



**HIGH RESOLUTION INDUCTION  
COMPENSATED DENSITY  
COMPENSATED NEUTRON**

Company Bonanza Creek Energy Operating Co. LLC  
Well Pronghorn D-X-9HNB  
Field Wattenberg  
County Weld  
State Colorado

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Well Pronghorn D-X-9HNB  
Field Wattenberg  
County Weld State Colorado

Location: API #: 05123392860000  
SHL: 1273' FSL & 260' FWL  
SWSW  
SEC 9 TWP 5N RGE 61W  
Permanent Datum GL Elevation 4637  
Log Measured From KB  
Drilling Measured From KB  
Other Services: None  
Elevation: K.B. 4653, D.F. 4652, G.L. 4637

Date	July 23, 2014
Run Number	1
Depth Driller	5530
Depth Logger	5527
Bottom Logged Interval	5527
Top Log Interval	Casing
Casing Driller	9+5/8" 36# @ 462
Casing Logger	462
Bit Size	8+3/4"
Type Fluid in Hole	WBM
Density / Viscosity	8.8 / 35
pH / Fluid Loss	7.5 / NA
Source of Sample	Flowline
Rm @ Meas. Temp	2.60 @ 80 F
Rmf @ Meas. Temp	2.30 @ 80 F
Rmc @ Meas. Temp	3.50 @ 80 F
Source of Rmf / Rmc	Calc / Calc
Rm @ BHT	1.30 @ 160 F
Time Circulation Stopped	2300 7-22-14
Time Logger on Bottom	0400
Maximum Recorded Temperature	160 F
Equipment Number	48
Location	Ft. Morgan, CO
Recorded By	Schuman
Witnessed By	Mark

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

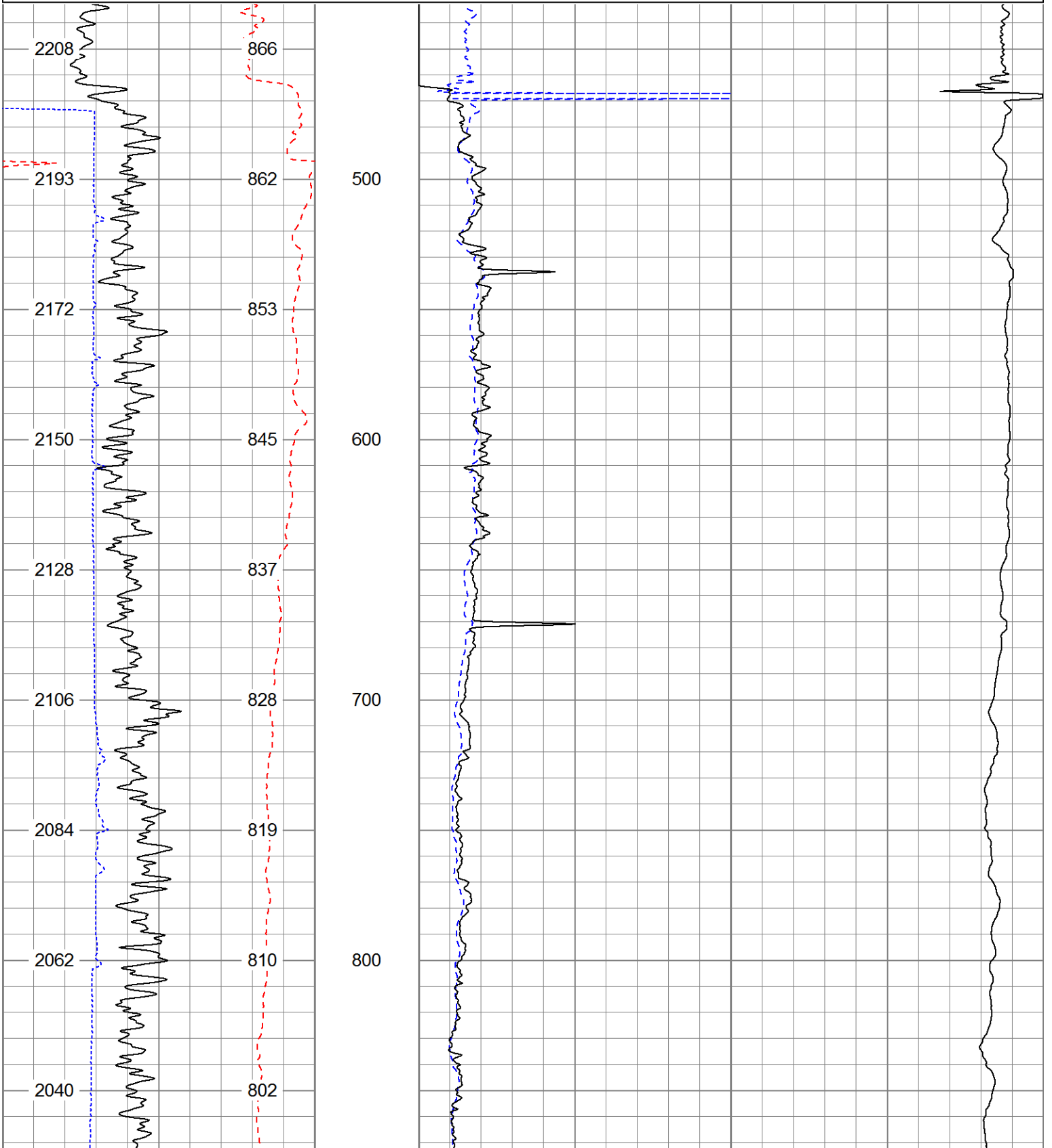
Comments

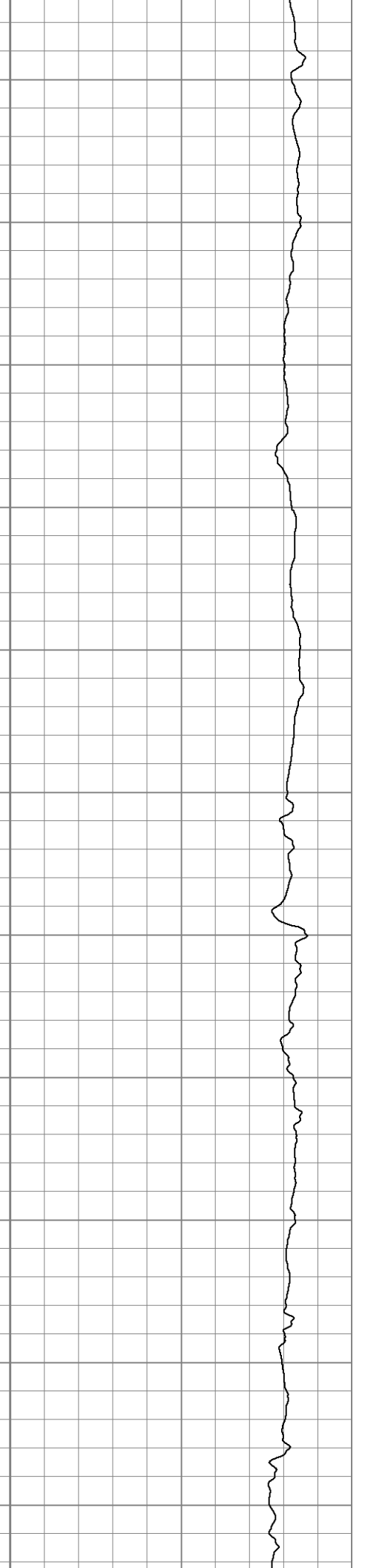
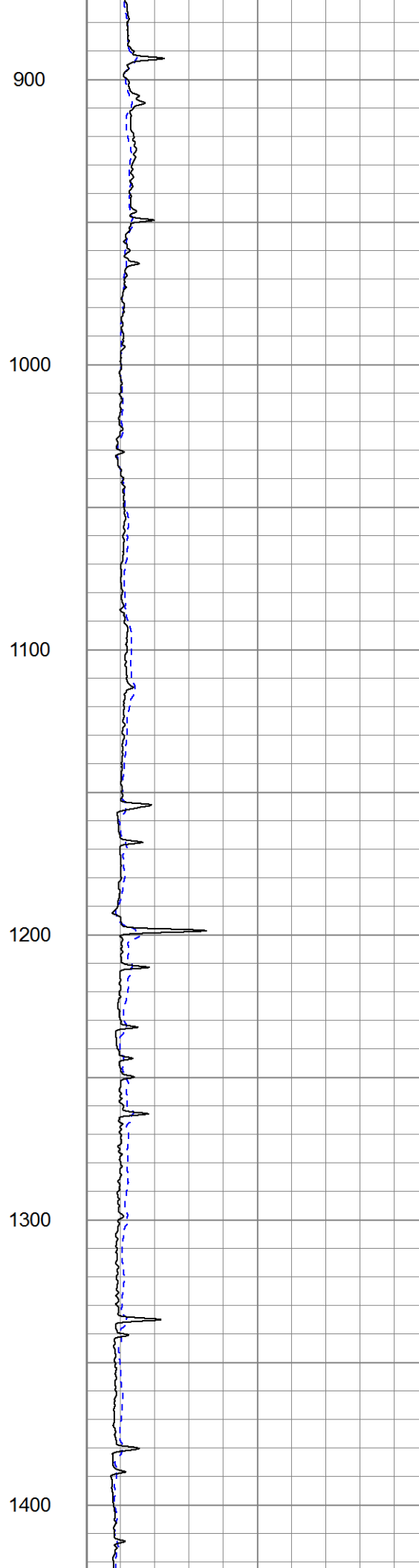
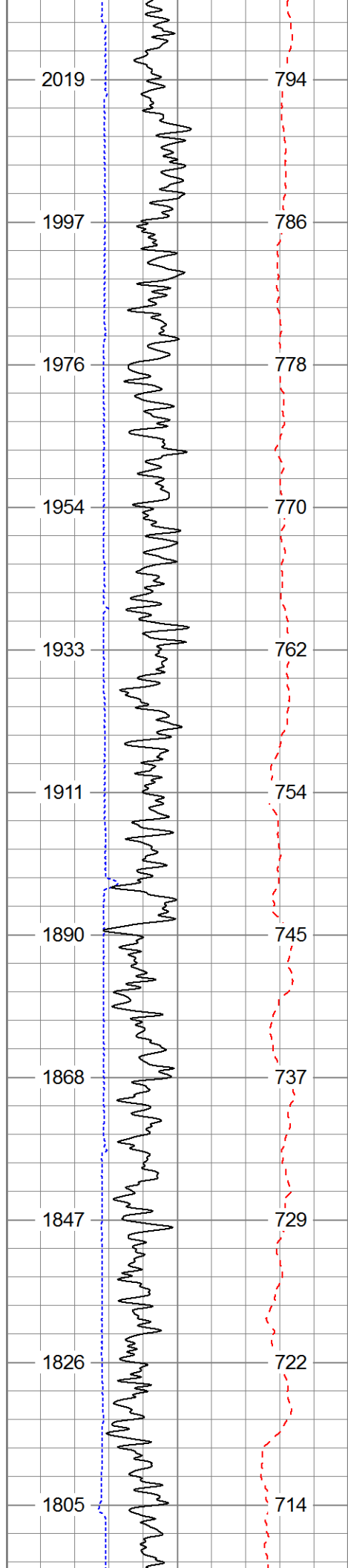
Annular volume calculated for 7" casing  
Cade Drilling Rig 22  
Thank you for using Pioneer Energy Services!

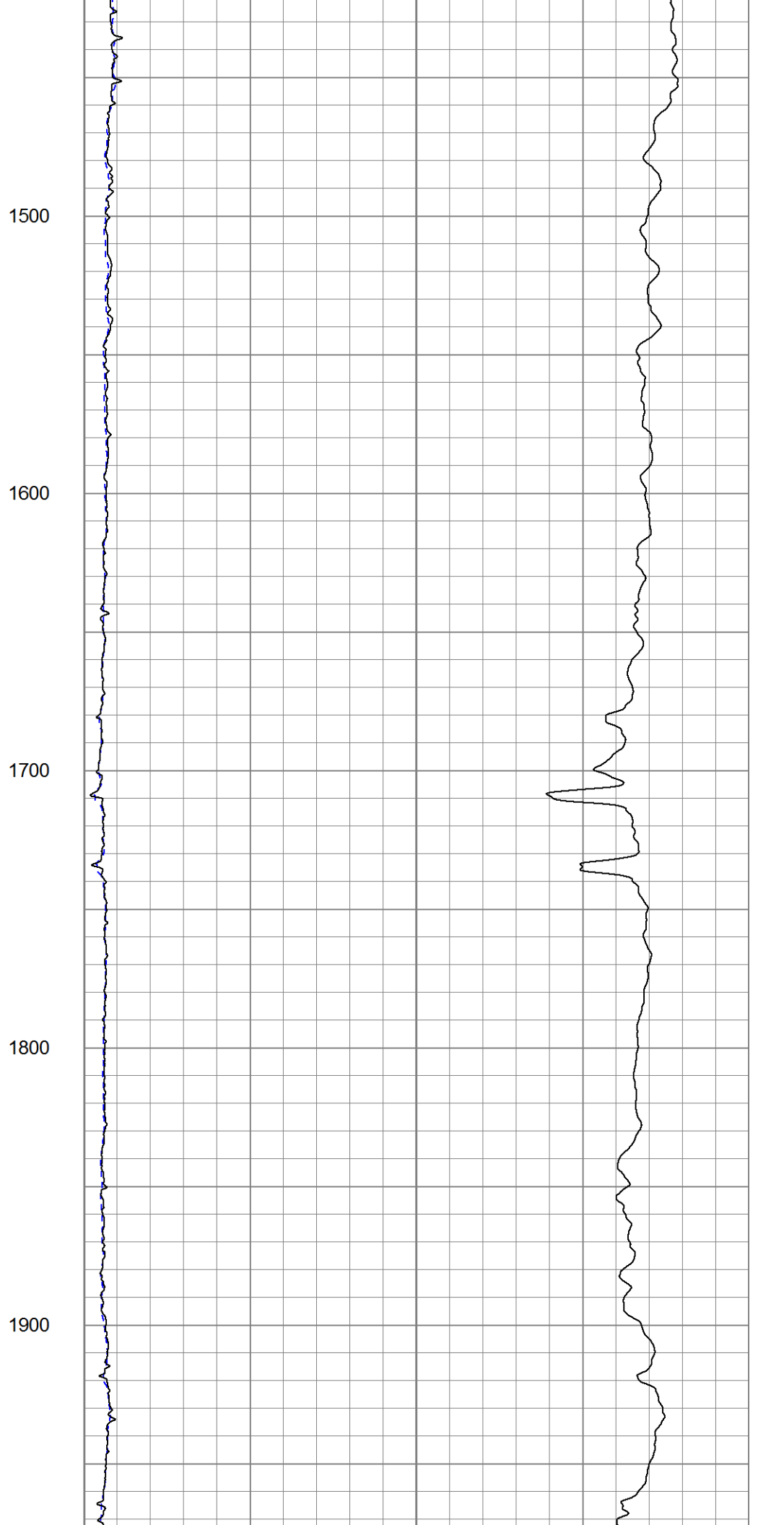
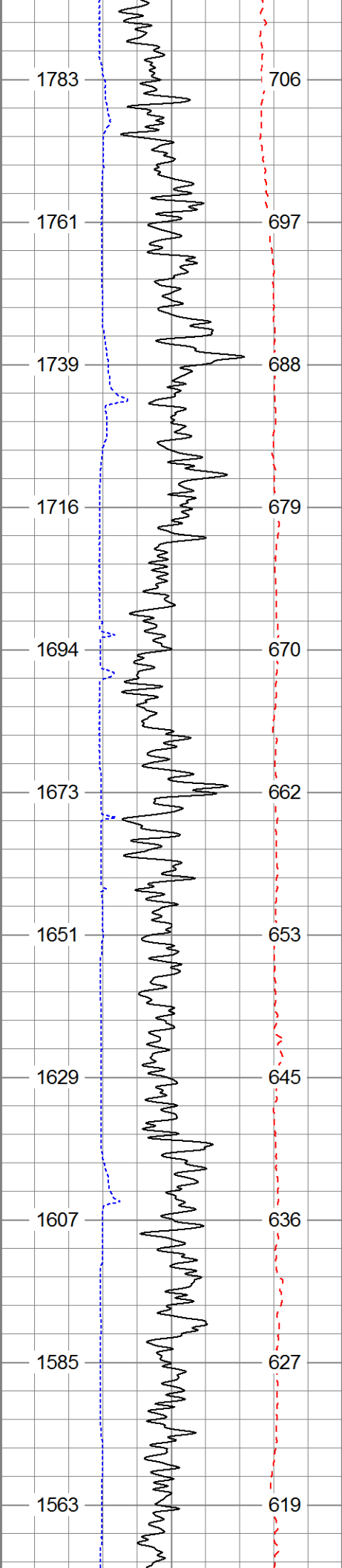
Tool stuck at 5165' while logging up. Closed caliper to free tool.

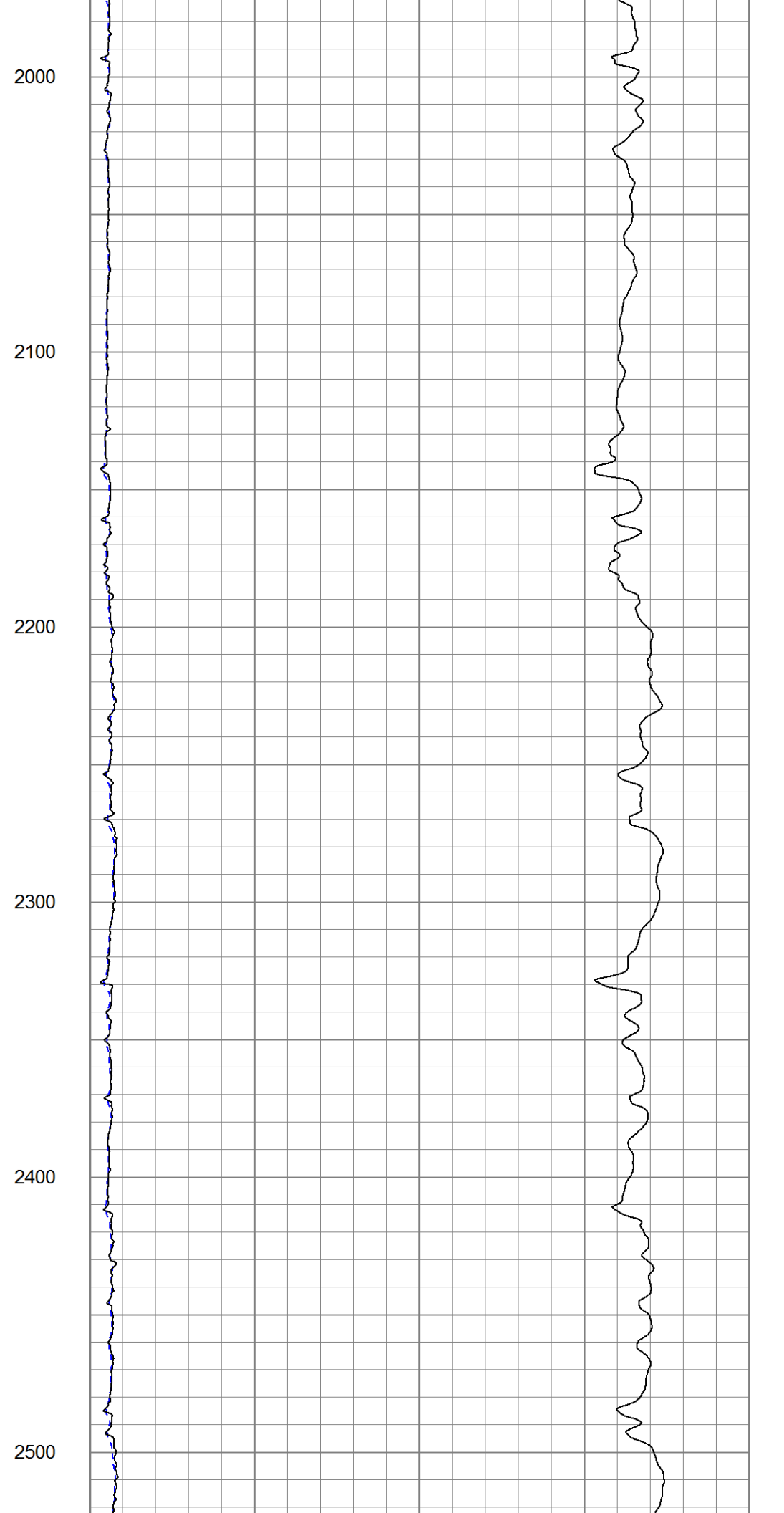
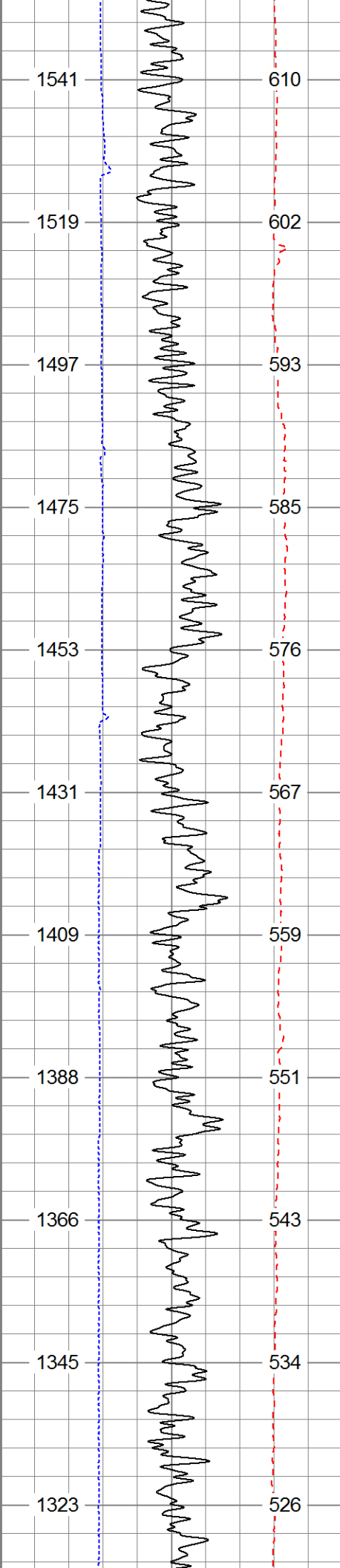
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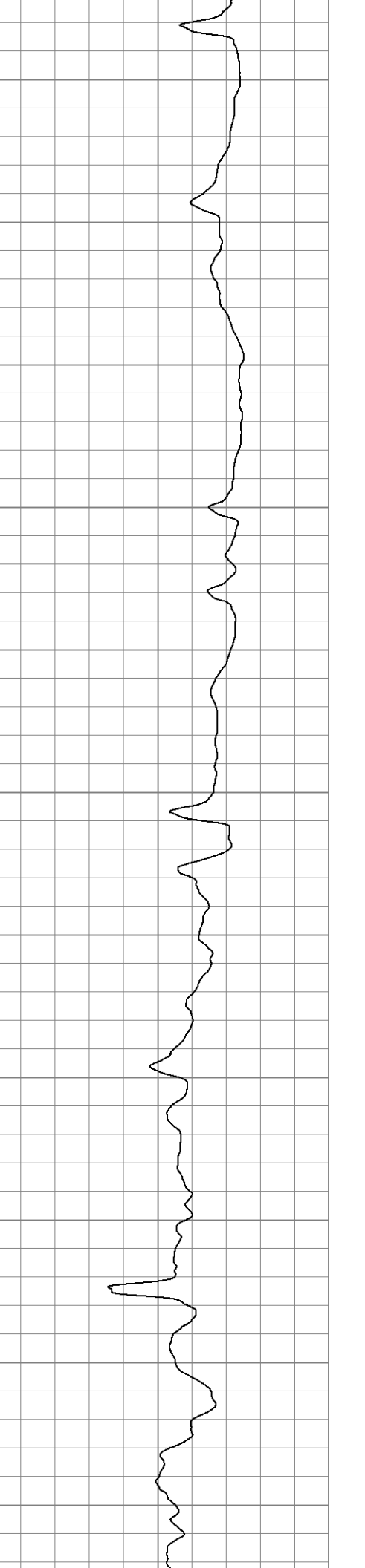
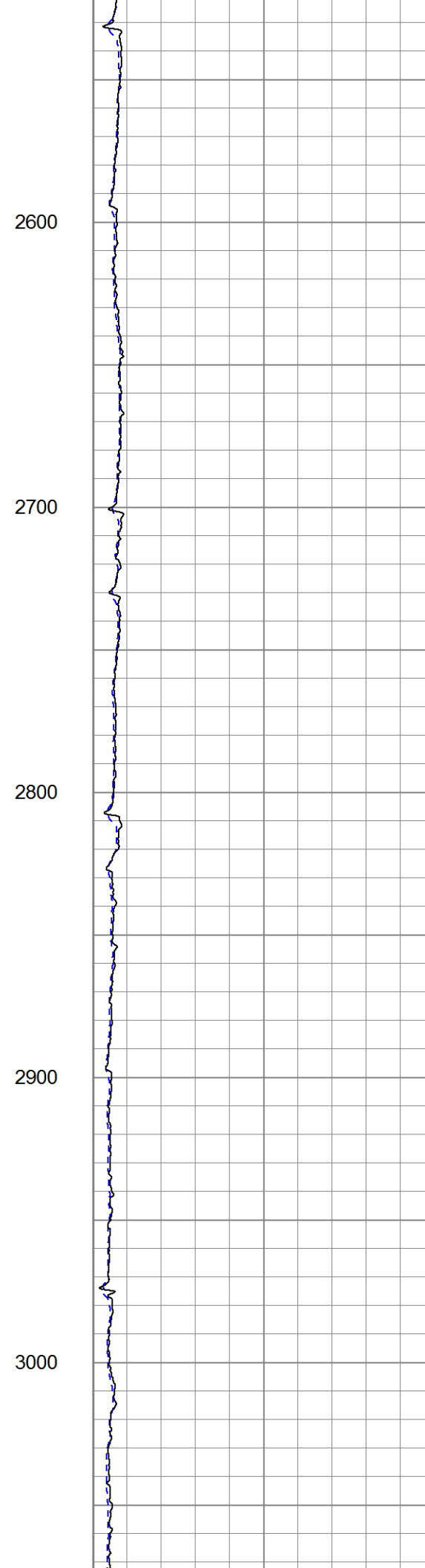
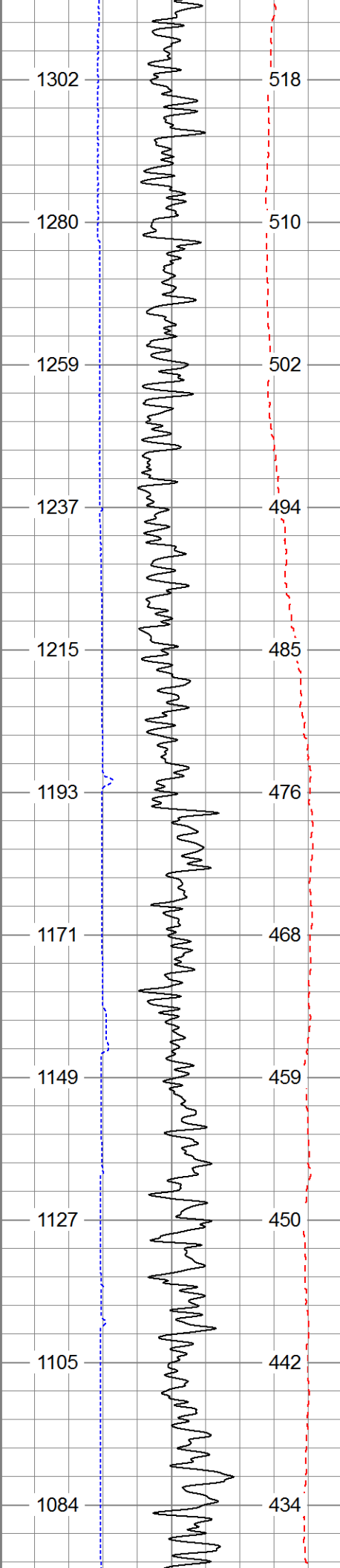
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6	Caliper (in)	16	0	Shallow Resistivity (Ohm-m)	50			
0	Gamma Ray (GAPI)	200	50	RILD (Ohm-m)	500			
TBHV (ft3)		ABHV (ft3)	50	RLL3 (Ohm-m)	500			







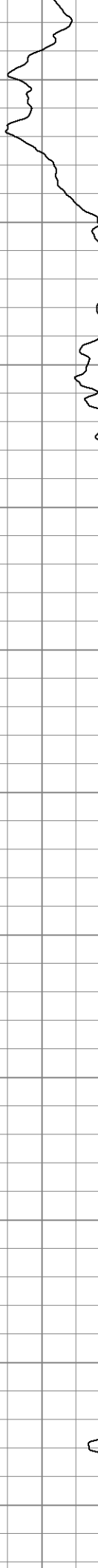
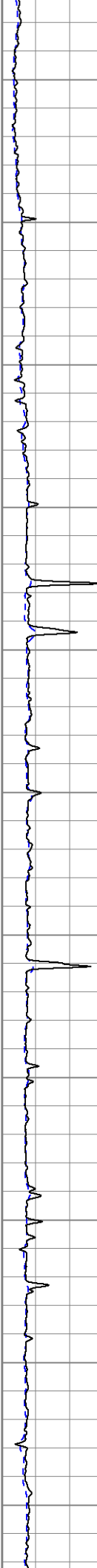
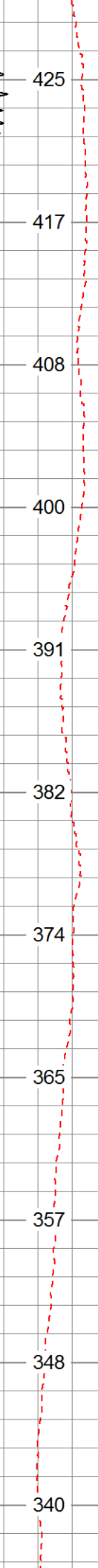
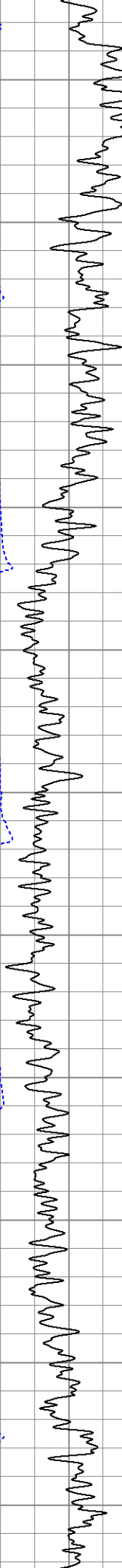




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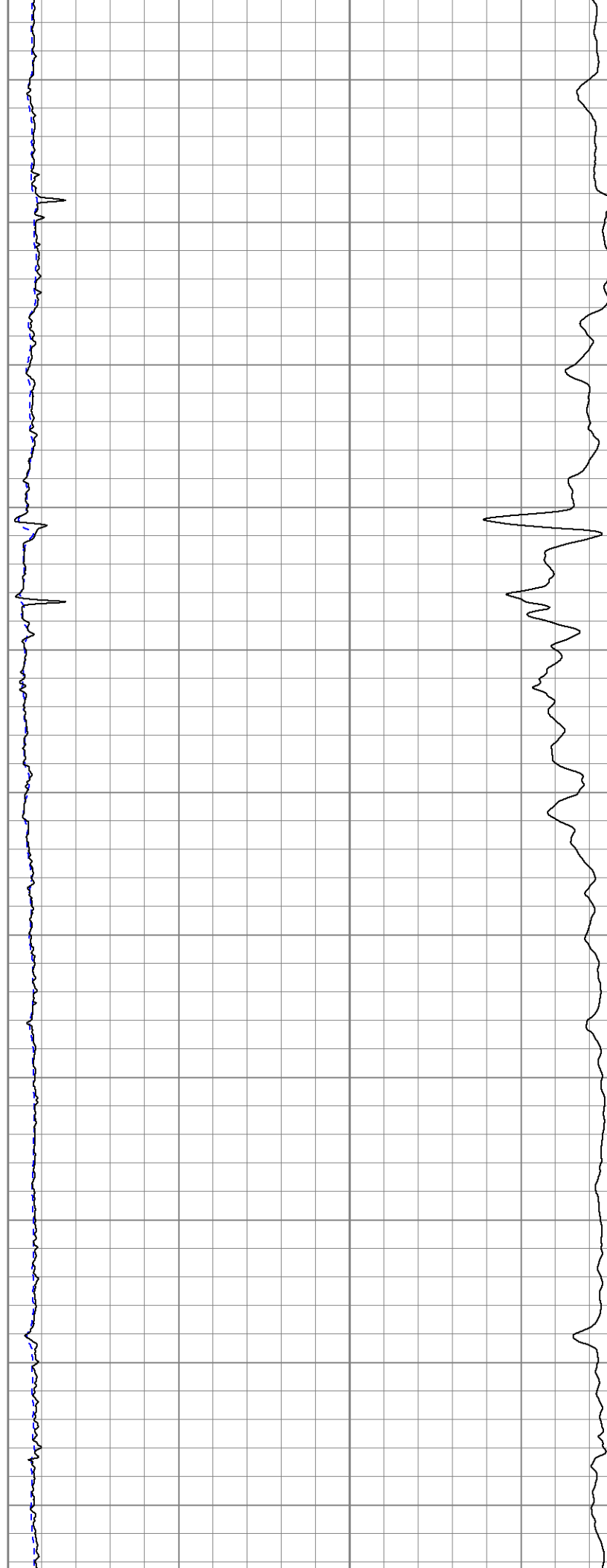
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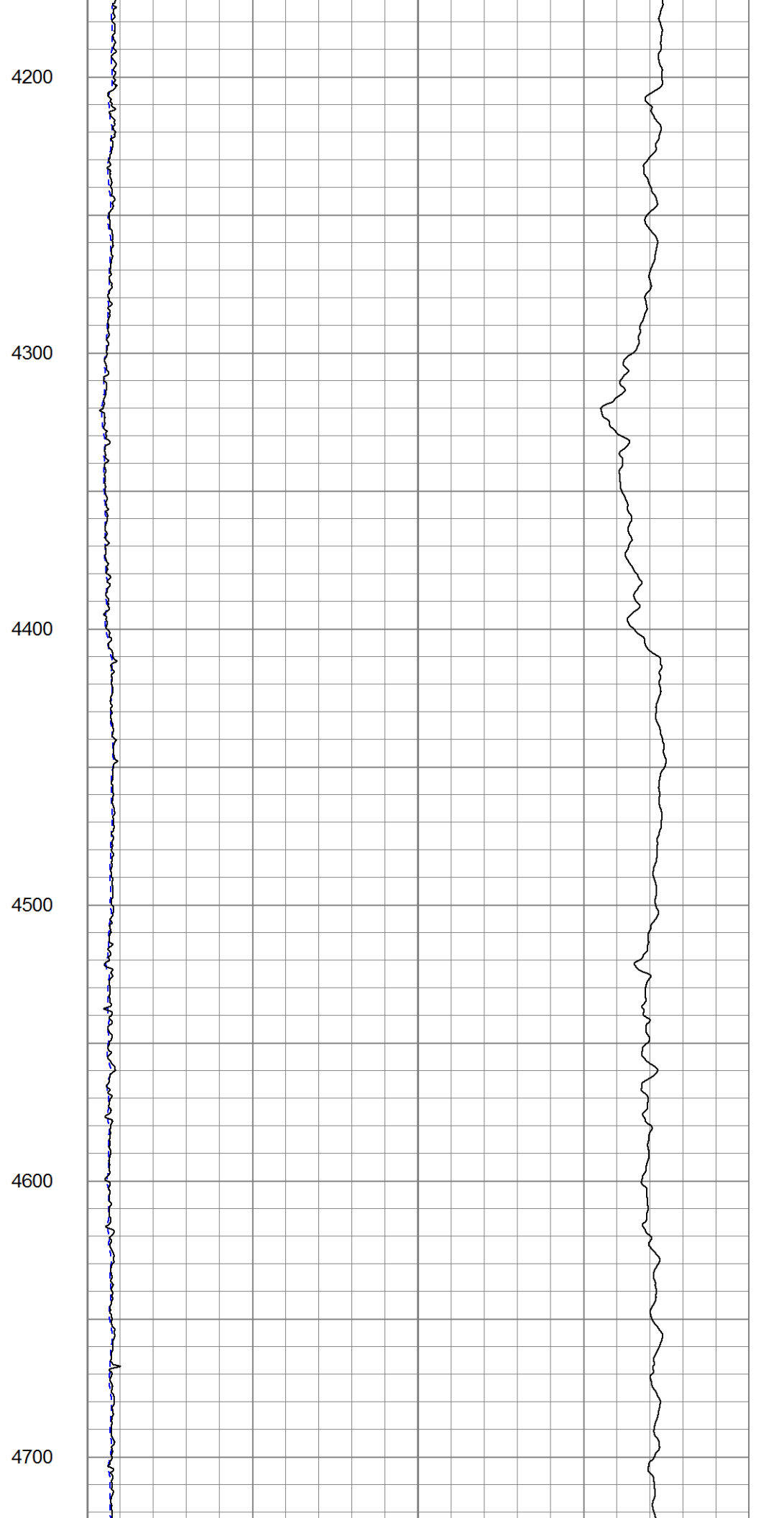
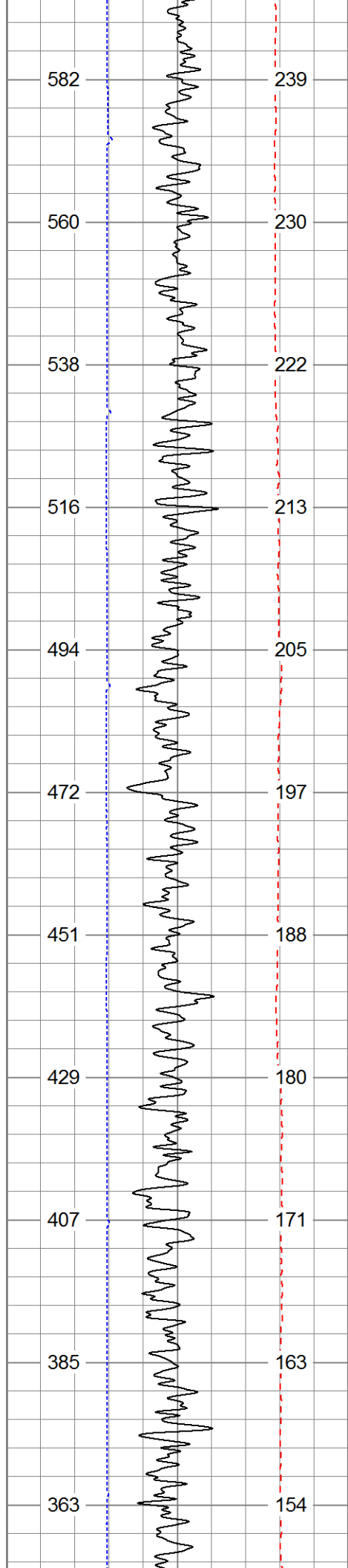
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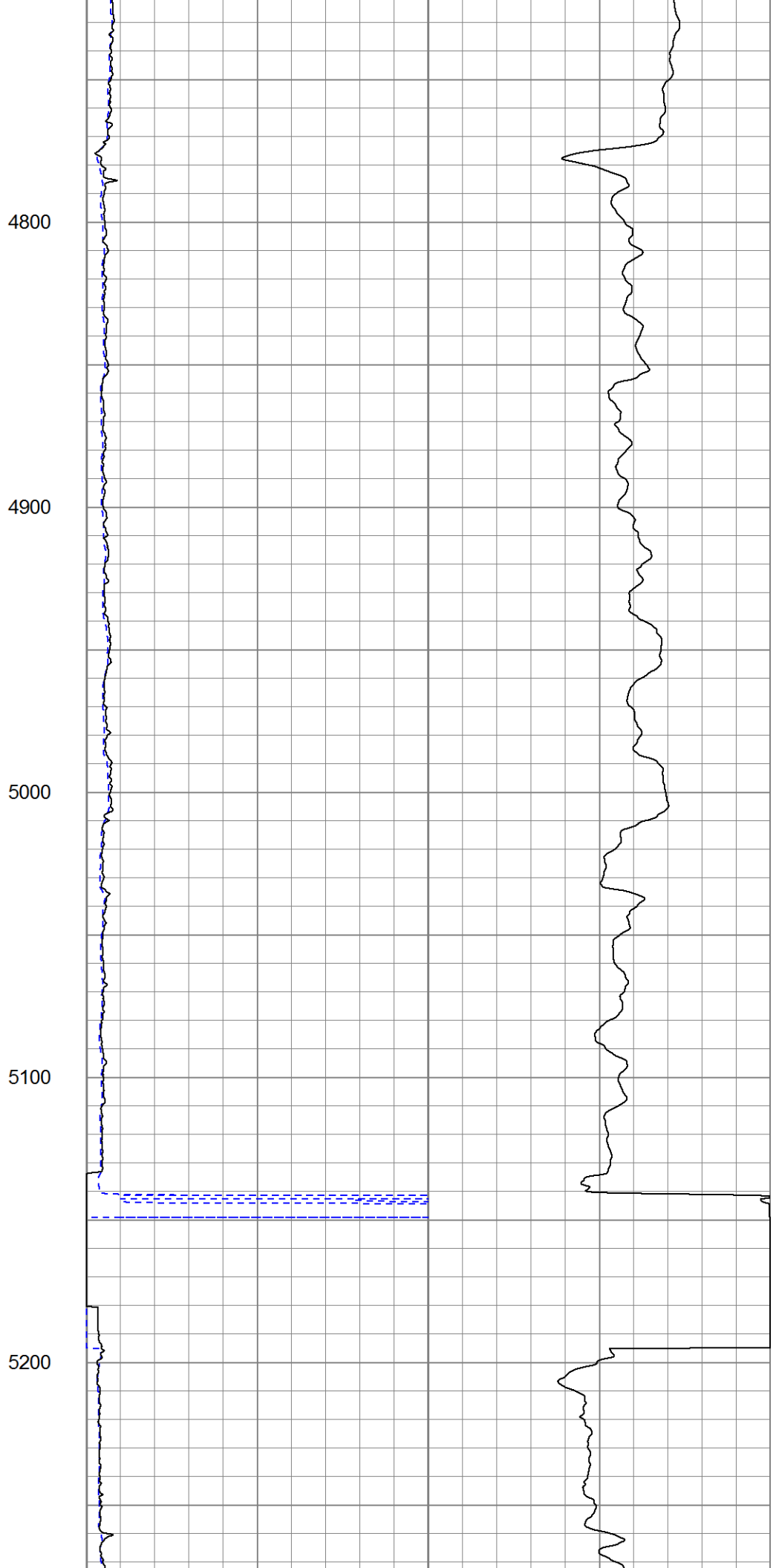
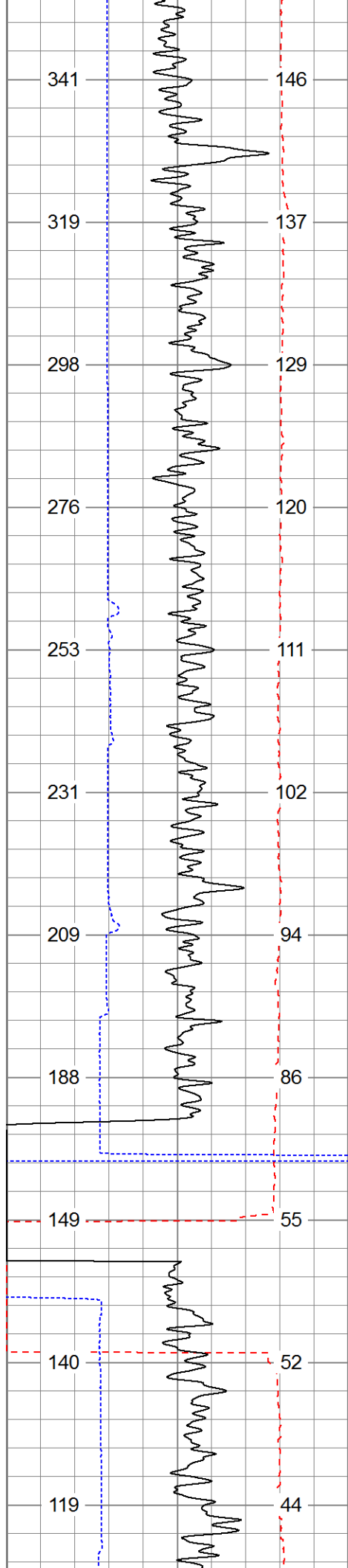


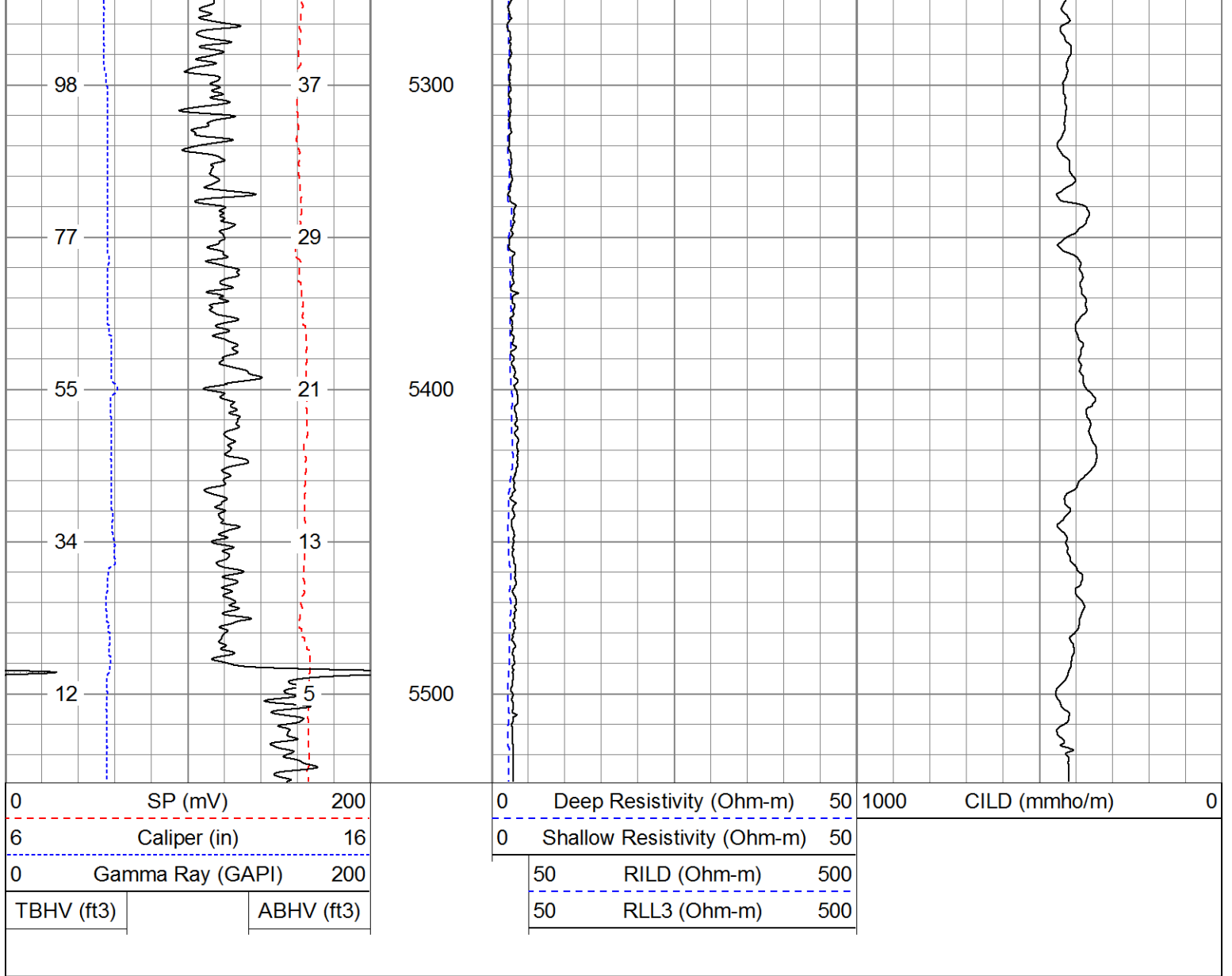
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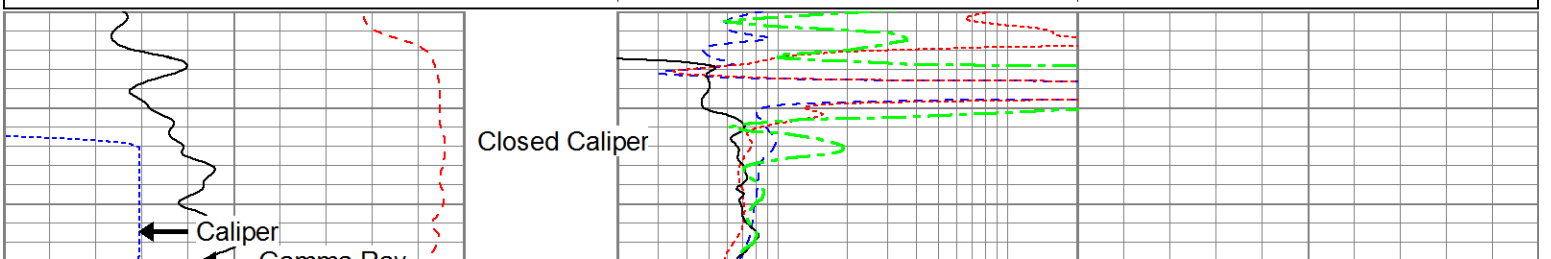


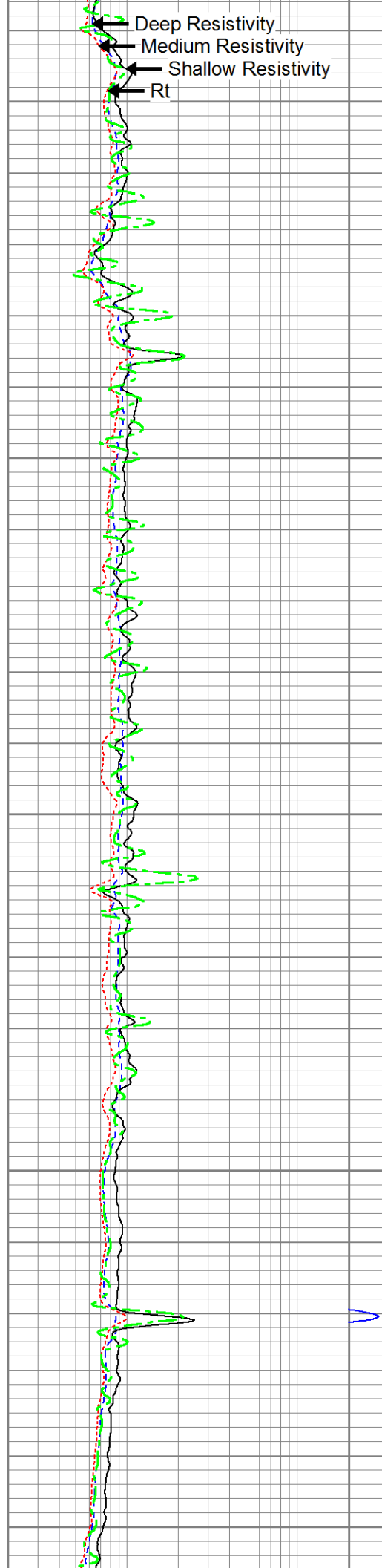
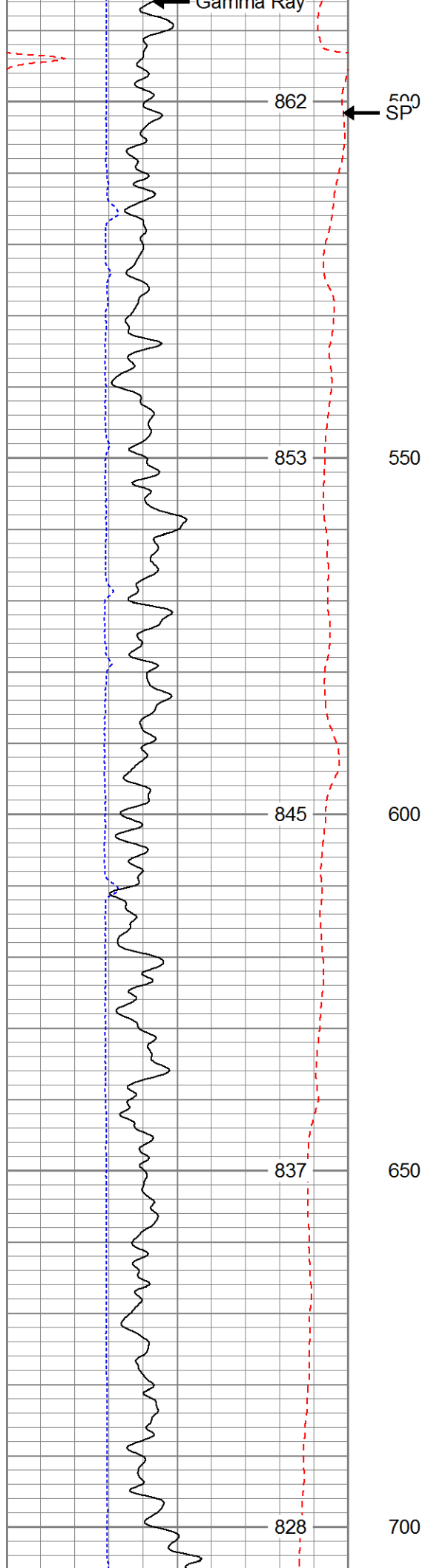
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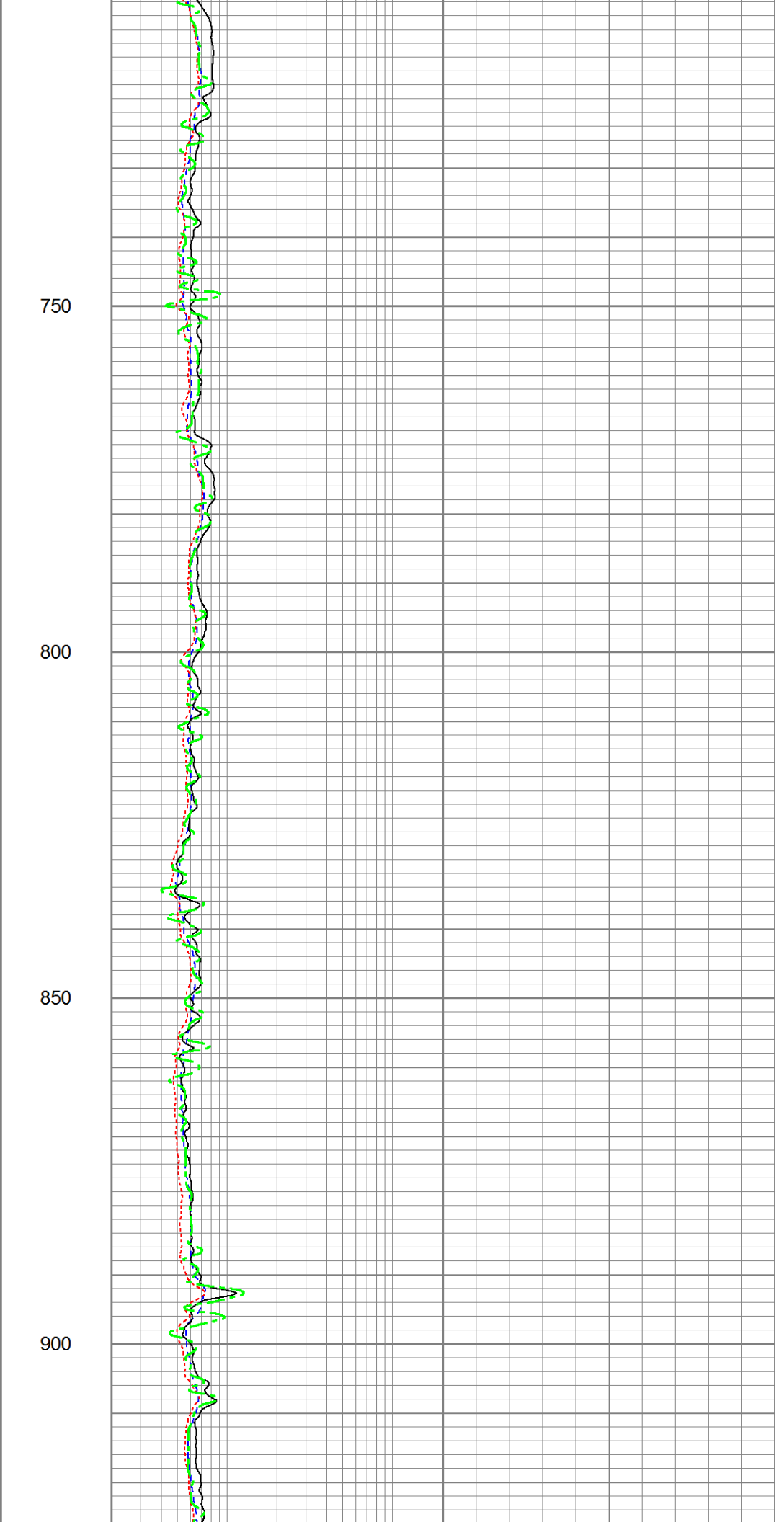
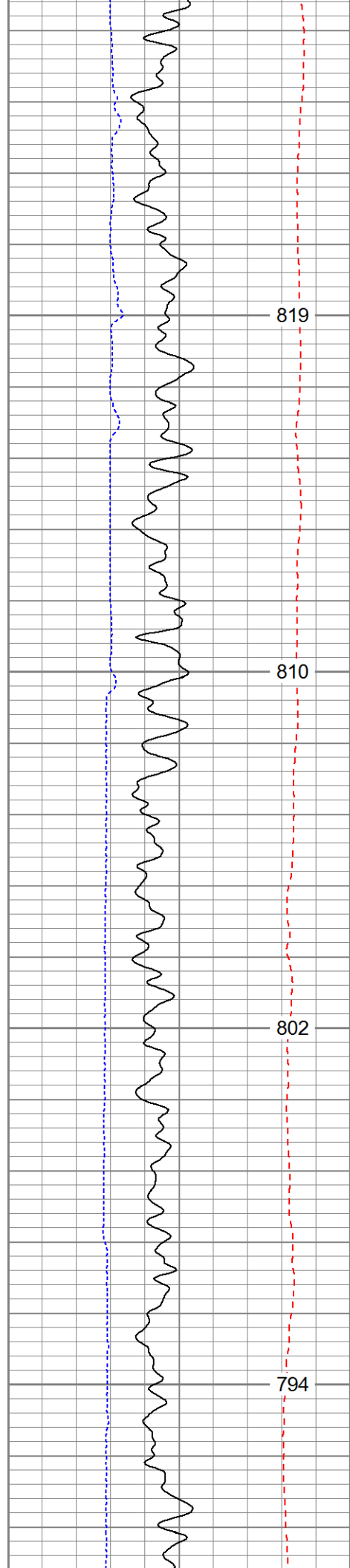
# Main Pass

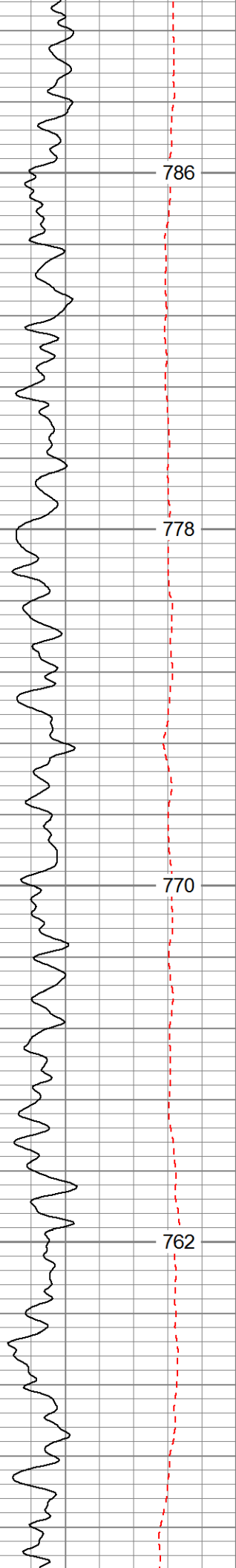
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0	Gamma Ray (GAPI)	200	2	Medium Resistivity (Ohm-m)	200	20	Neutron Porosity (pu)	0
0	SP (mV)	200	2	Shallow Resistivity (Ohm-m)	200			
			2	Rt (Ohm-m)	200			







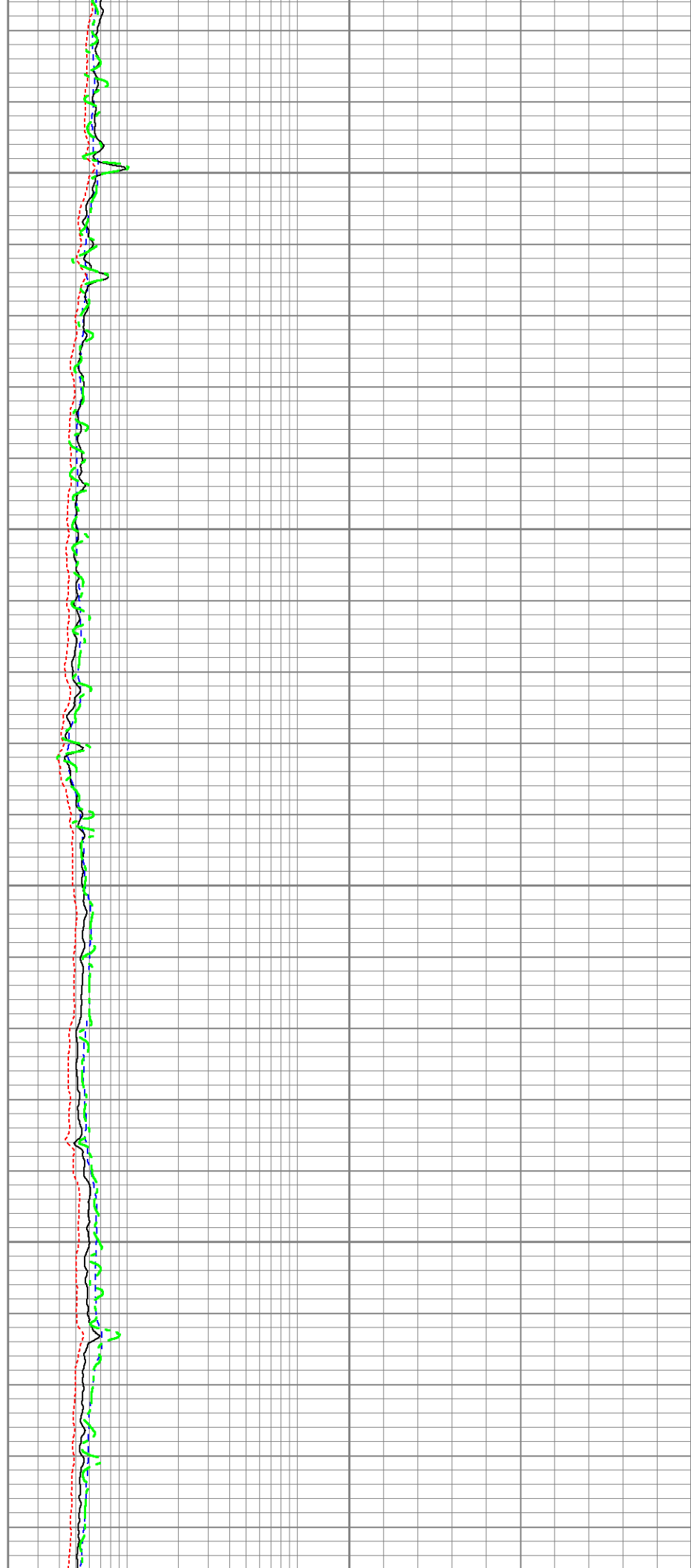


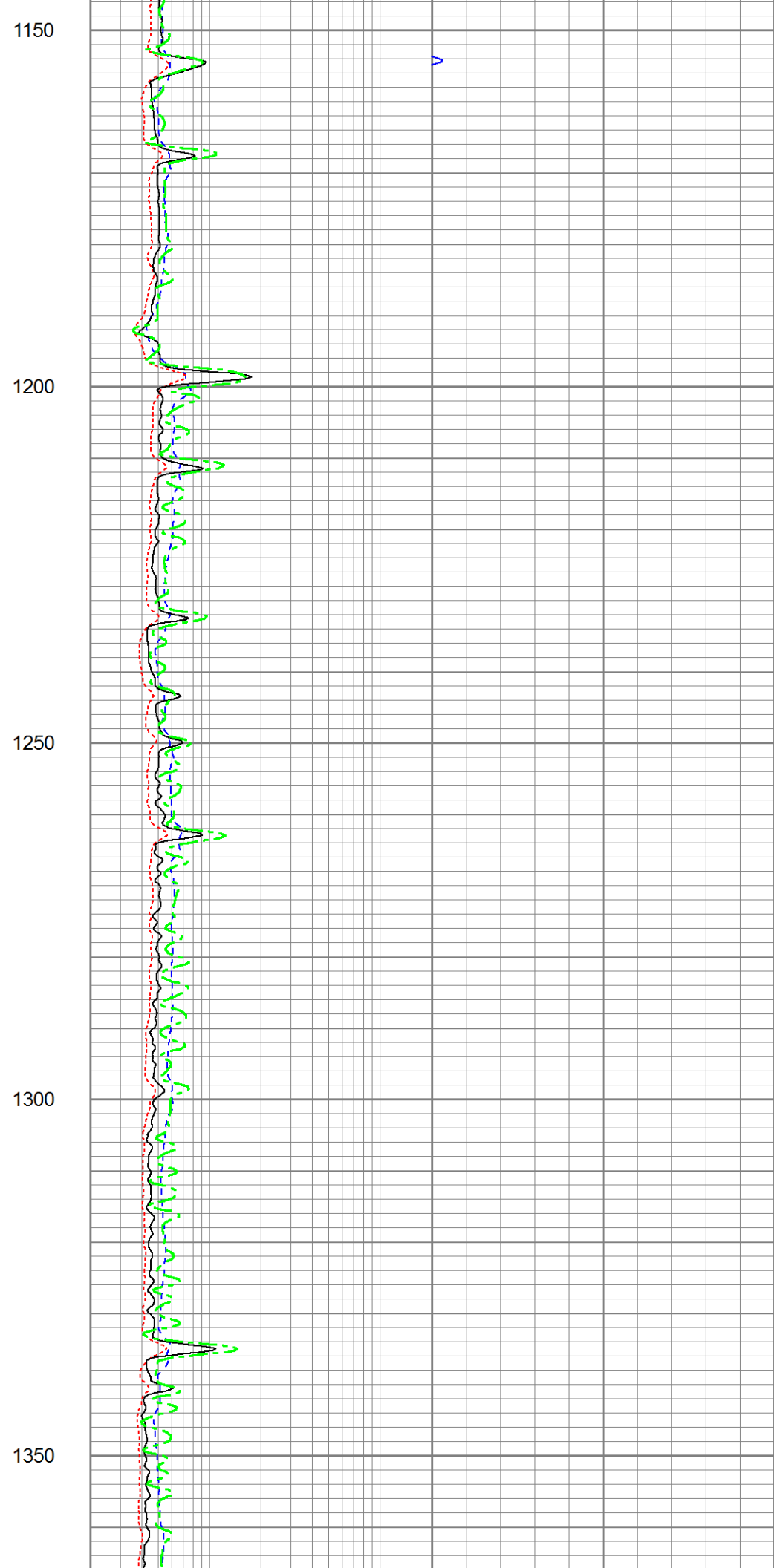
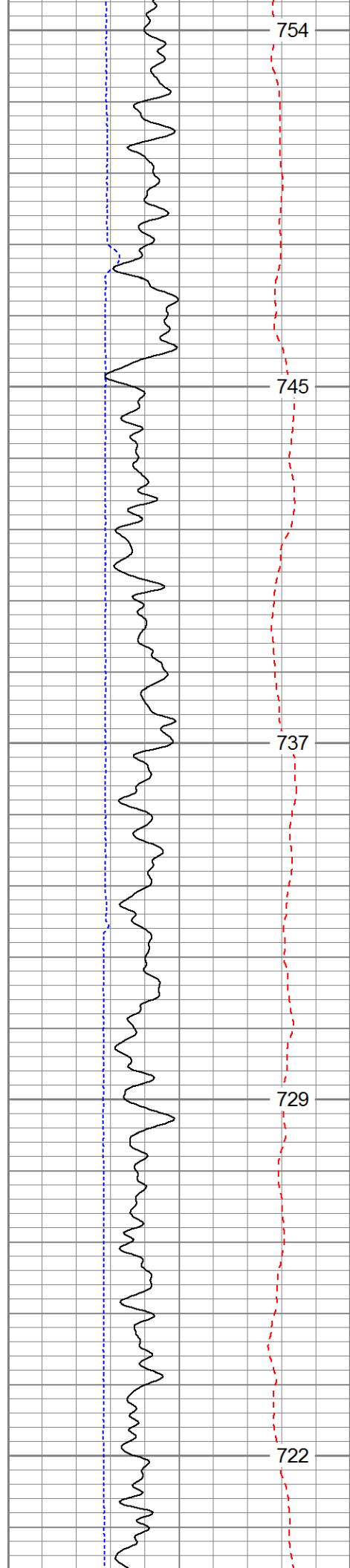
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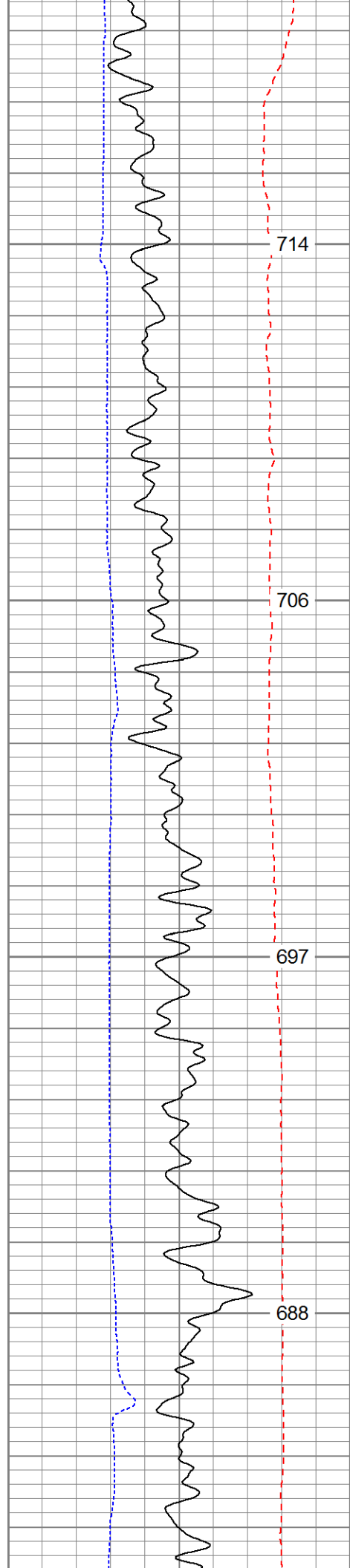
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1450

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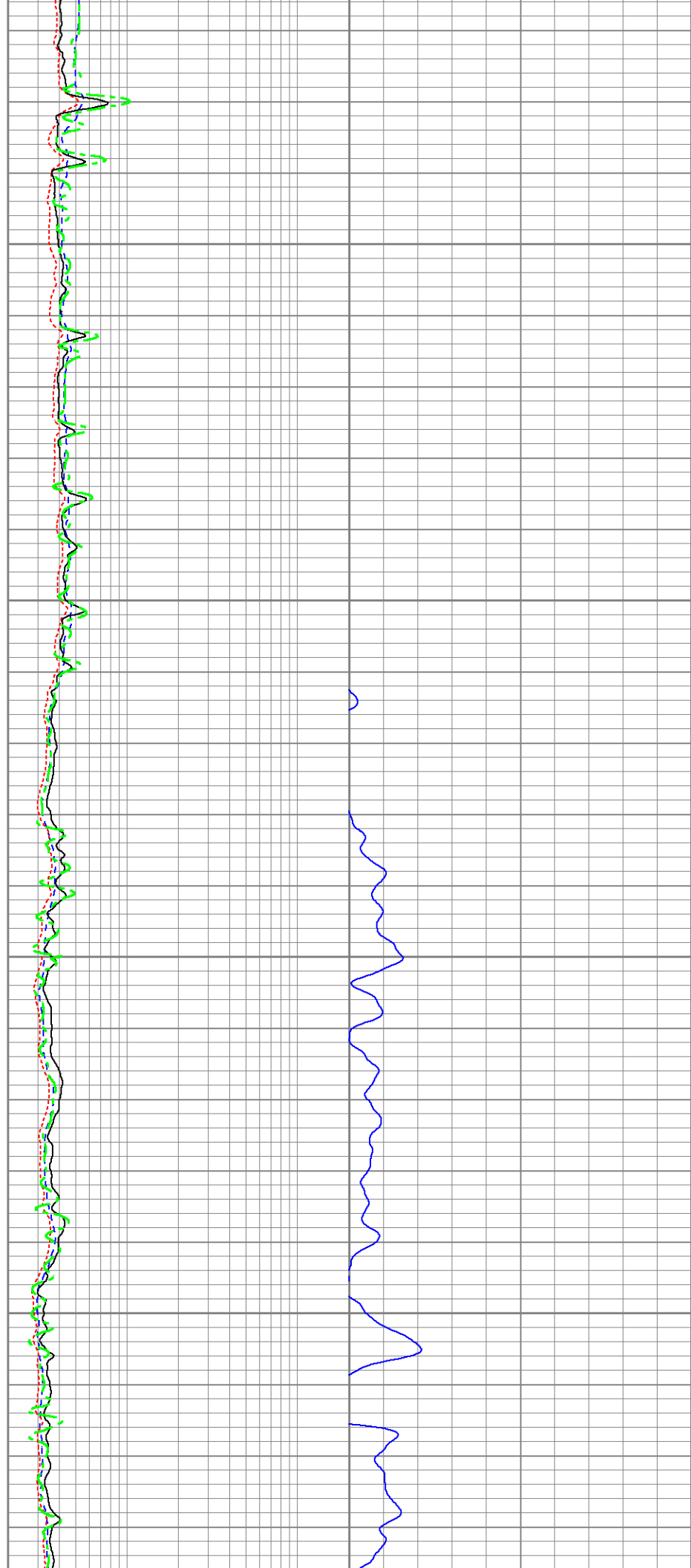
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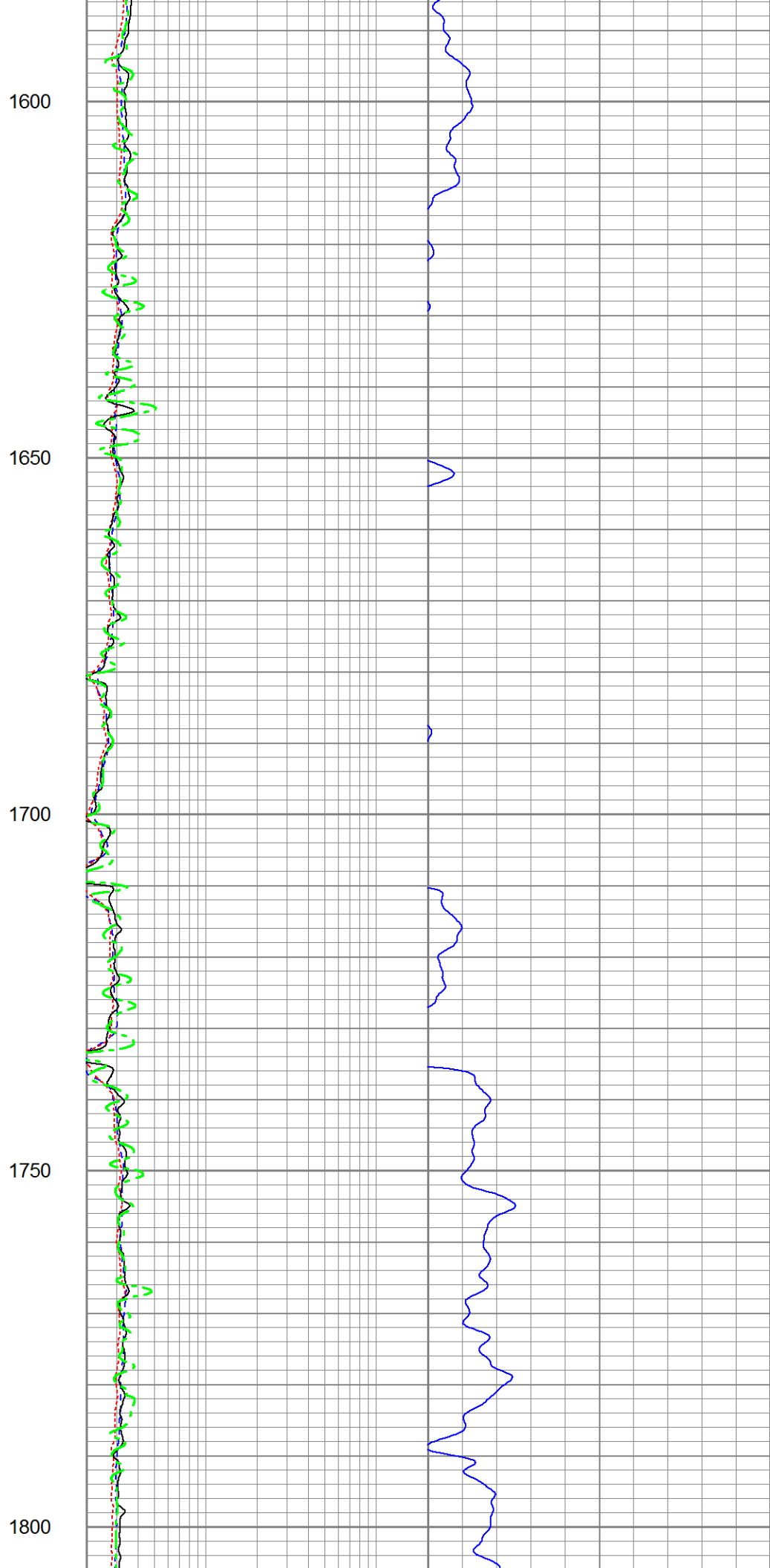
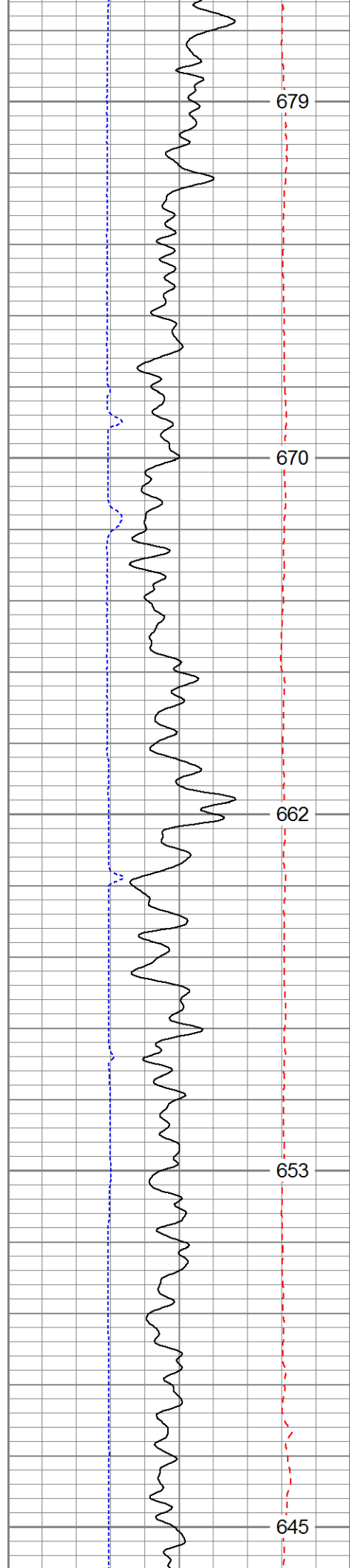
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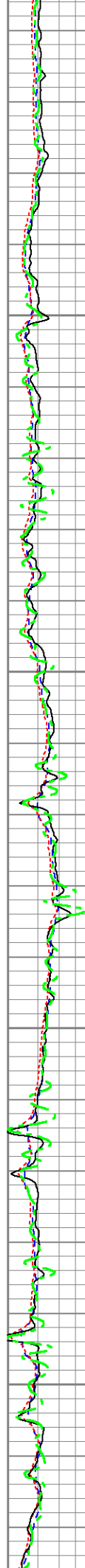
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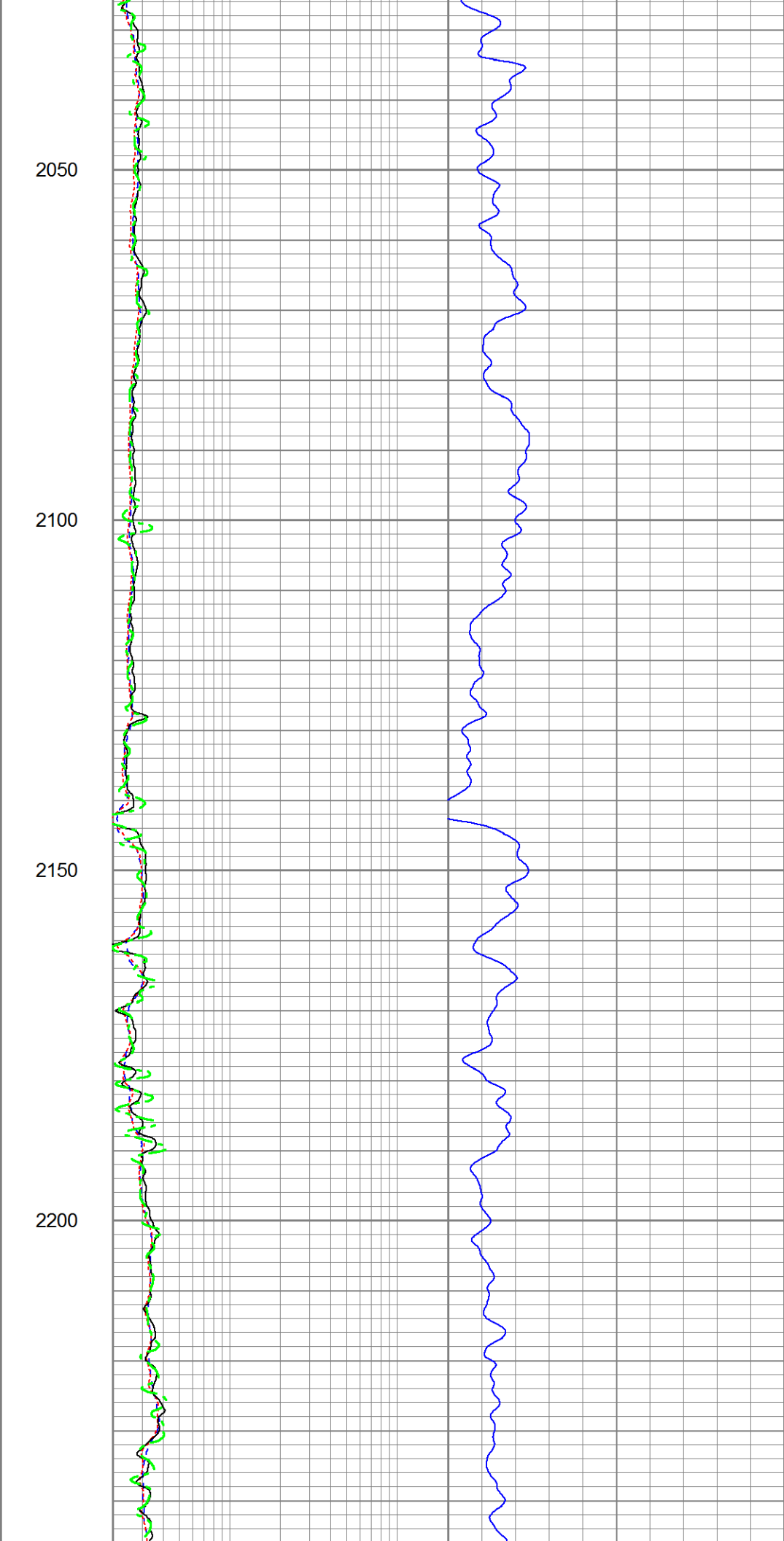
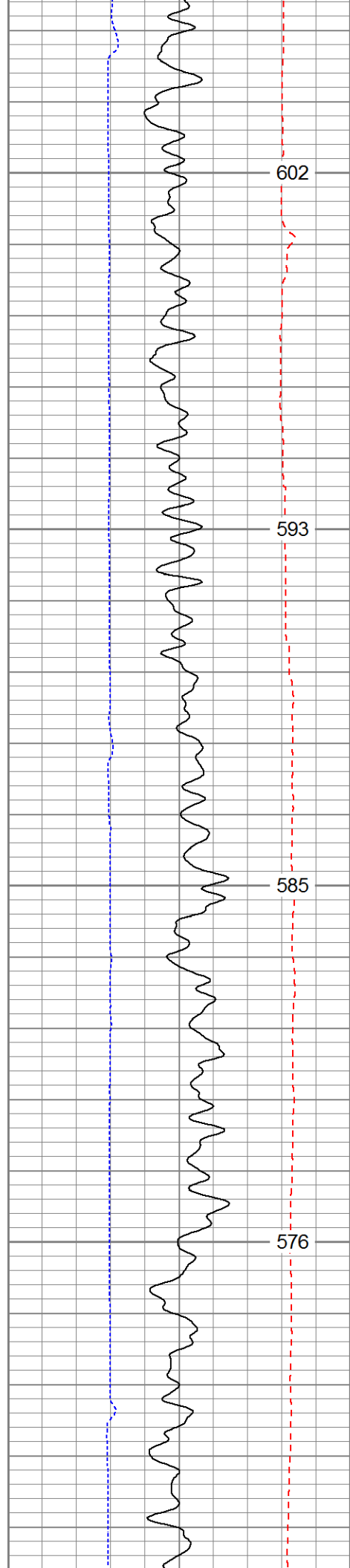
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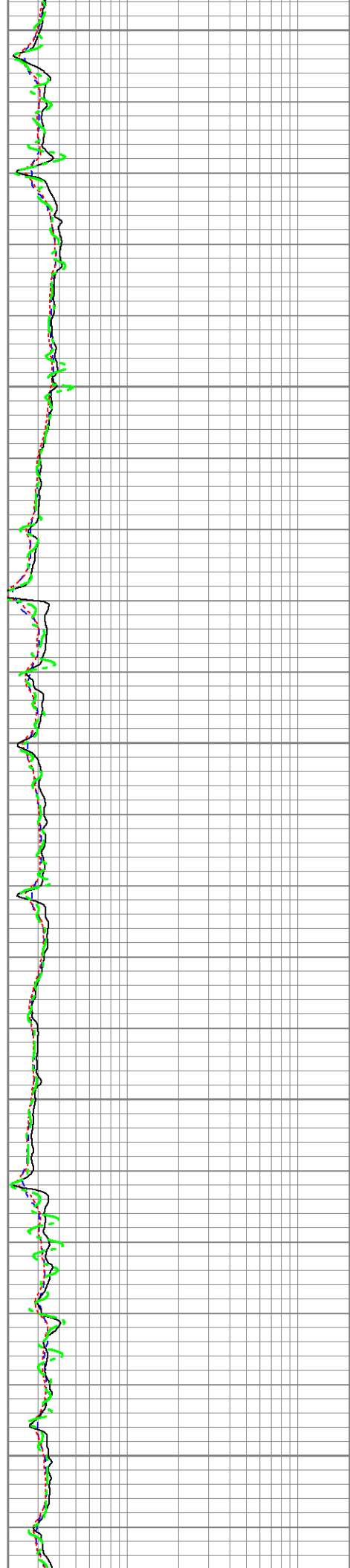
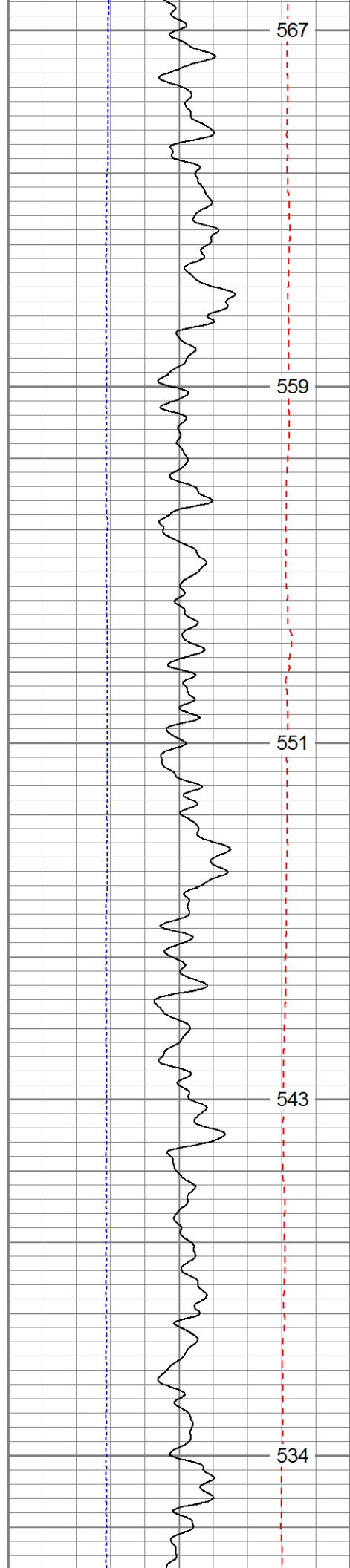
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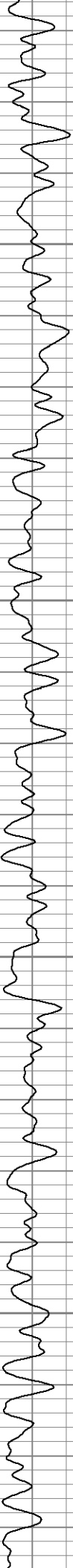
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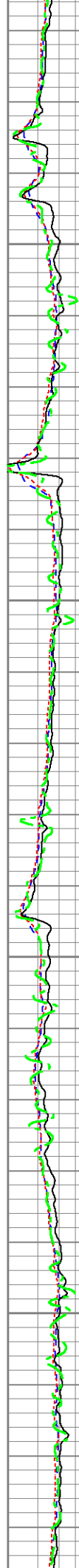


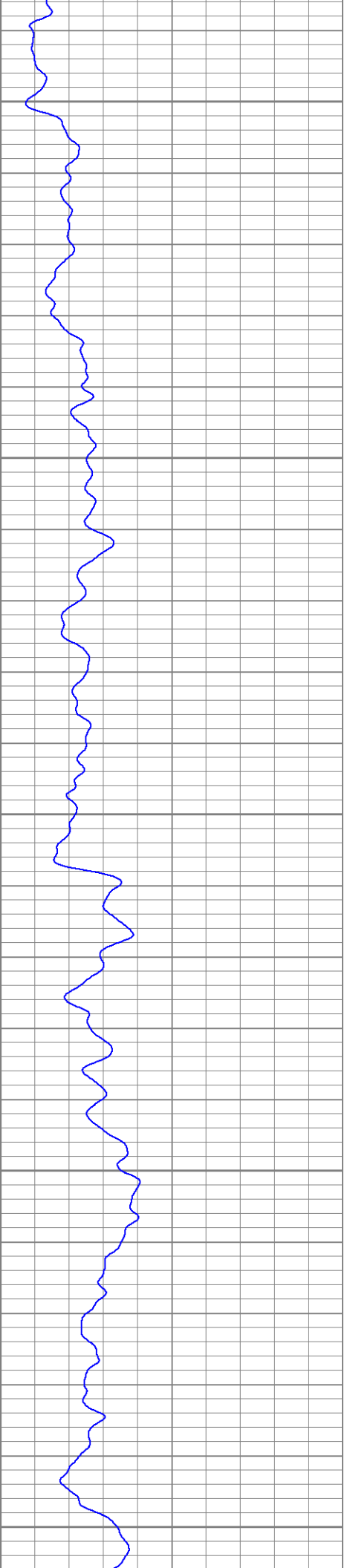
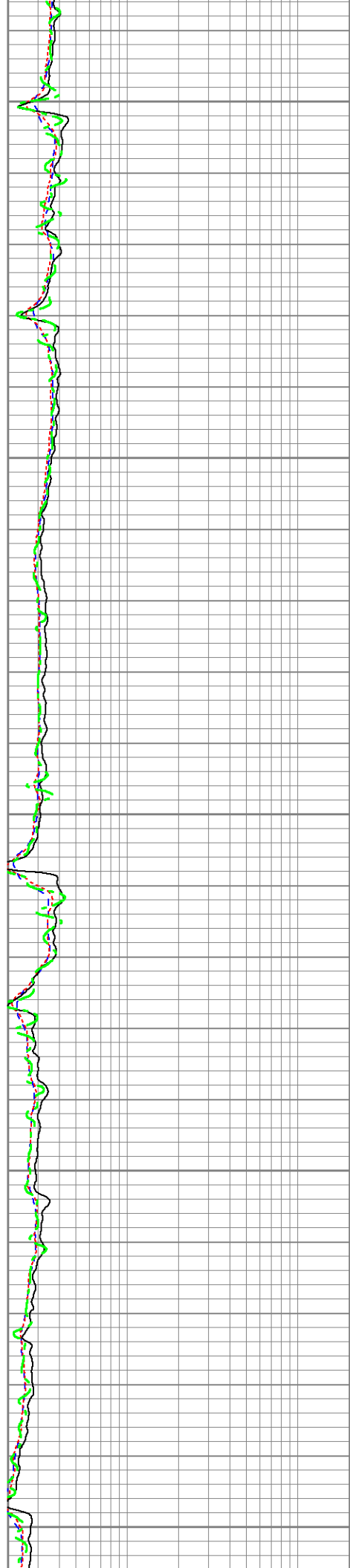
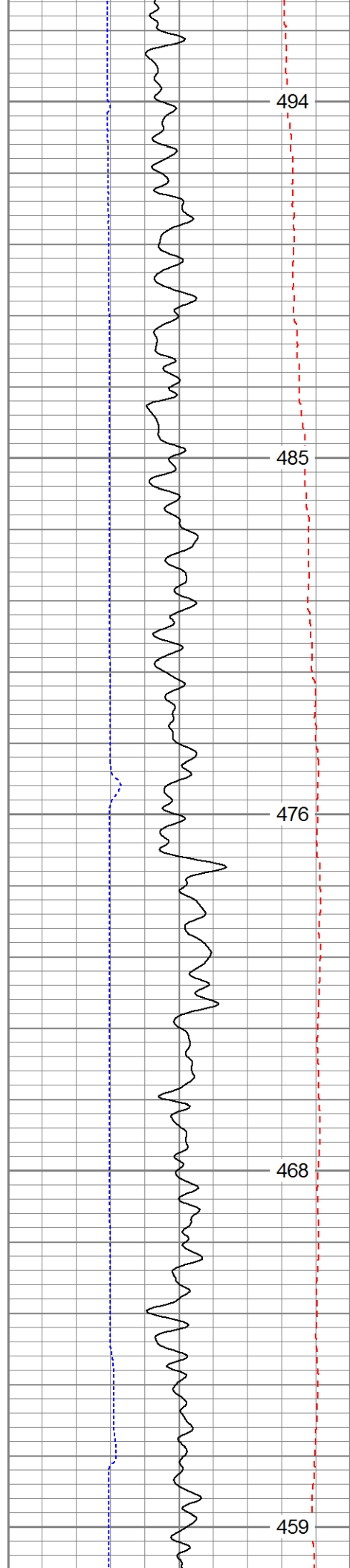
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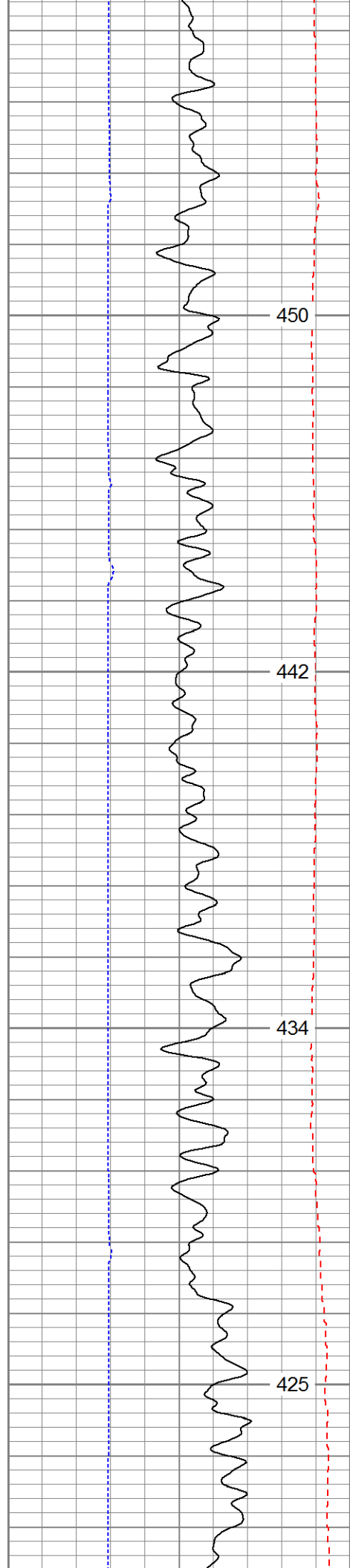
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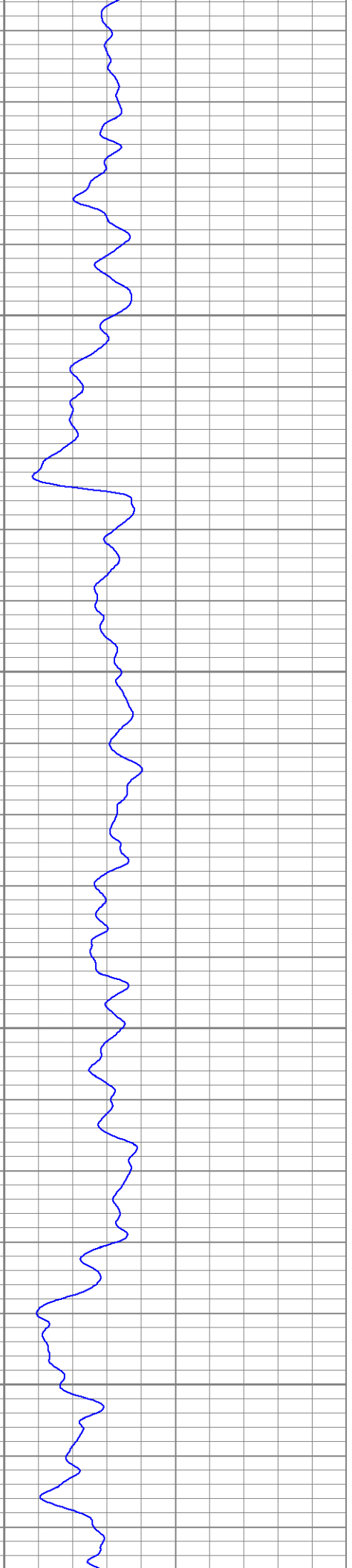
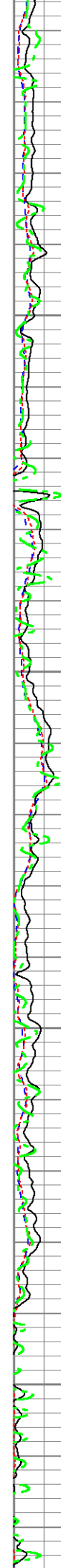
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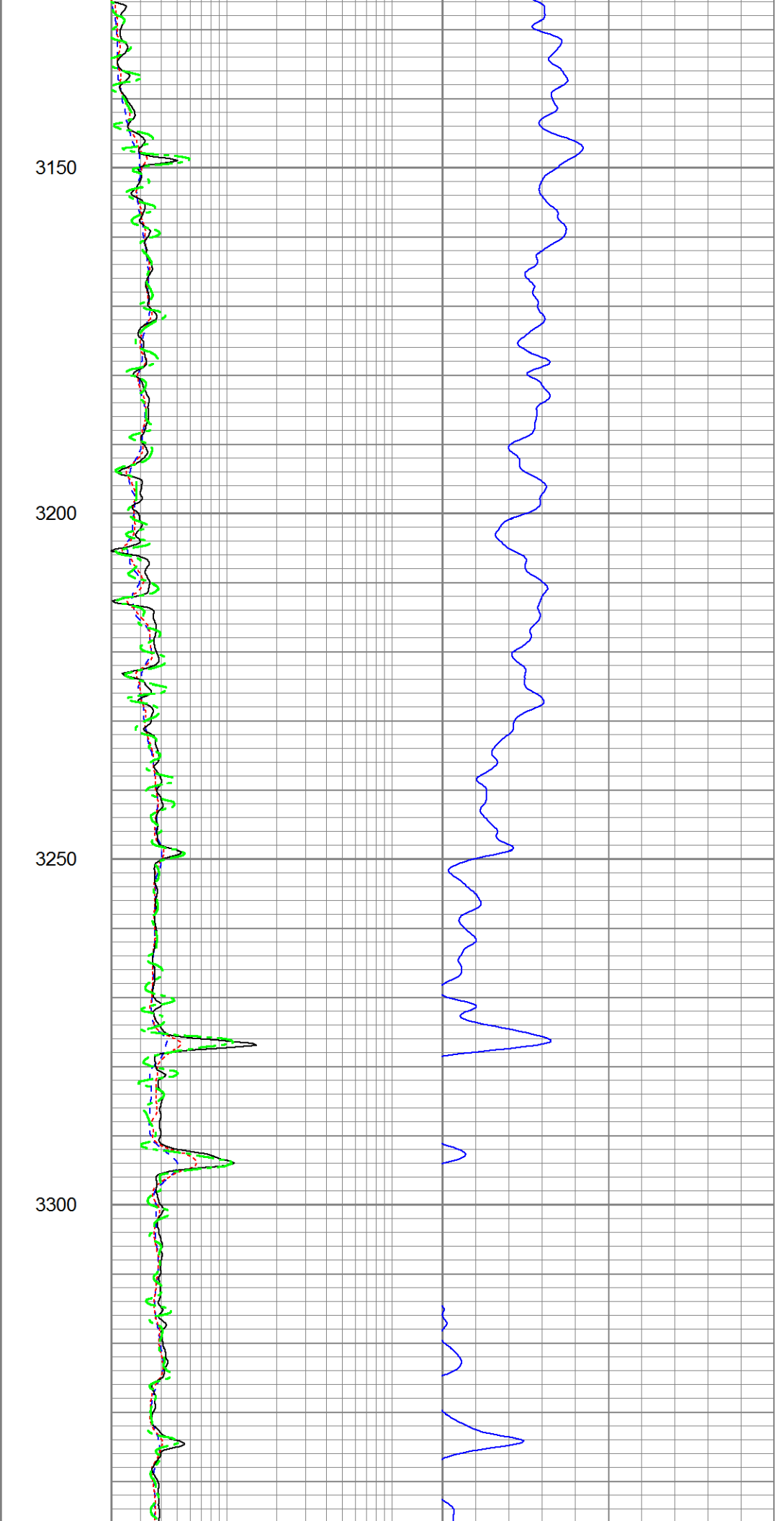
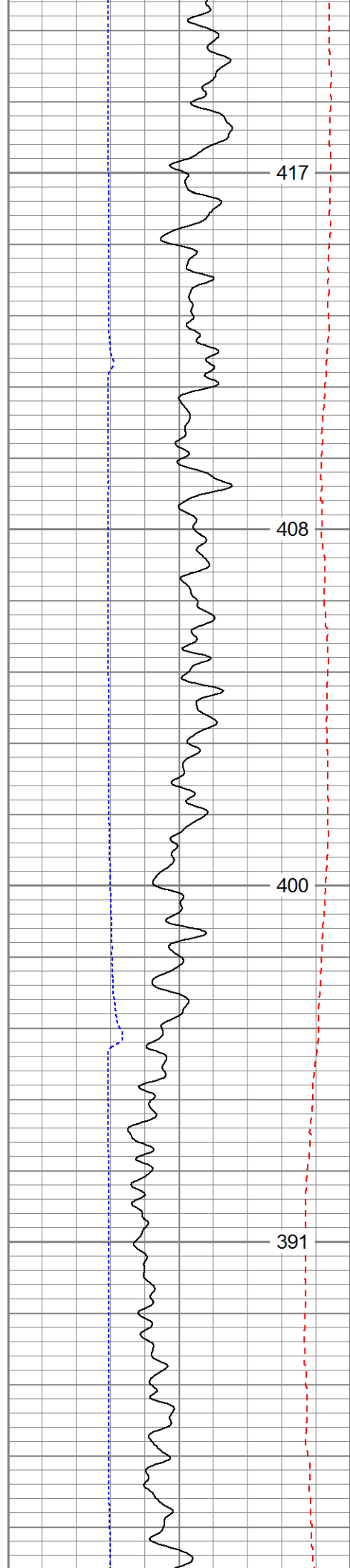
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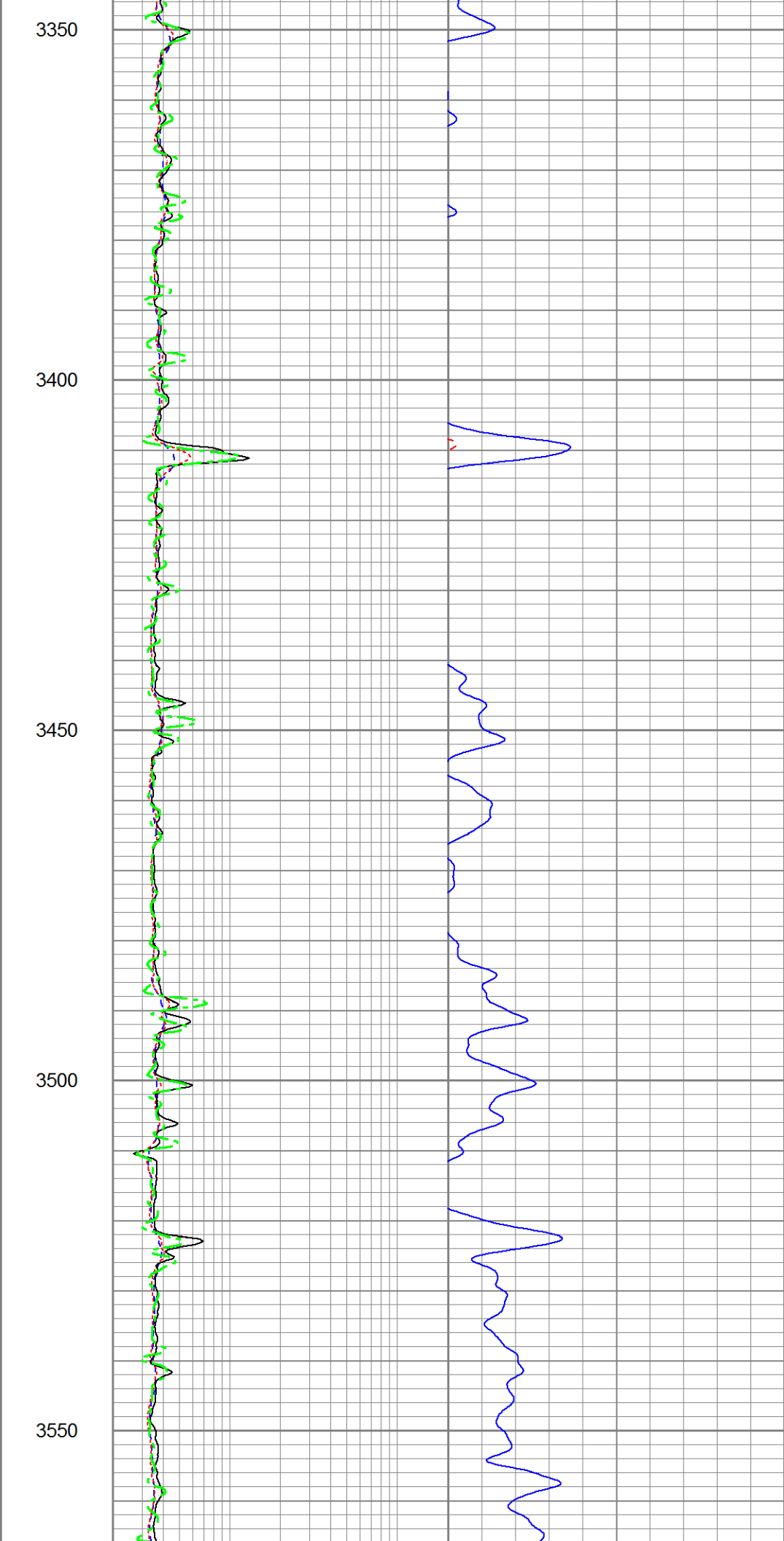
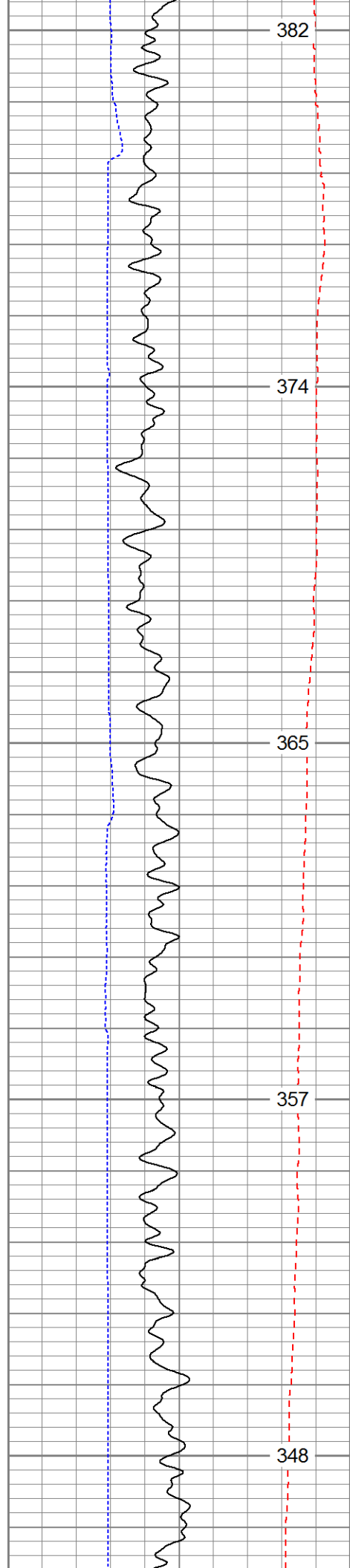
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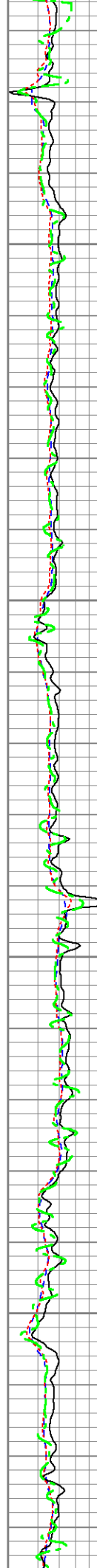
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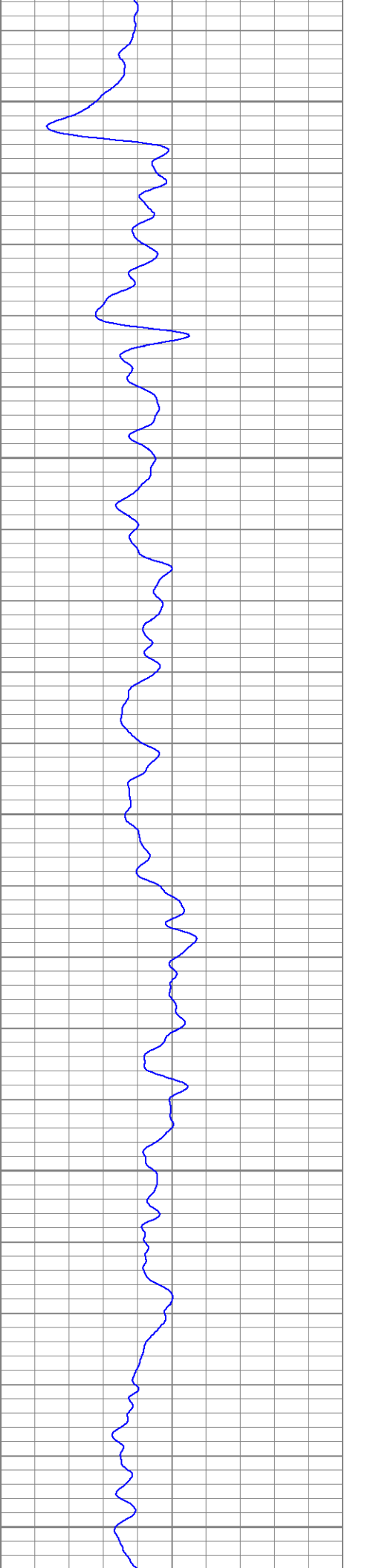
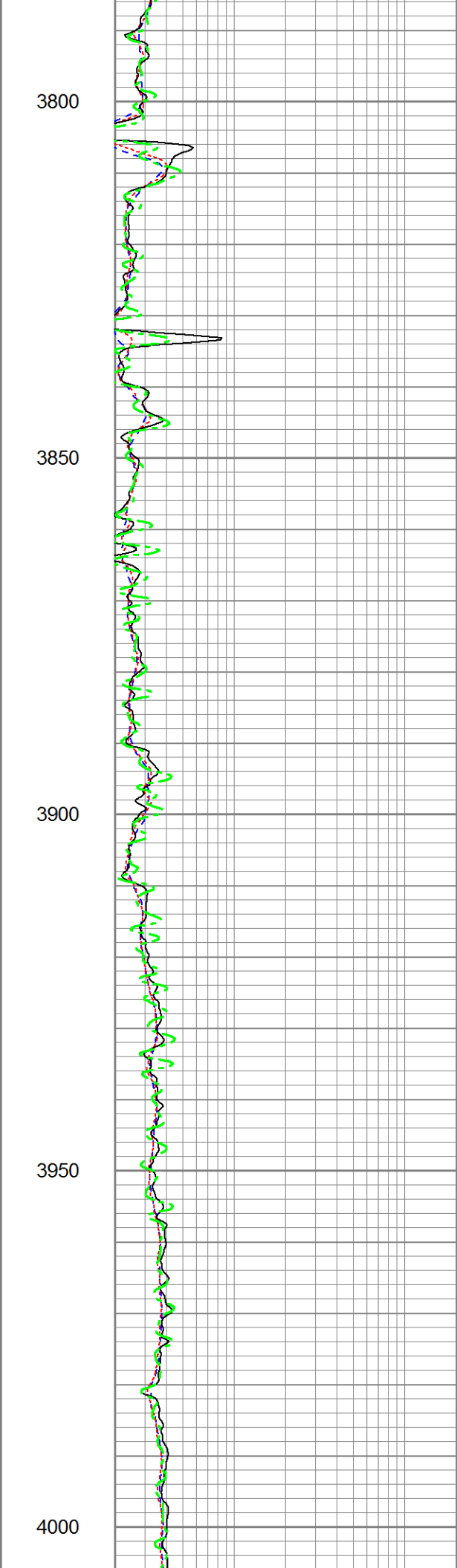
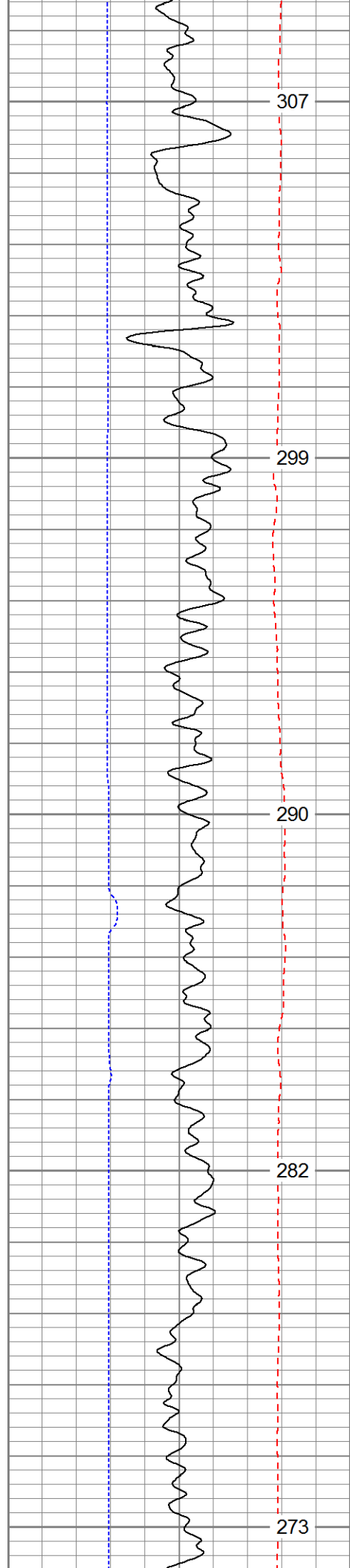
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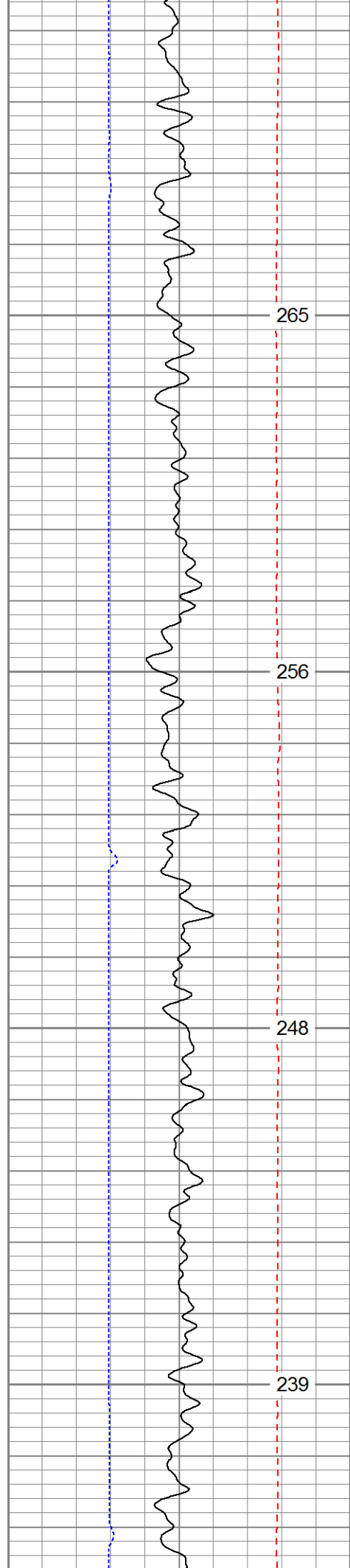
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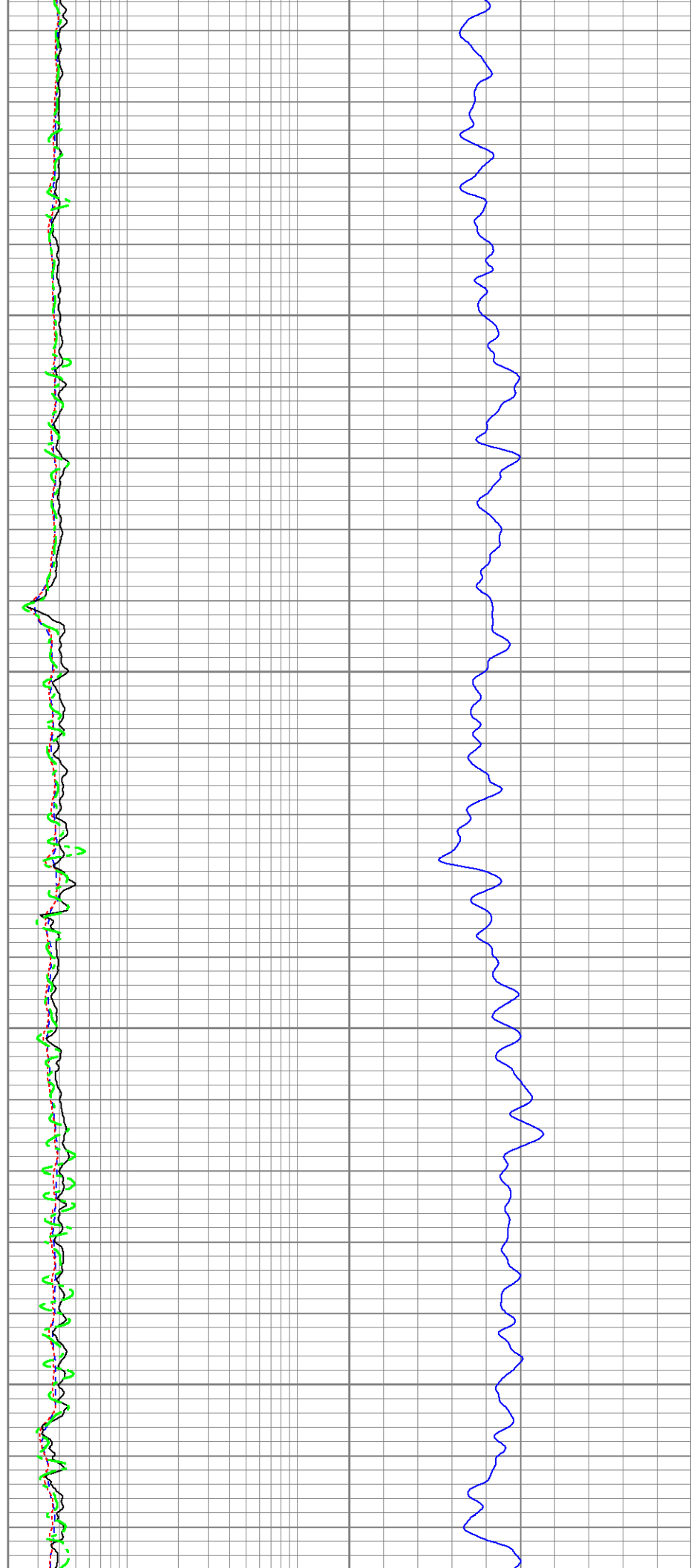
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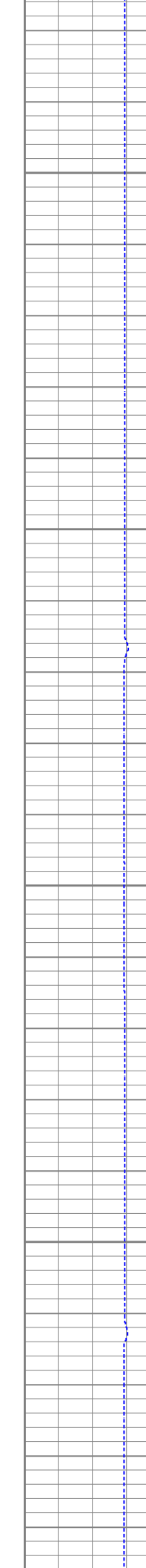


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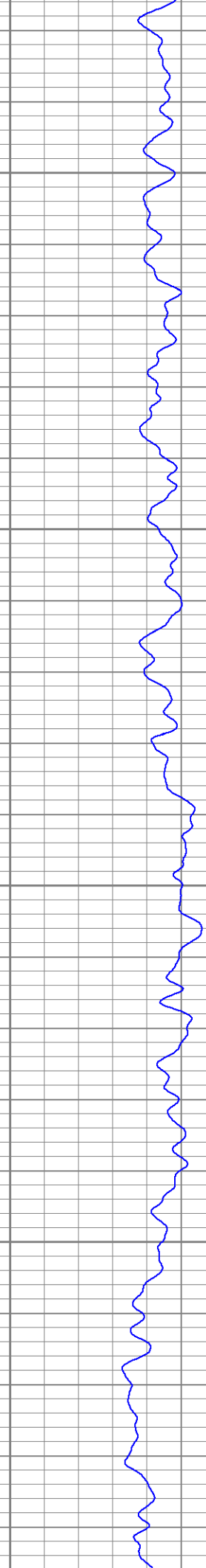
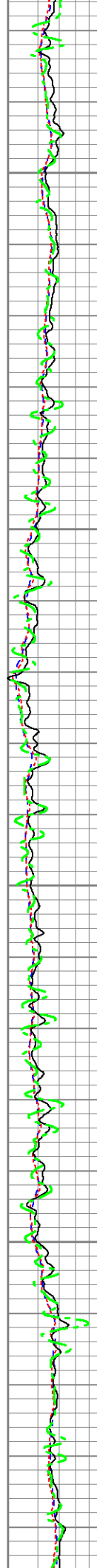


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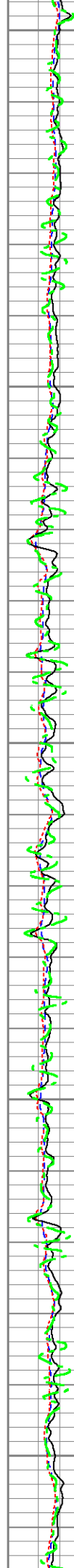
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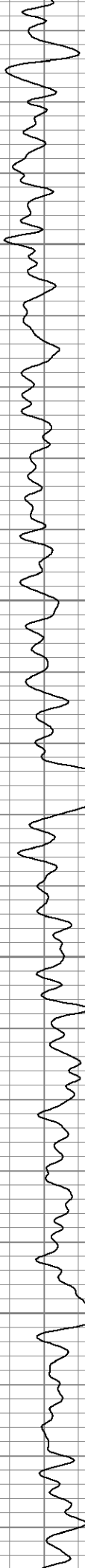




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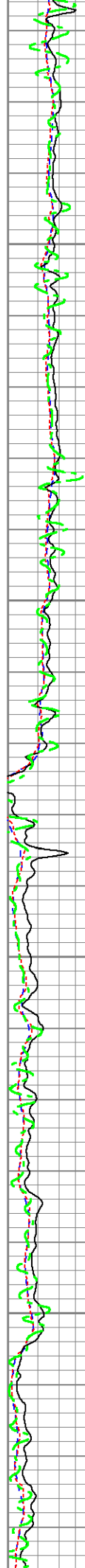
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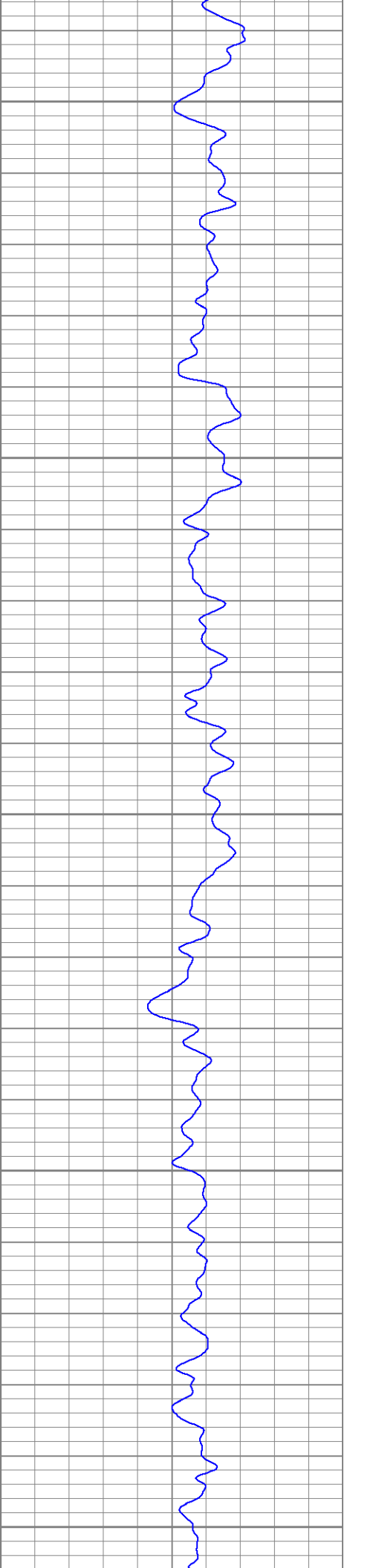
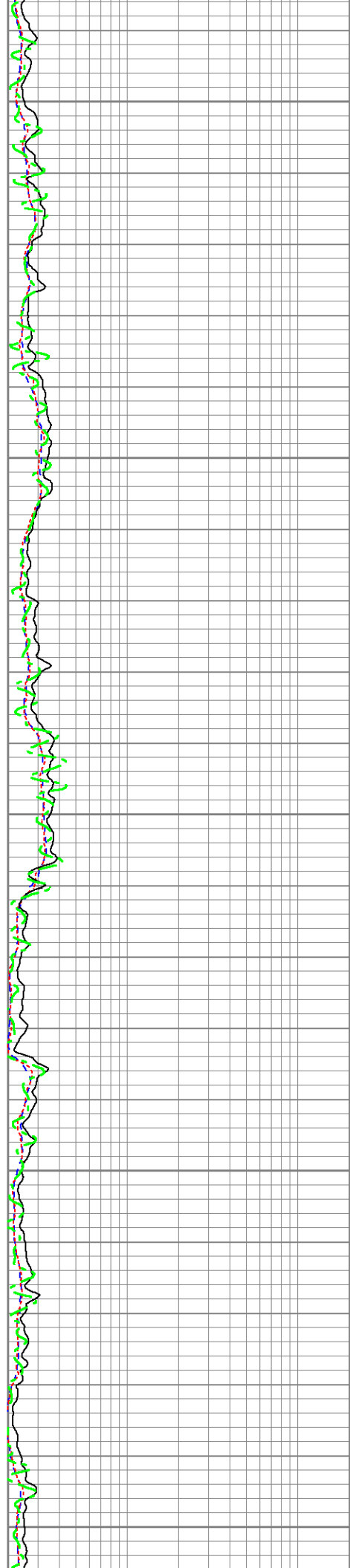
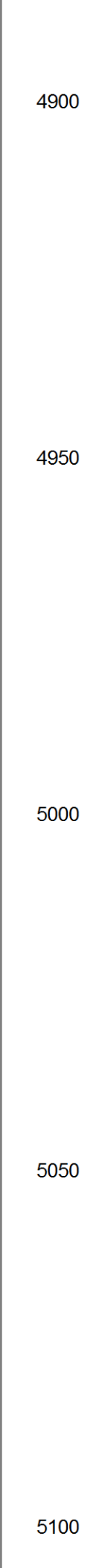
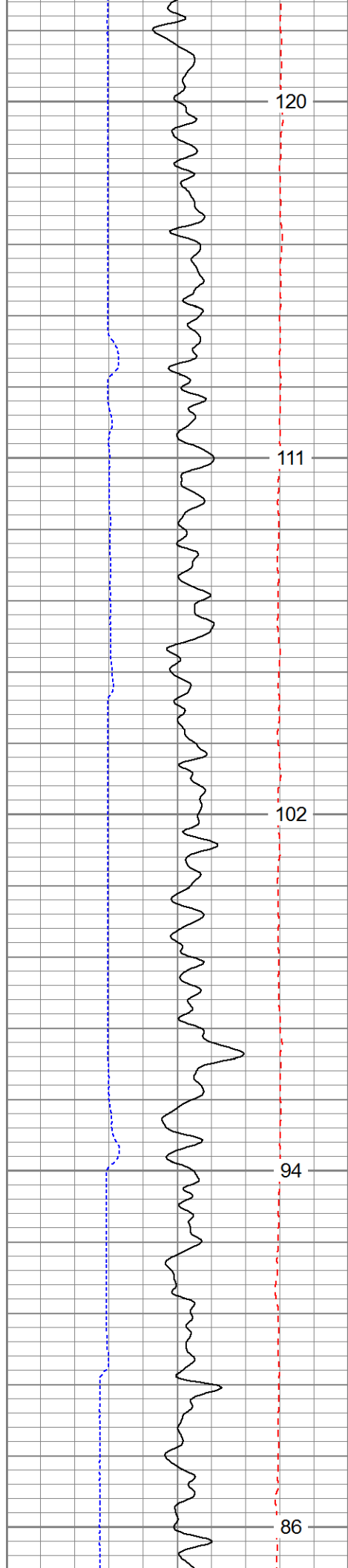
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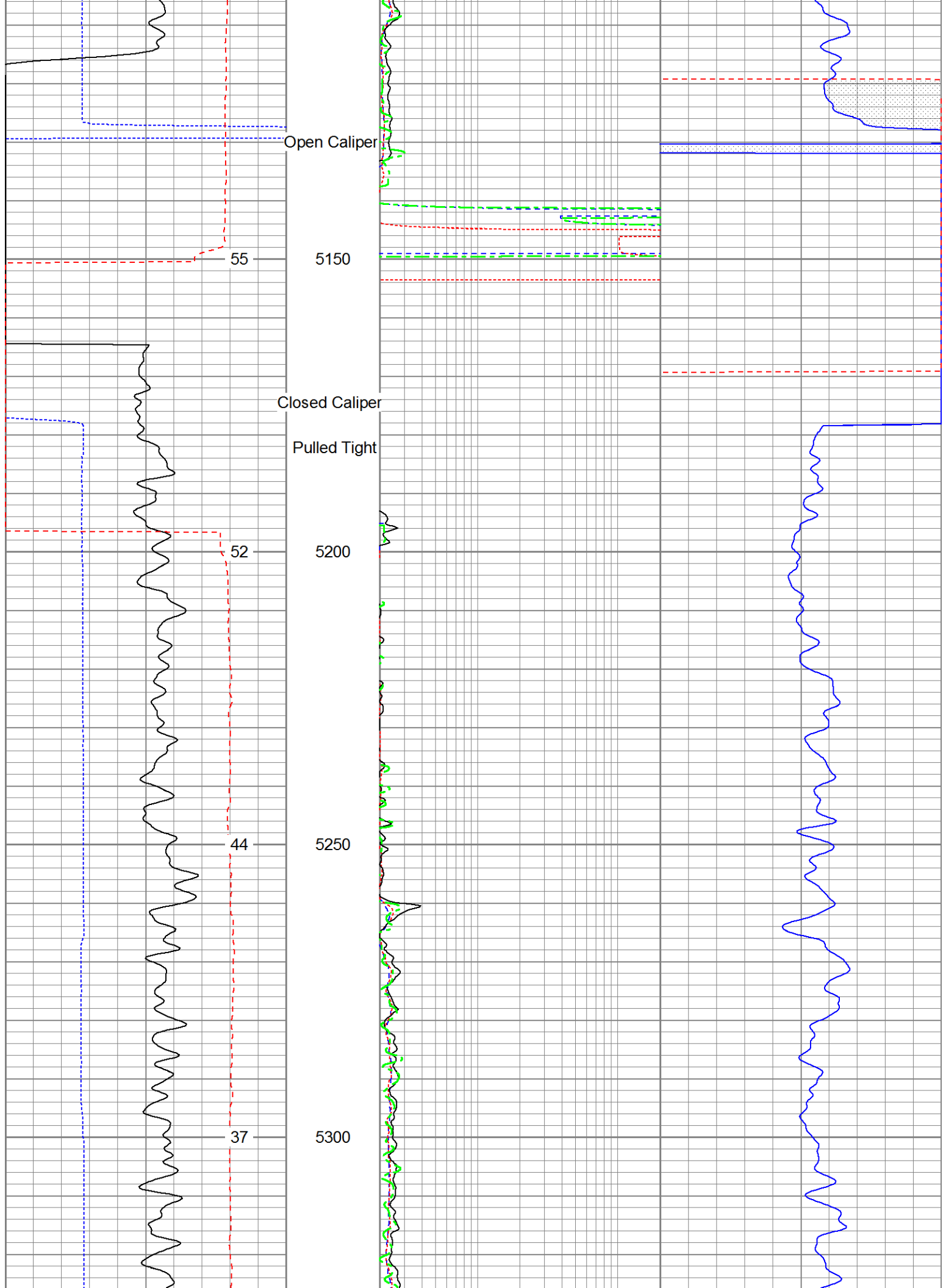
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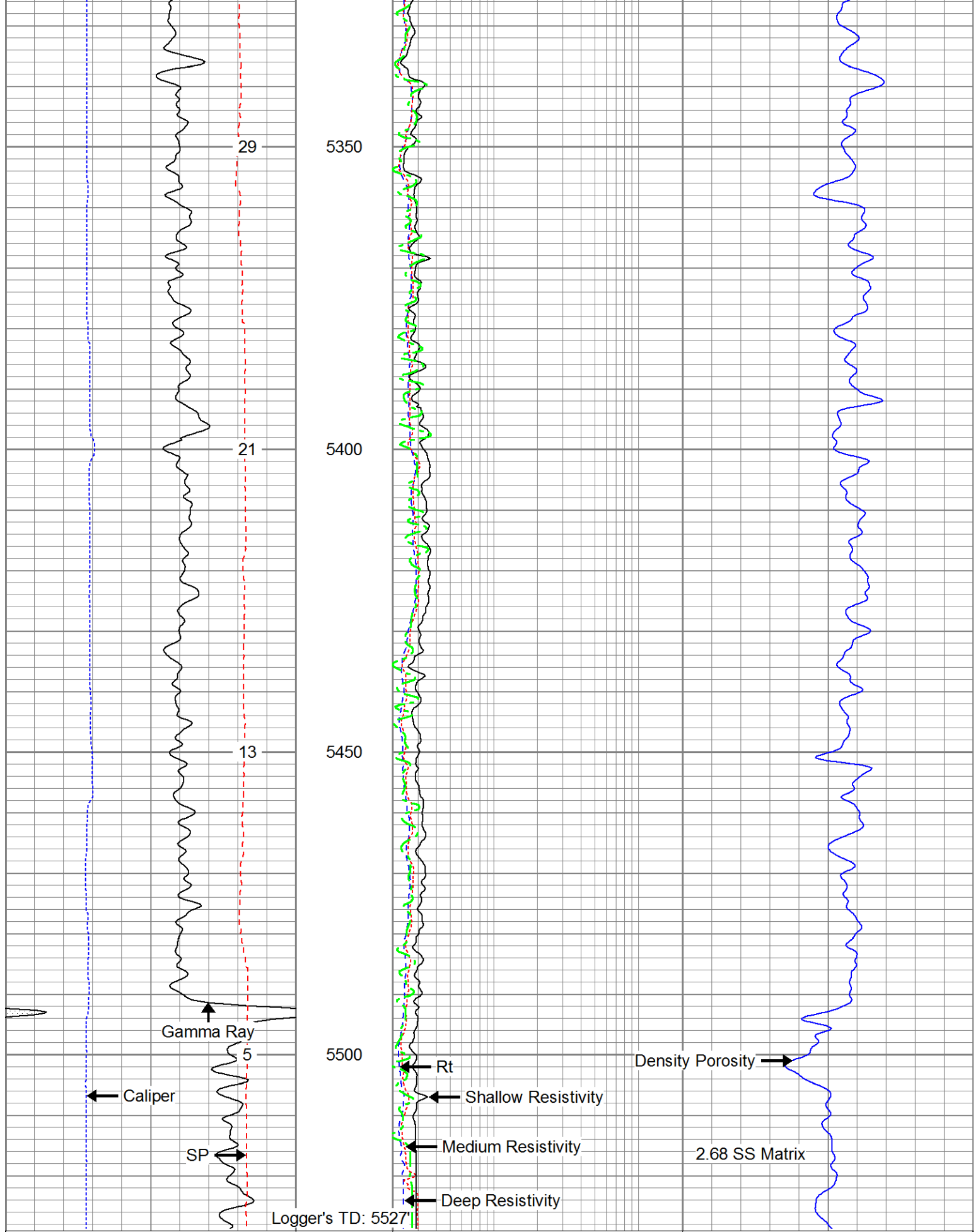
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Logger's TD: 5527'

6	Caliper (in)	16	2	Deep Resistivity (Ohm-m)	200	20	Density Porosity (pu)	0
0	Gamma Ray (GAPI)	200	2	Medium Resistivity (Ohm-m)	200	20	Neutron Porosity (pu)	0
0	SP (mV)	200	2	Shallow Resistivity (Ohm-m)	200			
			2	Rt (Ohm-m)	200			



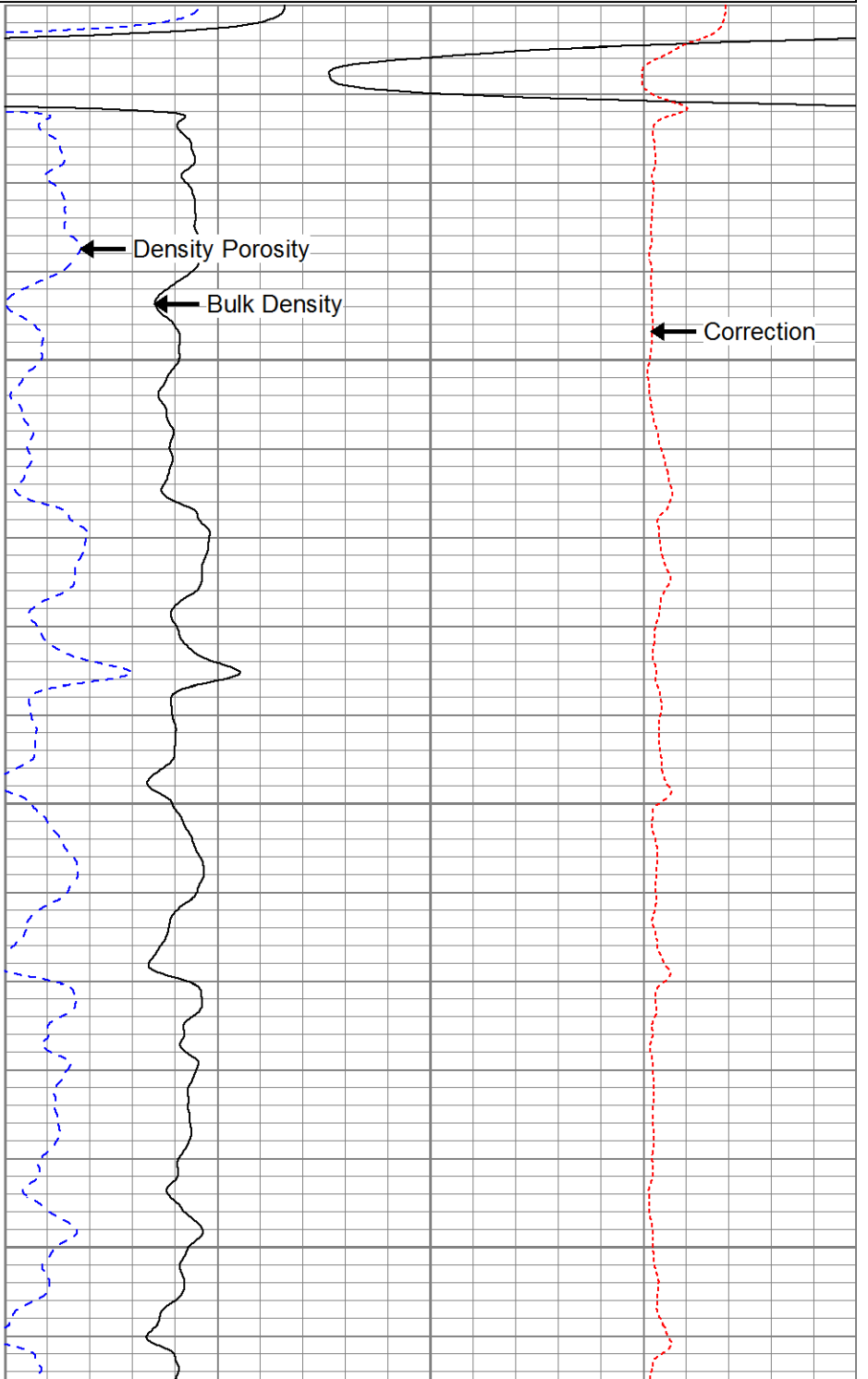
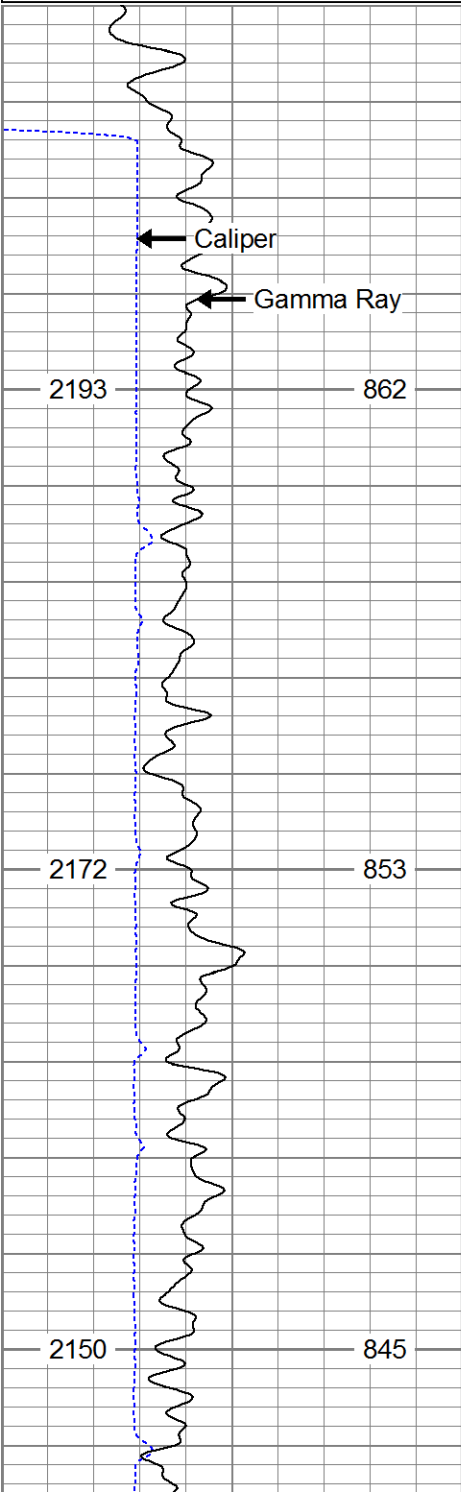
# Main Pass

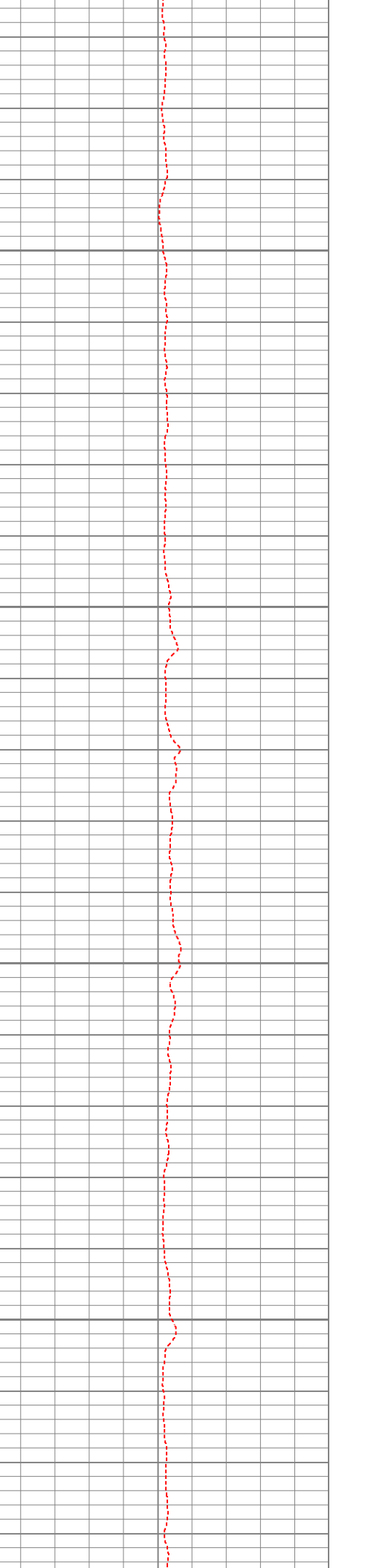
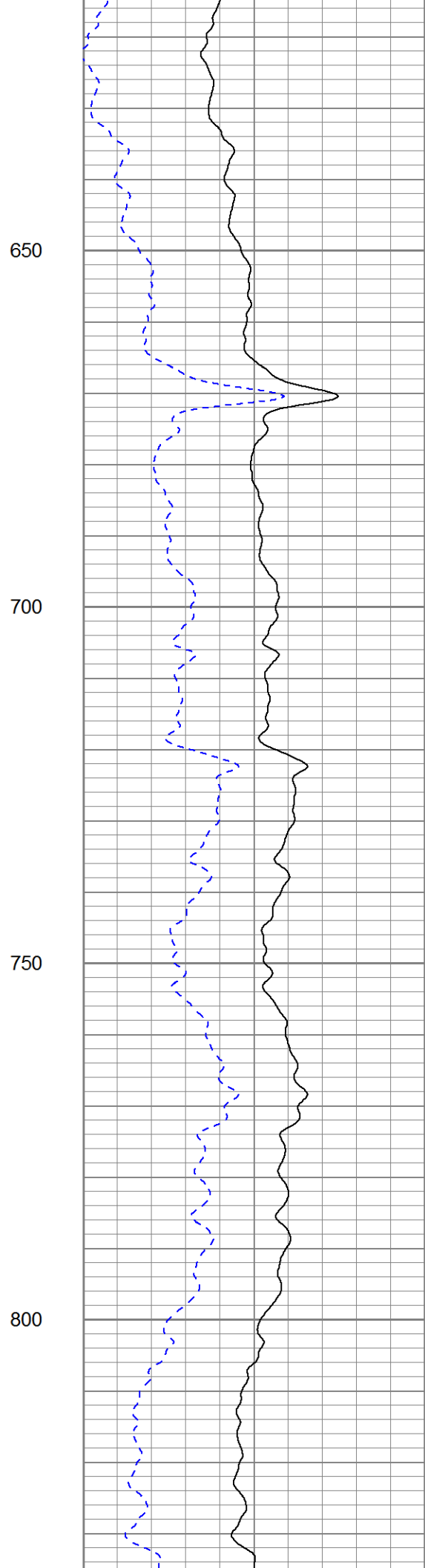
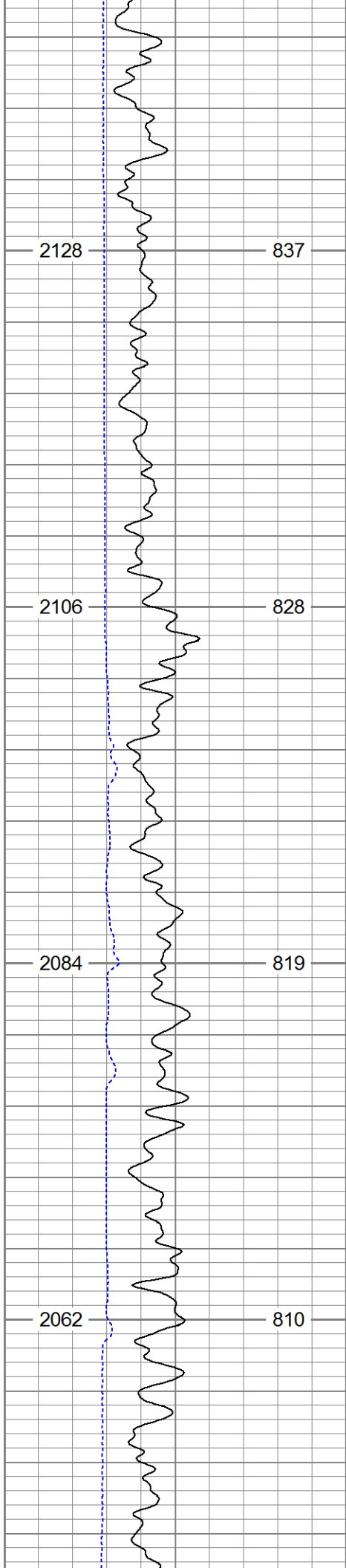
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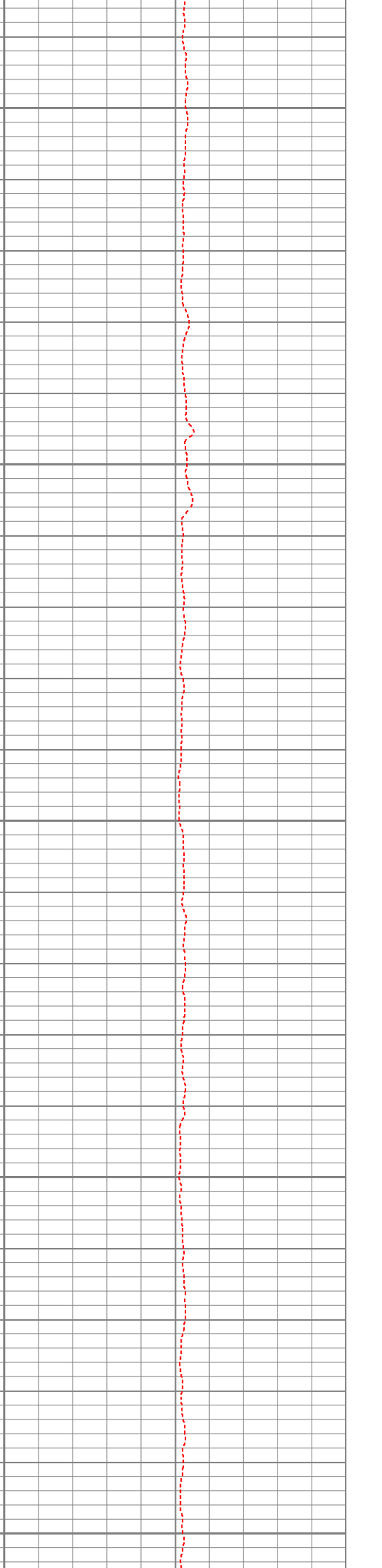
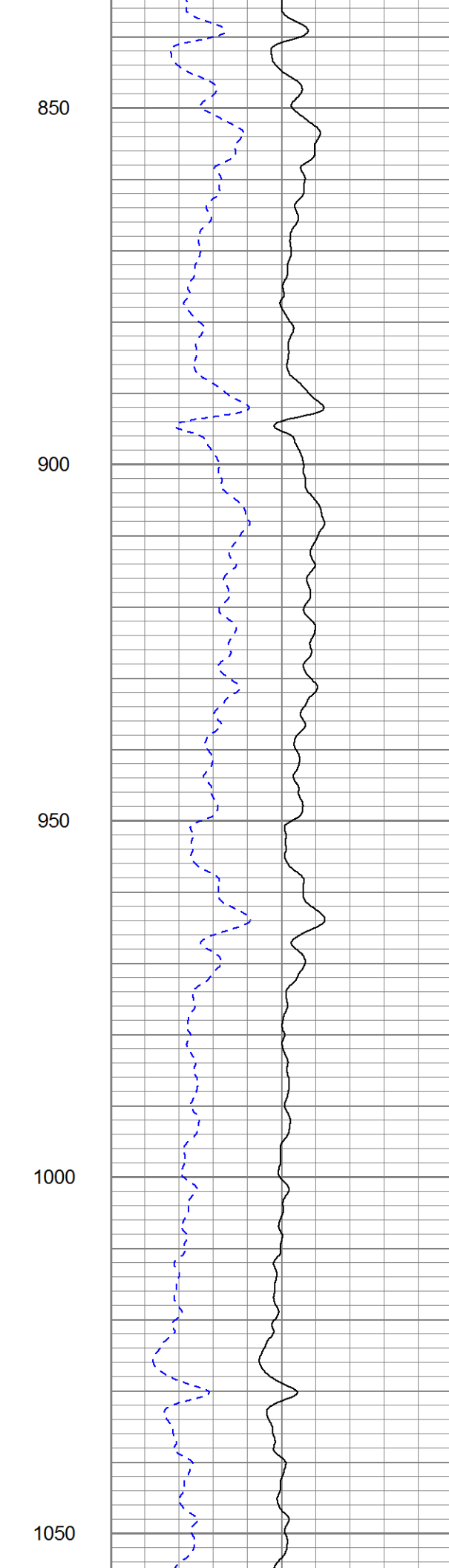
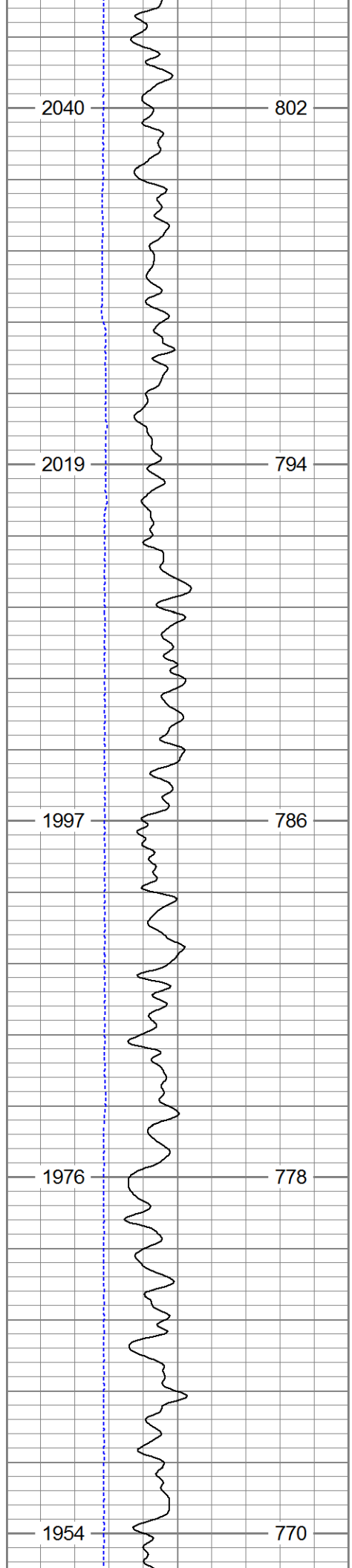
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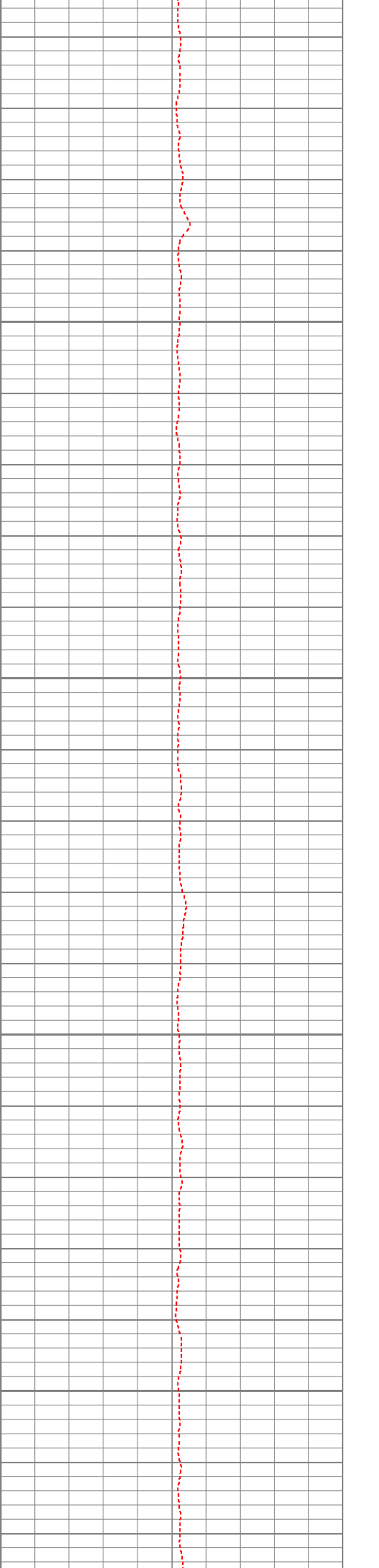
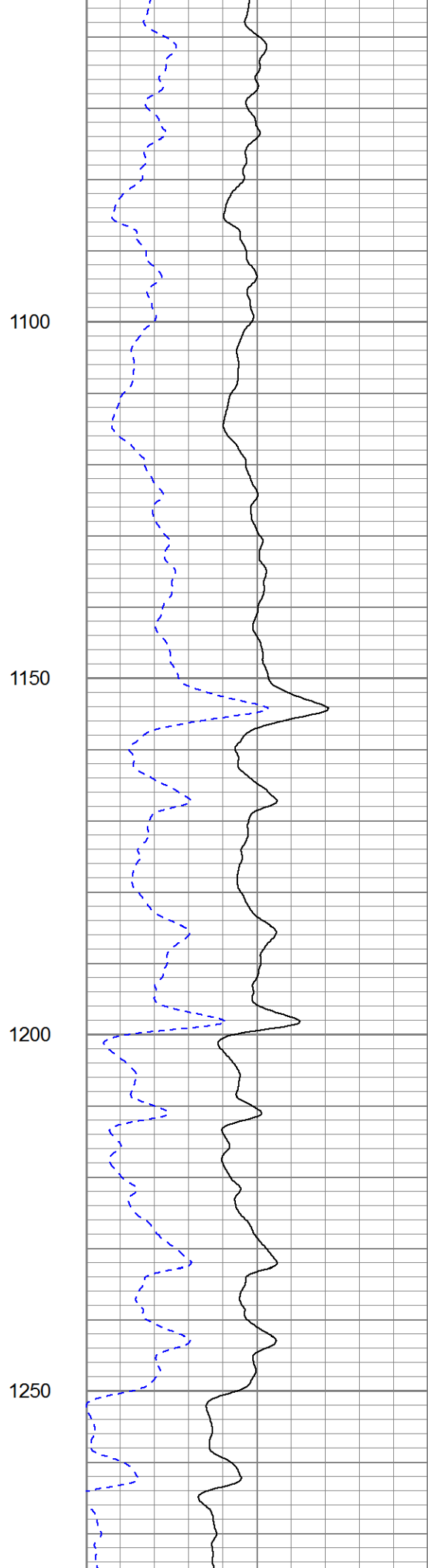
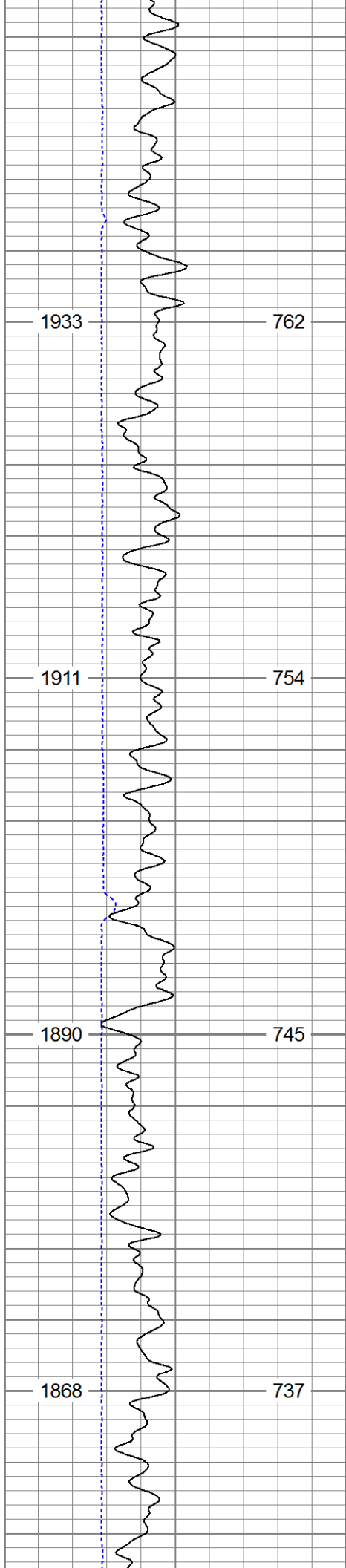
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0	Gamma Ray (GAPI)	200

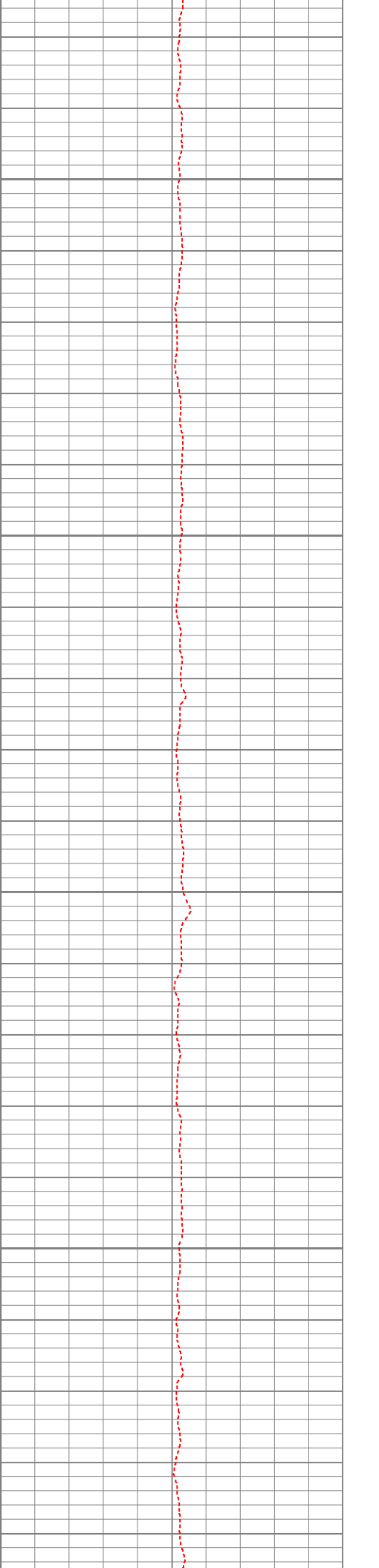
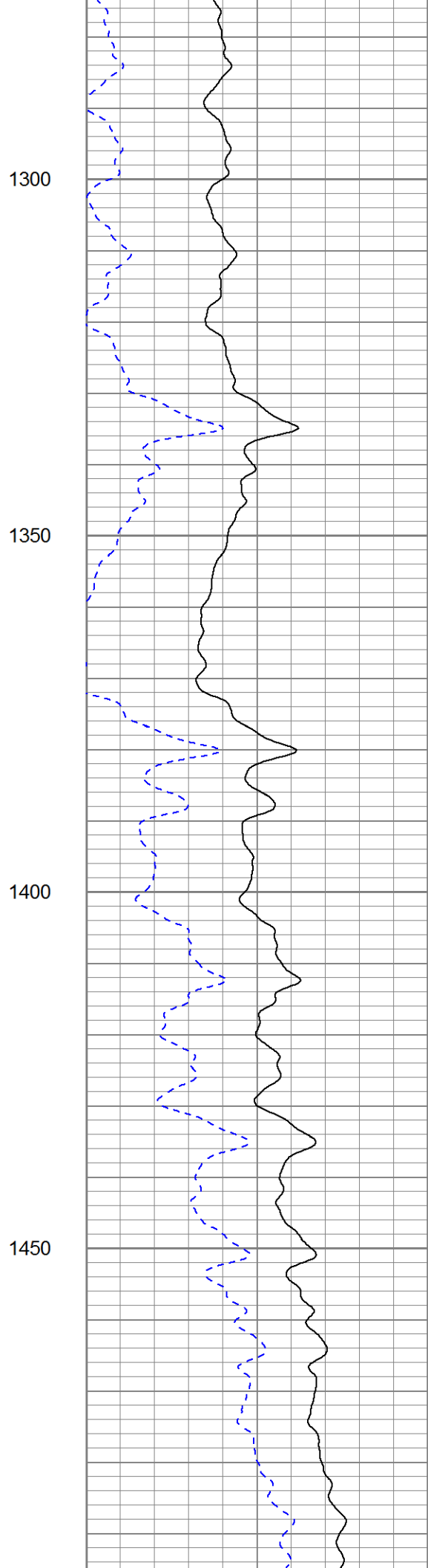
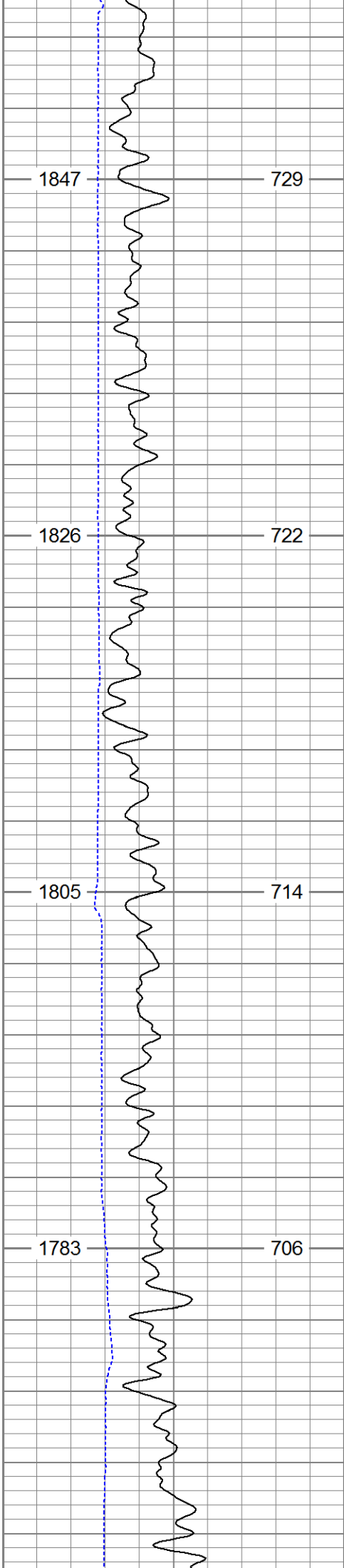
2	Bulk Density (g/cc)	3
30	Density Porosity (pu)	-10
-0.5	Correction (g/cc)	0.5

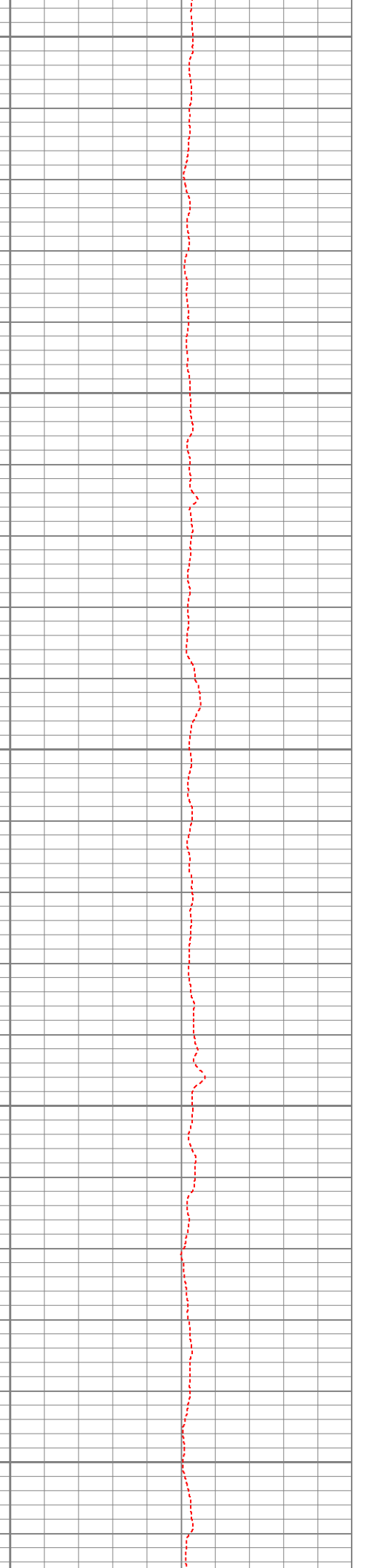
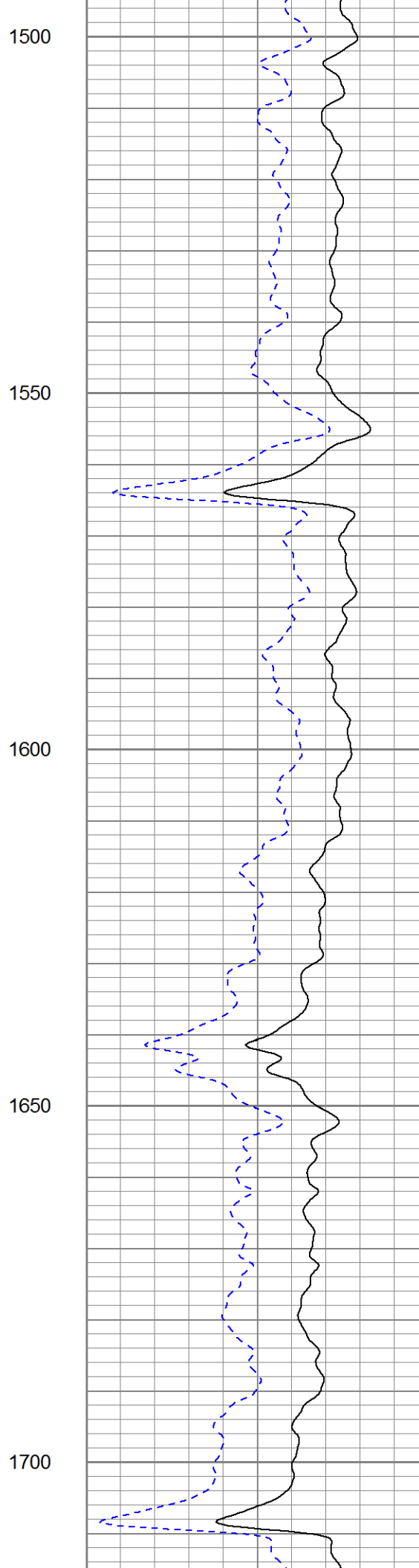
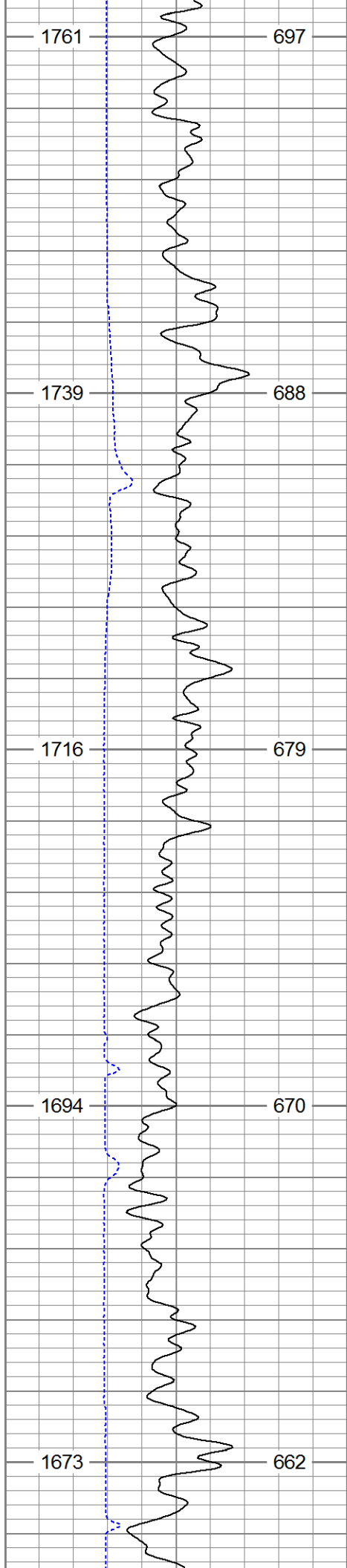


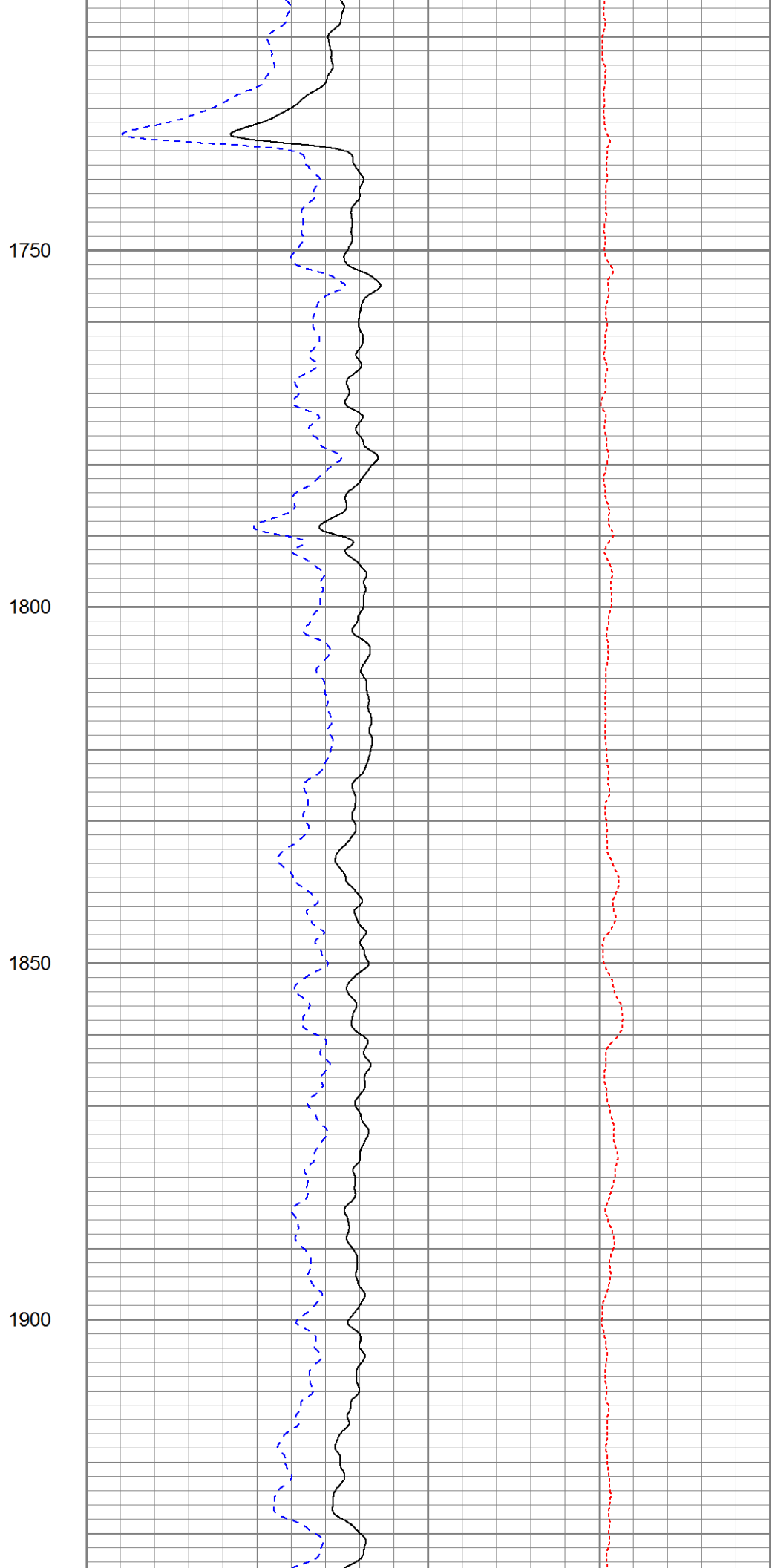
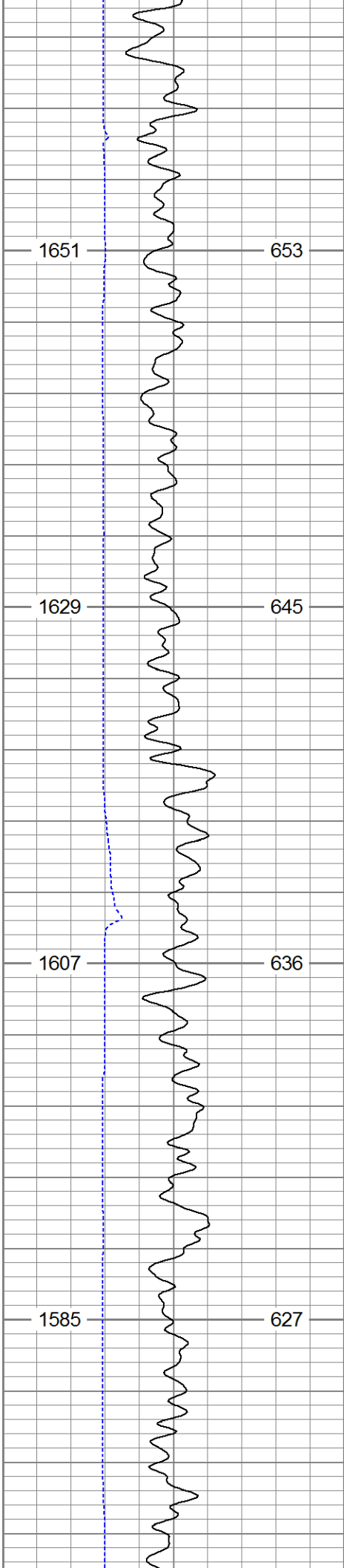


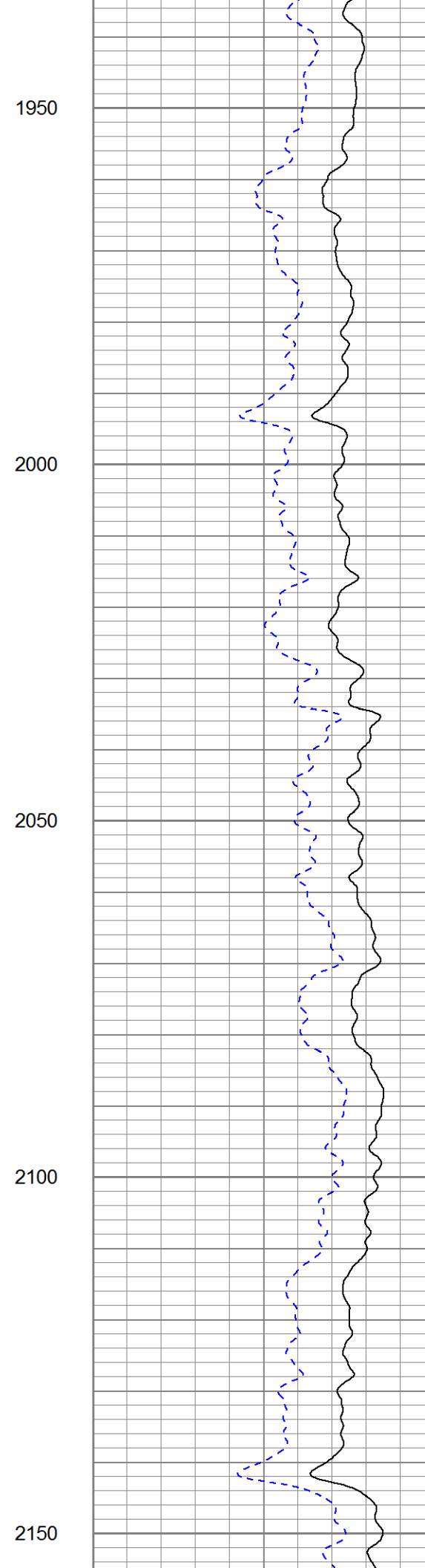
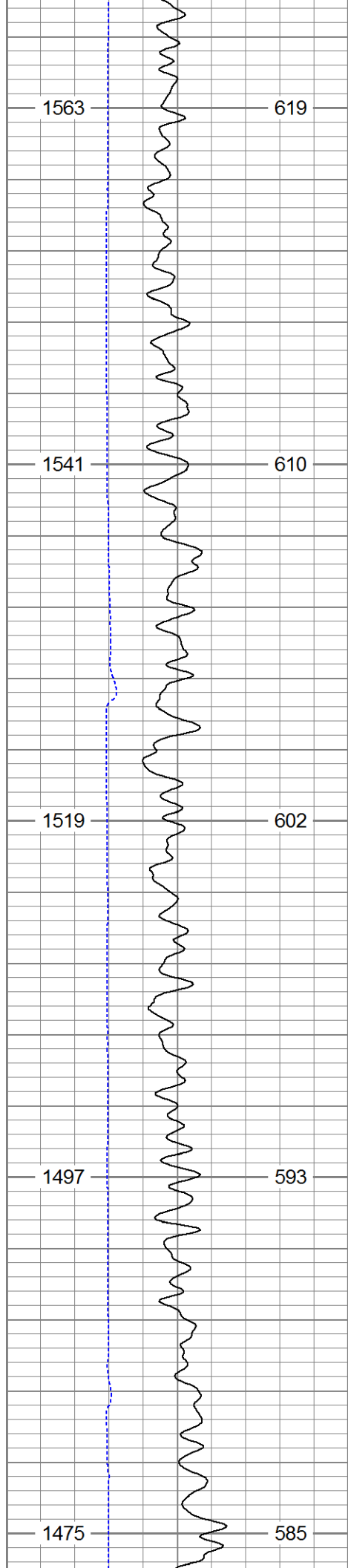


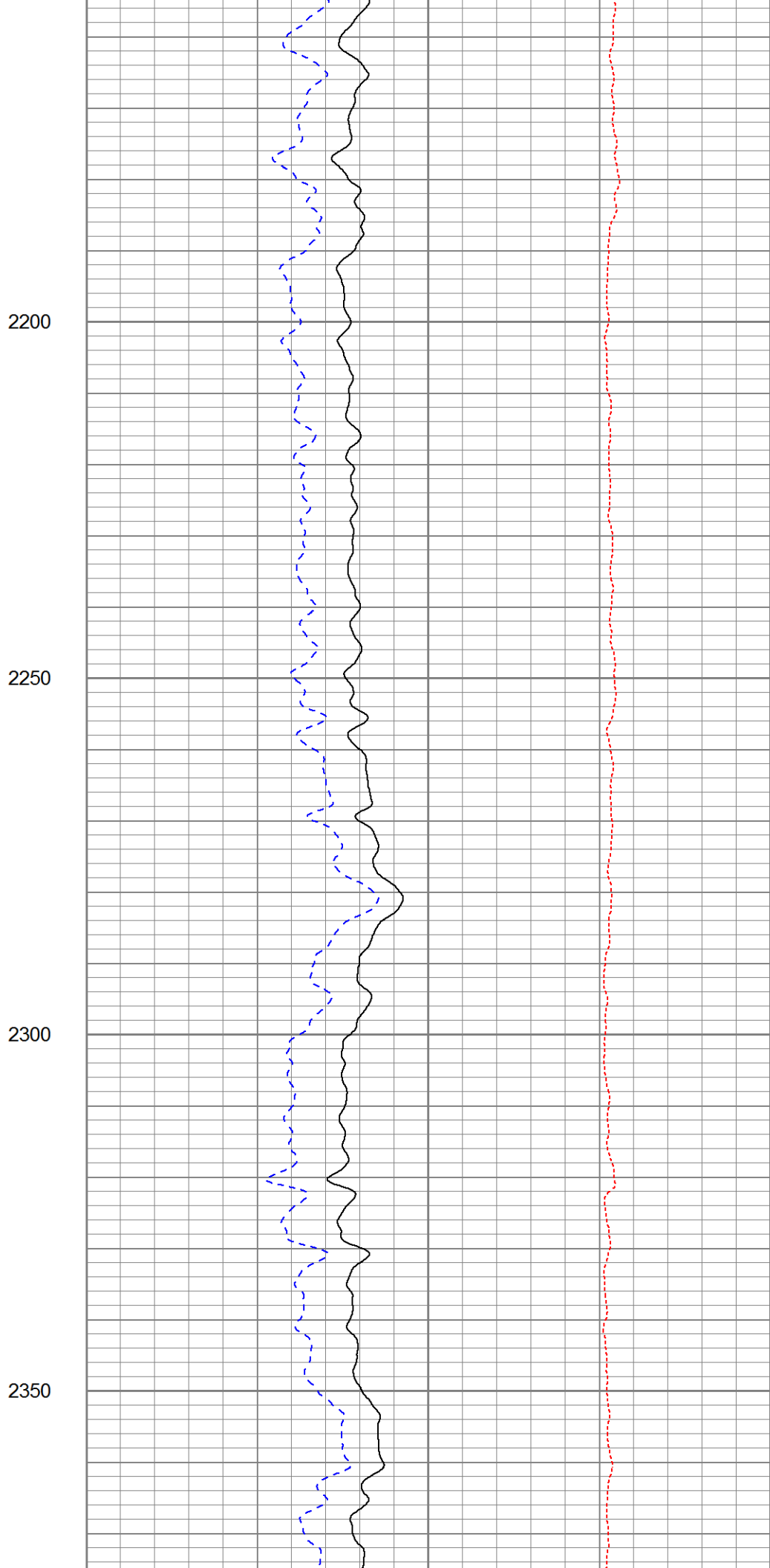
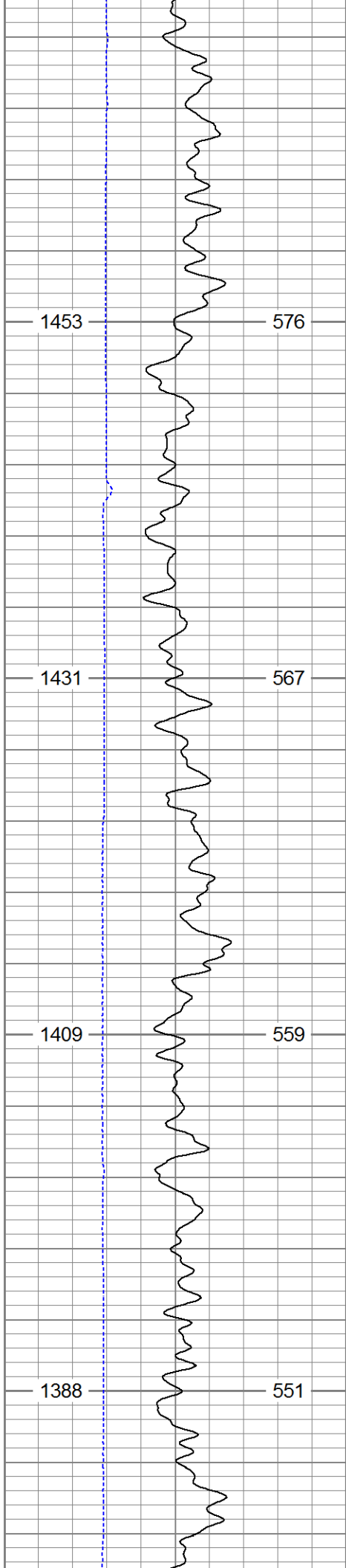


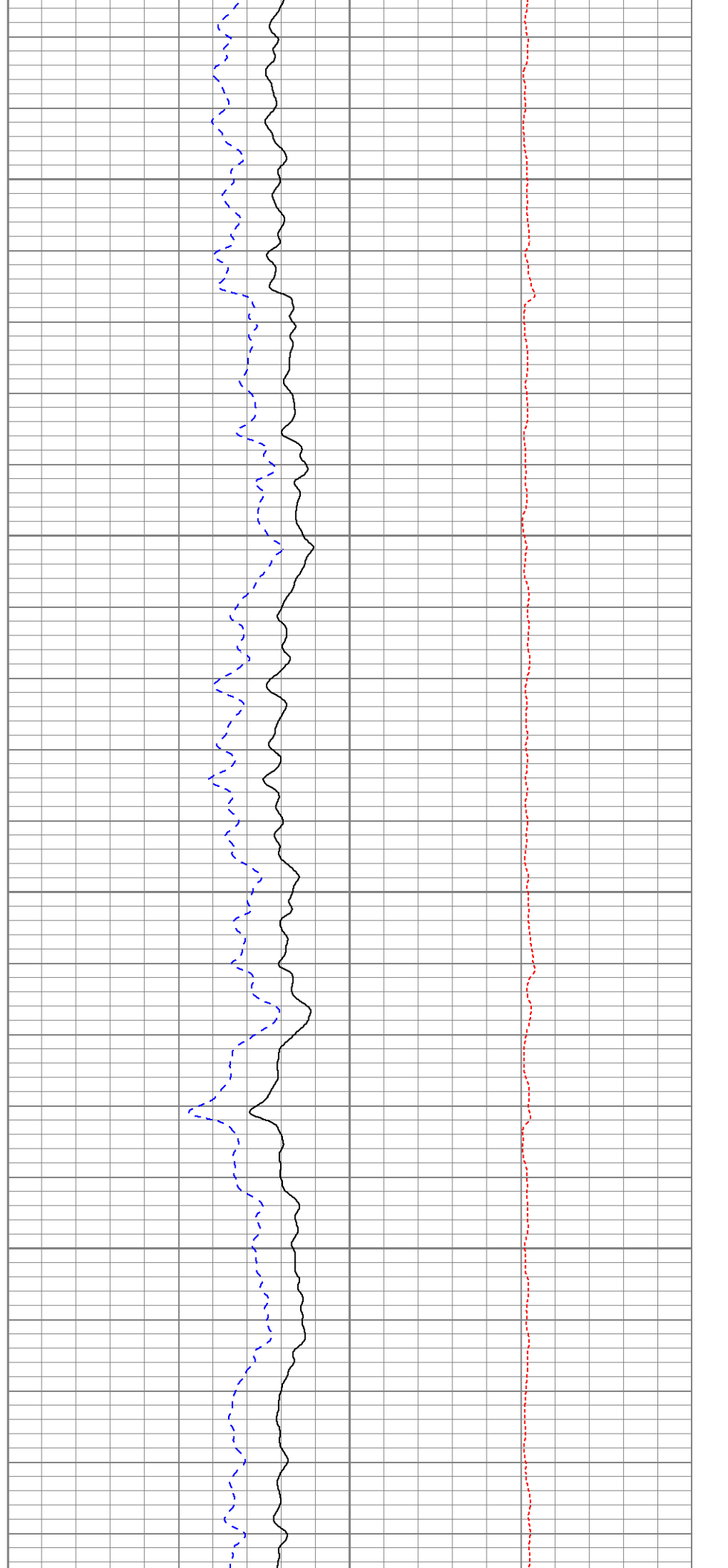
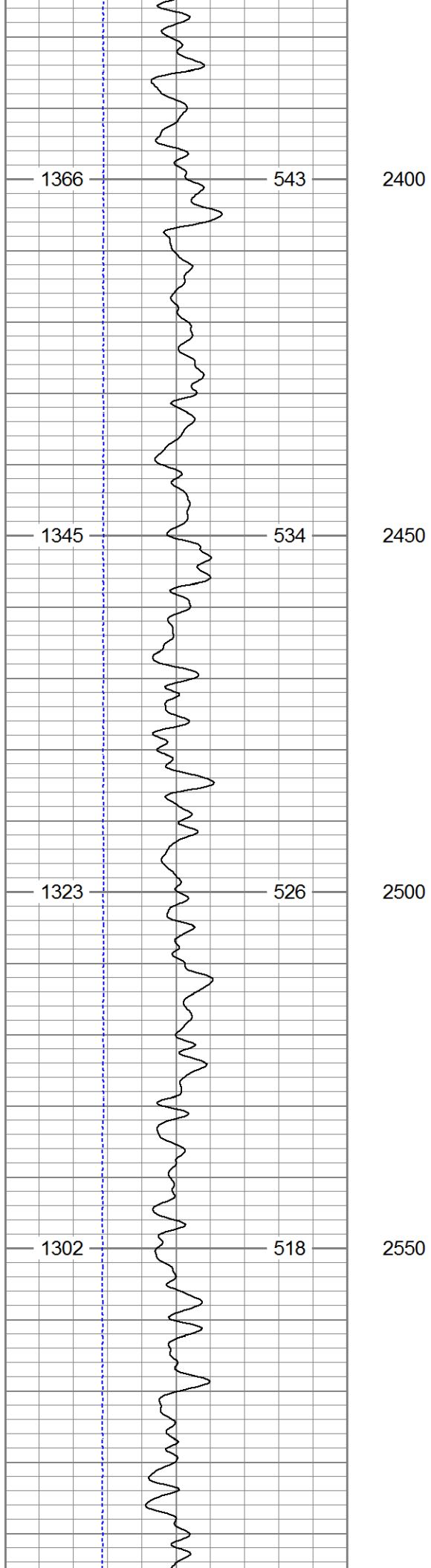


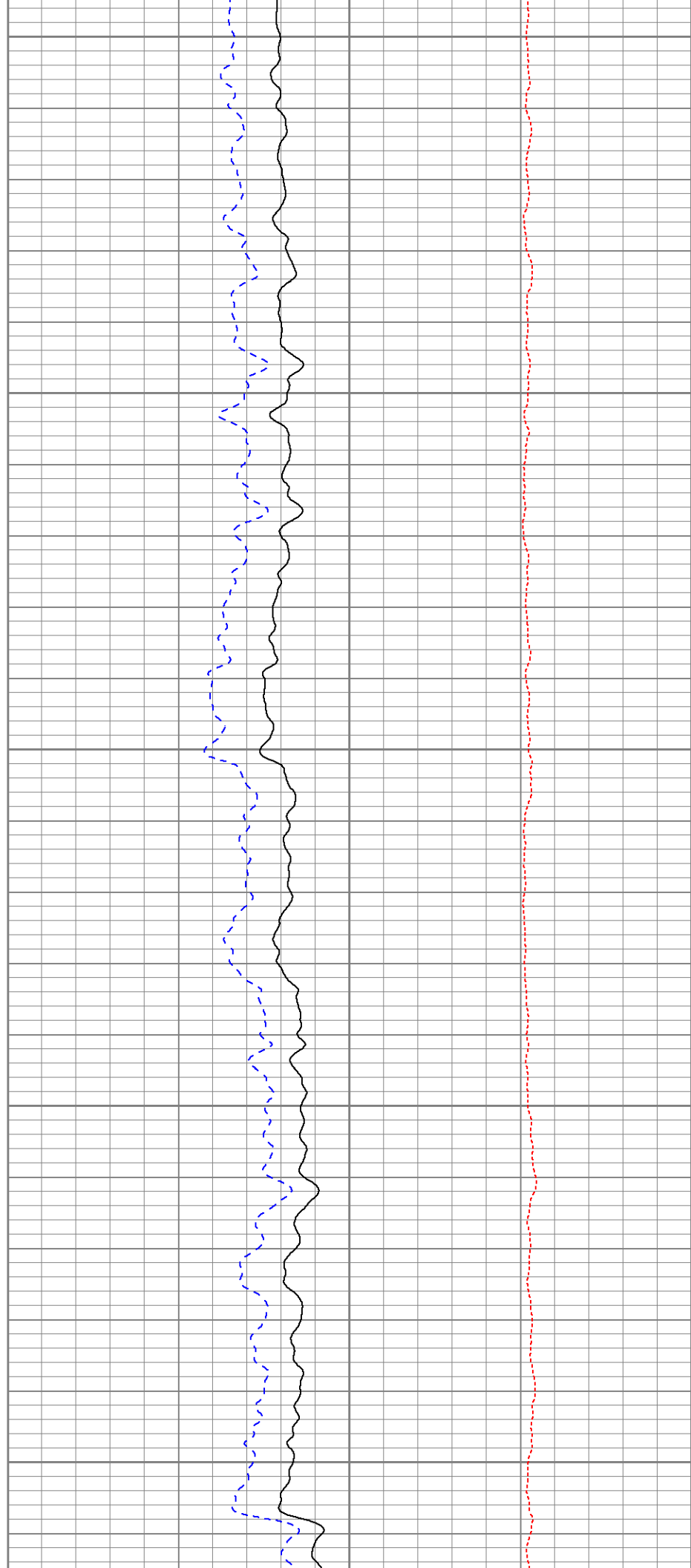
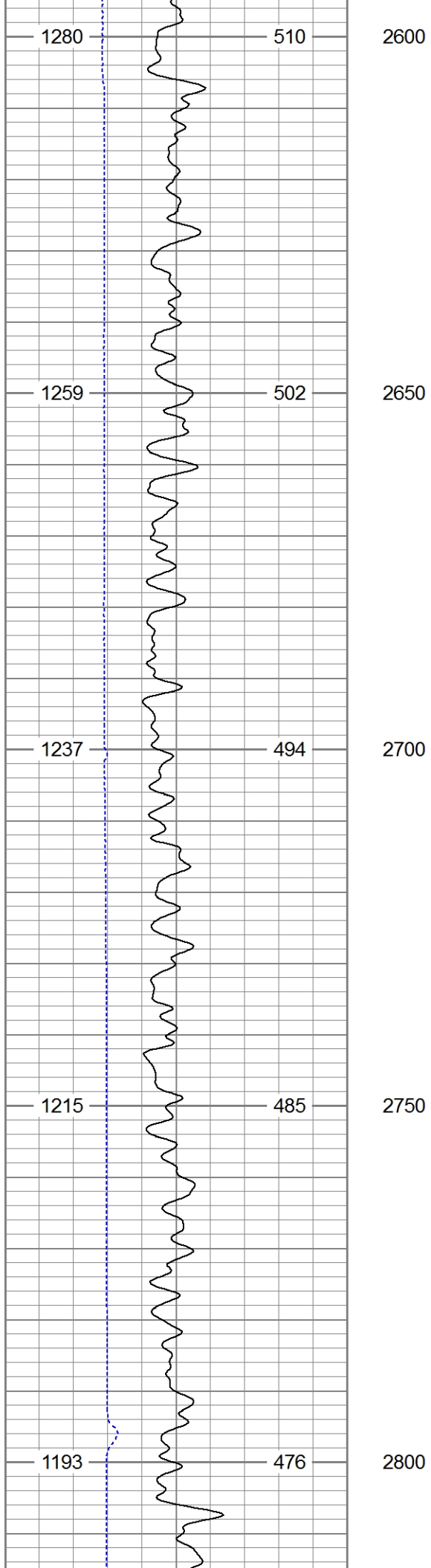


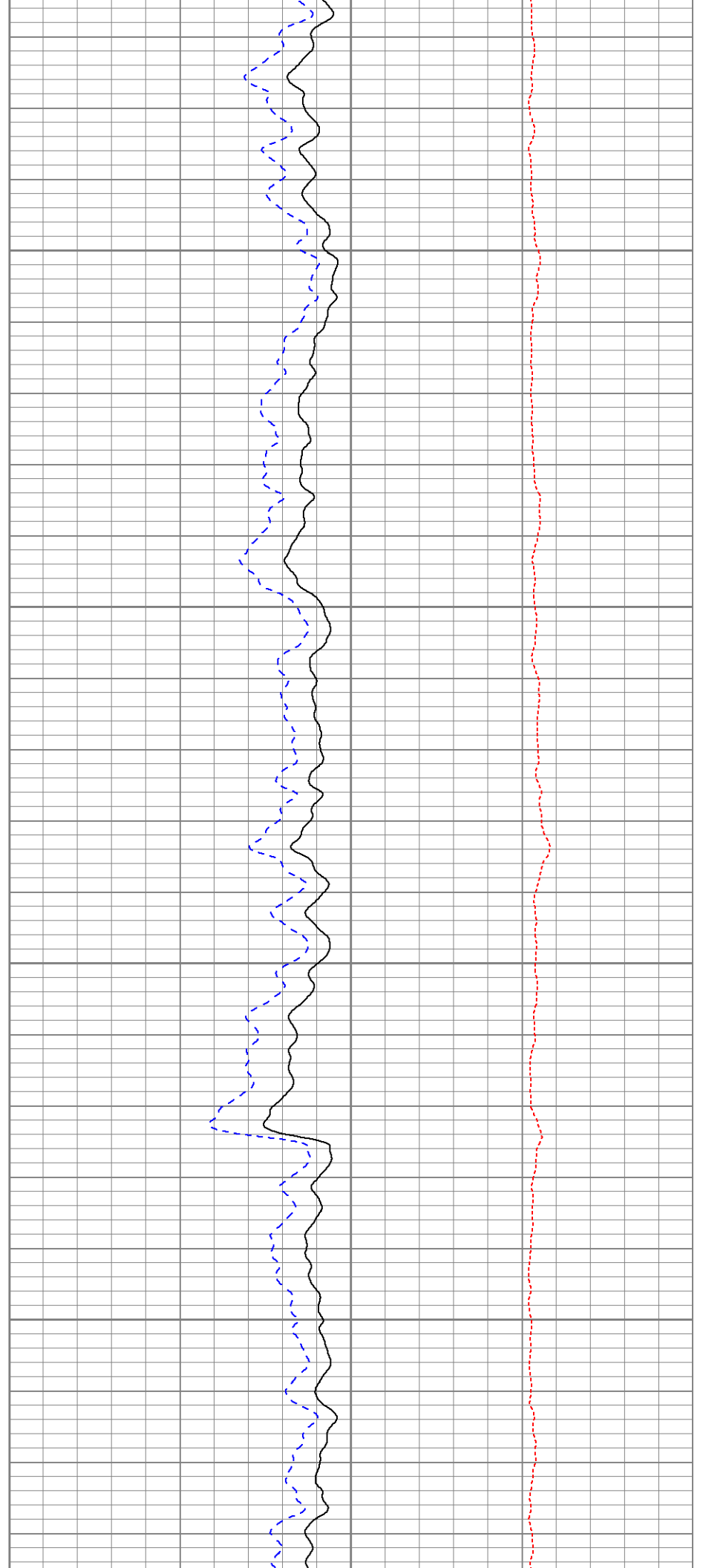
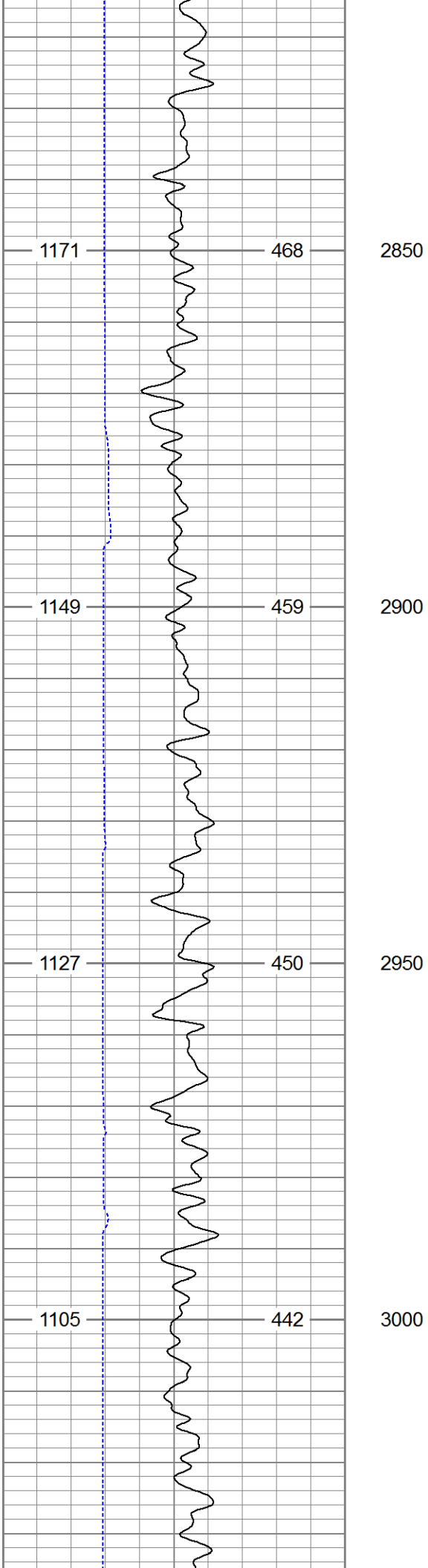


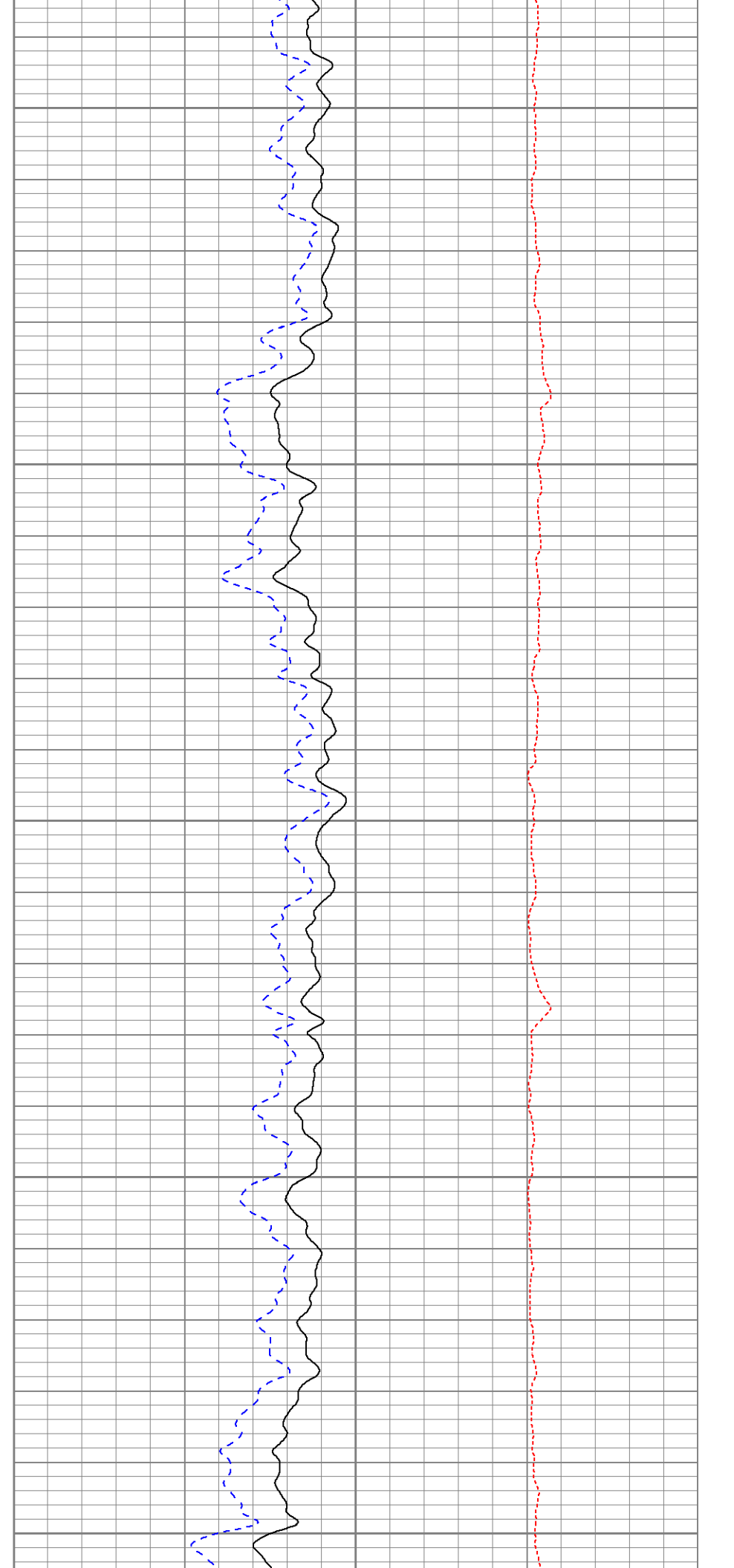
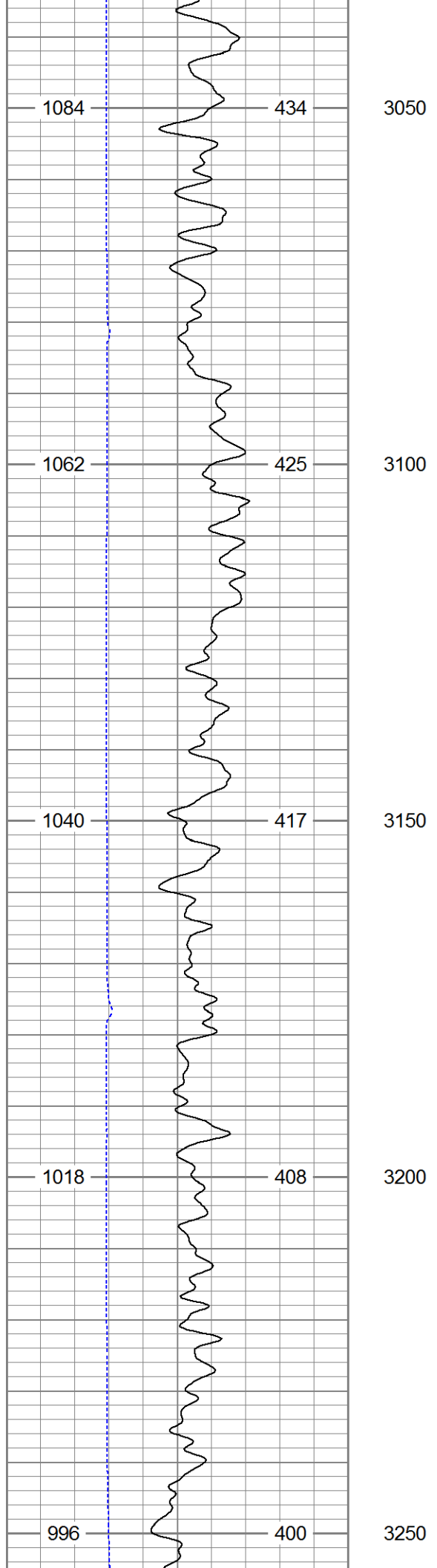


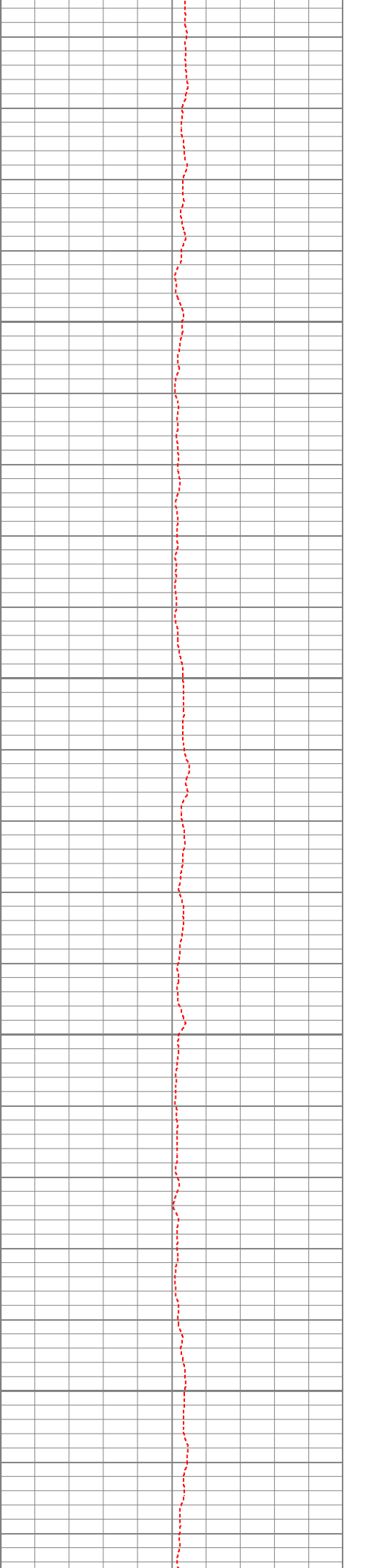
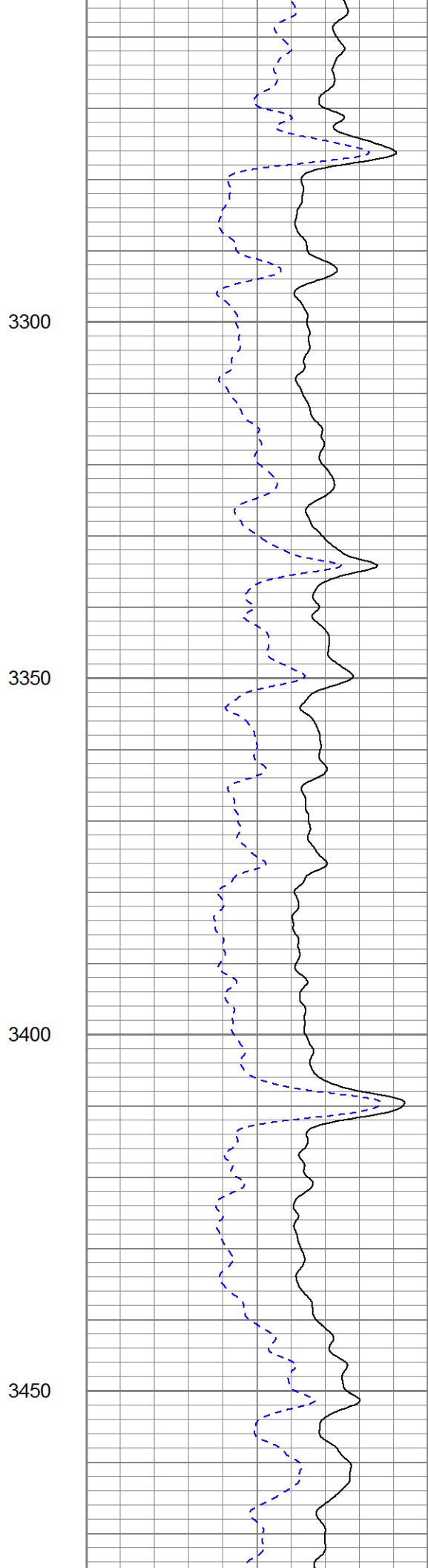
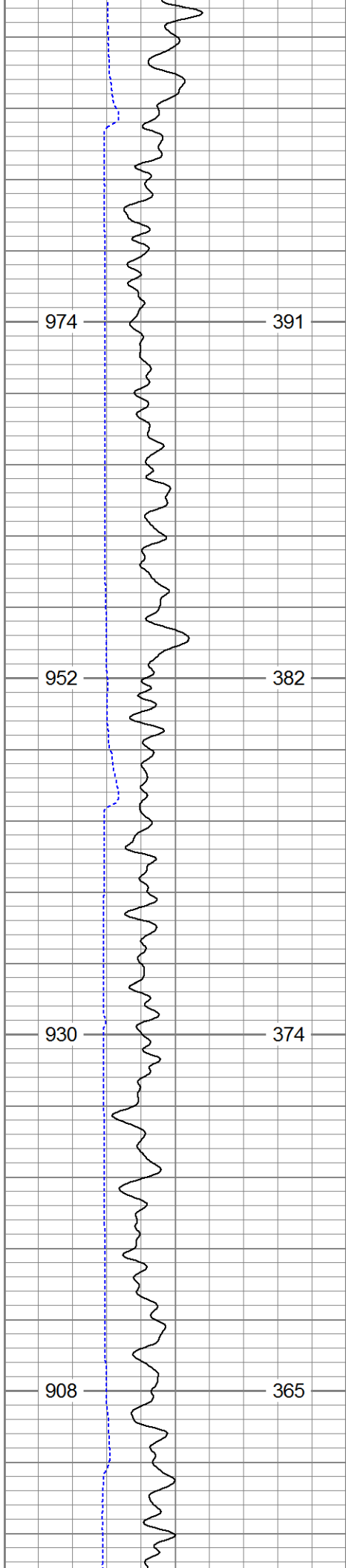


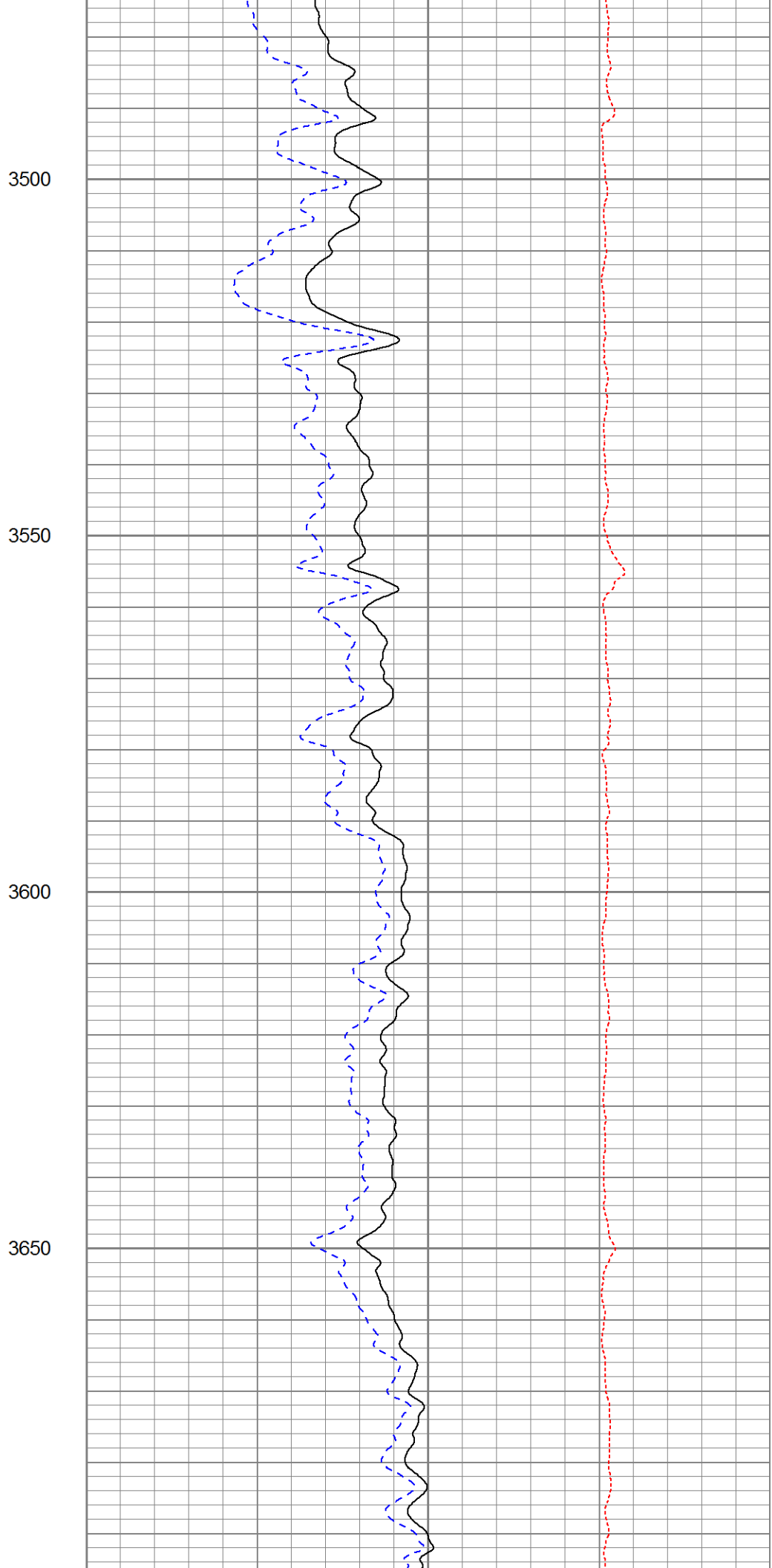
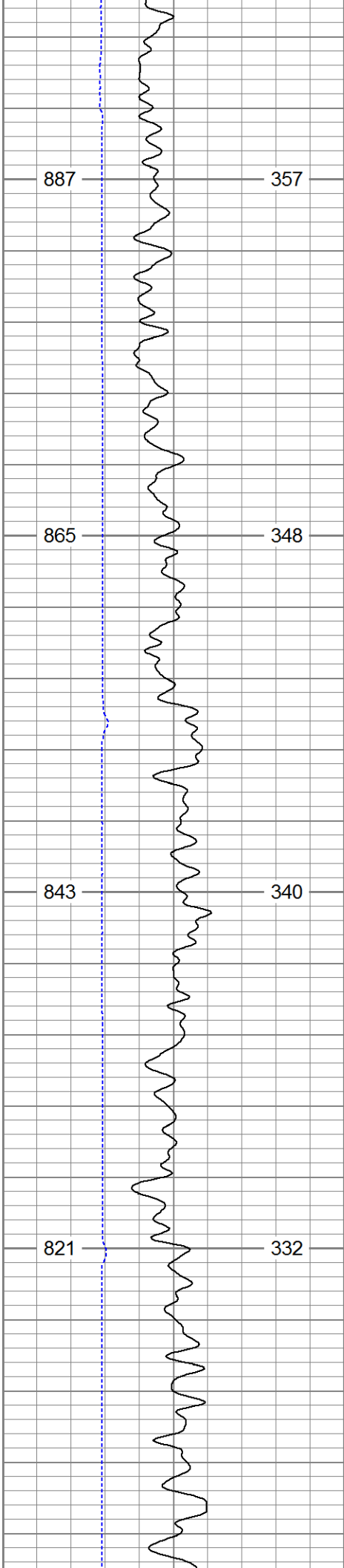


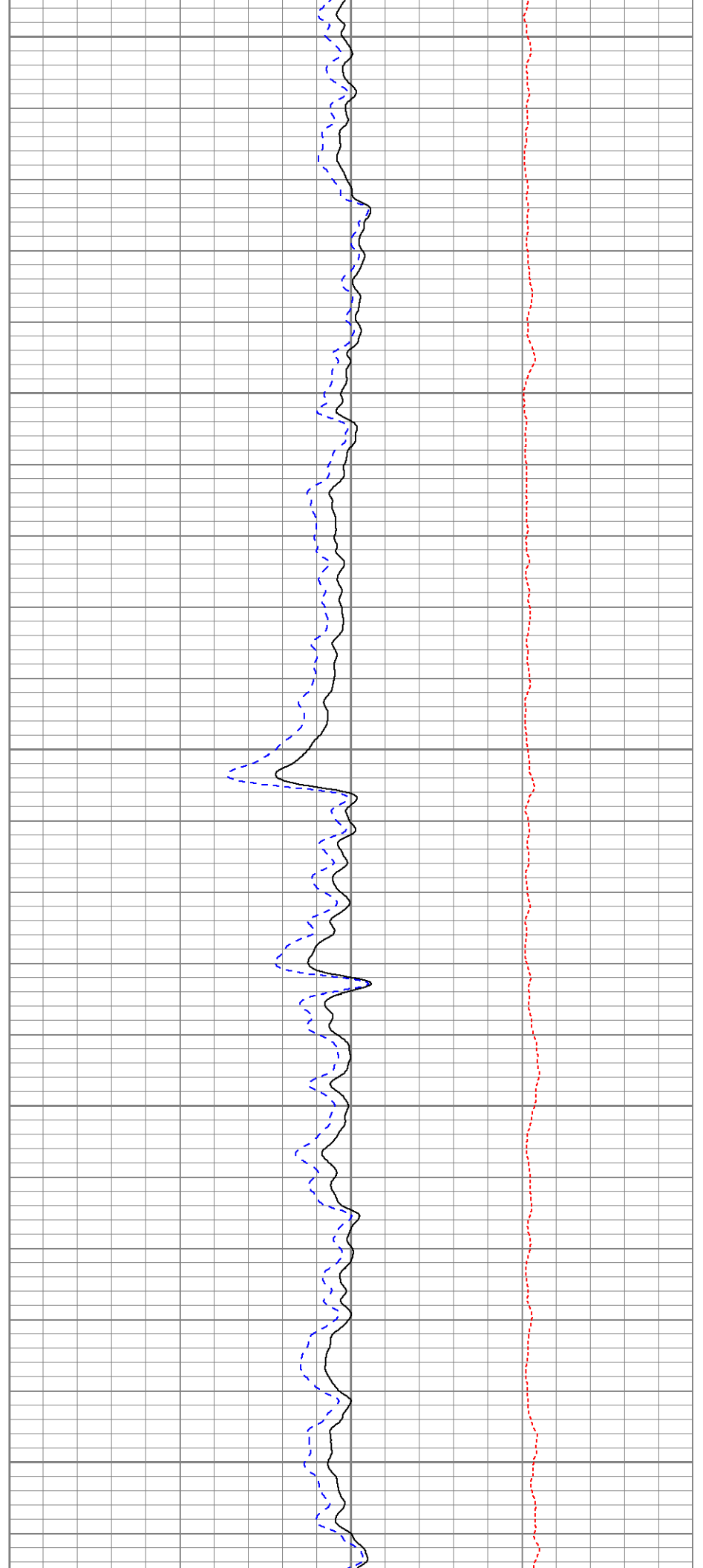
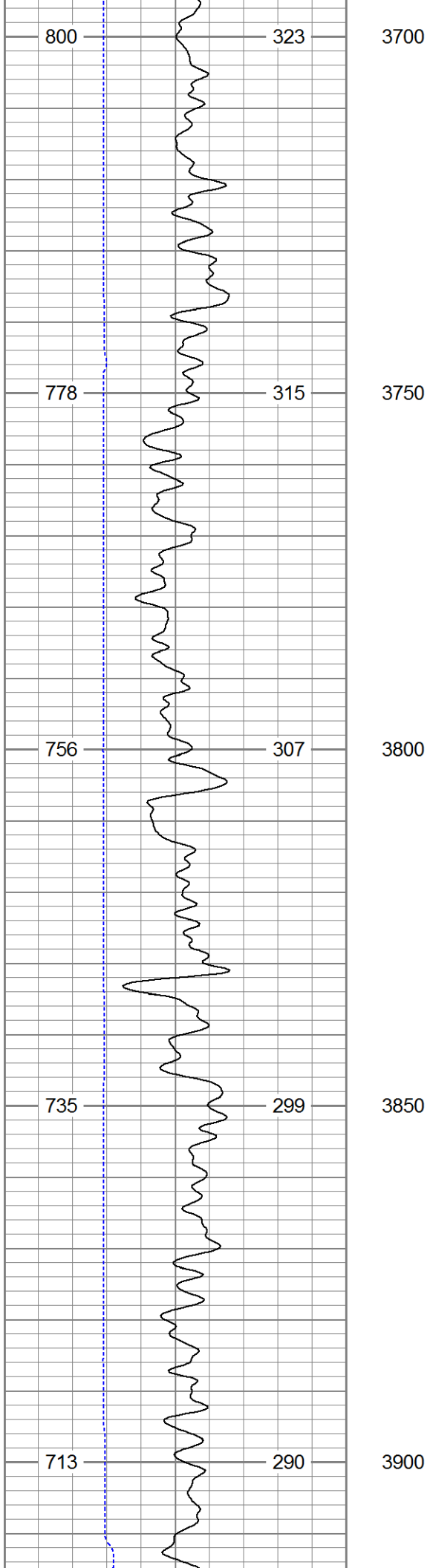


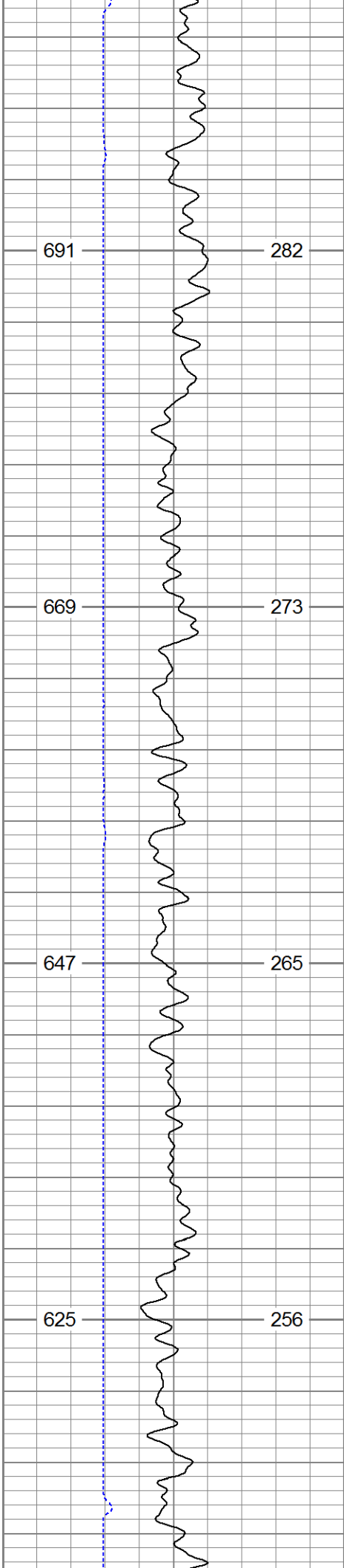










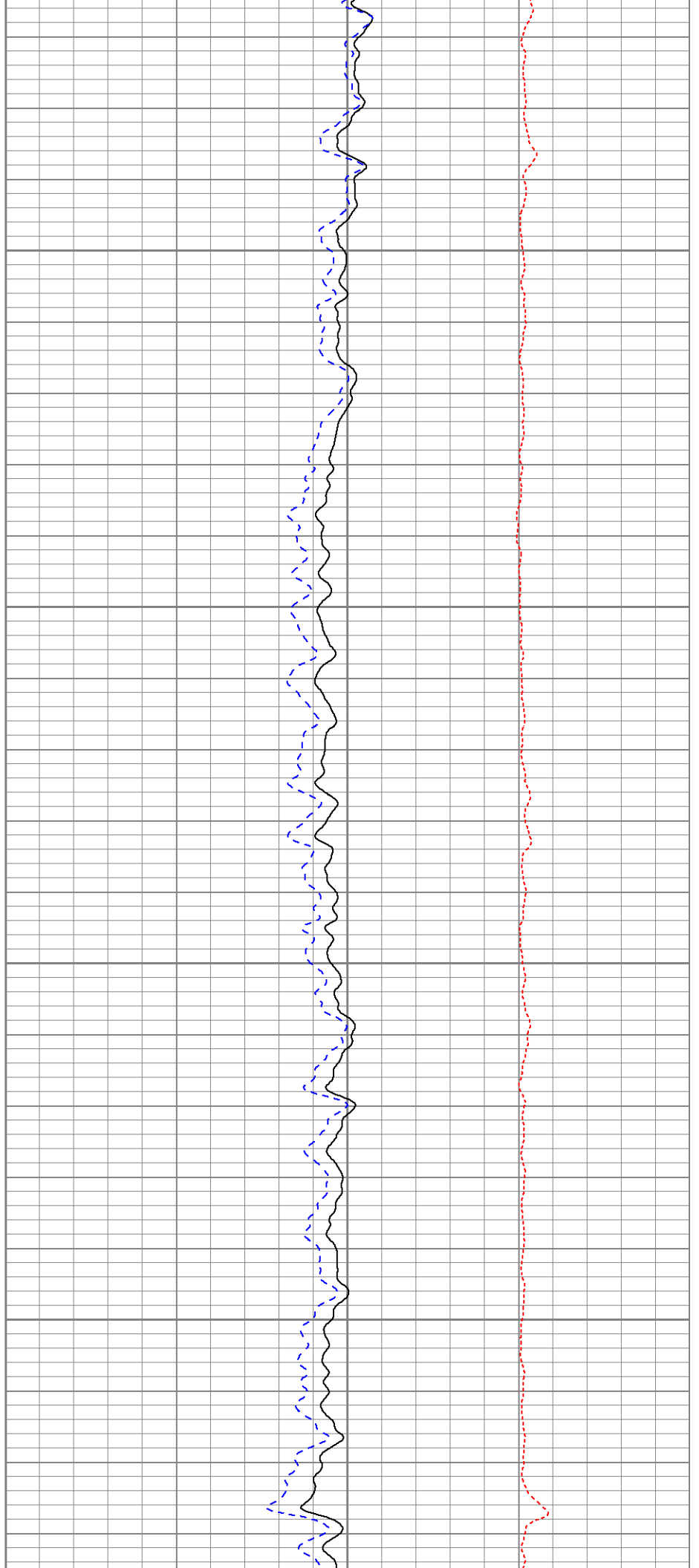


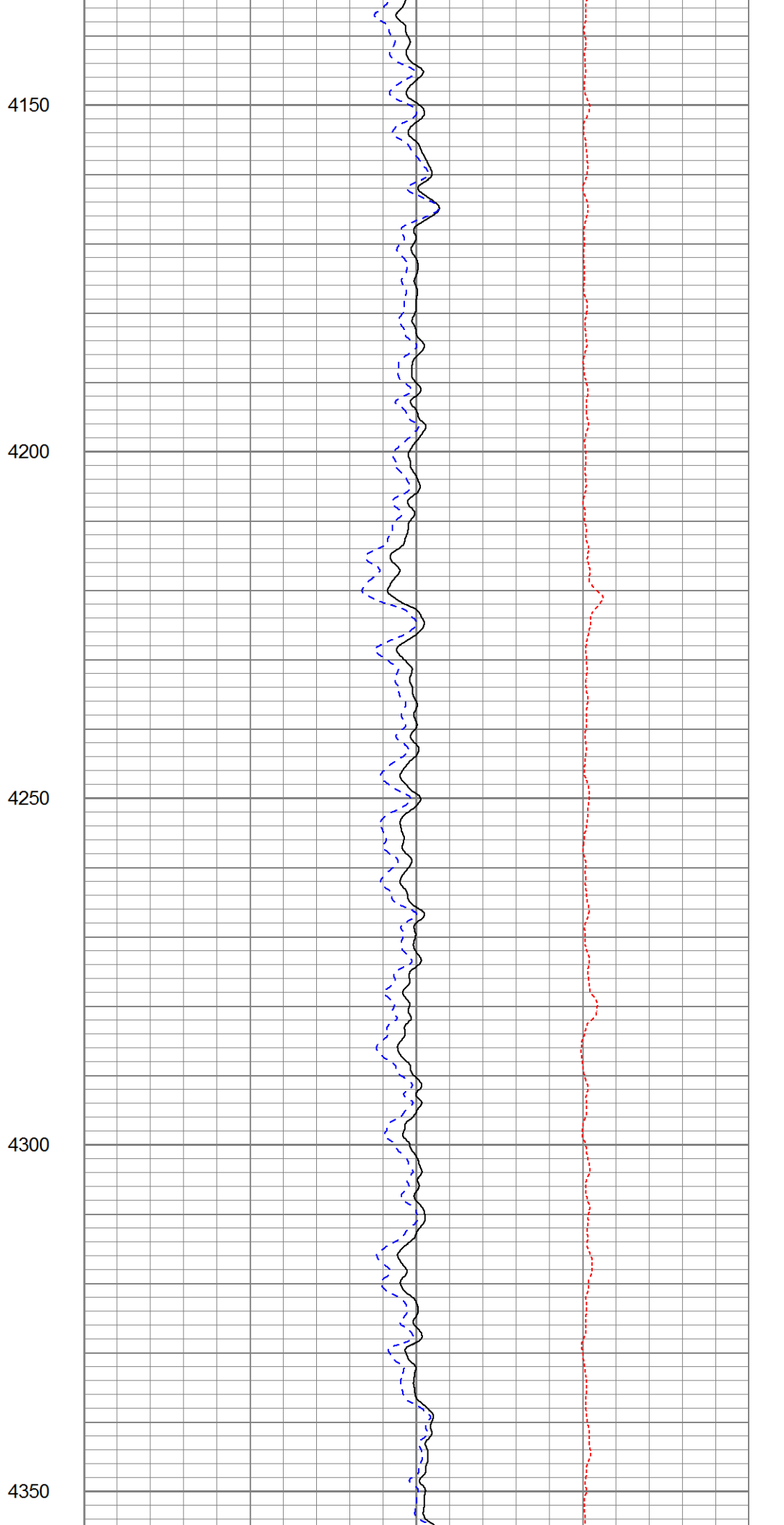
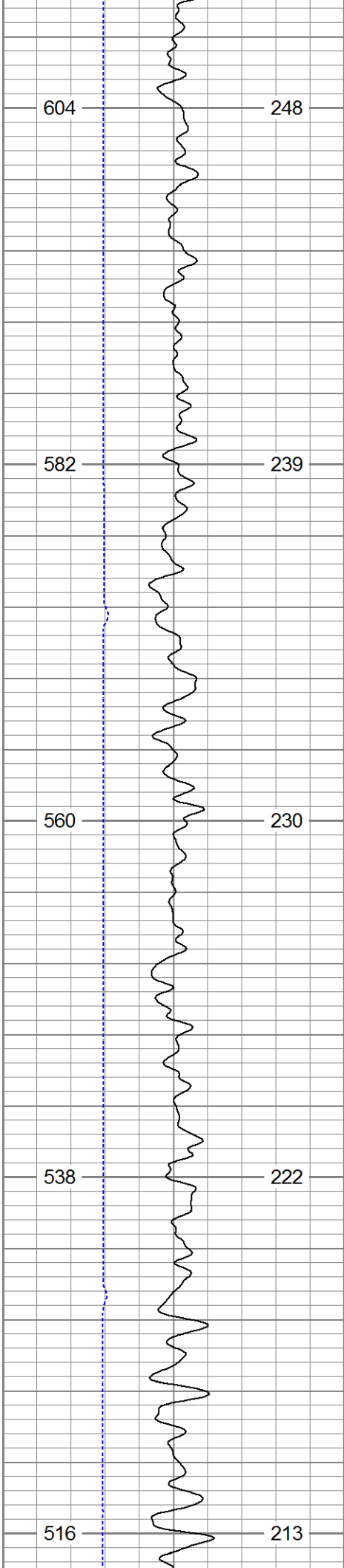
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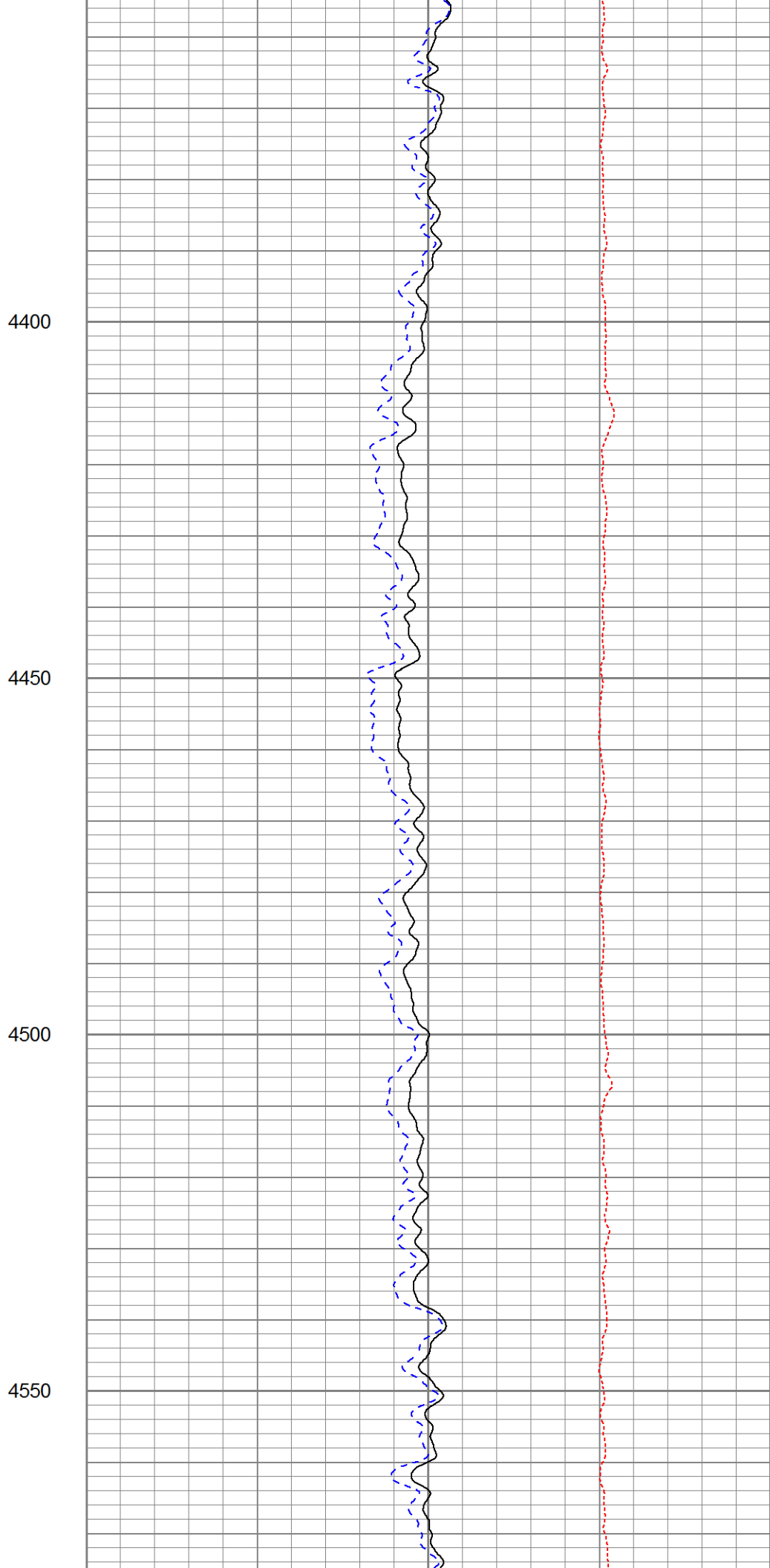
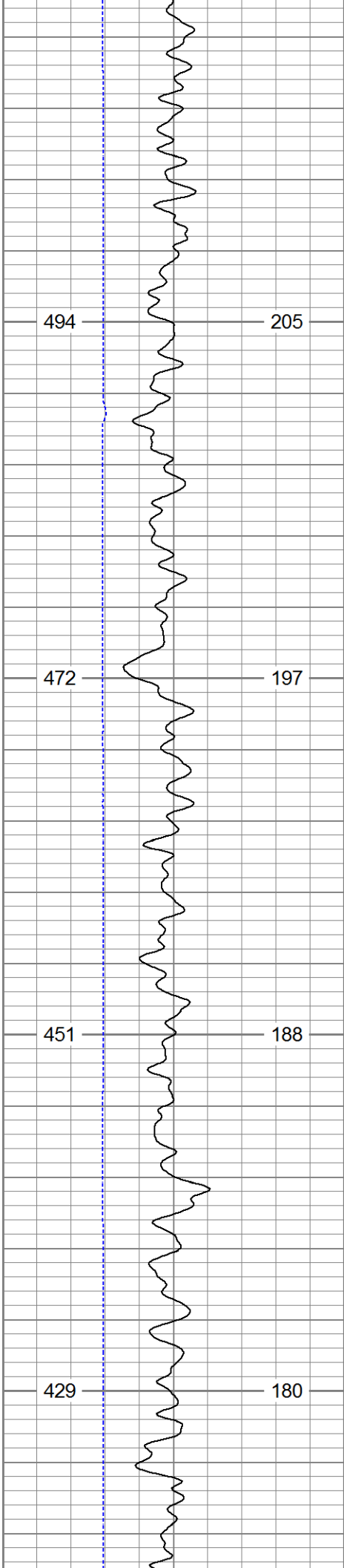
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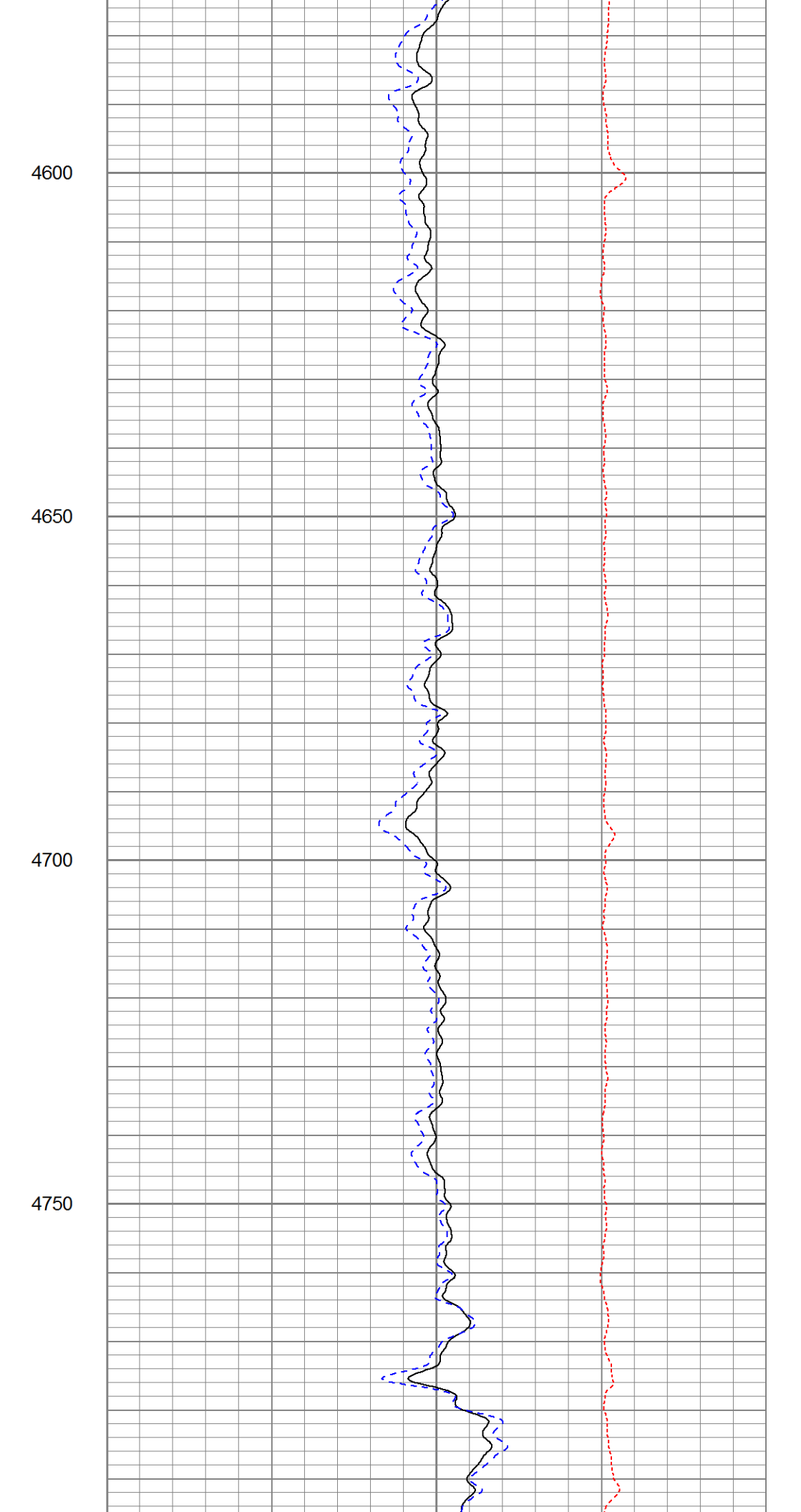
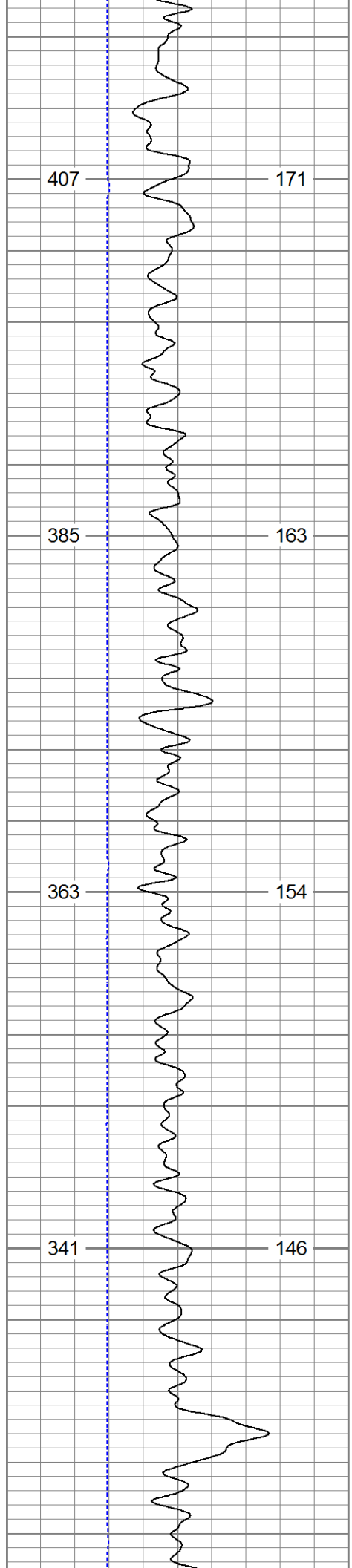
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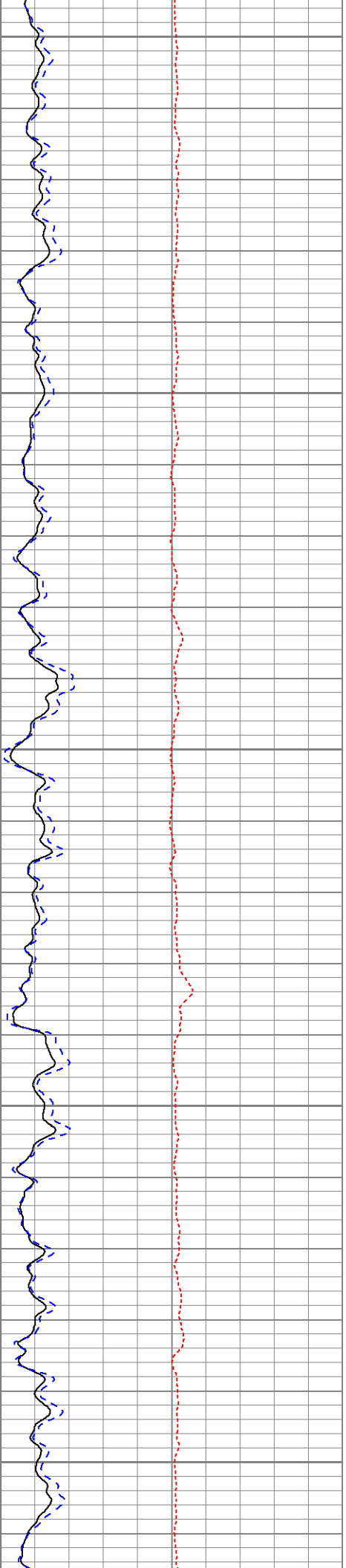
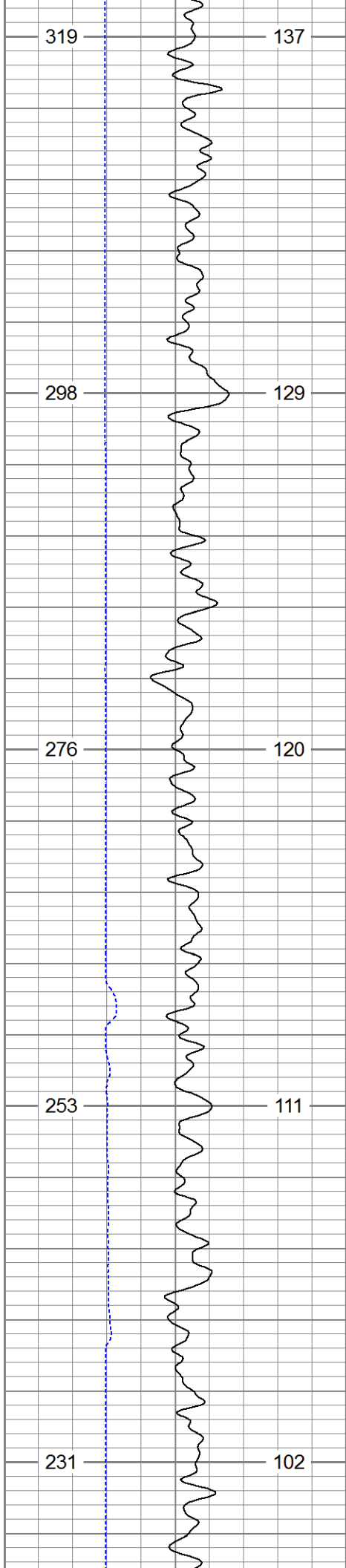
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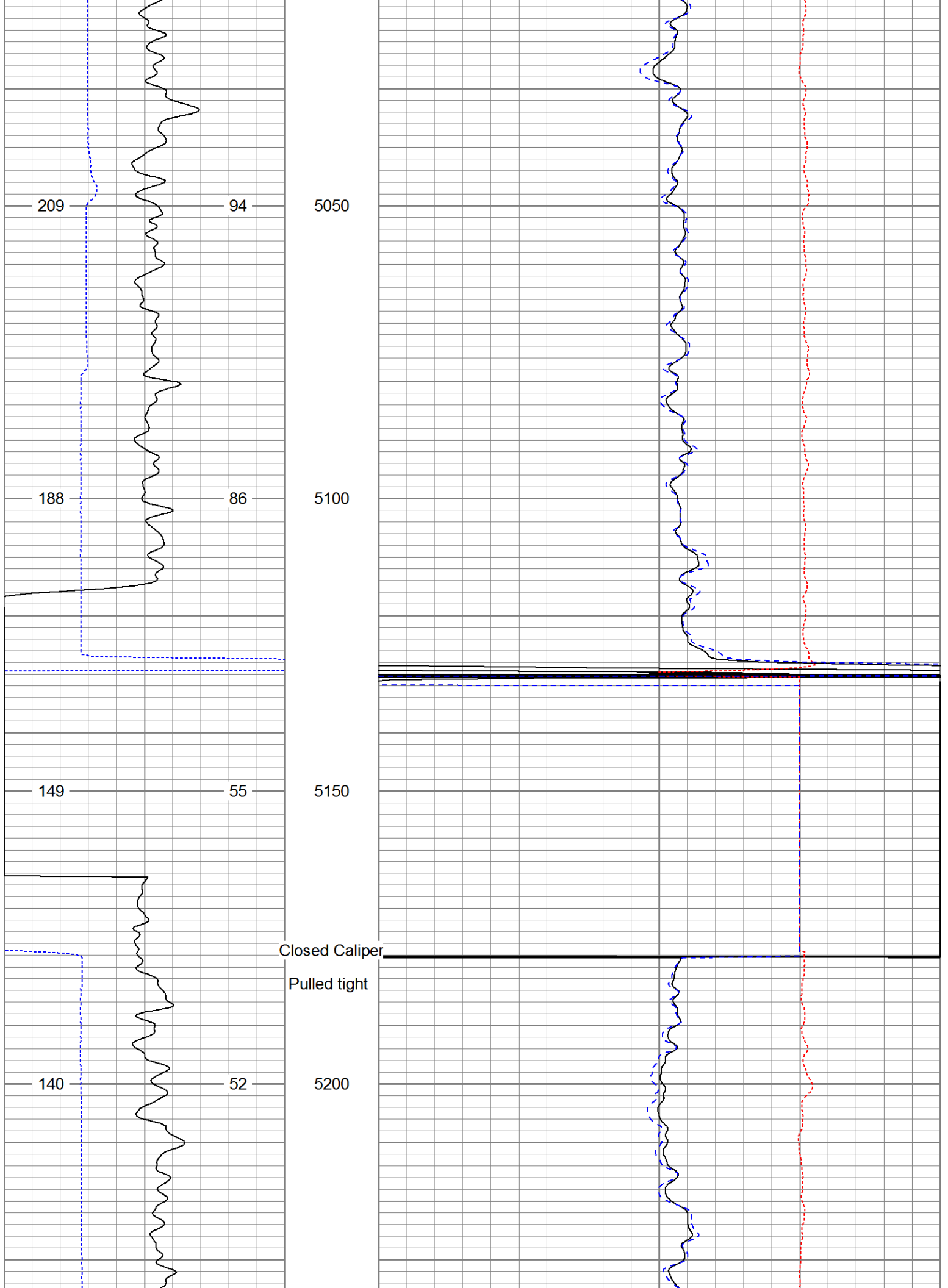


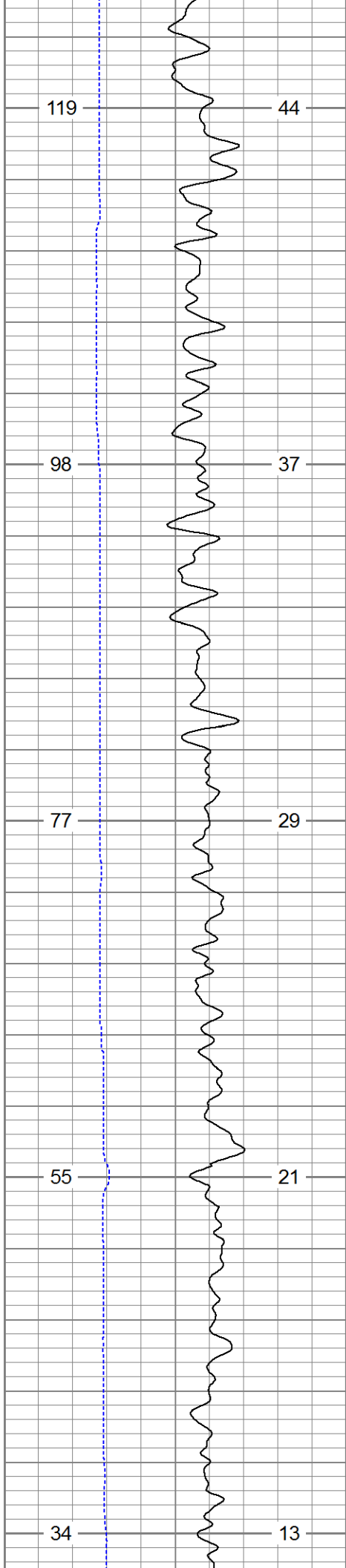












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