



LWD MEMORY LOG

Gamma Ray

Company: Noble Energy

Well: Bison Ridge Y22-756

Field: Wattenberg

County: Weld Country: United States

State: Colorado

Surface Location:

Other Services:

SEC: 10 TWN: 2N RGE: 64W

$$|\mathbf{e}|$$

A

Elevation: 4931.00 ft

Above P.D. 30.00 ft

Elev. N.B.	N/A
Elev. D.E.	4064 00 ft

Interval Logged

2065.00 t)

17330.00 11. (1)

0	Azi Reference North:	Grid
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Total Magnetic Field Strength:

Wang et al. / *Violence and Victims* 26(1)

Magnetic Field Reference

Dip Angle: (deg)

(iii)

1011: (uug)

Borehole Rec

 \bar{T}_O (ft)

Casing Record

Mud Record

To (ft)

Deviation Record

Software Version

T4.1

7763.3

Other

e Drilling Co

Unit:

"4239"Dcmgt"Jwijgu."c"IG"eqorcp{."NNE"ô"Cnn"tkijvu"tgugtxcf0"Dcmgt"Jwijgu."c"IG"eqorcp{."NNE"cpf"kvu"chhknkcvgu"*ôDJIGö+"rtqxfkgu"vjku"kphqtocvkqp"qp"cp"ôcu"kuô"dcuku"hgt"igpgtcn"kphqtocvkqp" purposes and believes it to be accurate as of the date of publication. BHGE does not make any representation as to the accuracy or completeness of the information and makes no warranties of any kind, specific, implied or oral, to the fullest extent permissible by law, including those of merchantability and fitness for a particular purpose or use. BHGE hereby disclaims any and all liability for any direct, indirect, consequential or special damages, claims for lost profits, or third party claims arising from the use of the information, whether a claim is asserted in contract, tort, or otherwise. The BHGE logo is a trademark of Baker Hughes, a GE company, LLC. GE and the GE monogram are trademarks of General Electric Company used under trademark license.

Log Run Summary

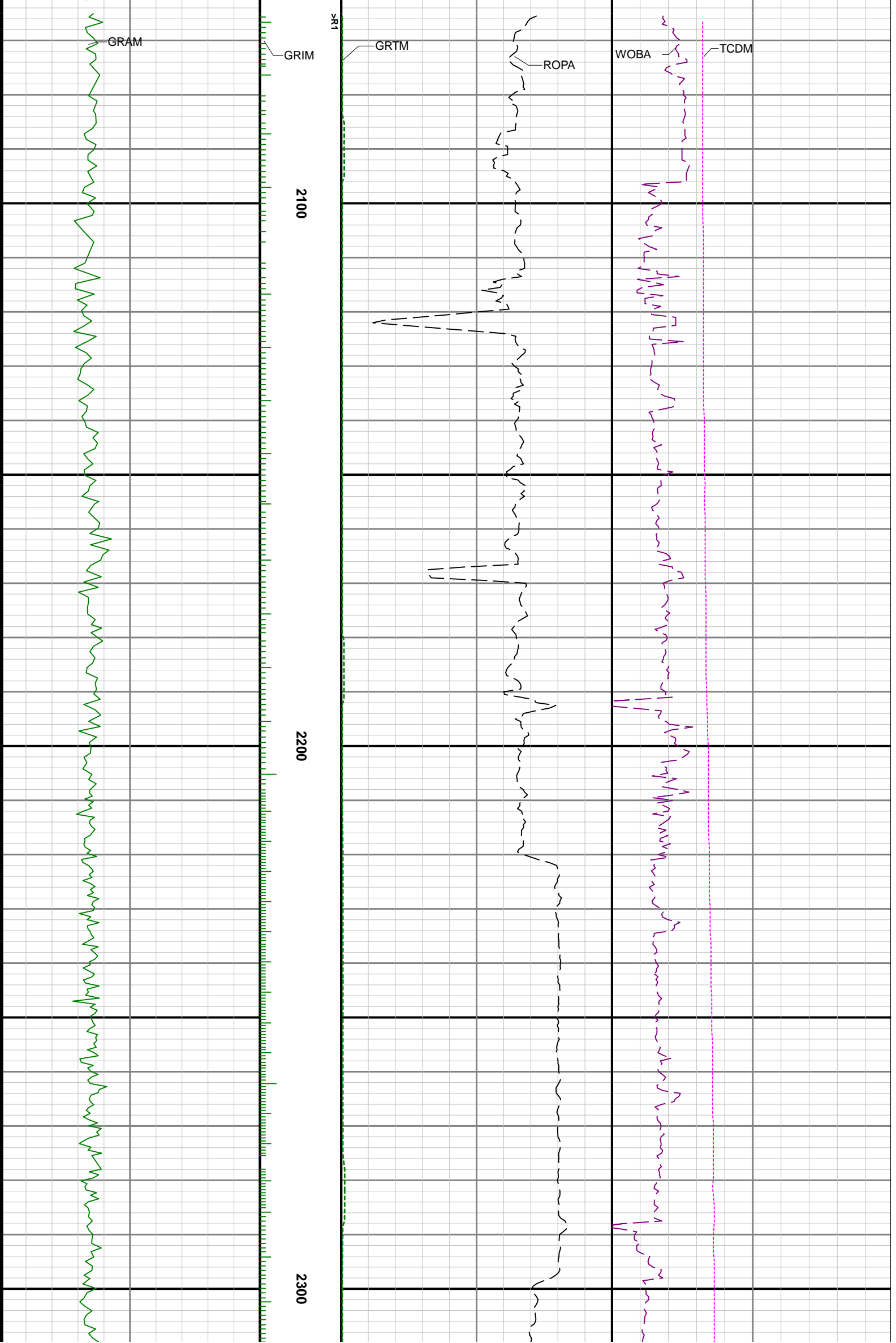
Run No	Bit Run No.	Bit Size (in)	Bit Type	Bit Gauge Length (in)	Assembly Type	Logged Interval		Bit Depth Interval		Date / Time		Circ. Hours (h)
						Top	Bottom	From	To	Start Logging	End Logging	
						(ft)	(ft)	(ft)	(ft)			
1	1	8.500	PDC	3.00	Rotary Steerable	2065.00	17324.00	2065.00	17336.00	2017-12-14 19:01	2017-12-17 09:46	58.00

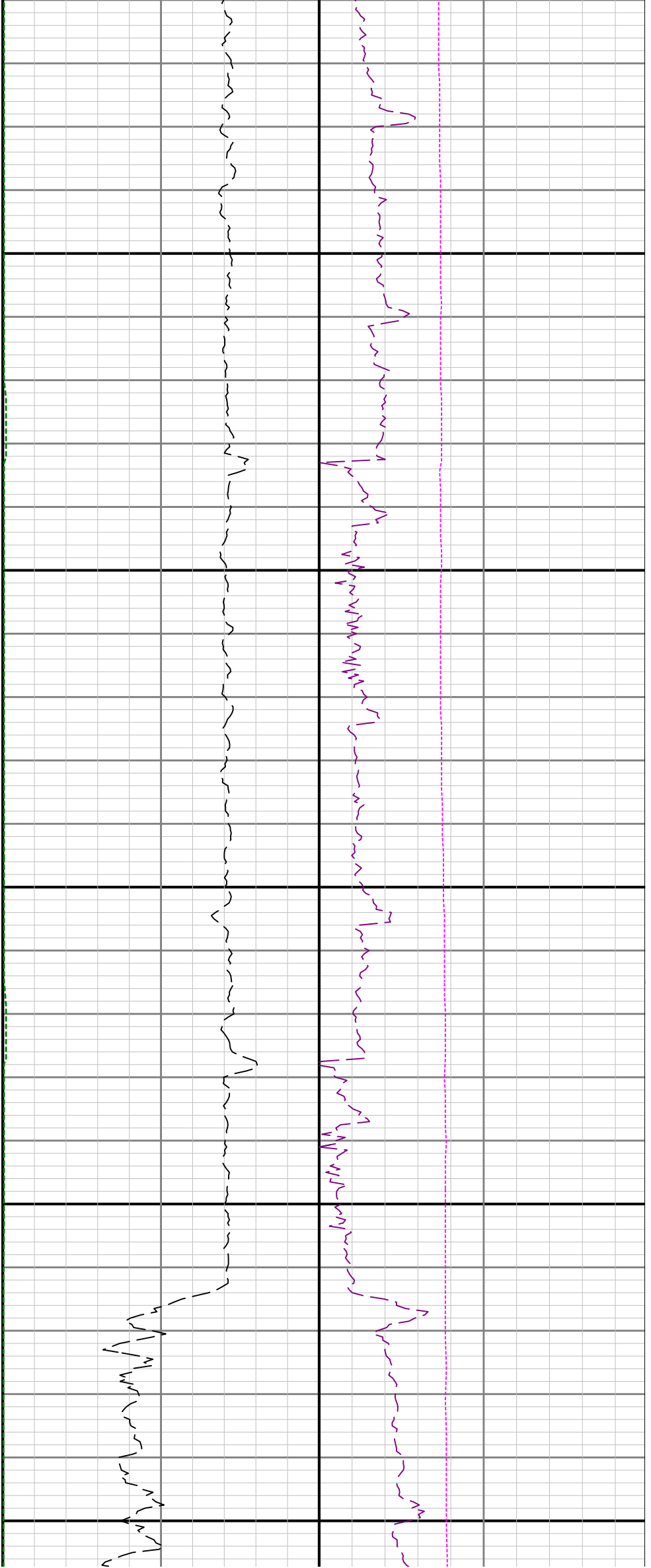
Crew

Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite
Mohammad Odetallah	2017-12-13	2017-12-18	Robert Berendes	2017-12-13	2017-12-18			

Mud Properties Record

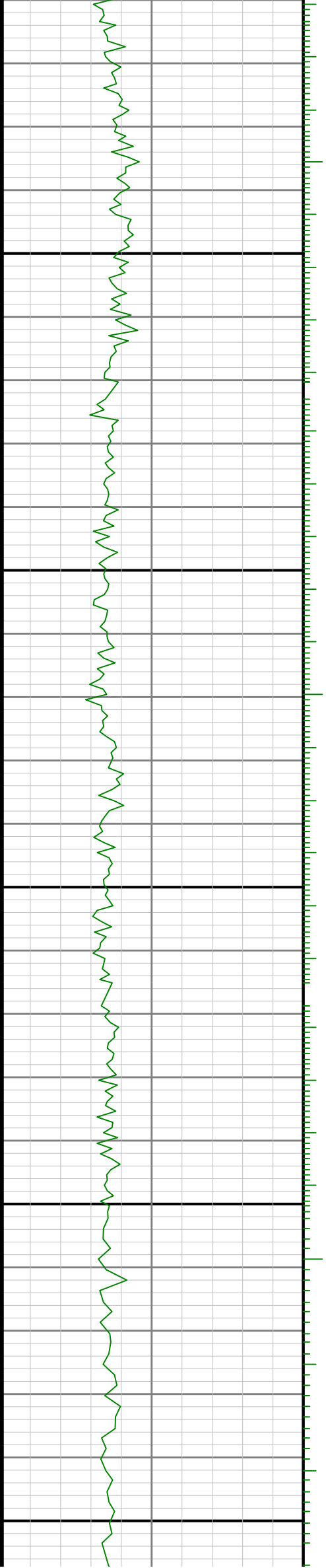
Date / Time	Run No.	Measured Depth (ft)	Mud Type	Density (ppg)	Viscosity (cP)	pH	Fluid Loss (cm3)	Oil / Water	Source	Total Chlorides (ppm)	K+ (%)
2017-12-14 13:30	1	2065.00	Oil Based Mud	9.3	10	N/A	21.6	72/28	Active Pit	19000	0.00

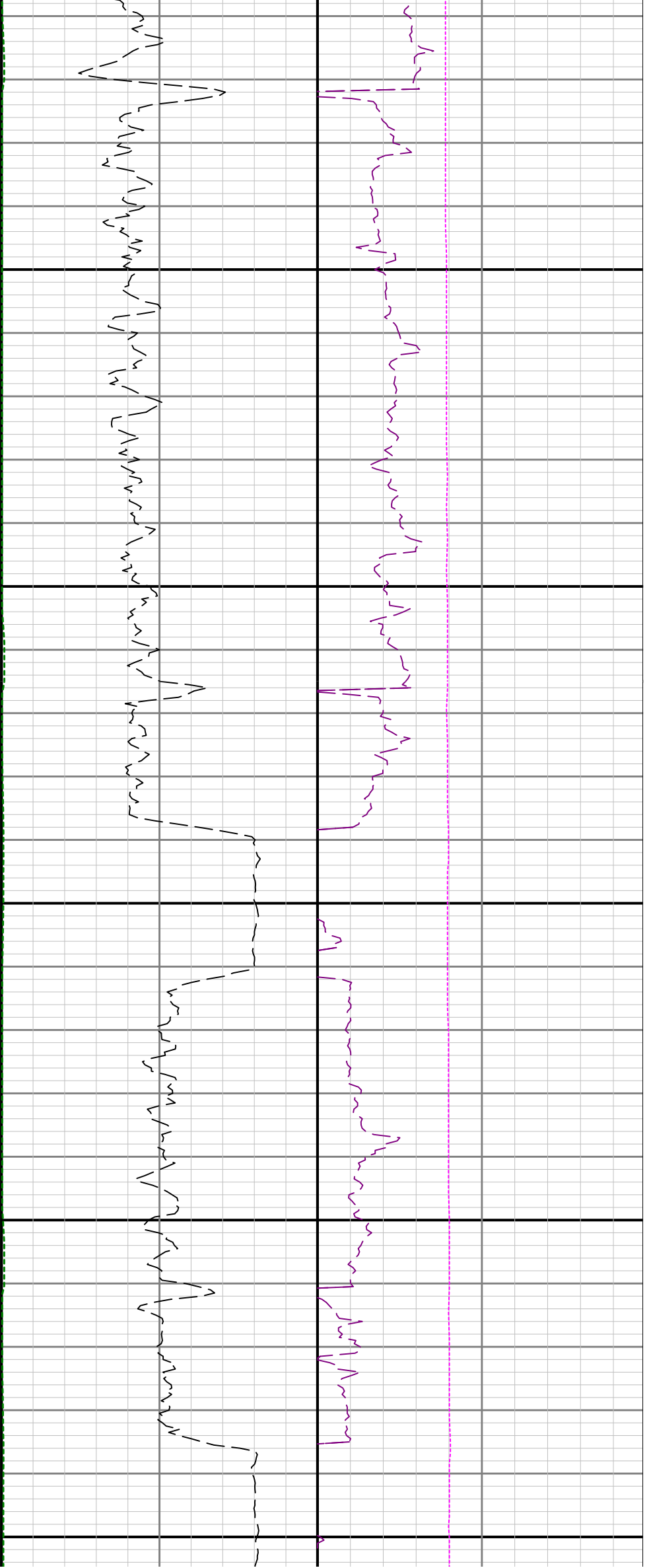




2400

2500

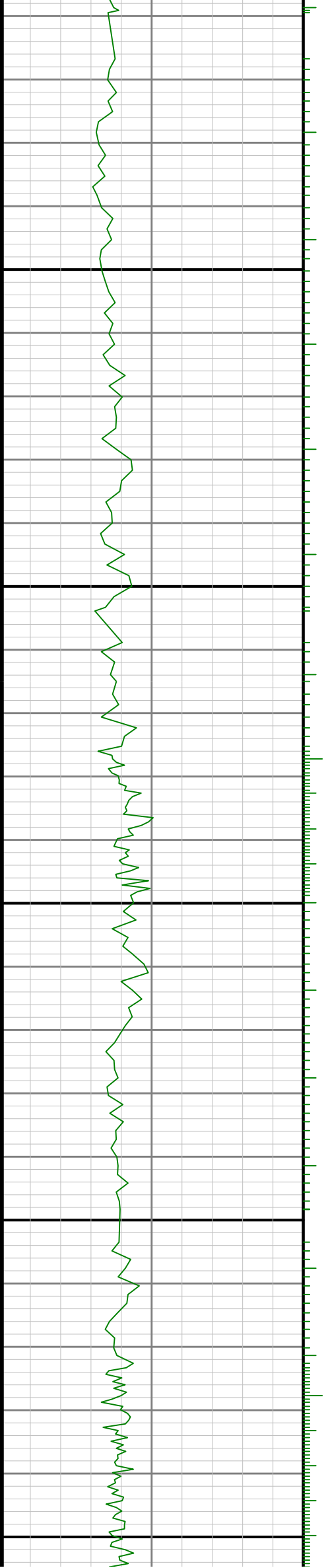


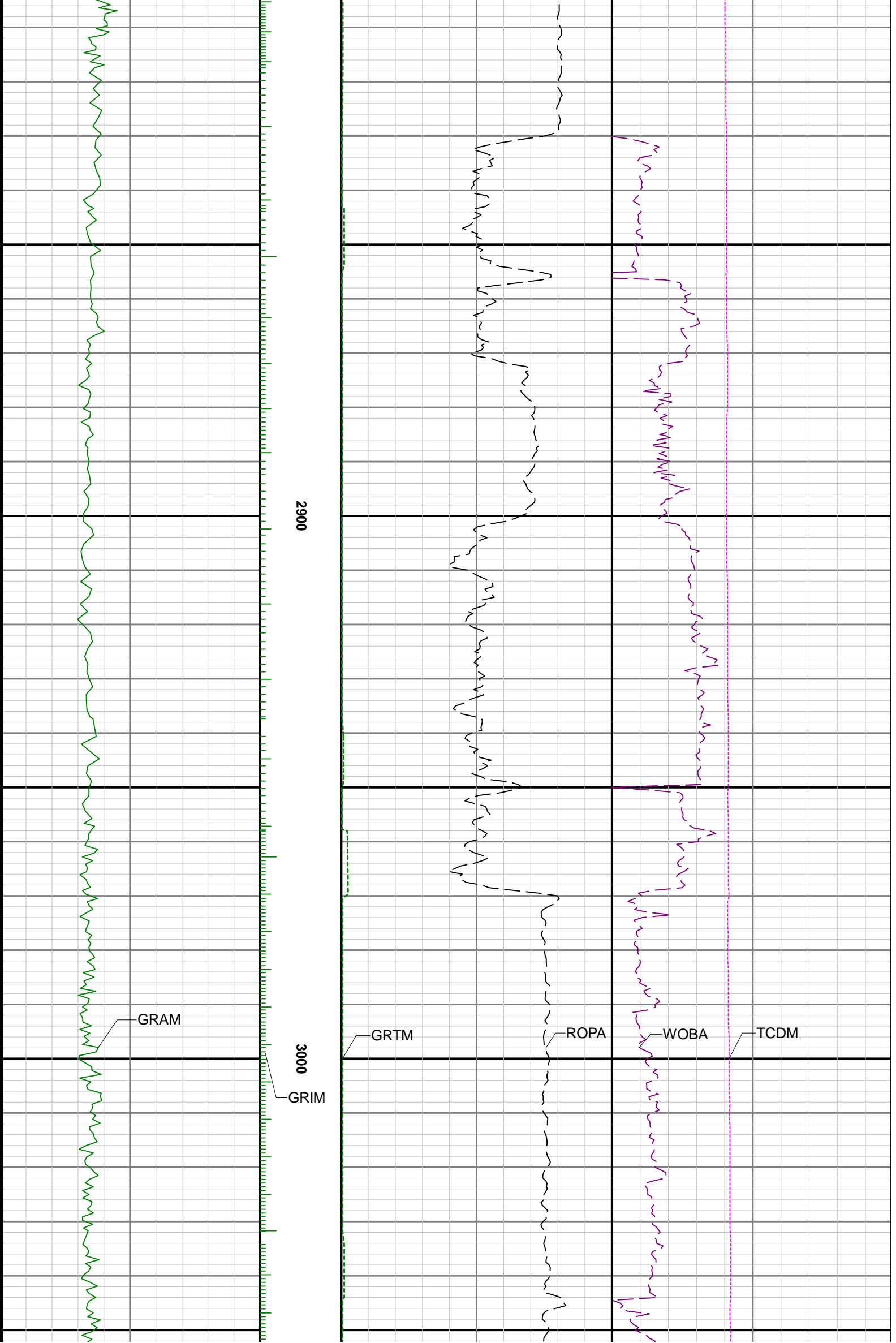


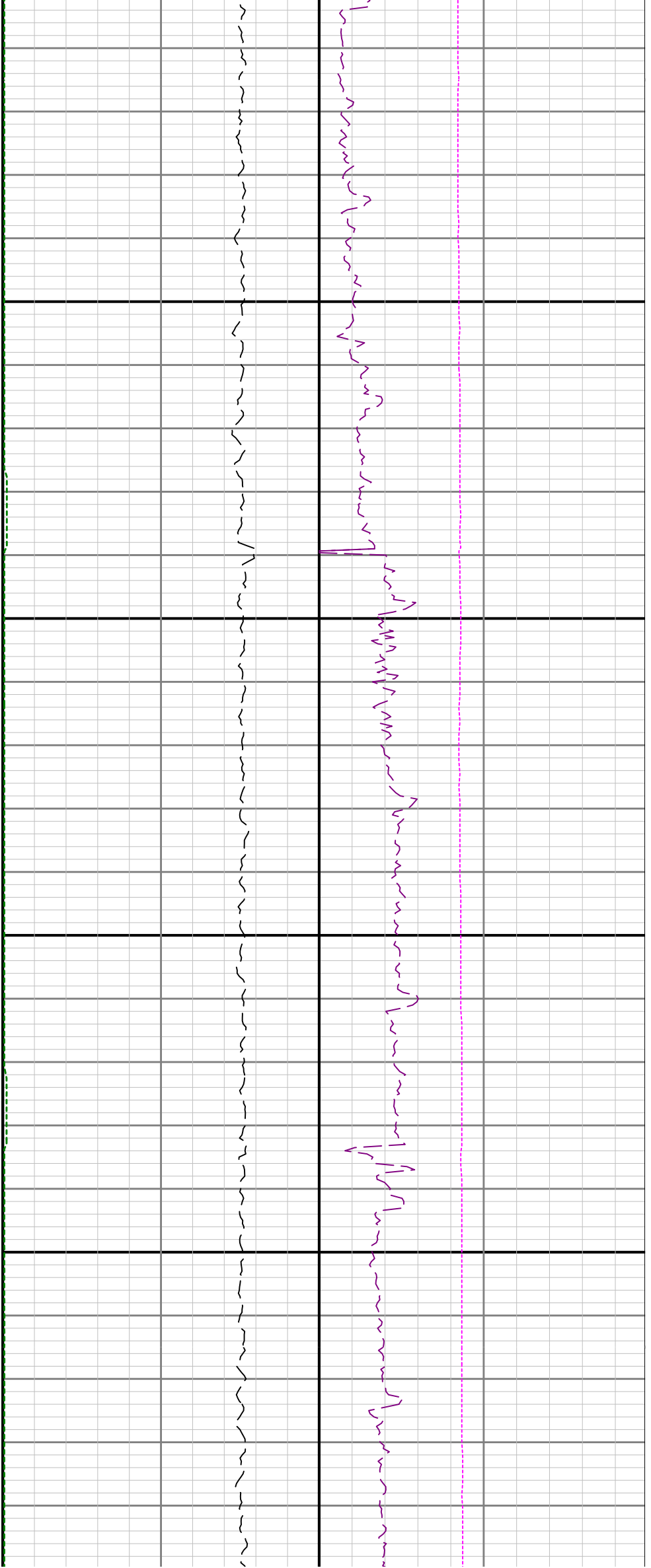
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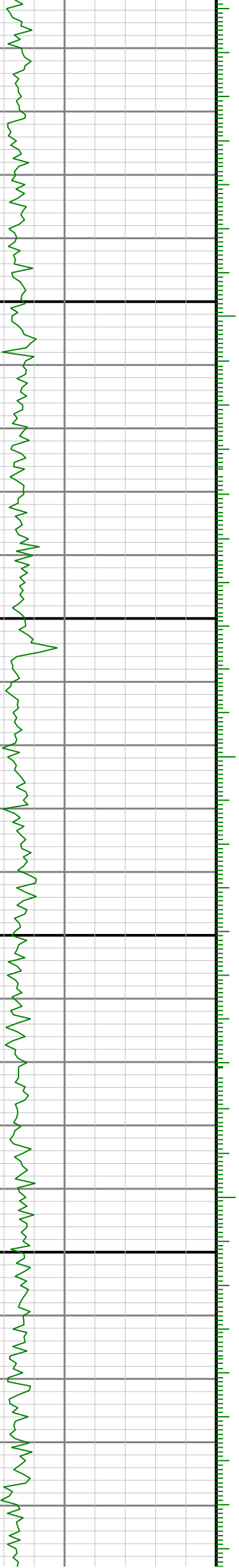


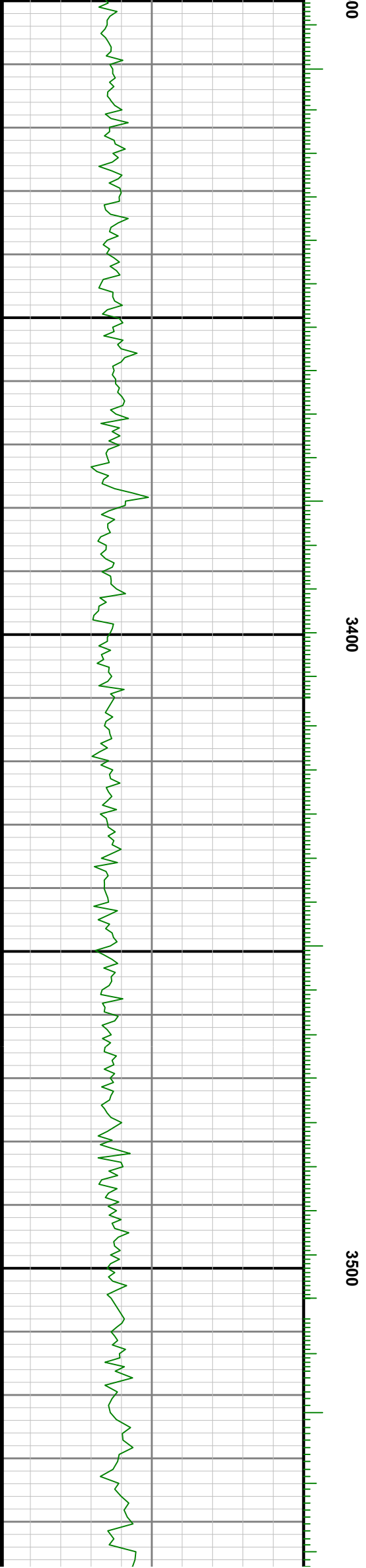


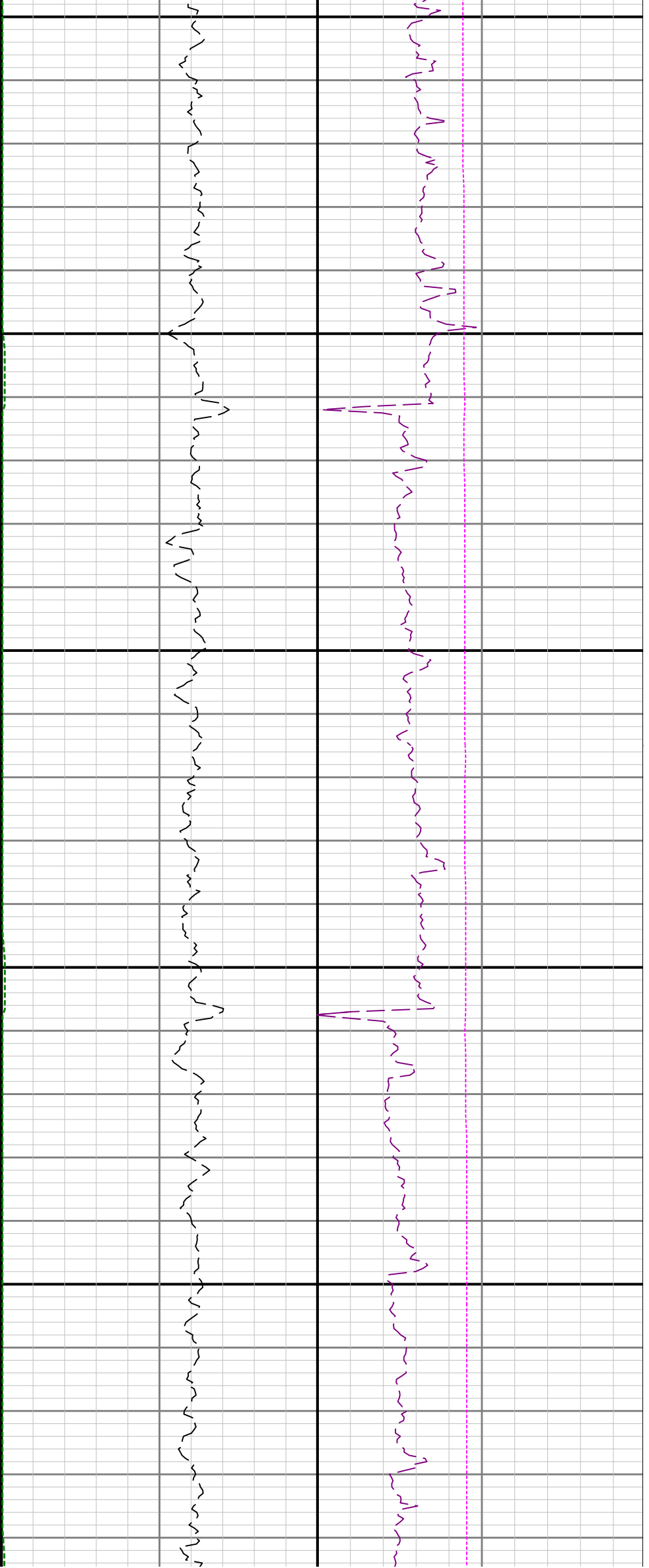
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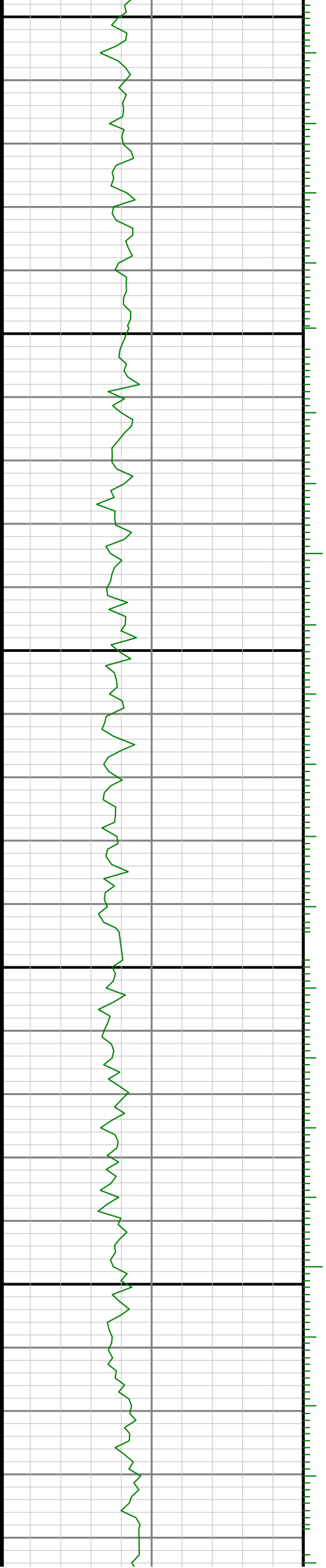


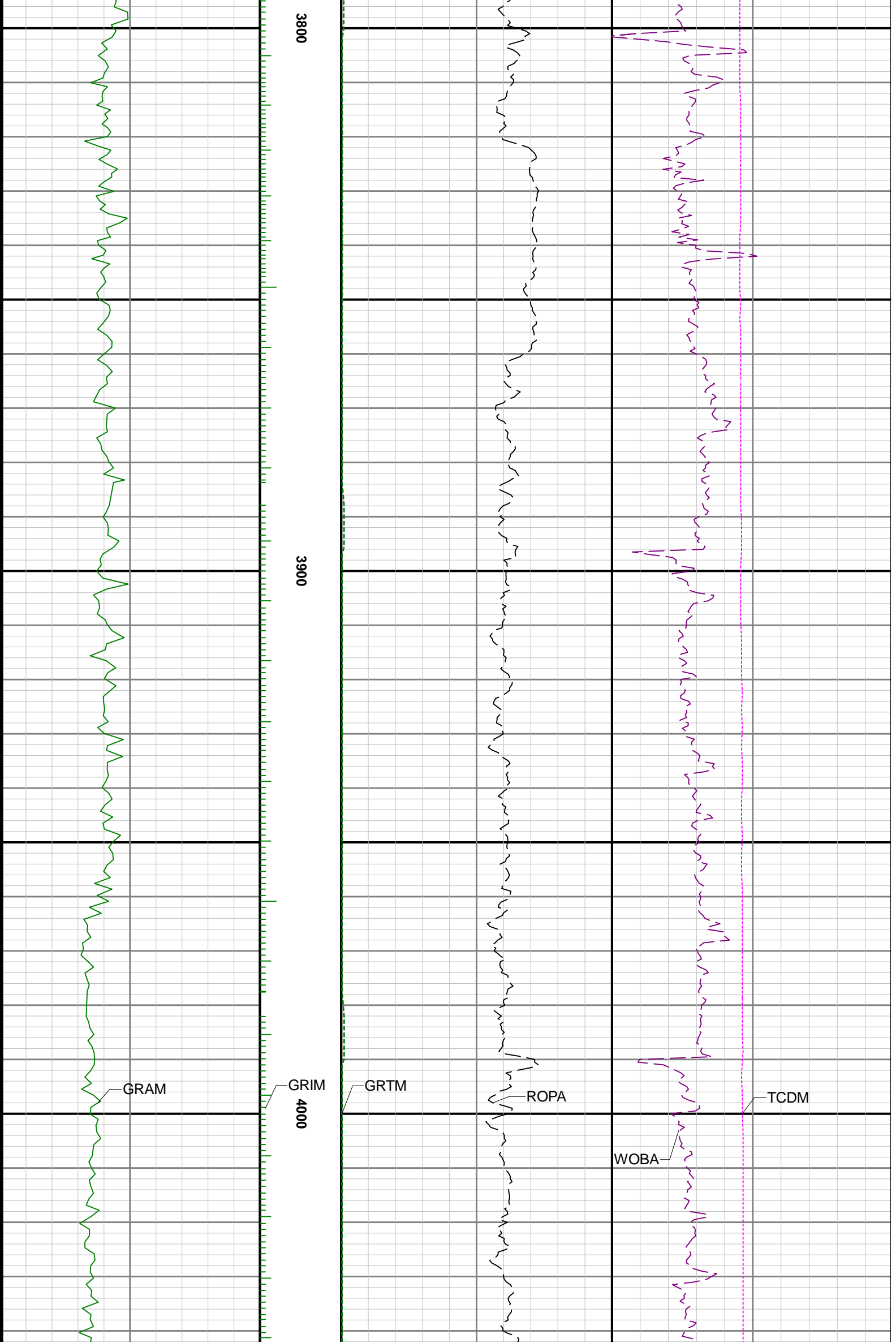


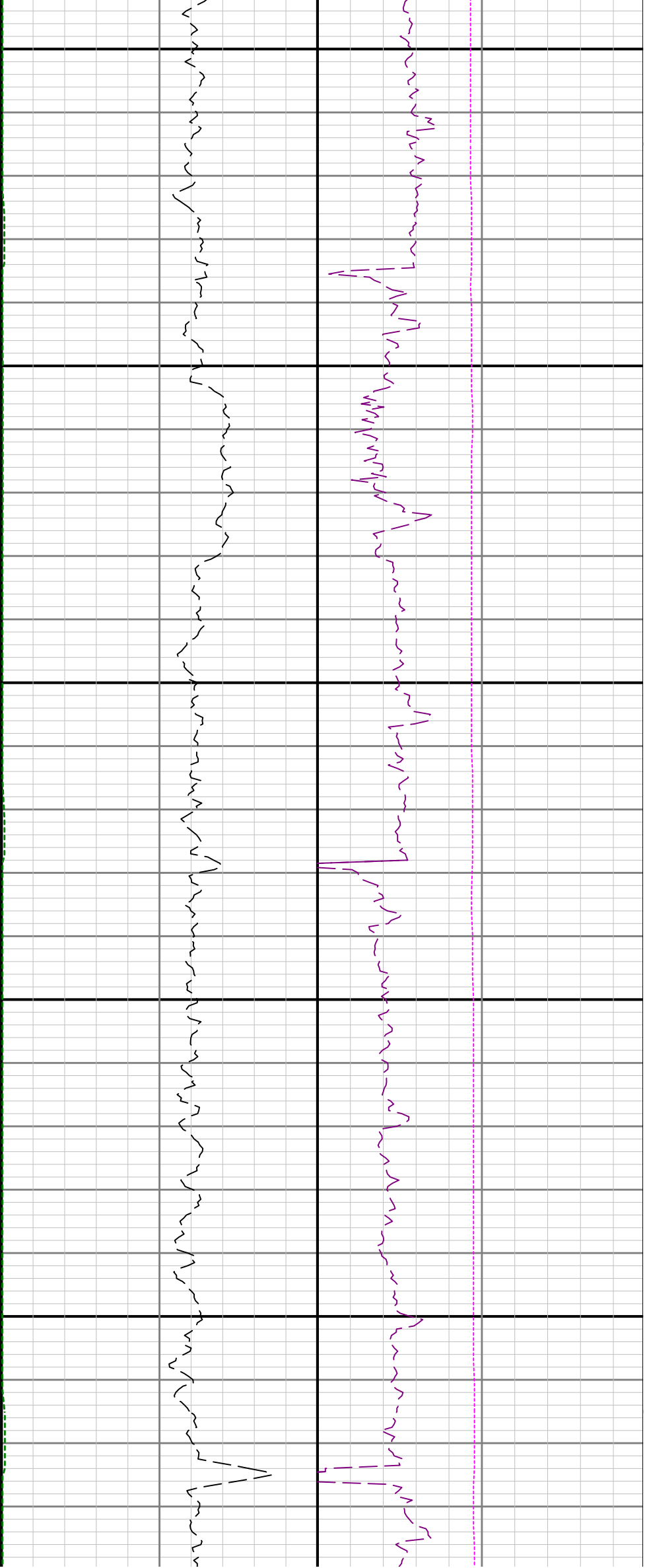


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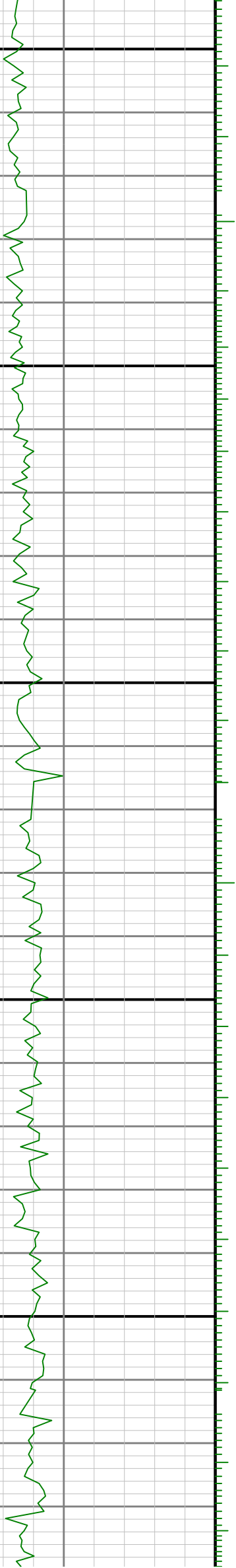


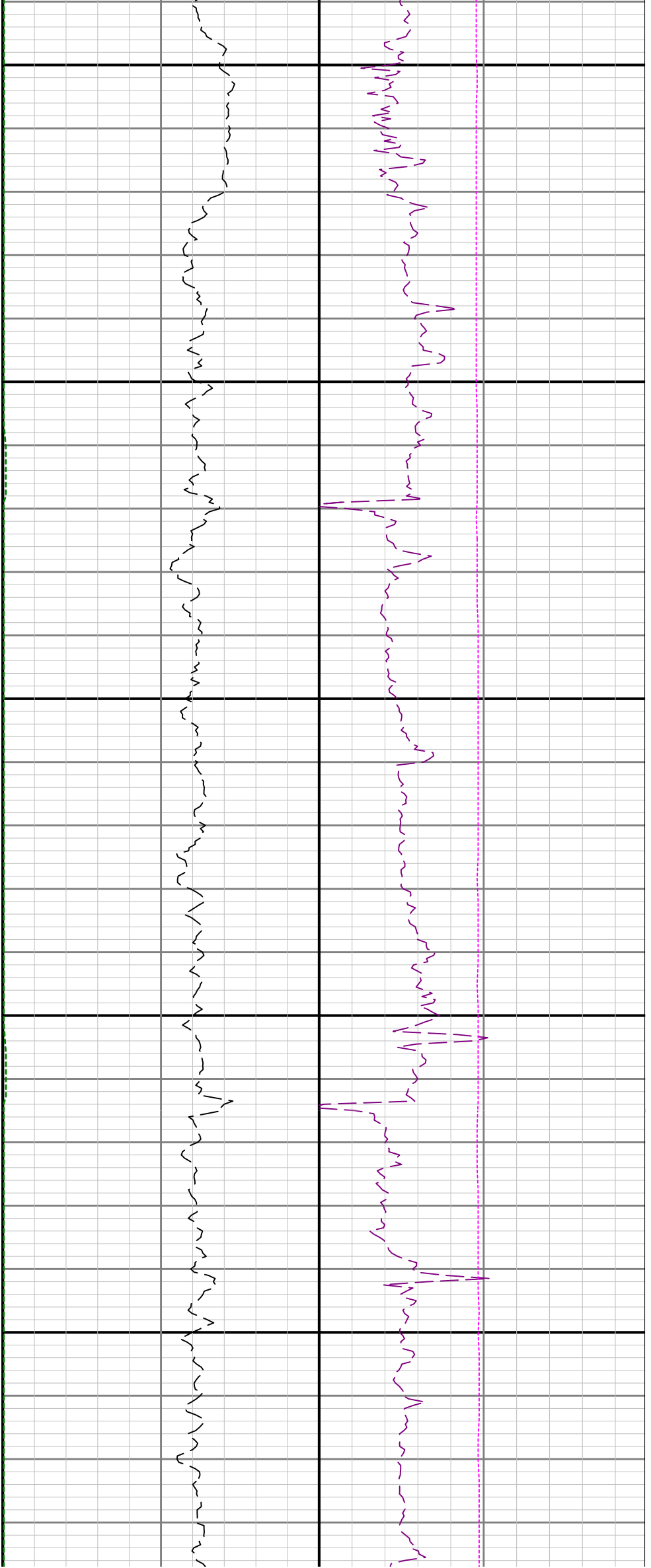




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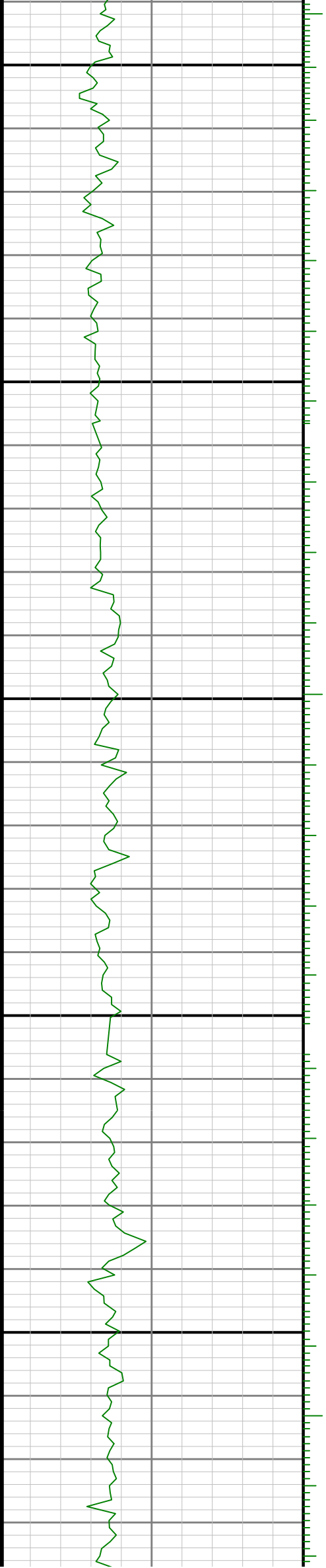


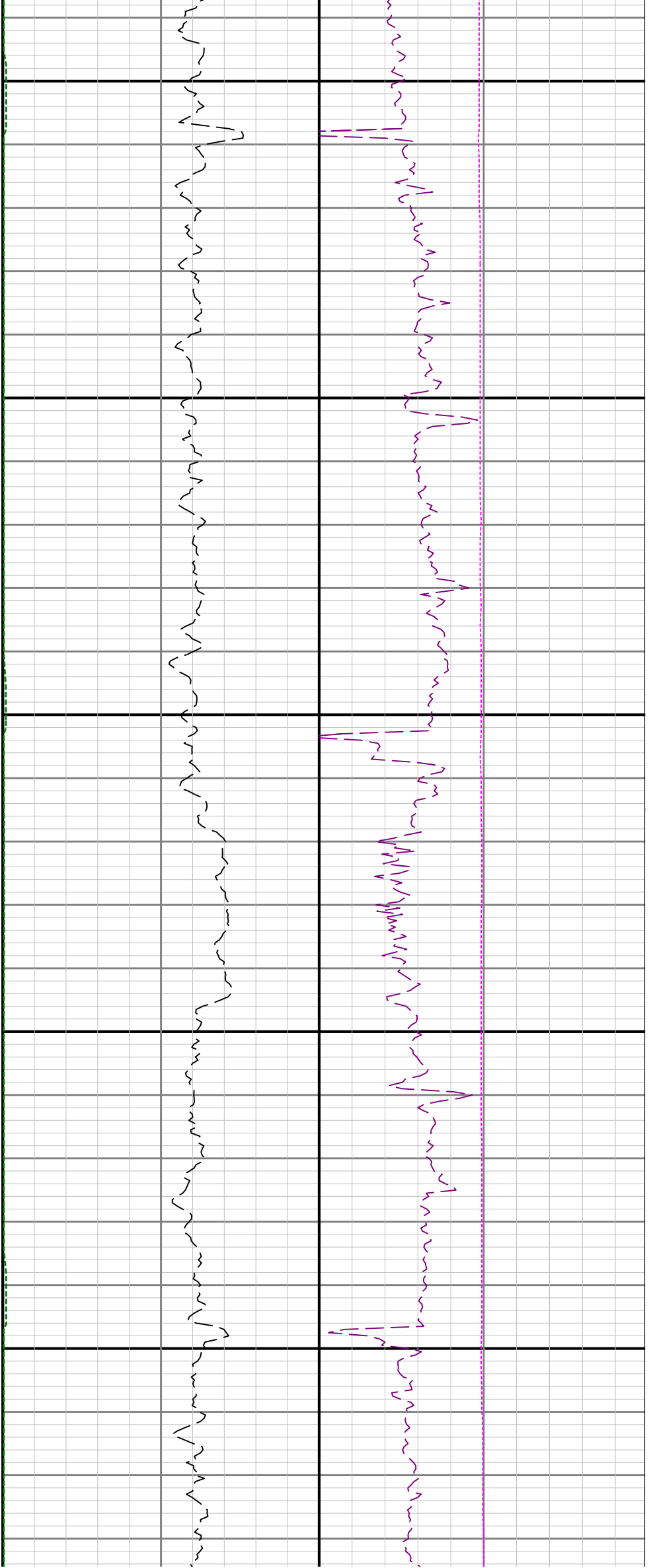


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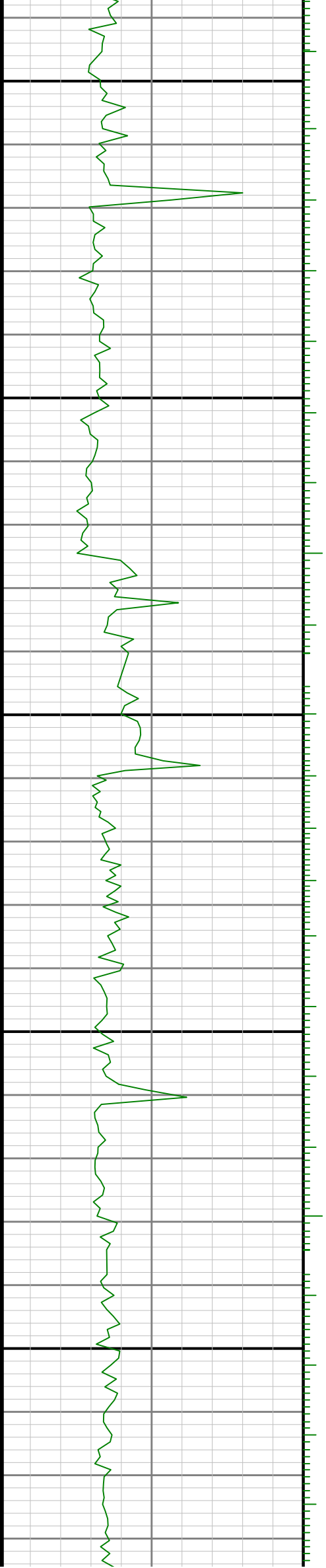
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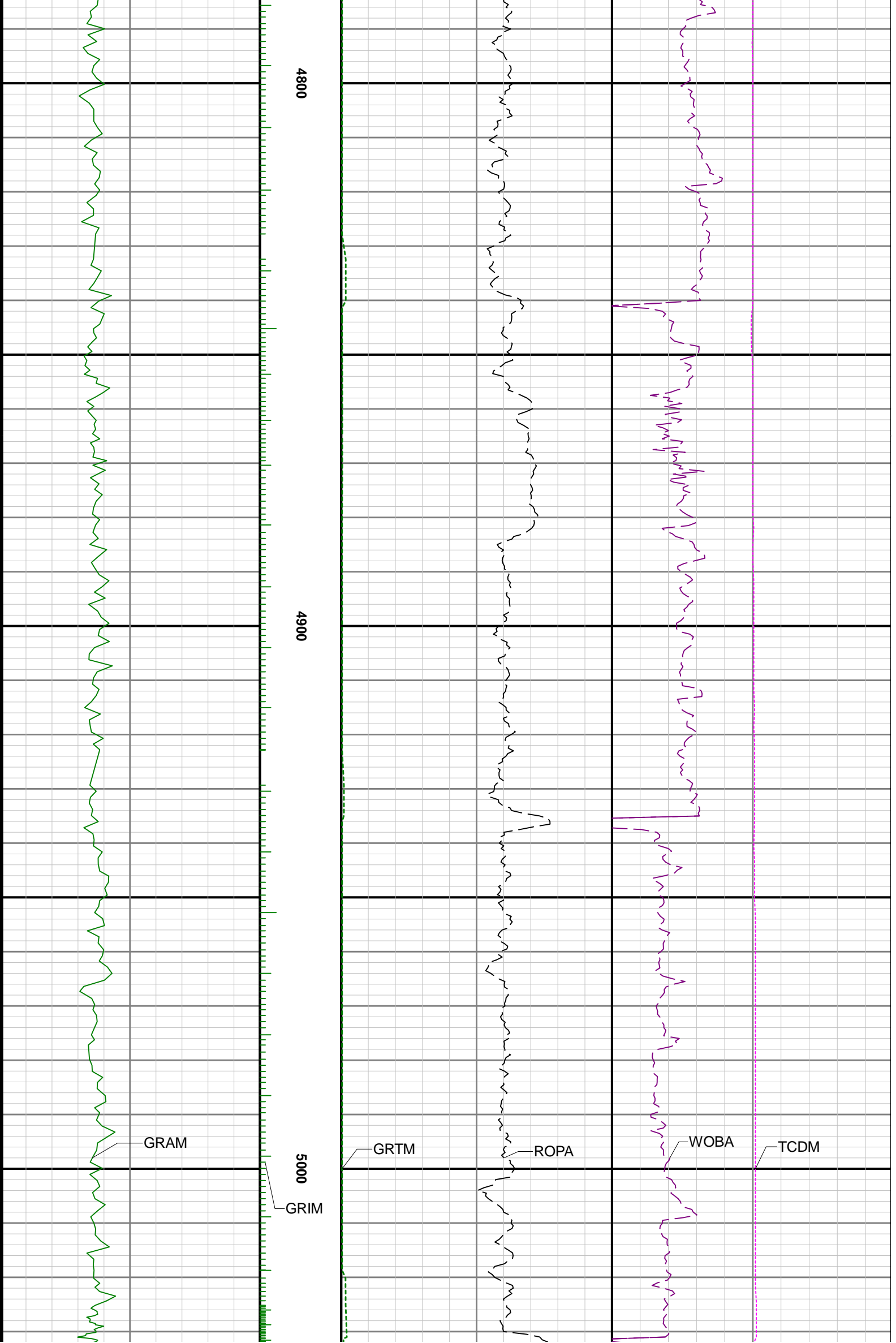


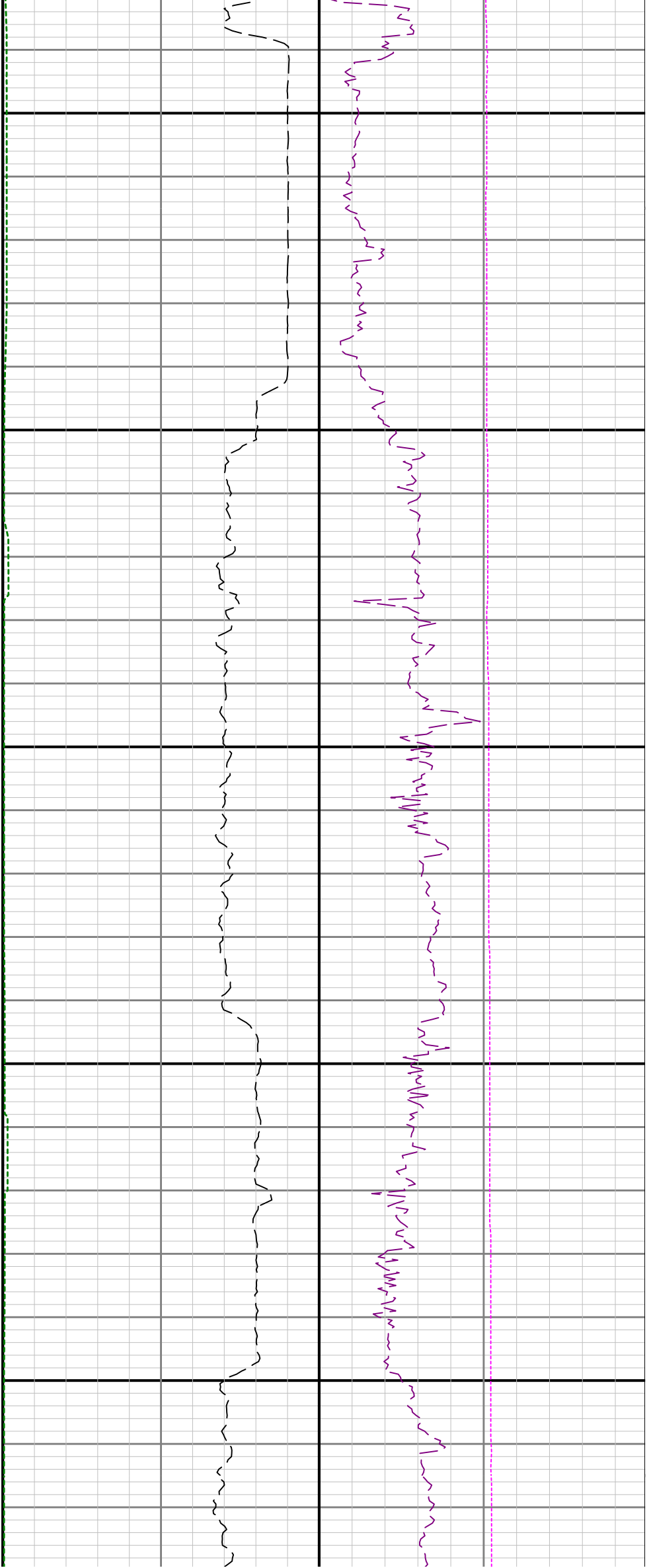


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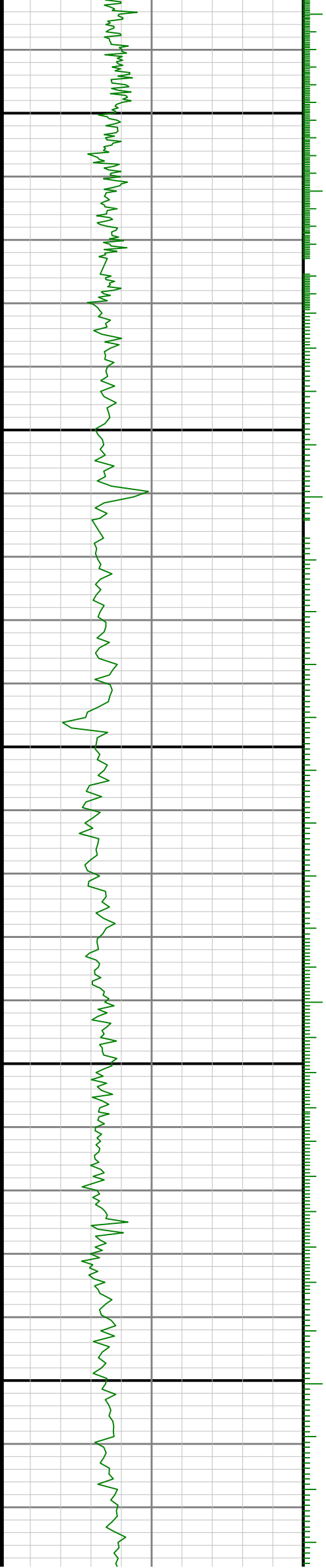


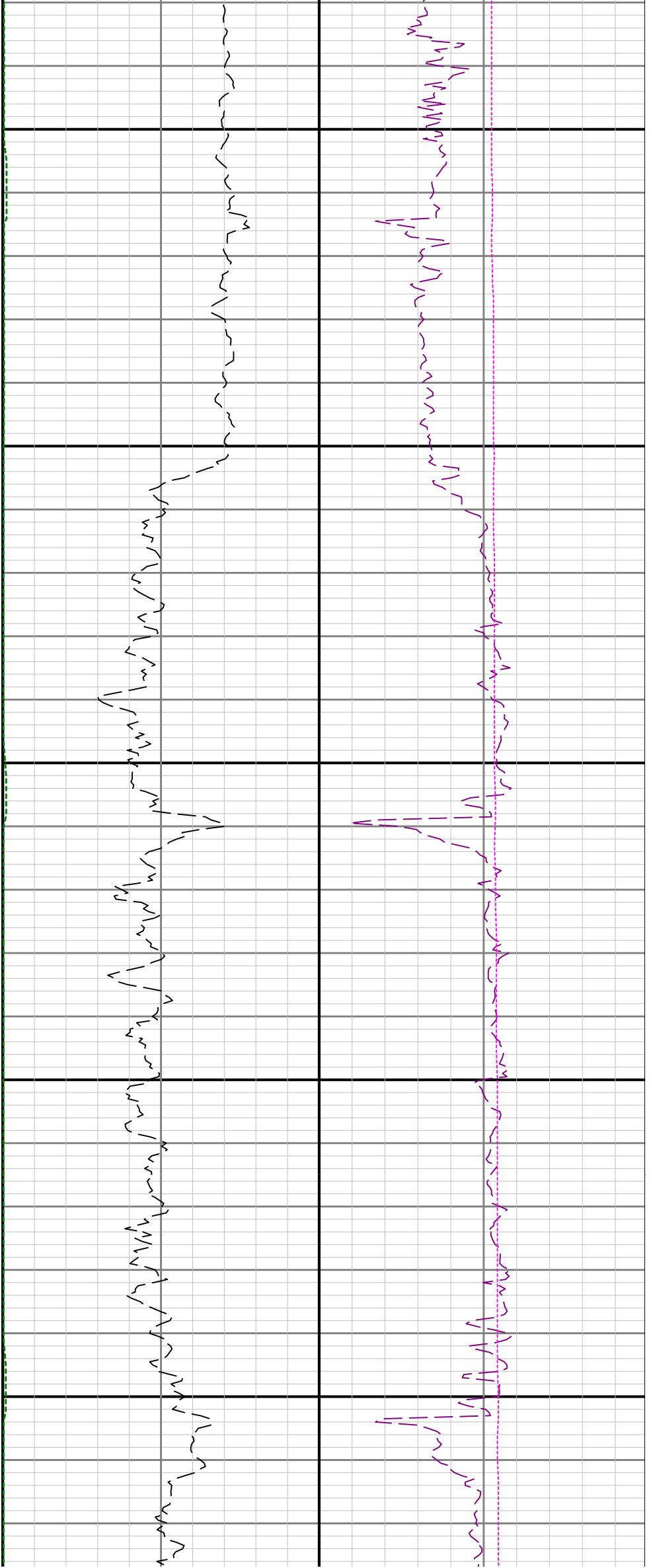




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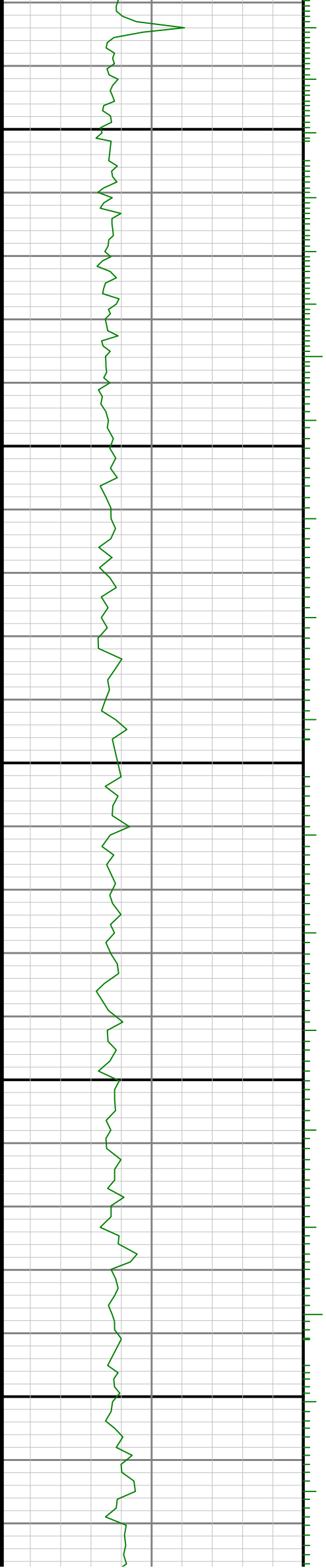


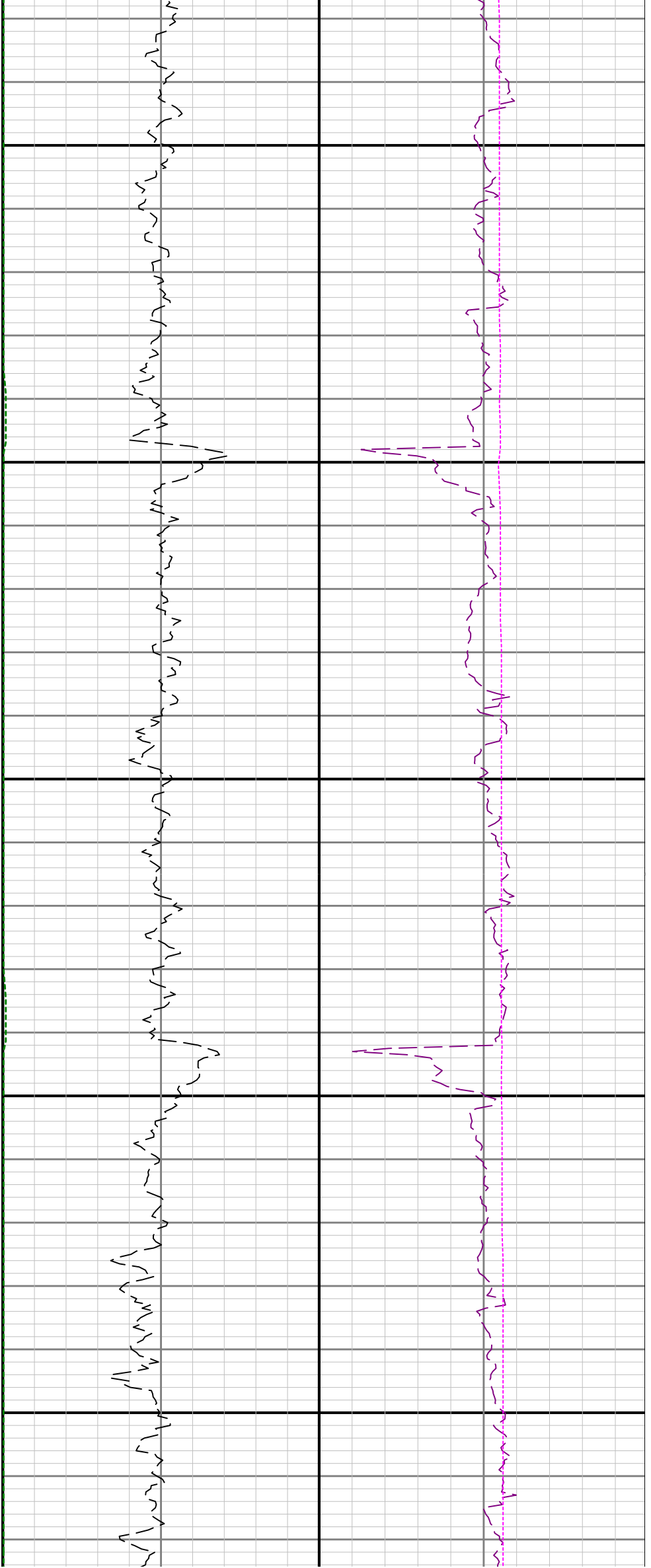


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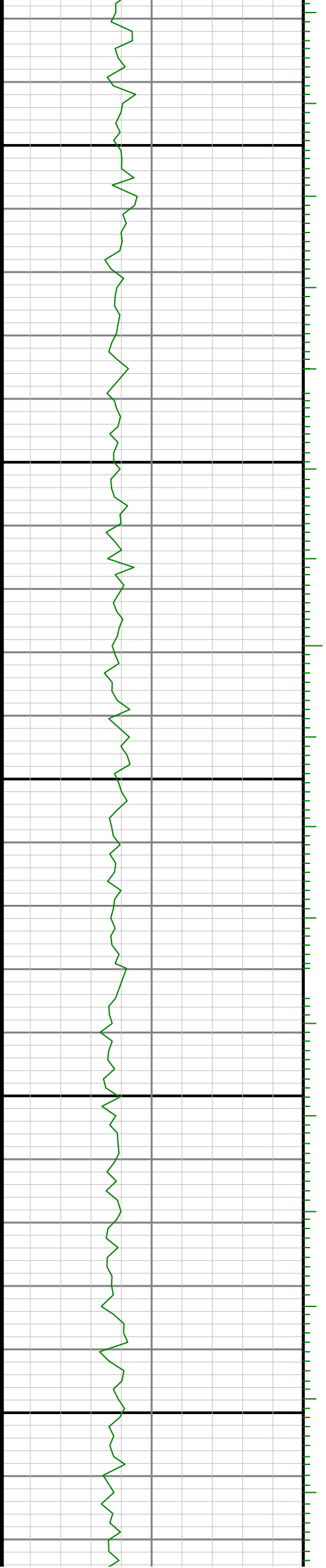
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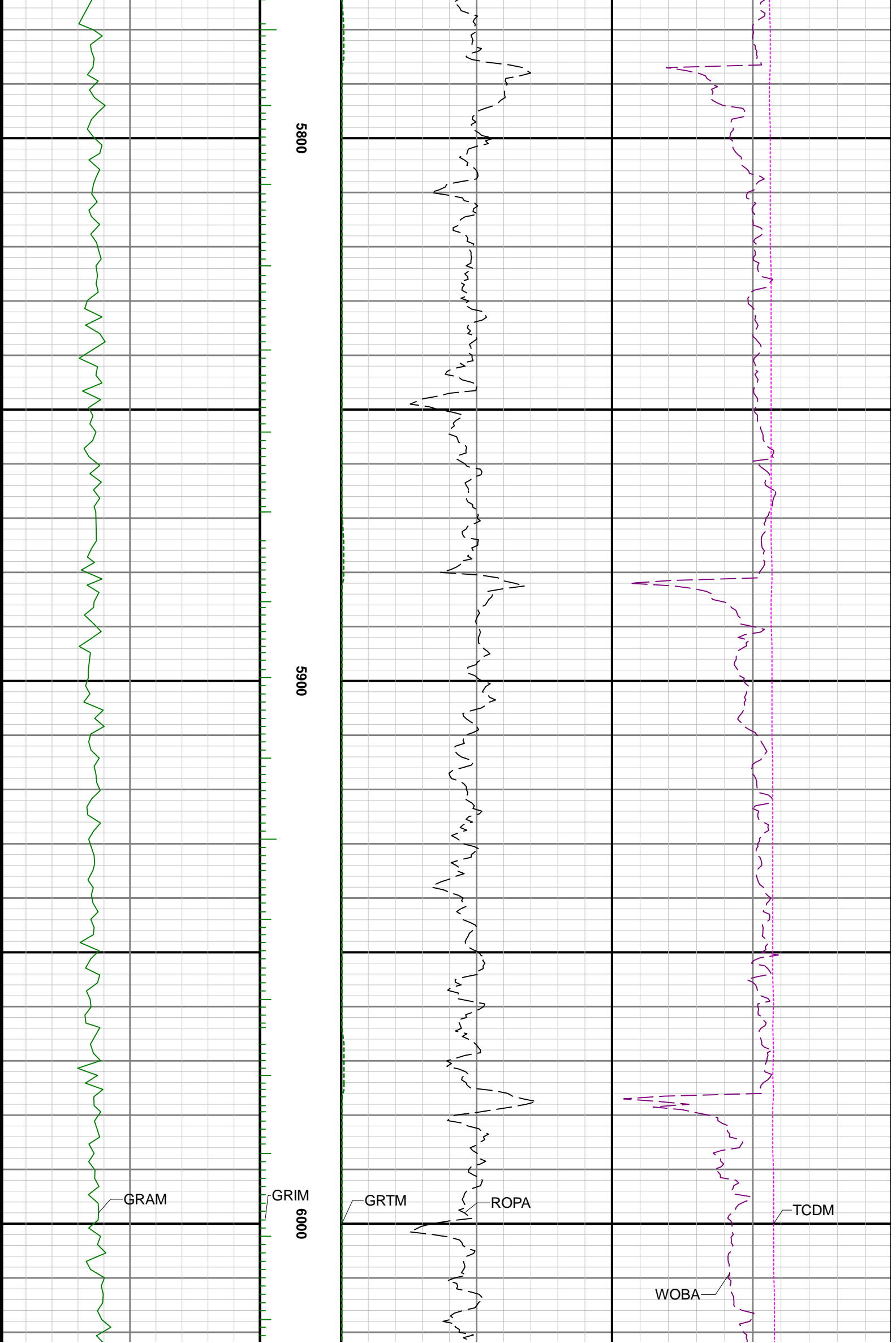


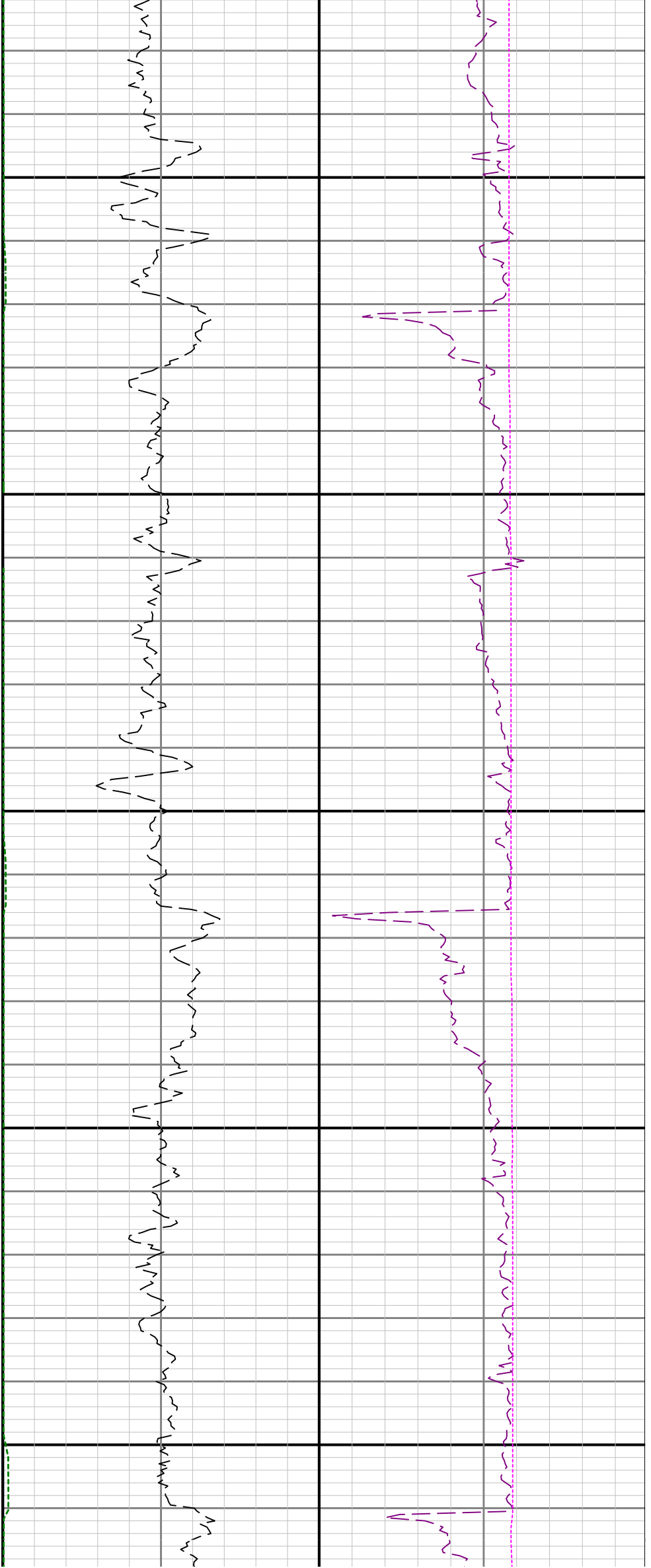


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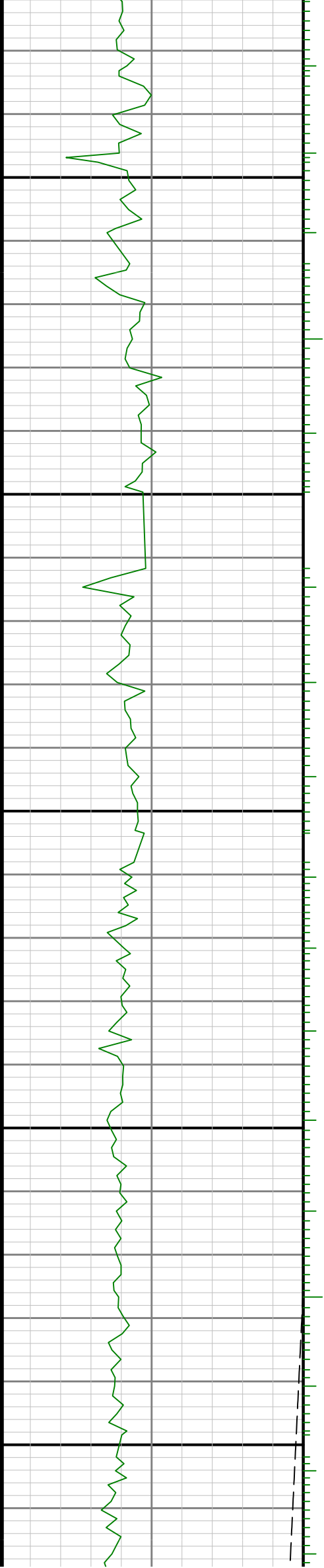


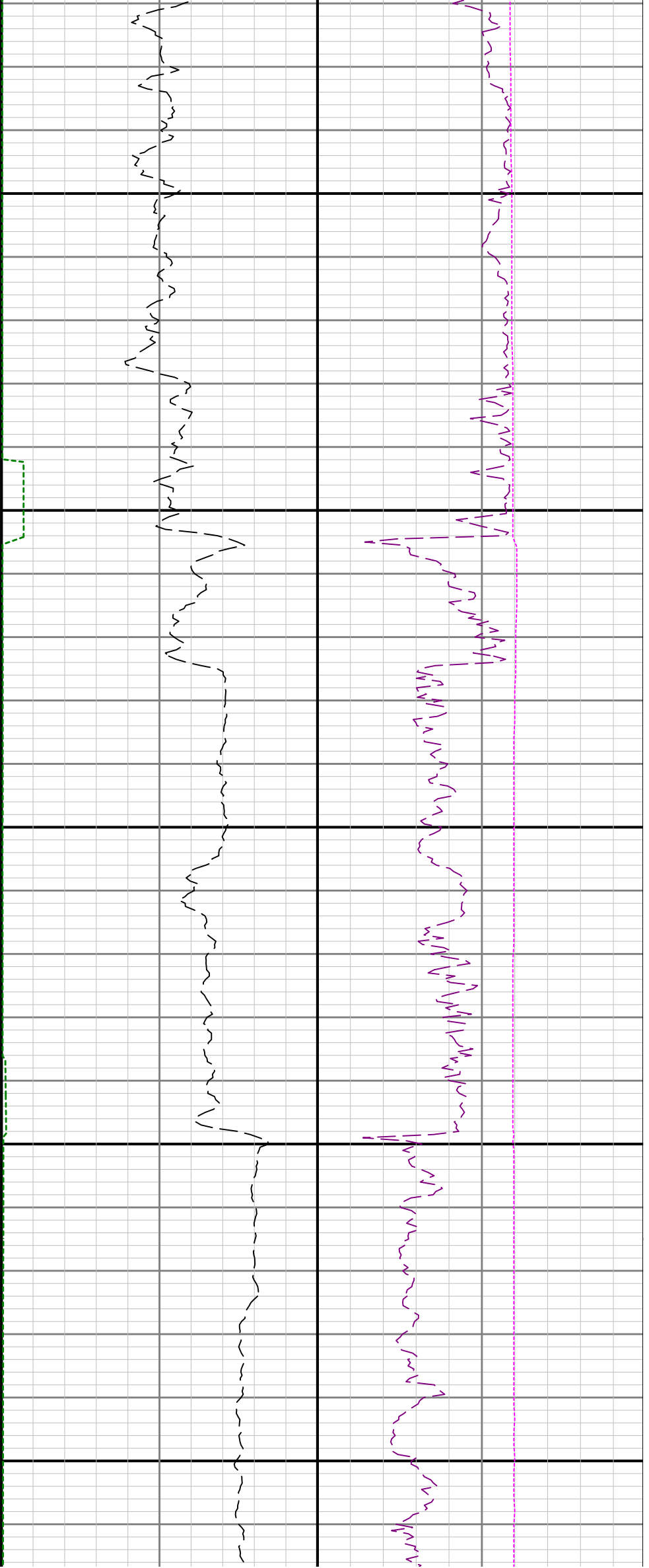




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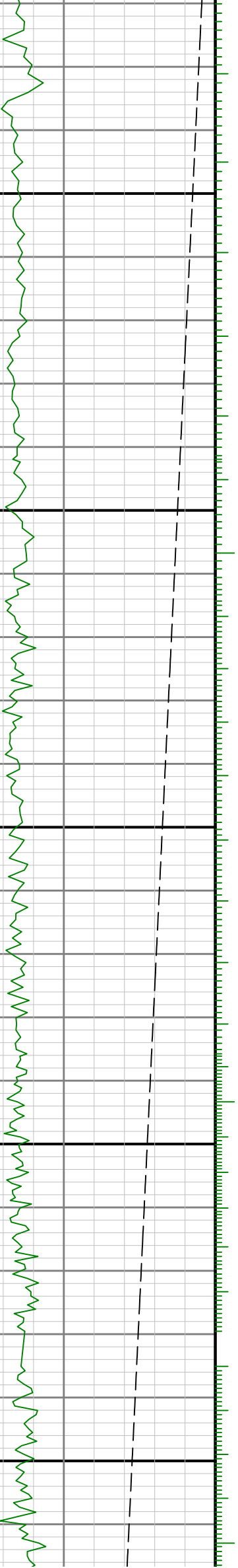


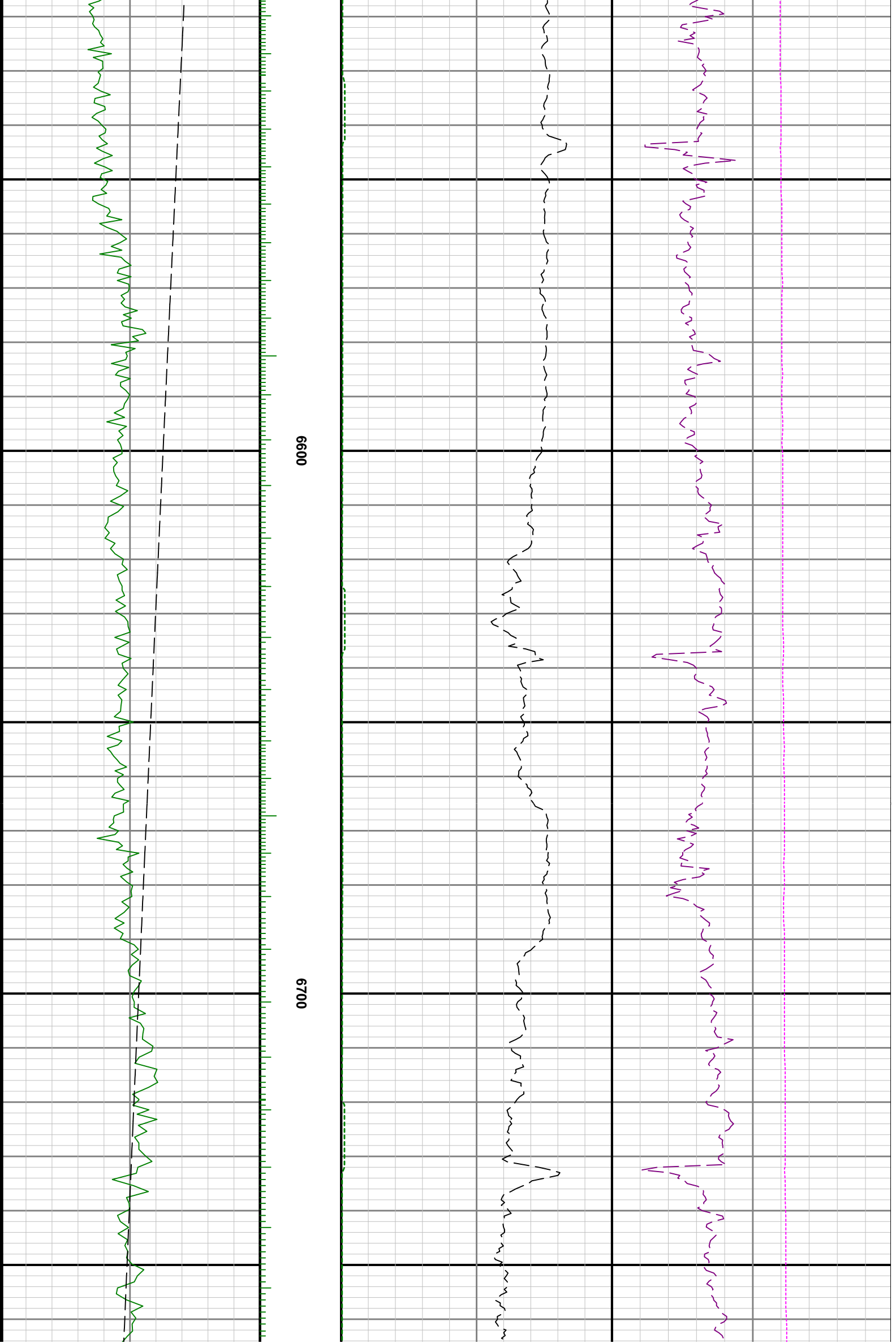


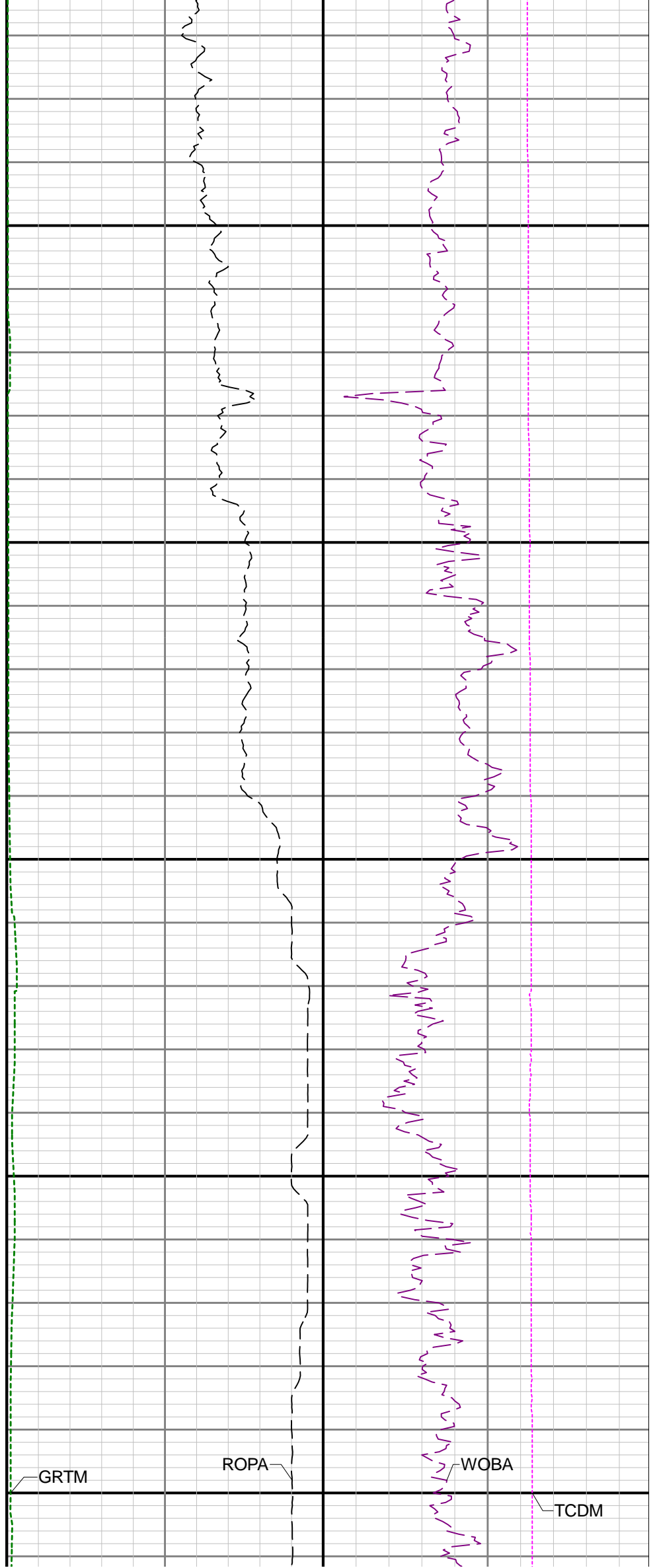
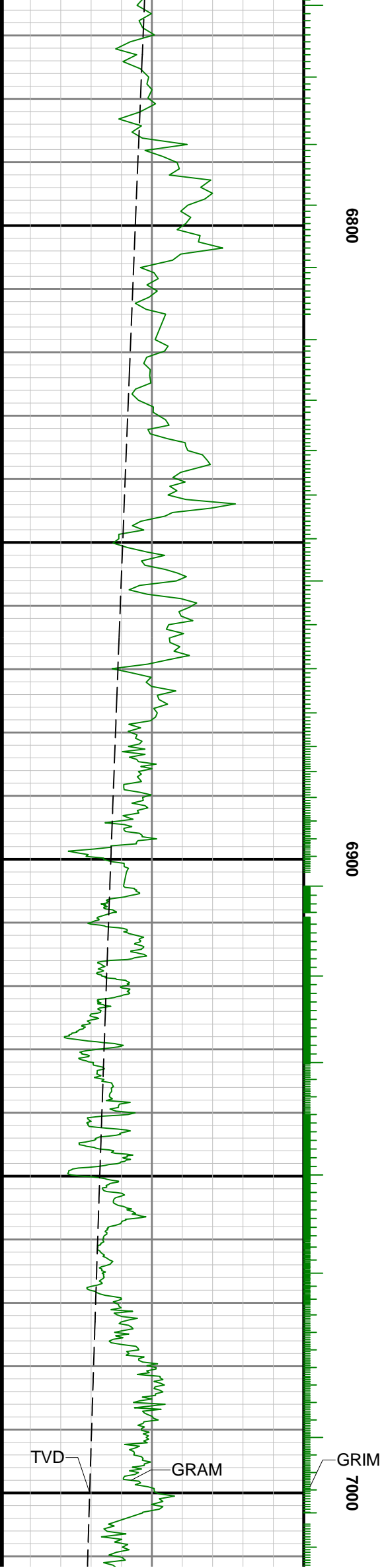
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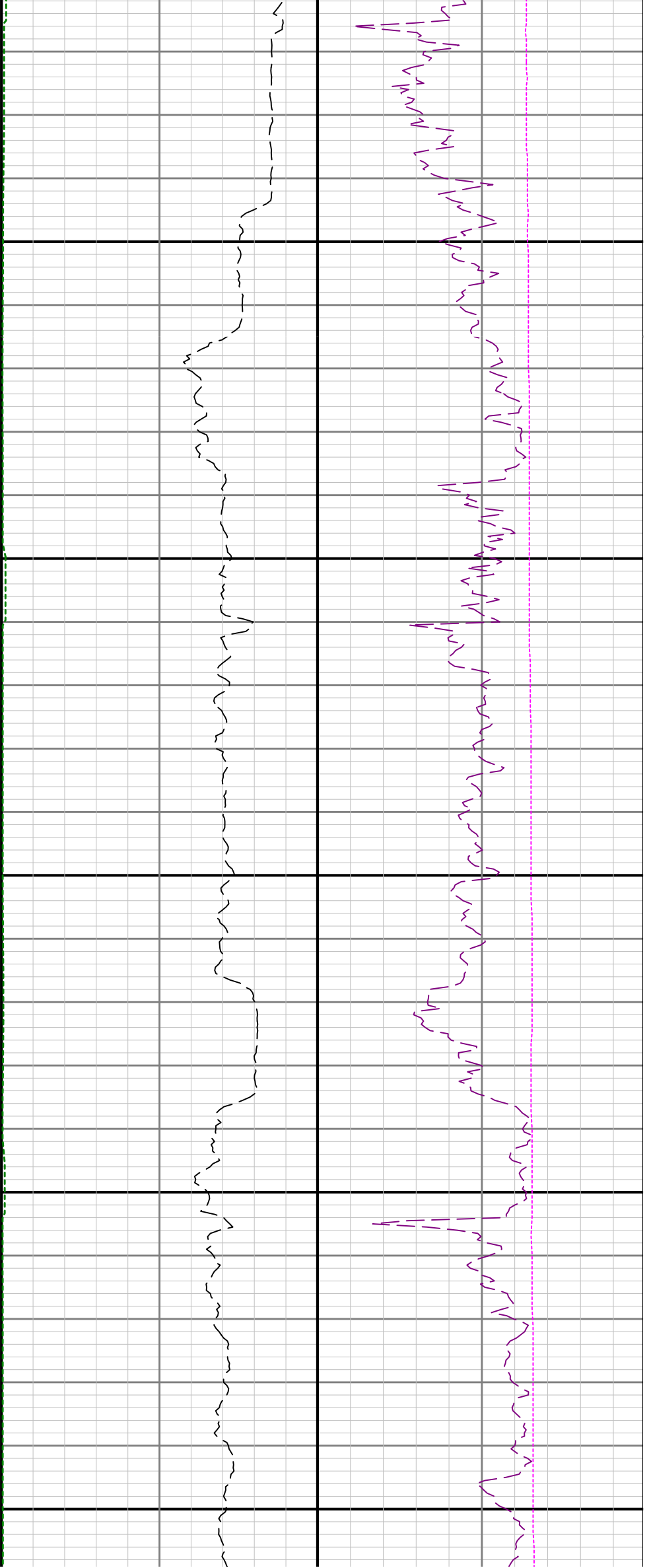
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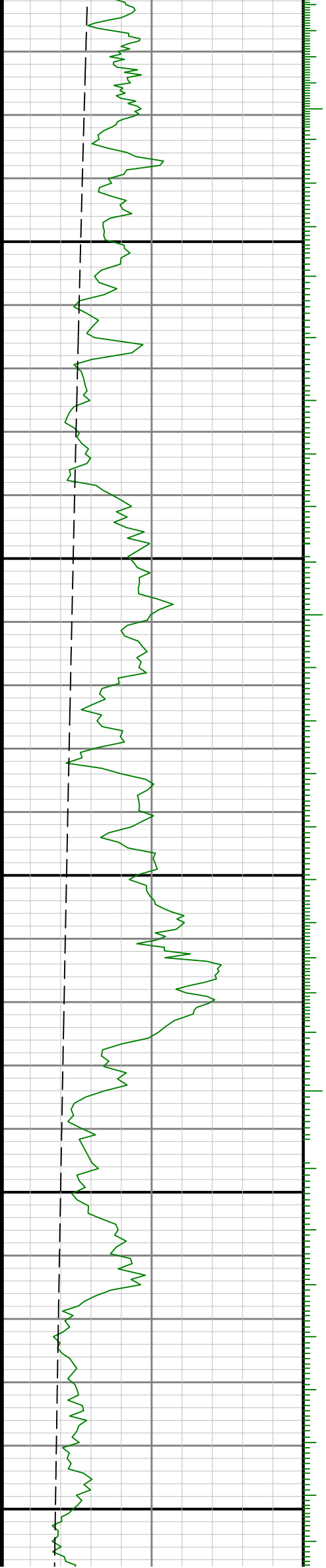


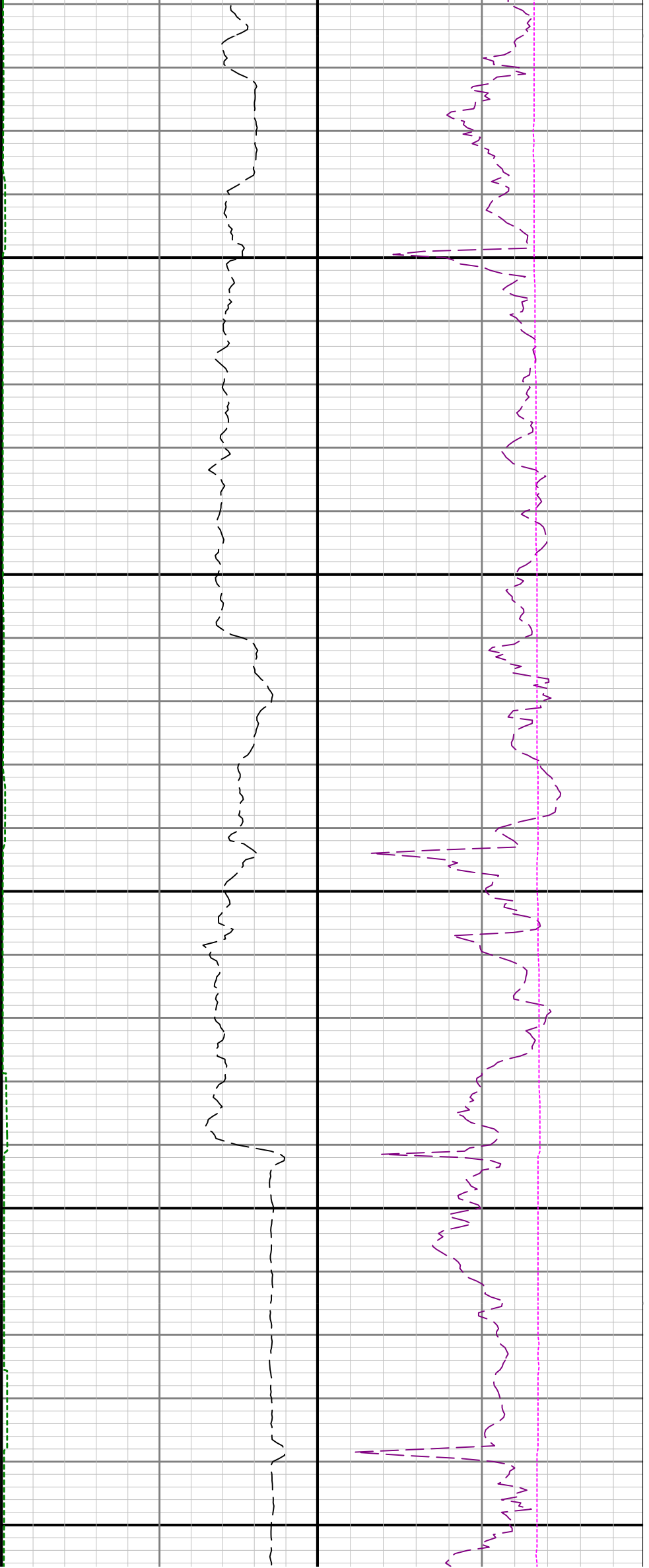




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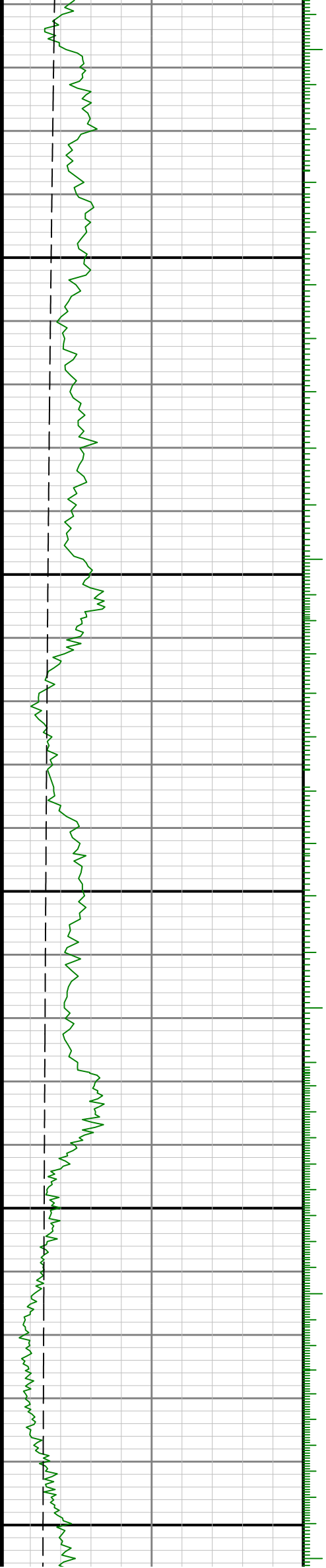


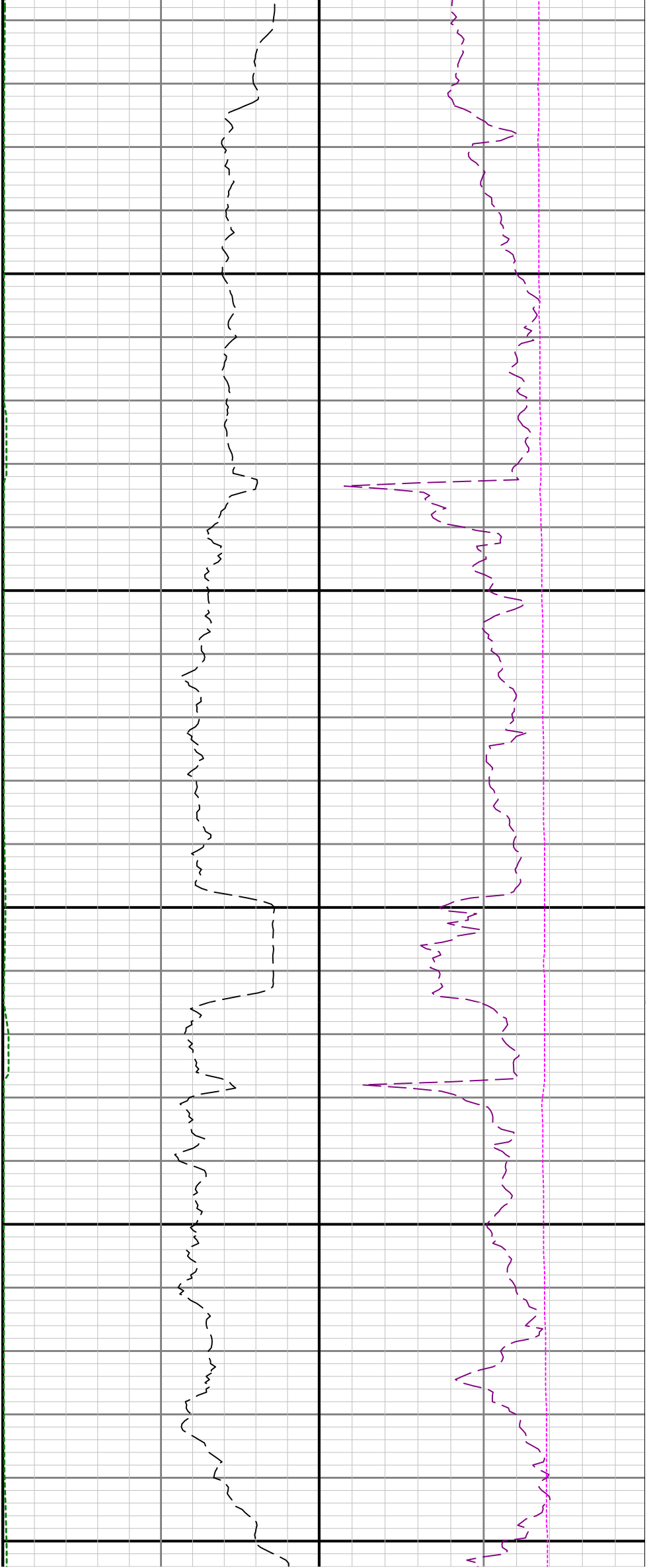


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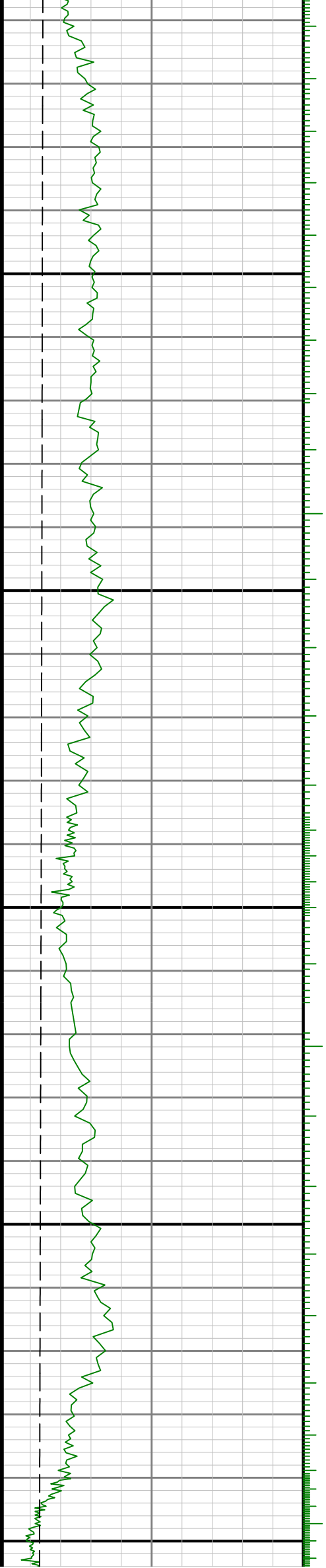
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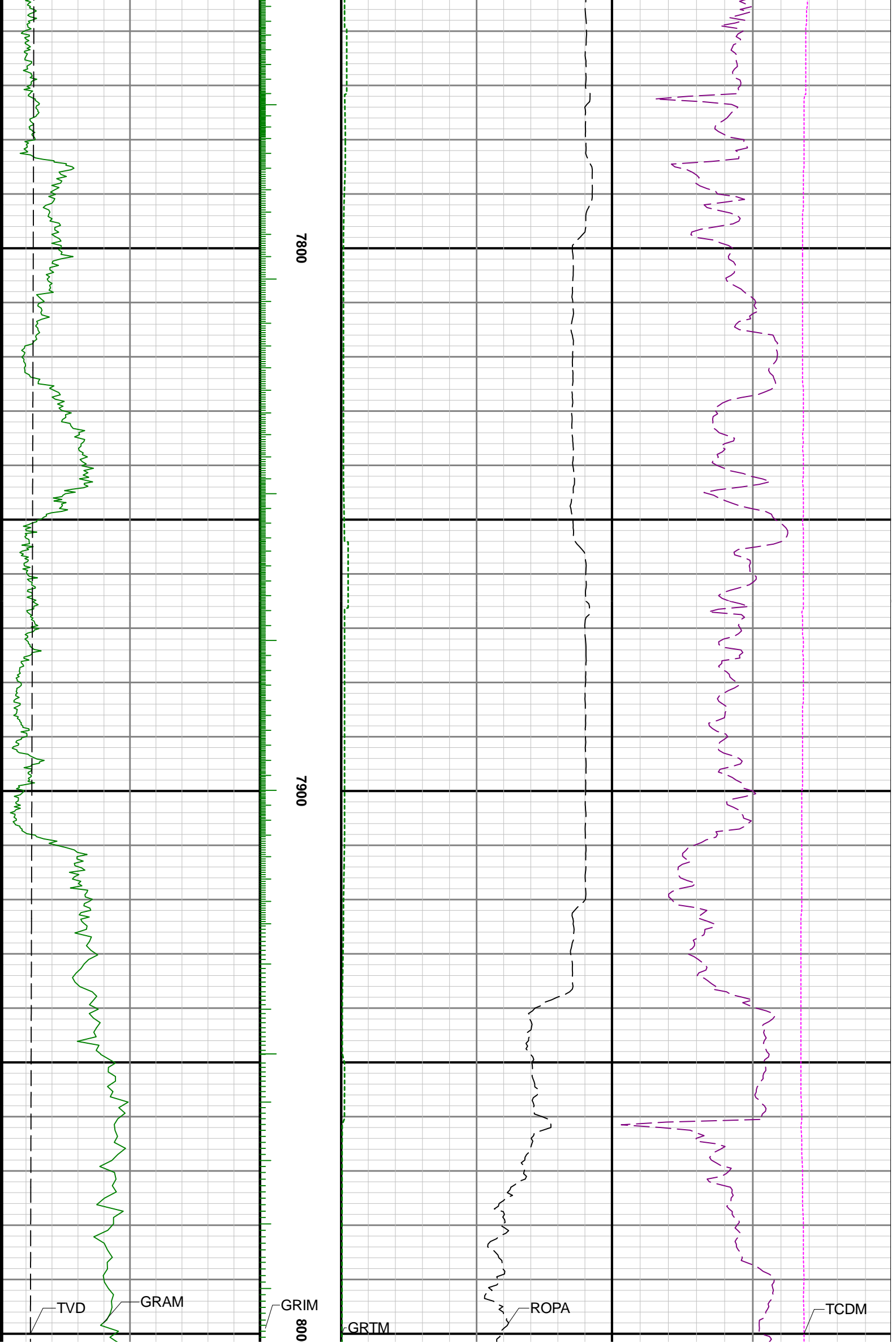


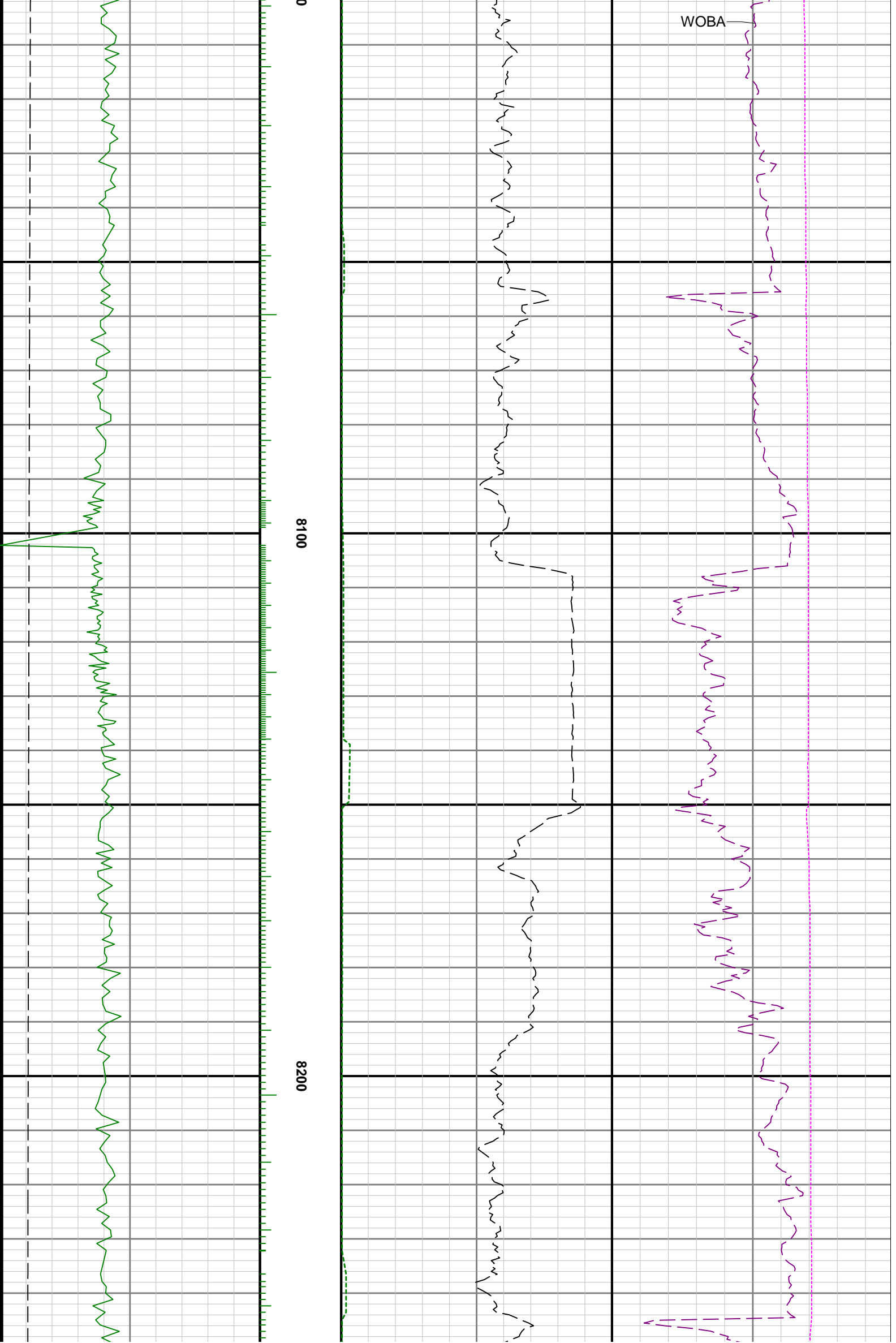


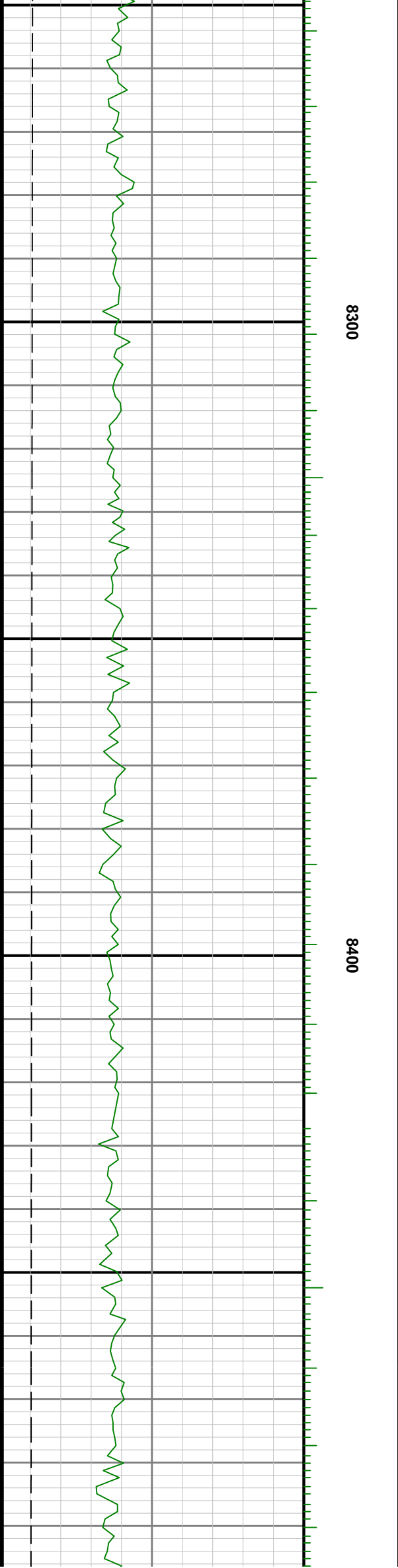
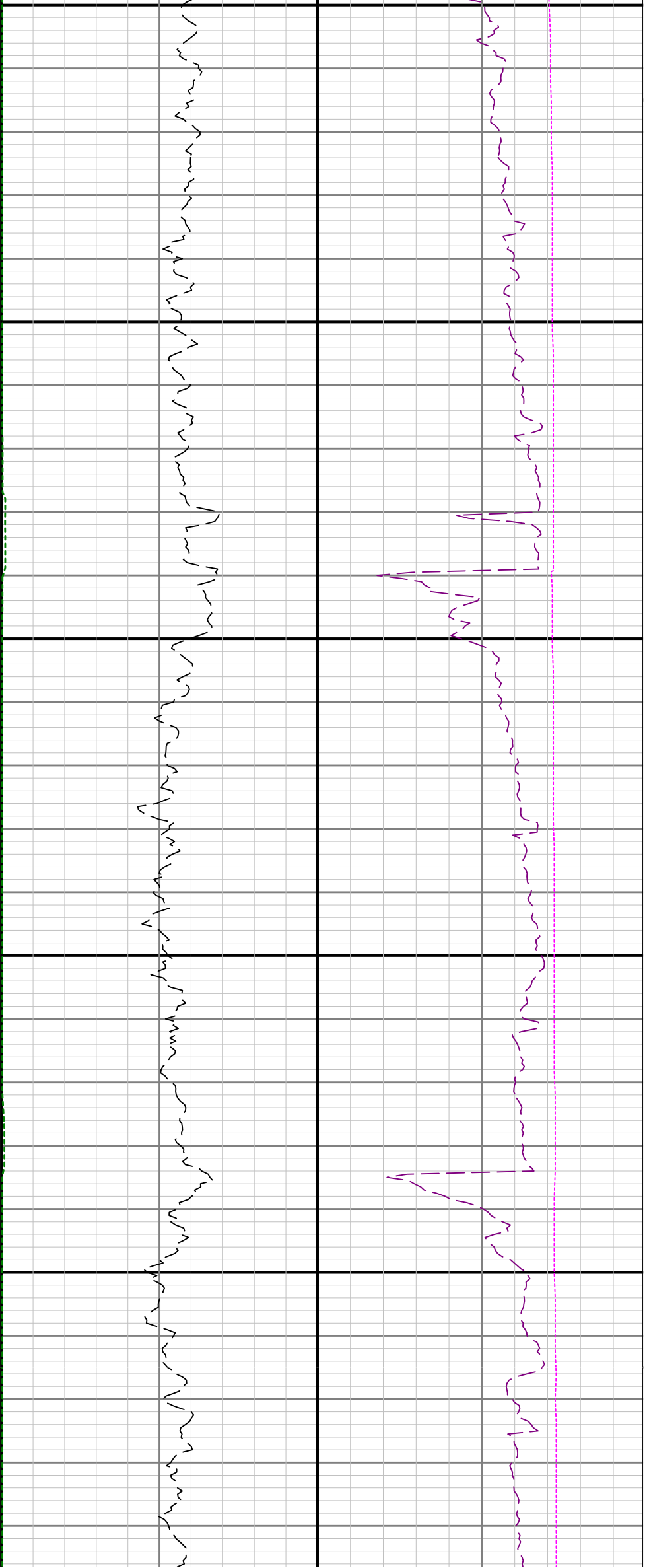
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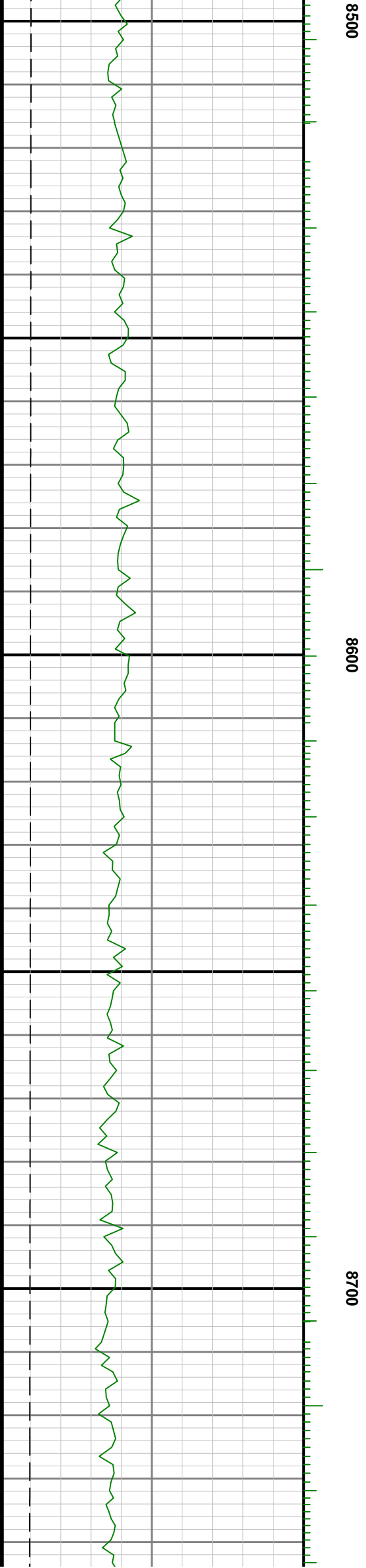
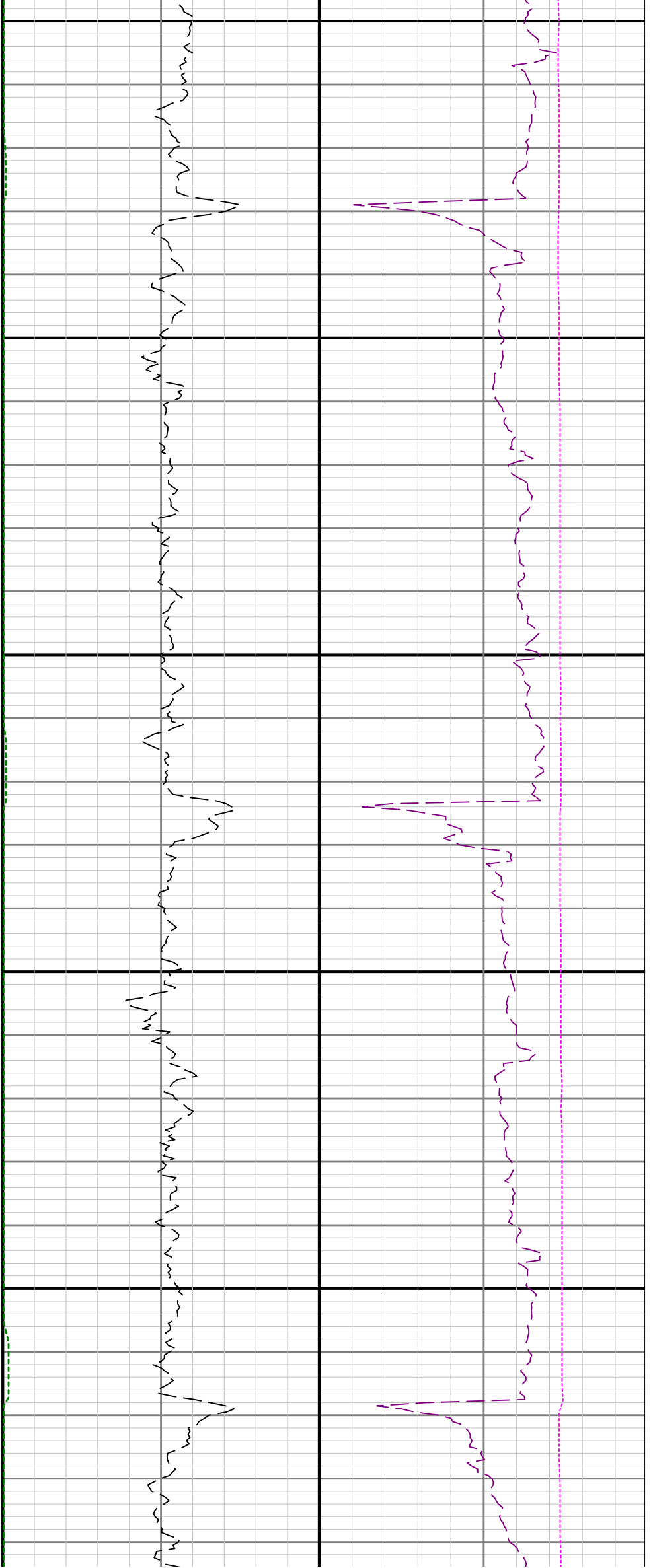
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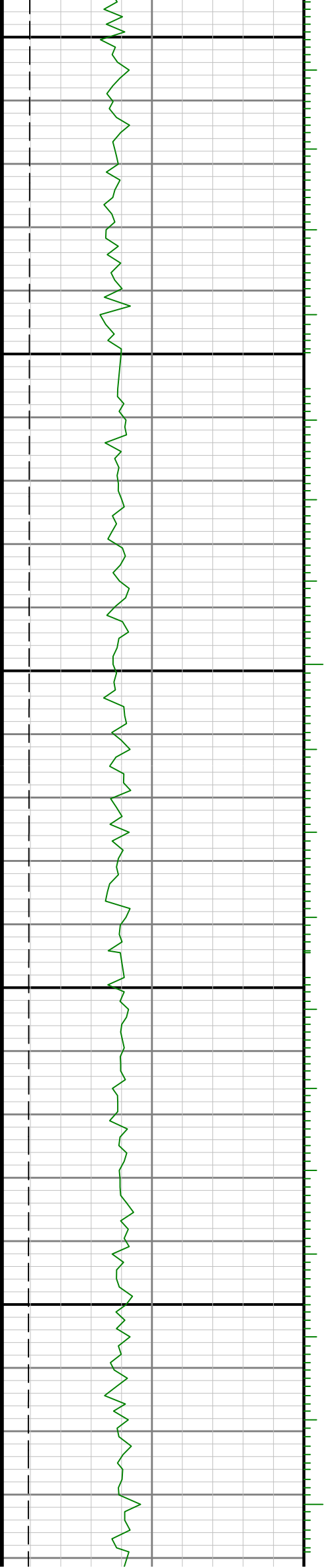






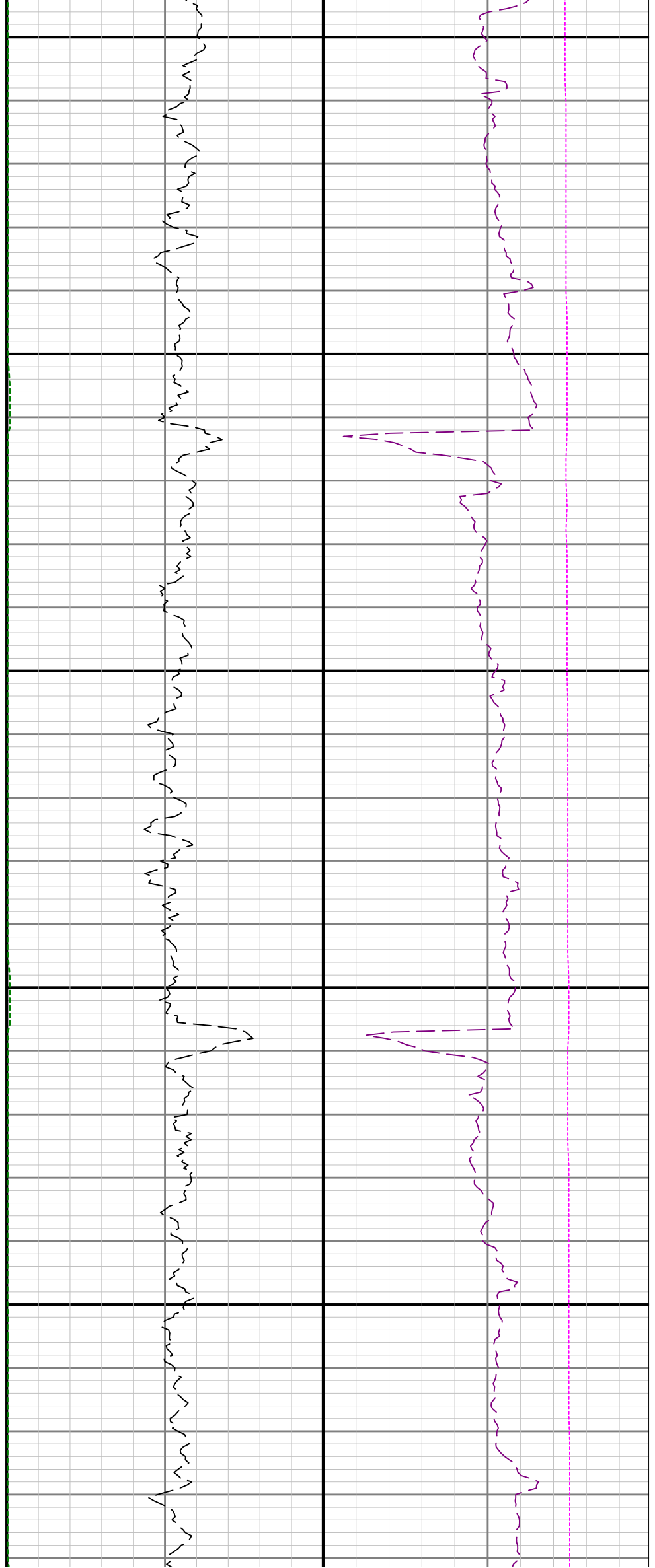


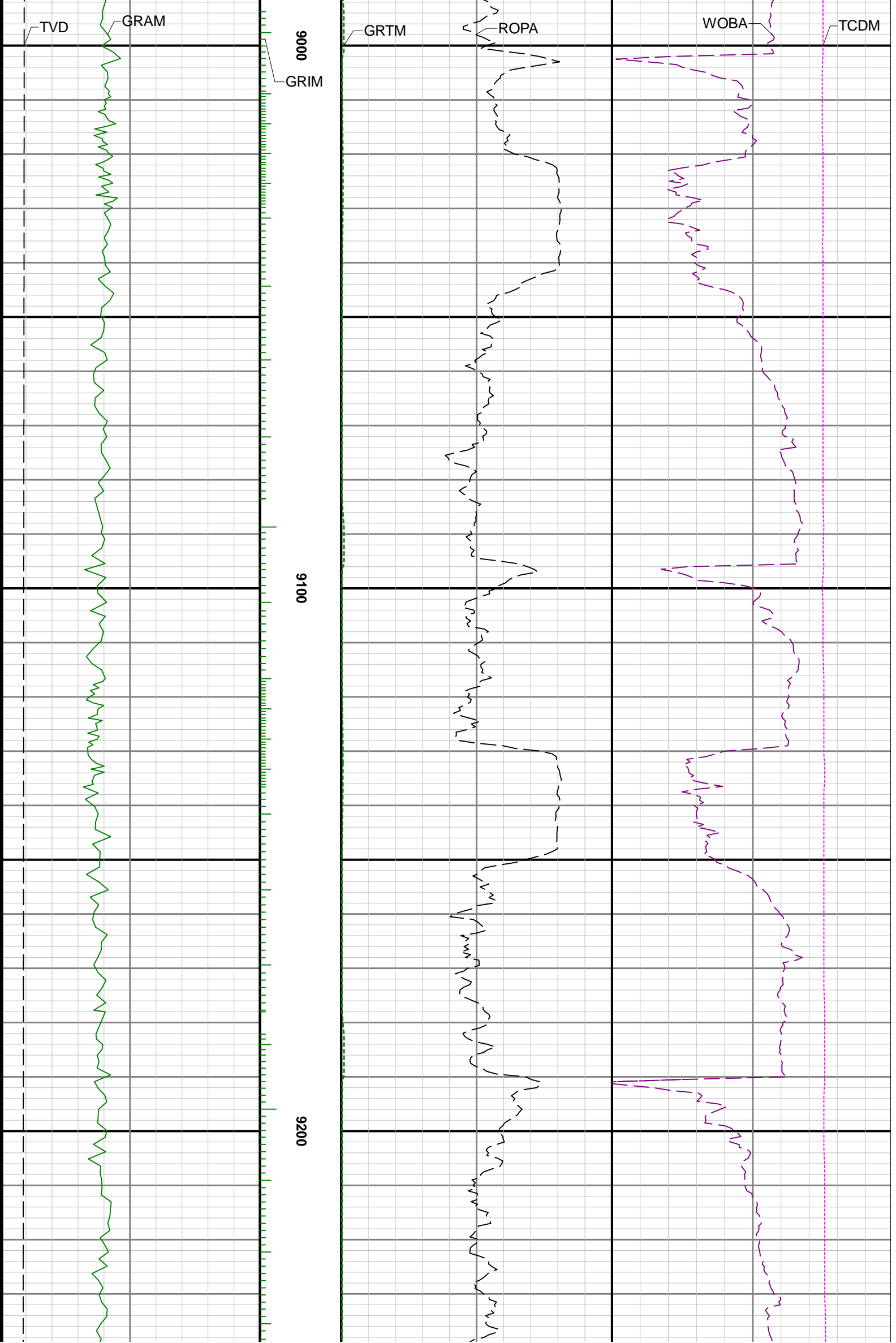


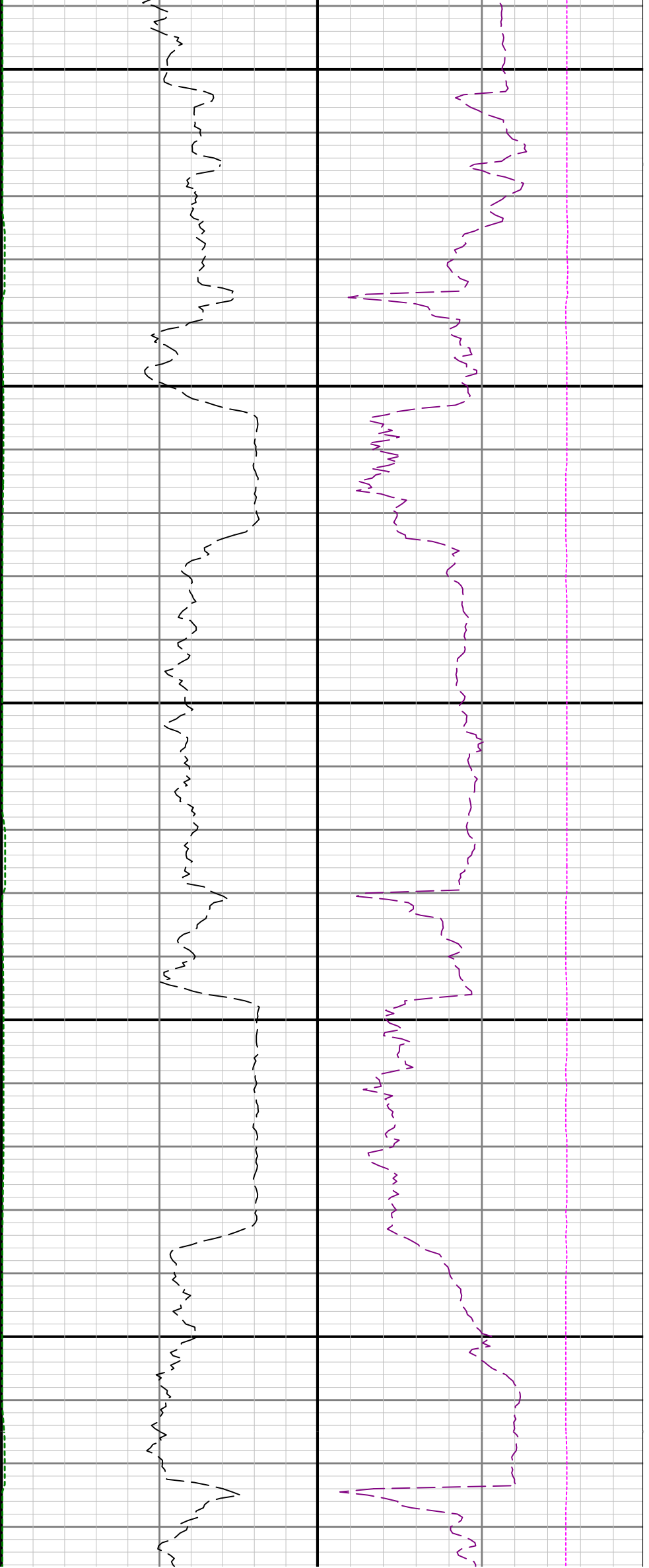


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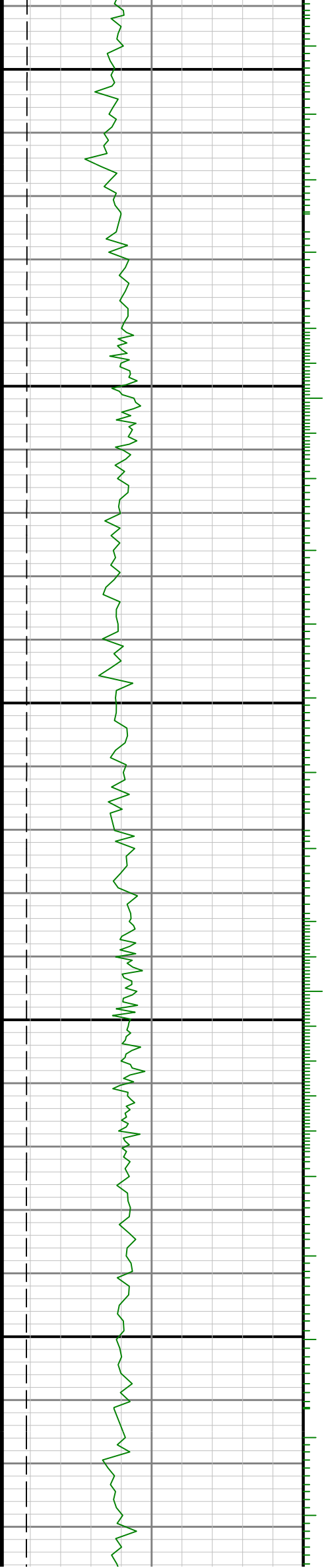


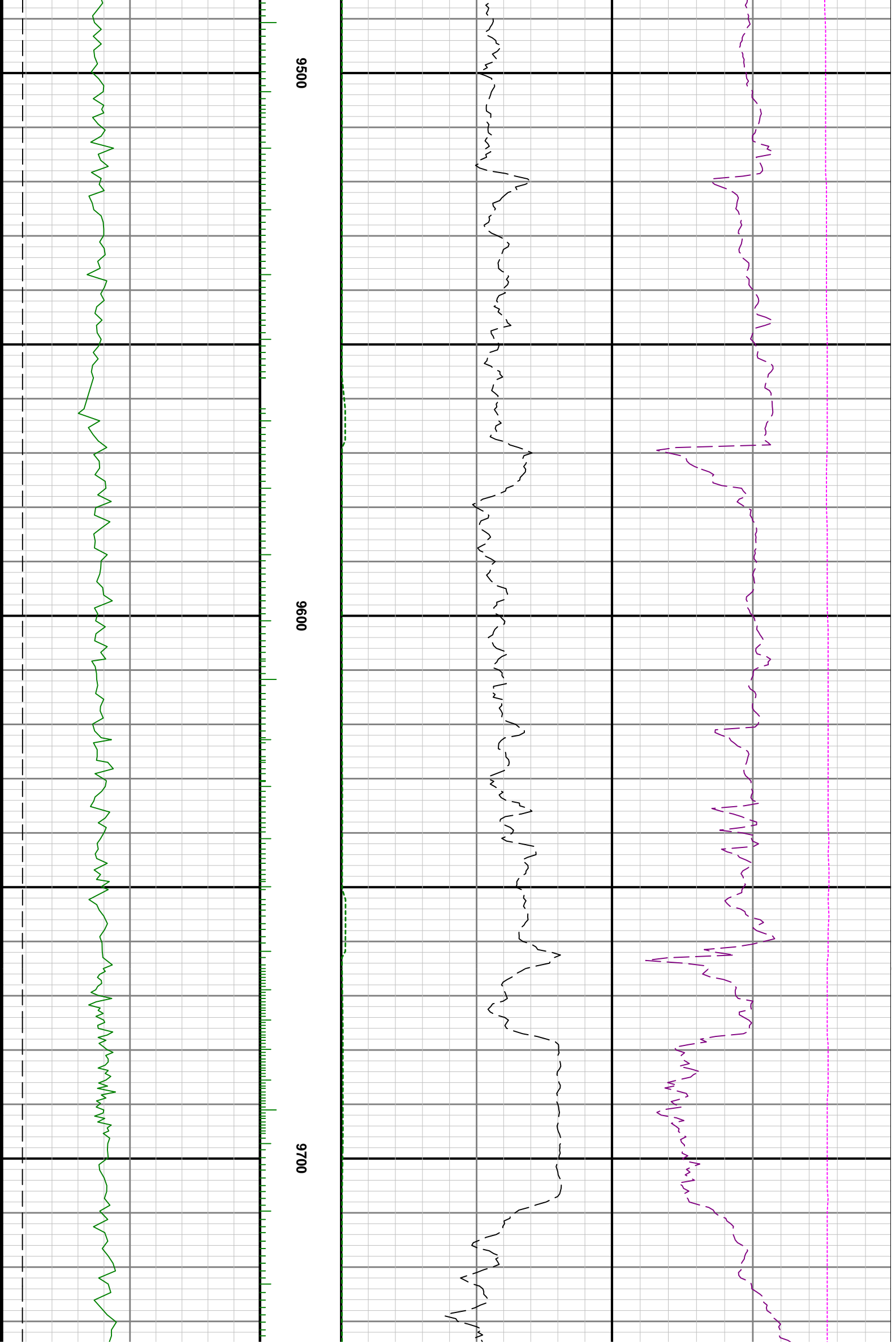


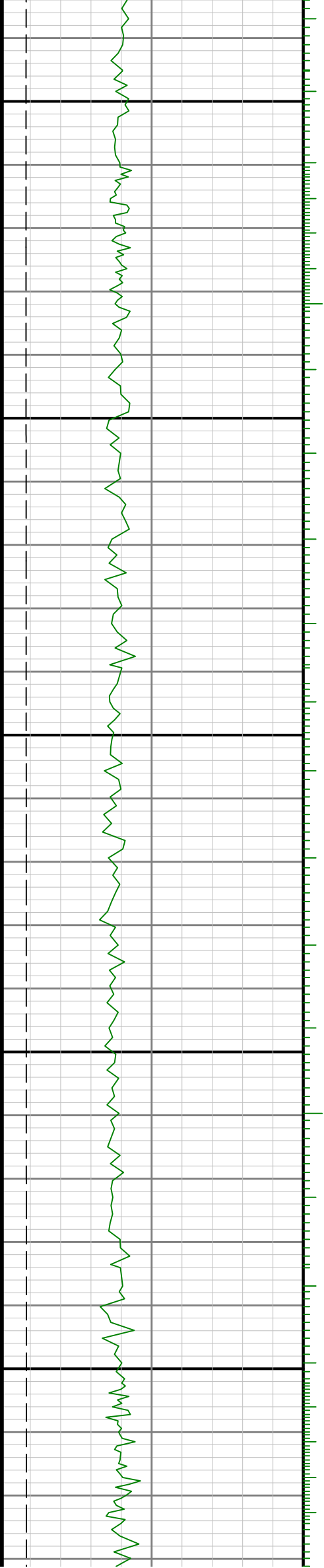


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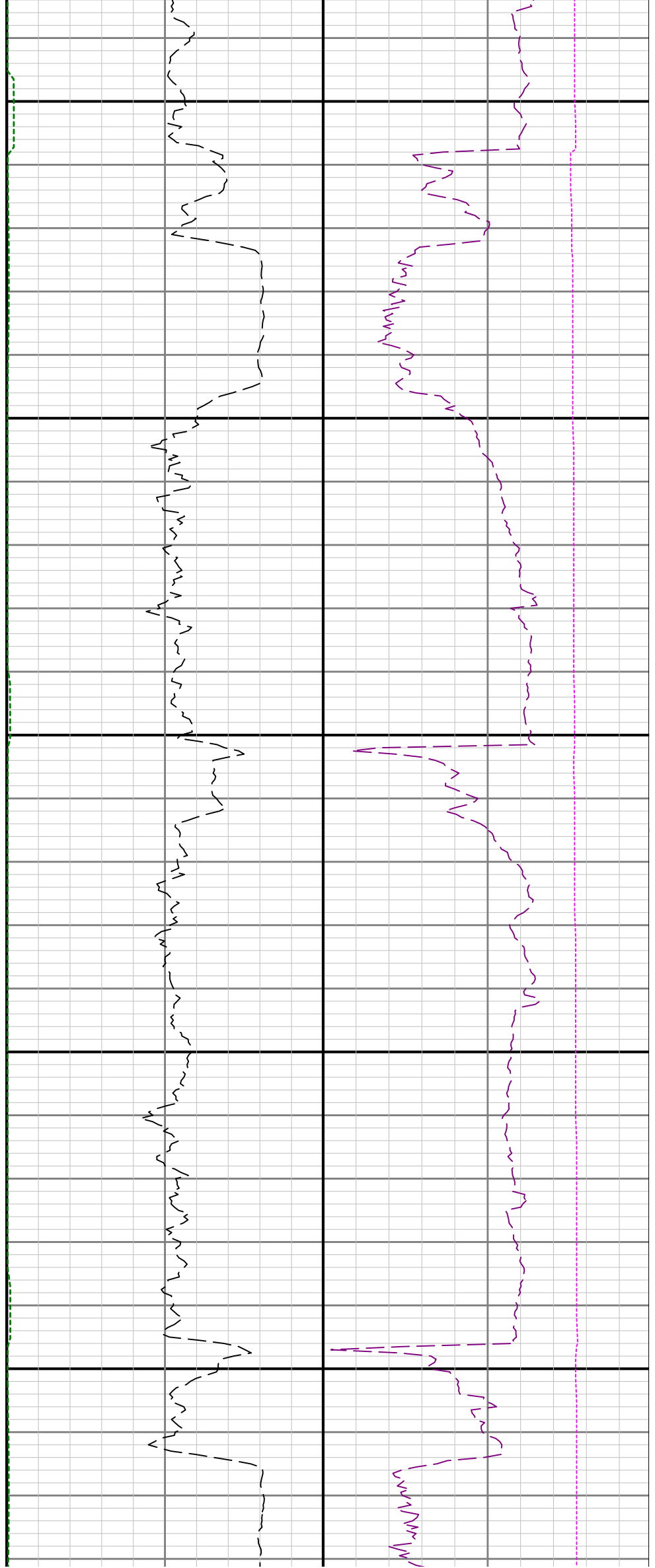


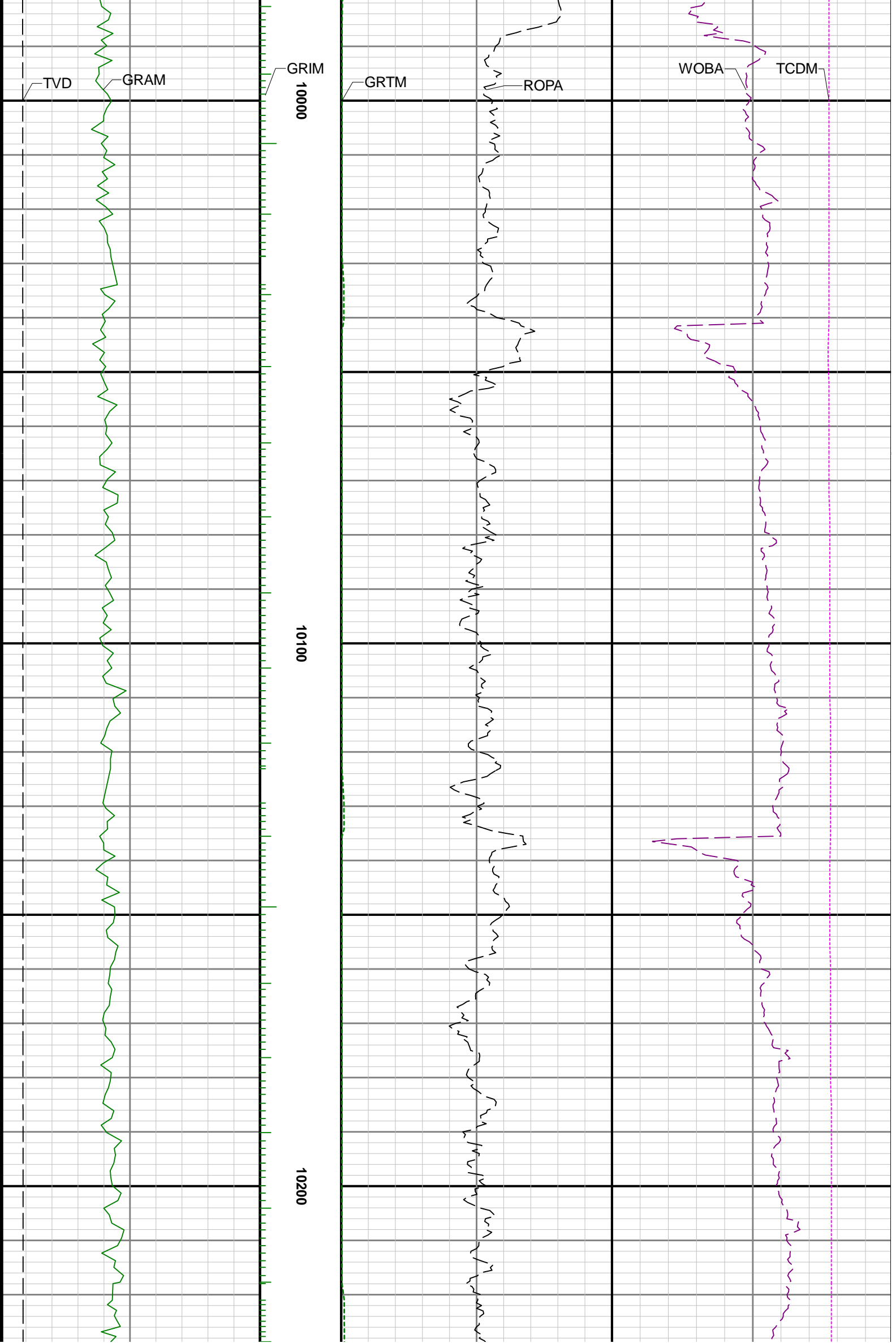


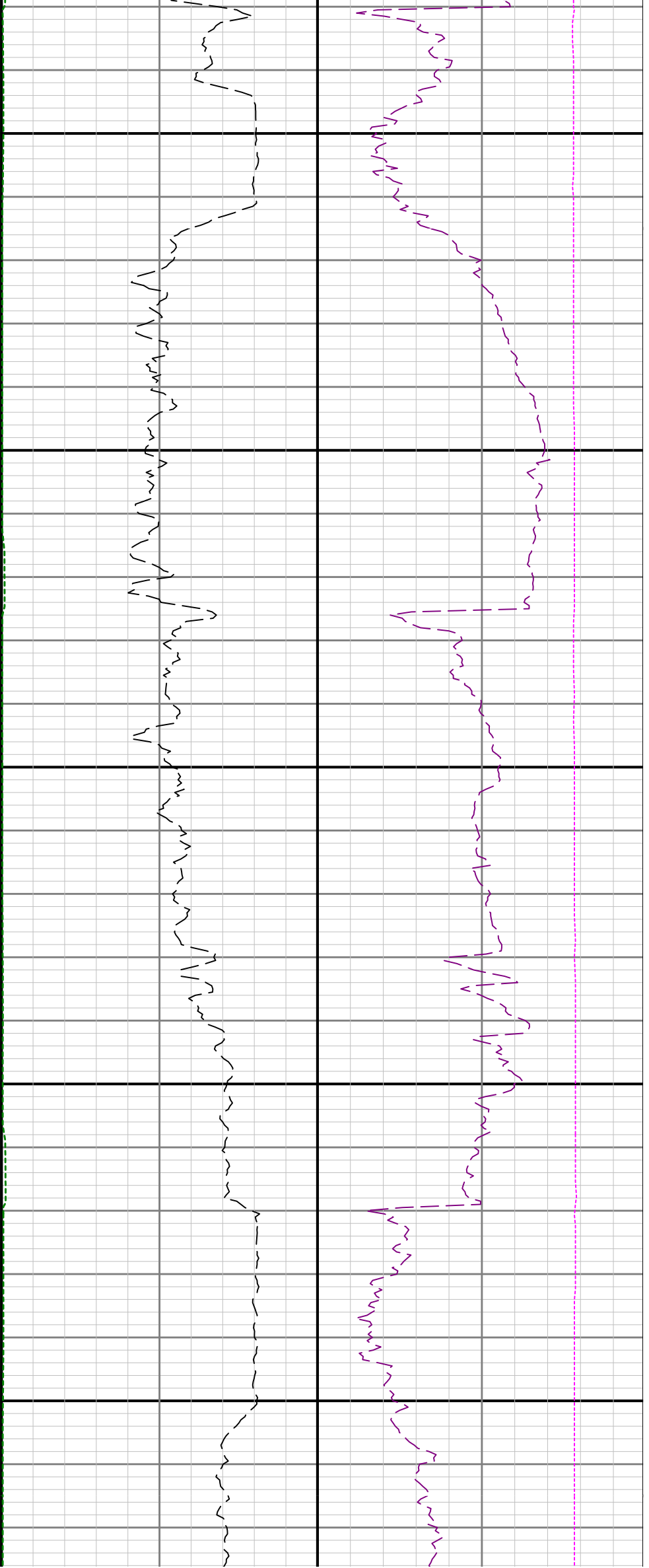


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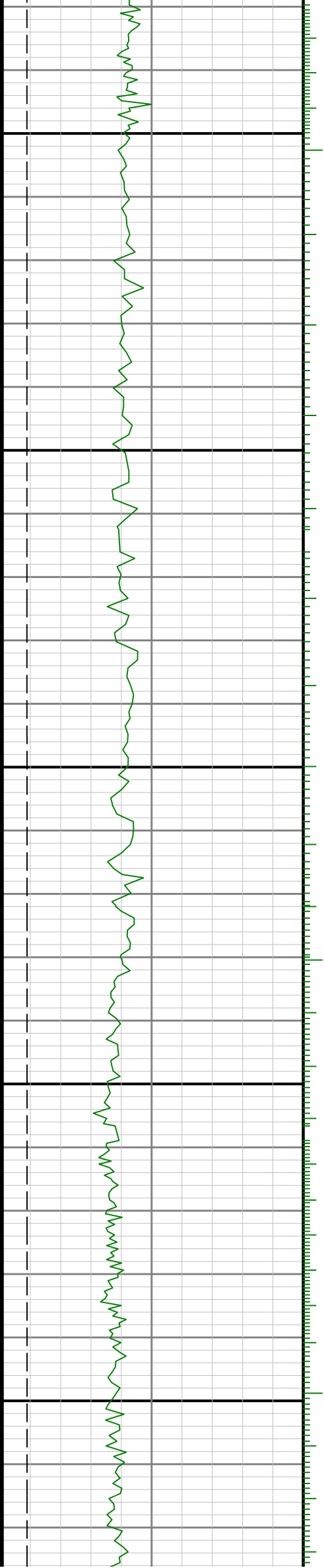


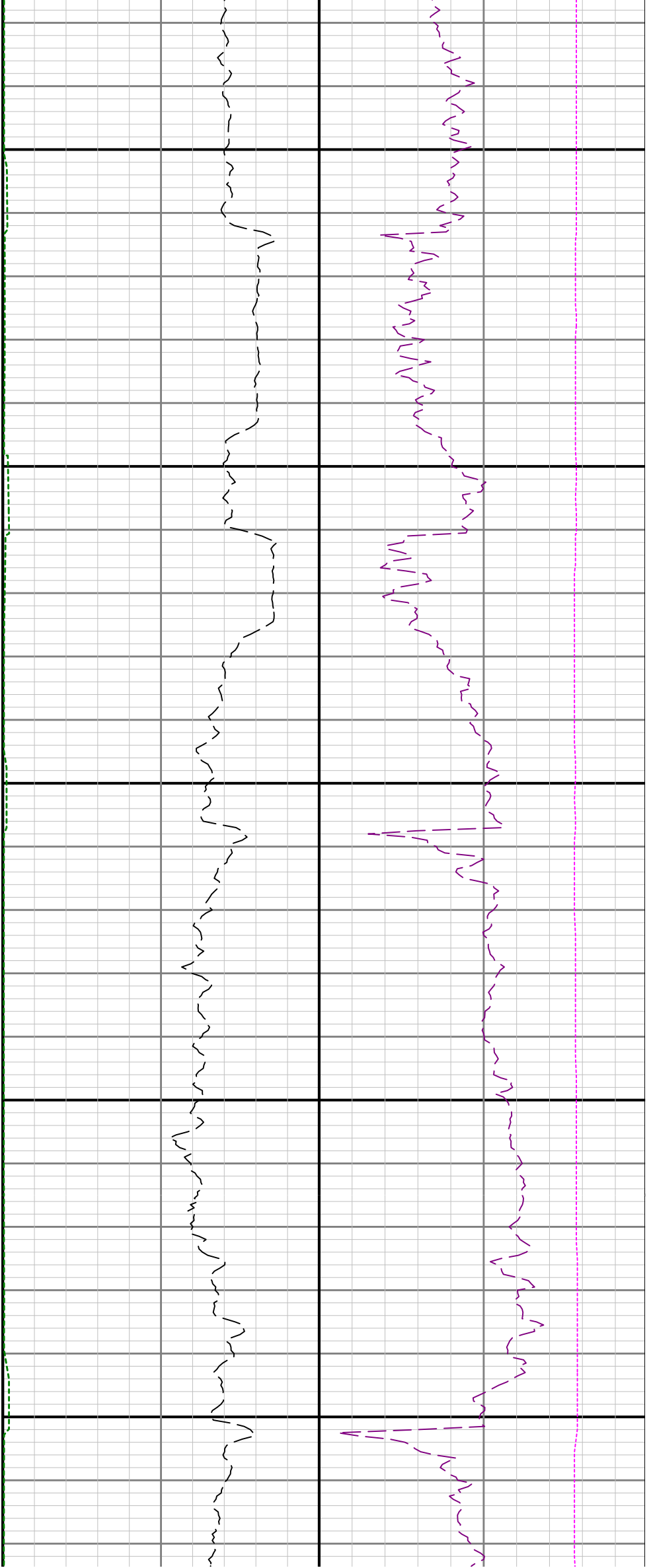




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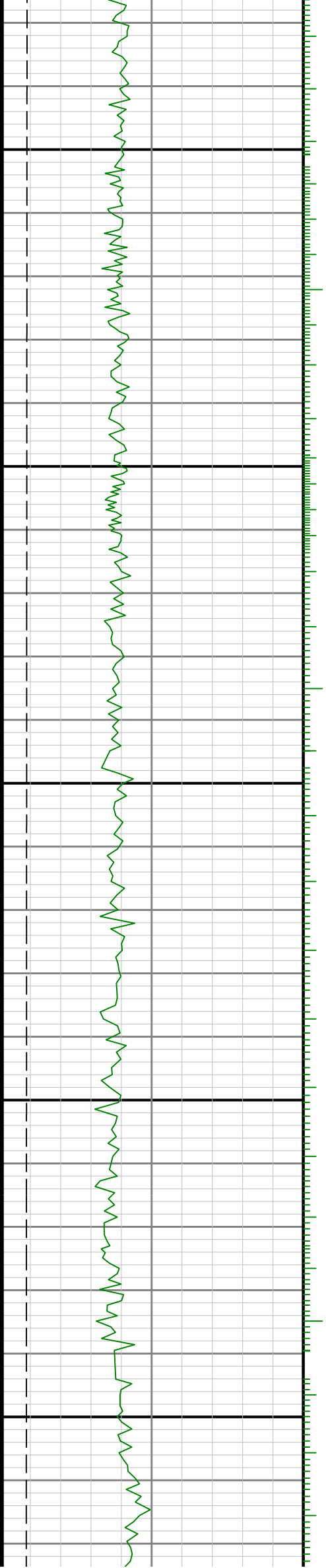


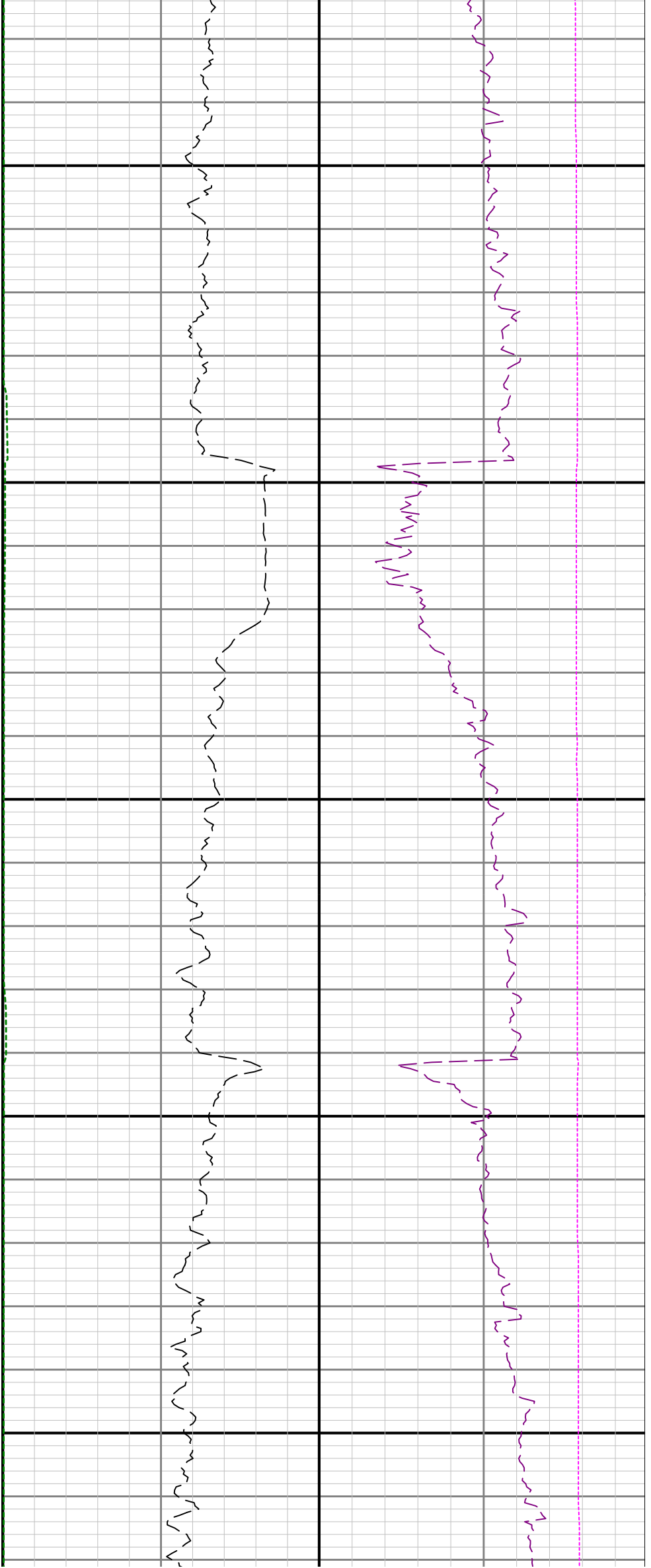


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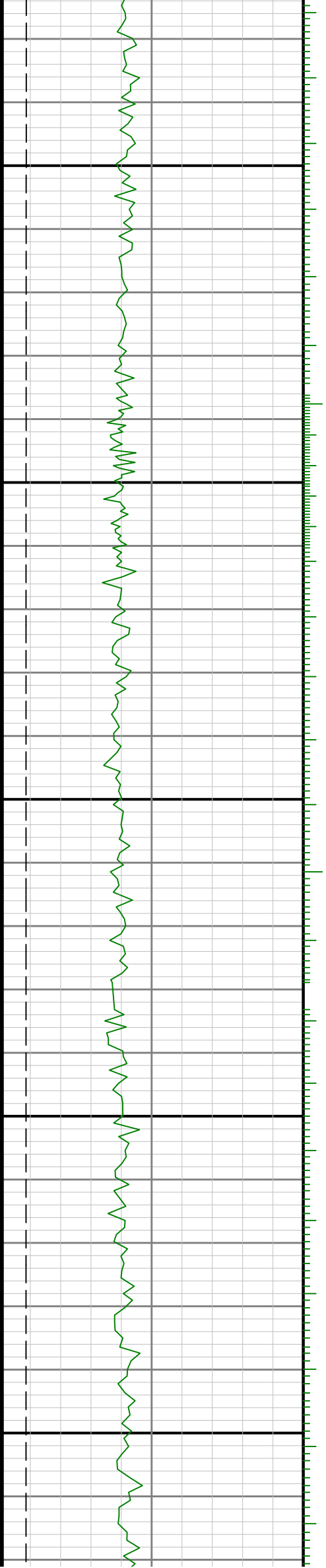
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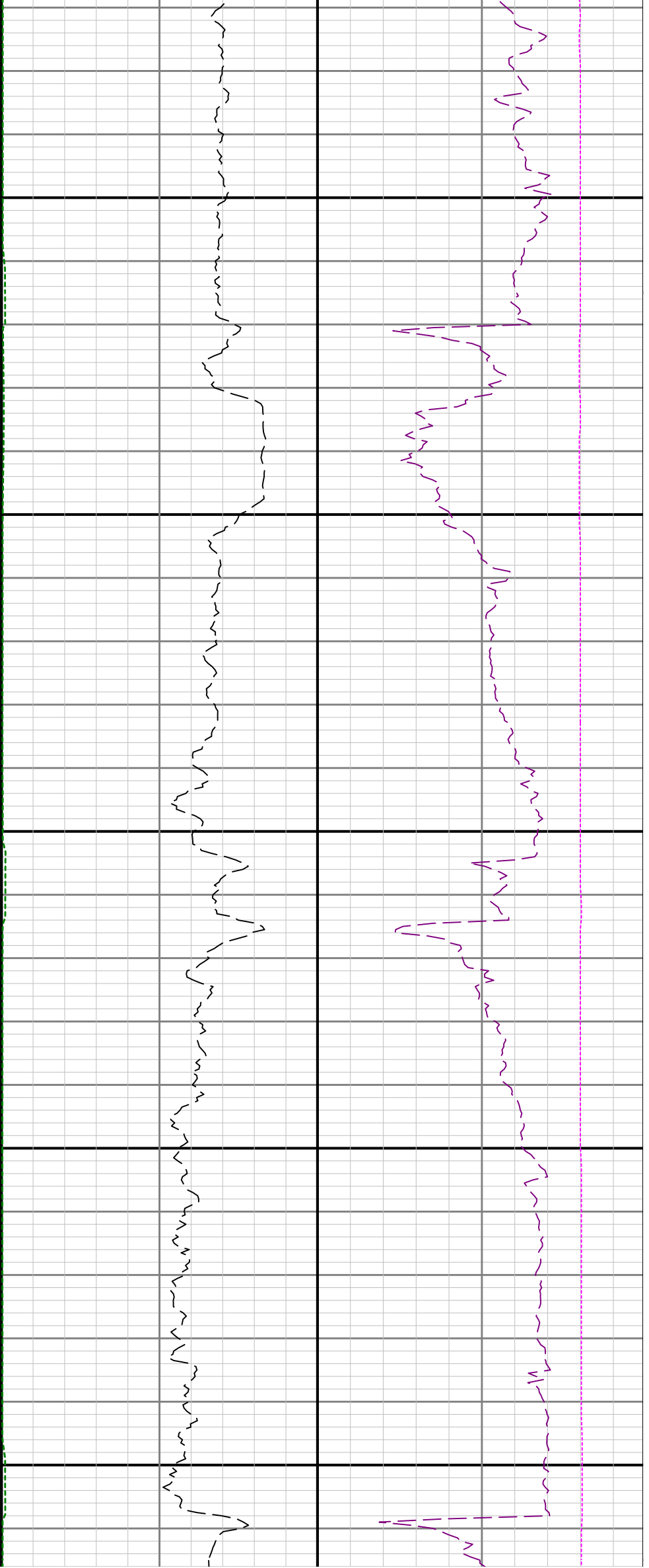


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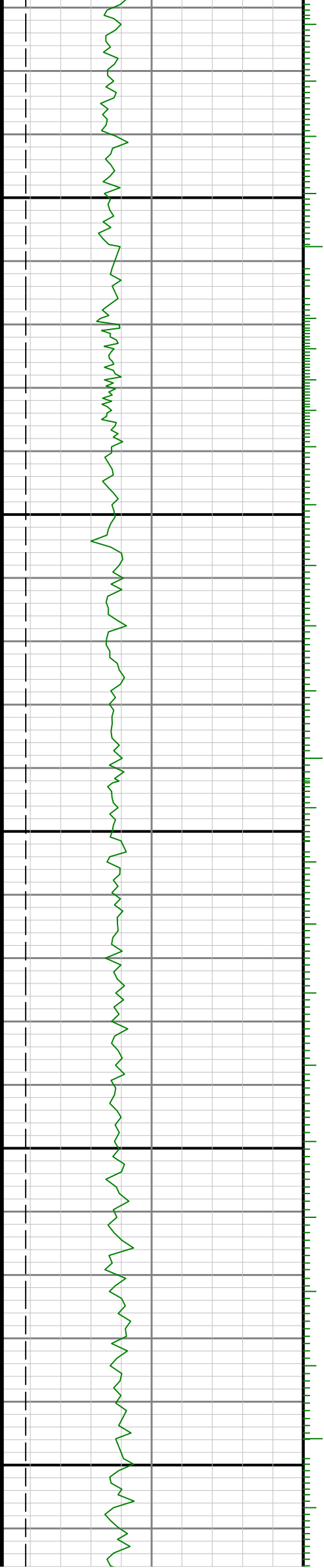


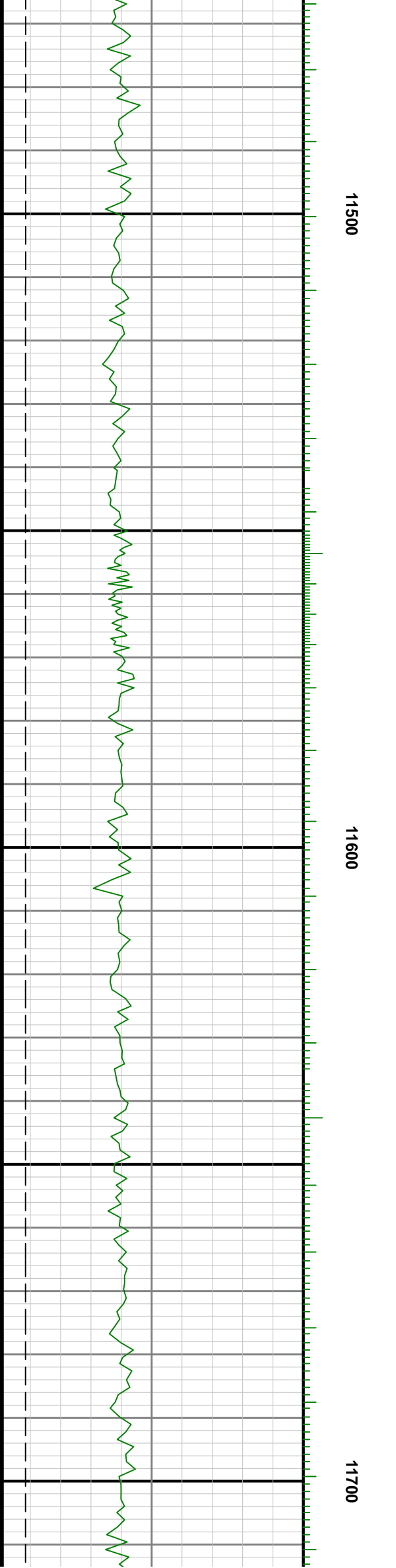
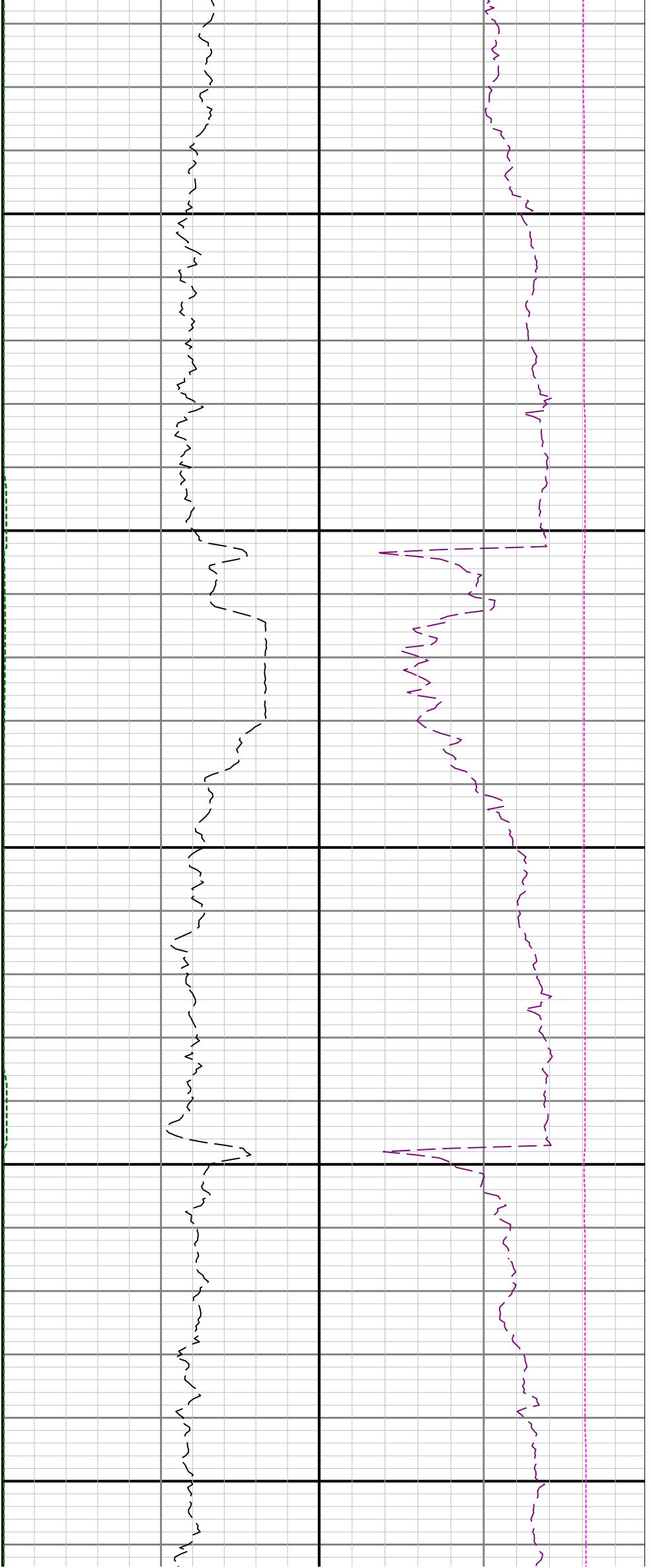


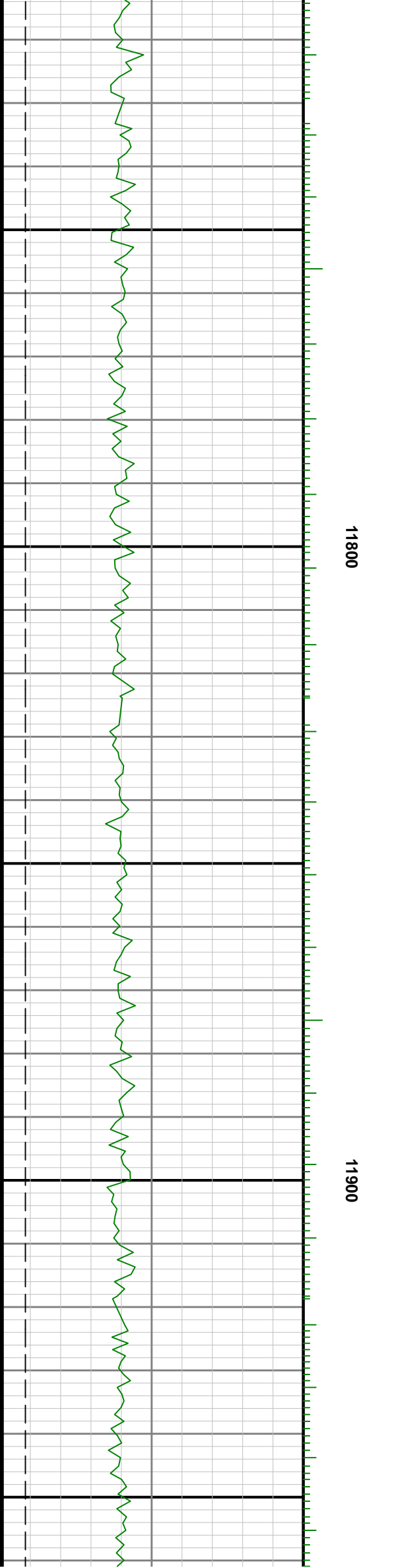
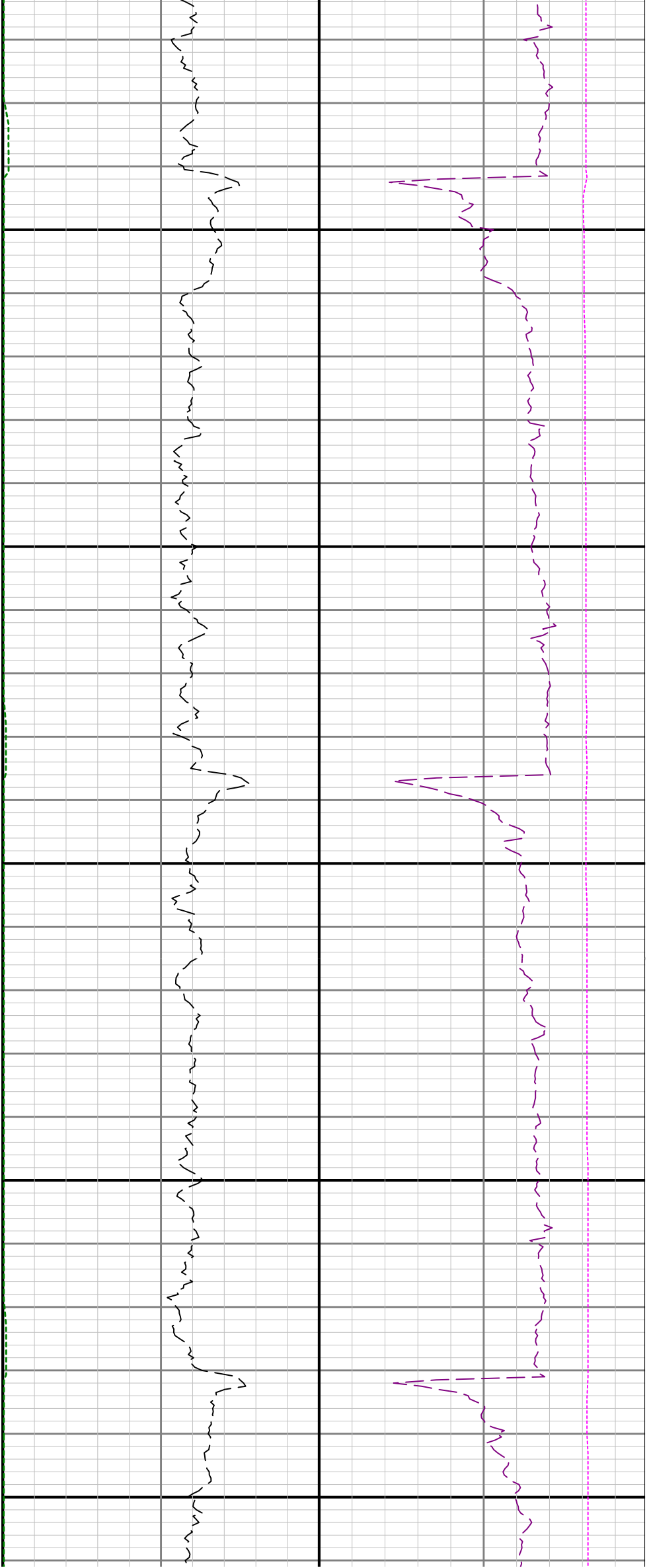


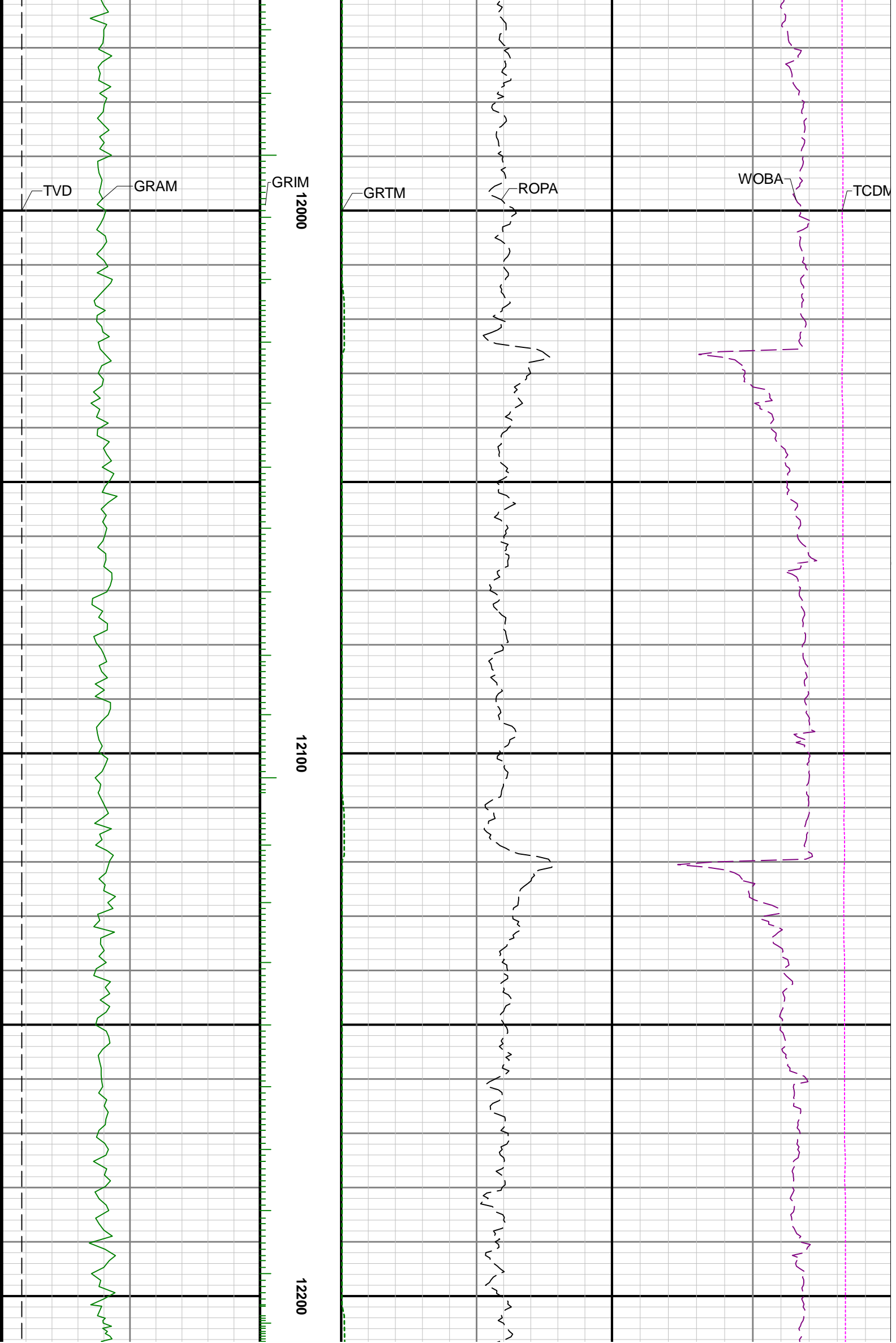
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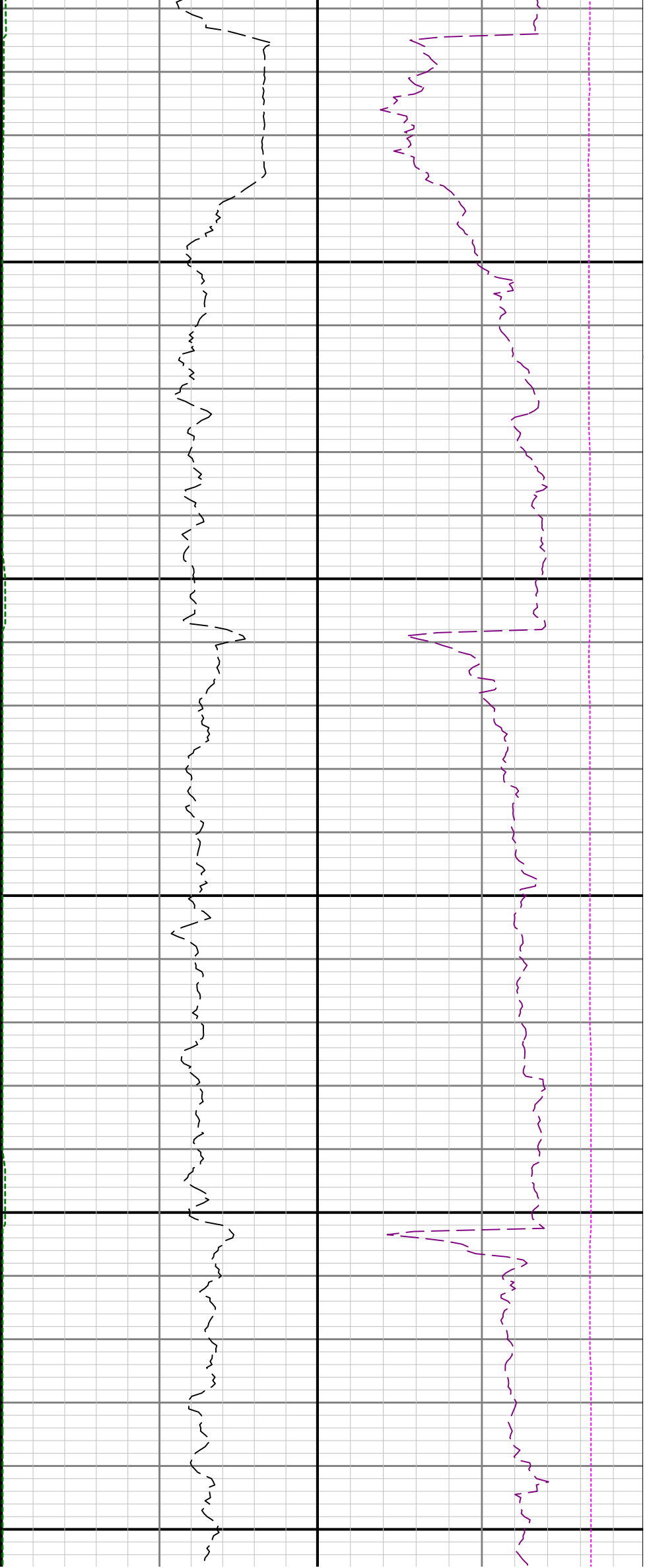
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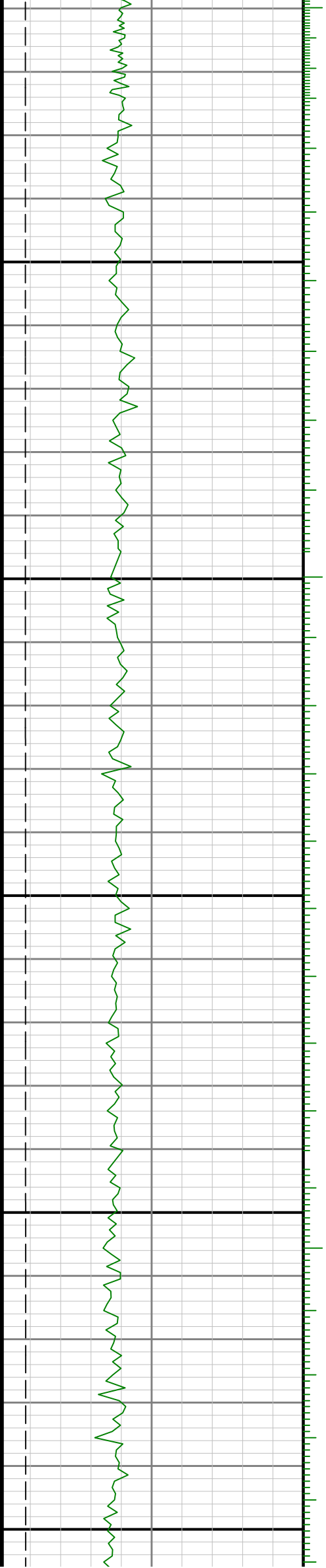


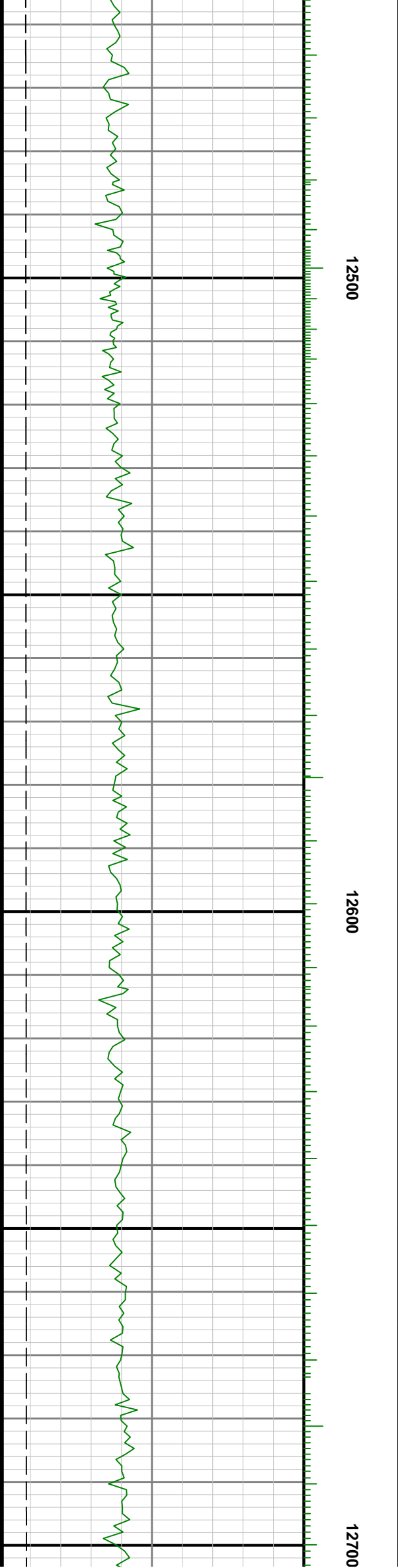
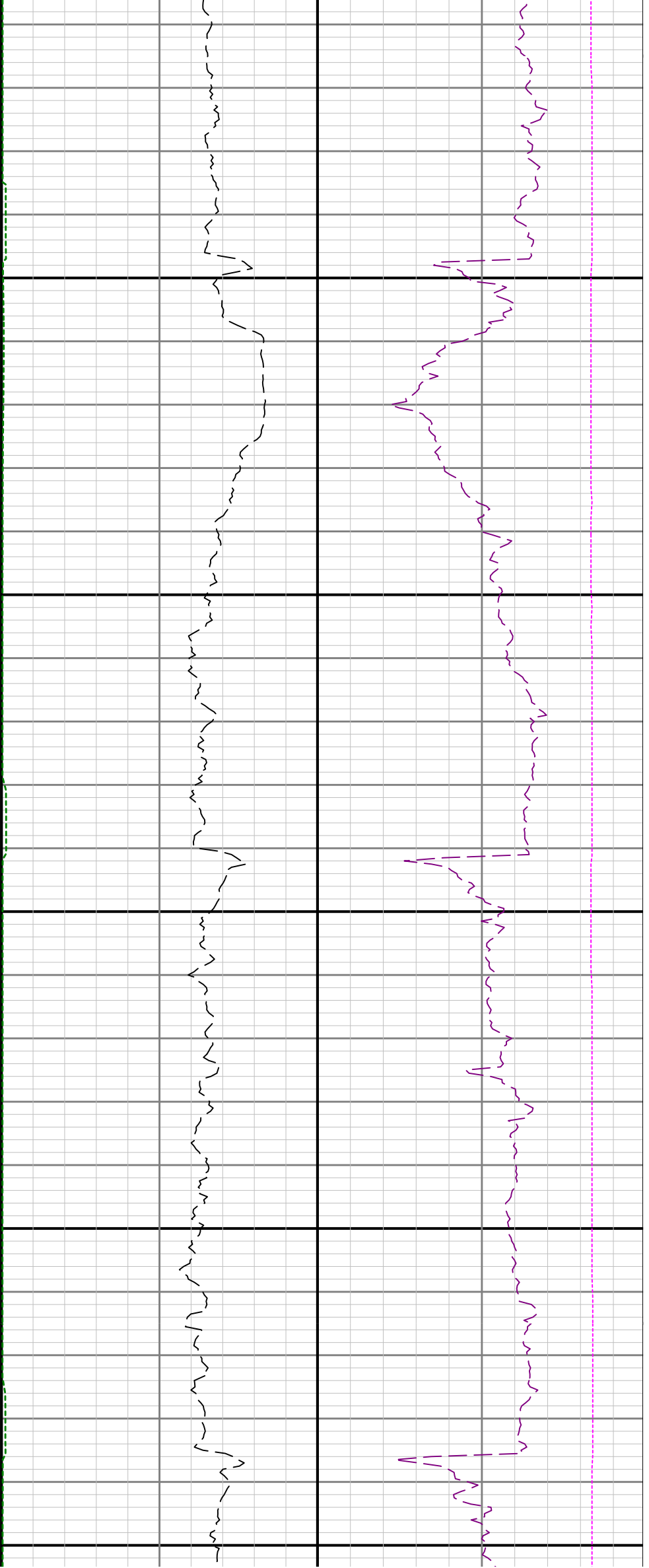


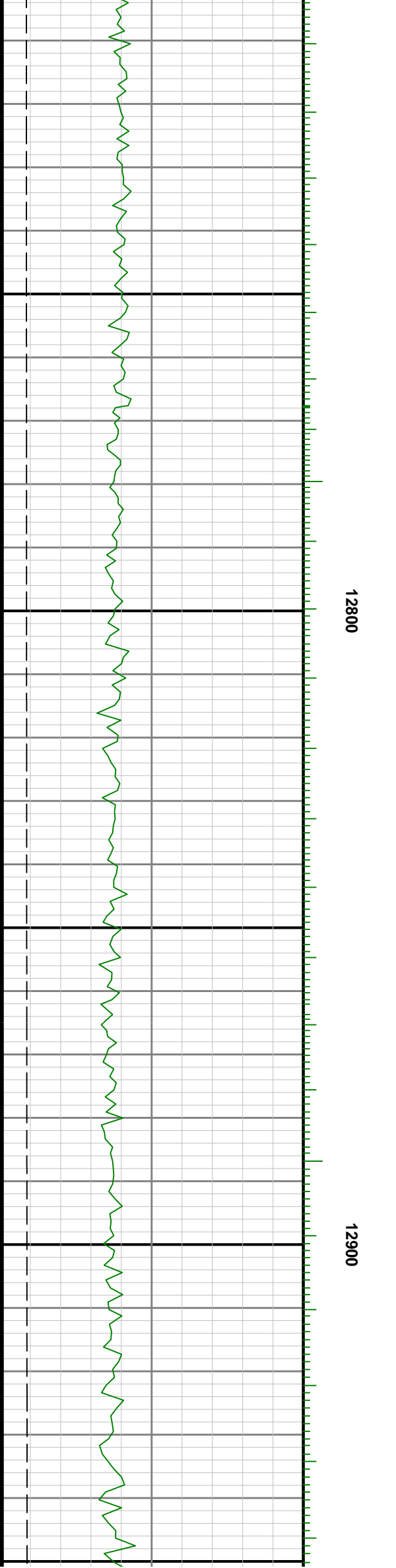
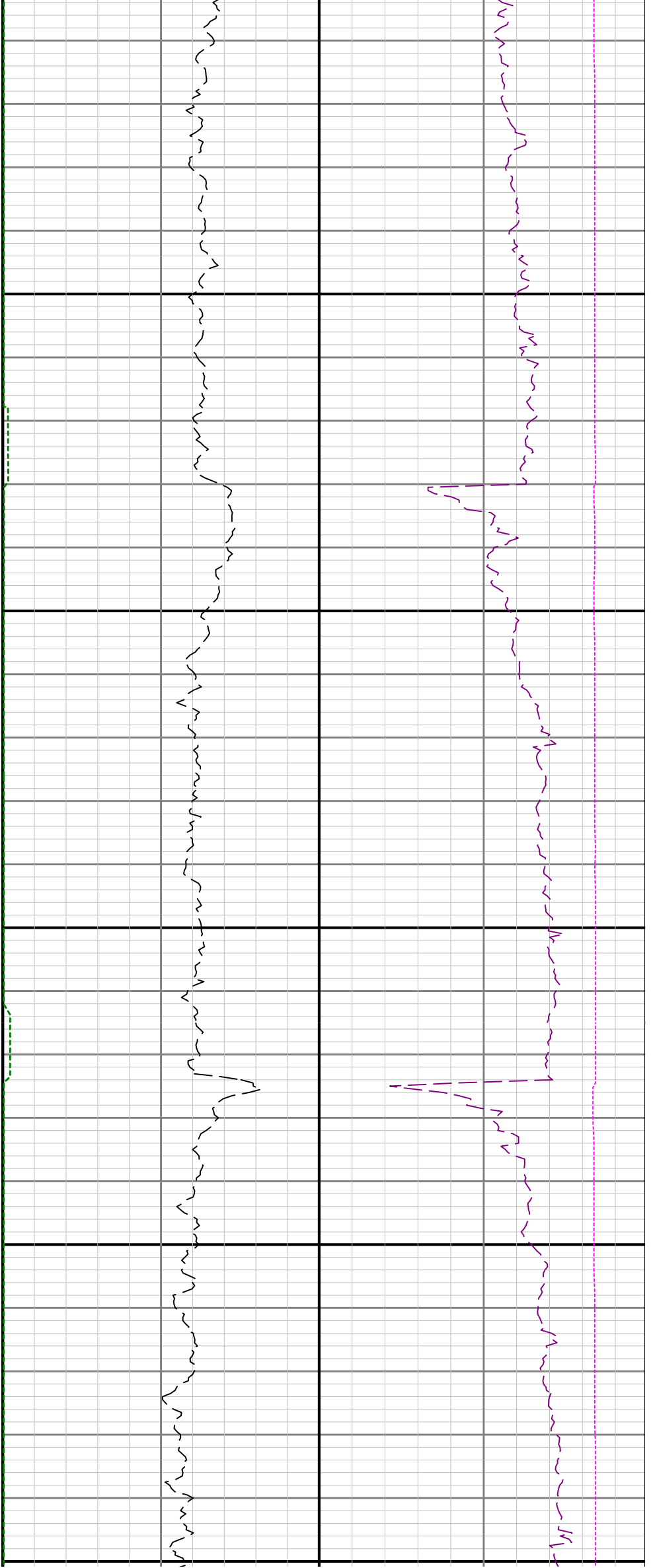


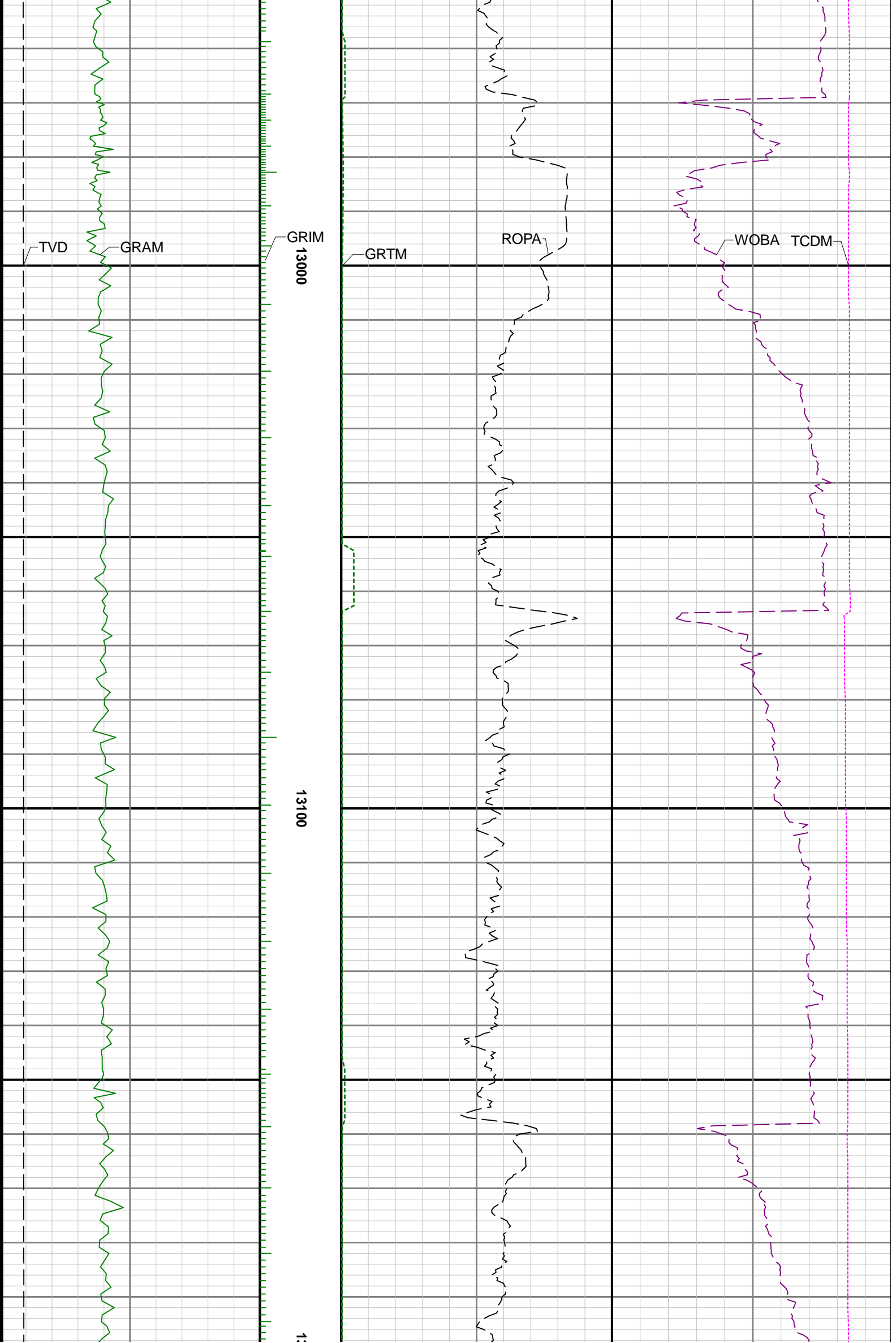
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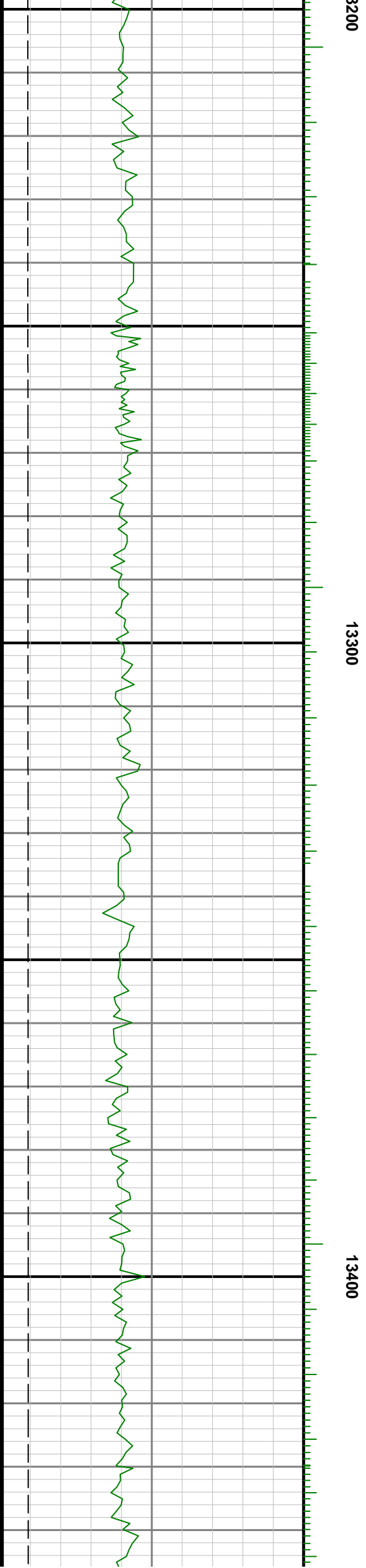
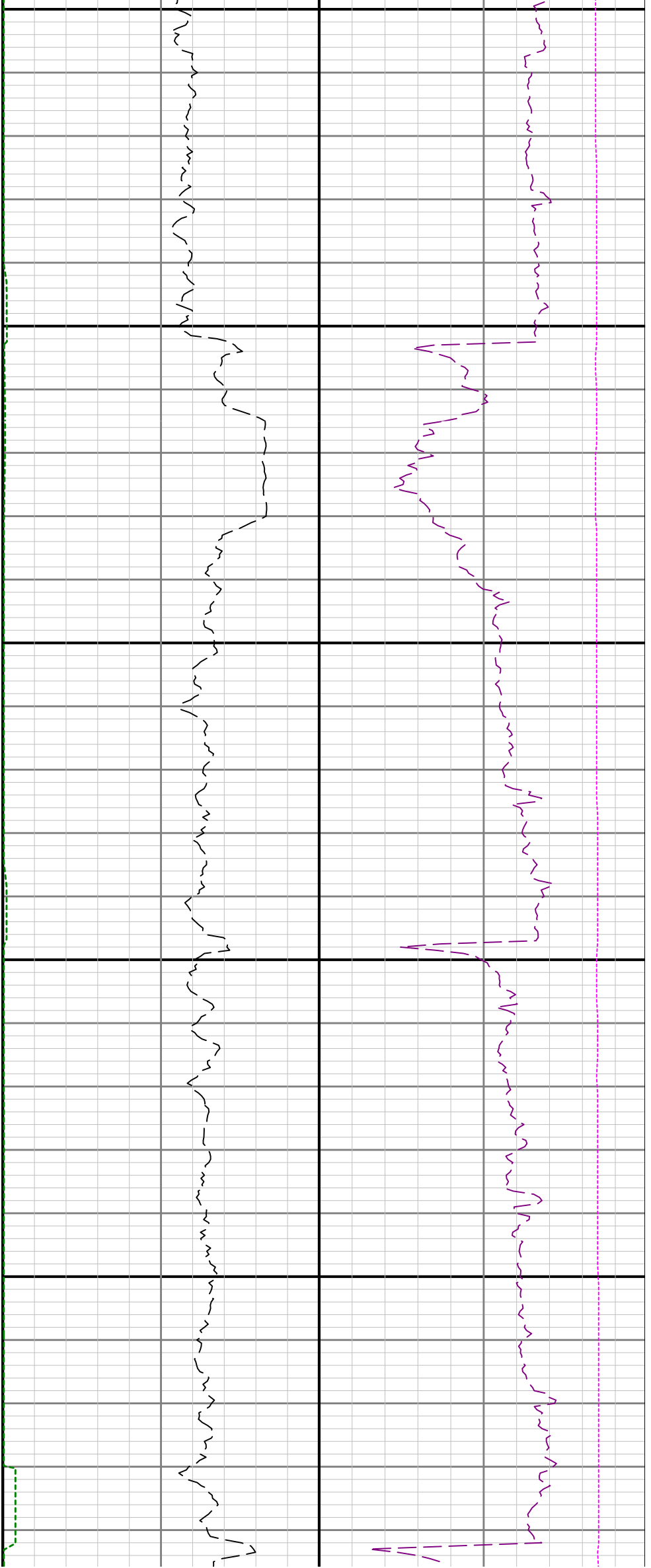
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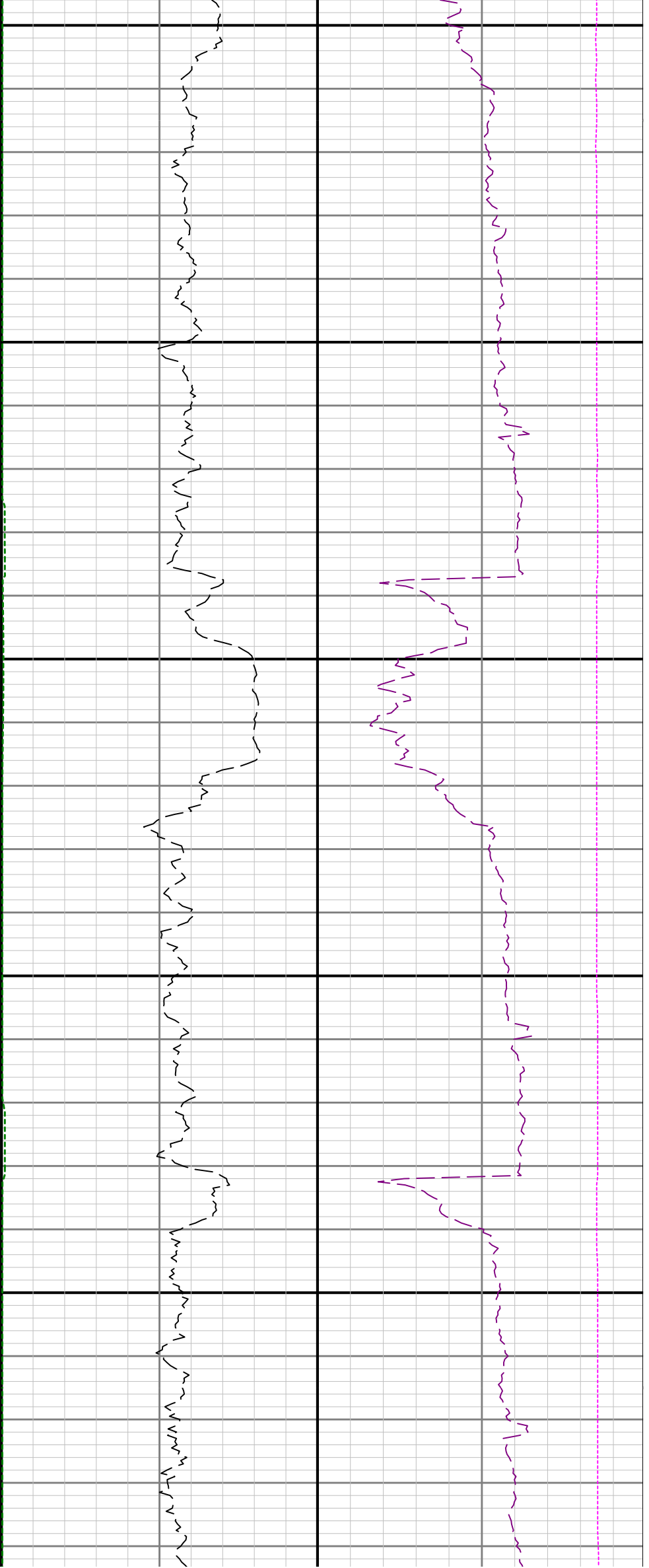






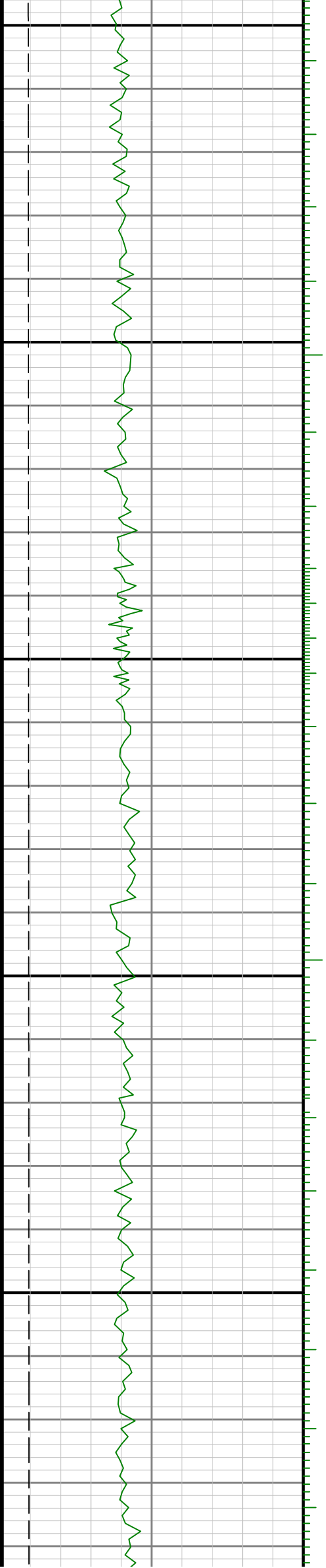


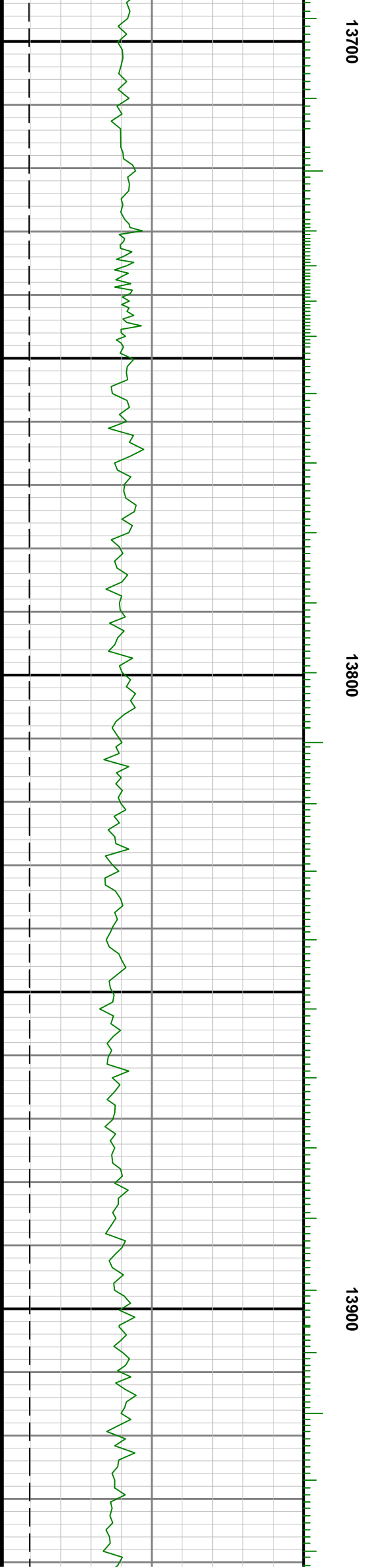
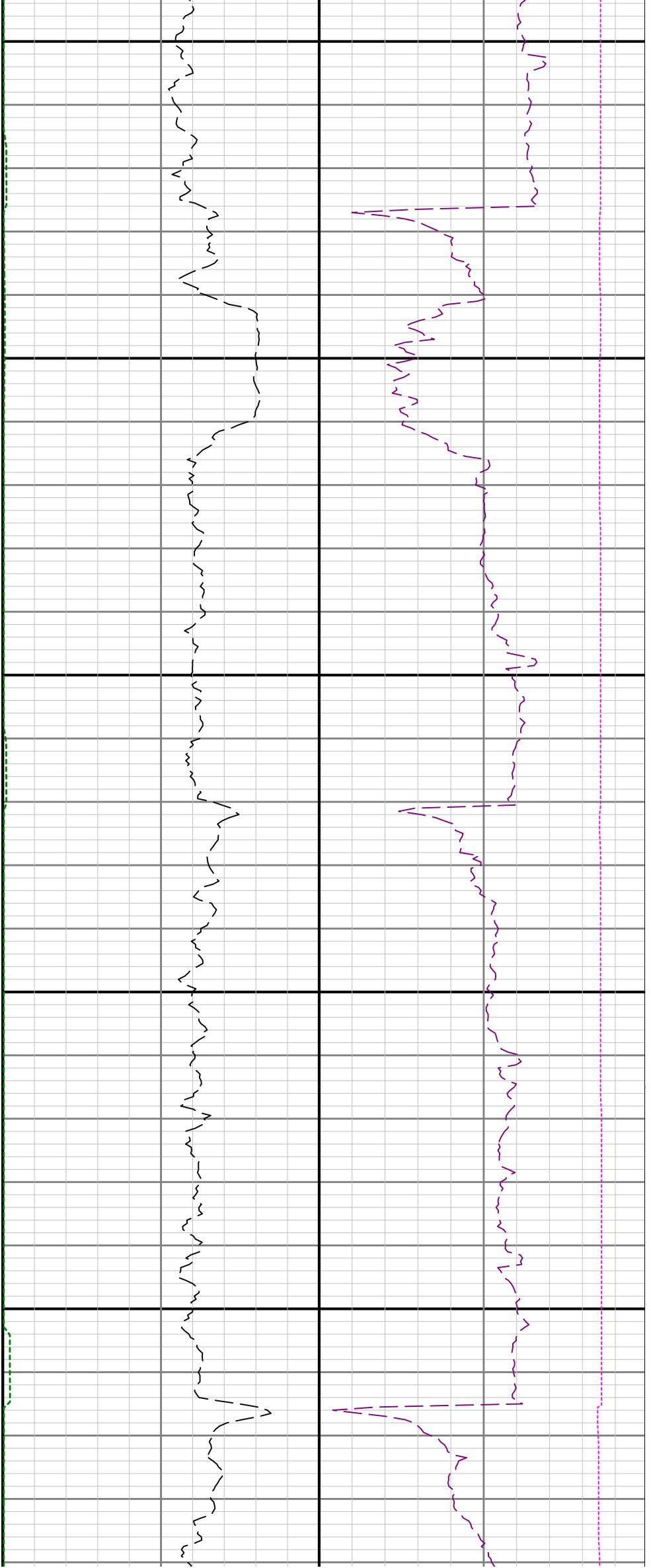


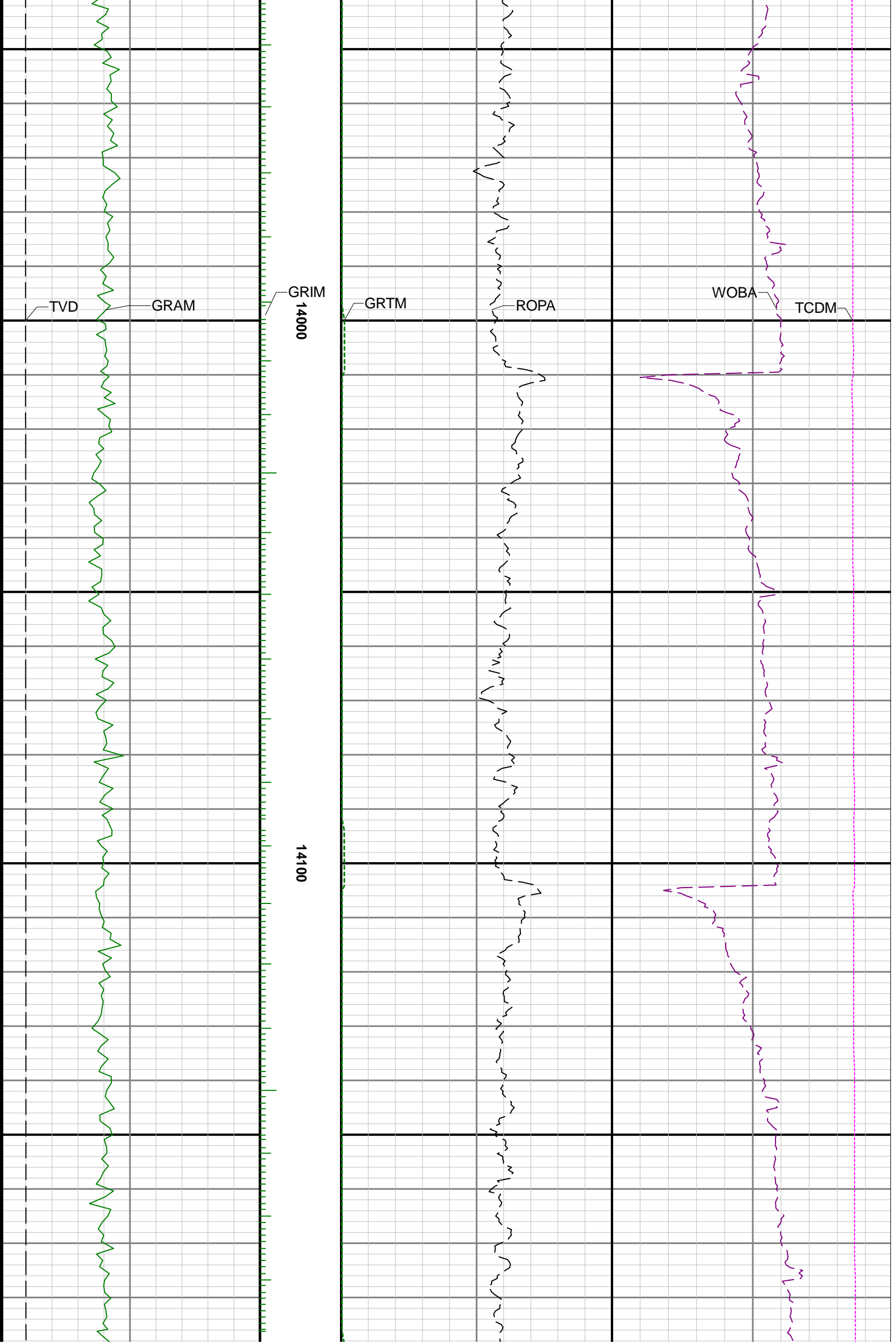


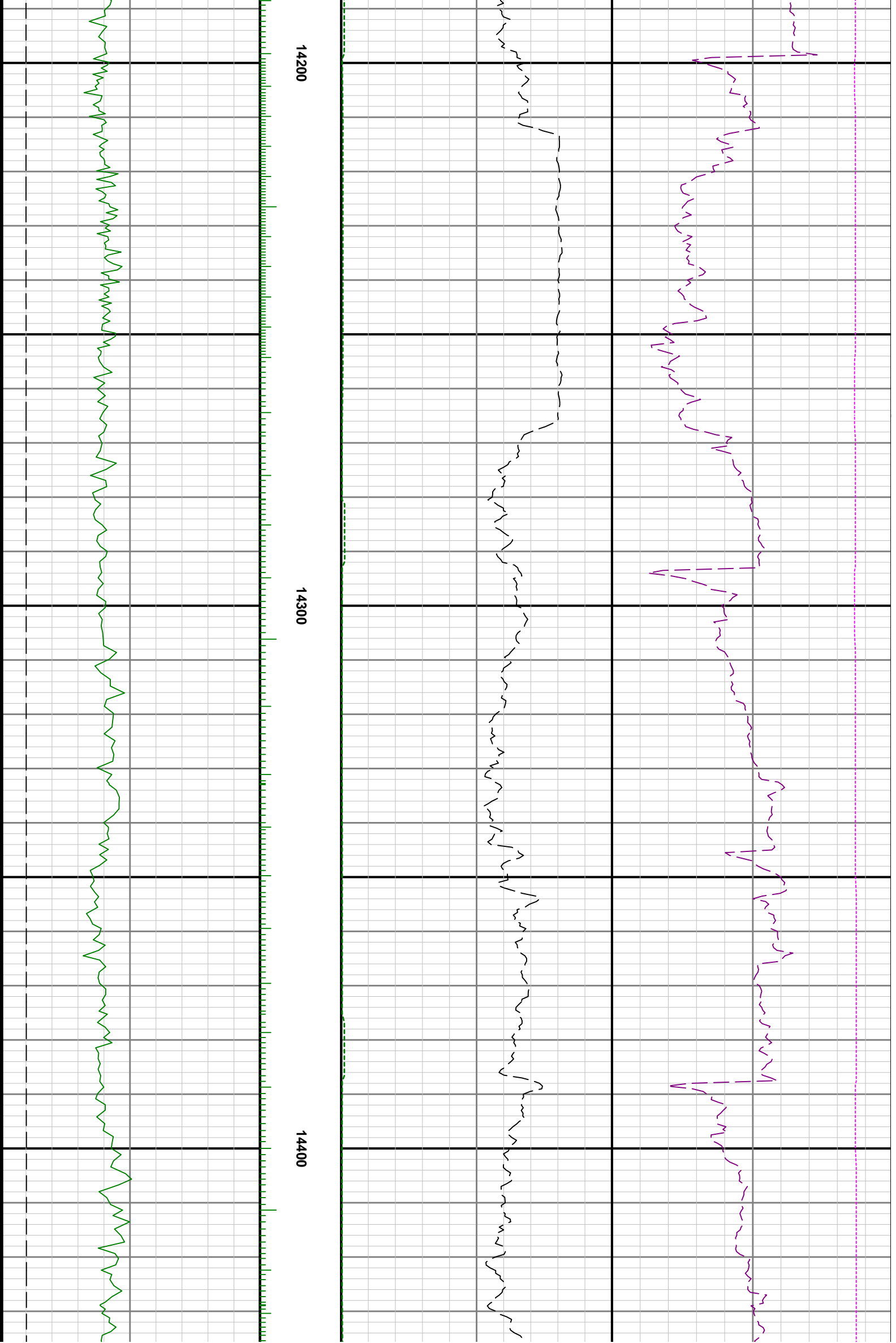
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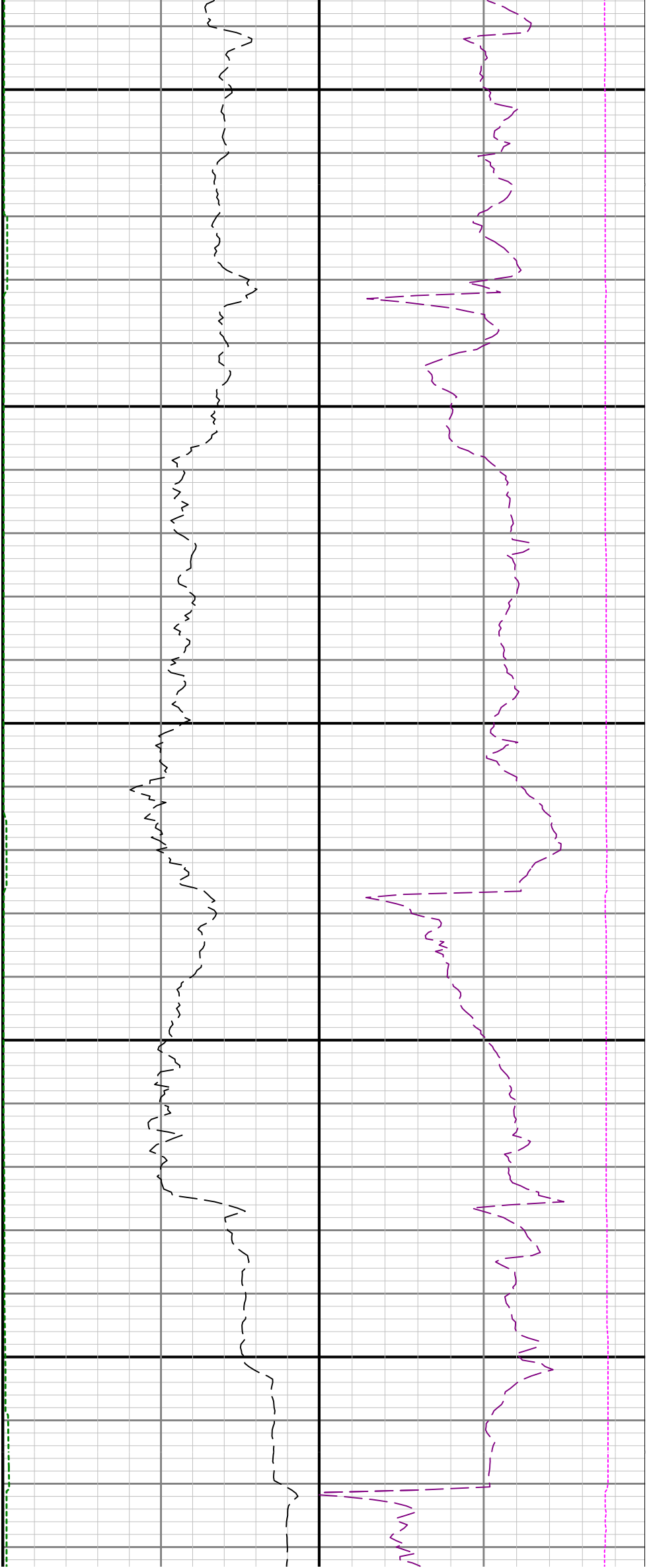
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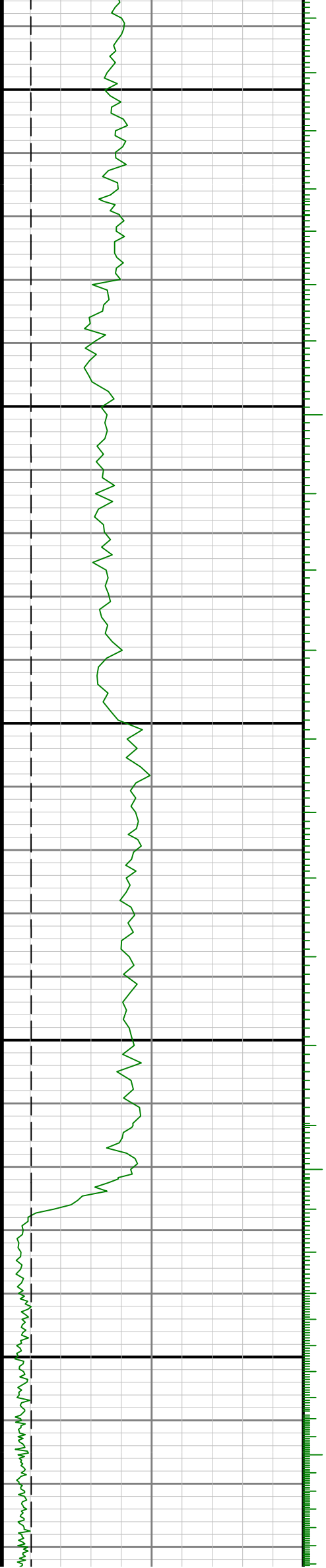


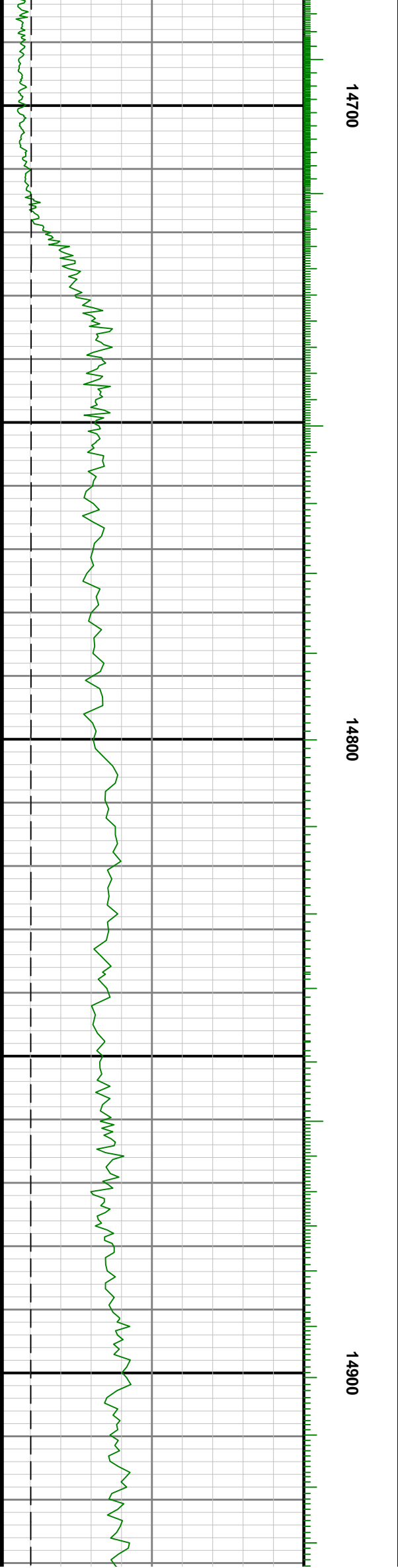
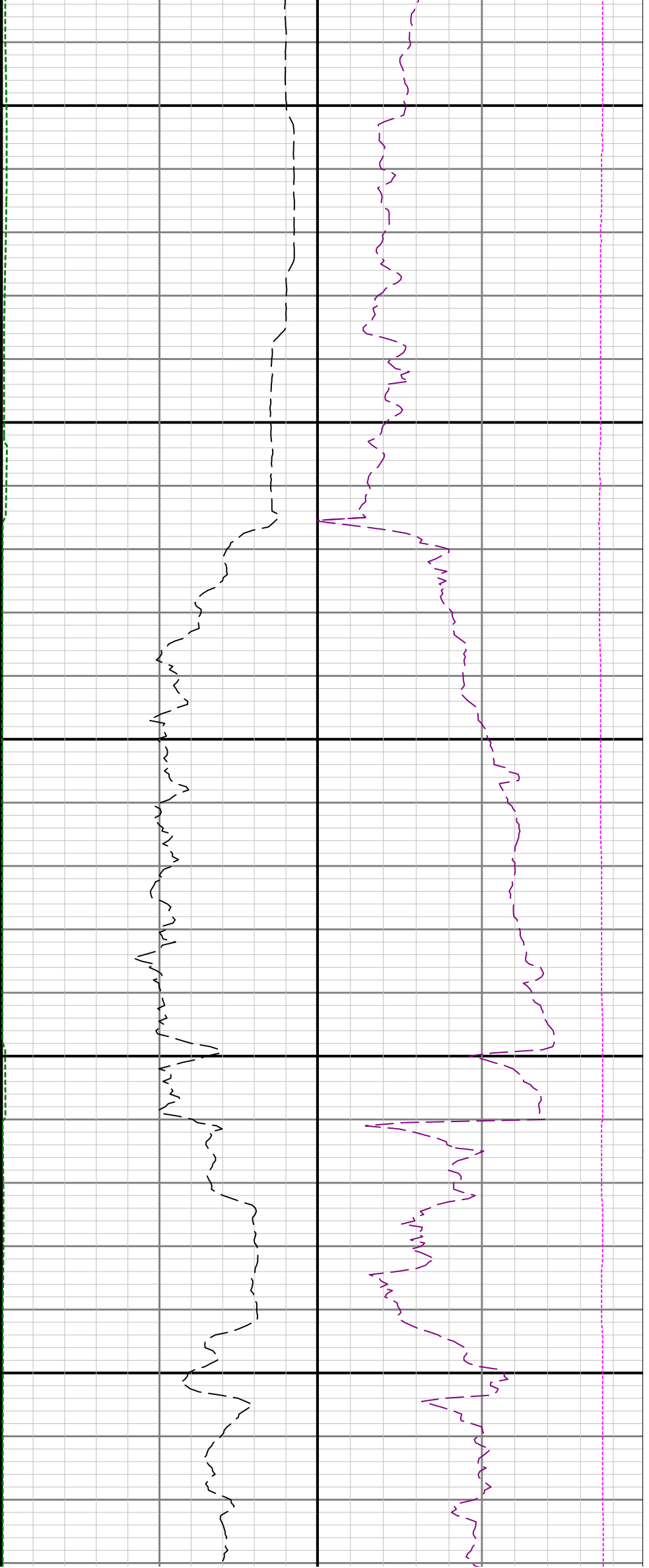


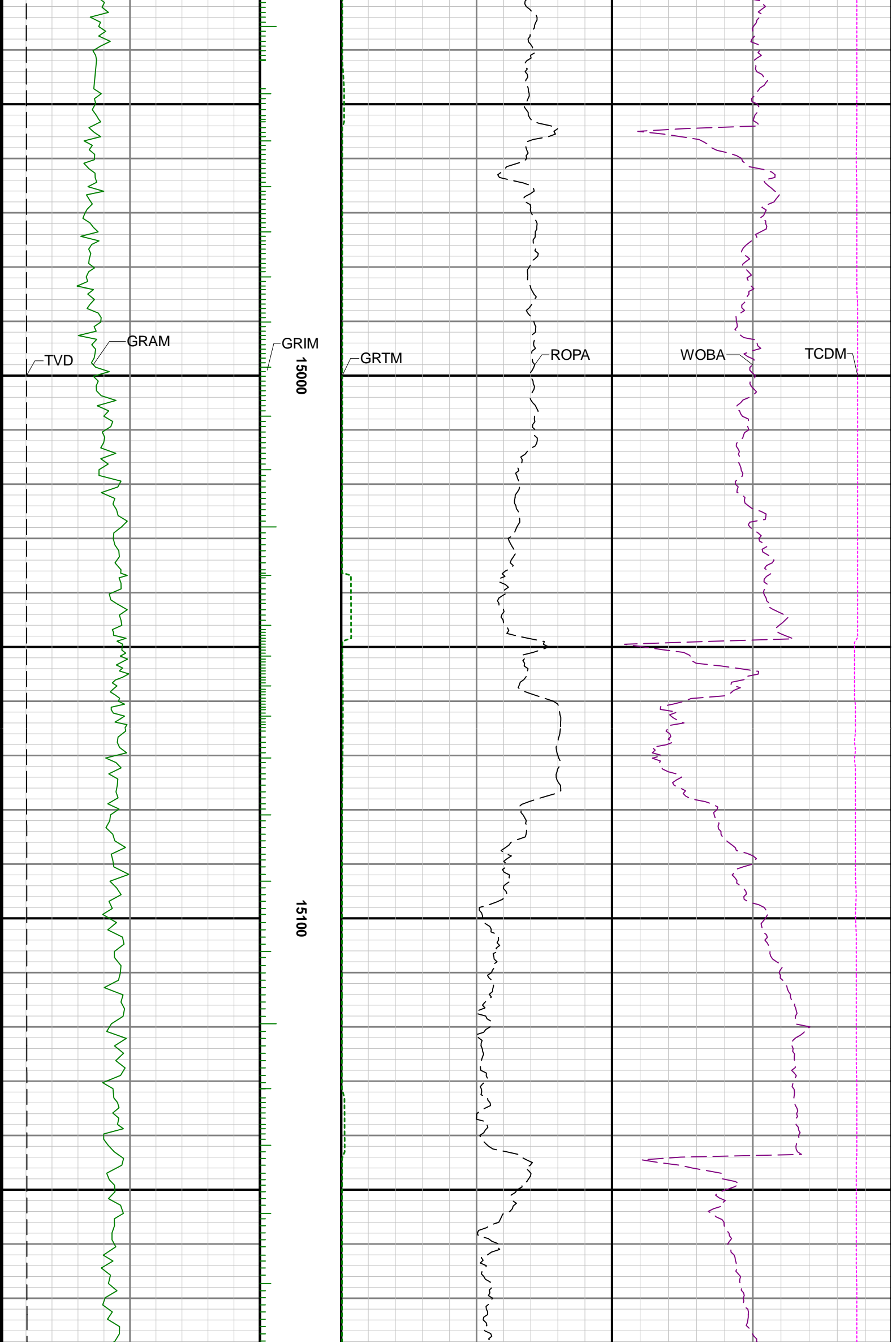


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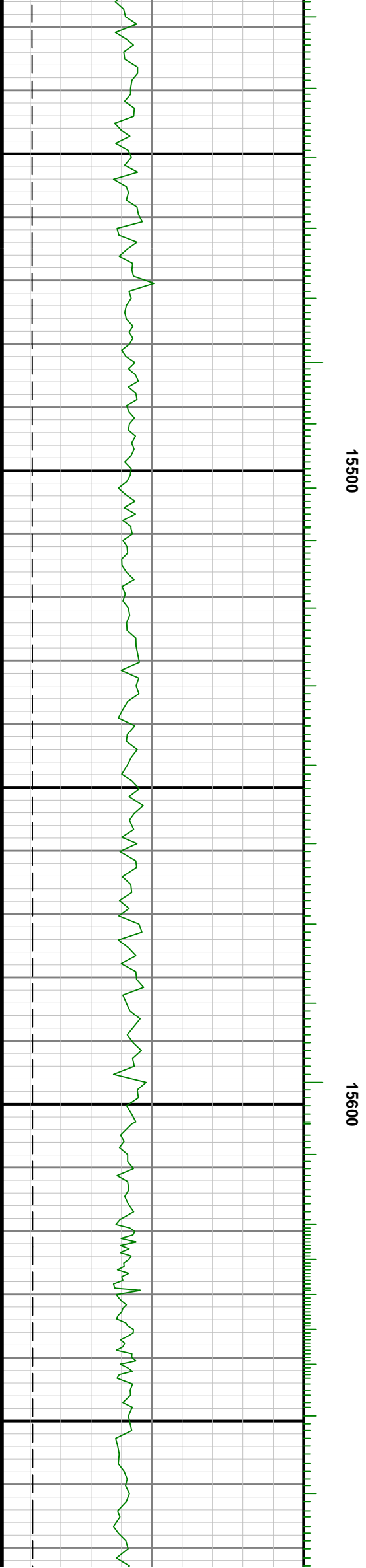
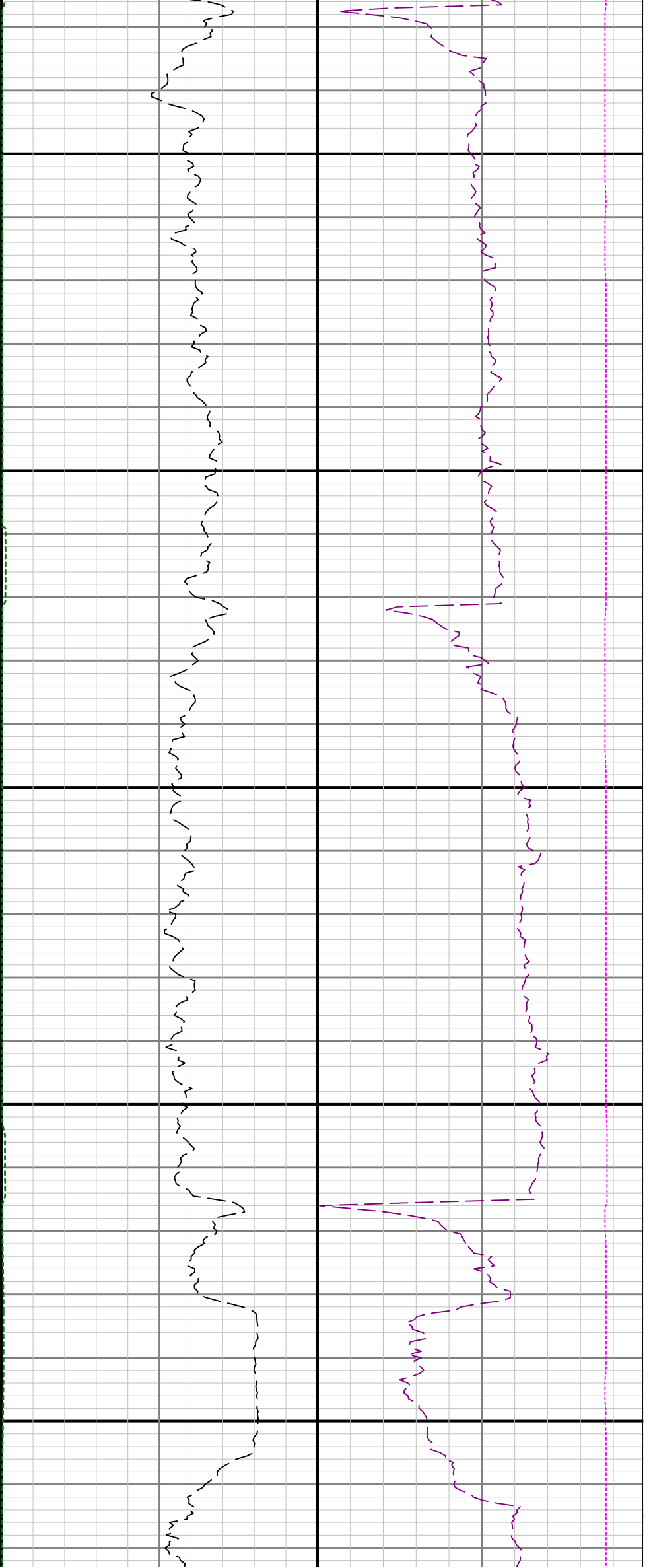
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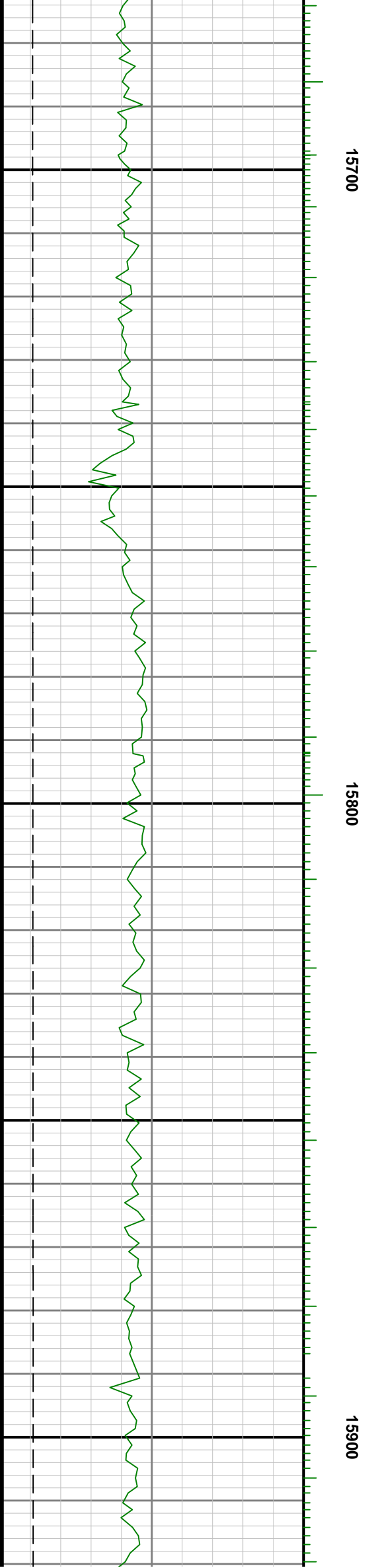
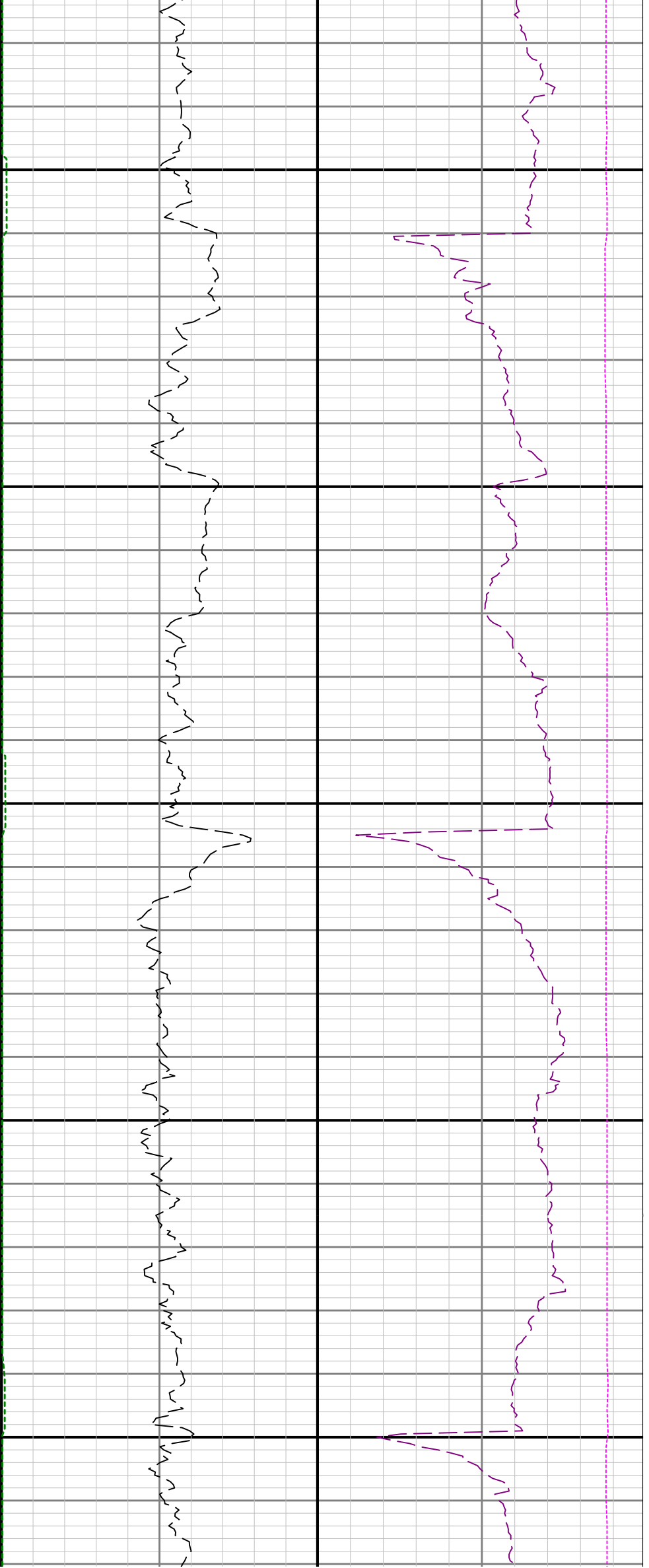


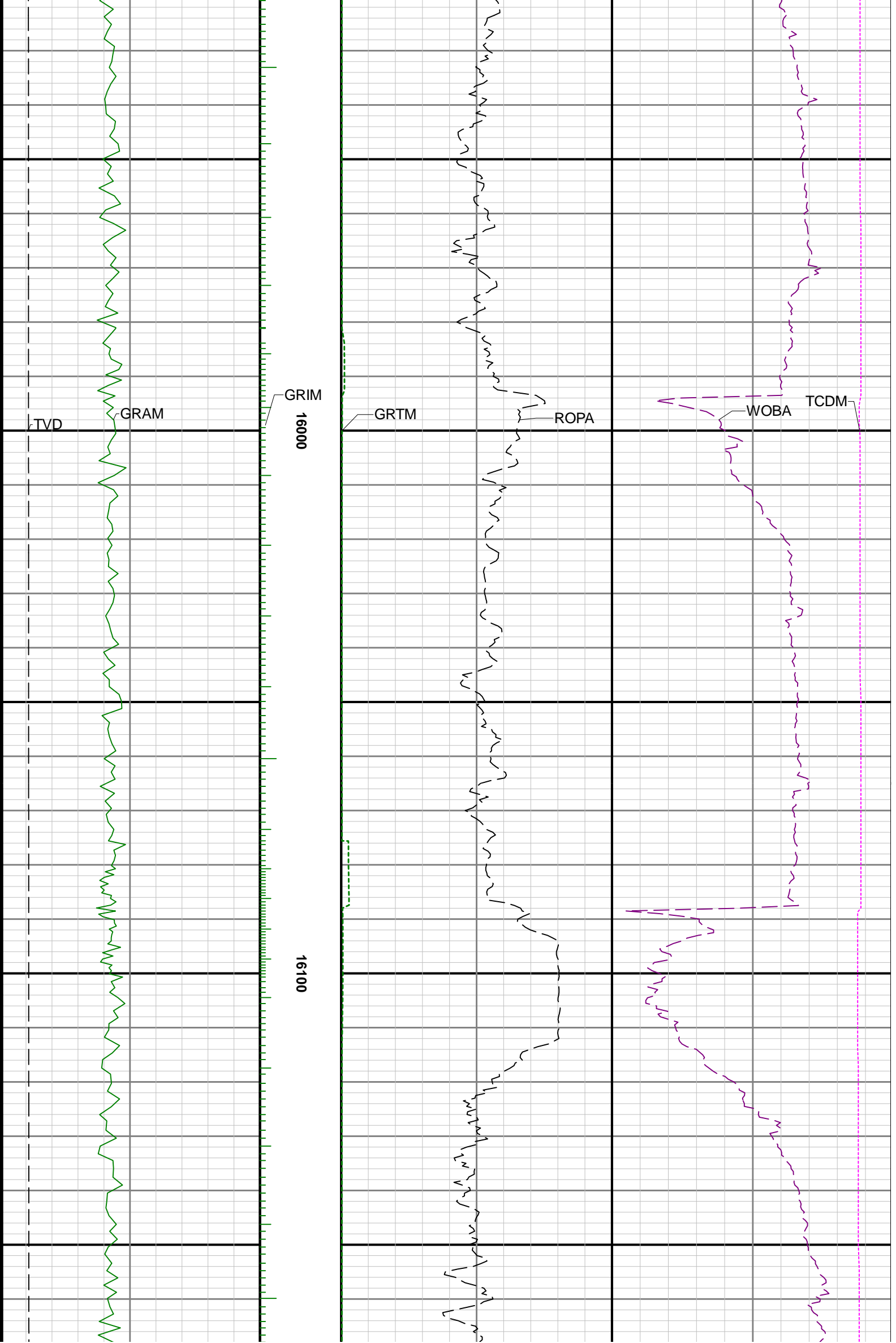


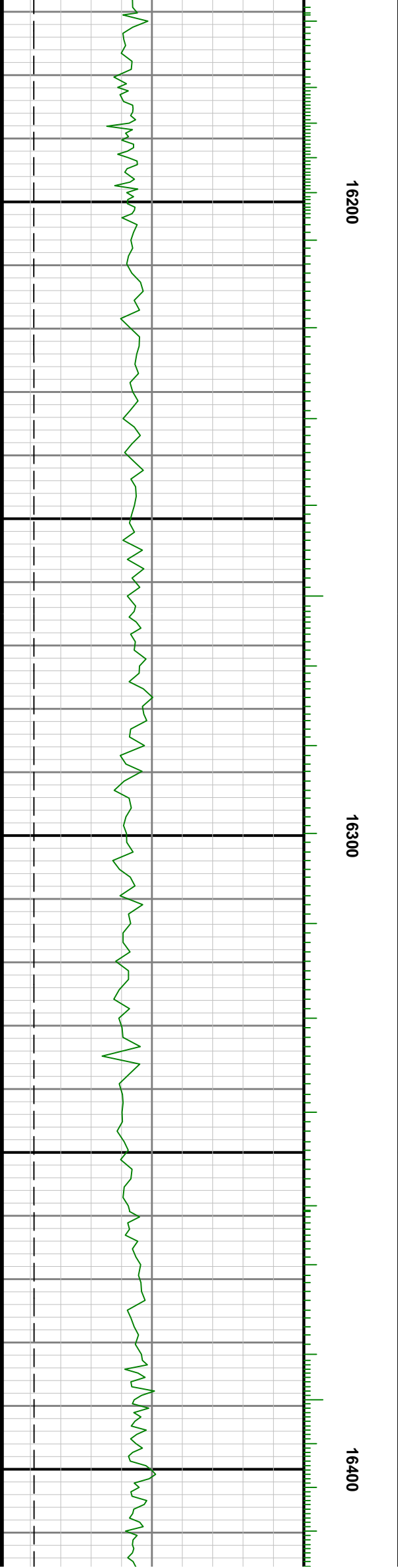
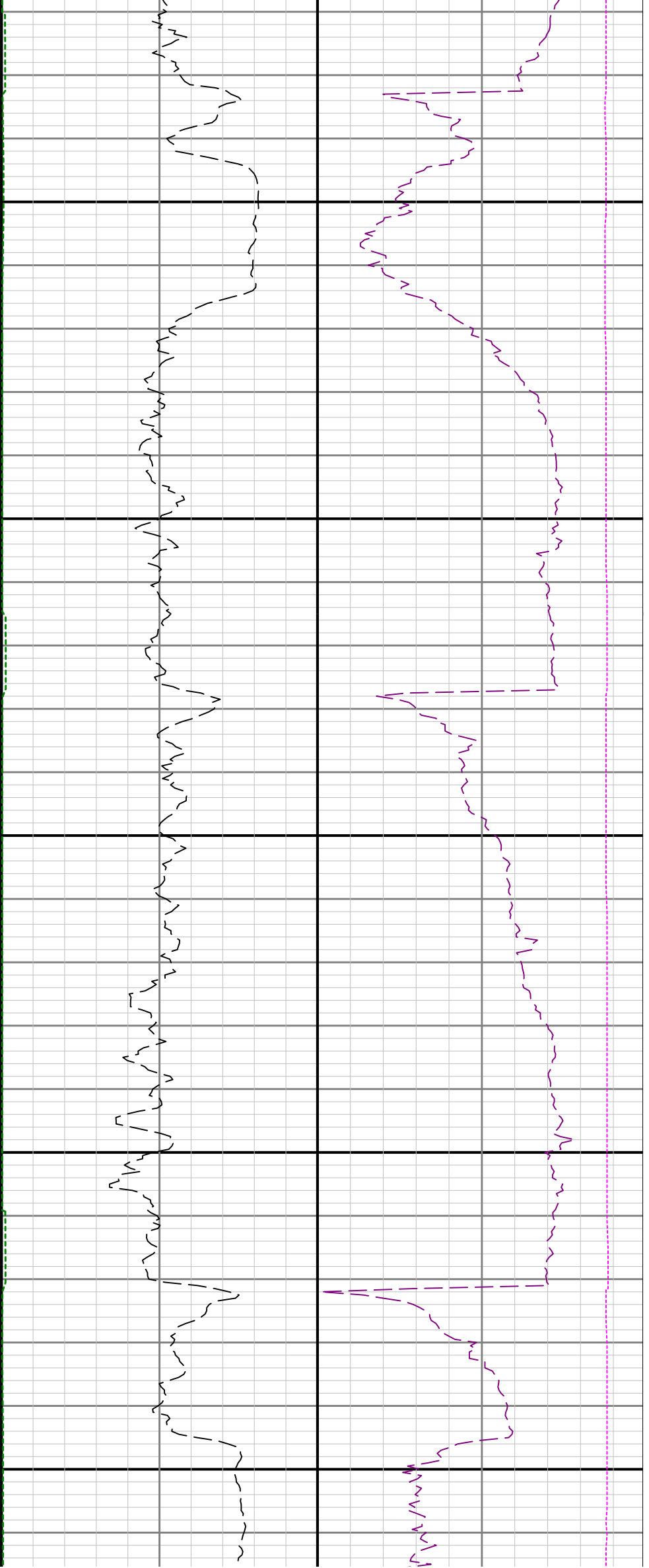


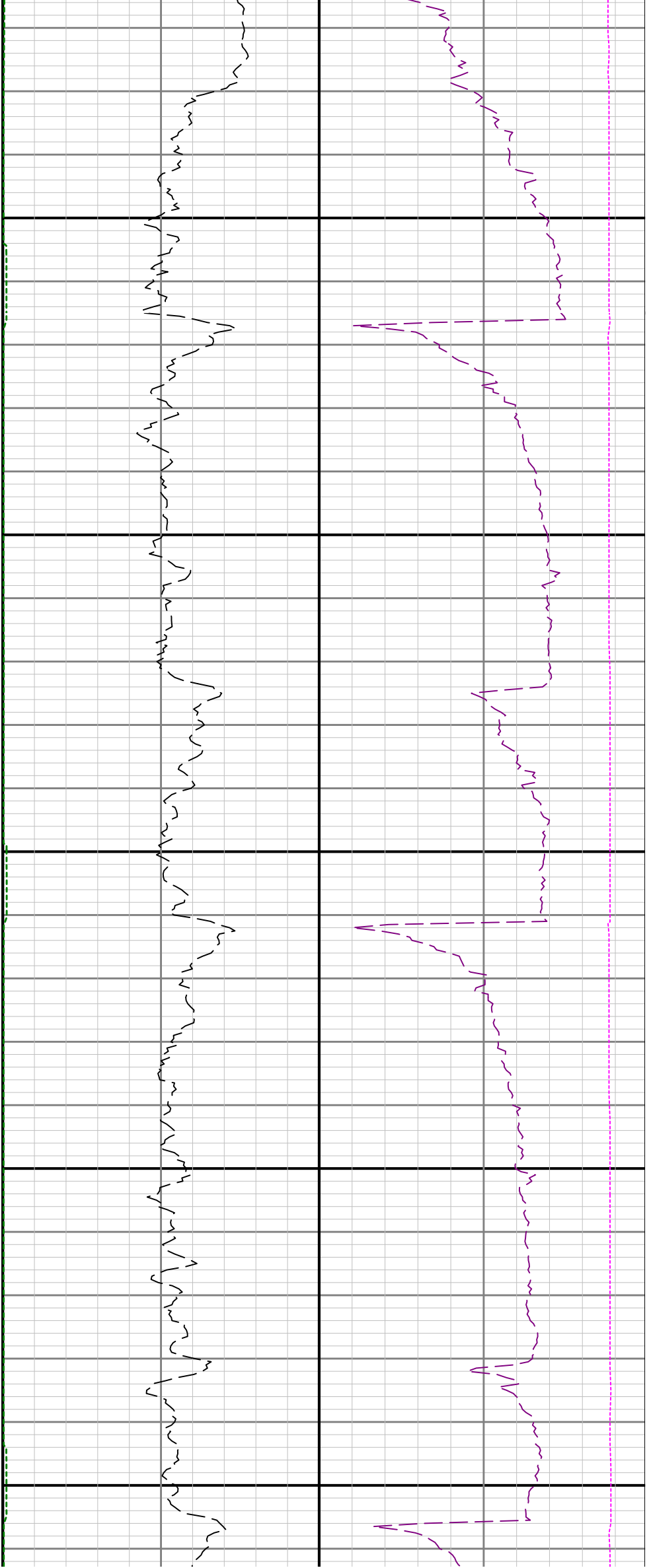








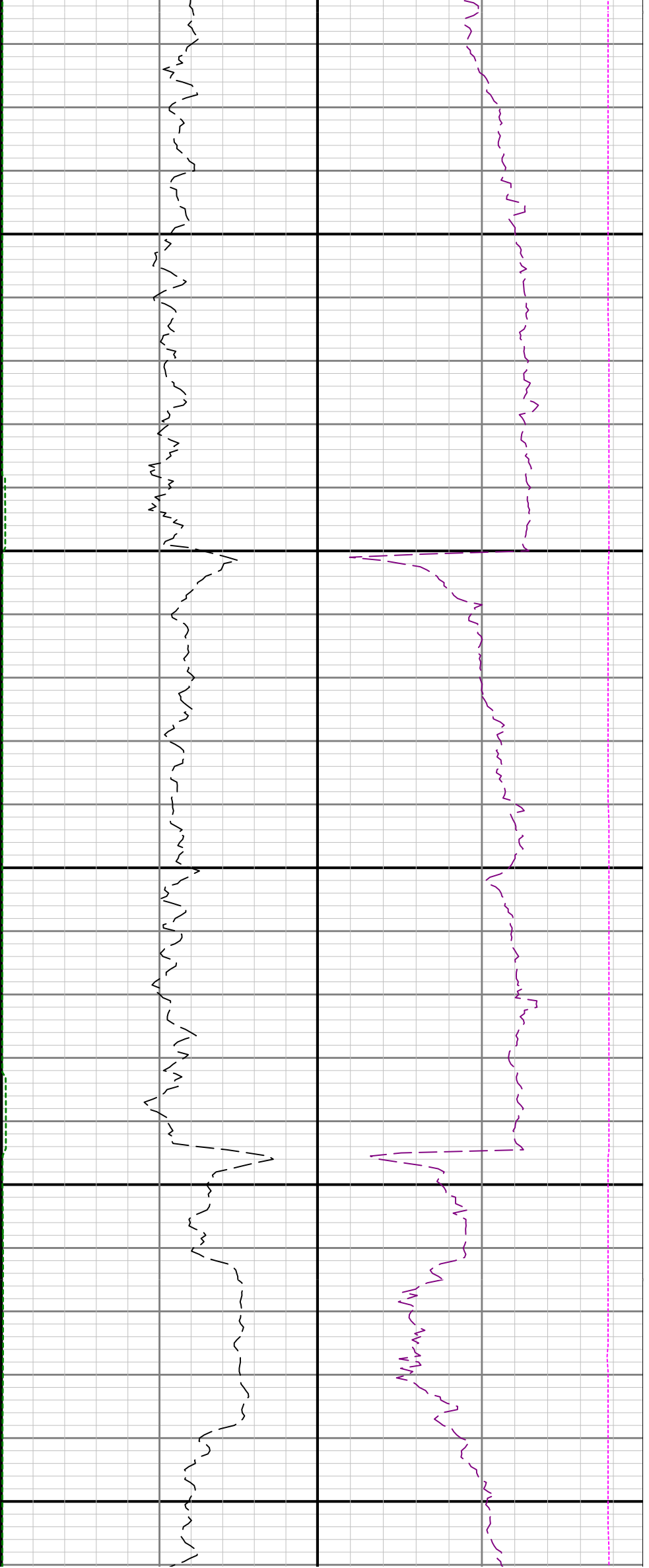




16500

16600





16700

16800

16900

