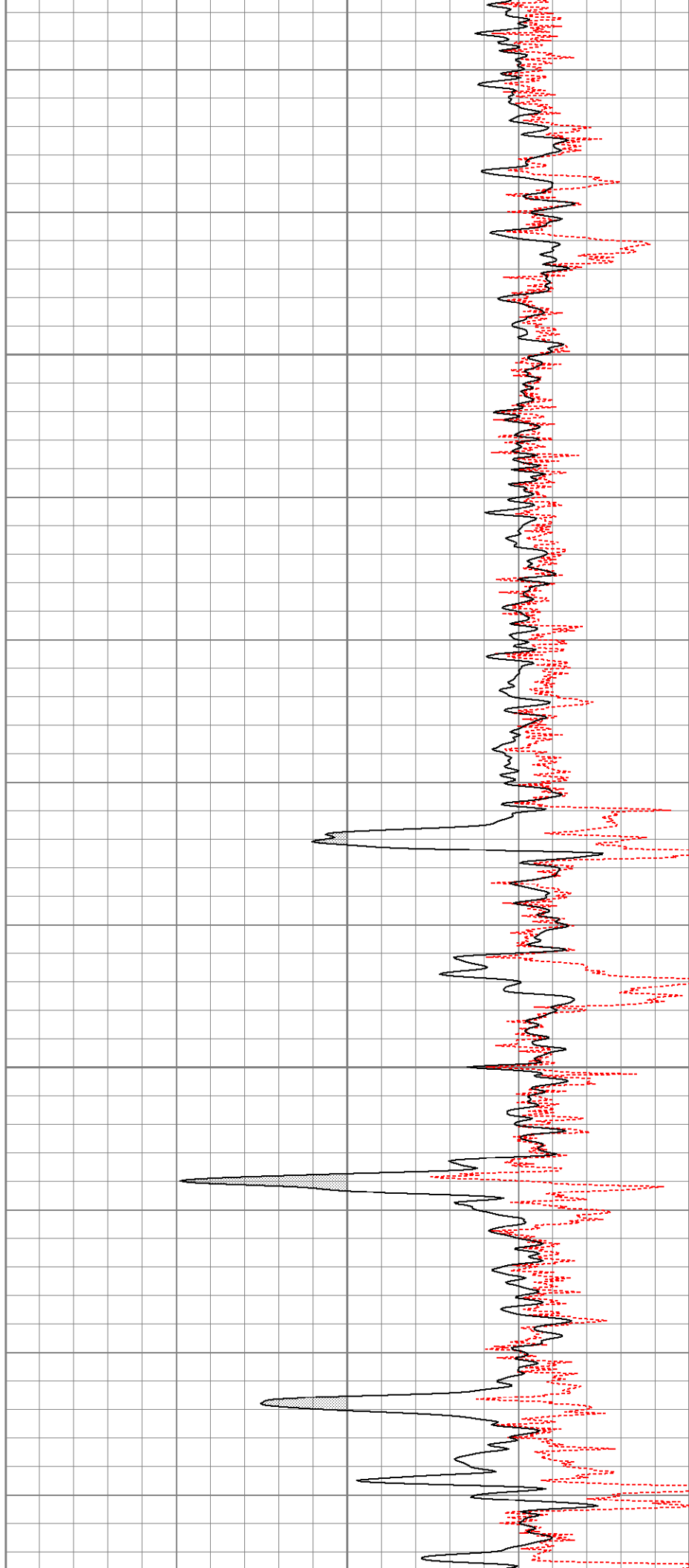
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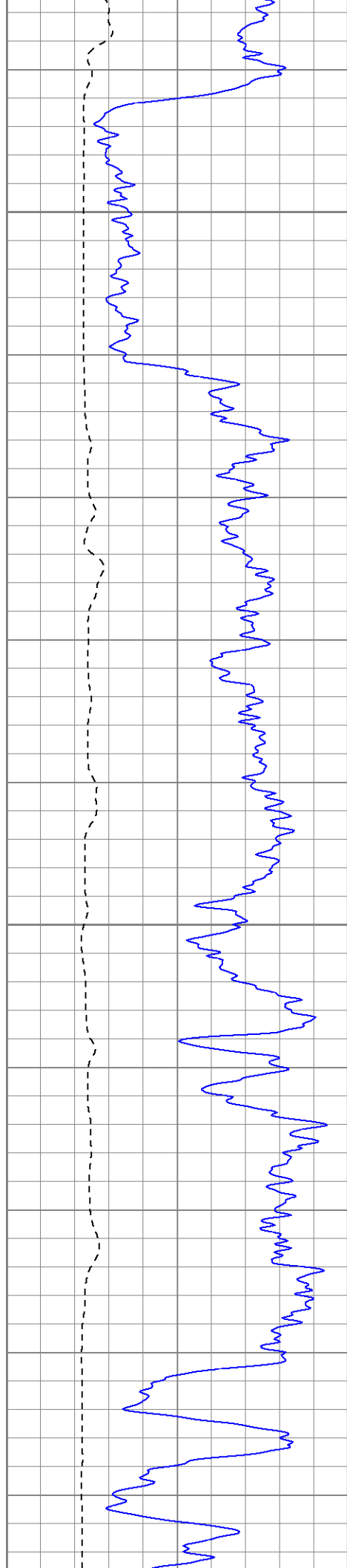




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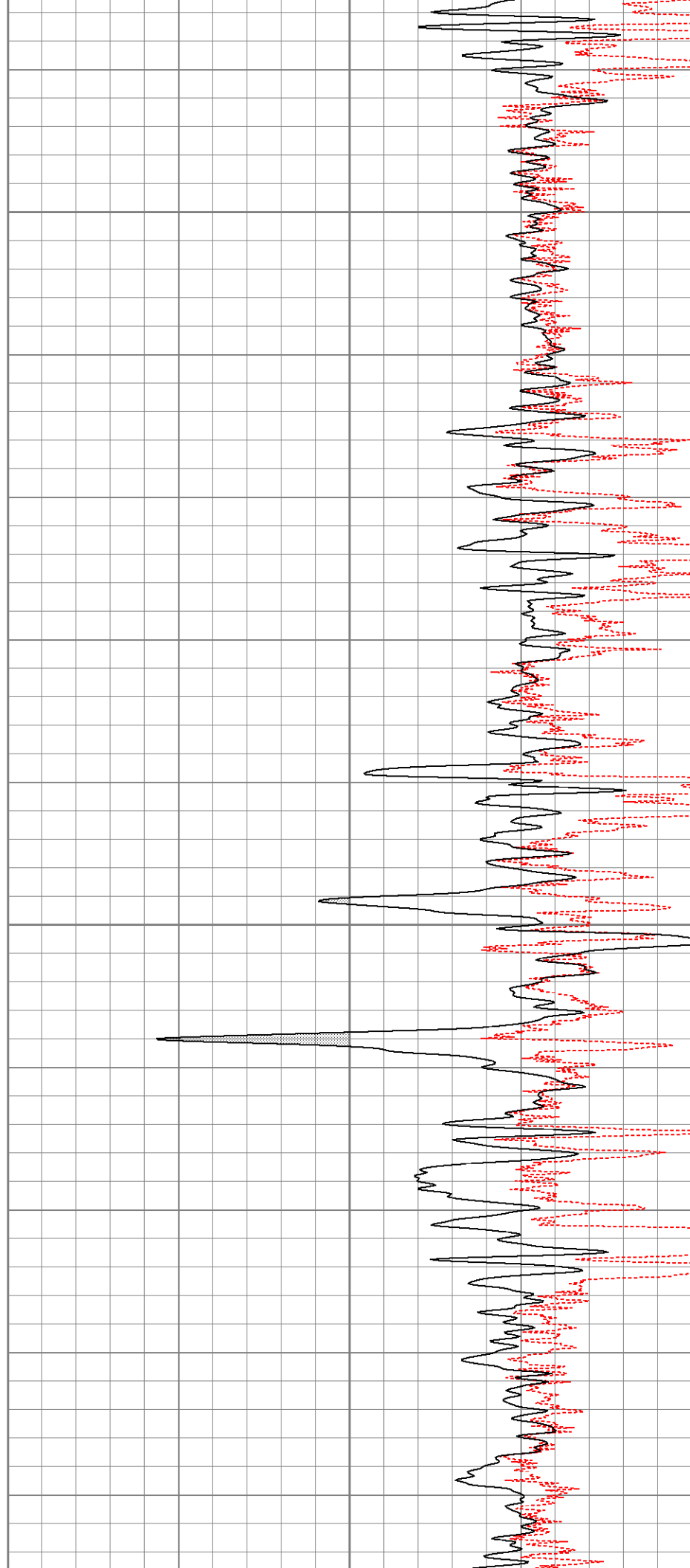
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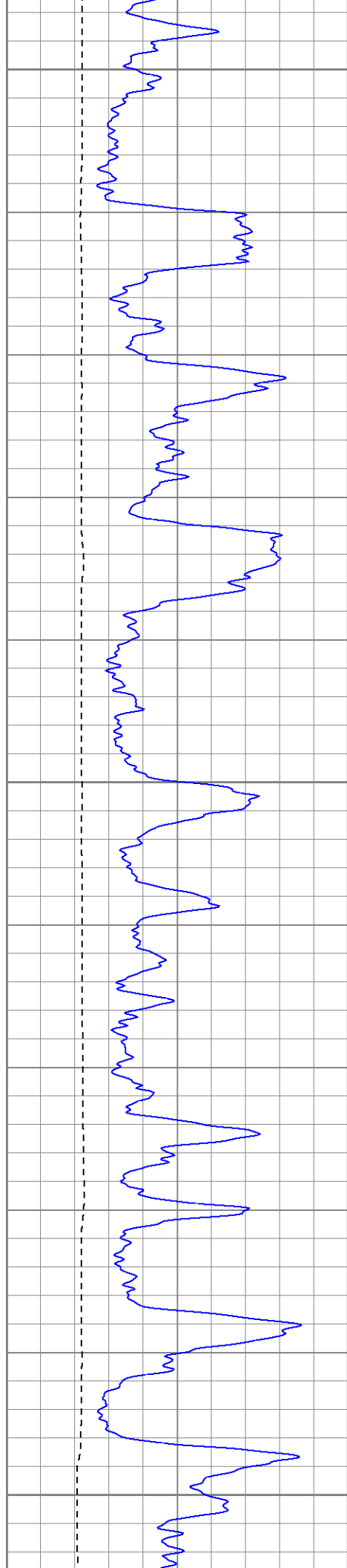




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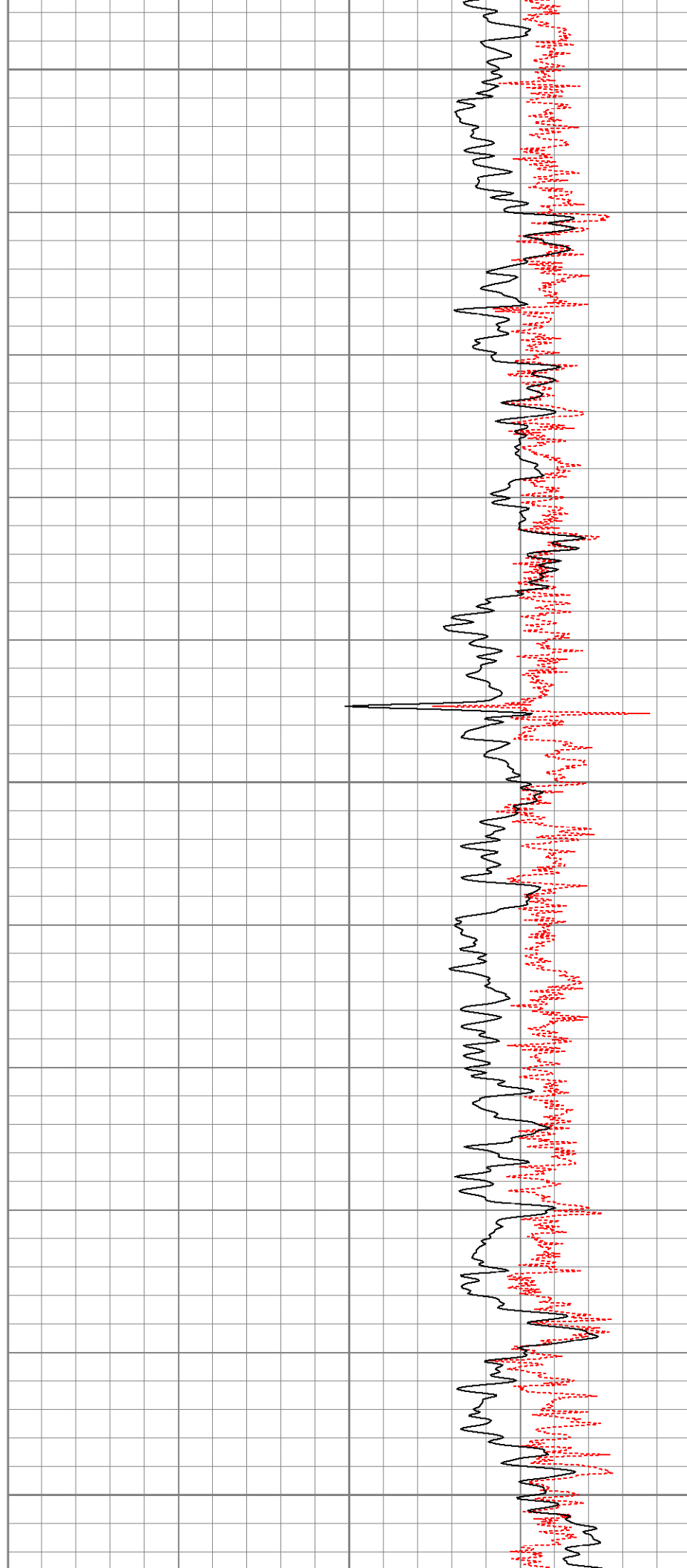


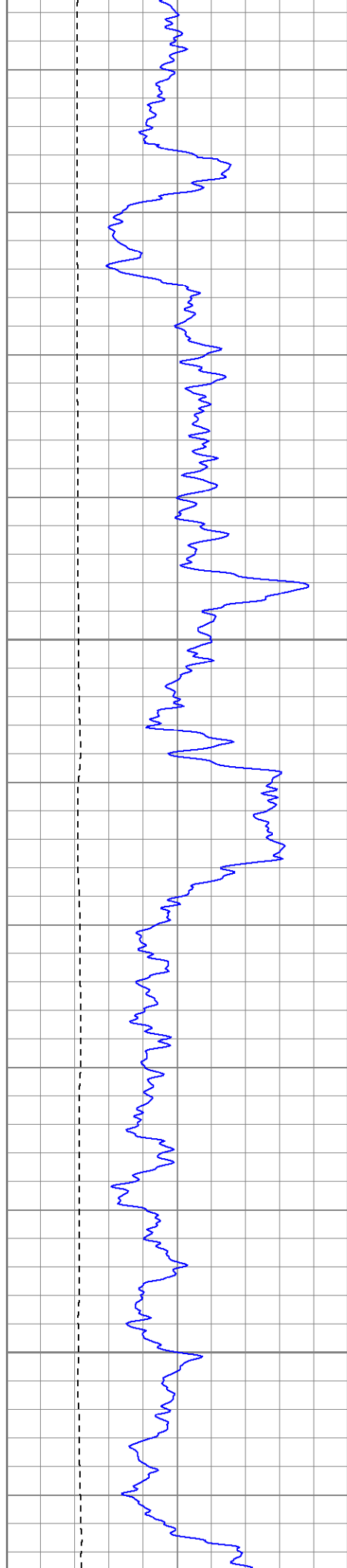


1700

1750

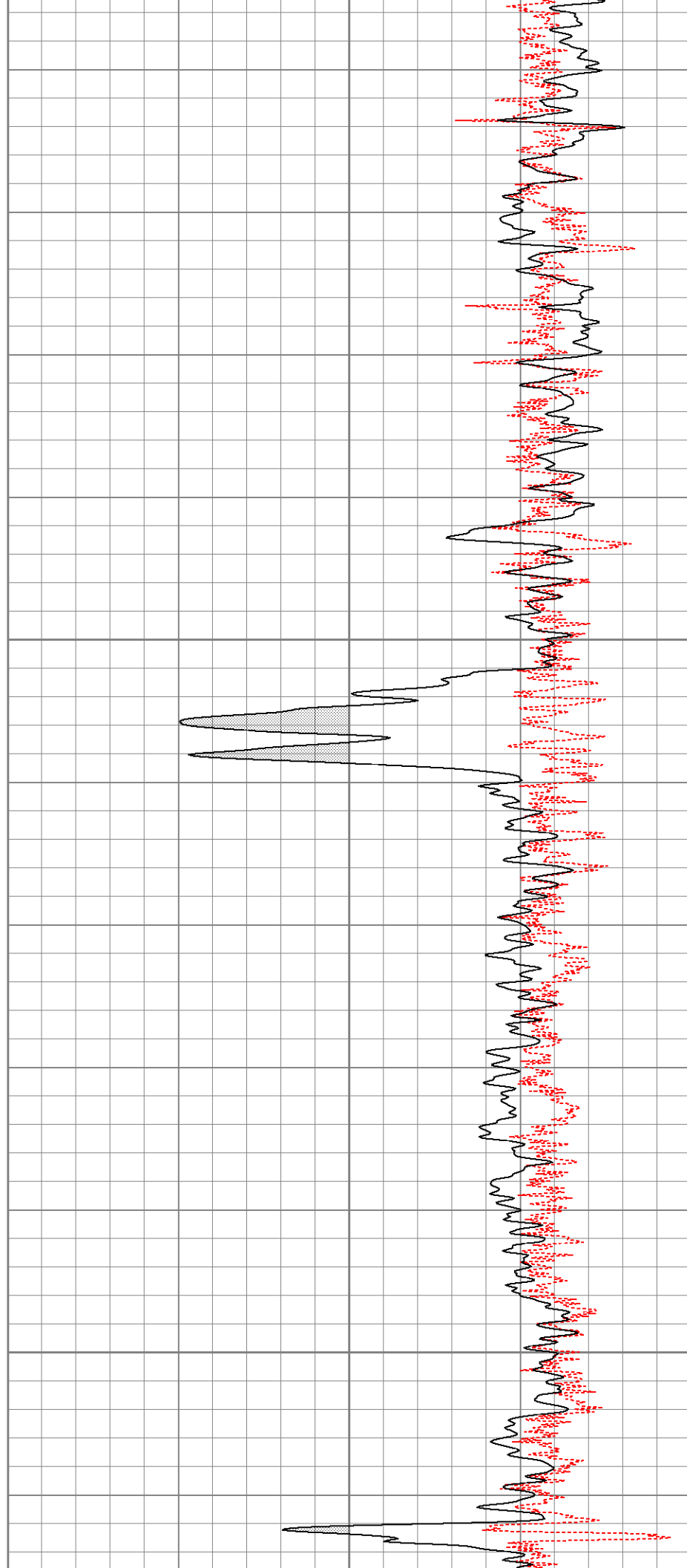
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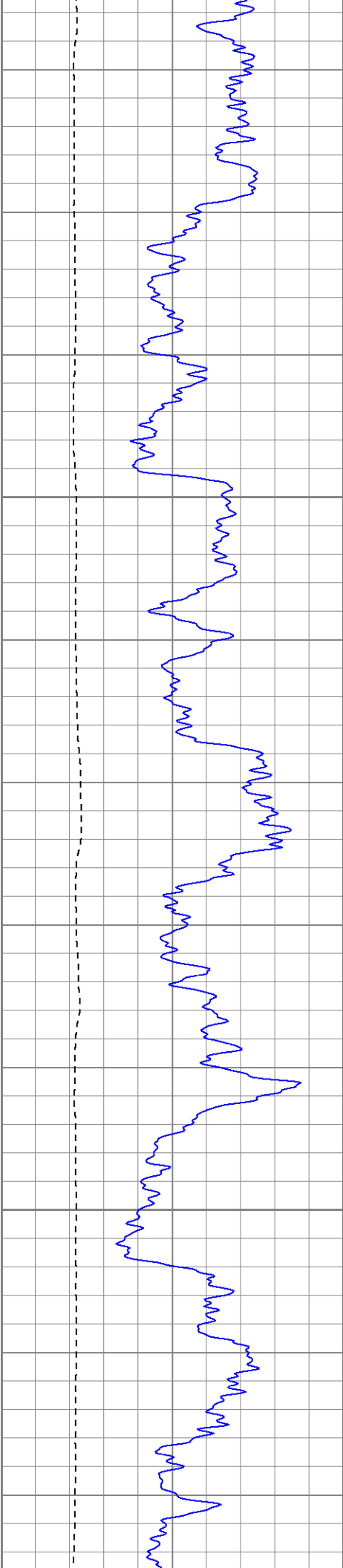




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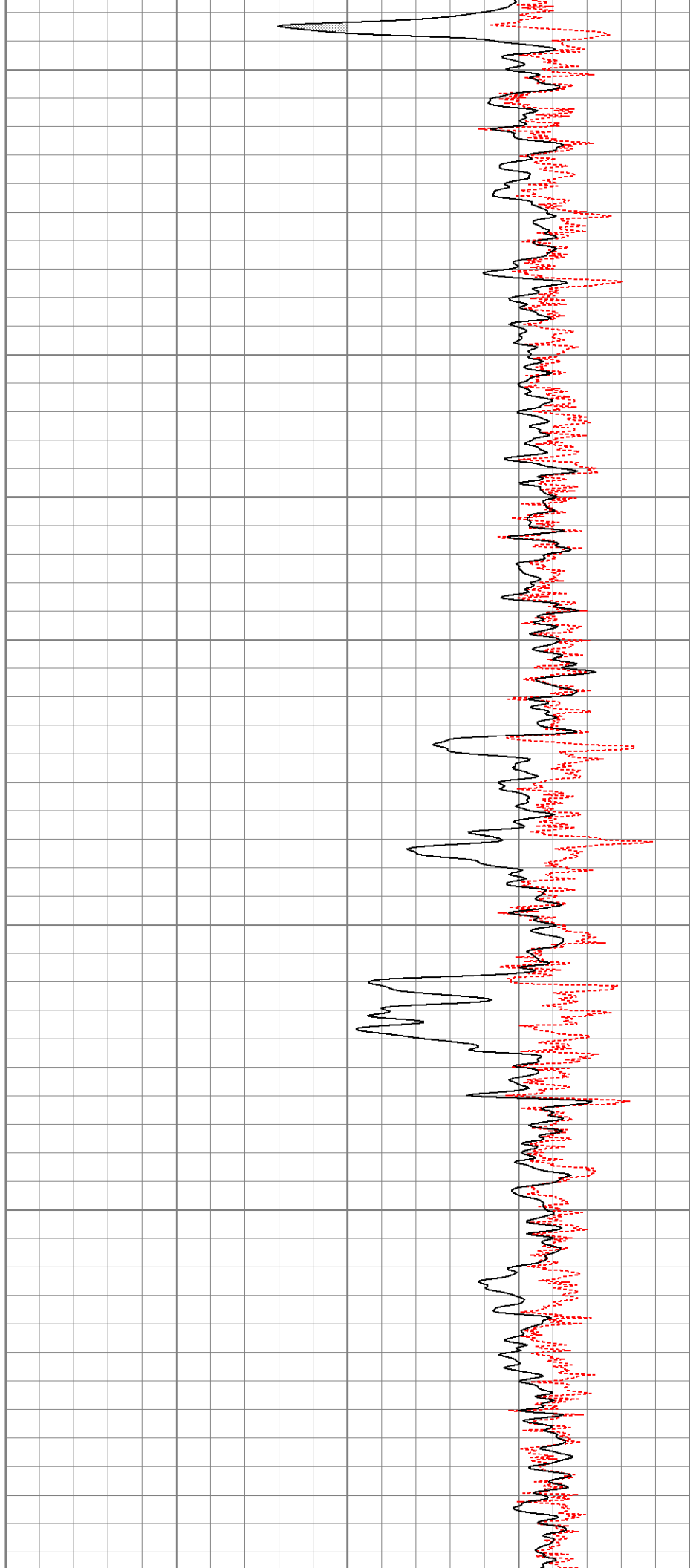
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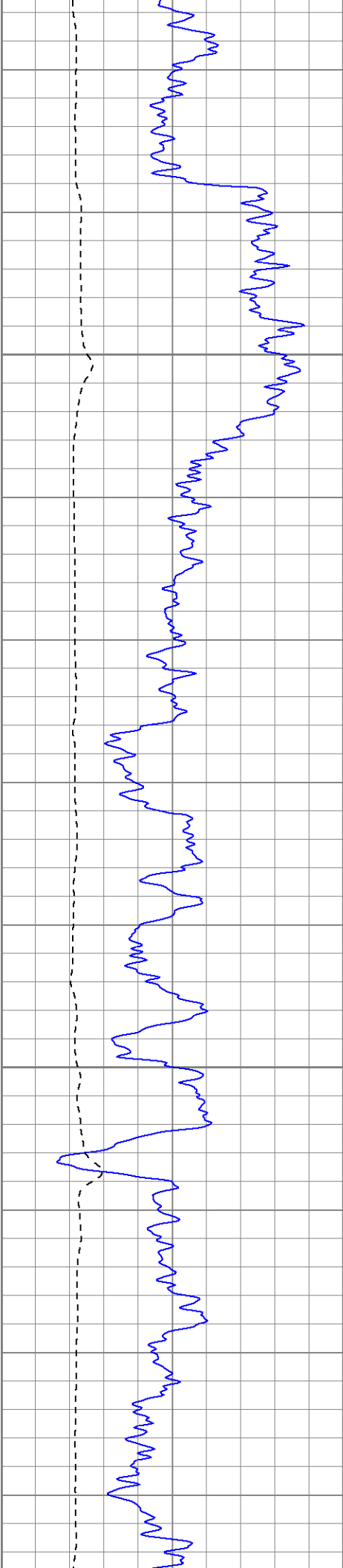




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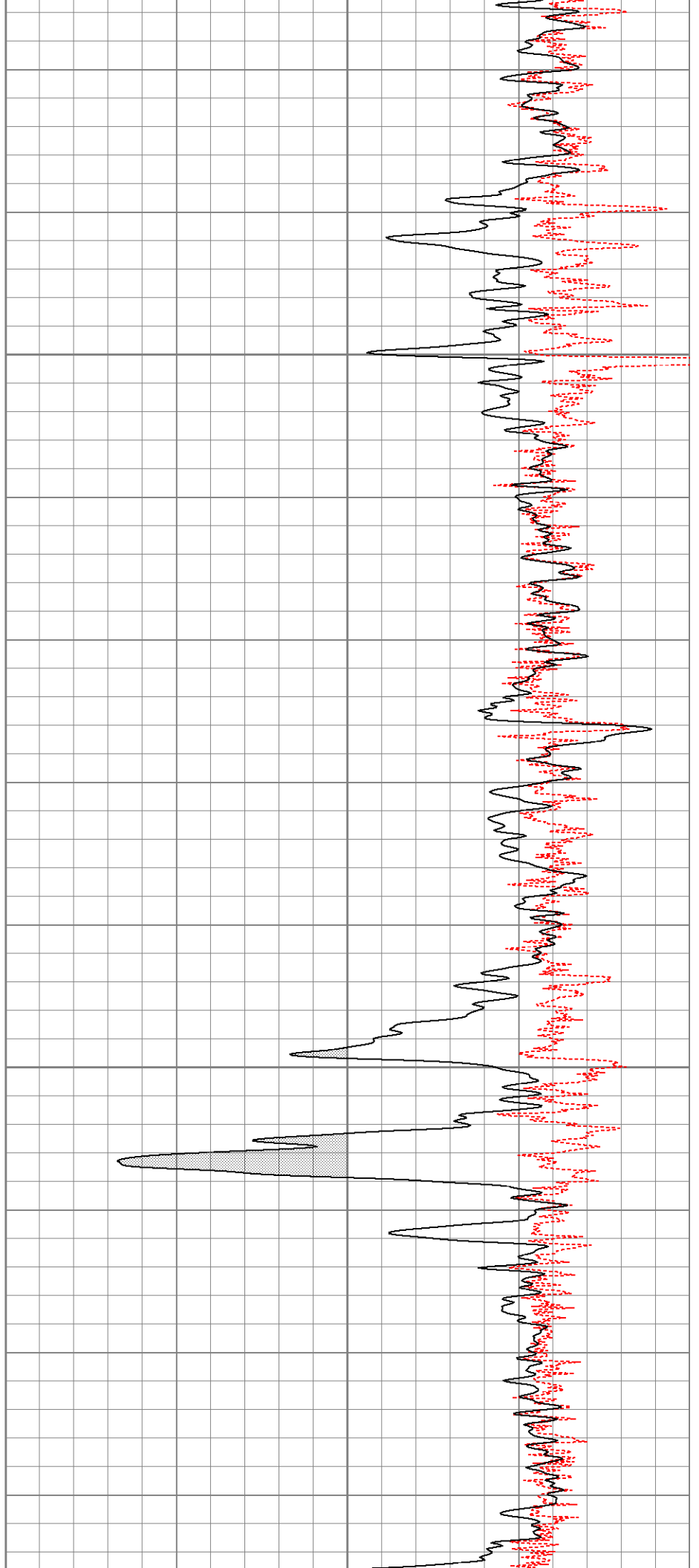
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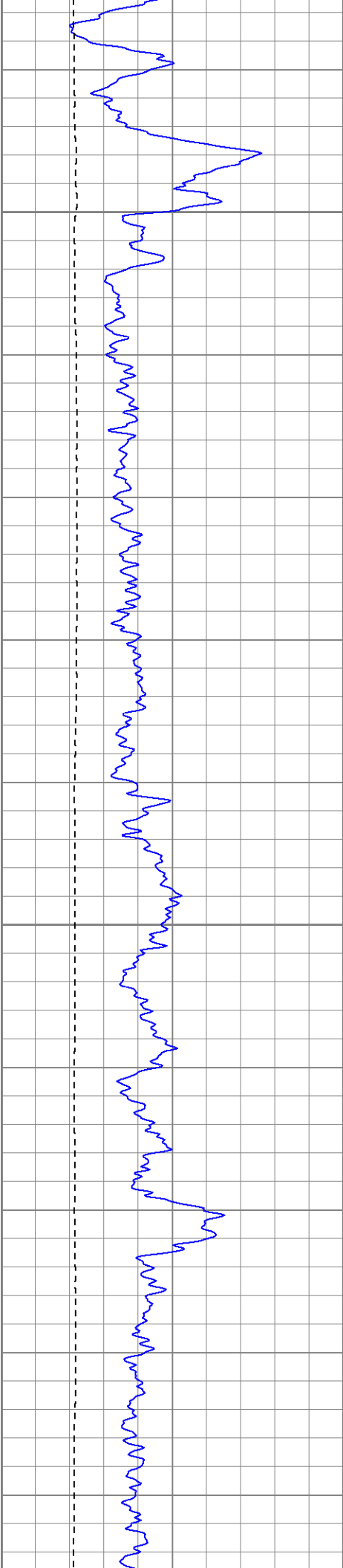




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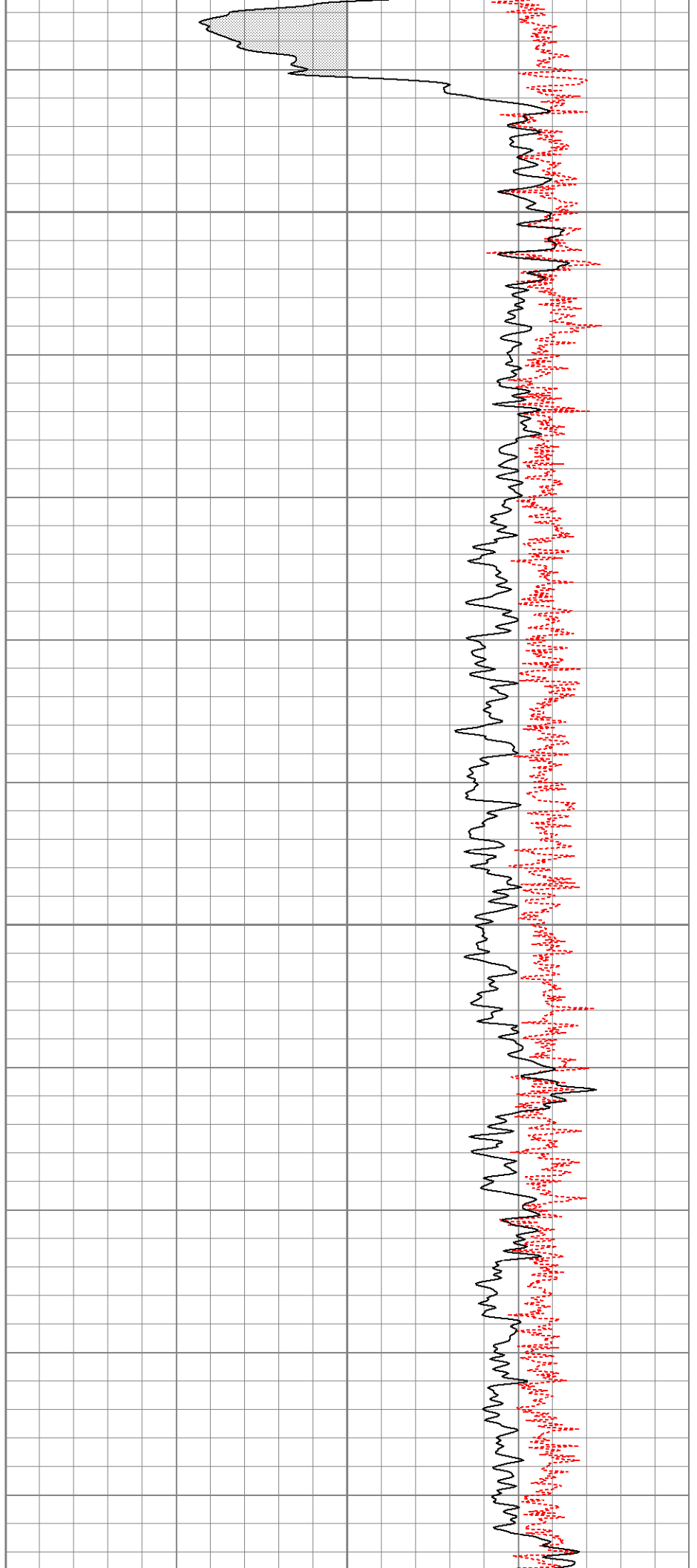
2100

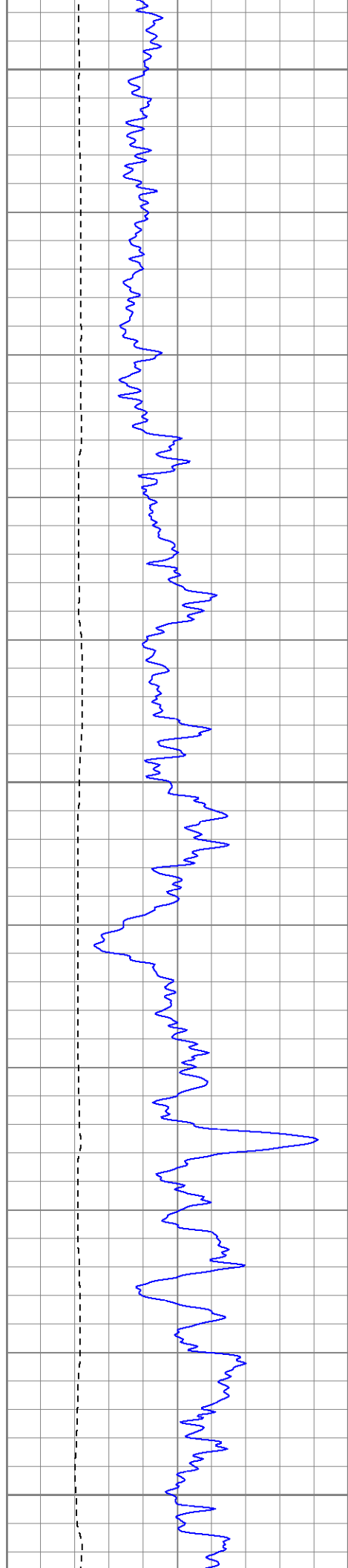




2150

2200

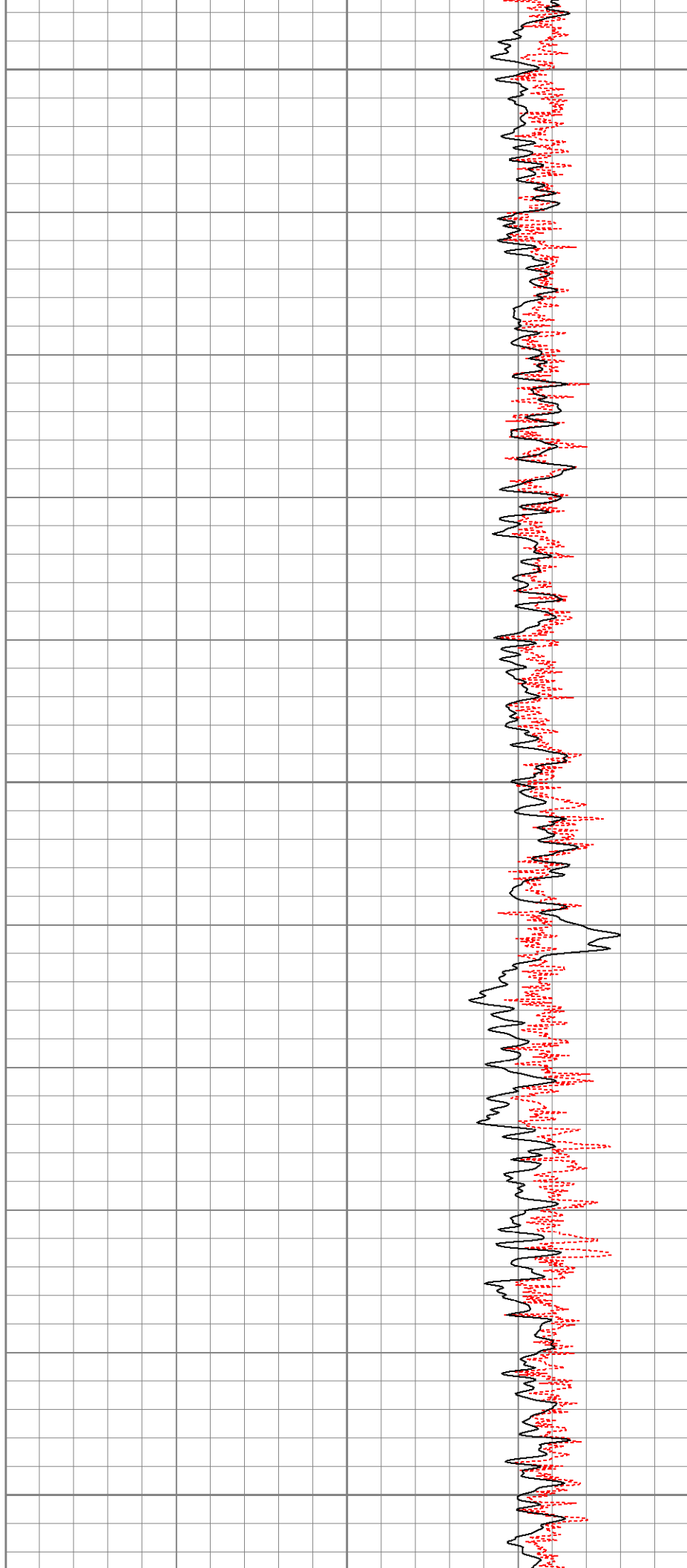


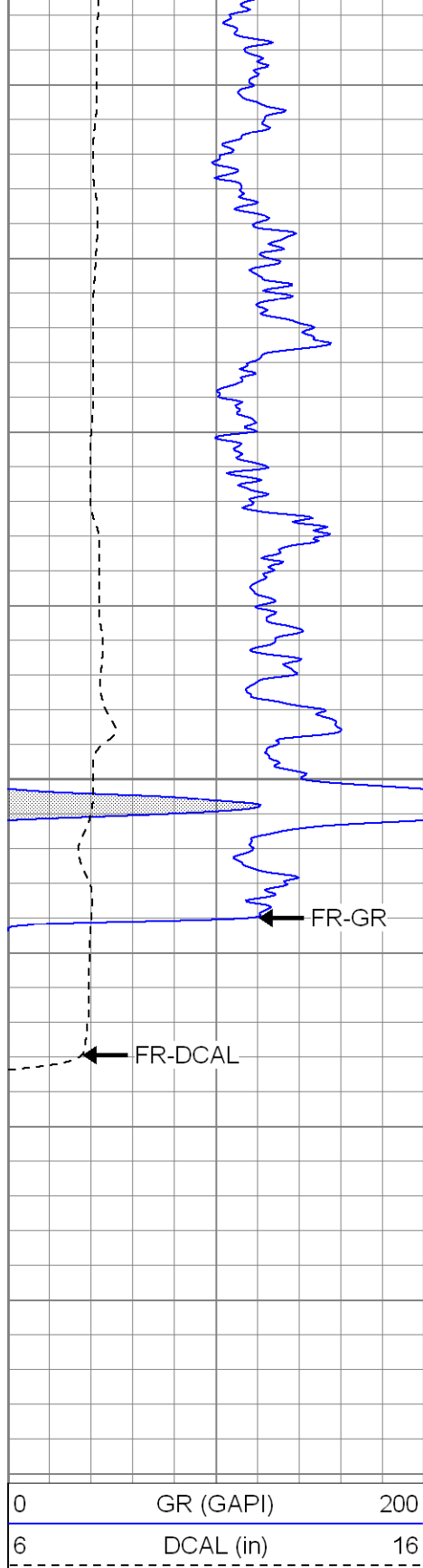


2250

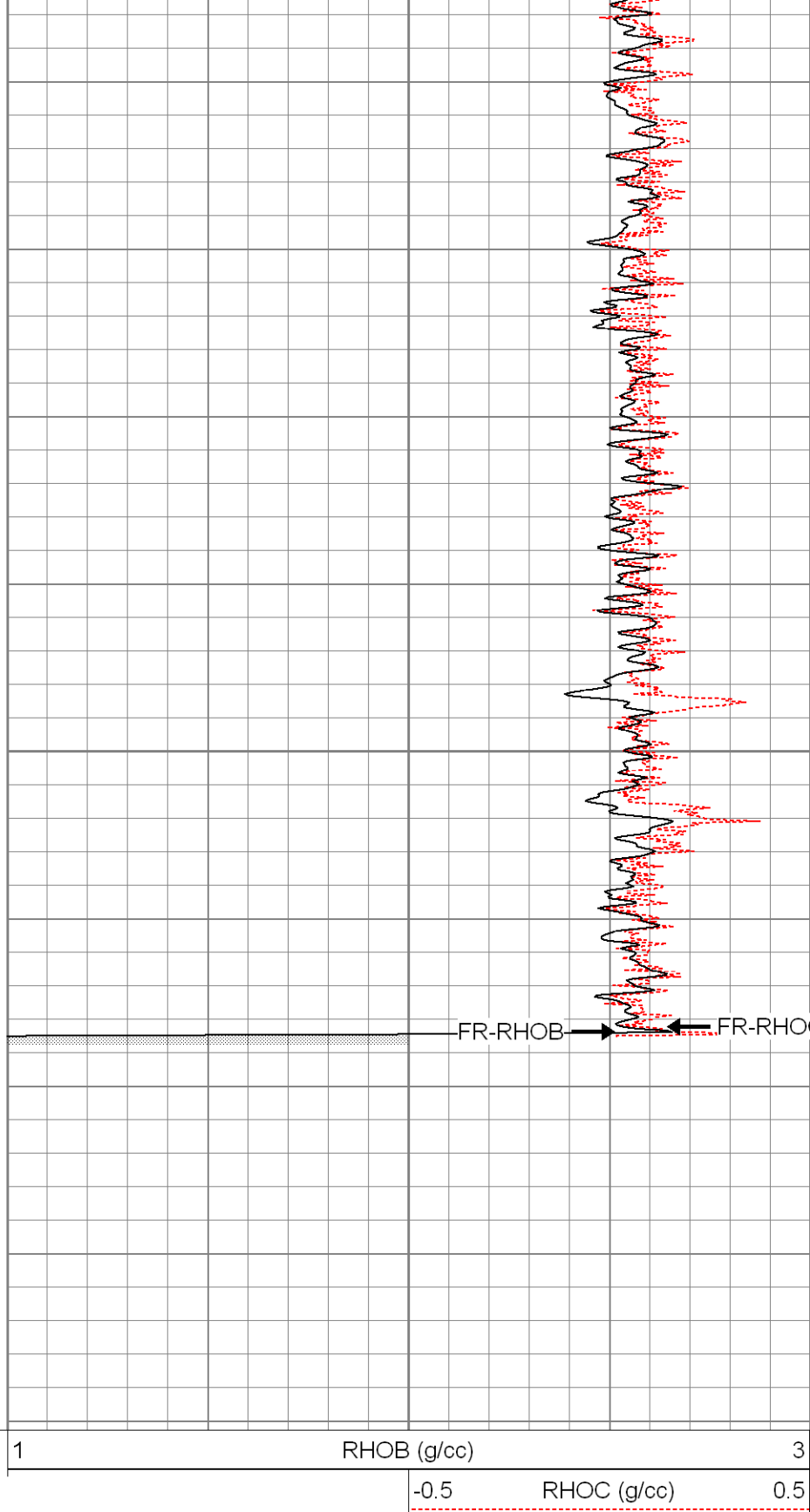
2300

2350





2400



Calibration Report

Database File: xtohreast2304.db
 Dataset Pathname: pass1
 Dataset Creation: Tue Apr 22 17:05:49 2008 by Log Open-Cased 070814

Dual Induction Calibration Report

Serial-Model:

5375-G

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.004	0.624	V	0.000	400.000	mmho-m	645.281	-2.662
Medium	0.006	0.746	V	0.000	450.000	mmho-m	608.513	-3.944
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.005	0.624	V	0.000	500.000	mmho-m	807.038	-3.699
Medium	0.007	0.746	V	0.000	500.000	mmho-m	676.388	-4.574

Downhole Calibration

Readings				References			Results	
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.087	400.091	mmho-m	0.295	400.079	mmho-m	0.999	0.209
Medium	0.104	450.126	mmho-m	0.171	449.996	mmho-m	1.000	0.067
Shallow	2.508	0.013	V	500.000	2.000	Ohm-m	124.000	-3.000

Temperature Calibration Report

Serial Number:	2099T			
Tool Model:	CDLP			
Performed:	Thu Apr 10 12:16:16 2008			
	Reference		Reading	
Low Reference:	55.00	degF	3.15	V
High Reference:	160.00	degF	5.35	V
Gain:	47.73			
Offset:	-95.34			
Delta Spacing	1			

Compensated Density Calibration Report

Serial-Model:	2099-NG
Source / Verifier:	csv-n20 / blocks
Master Calibration Performed:	Thu Apr 10 12:49:42 2008

Master Calibration

Density			Far Detector	Near Detector	
Magnesium	1.710	g/cc	423.20	191.95	cps
Aluminum	2.590	g/cc	88.11	126.30	cps
Spine Angle = 75.07			Density/Spine Ratio = 0.542		
Size			Reading		
Small Ring	8.00	in	1.73	V	
Large Ring	14.00	in	2.99	V	

Gamma Ray Calibration Report

Serial Number:	2001
Tool Model:	P2001
Performed:	Tue Apr 22 12:36:09 2008





Performed:

Tue Apr 22 12:55:05 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: 5108
Tool Model: P
Performed: Thu Apr 10 15:21:19 2008
Calibrator Value: 1 NAPI
Calibrator Reading: 1 cps
Sensitivity: 1 NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
NEU	38.31		NEU-P (5108)	4.92	3.63	85.00
GR	32.20		GR-P2001 (2001)	3.56	3.25	40.00
LSD	23.65		CDL-NG (2099)	9.69	4.00	201.00
DCAL	23.36					
SSD	23.11					
TEMP	22.42		TEMP-CDLP (2099T)	0.01	4.00	1.00
CILD	10.60		DIL-G (5375)	21.33	4.00	345.00

SP	10.60					
CILM	6.89					
RLL3	1.70					
Dataset: xtohreast2304.db: field/well/run1/pass1 Total Length: 39.51 ft Total Weight: 672.00 lb O.D. 4.00 in						