



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

COMPENSATED DENSITY NEUTRON LOG

Company XTO Energy Inc.
Well Apache Canyon 05-15
Field Purgatoire River
County Las Animas State Colorado

Location: API #: 05 071 09130 00

1045' FSL & 2518' FEL

SEC 5 TWP 34S RGE 67W

Permanent Datum Ground Level Elevation 7872'
Log Measured From Ground Level
Drilling Measured From Ground Level

Other Services
DIL
Elevation
K.B. -----
D.F. -----
G.L. 7872'

Date 2-18-08

Run Number One

Depth Driller 2500'

Depth Logger 2493'

Bottom Logged Interval 2471'

Top Log Interval Surface Casing

Casing Driller 8 5/8" @ 450'

Casing Logger 450'

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 11:00 A.M.

Time Logger on Bottom 1:30 P.M.

Maximum Recorded Temperature 110 DEG F

Equipment Number T697

Location Trinidad

Recorded By J. Cappellucci

Witnessed By Mr. Don Johnson

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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

Neutron Density Porosity Presented On Sandstone Matrix.
ABHV Calculated For 5 1/2" Casing.

Well Directions:

1st Bosque Entrance to Cherry Canyon, Stay on main road,
all the way to top, at 4 way take left, road dead ends on location.



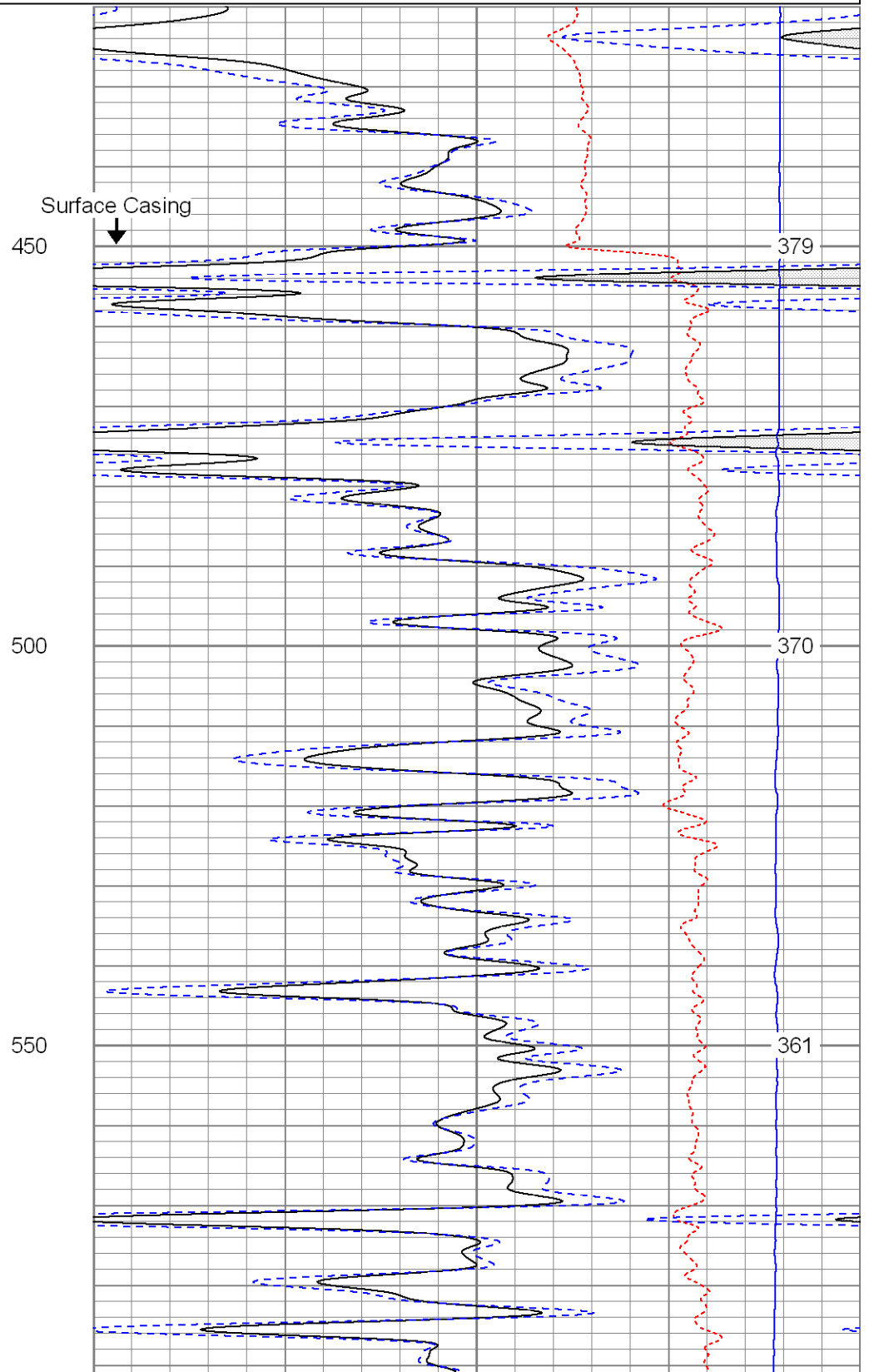
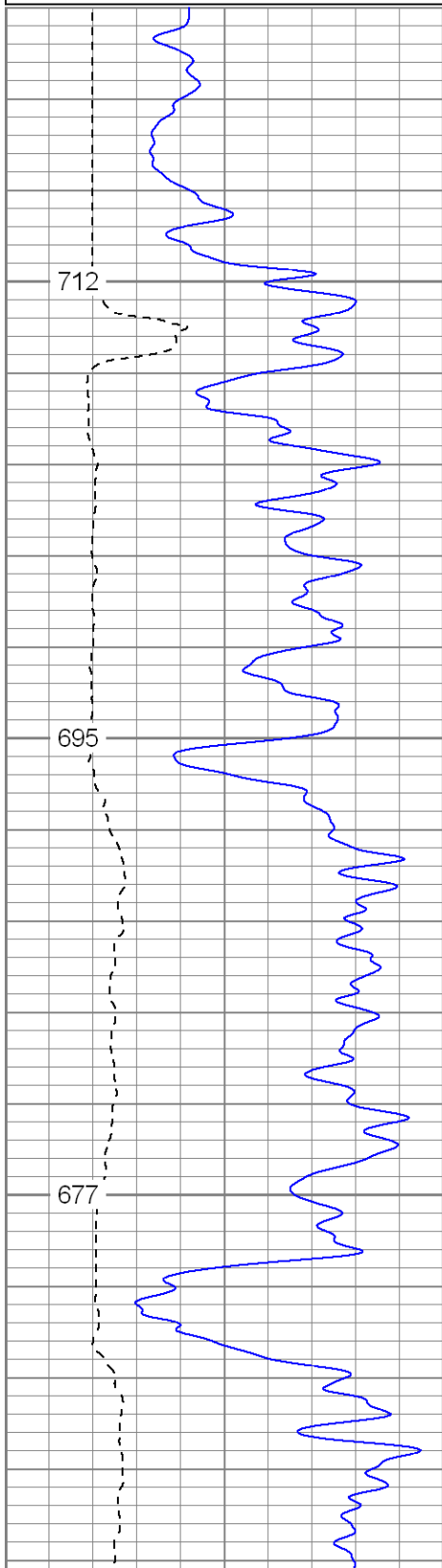
SUPERIOR
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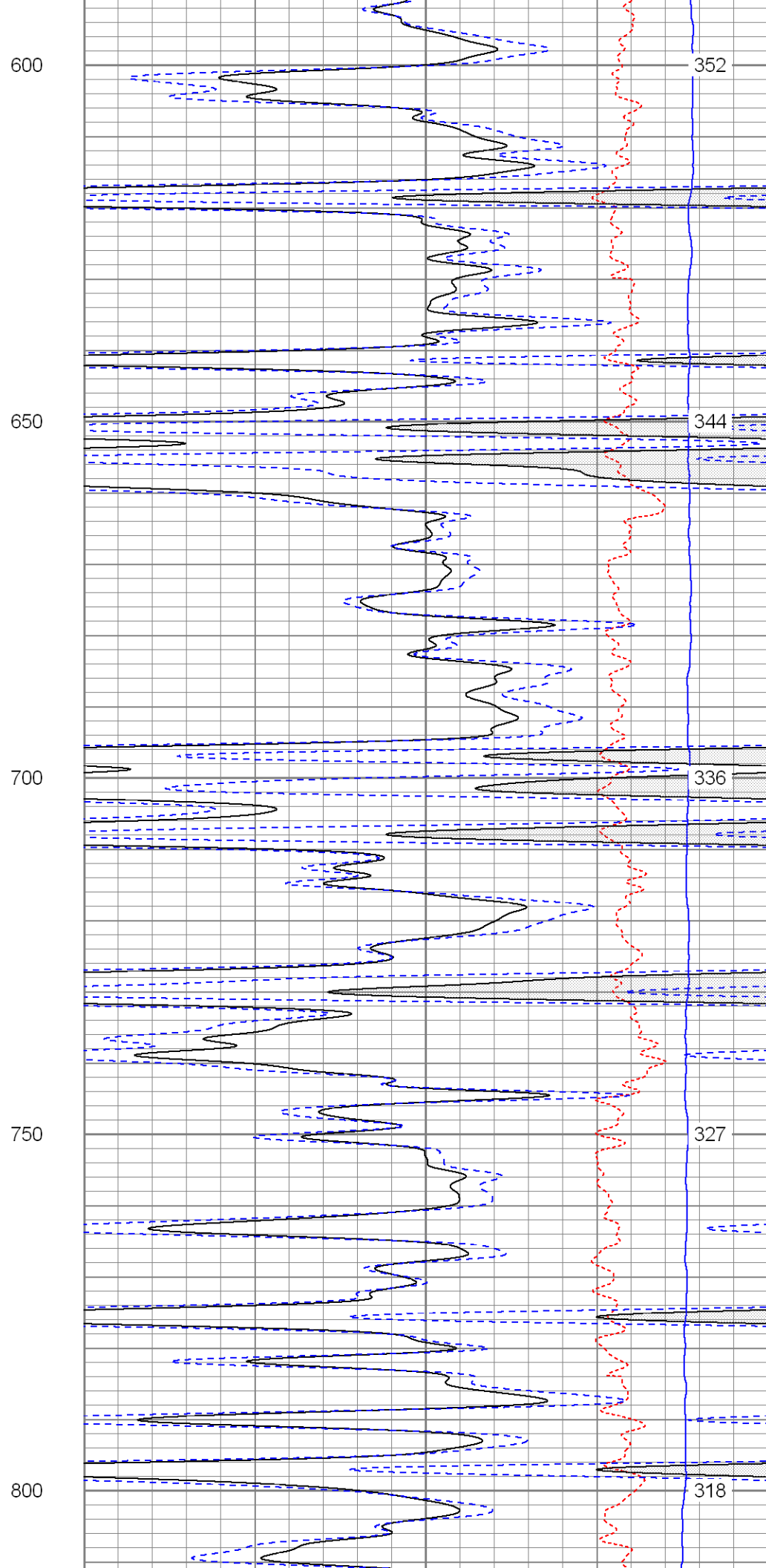
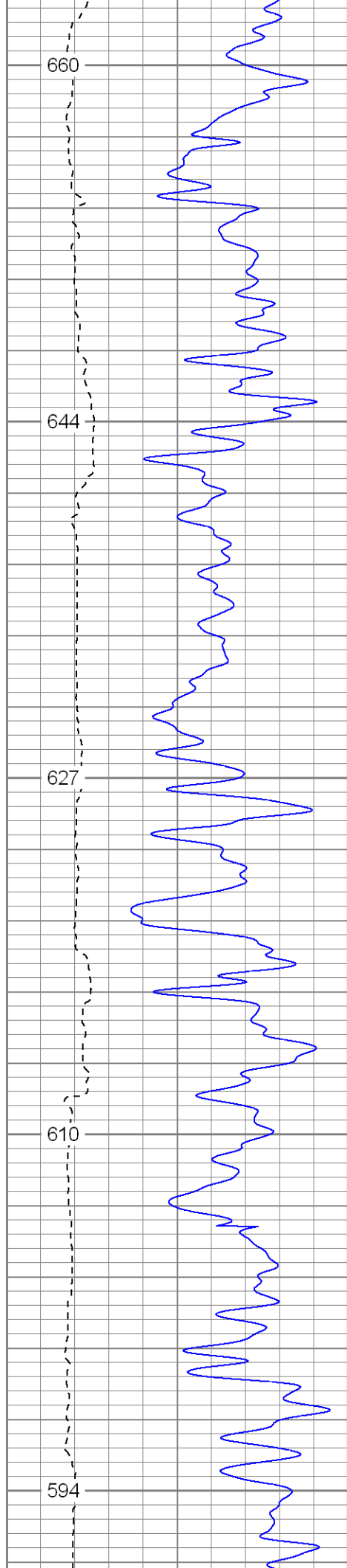
Main Pass

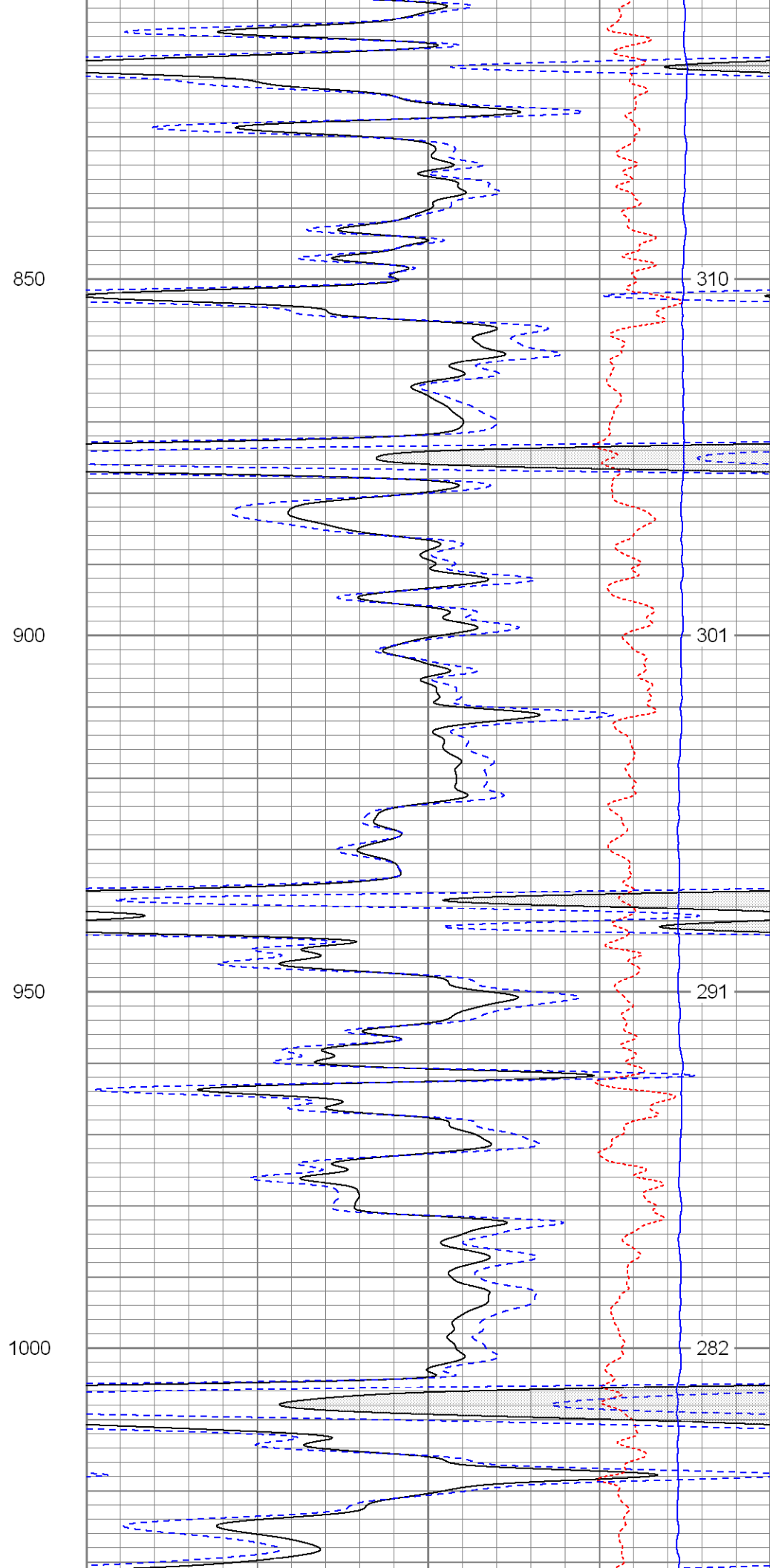
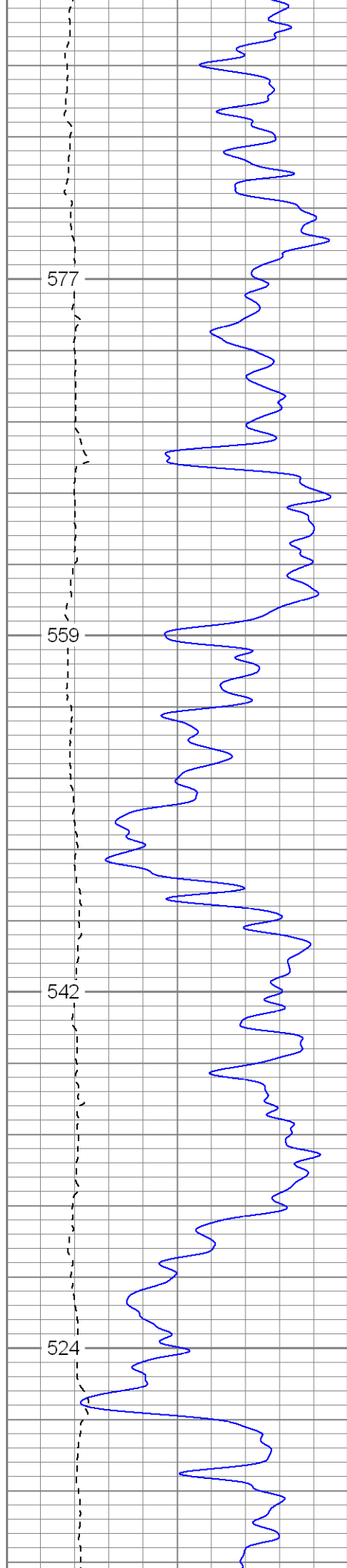
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Charted by: Depth in Feet scaled 1:240

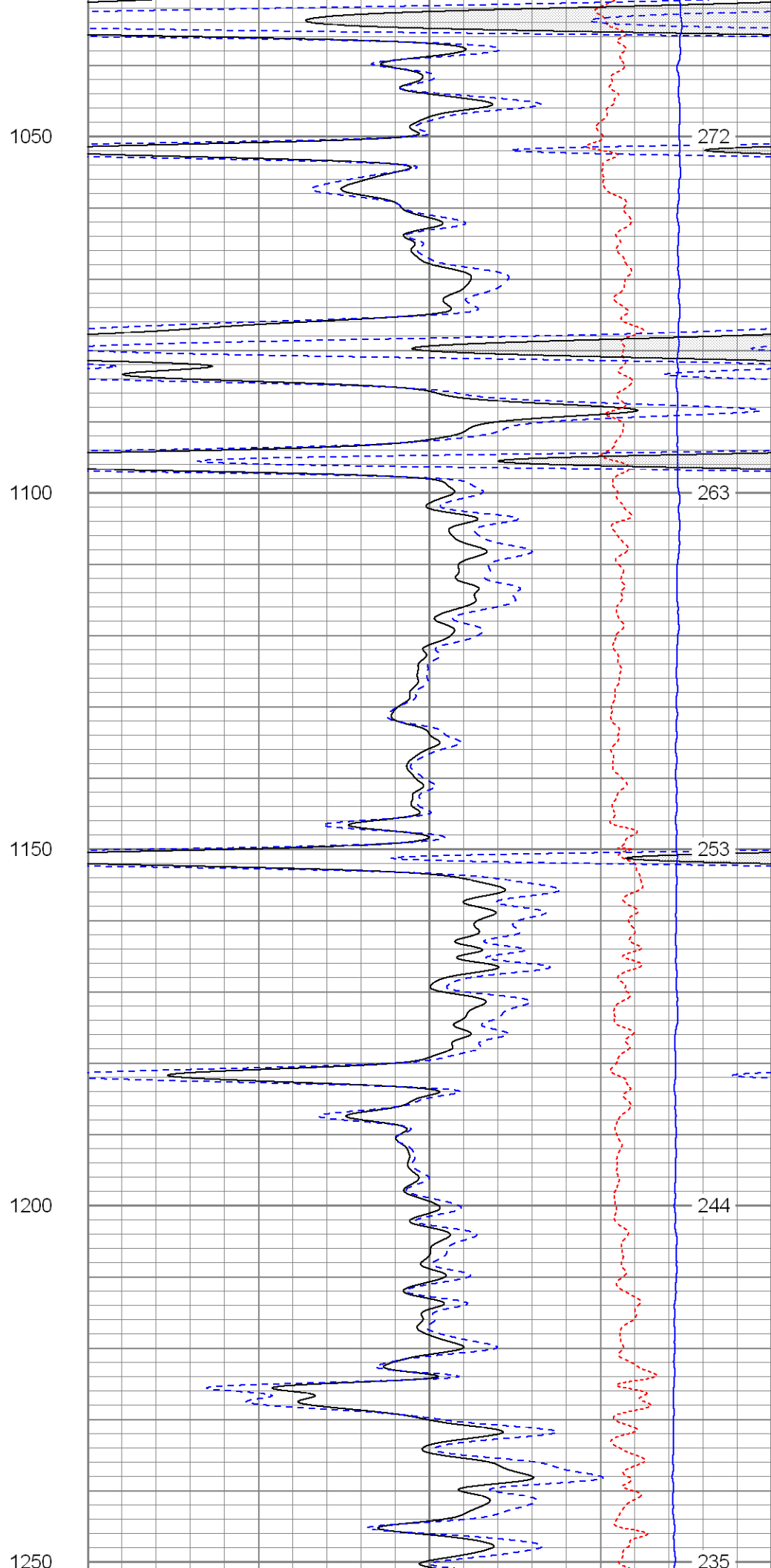
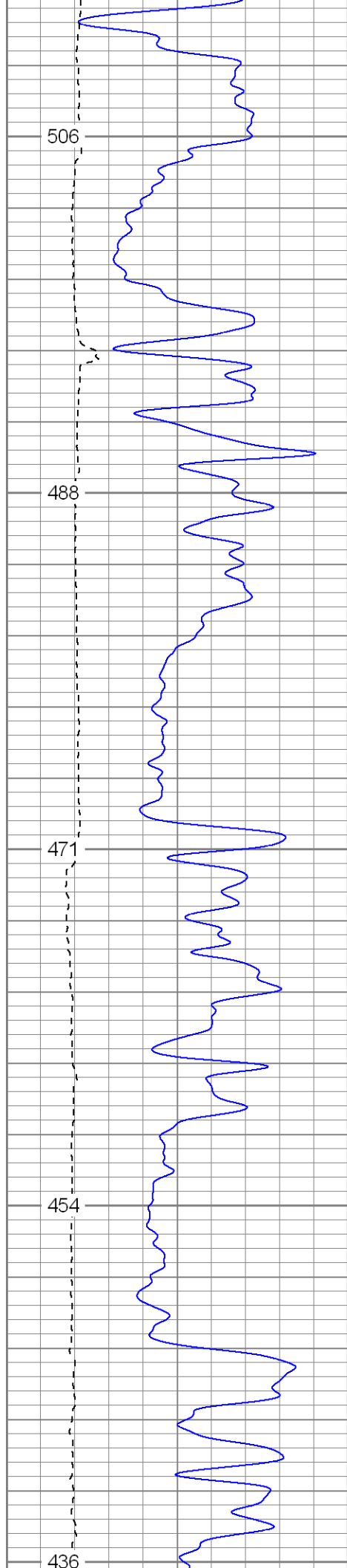
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6	DCAL (in)	16
TBHV (ft3)		

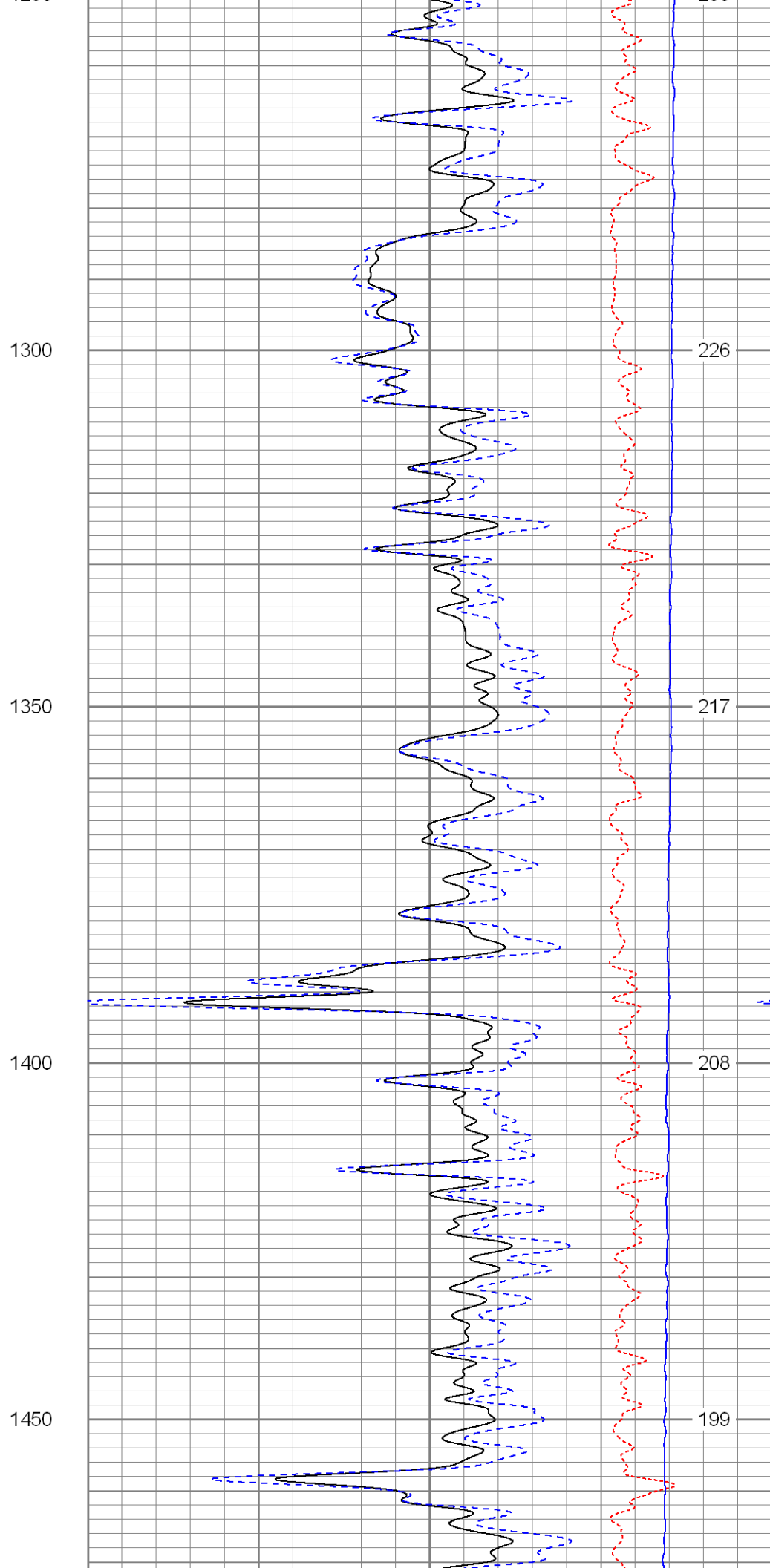
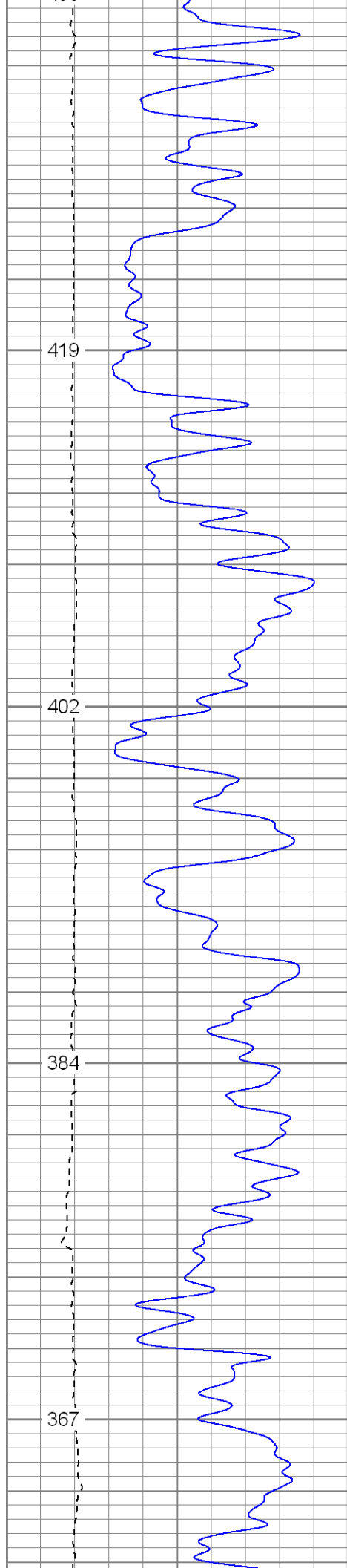
2	RHOB (g/cc)	3
1	RHOB (g/cc)	2
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0
		ABHV (ft3)

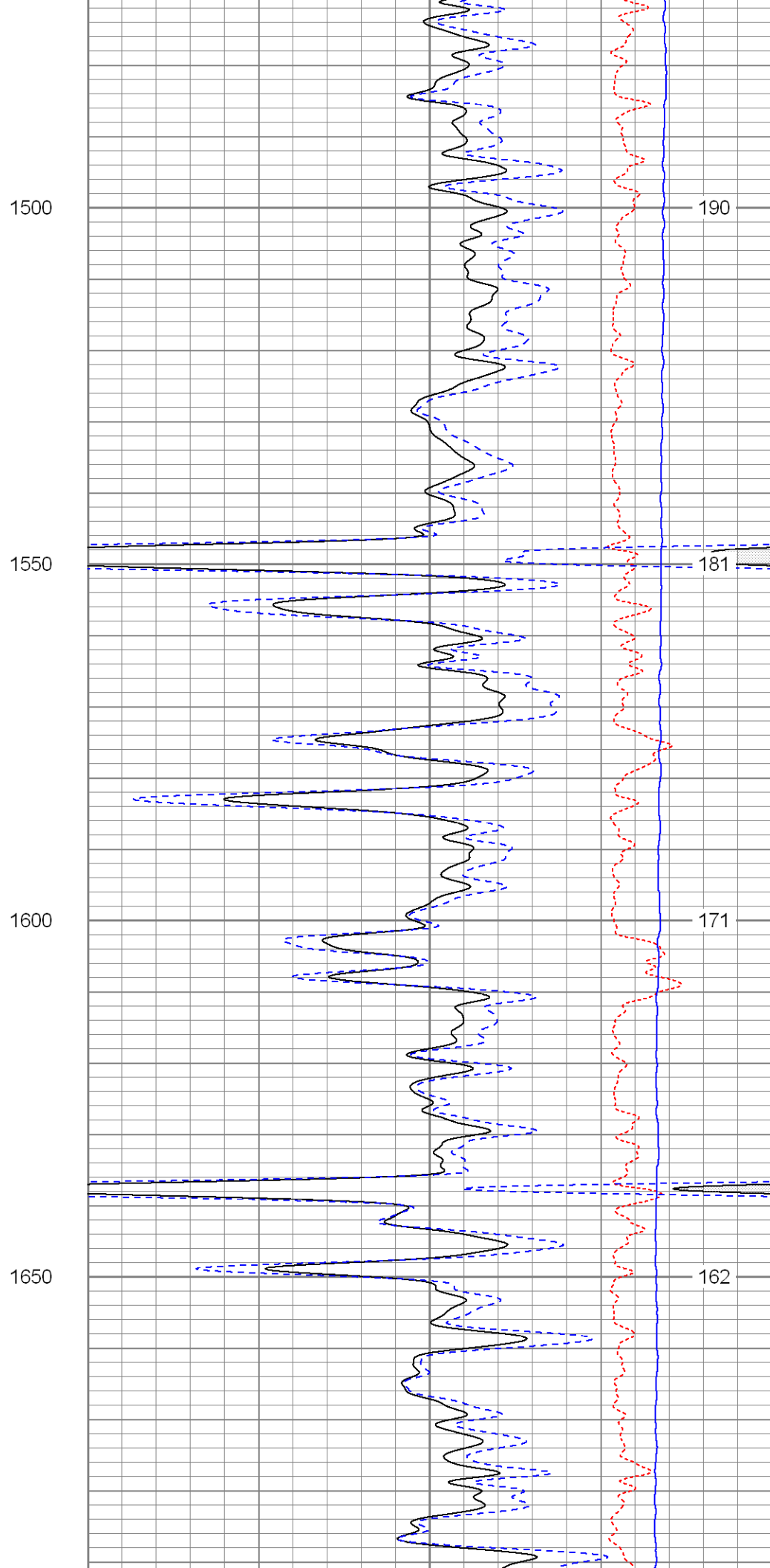
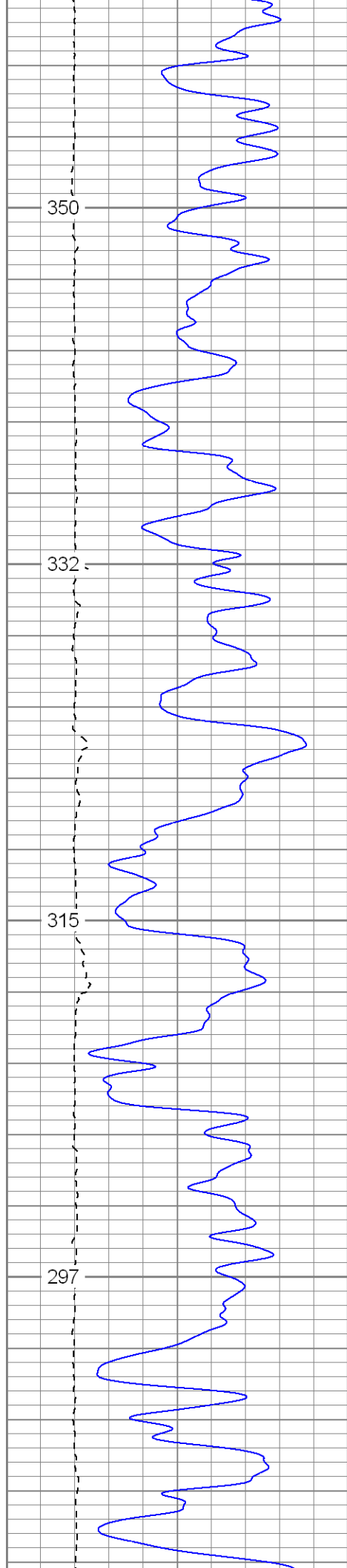


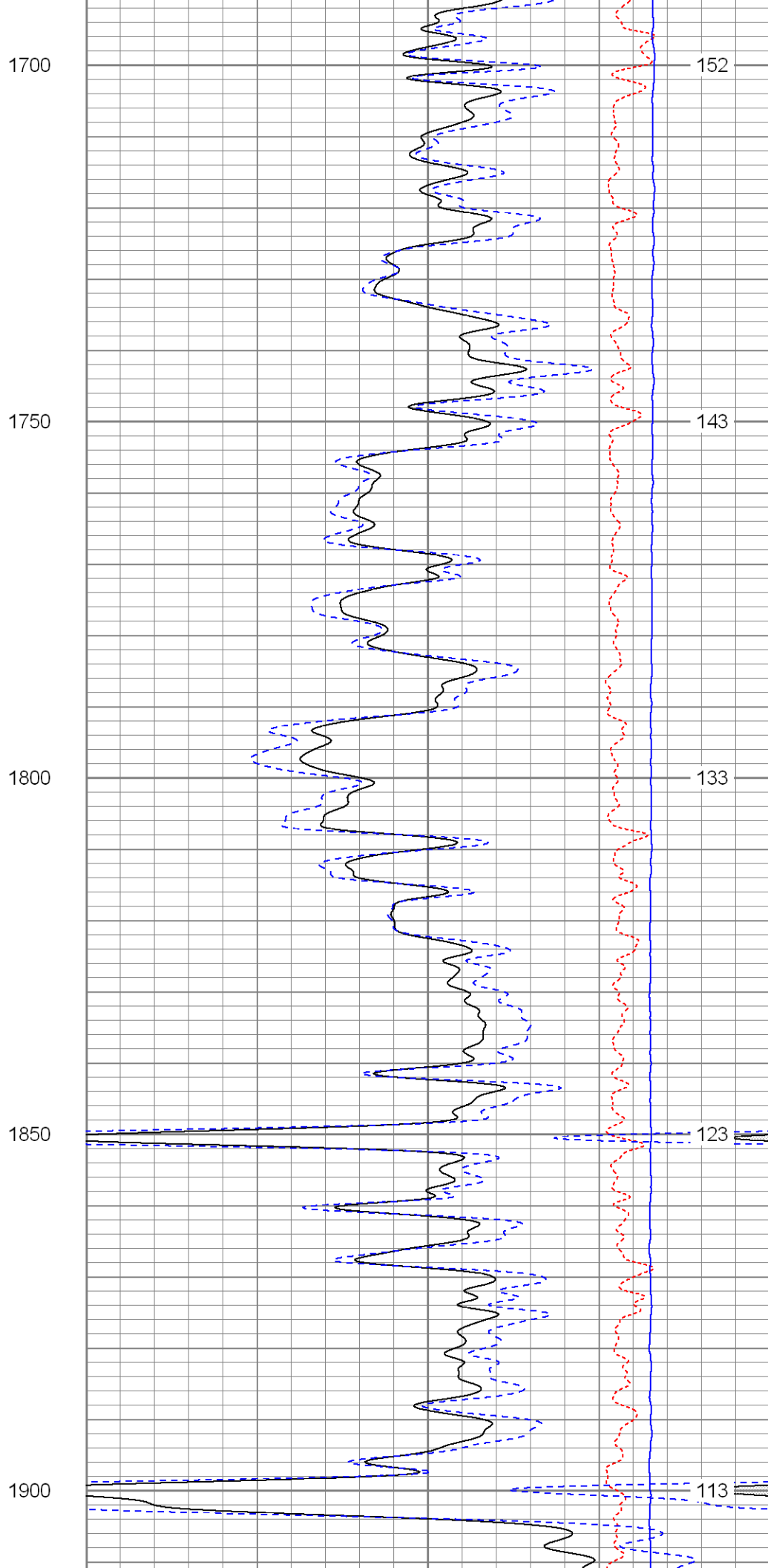
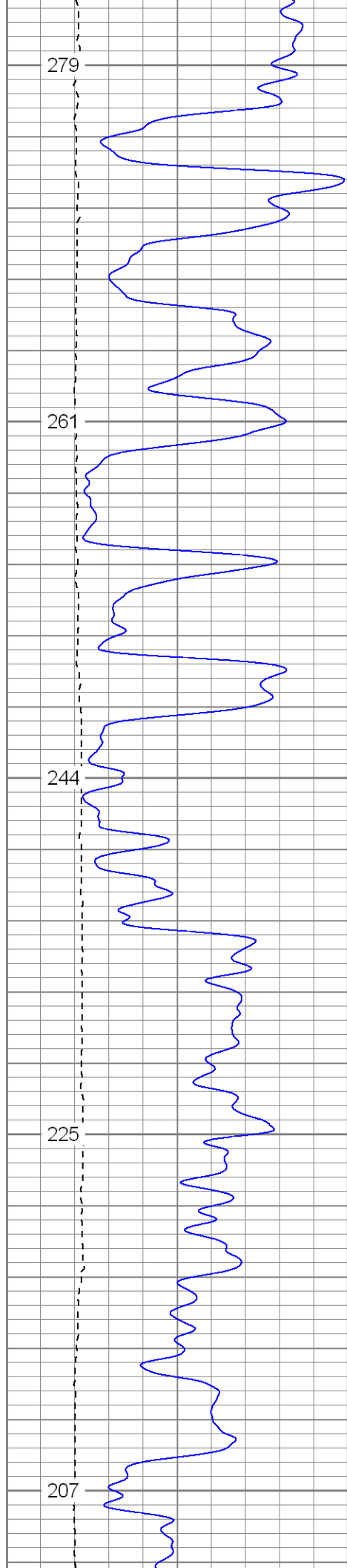


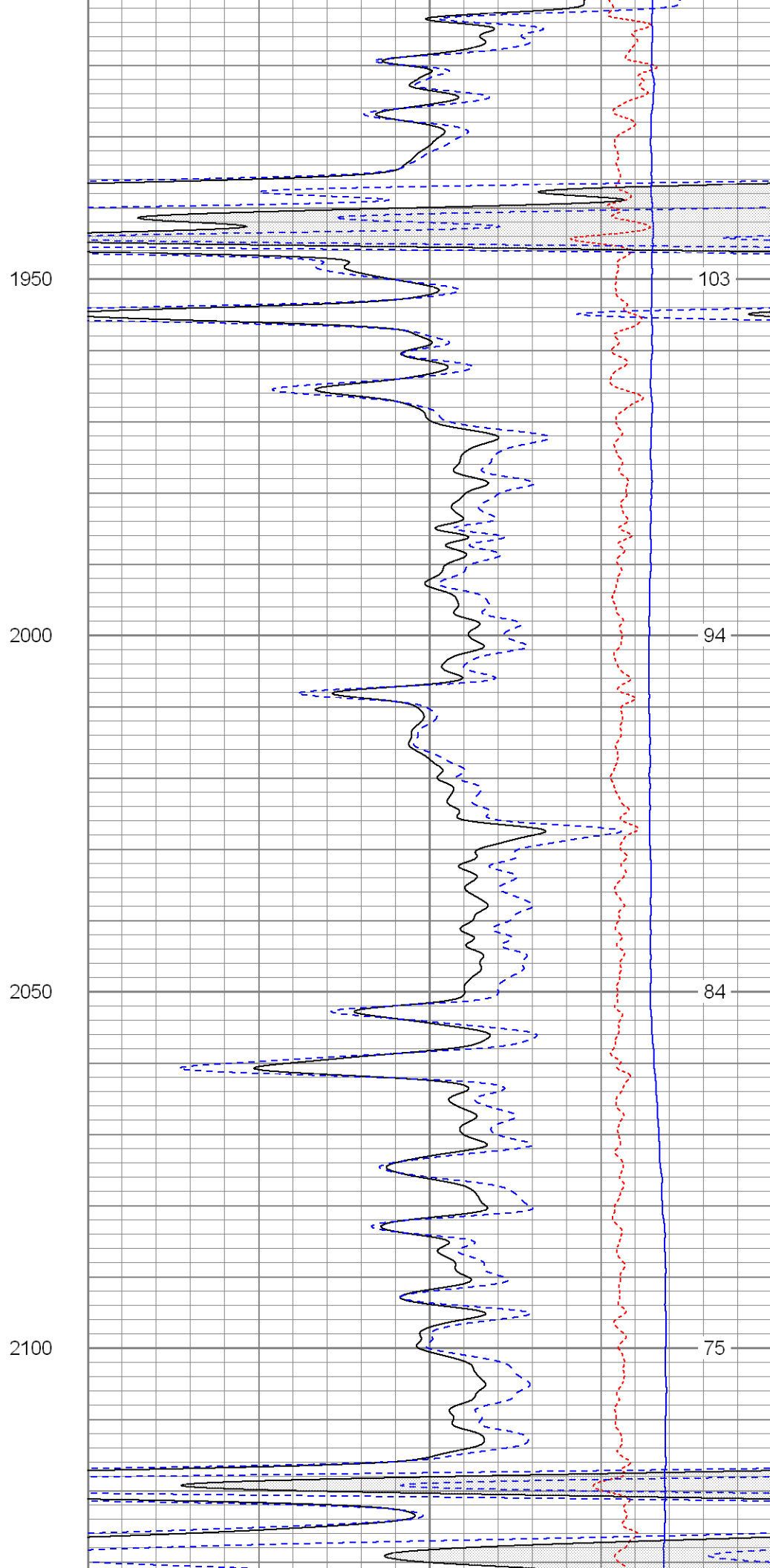
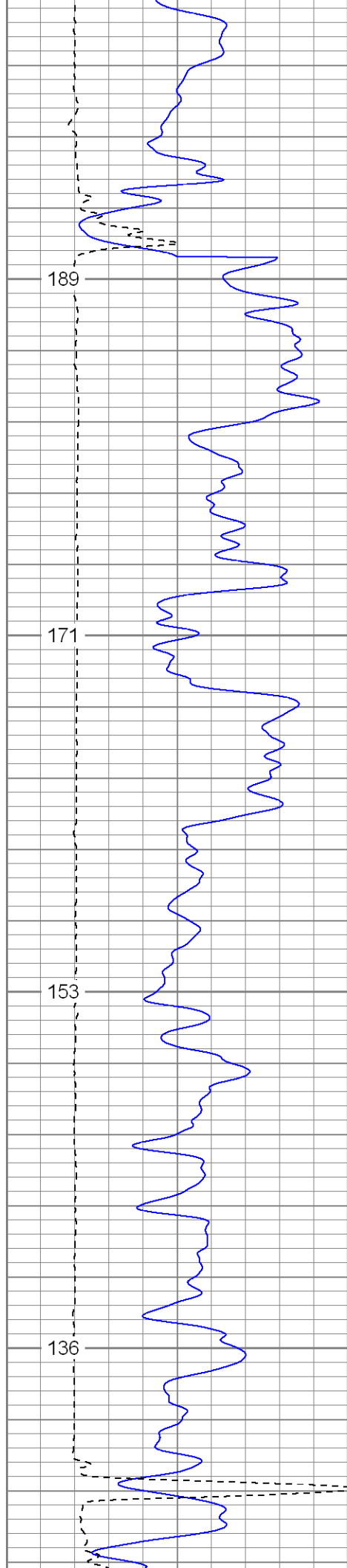


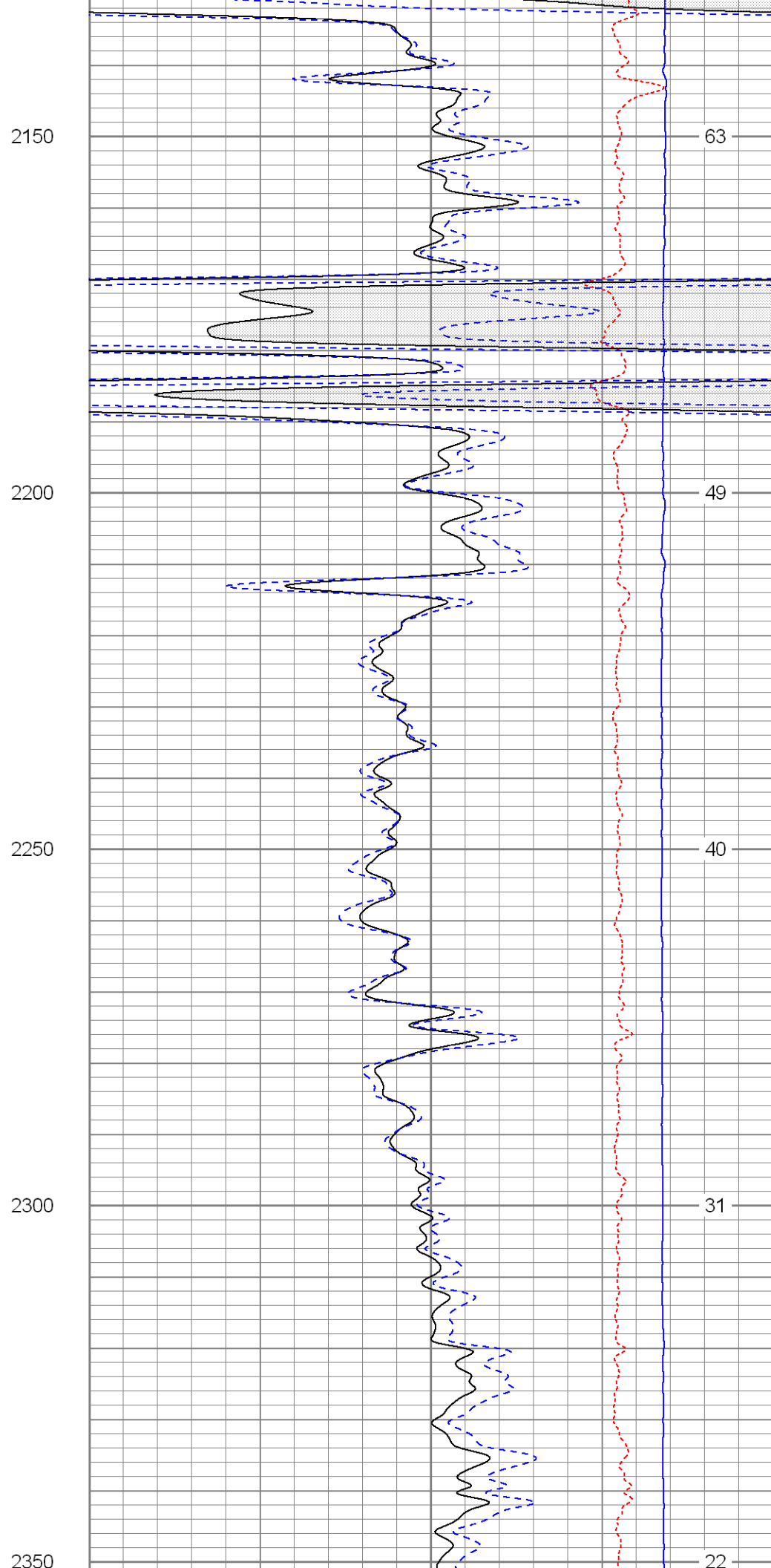
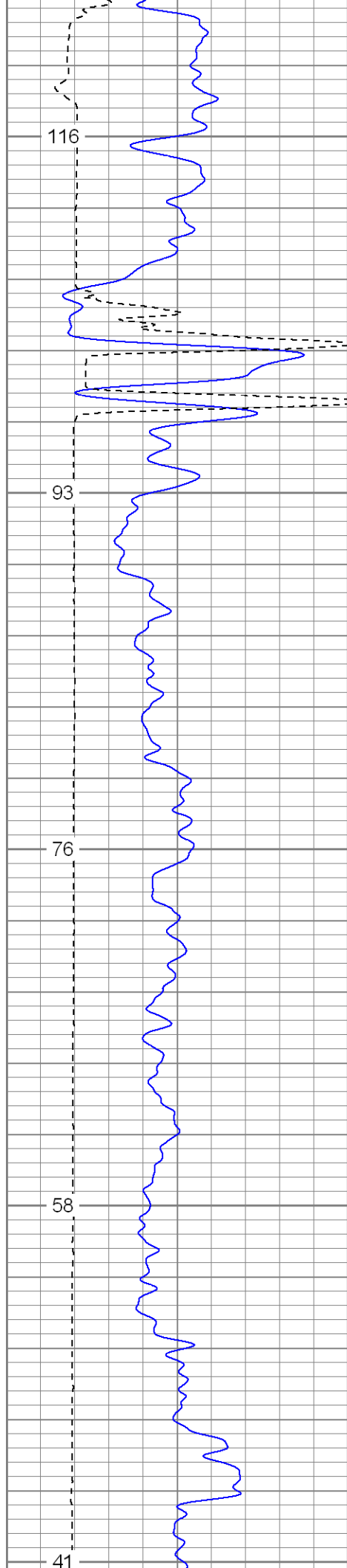


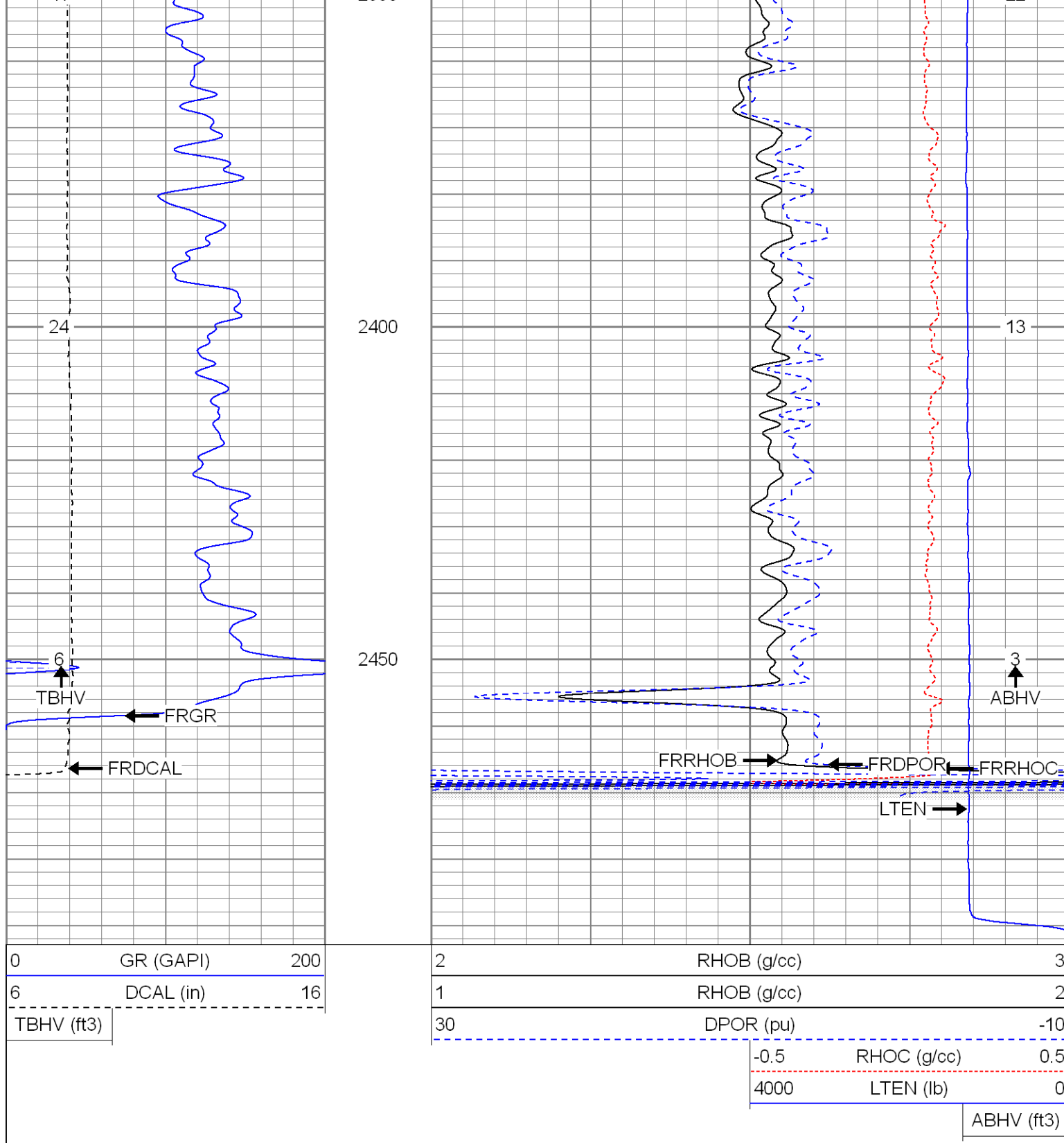












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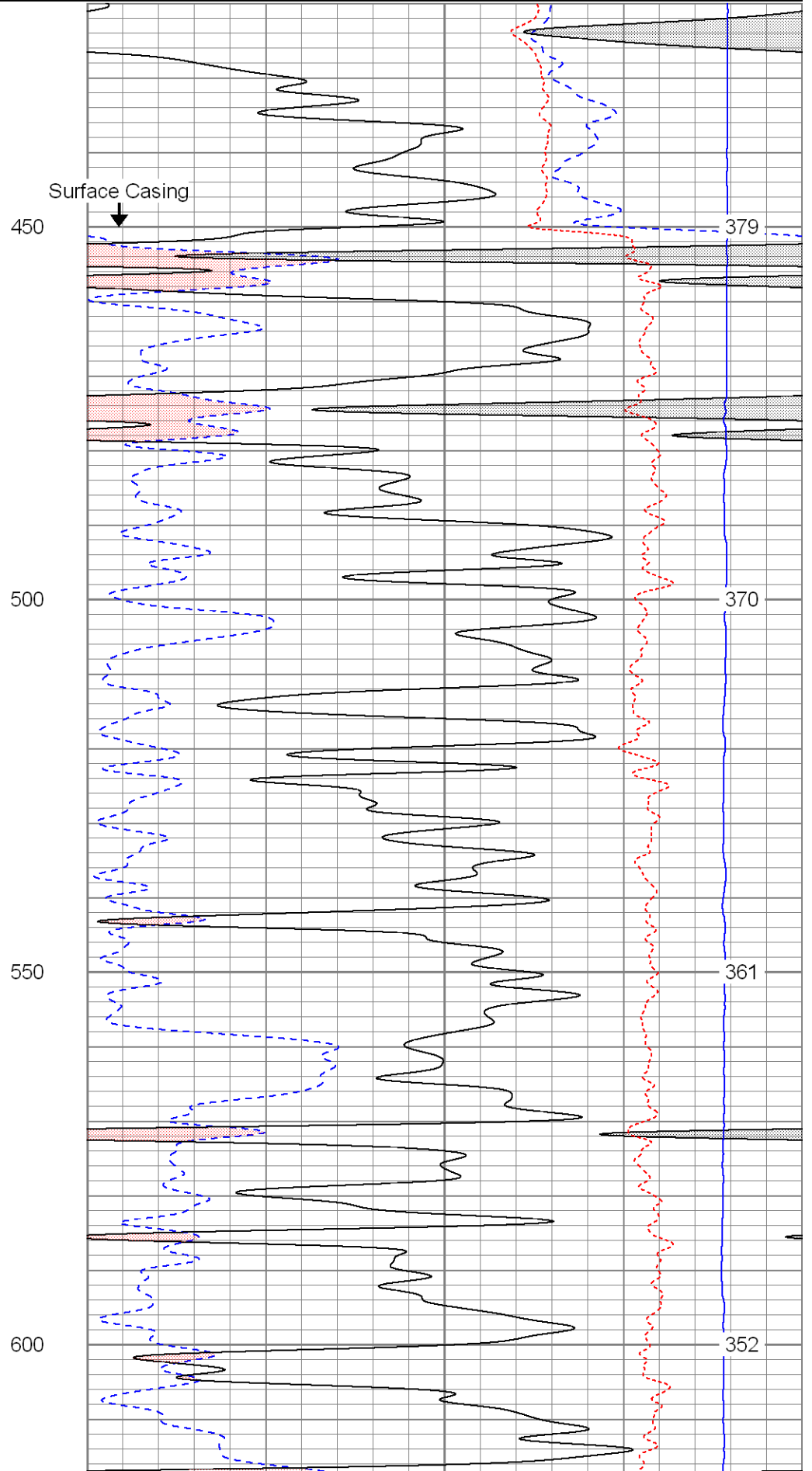
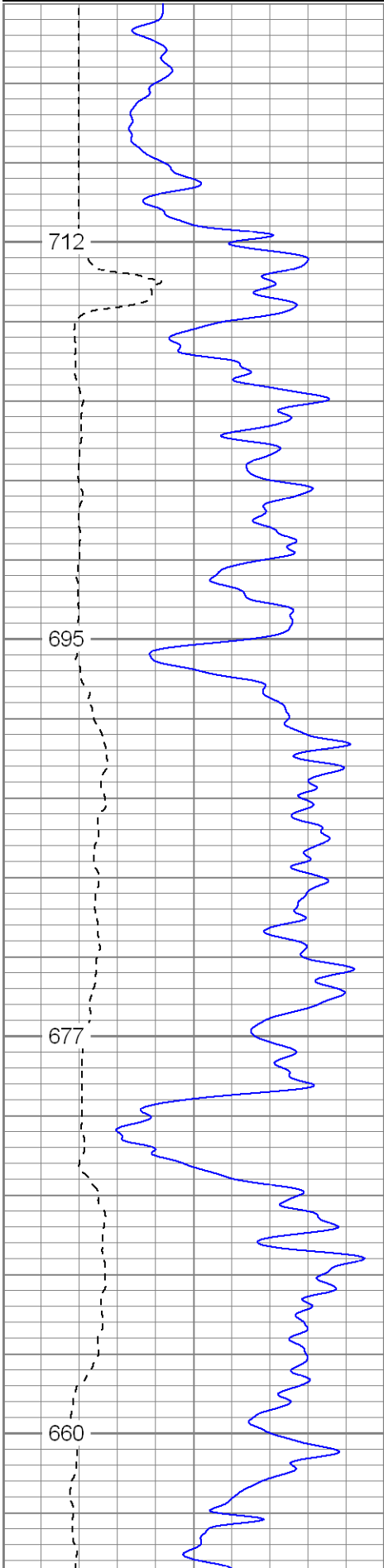
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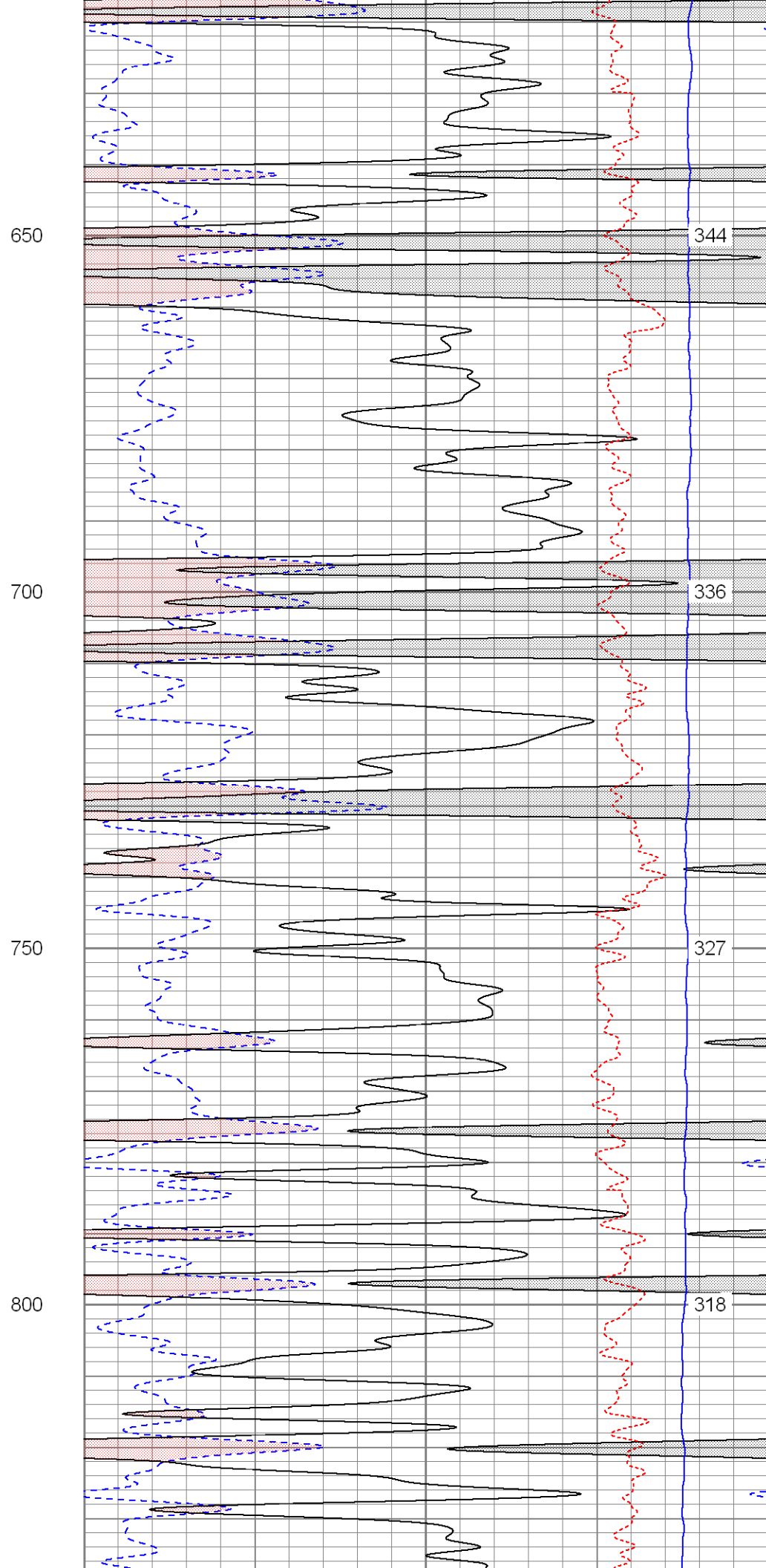
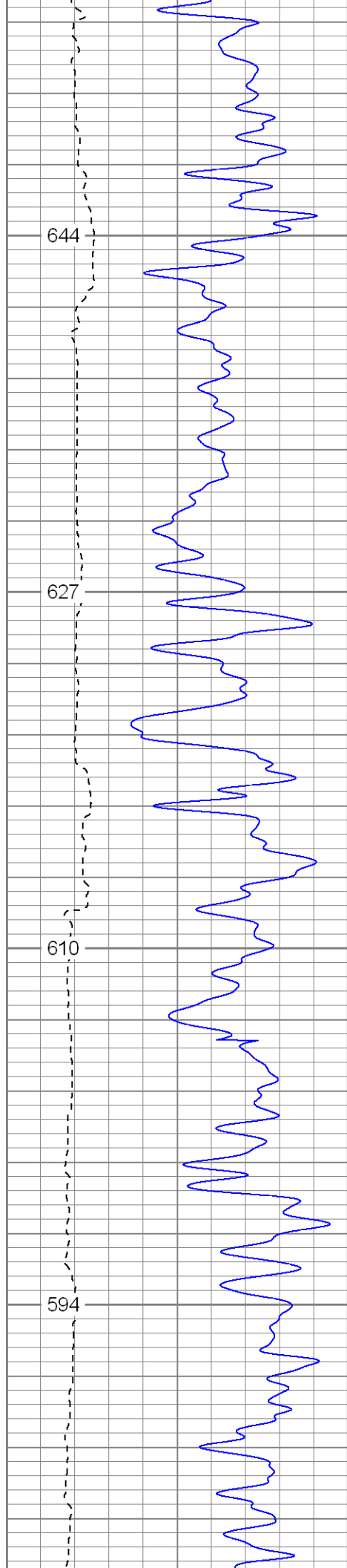
Main Pass

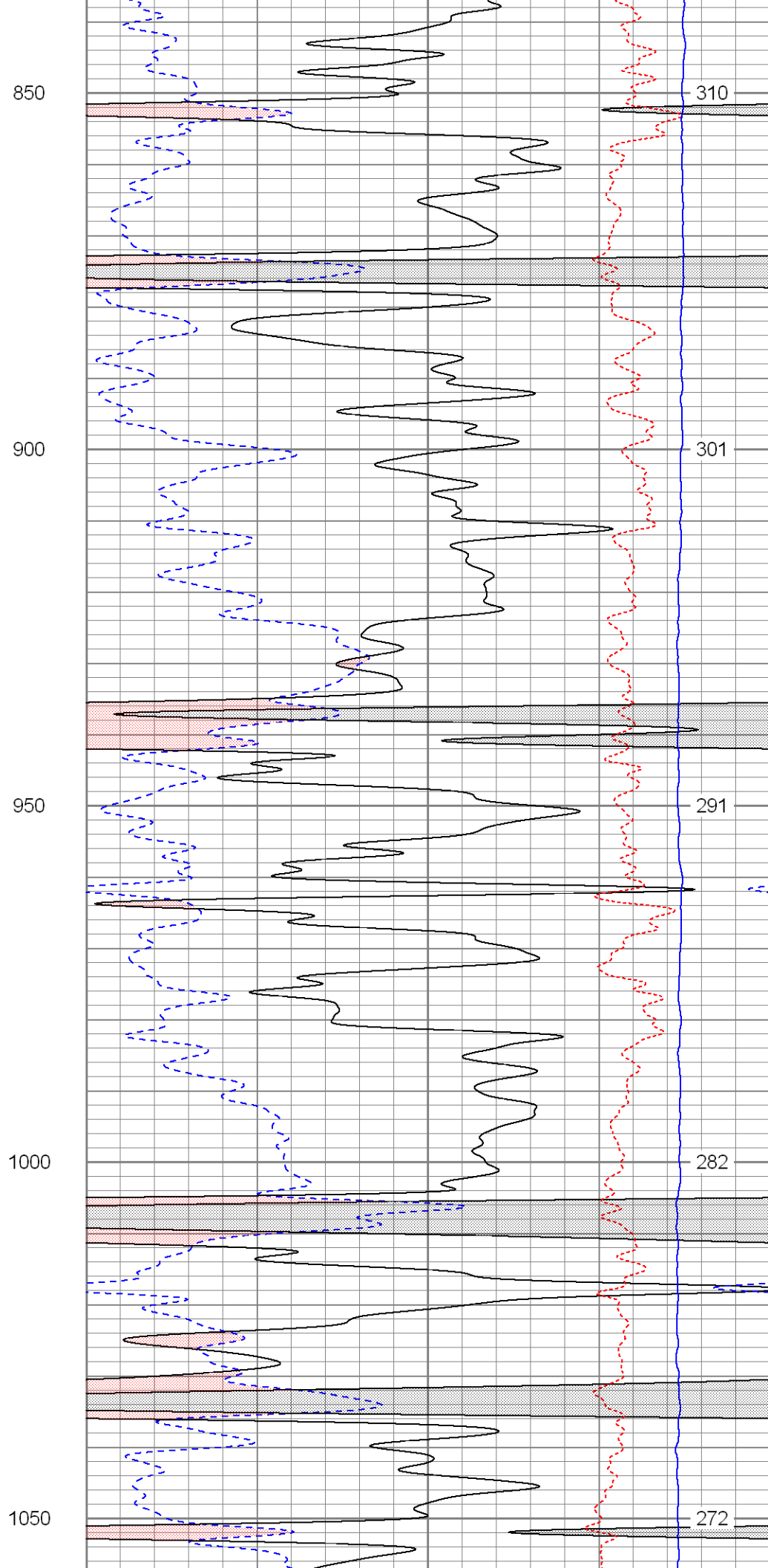
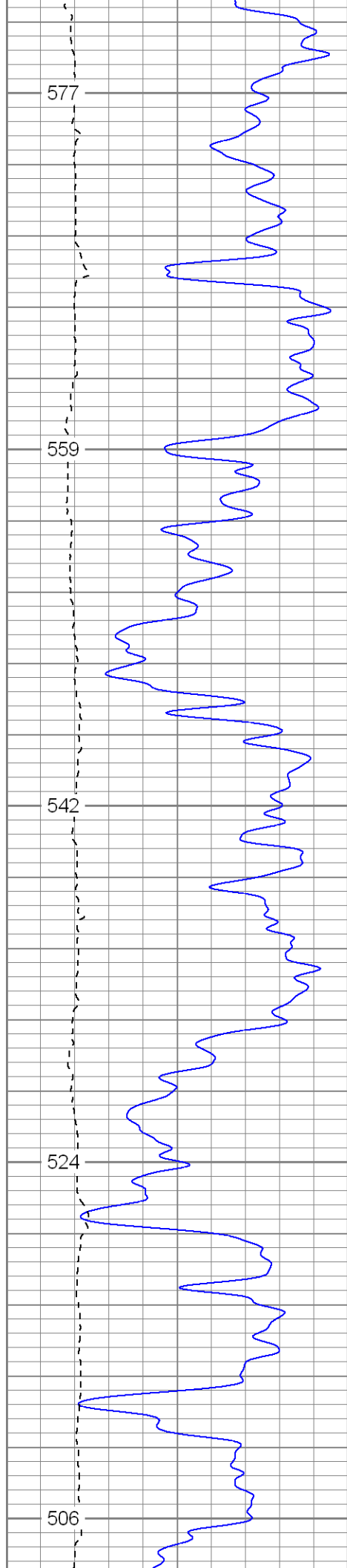
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Dataset Pathname: pass2.2
Presentation Format: cdnl
Dataset Creation: Tue Feb 19 09:21:03 2008
Charted by: Depth in Feet scaled 1:240

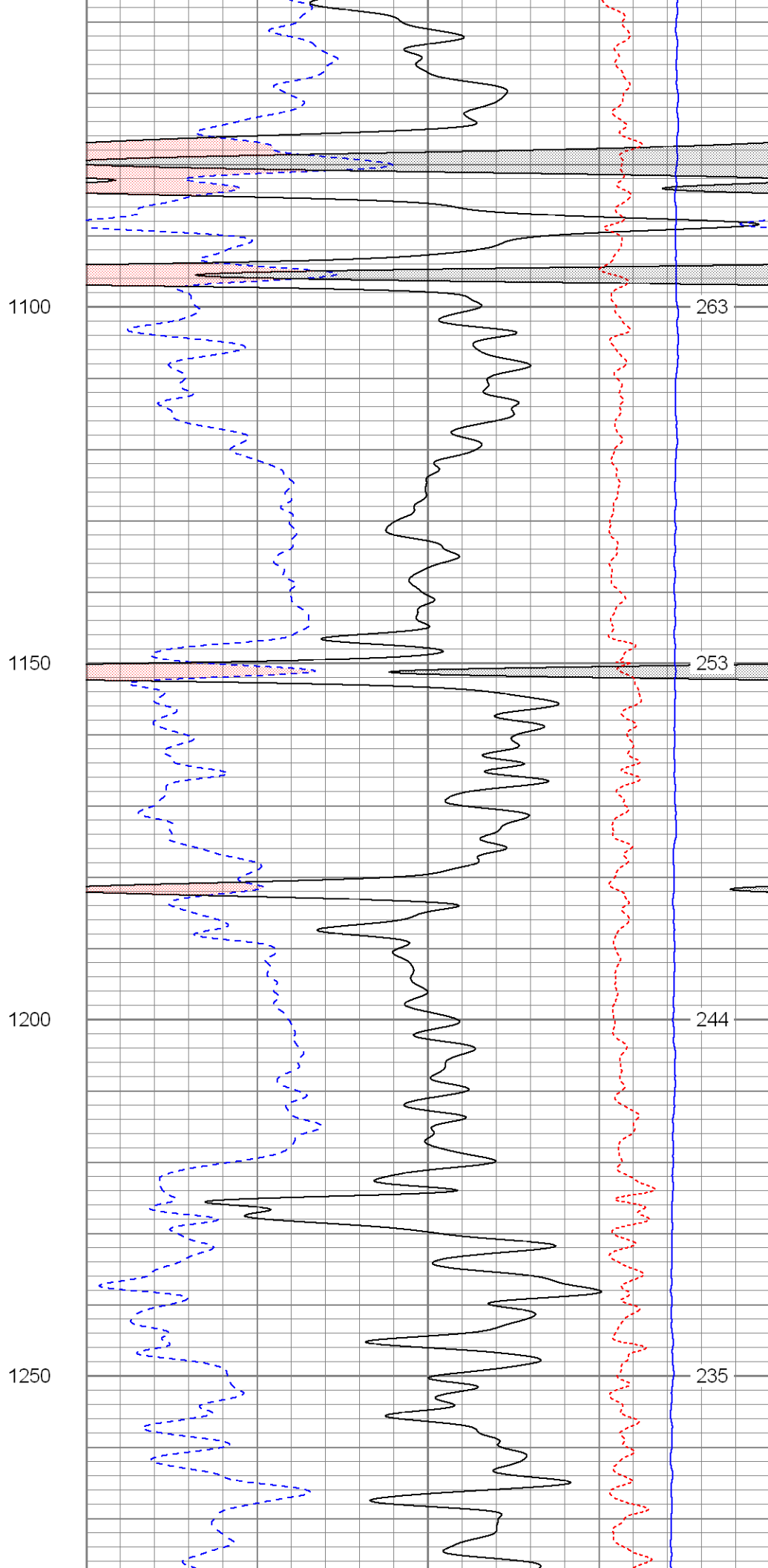
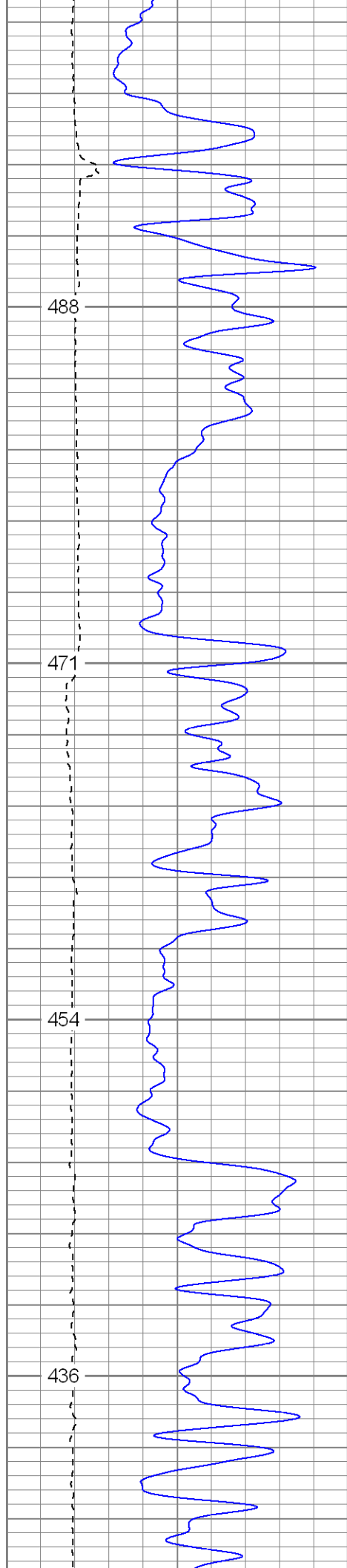
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	DCAL (in)	16
TBHV (ft3)		

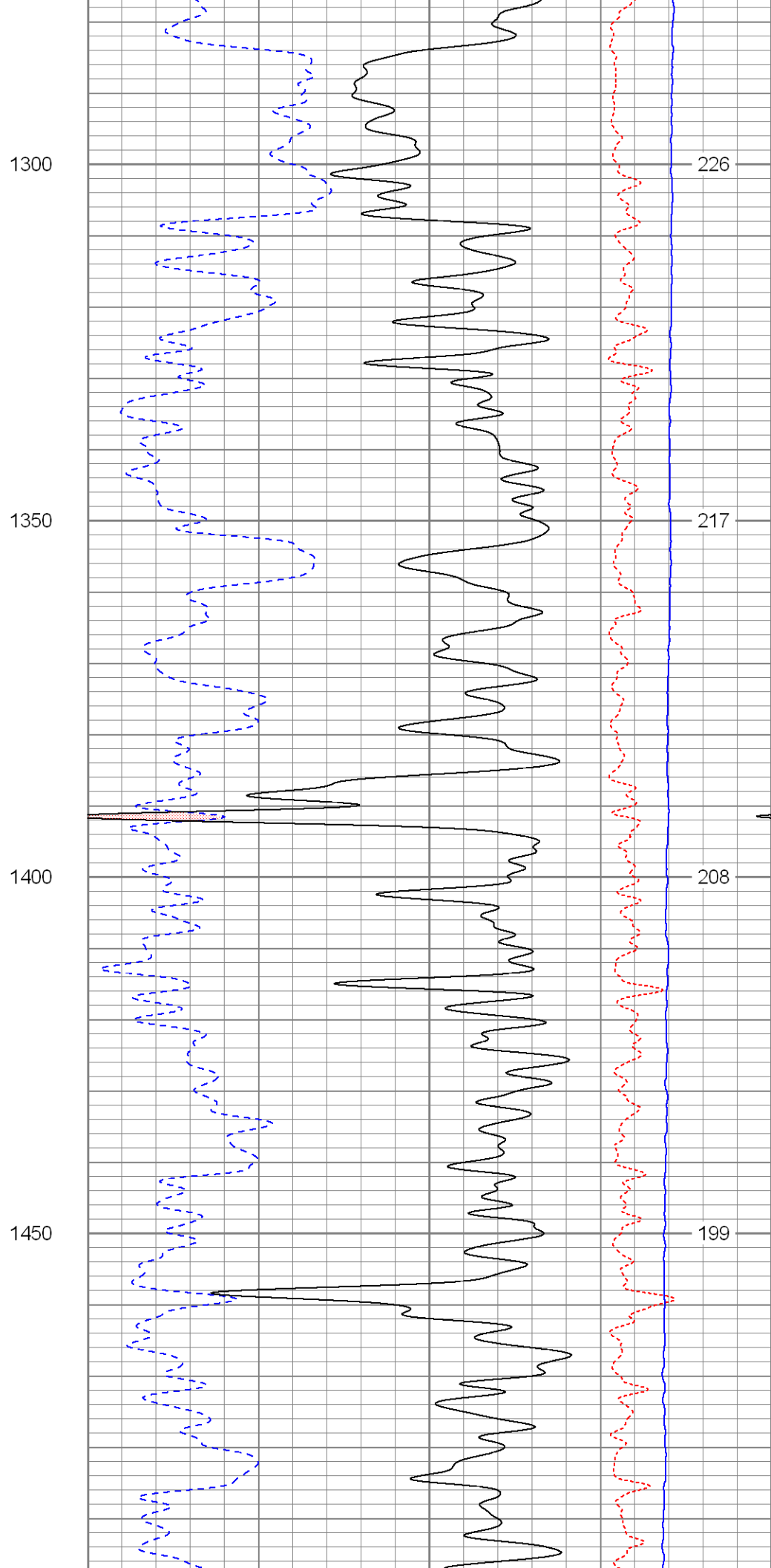
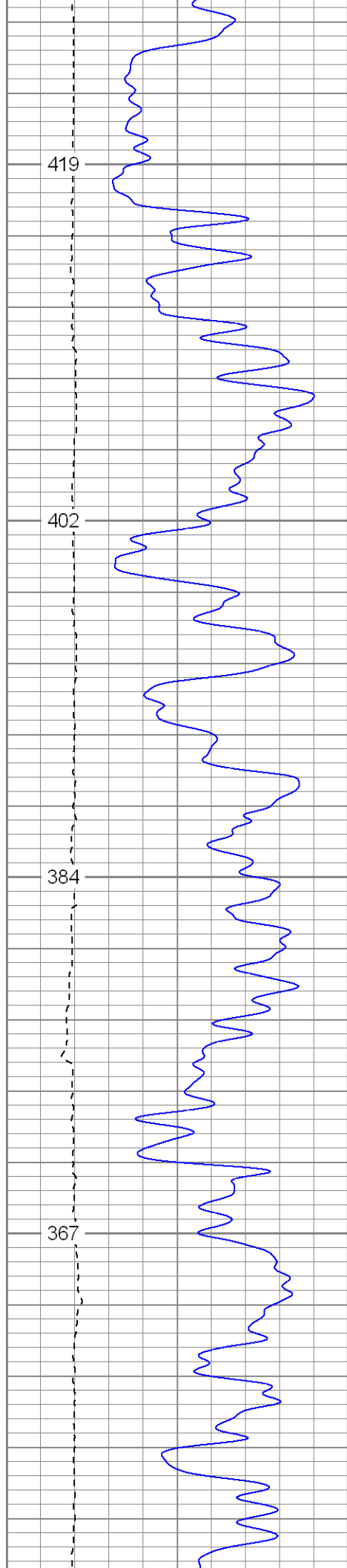
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0
	ABHV (ft3)	

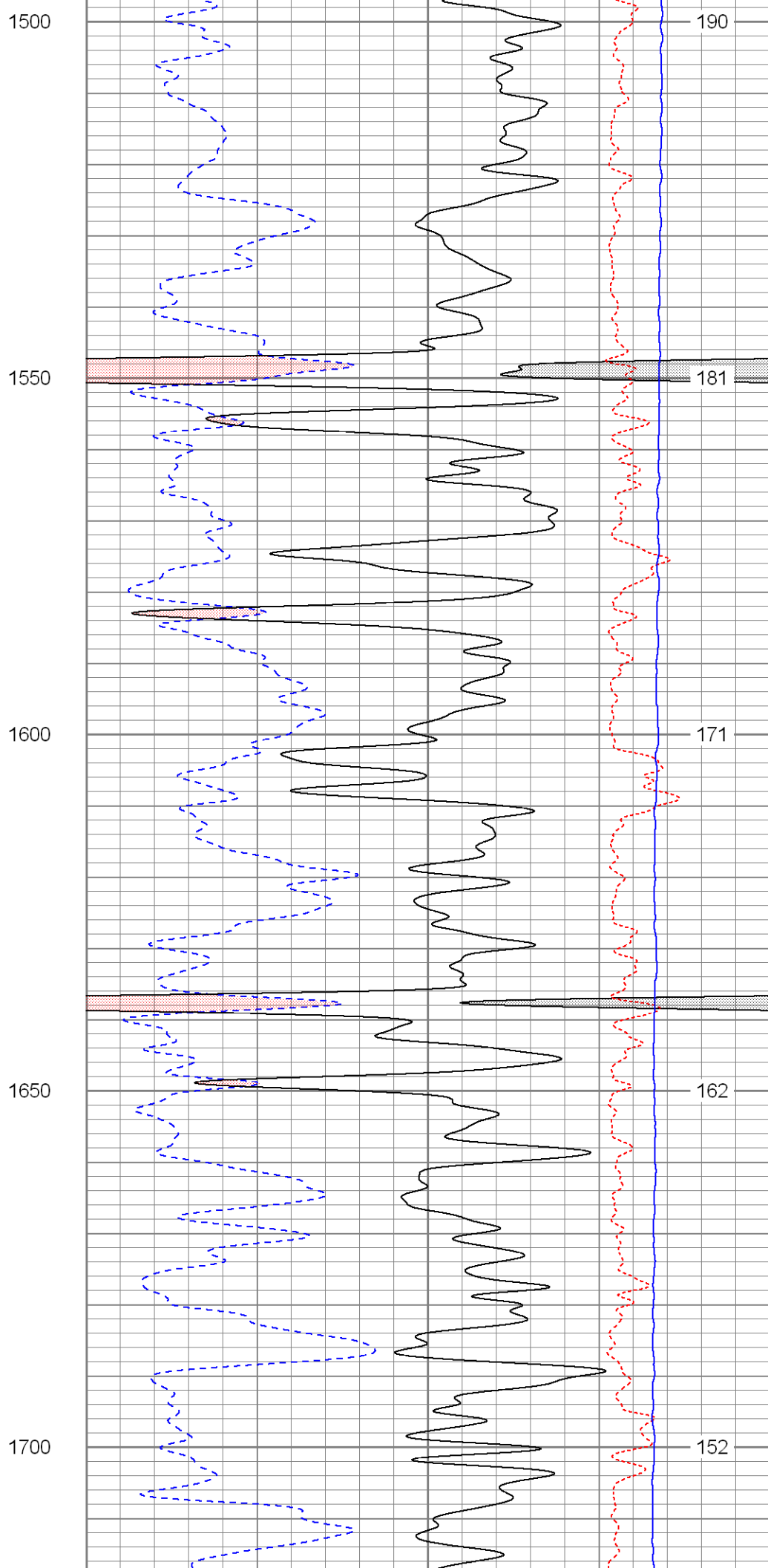
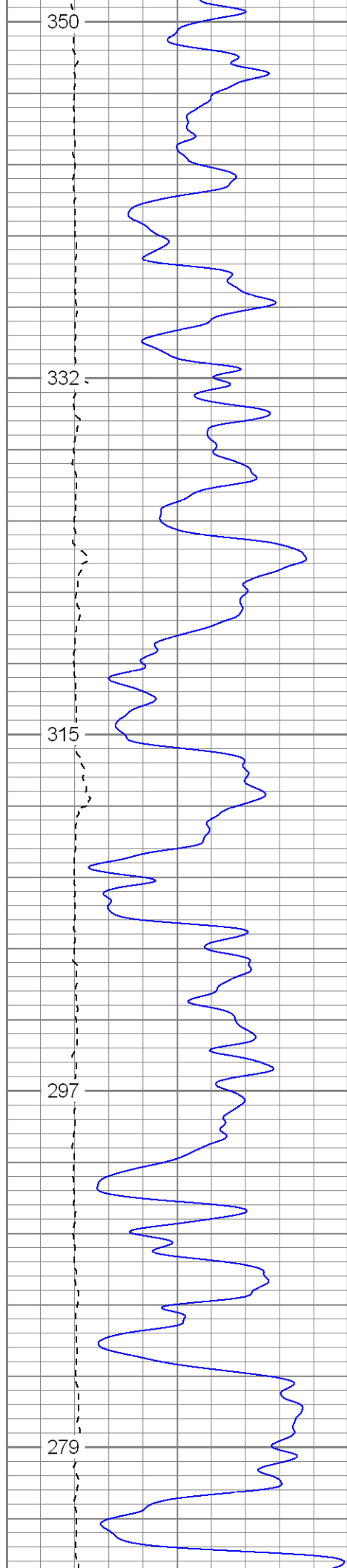


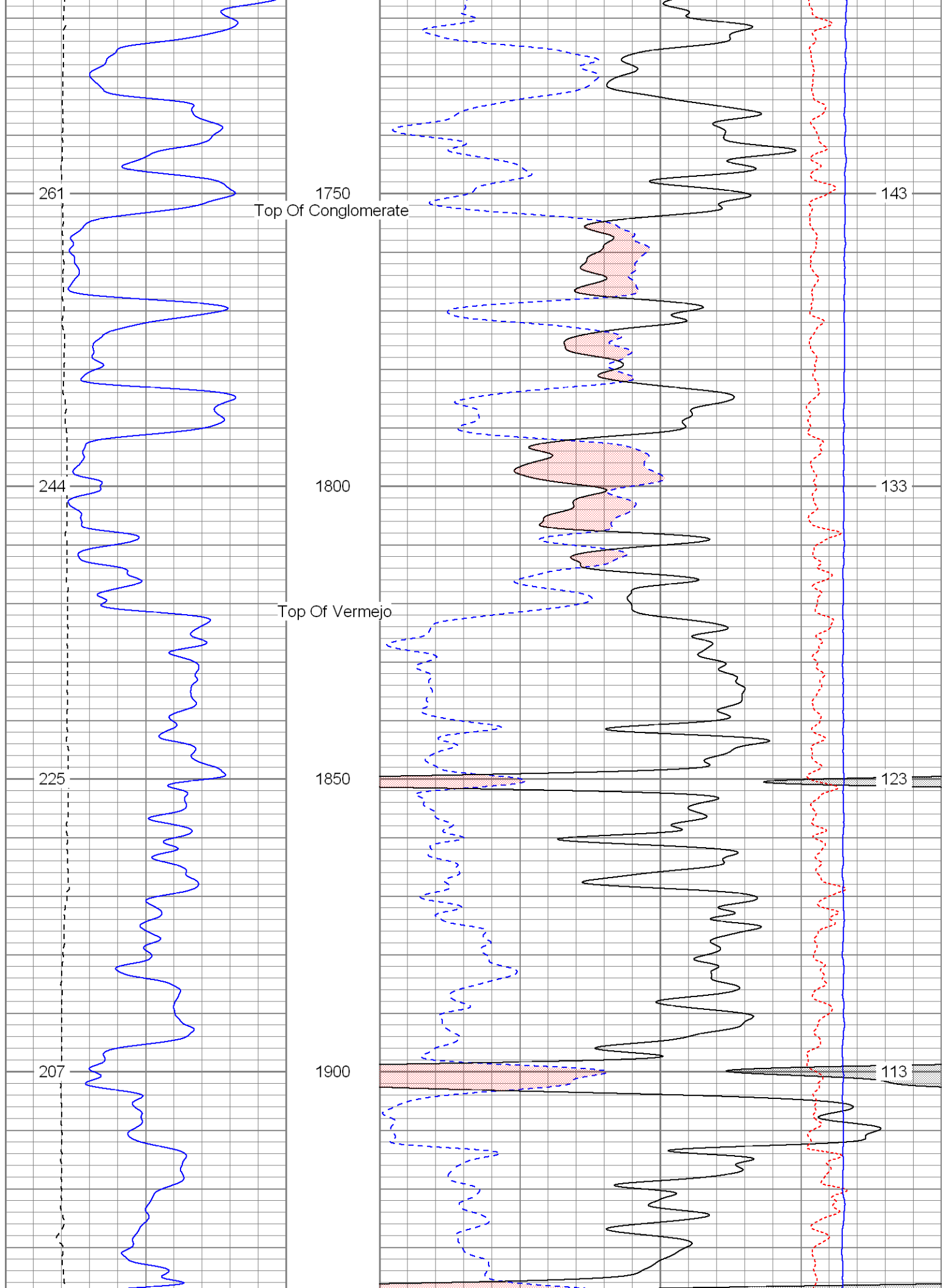


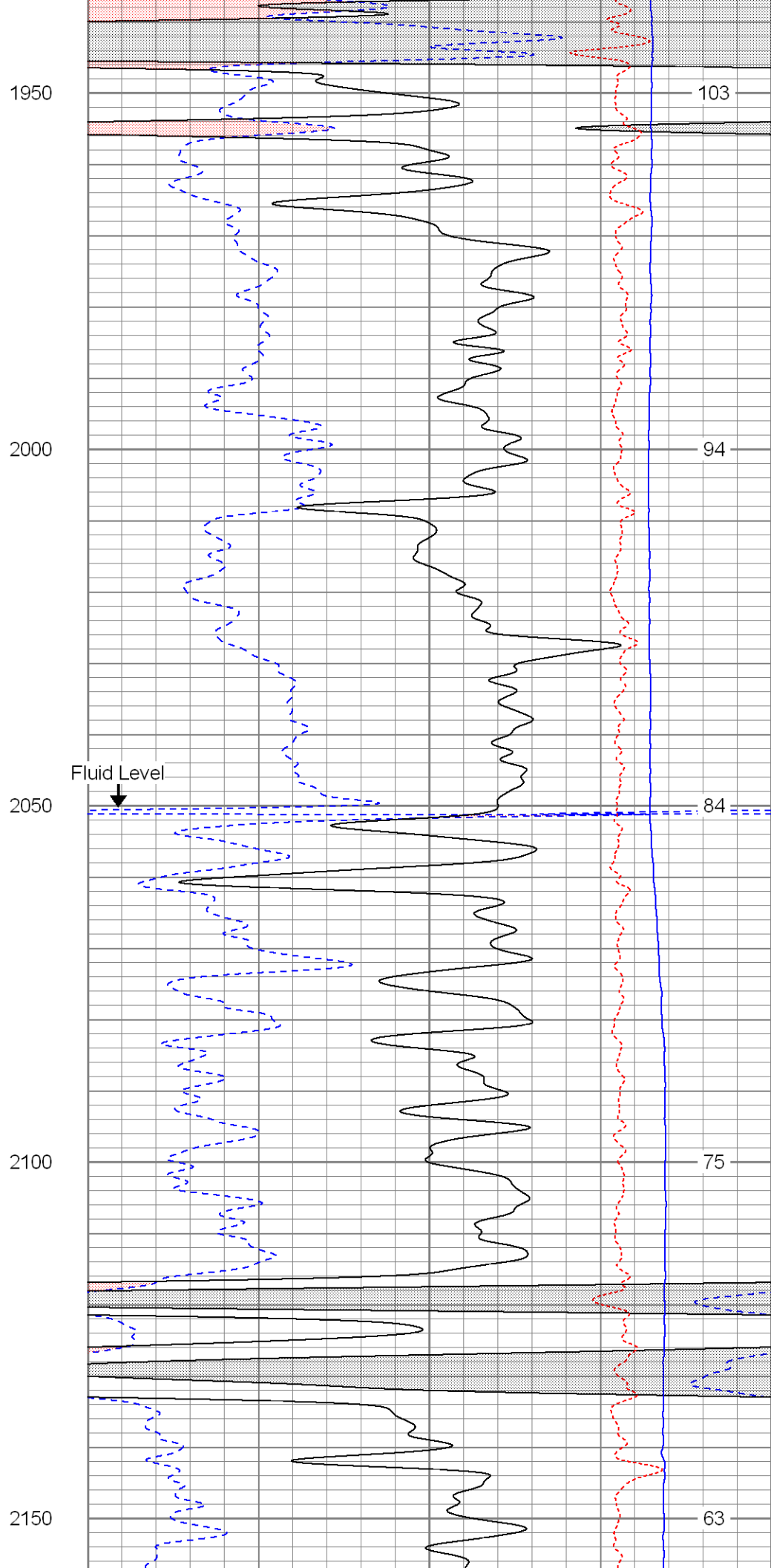
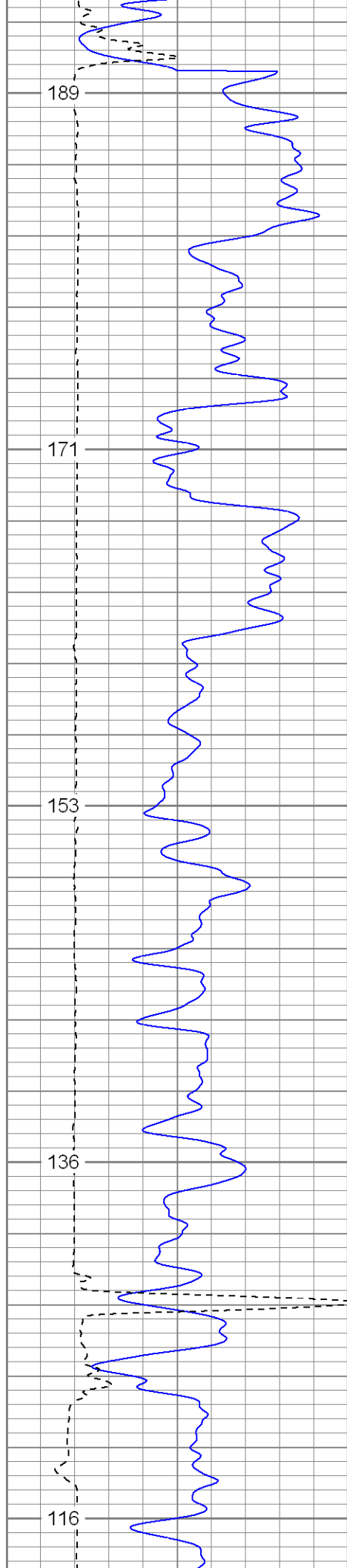


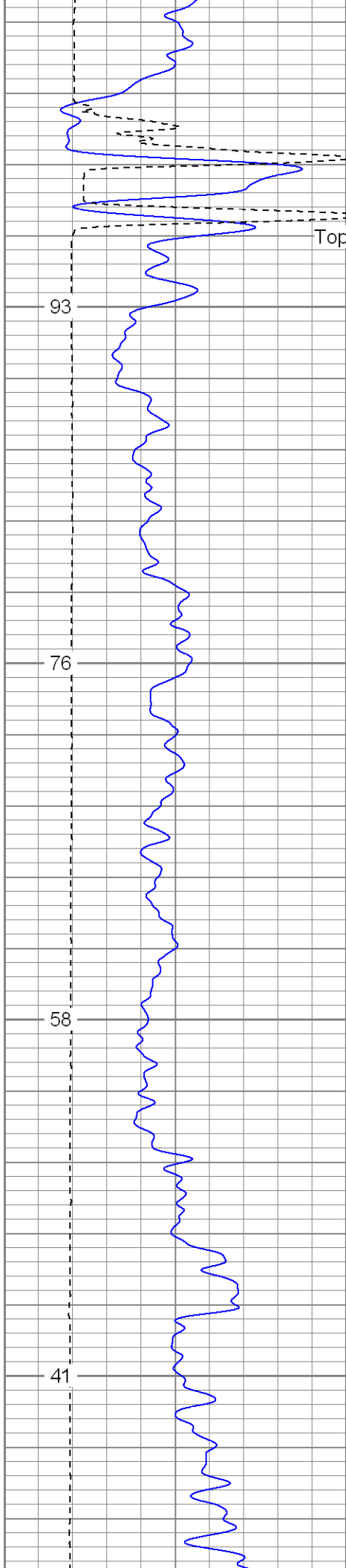












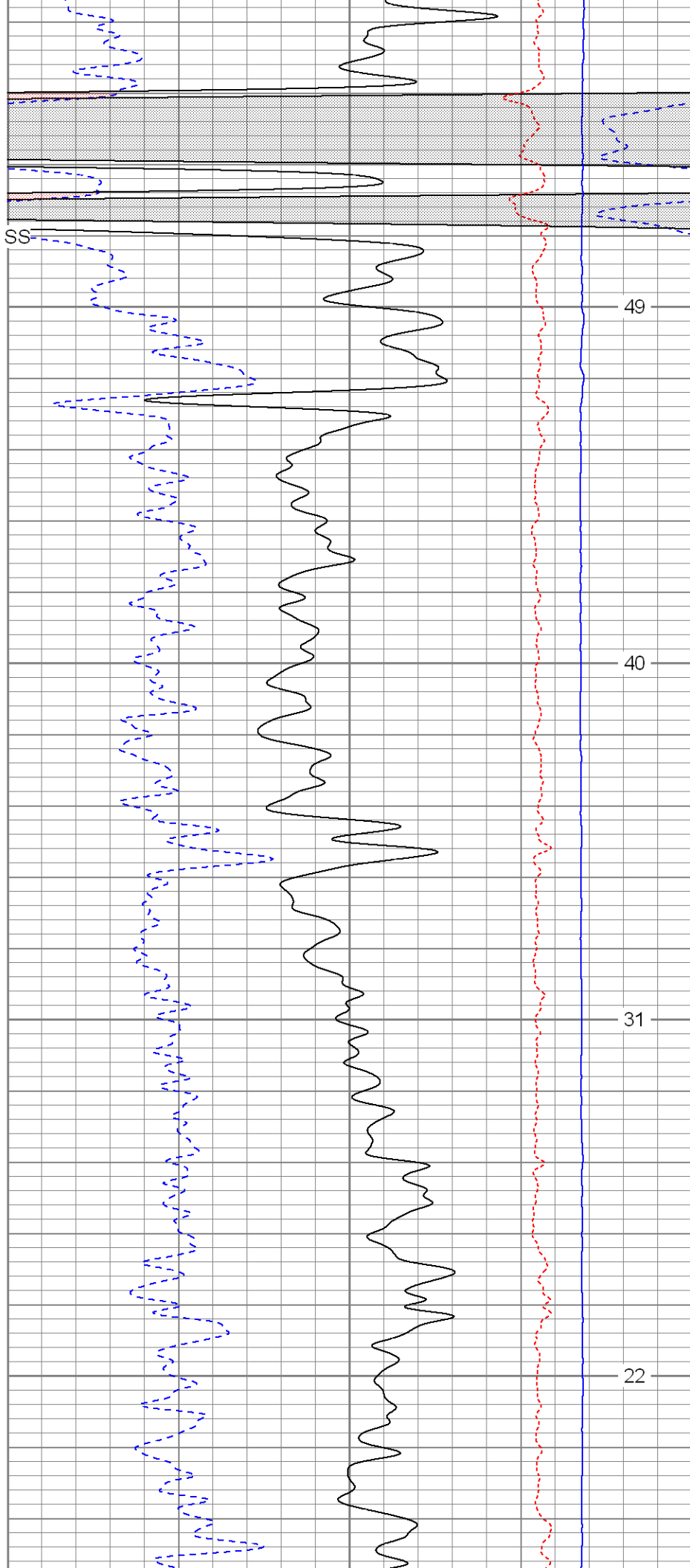
Top Of Trinidad SS

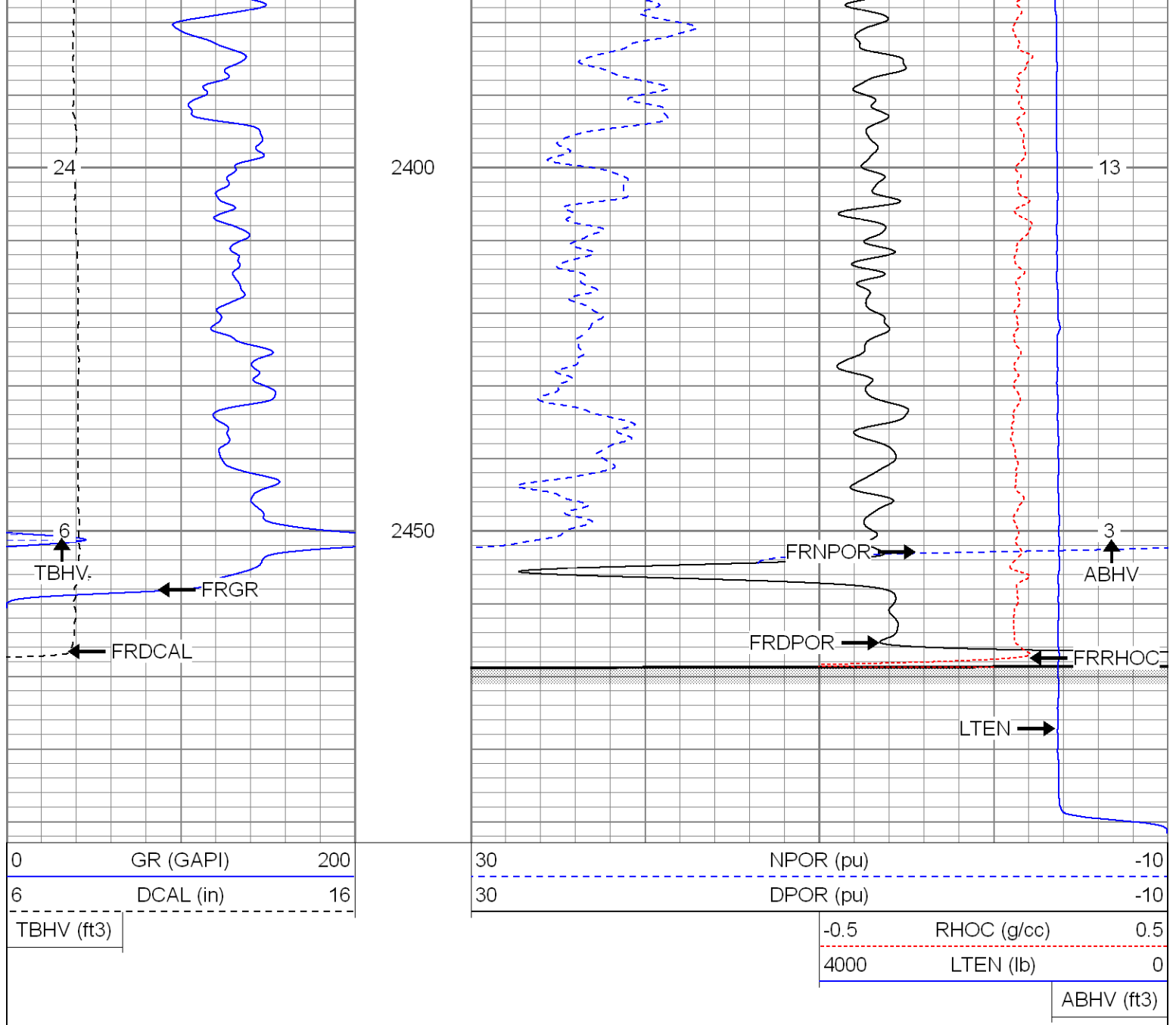
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2250

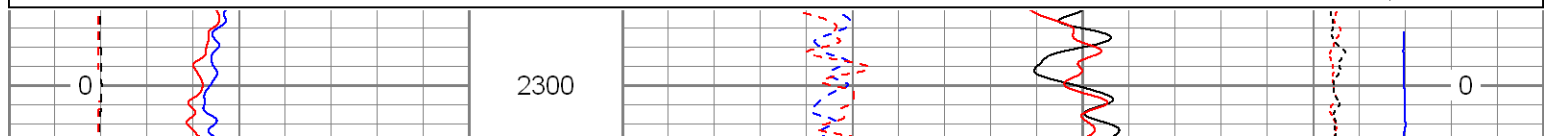
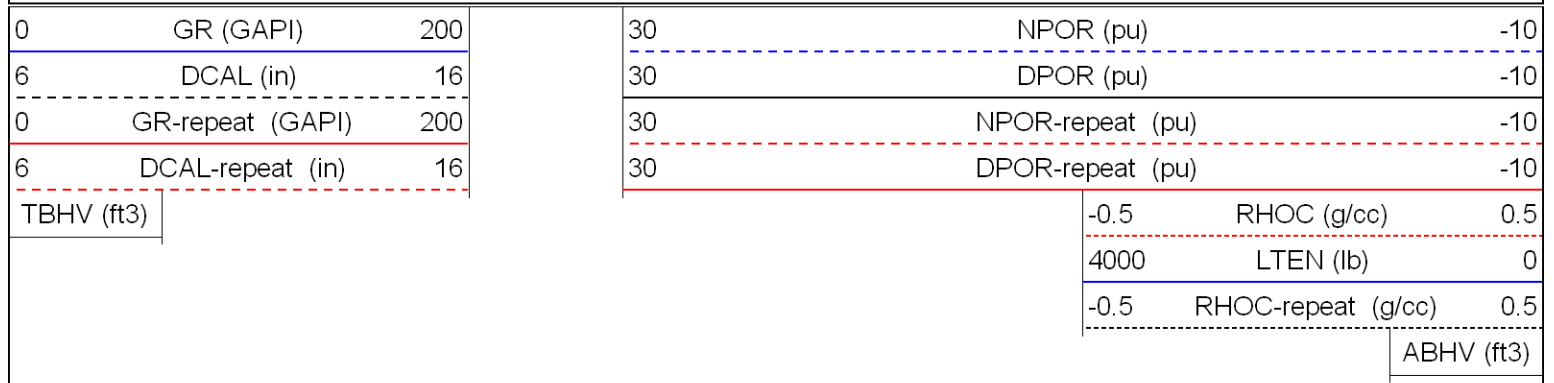
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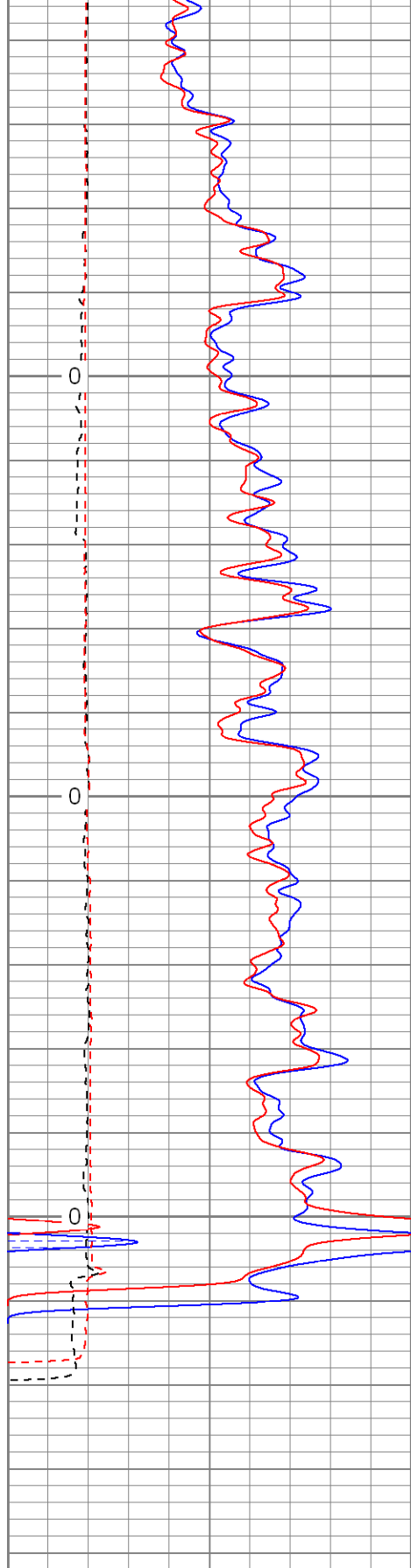
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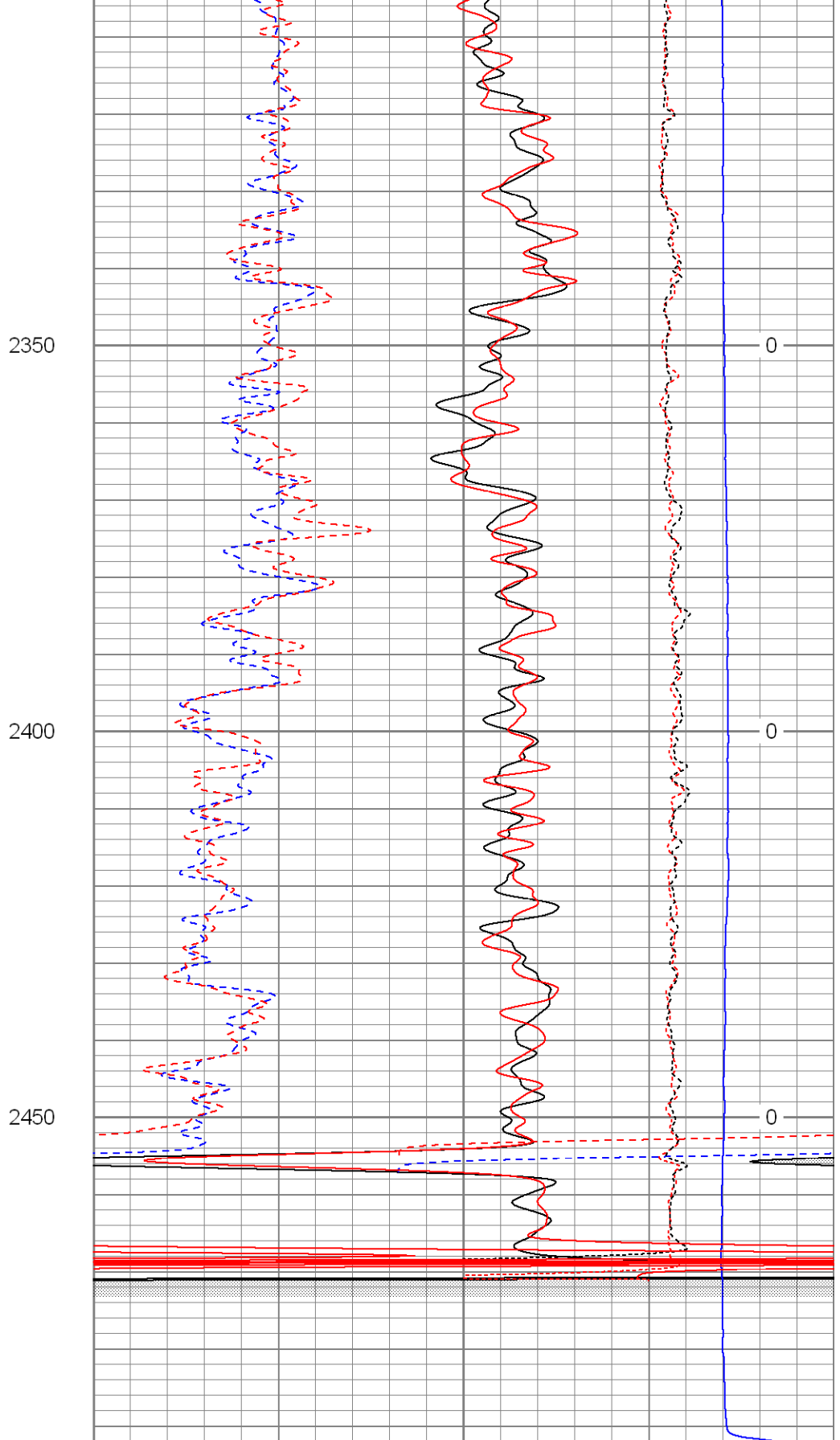
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 Charted by: Depth in Feet scaled 1:240





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

TBHV (ft3)



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

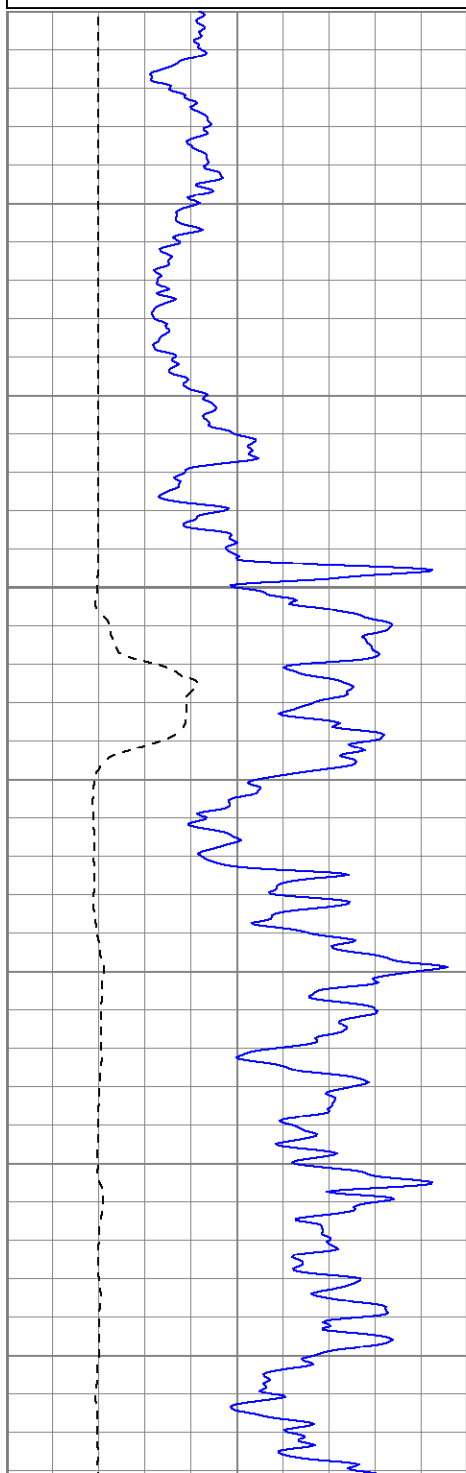
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High Resolution Pass

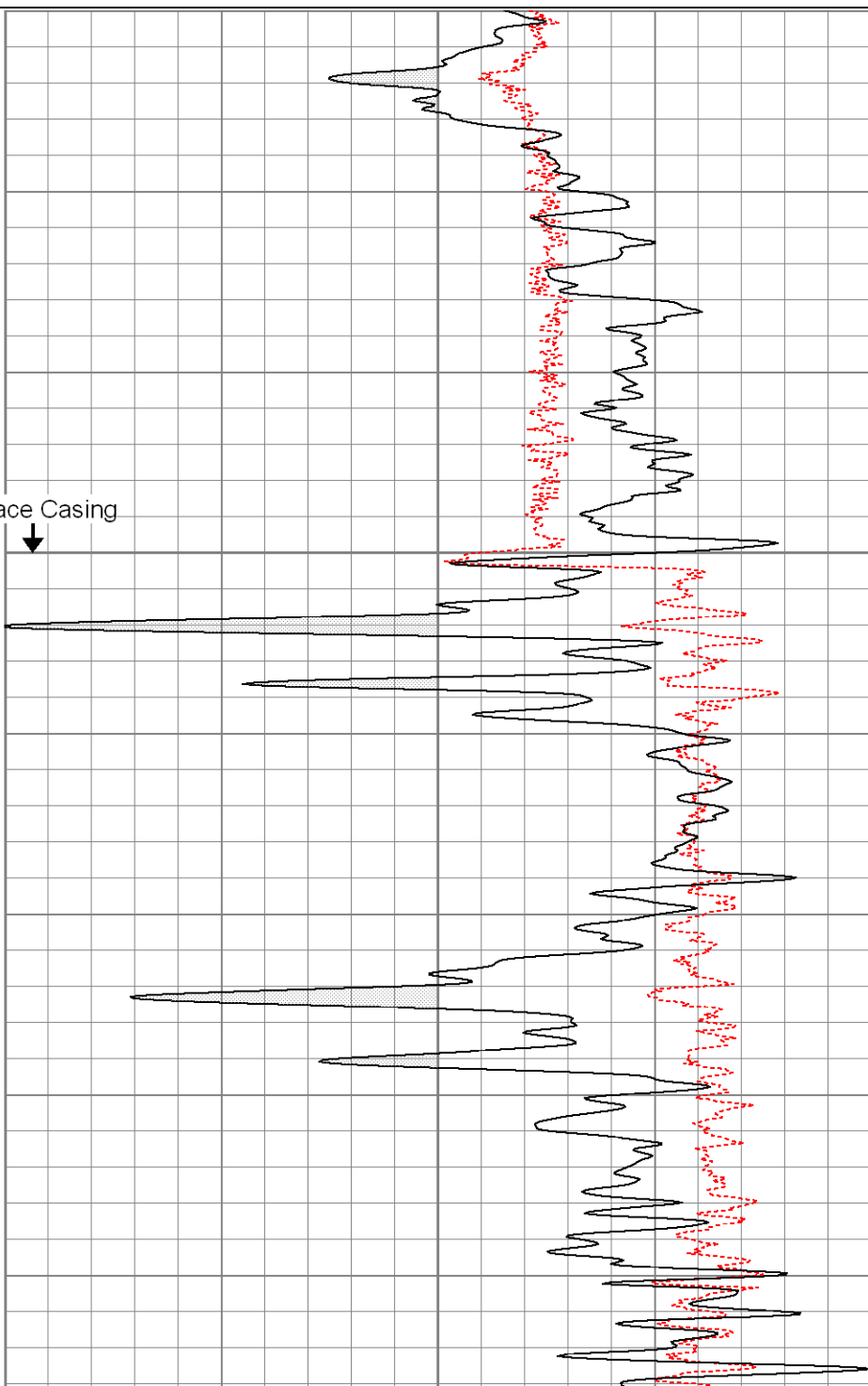
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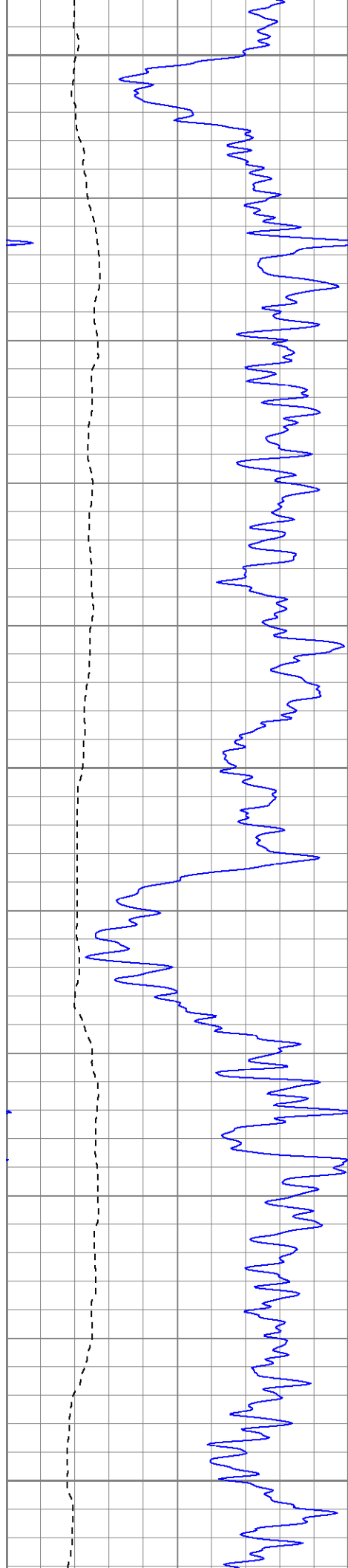
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6	DCAL (in)	16

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



Surface Casing
450

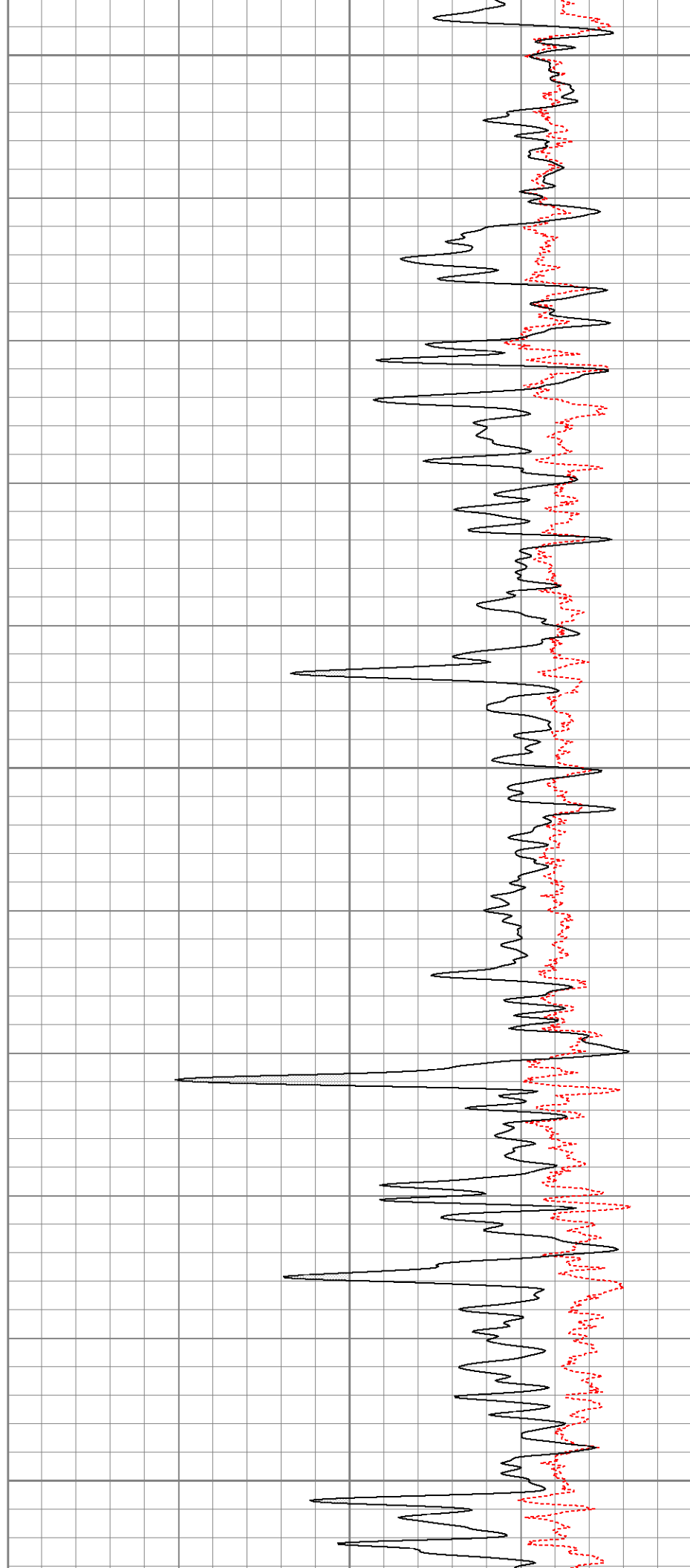


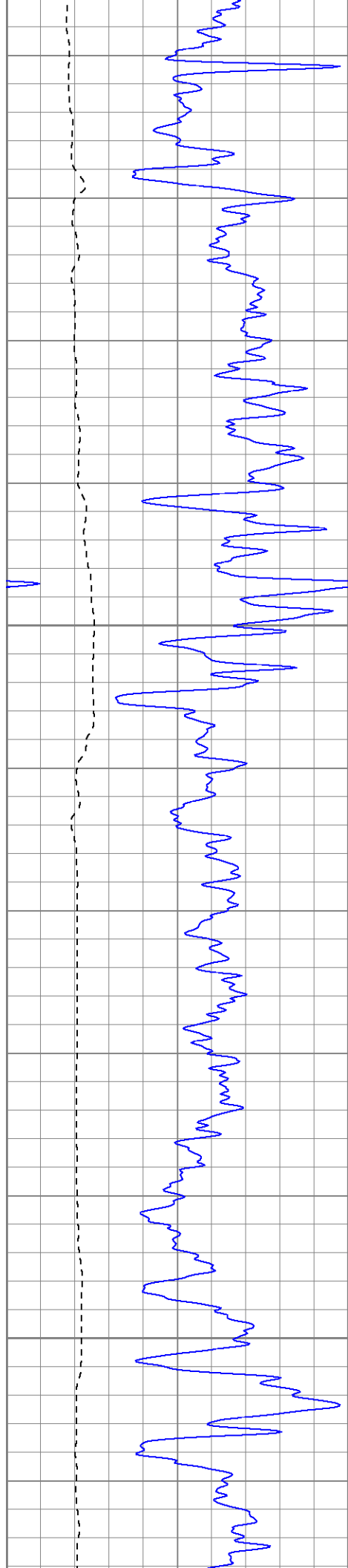


500

550

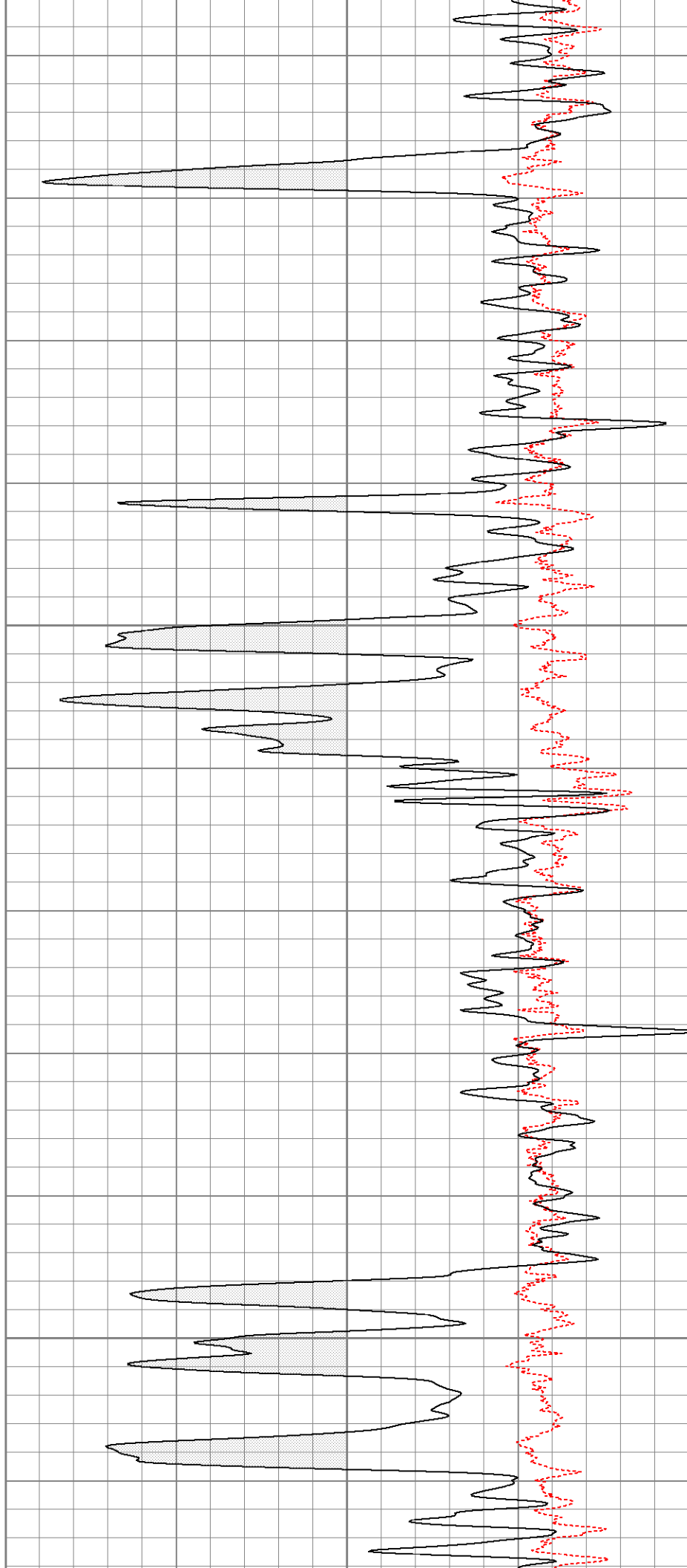
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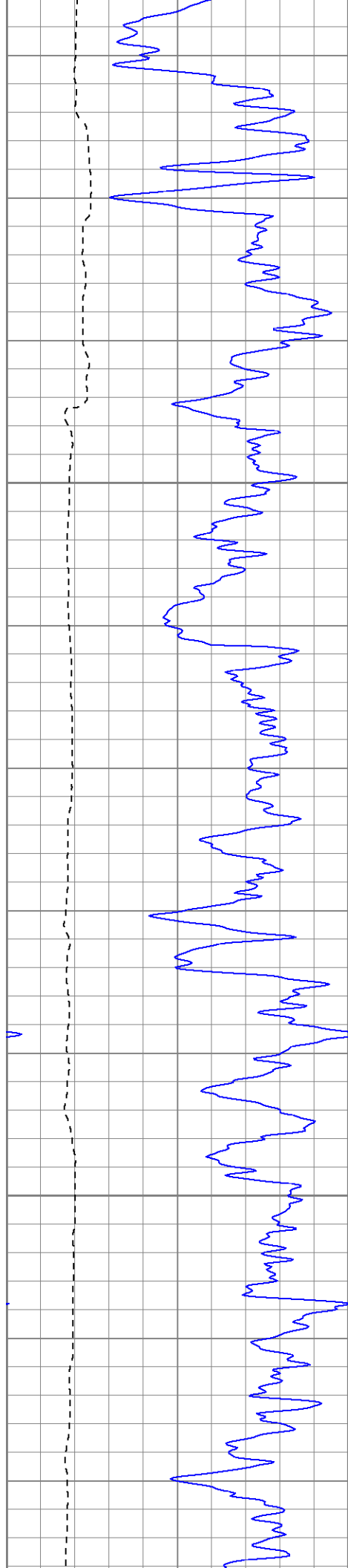




650

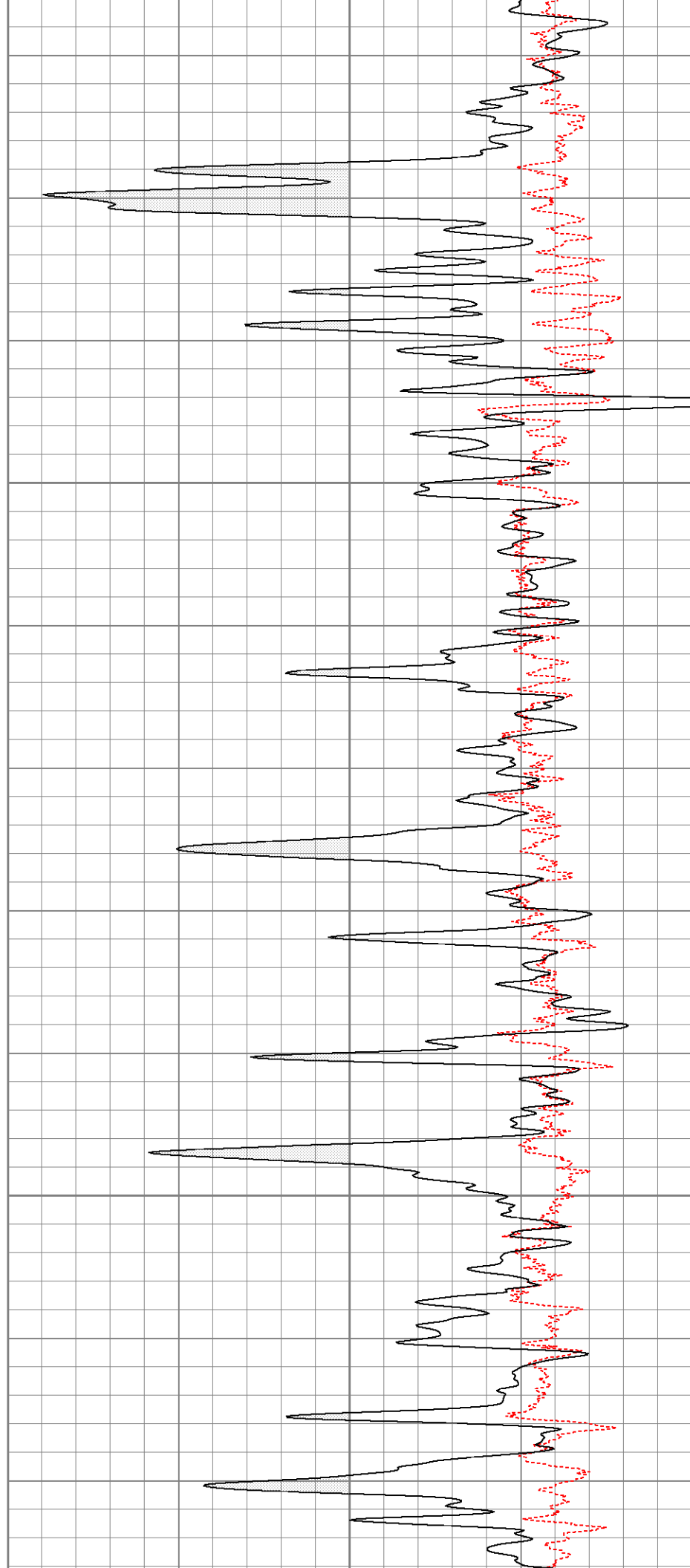
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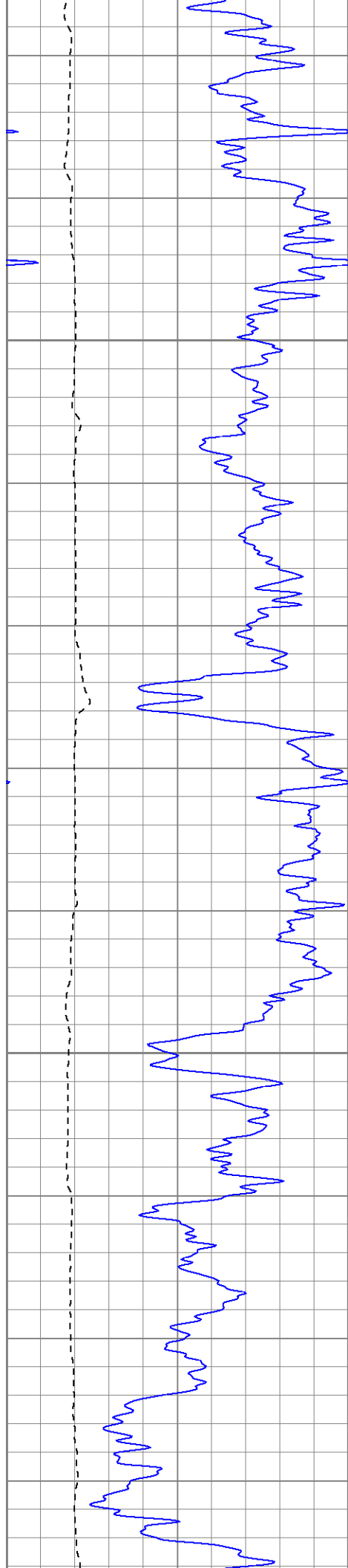




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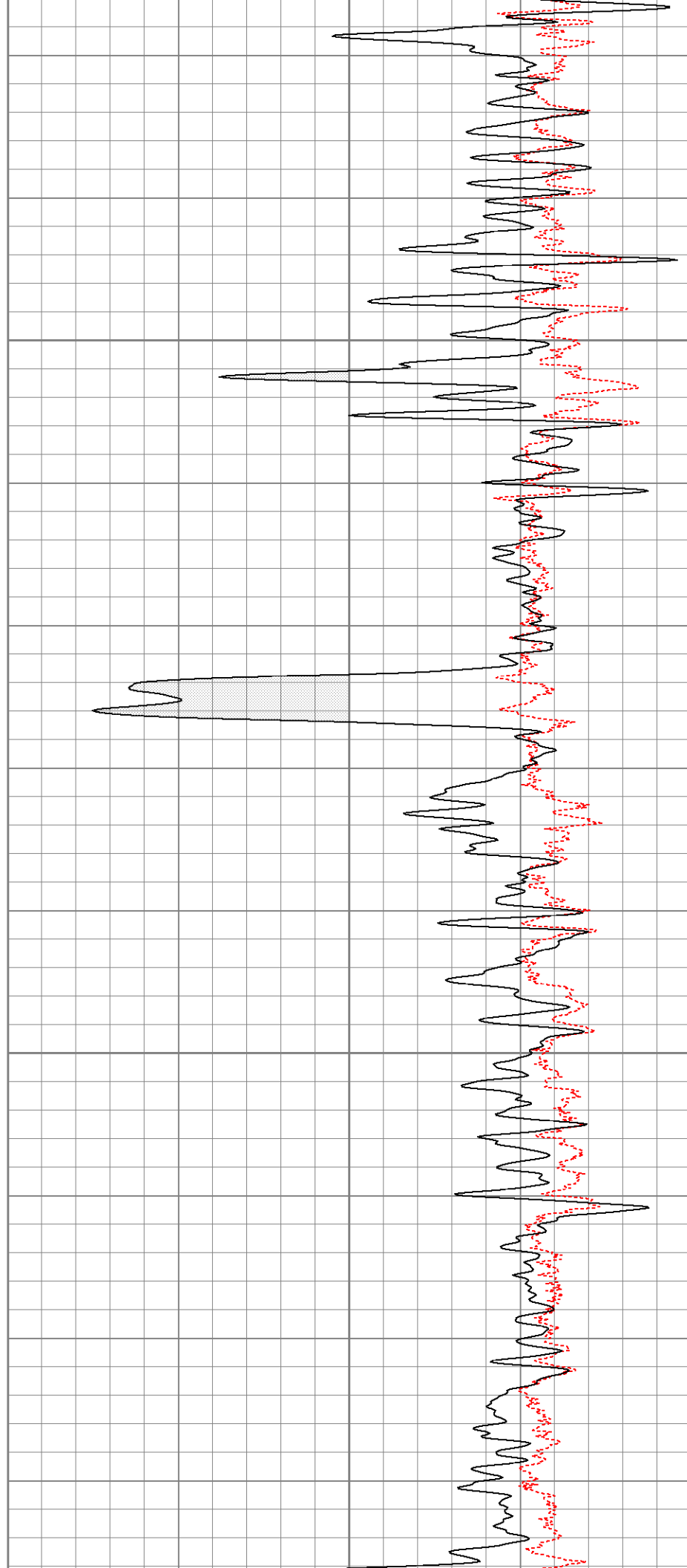
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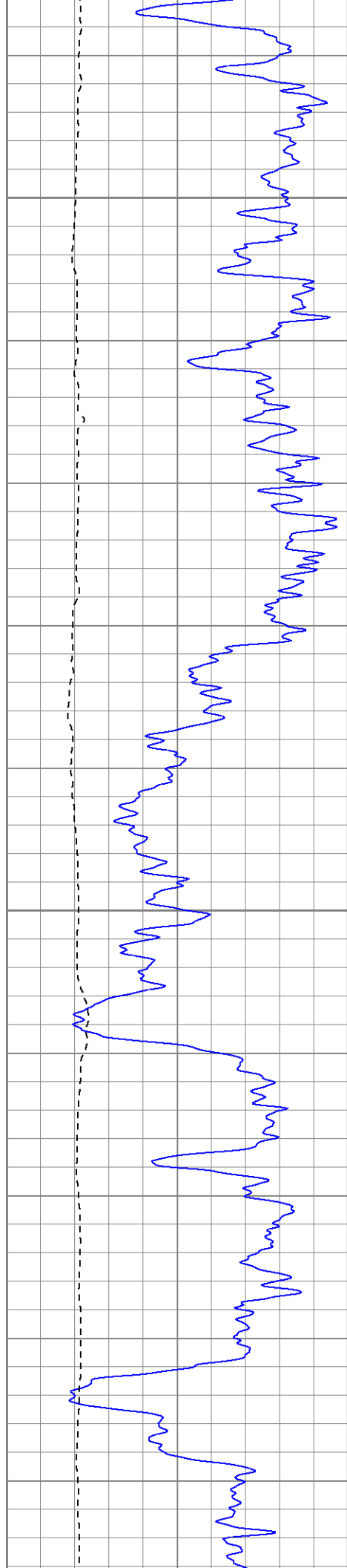




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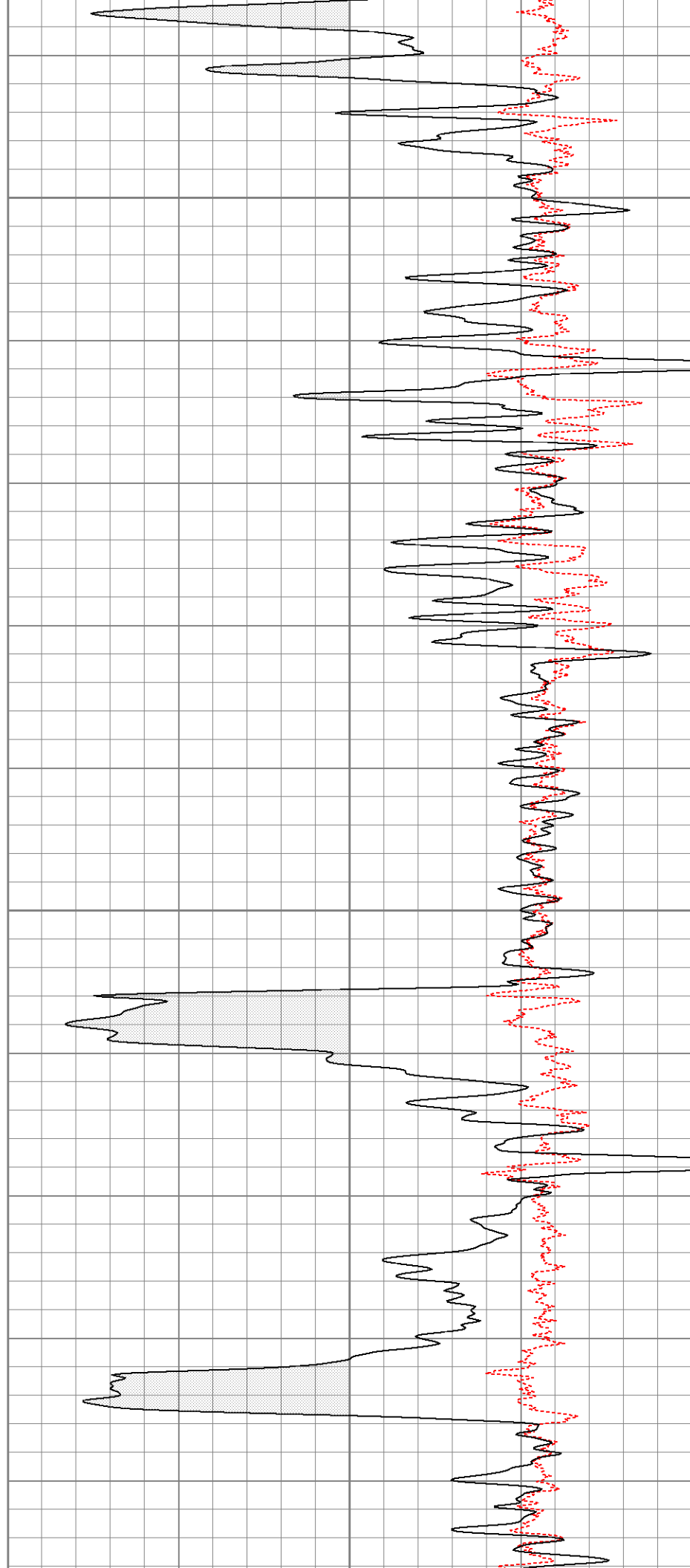
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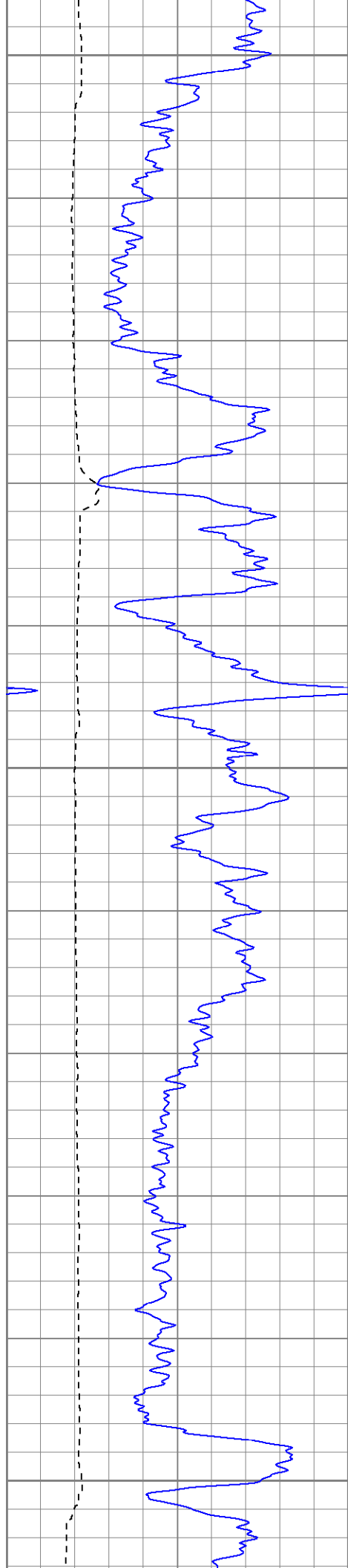




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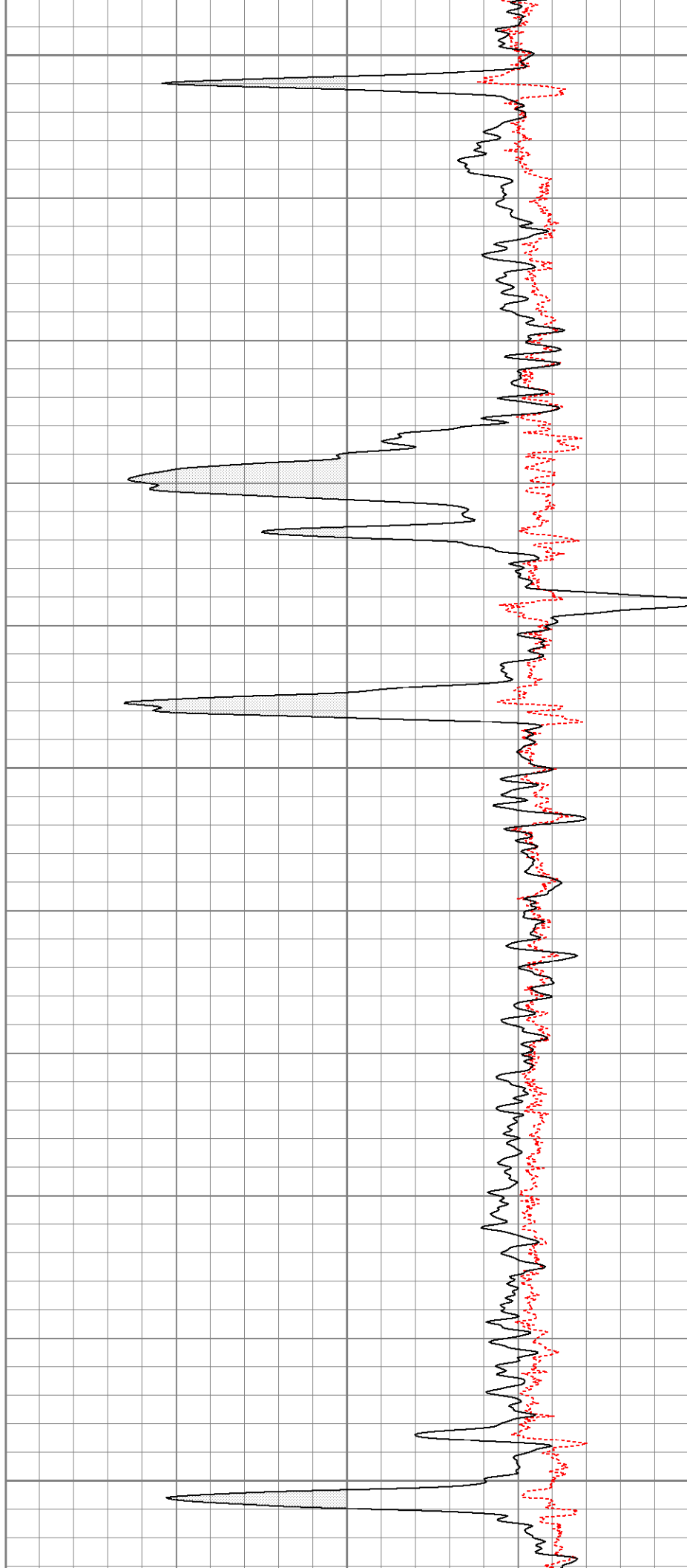


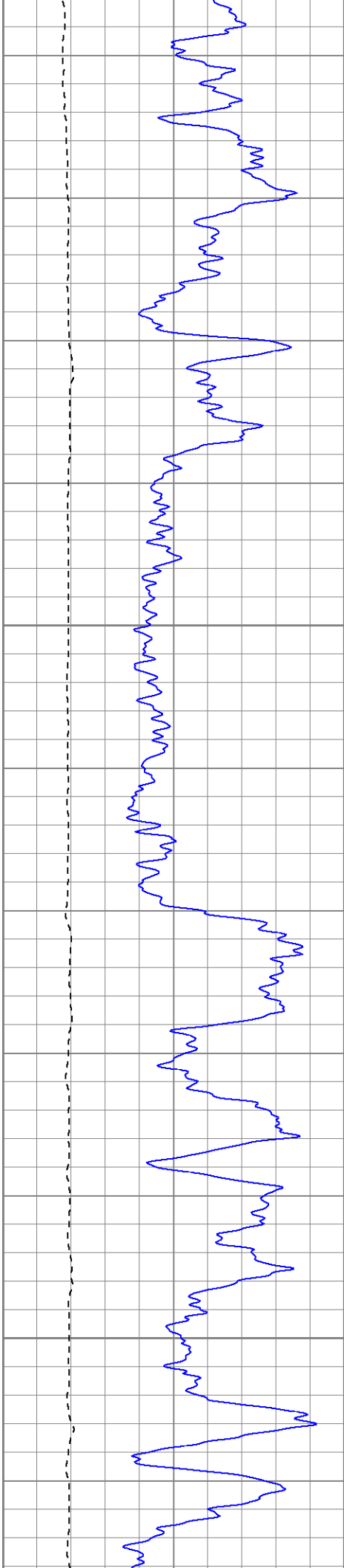


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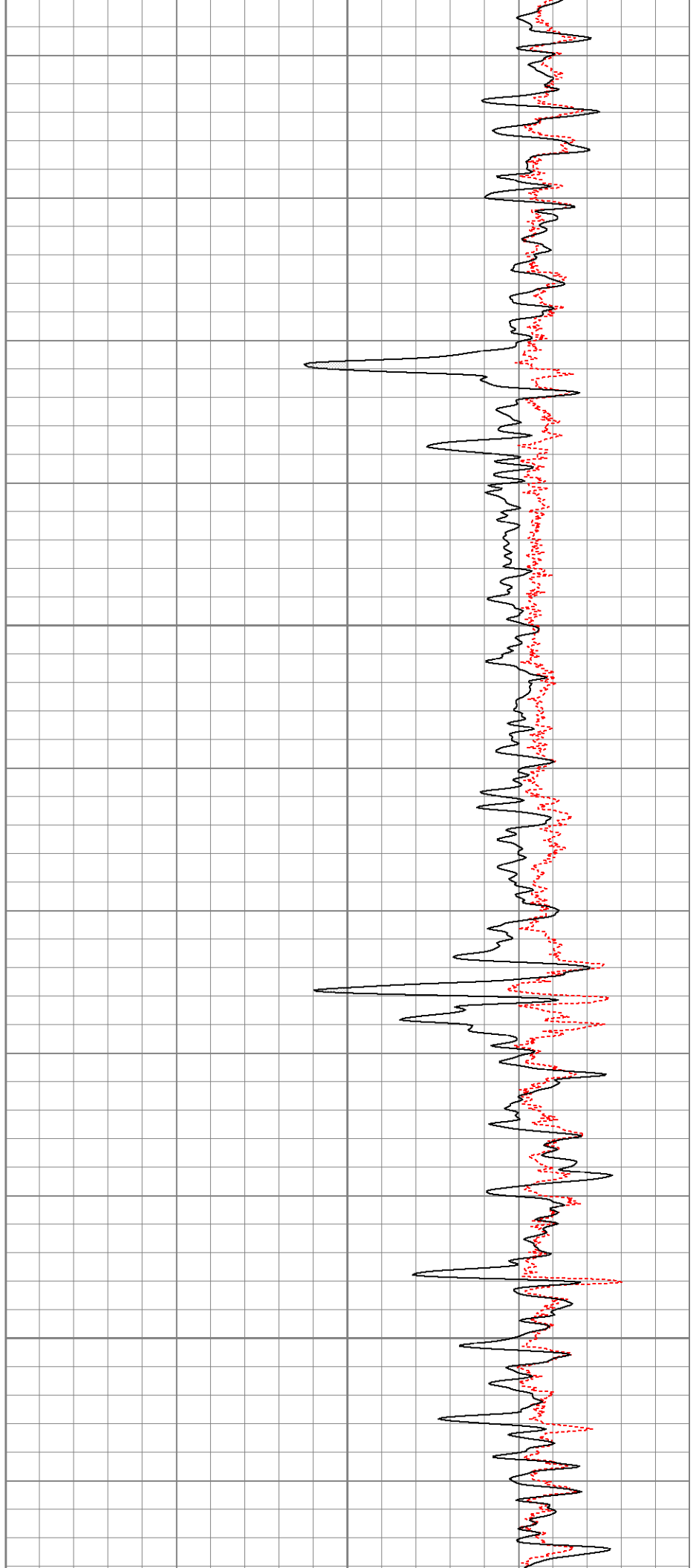
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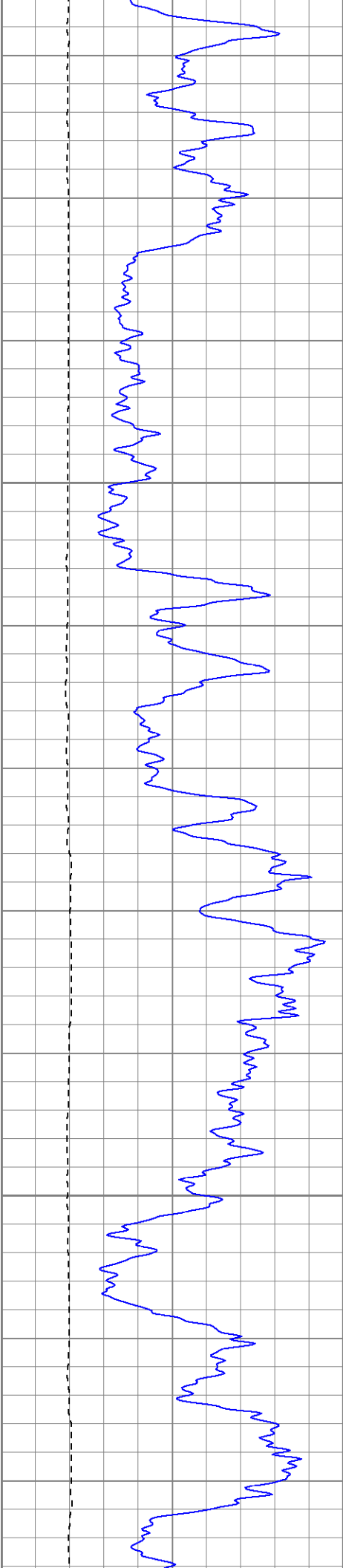




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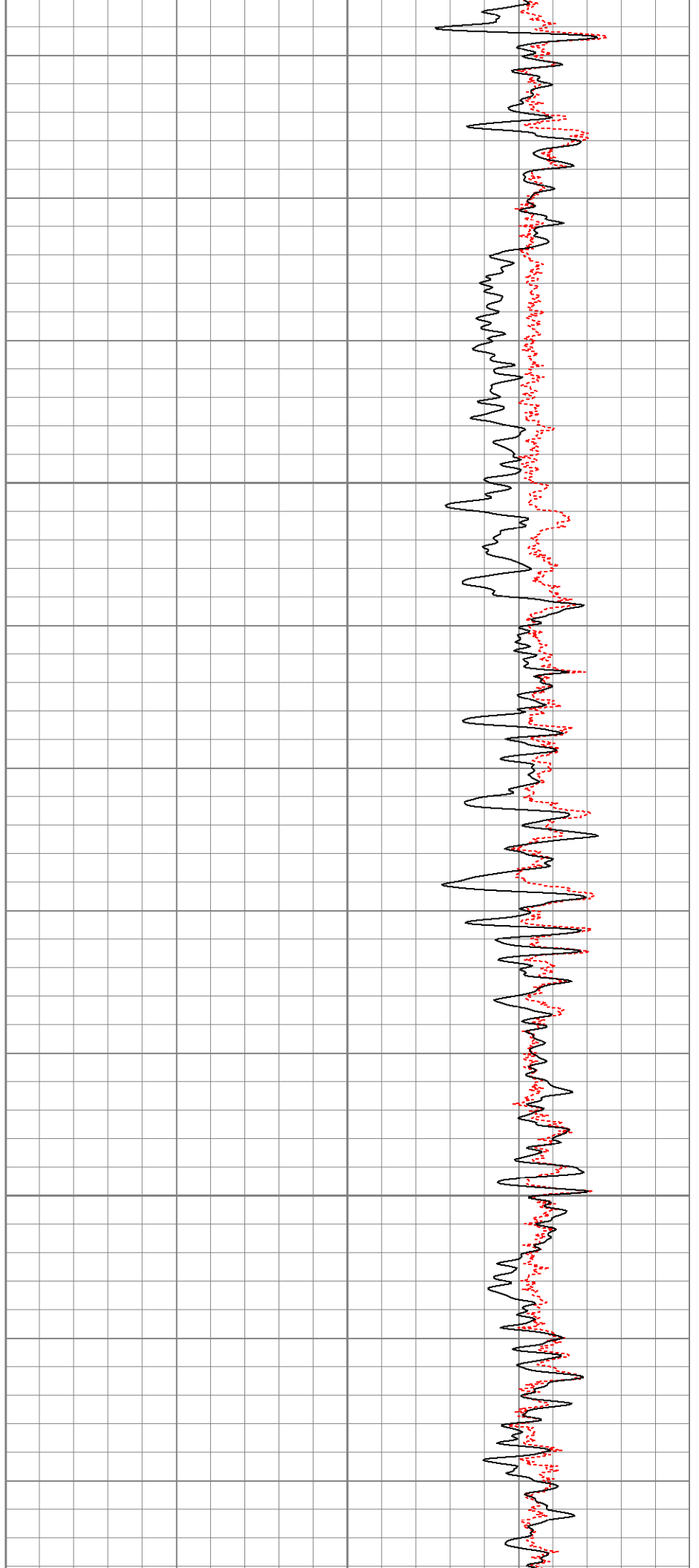
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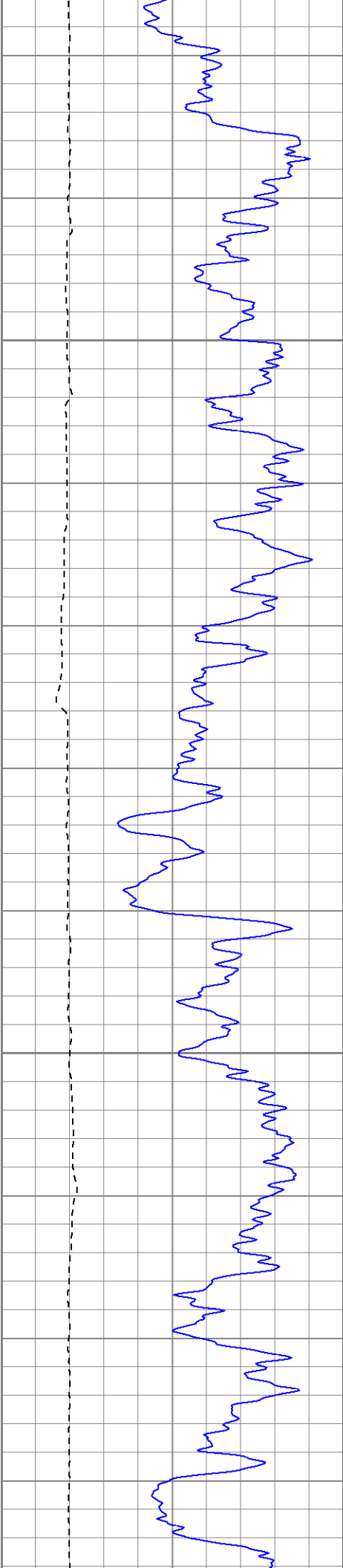




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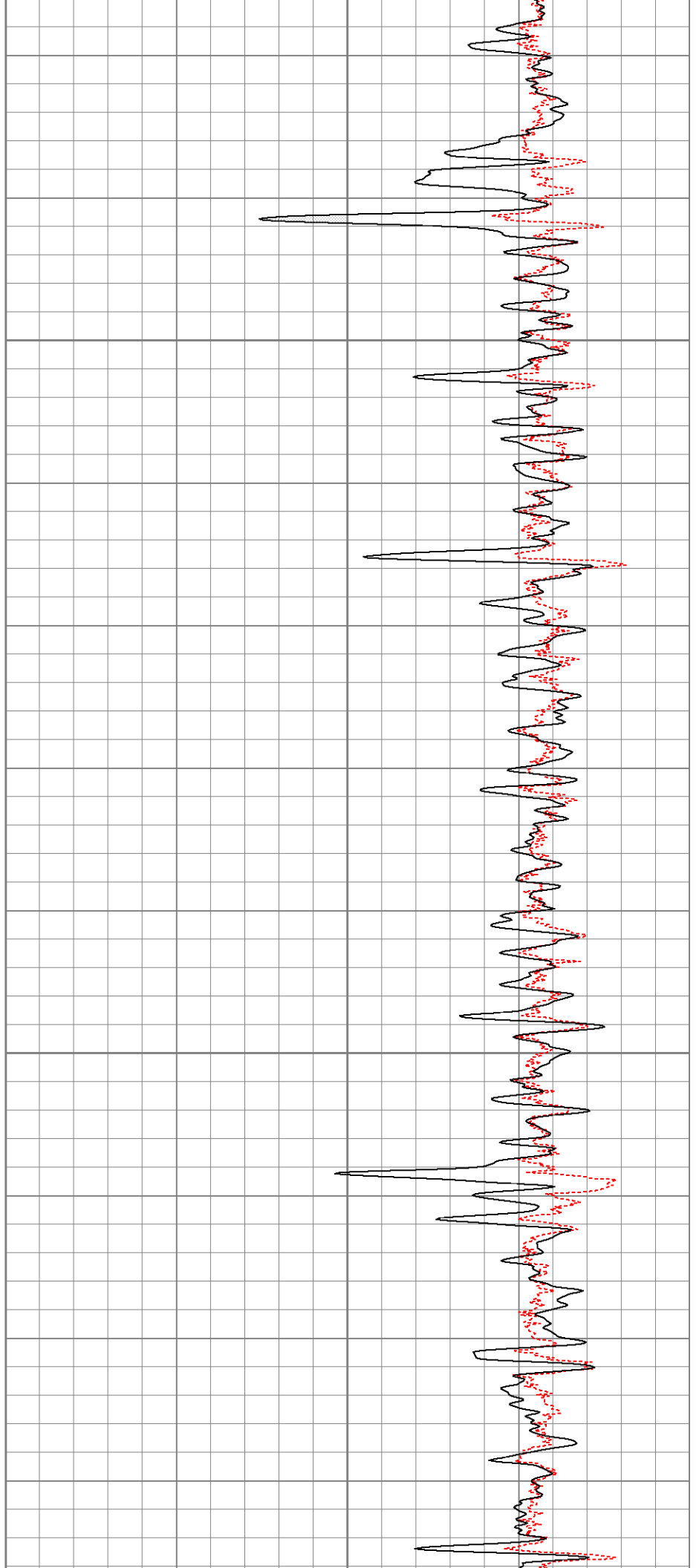
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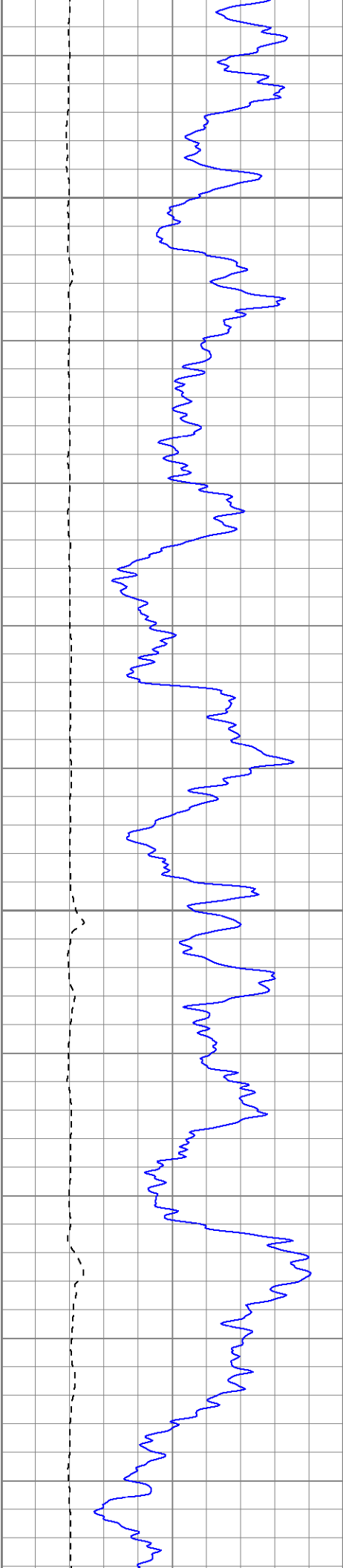




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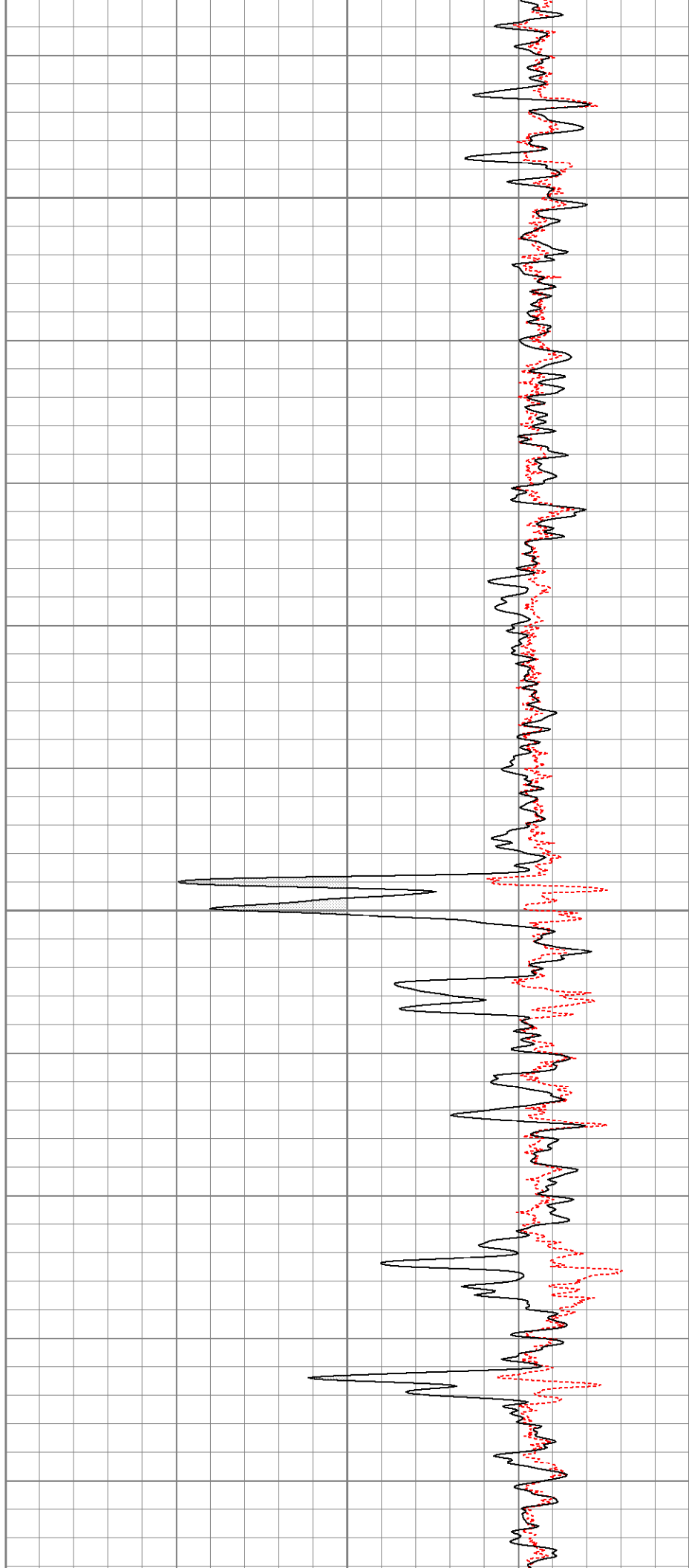
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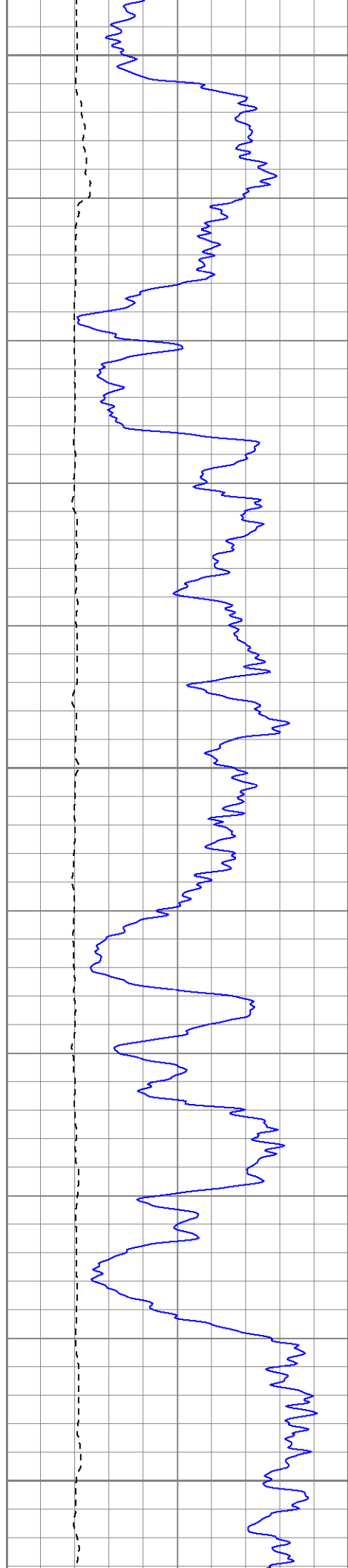




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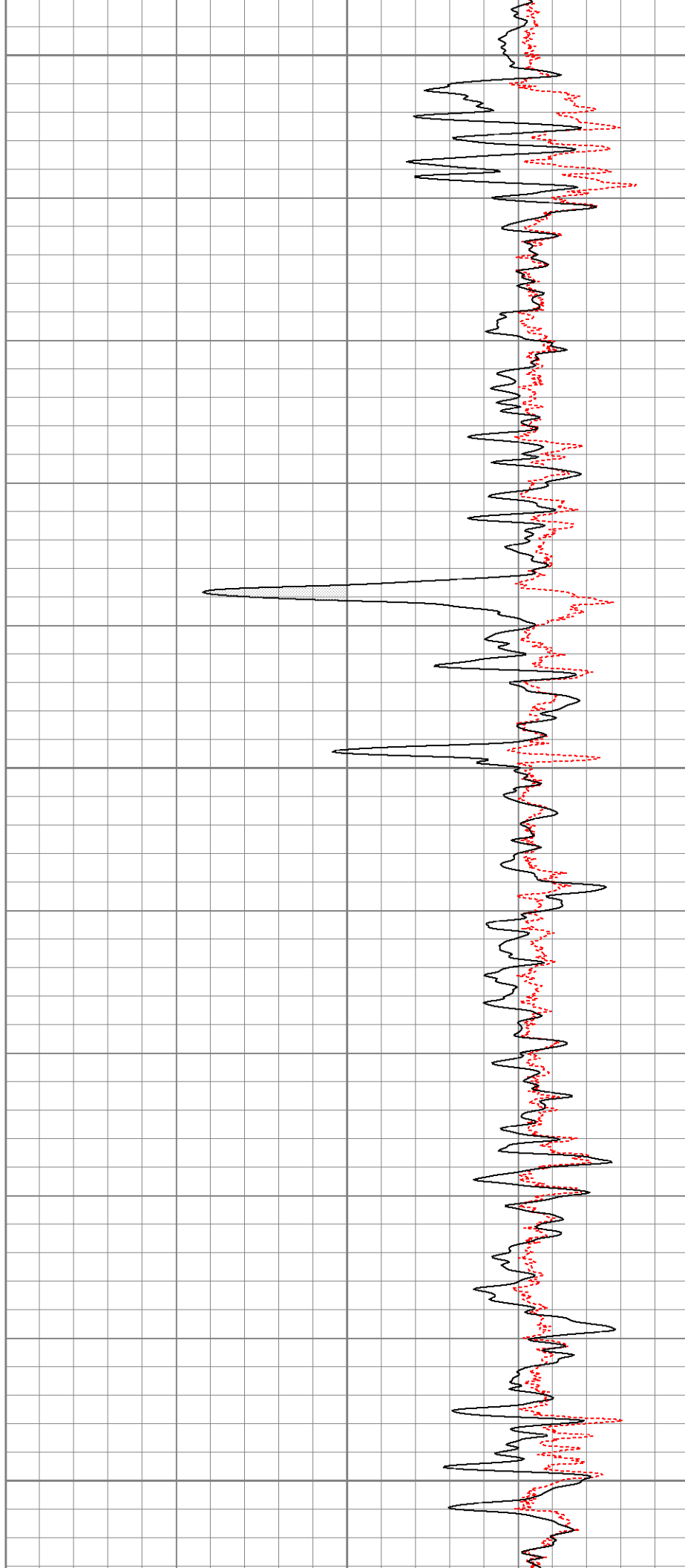


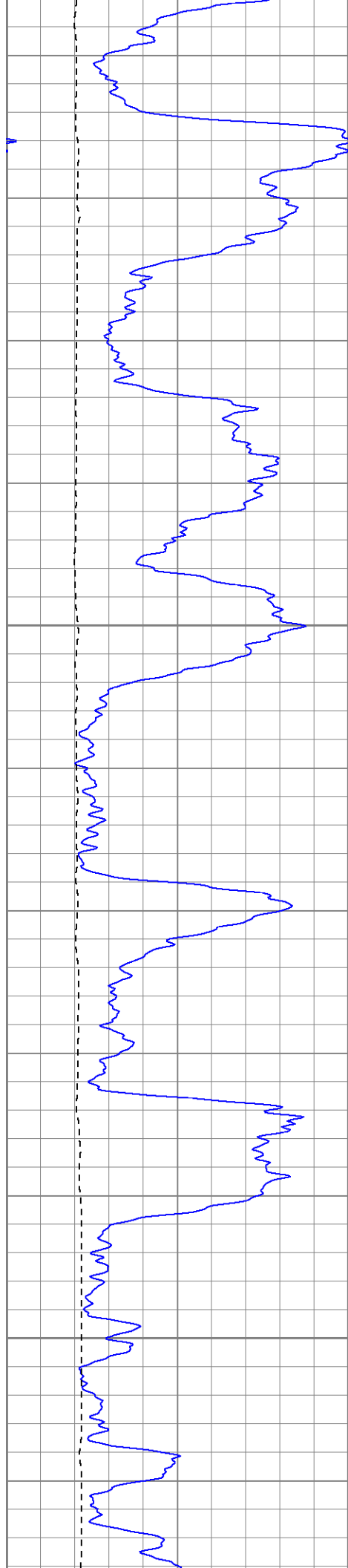


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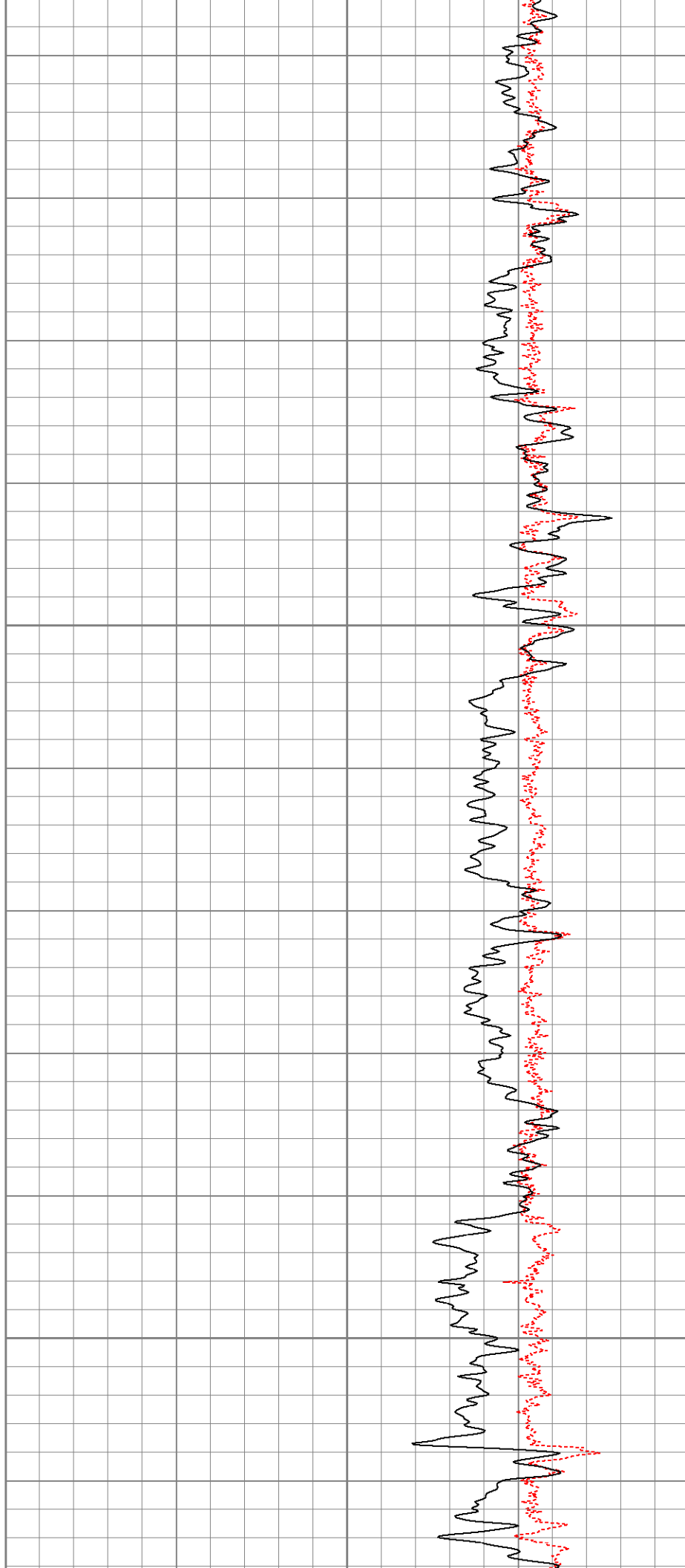
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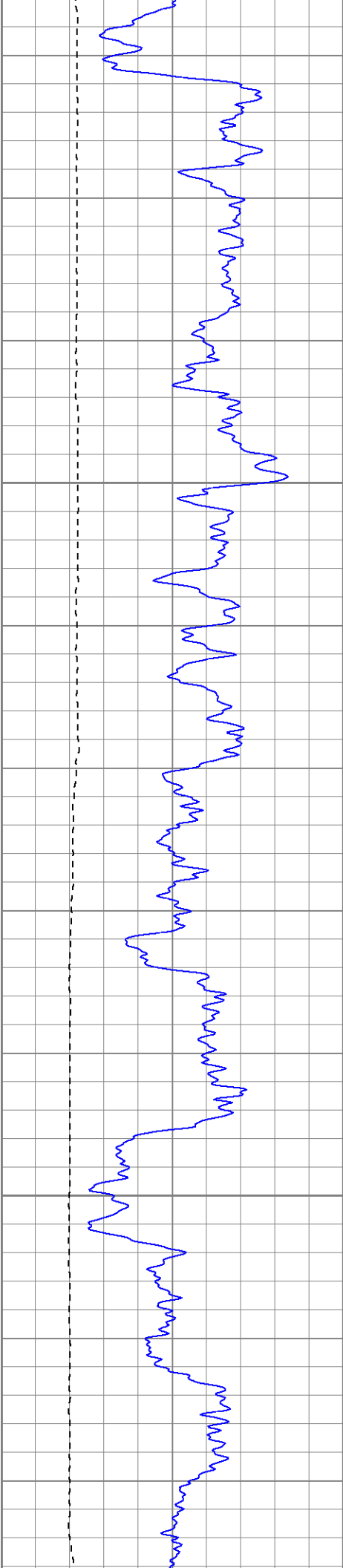




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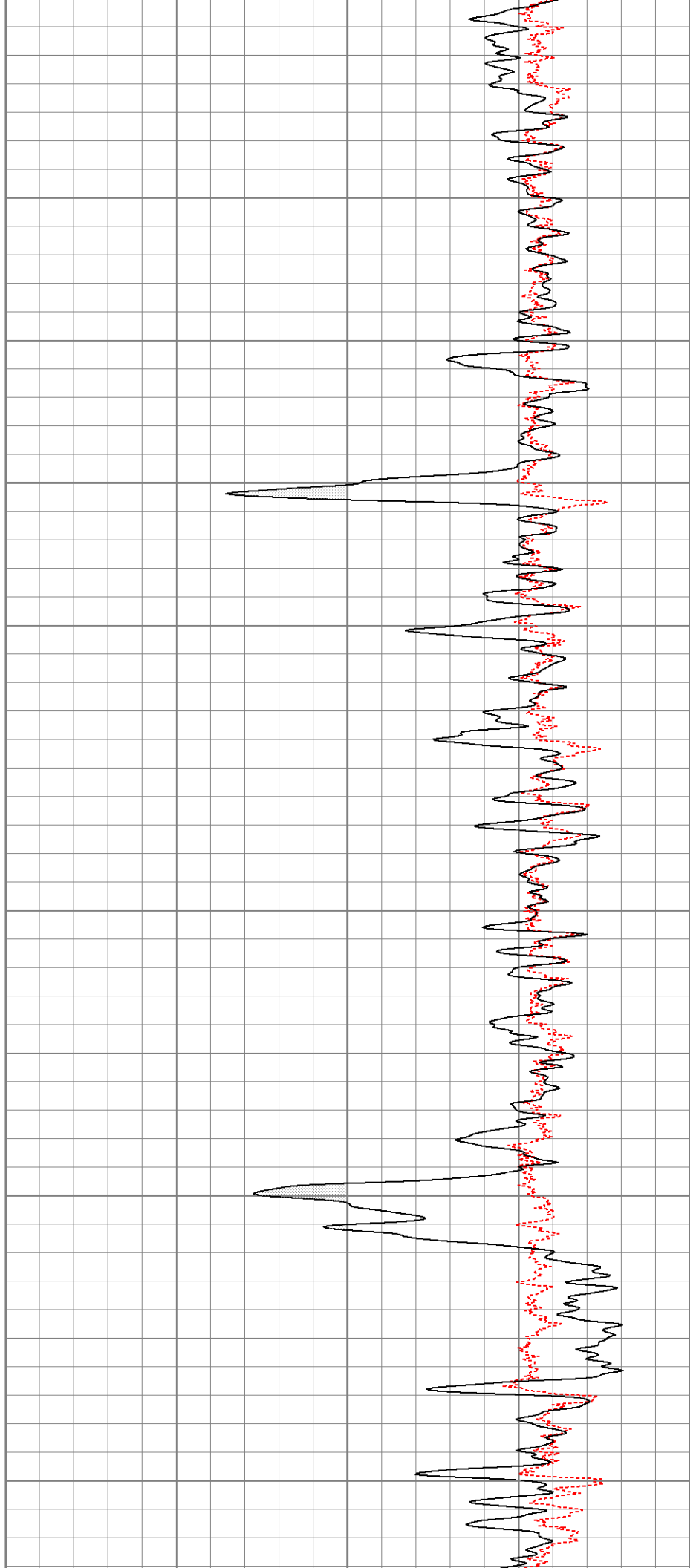
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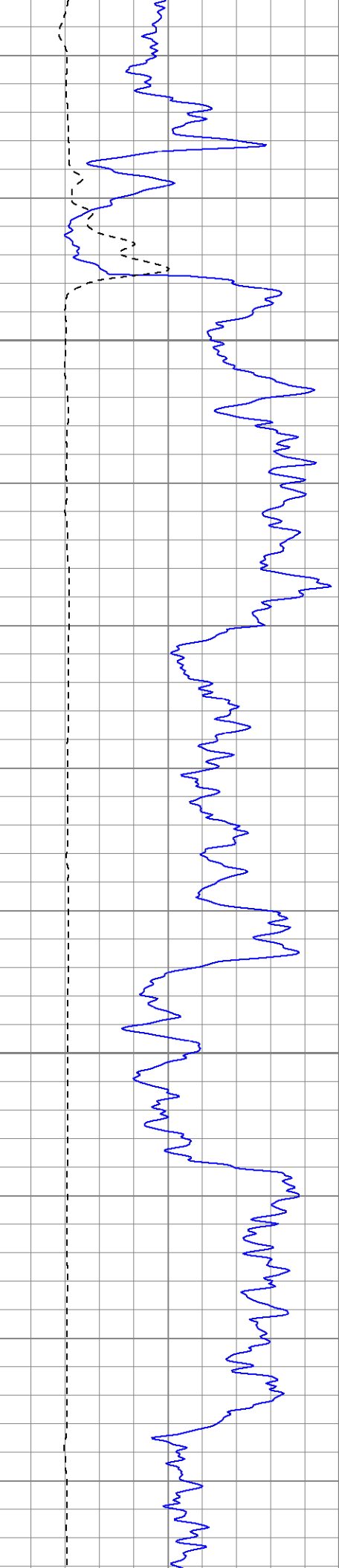




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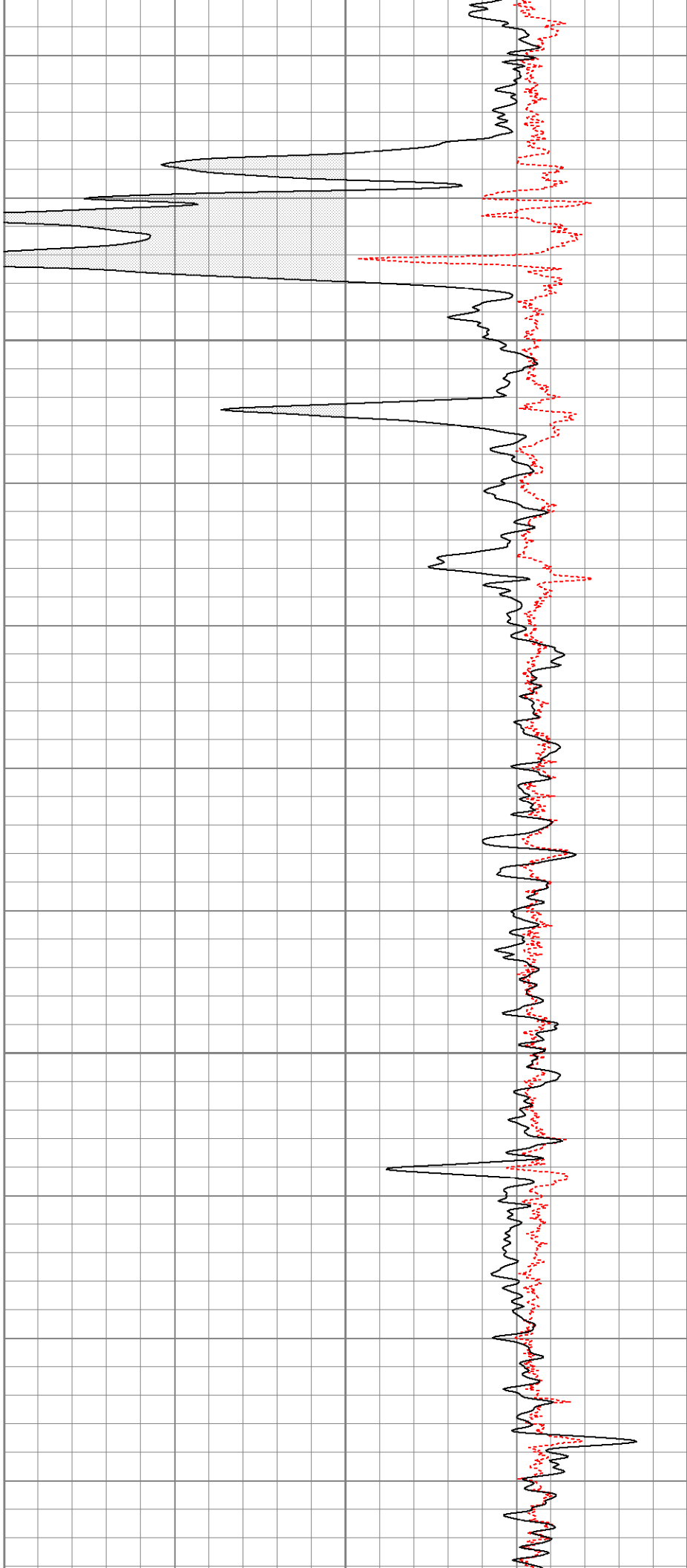
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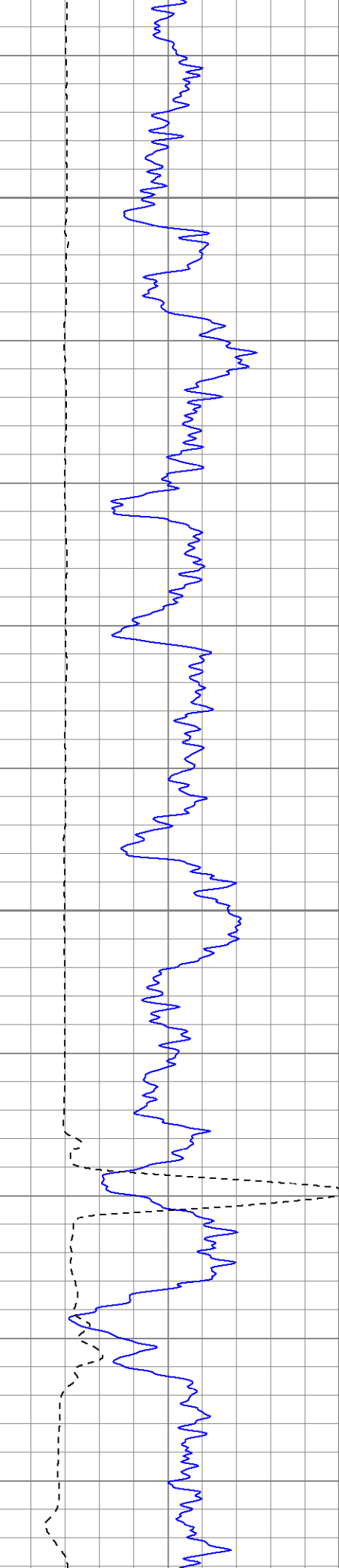




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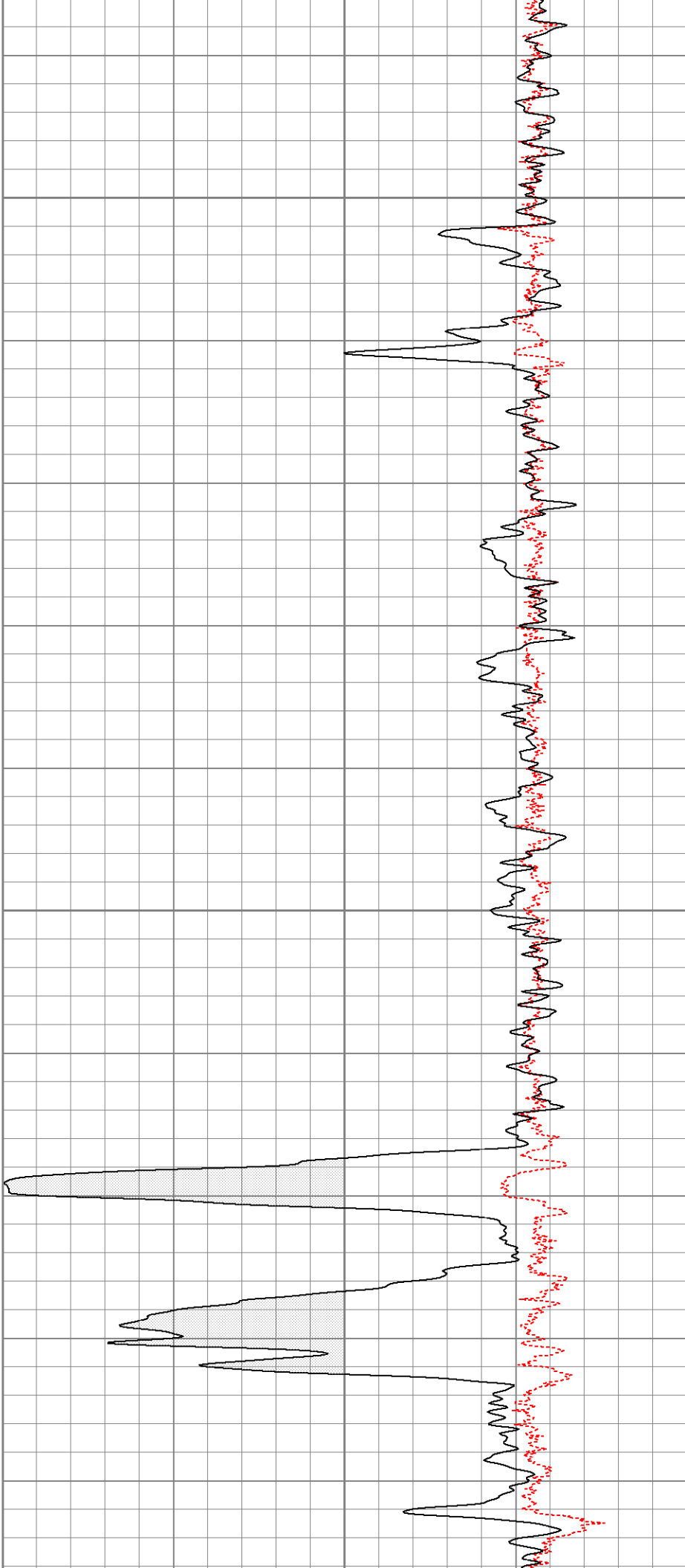
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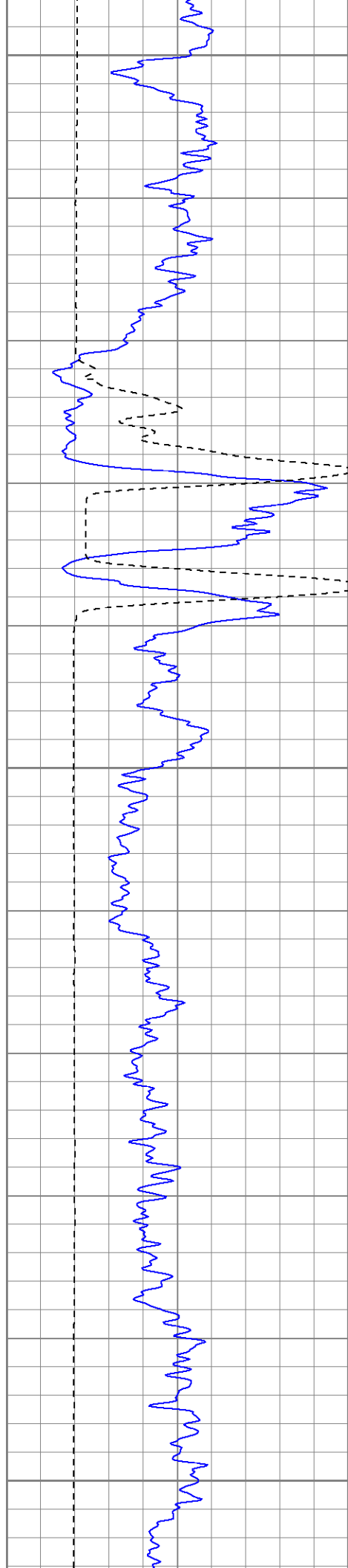




2050

2100

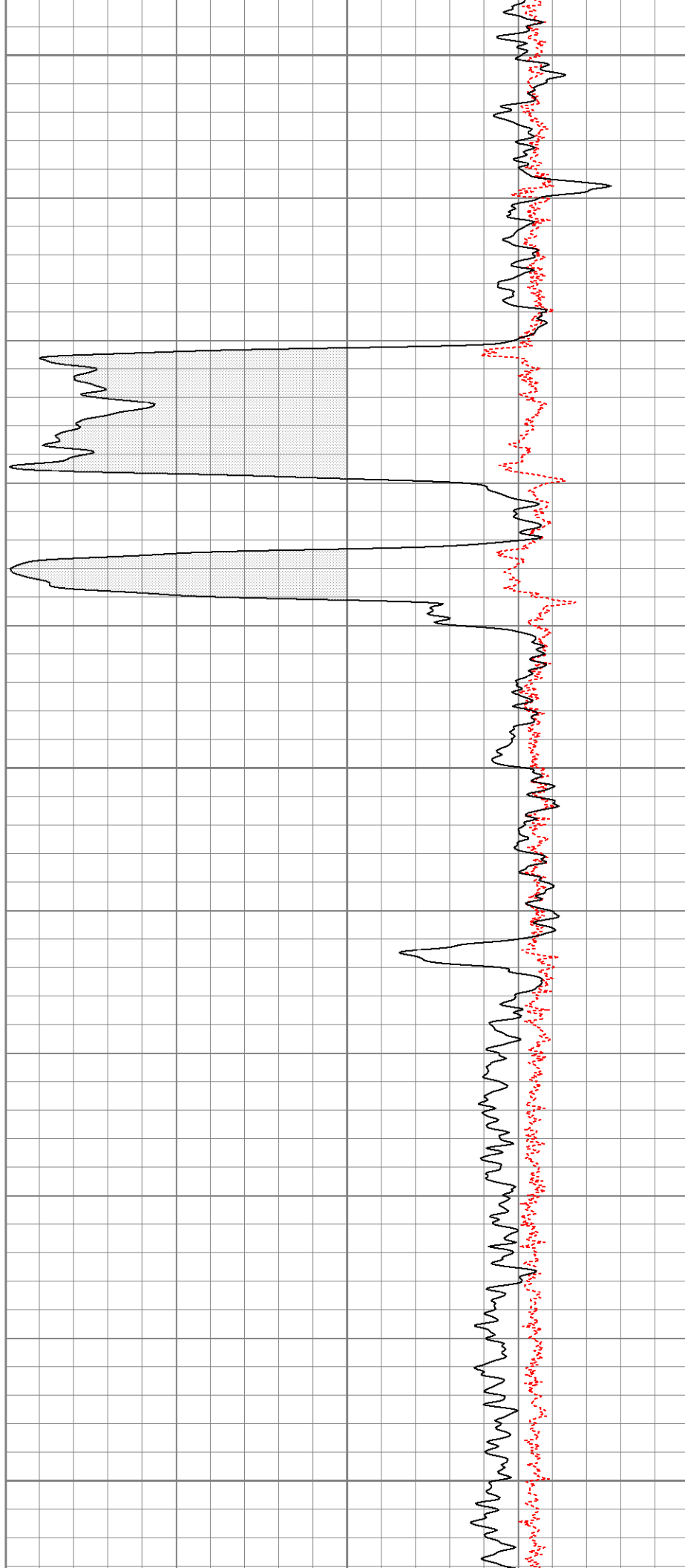


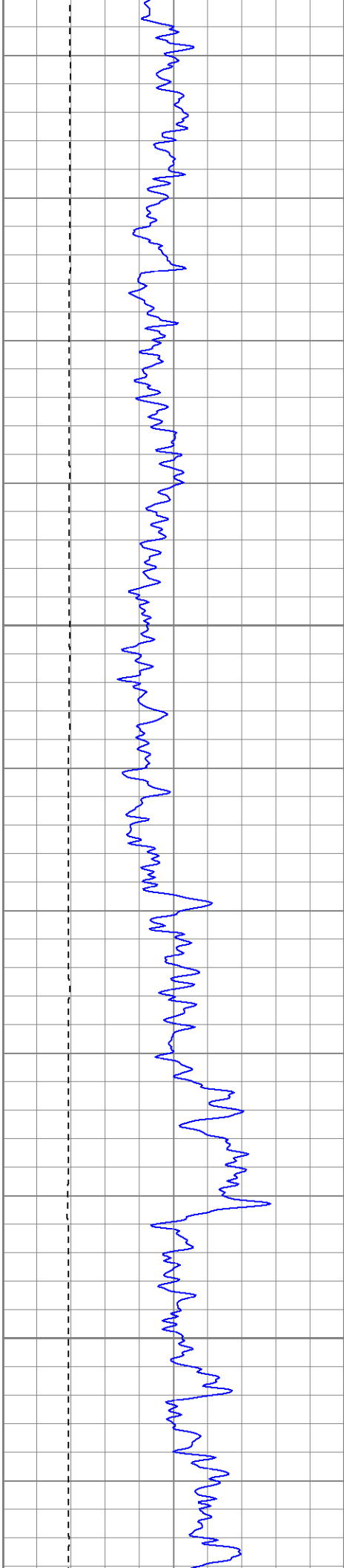


2150

2200

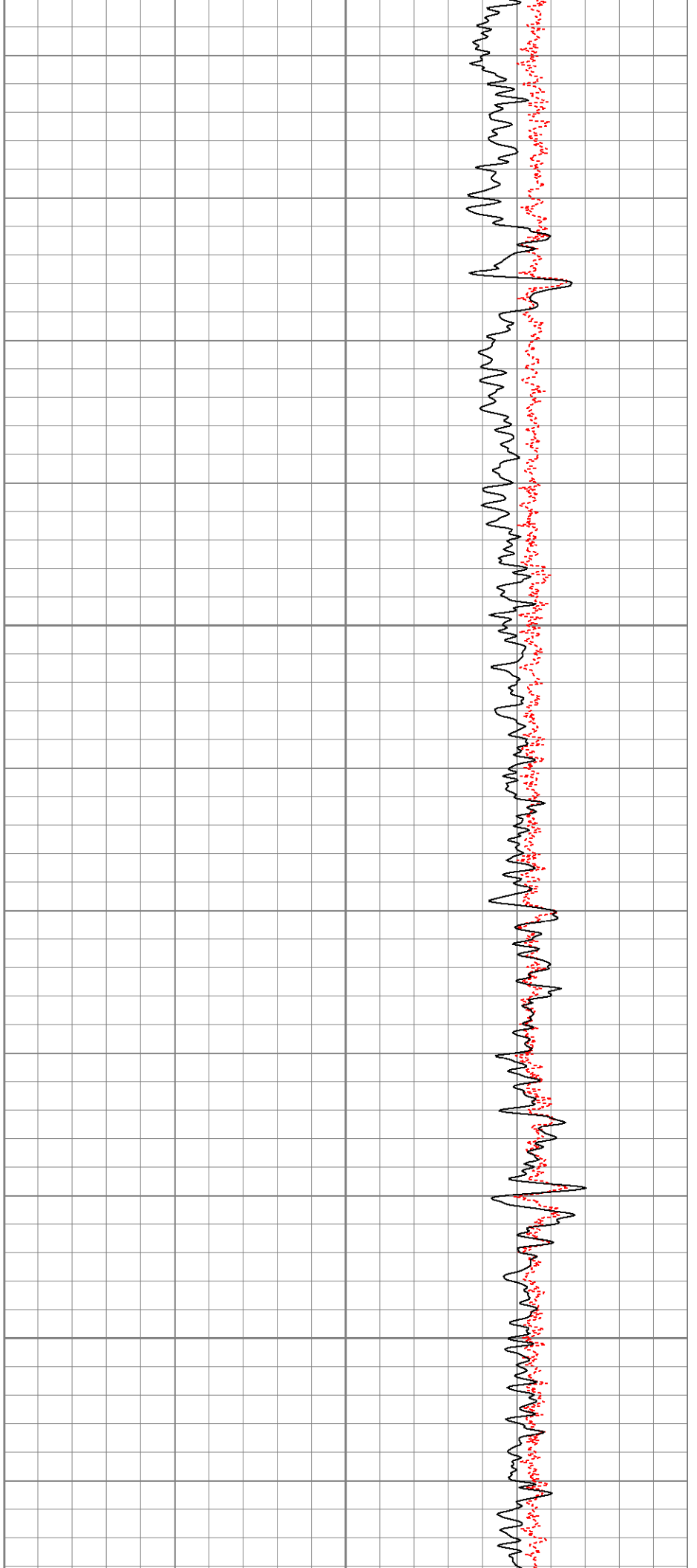
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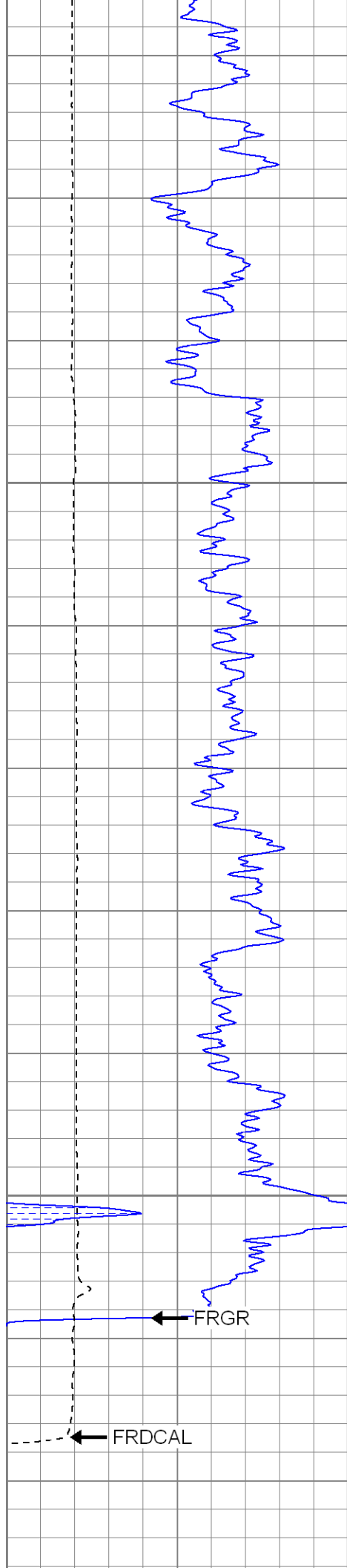




2300

2350



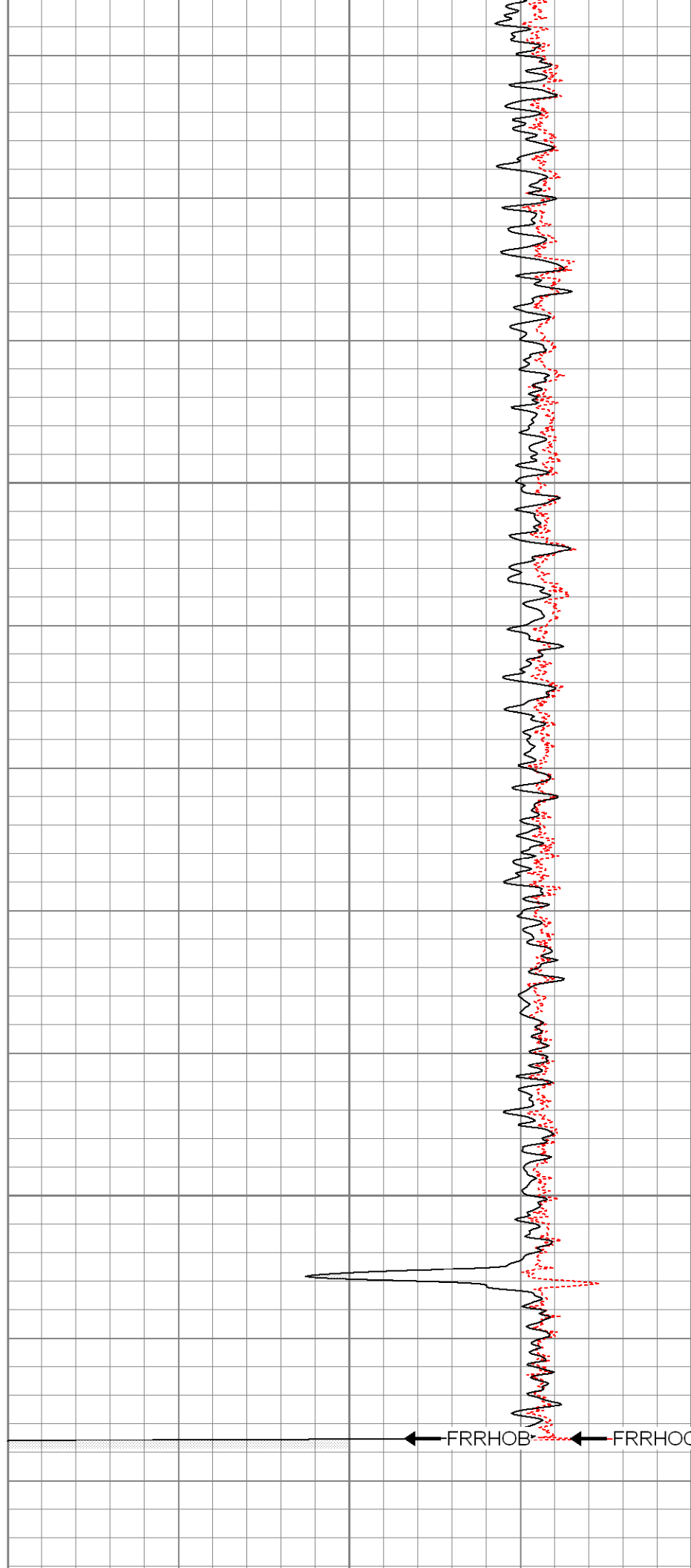


2400

2450

FRGR

FRDCAL



FRRHOB

FRRHOC

Calibration Report

Database File: xtoac0515.db
Dataset Pathname: pass1
Dataset Creation: Mon Feb 18 13:34:28 2008 by Log Open-Cased 070814

Dual Induction Calibration Report

Serial-Model: 5375-G
Surface Cal Performed: Wed Feb 06 09:29:54 2008
Downhole Cal Performed: Wed Feb 06 09:31:14 2008

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.002	0.622	V	0.000	500.000	mmho-m	806.307	-1.737
Medium	0.005	0.745	V	0.000	550.000	mmho-m	742.812	-3.450
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.003	0.622	V	0.000	500.000	mmho-m	806.784	-2.176
Medium	0.005	0.745	V	0.000	550.000	mmho-m	743.382	-3.766

Downhole Calibration

Readings				References			Results	
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.241	500.512	mmho-m	0.438	500.143	mmho-m	0.999	0.197
Medium	0.213	550.041	mmho-m	0.313	549.891	mmho-m	1.000	0.100
Shallow	2.508	0.009	V	500.000	2.000	Ohm-m	125.000	-3.000

Compensated Density Calibration Report

Serial-Model: 2118-poilex
Source / Verifier: /
Master Calibration Performed: Mon Jan 28 14:40:20 2008

Master Calibration





	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	692.05	655.57	cps
Aluminum	2.590	g/cc	158.48	456.38	cps

Spine Angle = 76.20

Density/Spine Ratio = 0.580

Size Reading

Small Ring	8.50	in	4.33	V
Large Ring	14.00	in	8.24	V
Gamma Ray Calibration Report				
Serial Number:	2000			
Tool Model:	P2000			
Performed:	Mon Feb 18 07:40:11 2008			
Calibrator Value:	1.0	GAPI		
Background Reading:	0.0	cps		
Calibrator Reading:	1.0	cps		
Sensitivity:	0.2700	GAPI/cps		
Neutron Calibration Report				
Serial Number:	5145			
Tool Model:	G			
Performed:	Wed Feb 06 10:21:29 2008			
Calibrator Value:	1200	NAPI		
Calibrator Reading:	1700	cps		
Sensitivity:	1	NAPI/cps		

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
NEU	36.75		None	0.75	1.50	5.00
			NEU-G (5145) Gearhart Epithermal	5.65	3.50	85.00
GR	31.05		GR-P2000 (2000)	3.67	3.25	40.00
			CDL-poilex (2118)	8.83	4.00	275.00
LSD	22.63					
DCAL	22.22					
SSD	22.05					
CILD SP	10.60 10.60		DIL-G (5375) Gearhart	20.80	4.00	345.00
CILM	6.89	